

**Projections and Public Policy –
An Overview and Reflection on
Nevada’s Population
Projections**

Presentation For REMI’s Annual User Conference

October 10, 2018

Jeff Hardcastle
Nevada State Demographer
Nevada Department of Taxation

What I Will Be Covering

- **You're Always Wrong**
 - Maybe yes
 - Maybe no
- **Nevada Migration, Employment and GDP**
- **REMI 2018 Work**
- **Messy Data**

Parts of this presentation comes from a presentation on the accuracy of Nevada's Estimates Compared to the Census Bureau's Estimates

You're Always Wrong

- **Nevada produces its own estimates and projections.**
- **Procedurally –**
 - **Estimates are subject to long standing administrative code**
 - **Impacts revenue distribution**
 - **Competing jurisdictions**
 - **Subject to appeal**
 - **Projections are required by state statute but no administrative code**

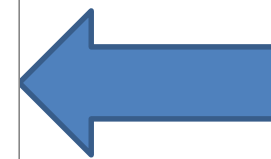
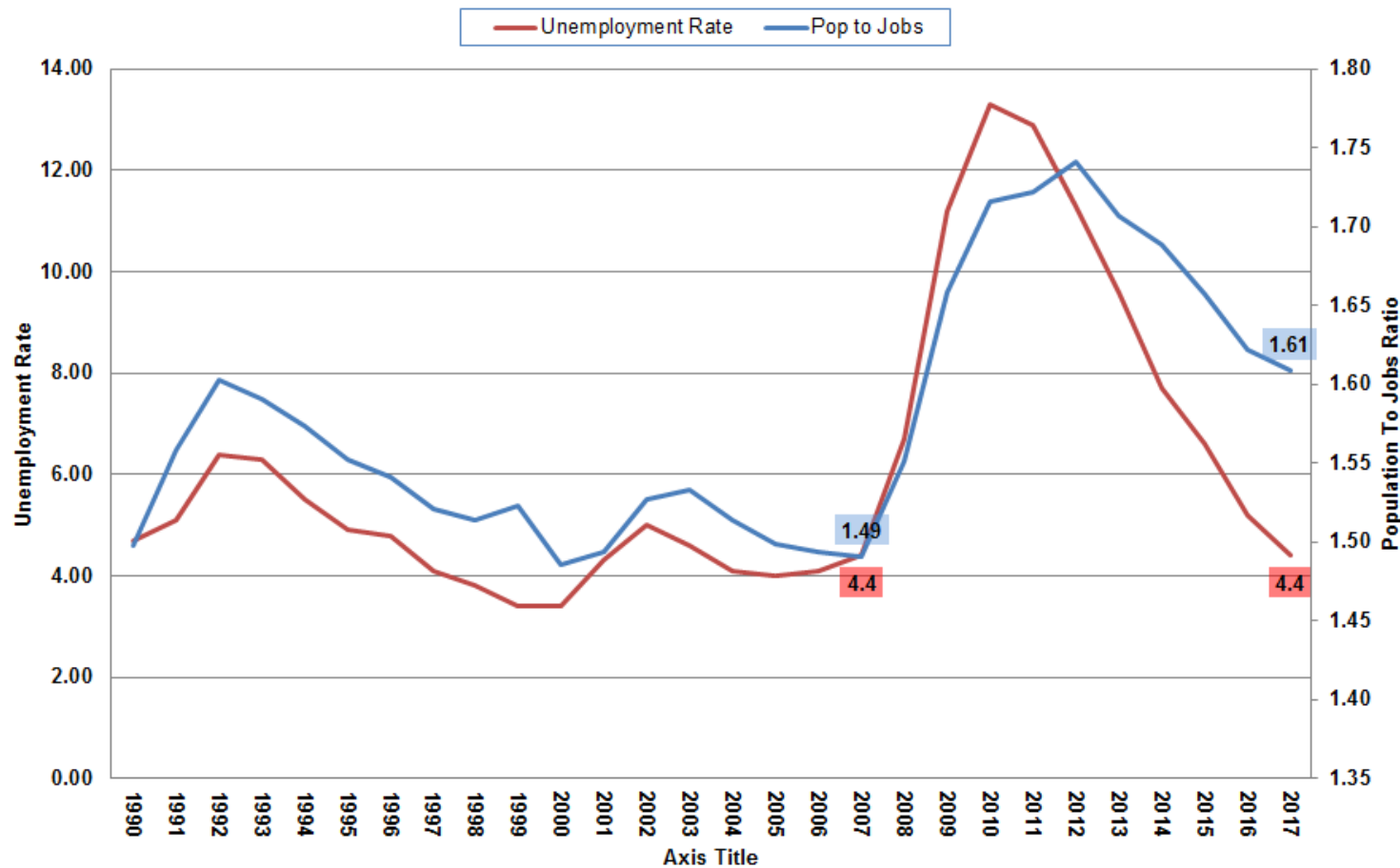
The current situation started with two estimates.

In 2015 to 2016, I estimated for the Reno-Carson City-Fernley CSA (Reno CSA):

- 1.) Job Growth as 13,159 or 3.7%
- 2.) Population Growth as 7,717 or 1.3%

That did not sit well with the Governor's Office of Economic Development. They expected more population growth given the growth in jobs. This was their initial premise.

Comparison of Jobs to Population Ratio and July Unemployment Rate for Reno-Carson City-Fernley CSA 1990 to 2017

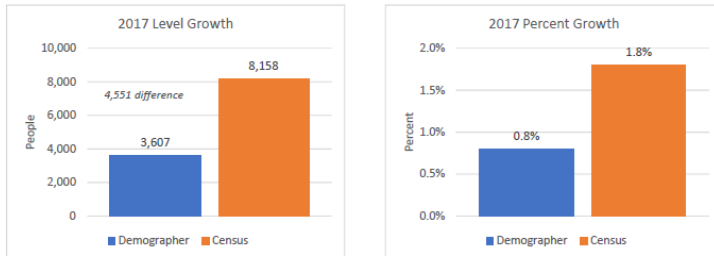


Then Came Out the Census Estimates Spring 2018

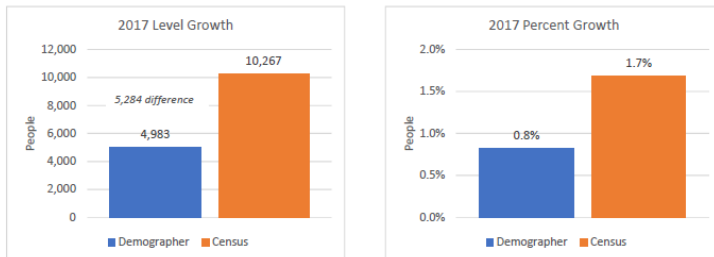
Governor's Office of Economic Development Charts Comparing Estimates

Nevada State Demographer Comparison

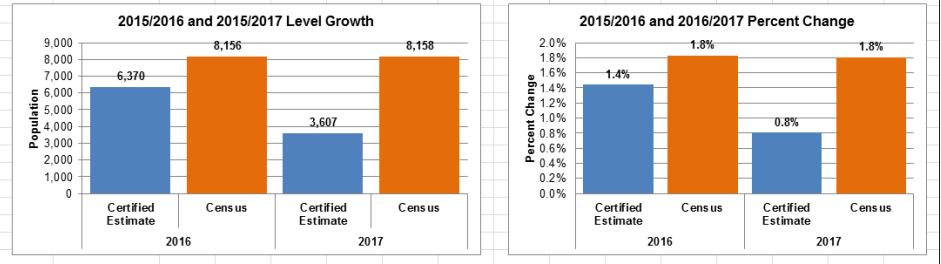
Washoe County



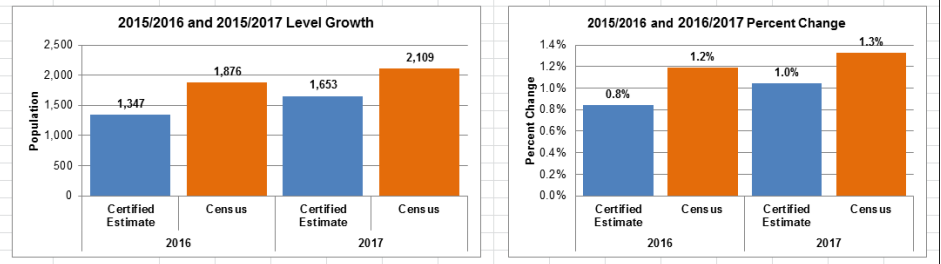
Northern Nevada



Comparing Washoe County Certified and Census Vintage 2016 and 2017 Estimates

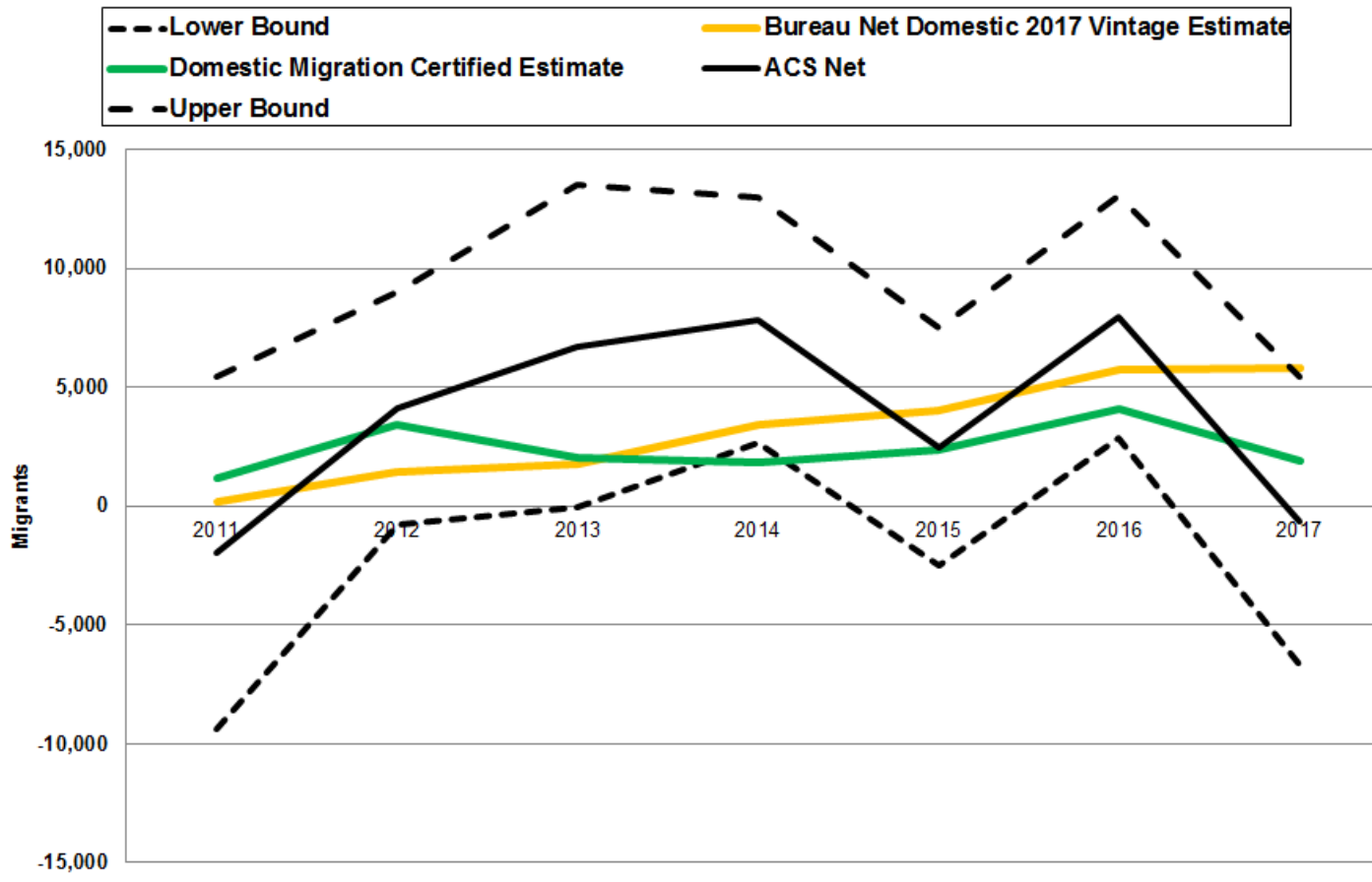


Comparing Northern Nevada (Carson City, Douglas, Lyon, Storey) County Certified and Census Vintage 2016 and 2017 Estimates

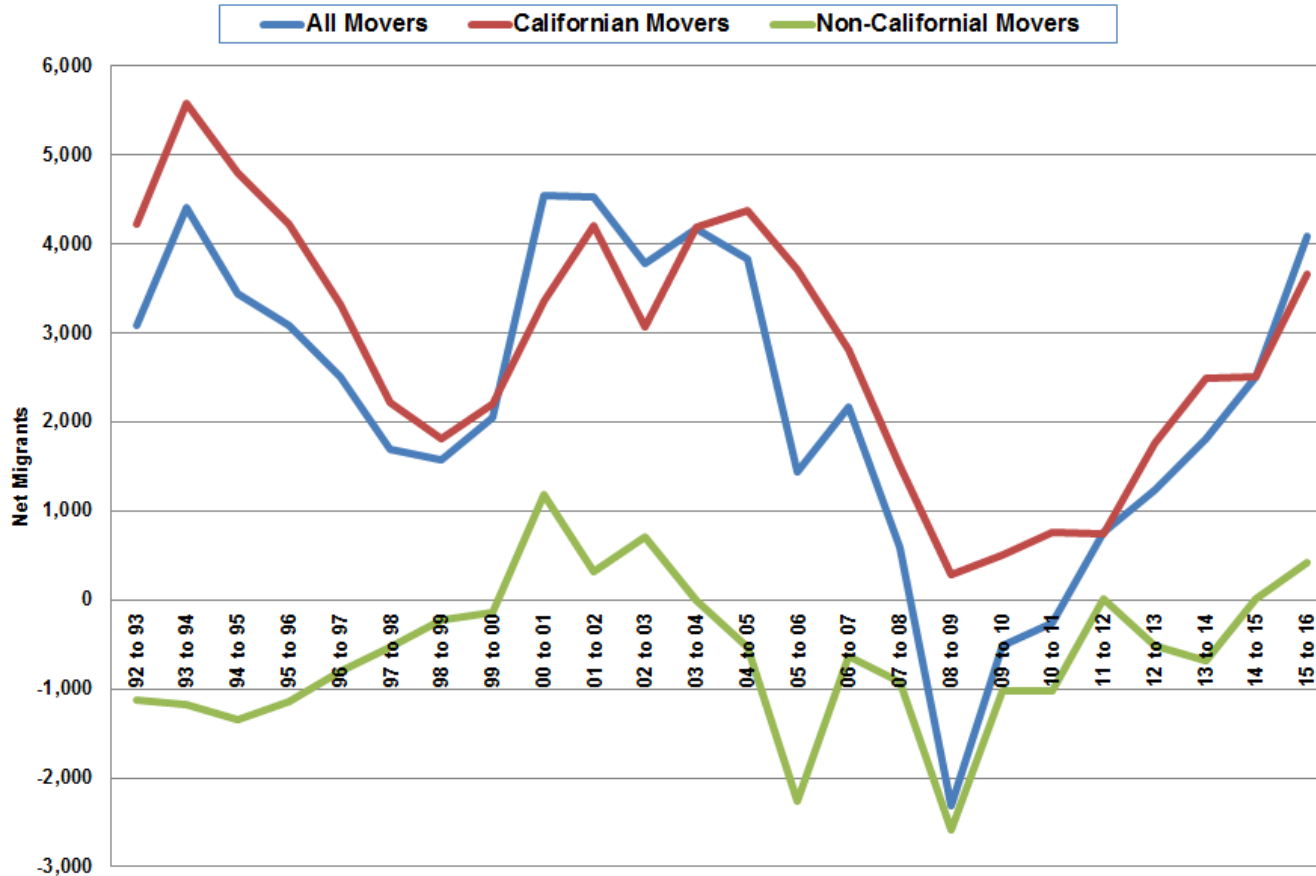


- The biggest concern was migration
- There are three estimates of migration
 - The Census Bureau's population estimates which is based on a rate derived from IRS data
 - The Census Bureau's American Community Survey with produces estimates with a margin of error
 - A residual from Nevada's population estimate

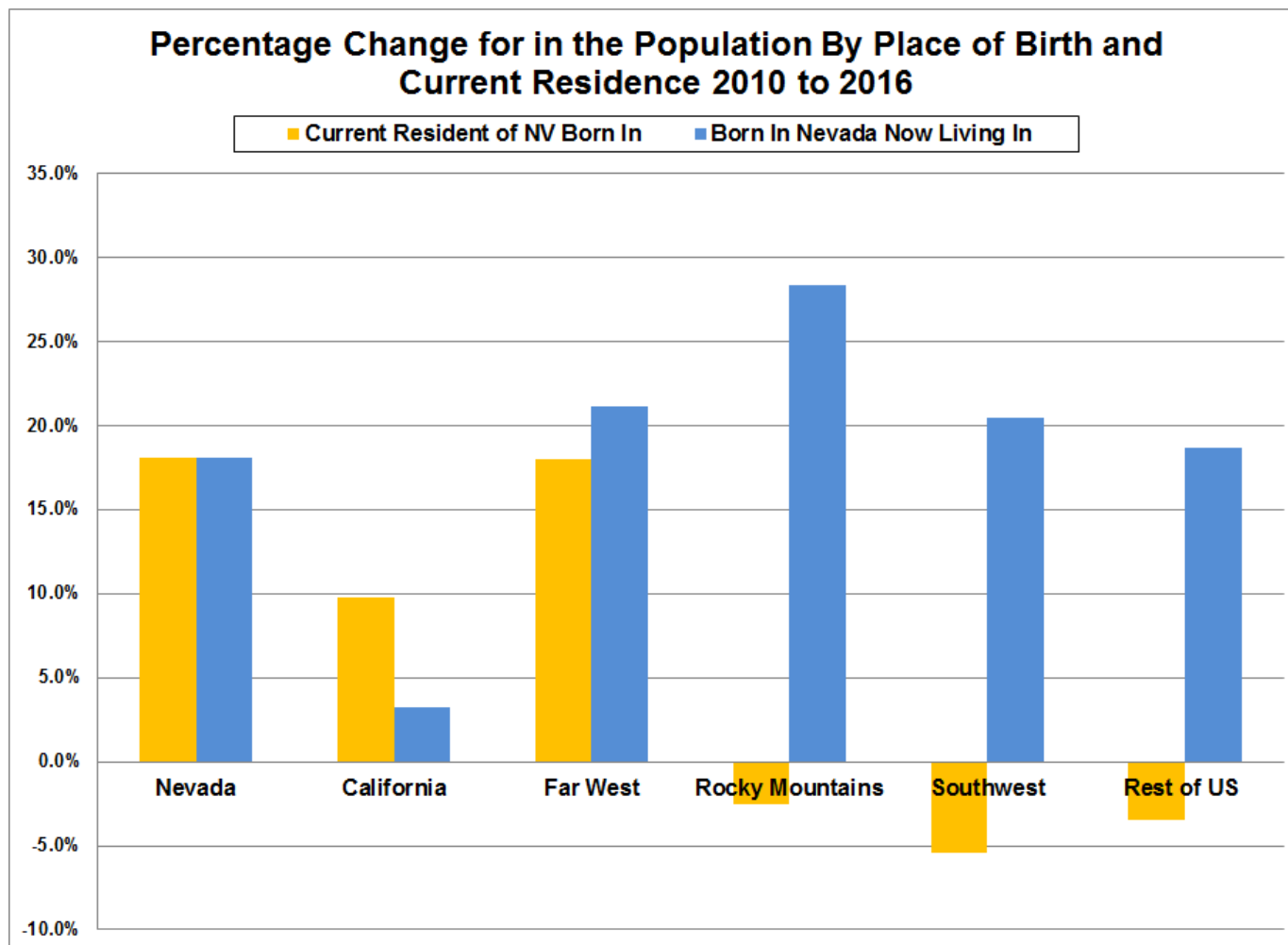
Comparing Census Bureau Population Estimate's, American Community Survey's and Nevada's Residual Estimate of Migration for Washoe County 2011 to 2017



Washoe County IRS Net Migration for 1992/93 to 2015/16 By Ending Year

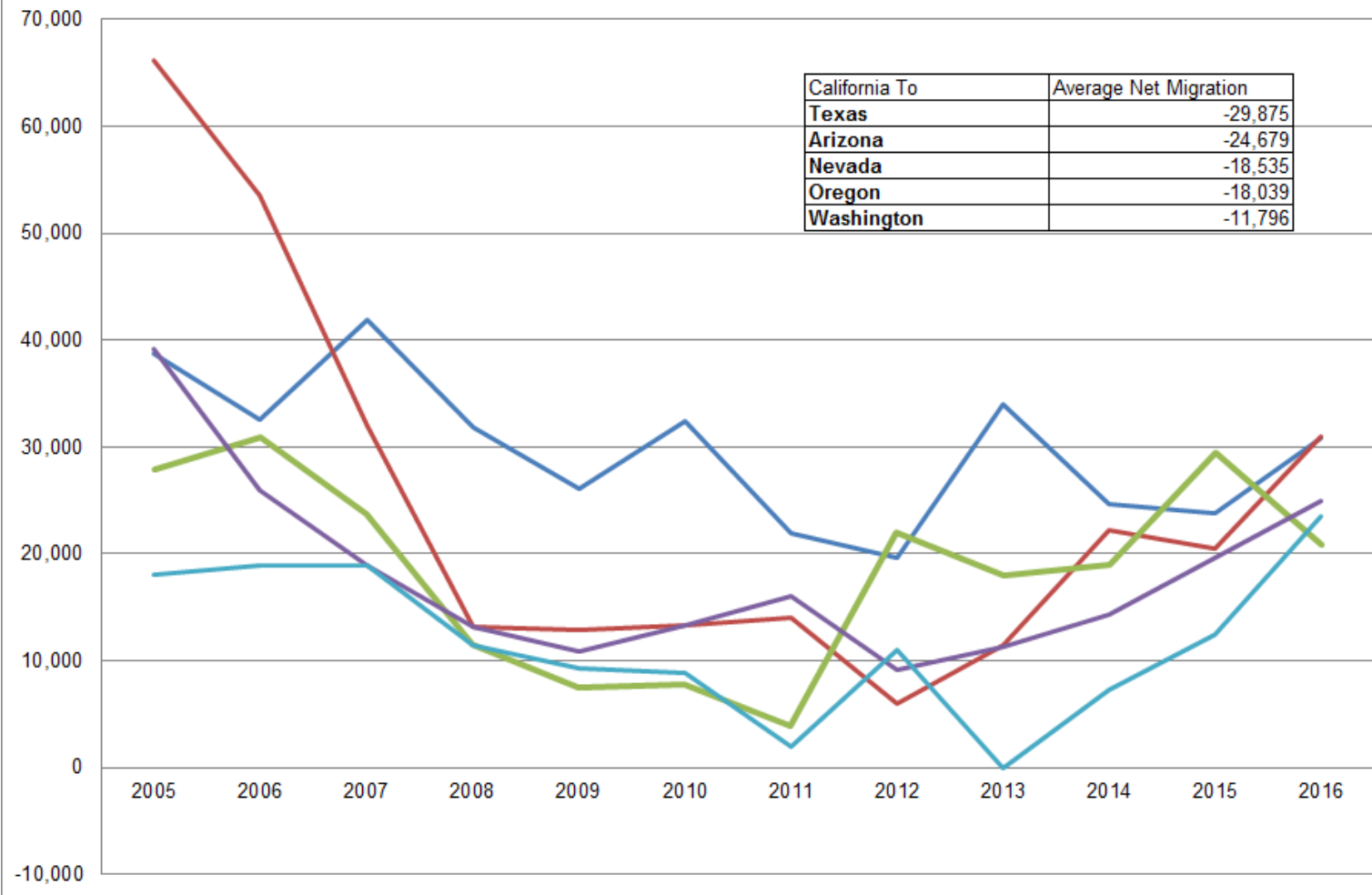


Nevada Migration and GDP

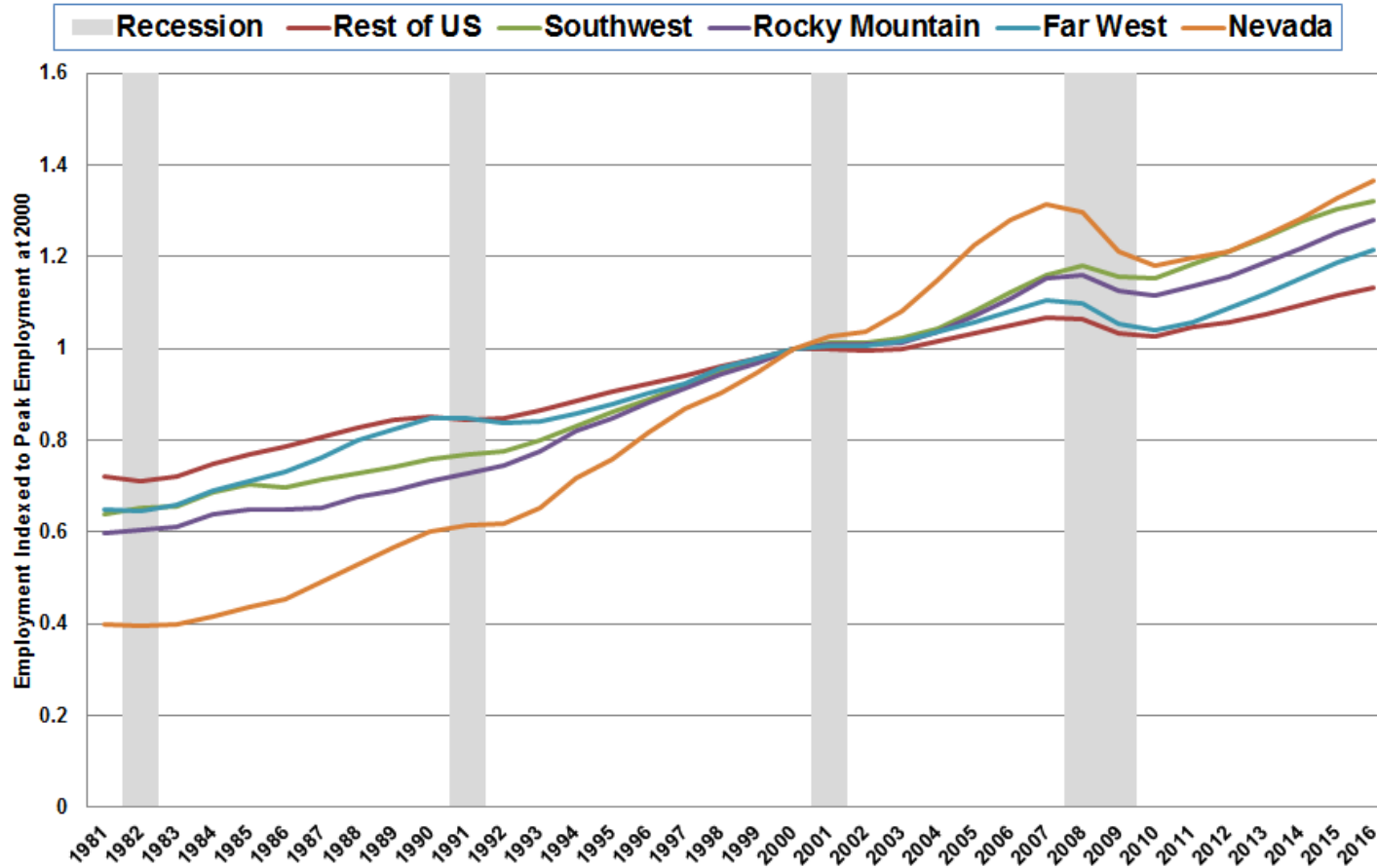


Net Migration from California Top 5 States

— Texas — Arizona — Nevada — Oregon — Washington

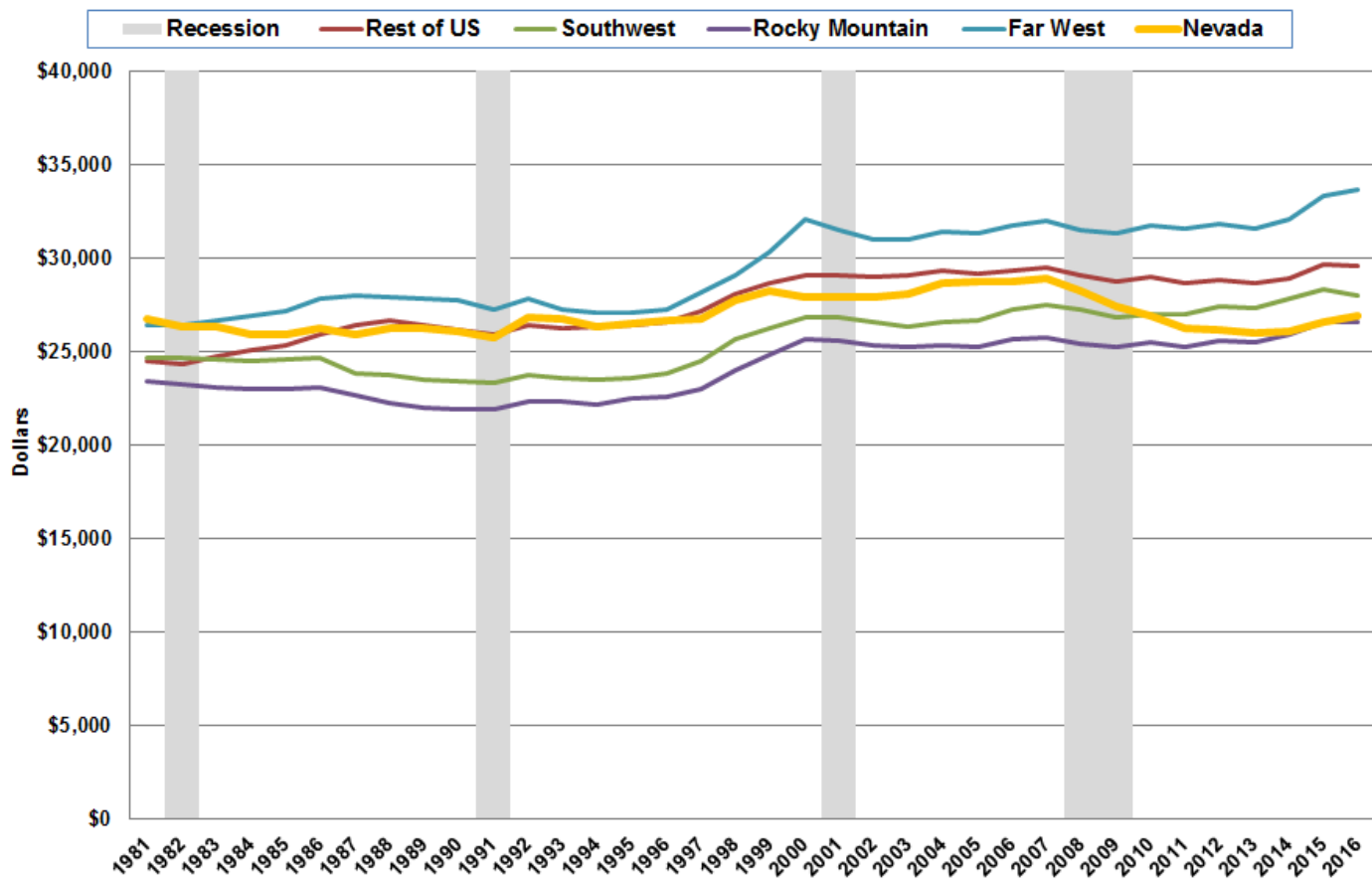


Change in Employment for Nevada and Bureau of Economic Analysis Regions For 1980 to 2016 Indexed to 2000 Employment

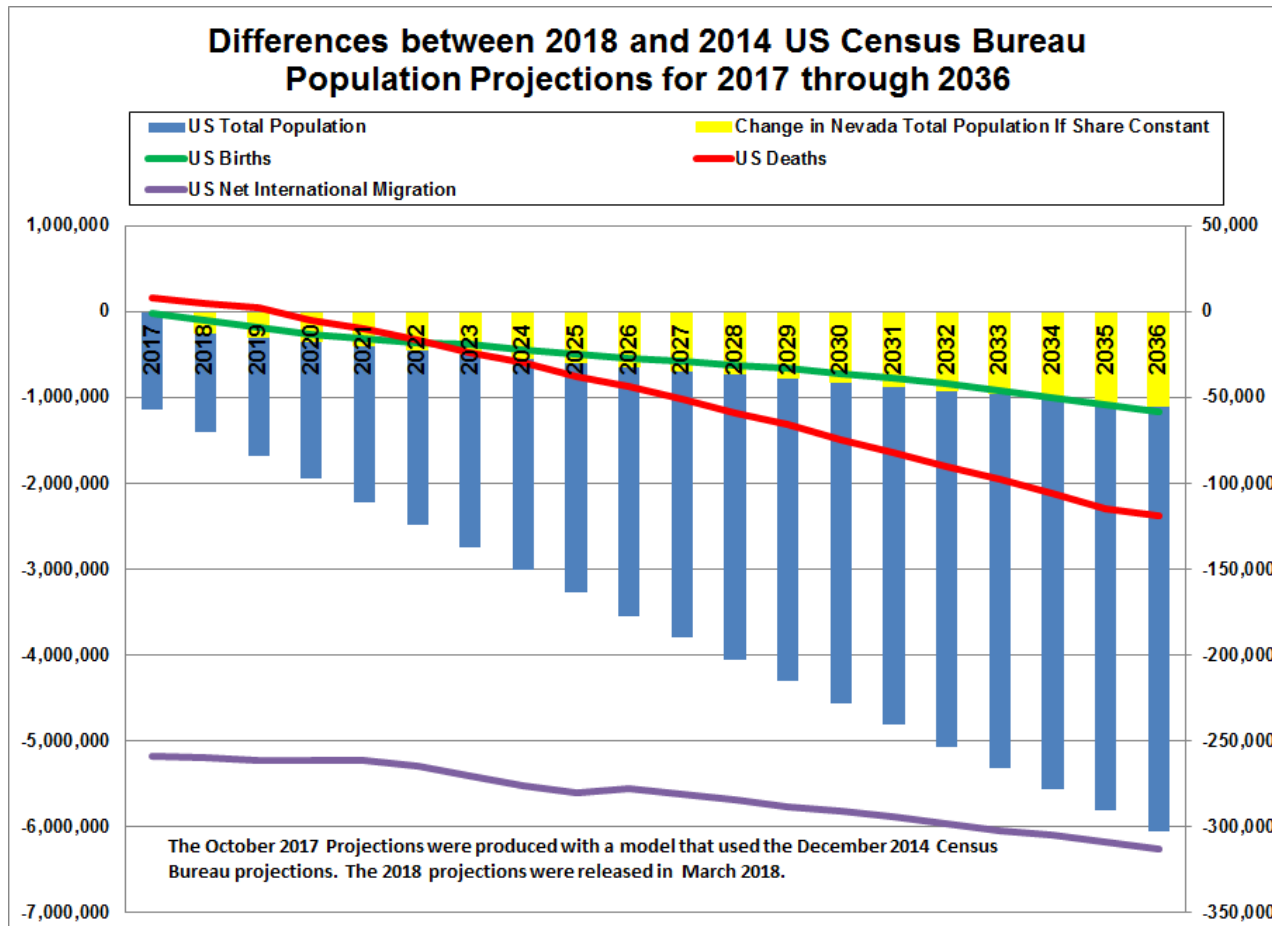


Average Annual Wages for Nevada and Bureau of Economic Analysis Regions For 1980 to 2016 in 2000 Dollars

(employment includes wage and salary, proprietors and farm employment)

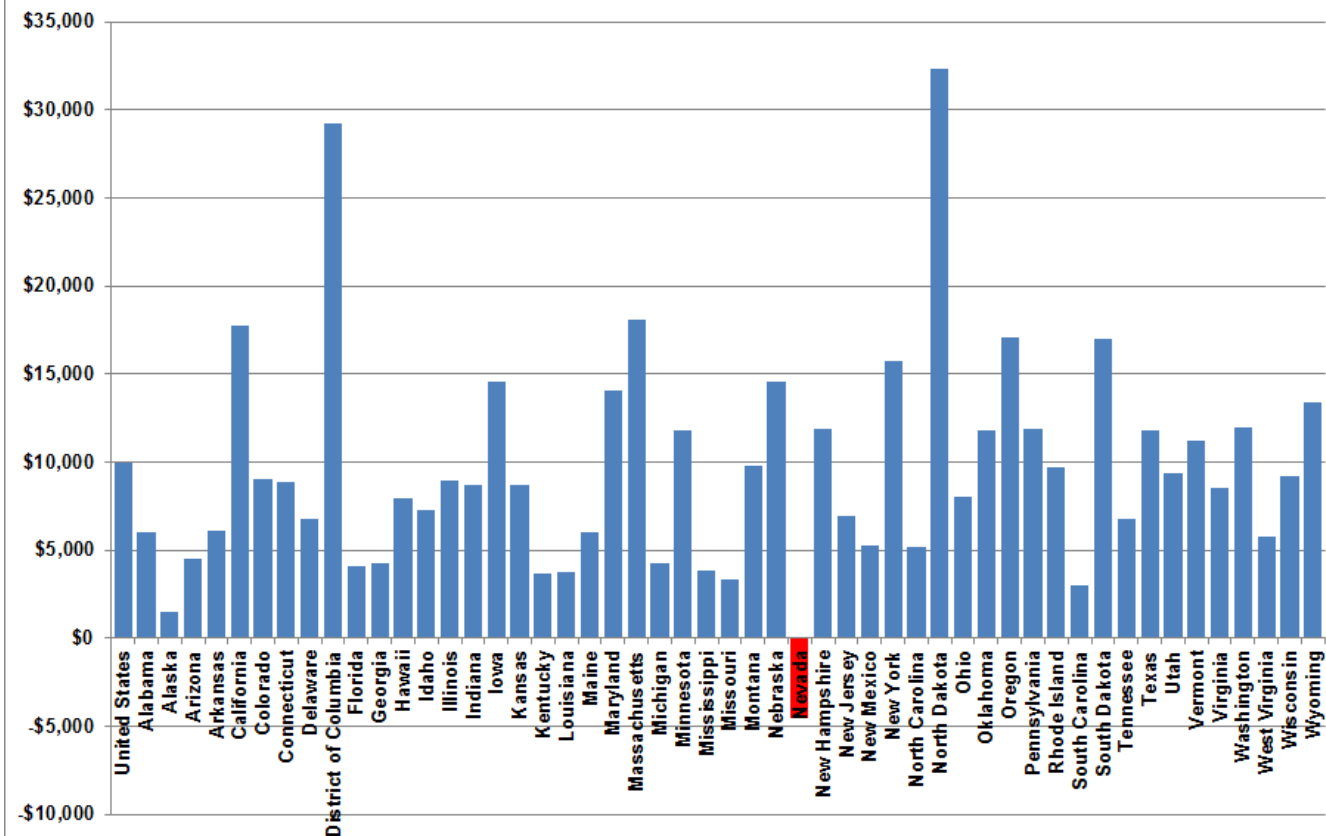


Looking toward the 2018 20 Year Projections, the Census Bureau has issued a new set of national projections. This could impact Nevada projections depending on how and when they are incorporated into the REMI Model.



Nevada is the only state to have lost per capita GDP

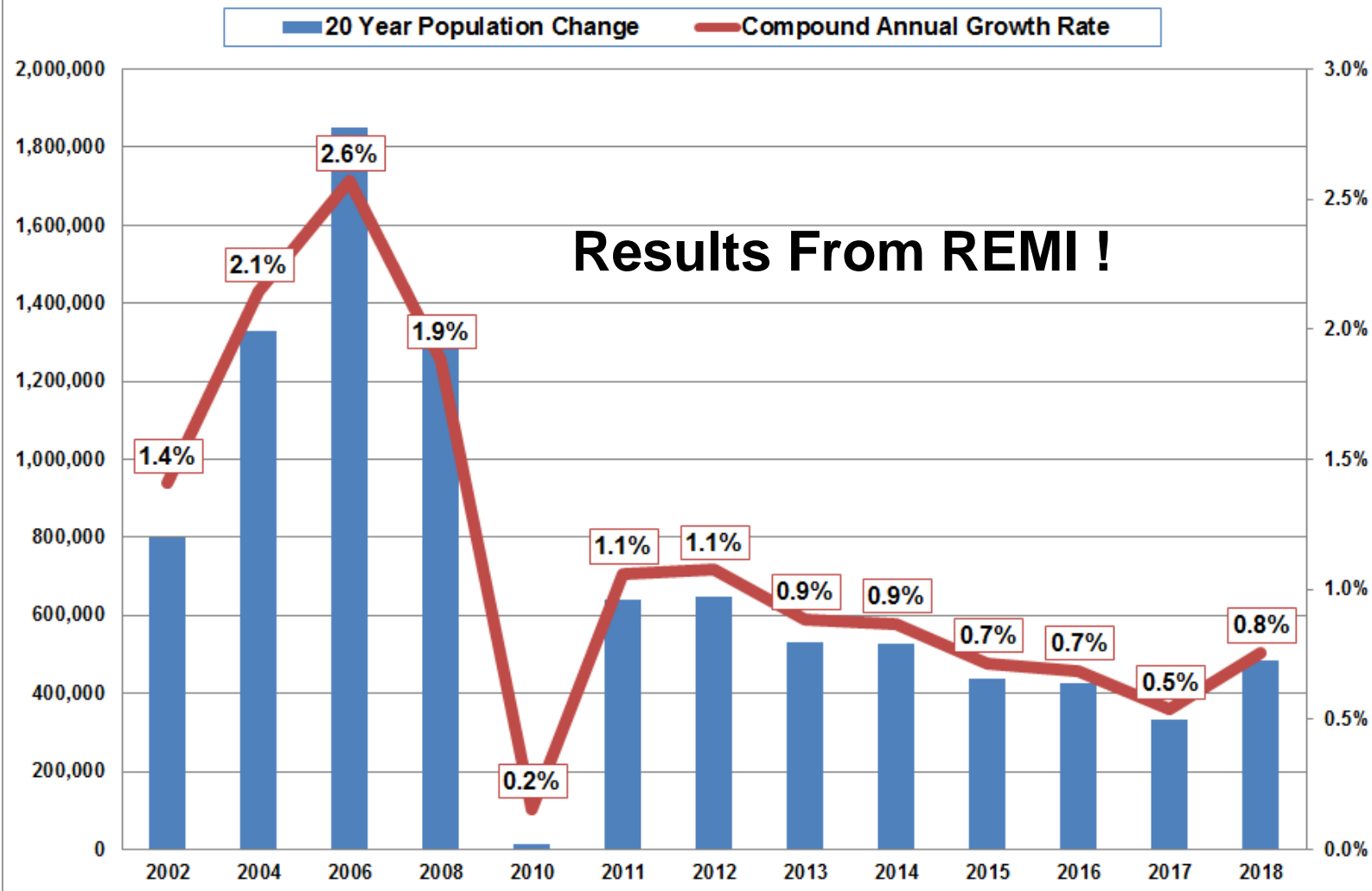
Difference Between 2016 and 1997 Per Capita GDP In 2009 Dollars



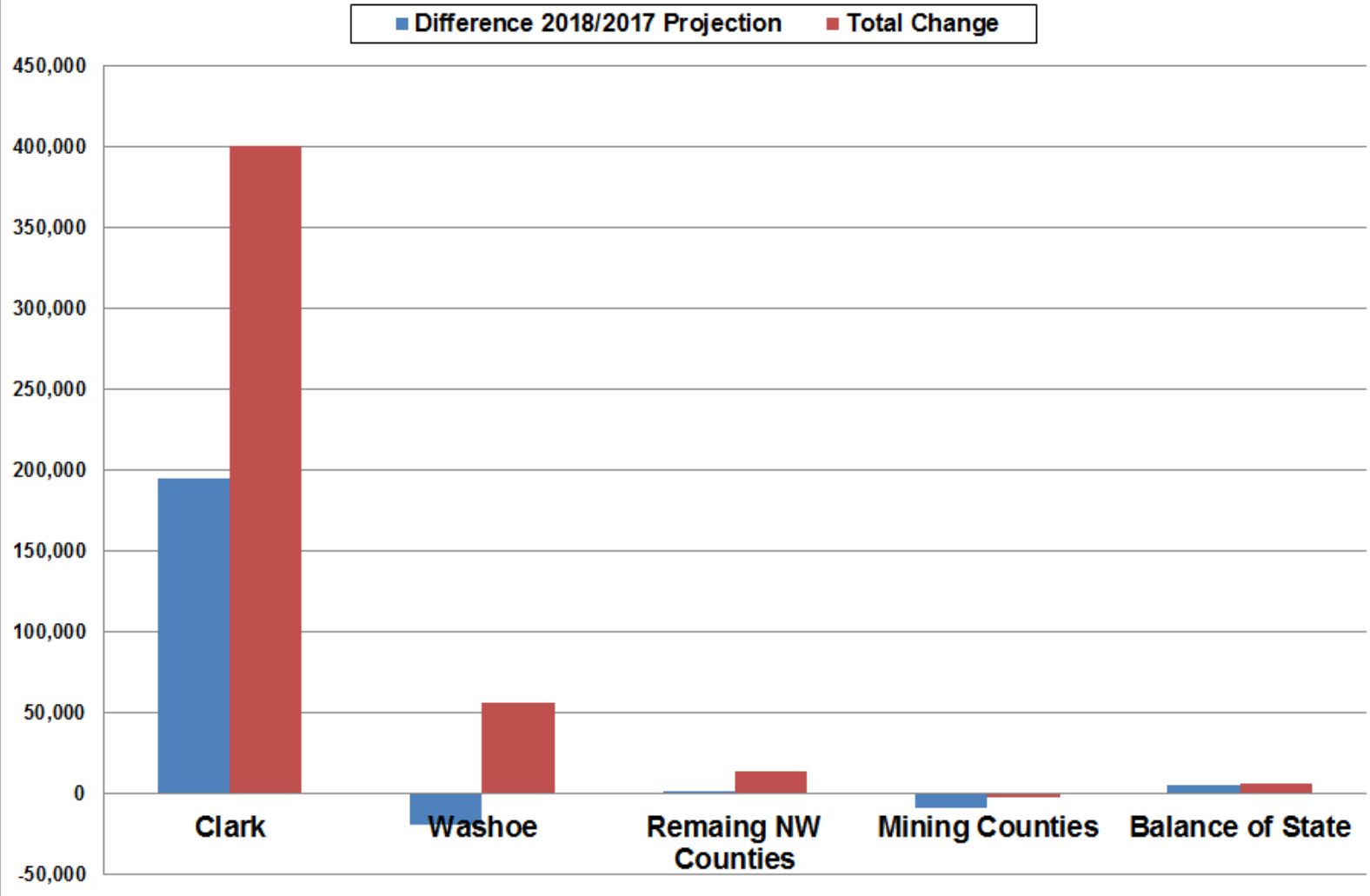
If you made it this far - You're probably asking at this point, "Why Am I Still Listening To This?"



20 Year Population Projections for Nevada and Compound Annual Growth Rates Published From 2002 to 2018



Projected 20 Year Total Population Change and Comparison of 2017 2017 Projections



You're Always Wrong Part 2

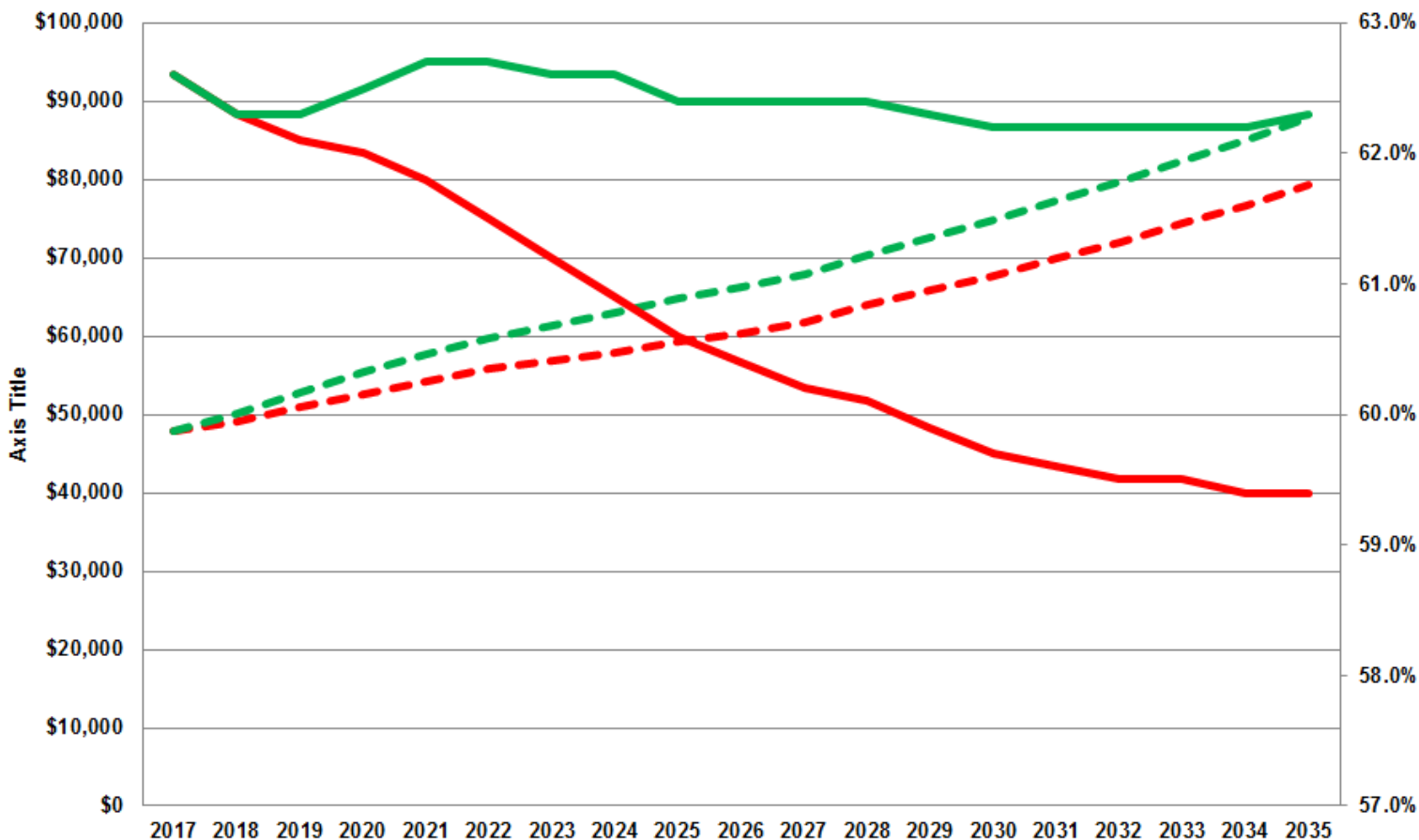
- **DRAFT Projection For Washoe County in 2035 is 507,985**
- **DRAFT For CSA is 682,692**

If I weren't wrong it would be 620,000 for Washoe County!

**Did scenario based on population alone –
I had to increase economic migration by 12,500 a
year to get there.**

Labor Force Participation Rate and Per Capita Income Compared Between DRAFT Projections and EDAWN Total

- - EDAWN Per Capita Disposable Income - - DRAFT Per Capita Disposable Income
— EDAWN LF Participation Rate — DRAFT LF Participation Rate



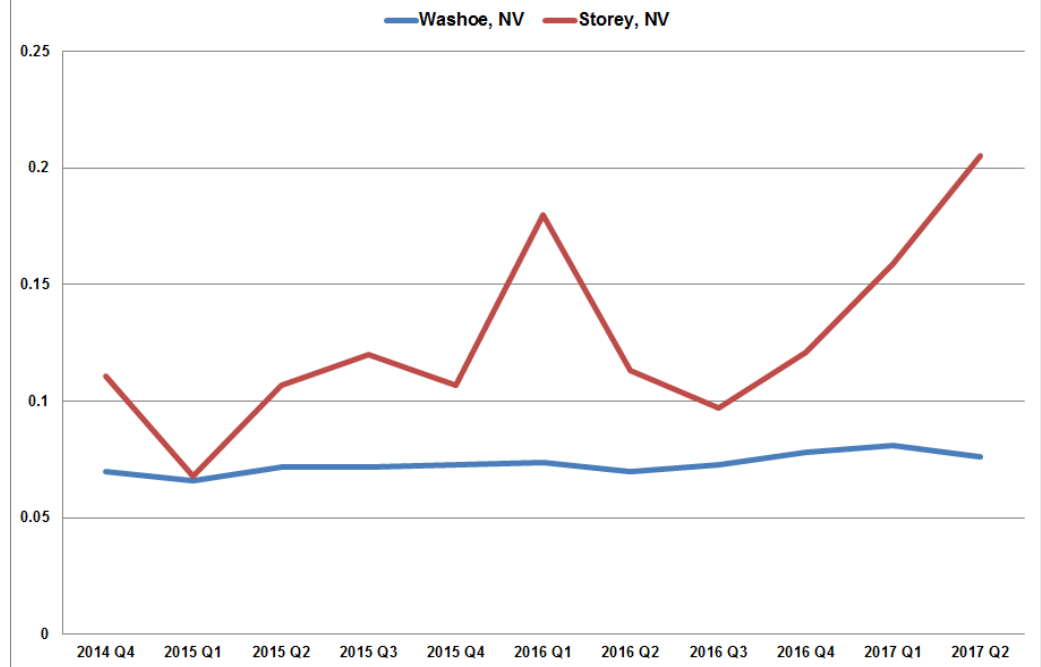
Messy Data - Public Policy Not Just Nevada

- **Public data is messy**
 - **Subject to revisions**
 - **Not well understood with ACS**
 - **Privacy guidelines**
 - **Funding constraints**
- **Often responding to aspirations and/or aspirational statements**
- **Non-traditional data sources**
 - **Gee Whiz Factor**
 - **Not well understood**
 - **Proprietary**
 - **Promoting services**

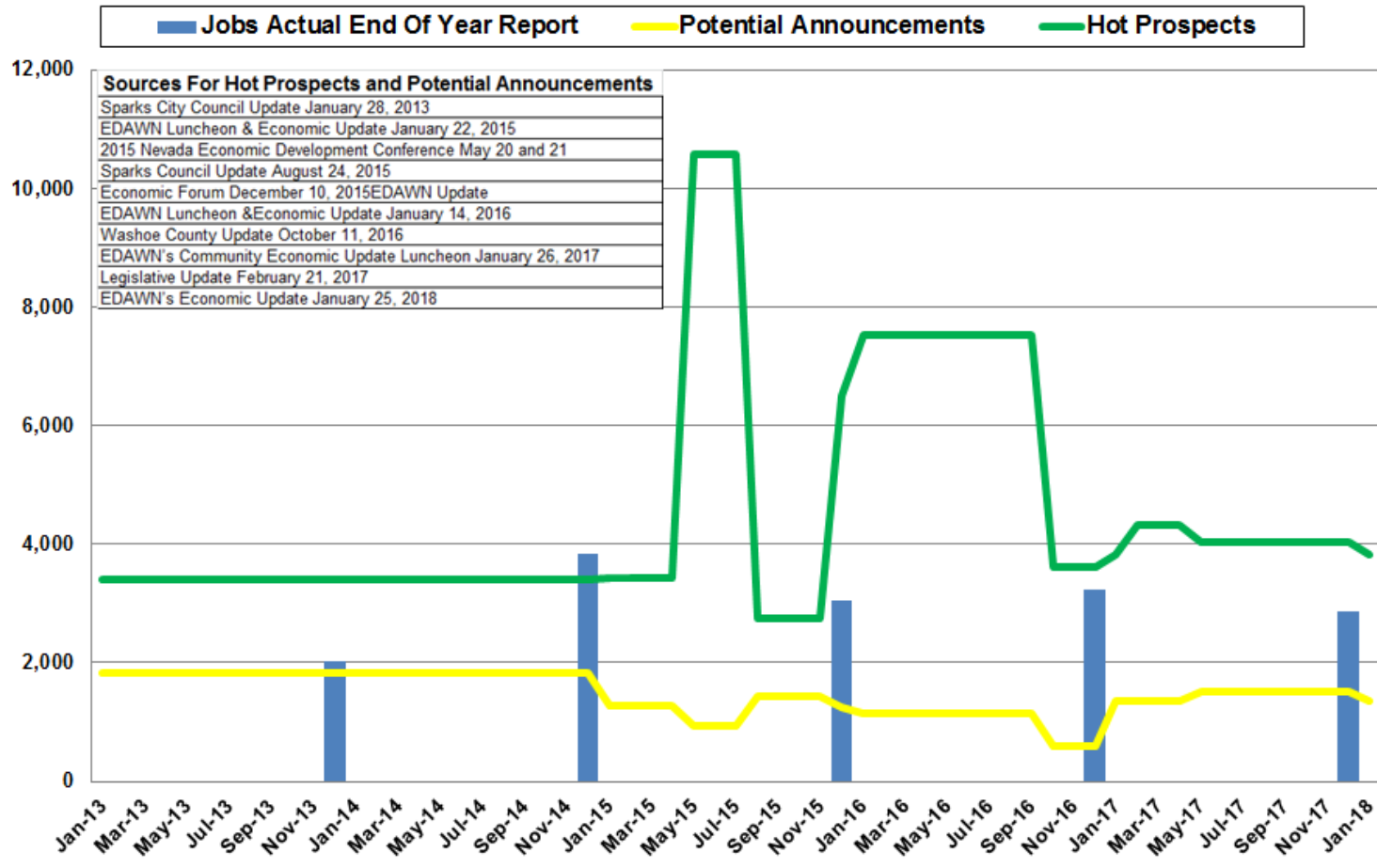
Messy Data Traditional Data Sources

	2014	2017
	Nov	Dec
QCEW Manufacturing	709	6,030
Tesla From Audit		3,249
Other Incentivized Employment		302
Total		3,551
Difference from QCEW		2,479

Manufacturing Turnover Rate for Storey and Washoe Counties
4th Quarter 2017 to 2nd Quarter 2017



EDAWN Actual Jobs (End of Year Report @edawn.org/news-events/media-center/ Compared to Hot Prospects and Potential Jobs from Presentations 2013 to 2018



Messy Data New Data Sources

REDFIN

Denver Joins Seattle and San Francisco as a Tech Hub with More Peop

Origin: All | Destination: Reno, NV

Percentage of Reno, NV Redfin users searching from...



Origin as % of Destination Incomers All



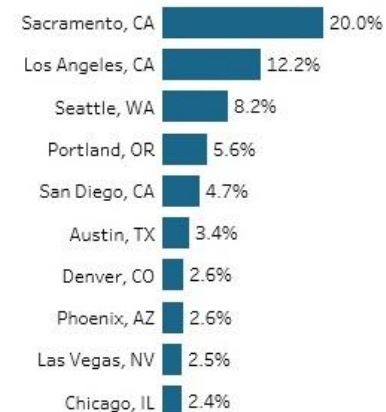
Source: Redfin user search data for Q1 2018 © OpenStreetMap contributors

Origin: San Jose, CA | Destination: All

Percentage of Bay Area Redfin users searching in...



Destination as % of Origin Leavers All



Source: Redfin user search data for Q1 2018 © OpenStreetMap contributors

Questions?

**Jeff Hardcastle,
Nevada State Demographer
Nevada Department of Taxation
Reno Office: 4600 Kietzke Lane, Building L Suite 235 Reno, NV 89502
(Direct) (775) 687-9961
jhardcastle@tax.state.nv.us**