



University of California
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Supply & Demand of RNs in the Sacramento & Northern regions

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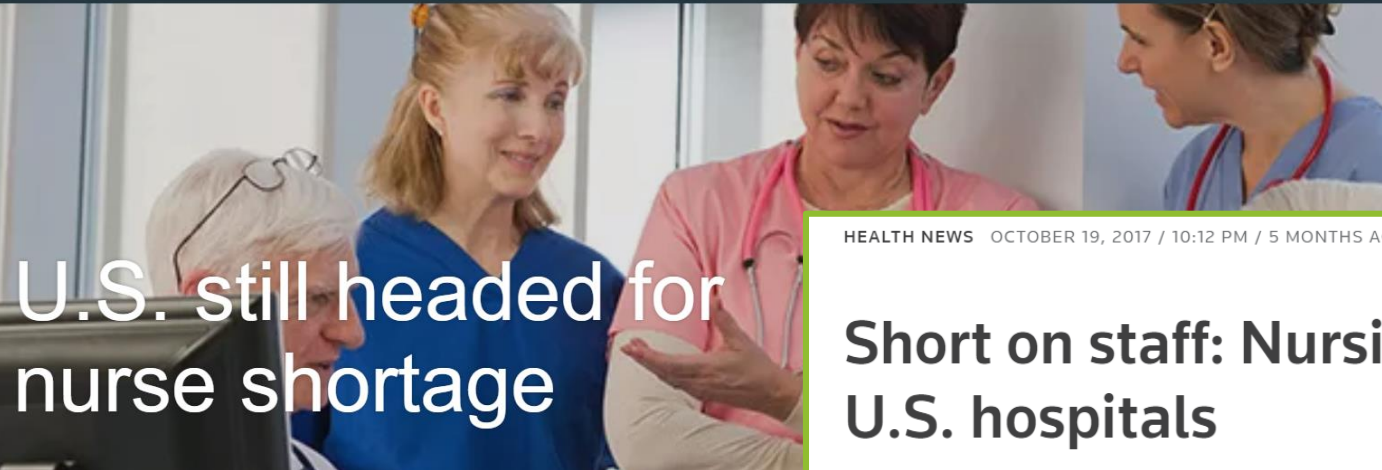
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University of California, San Francisco

September 2018

Tales of a nursing shortage...



U.S. still headed for nurse shortage



HEALTH NEWS OCTOBER 19, 2017 / 10:12 PM / 5 MONTHS AGO

Short on staff: Nursing crisis strains U.S. hospitals

The U.S. Is Running Out of Nurses

The country has experienced nursing shortages for decades, but an aging population means the problem is about to get worse.

REBECCA GRANT | FEB 3, 2016 | HEALTH

COLUMNISTS 77,973 SHARES    

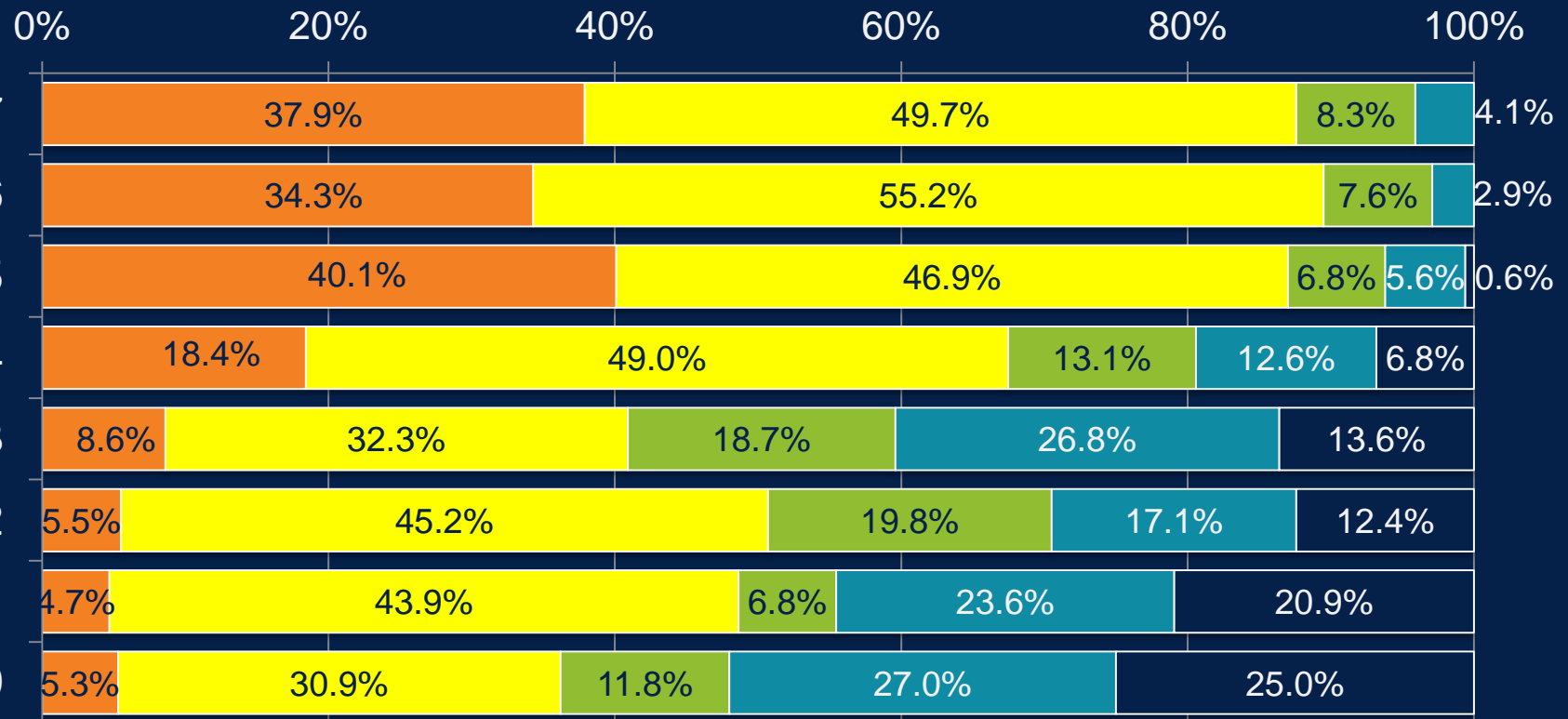
Is US headed for worst nursing shortage?

By: [Howard Gerber](#) - @inquirerdotnet INQUIRER.net US Bureau / 01:51 AM November 30, 2017

Forecasting future RN supply & demand

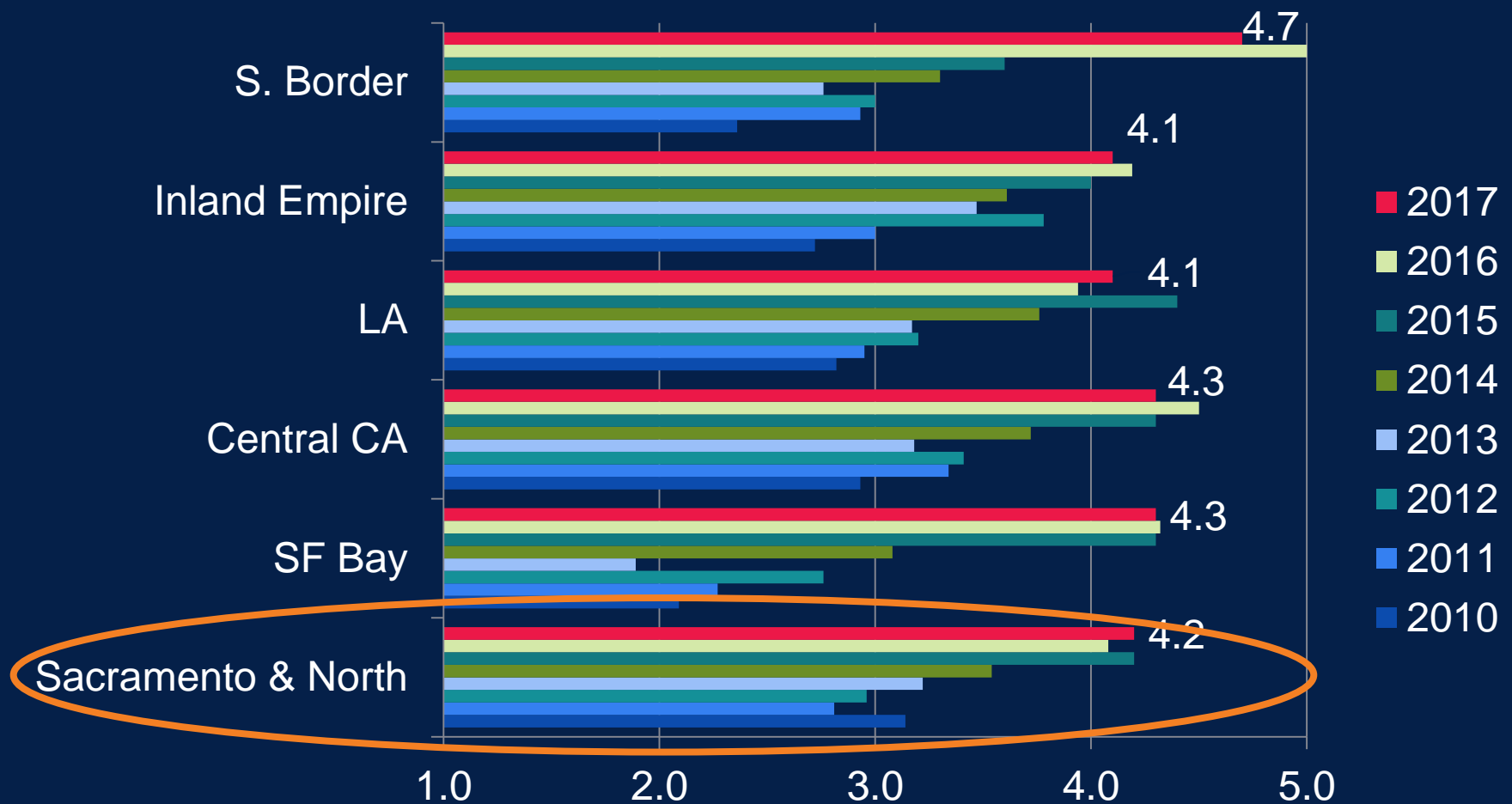
- **National forecasts:** market is balanced
 - National Center for Health Workforce Analysis, 2017
 - National surplus of 293,800 RNs by 2030 (8.2%)
 - Assumes supply = demand in 2014
 - Auerbach et al. 2015 – 128,000 RN shortage by 2025 (4%)
- **California**
 - NCHWA 2017 – 44,500 short (11.5%)
 - Auerbach et al. 2017 – only 0.7% per capita supply growth in Pacific region
 - Spetz 2017 – no shortage overall, but skills & regional imbalance

Perceptions of employers: Overall labor market

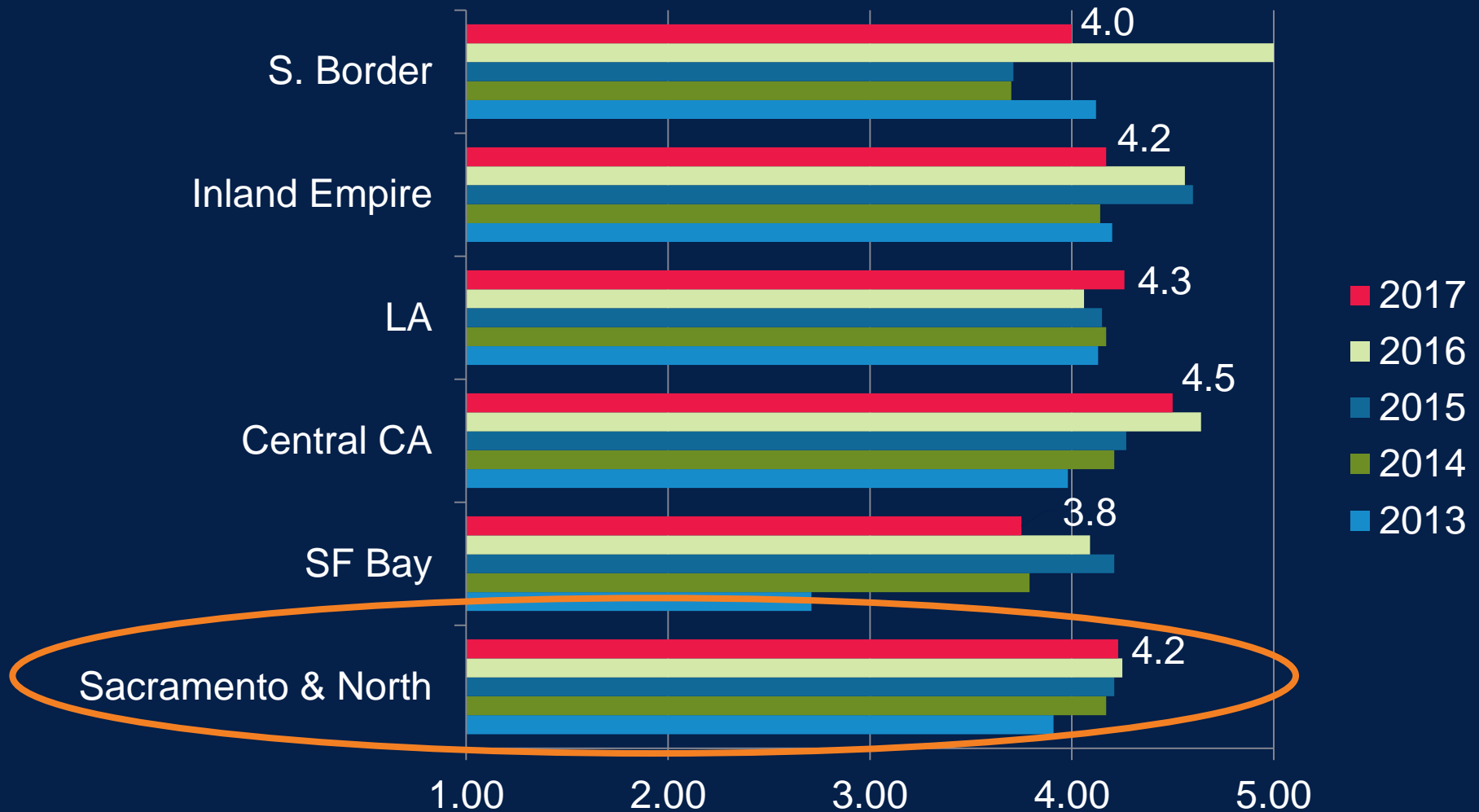


- High demand: difficult to fill open positions
- Moderate demand: some difficulty filling open positions
- Demand is in balance with supply
- Demand is less than supply available
- Demand is much less than supply available

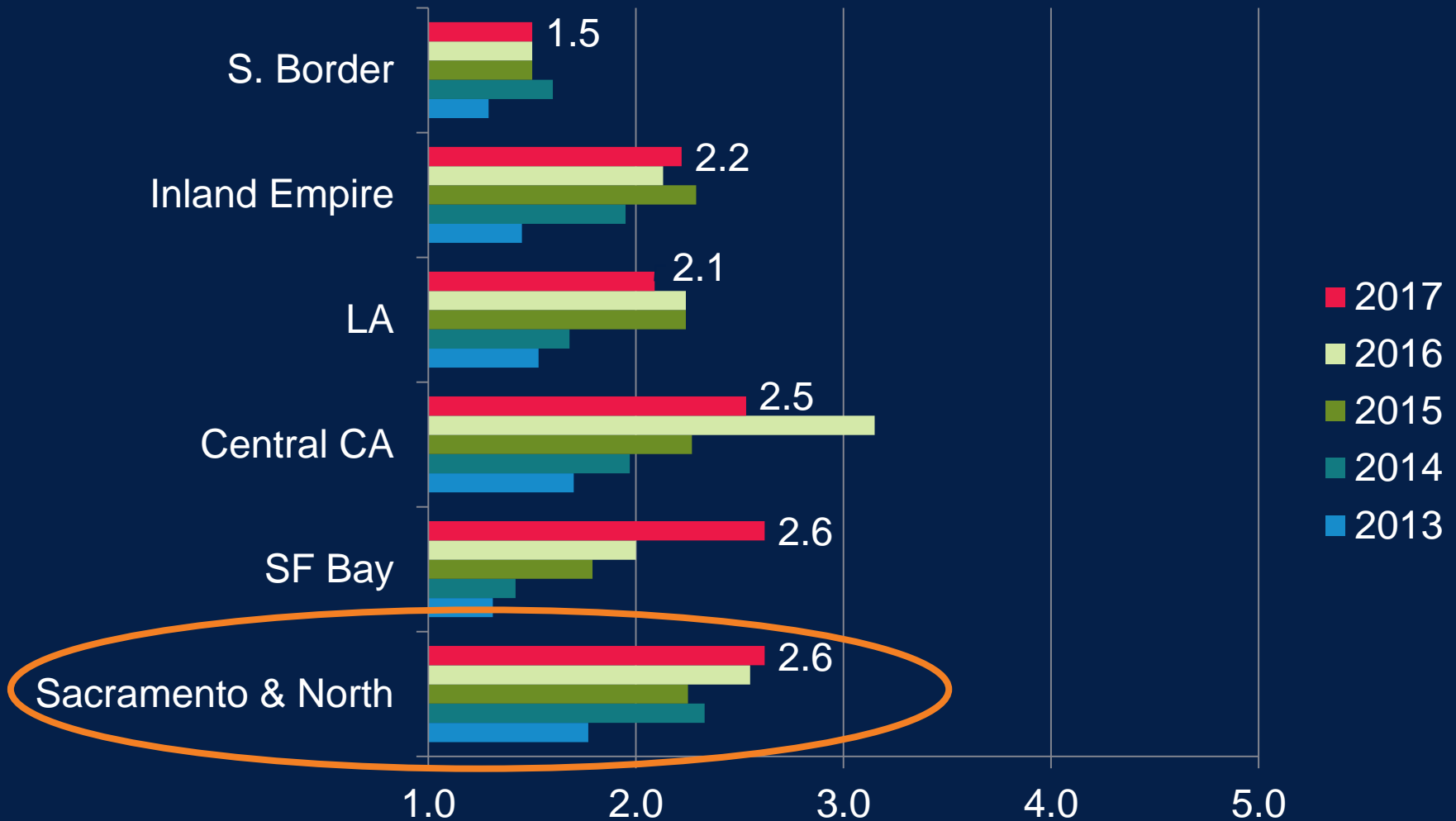
Differences across regions: Overall RN labor market



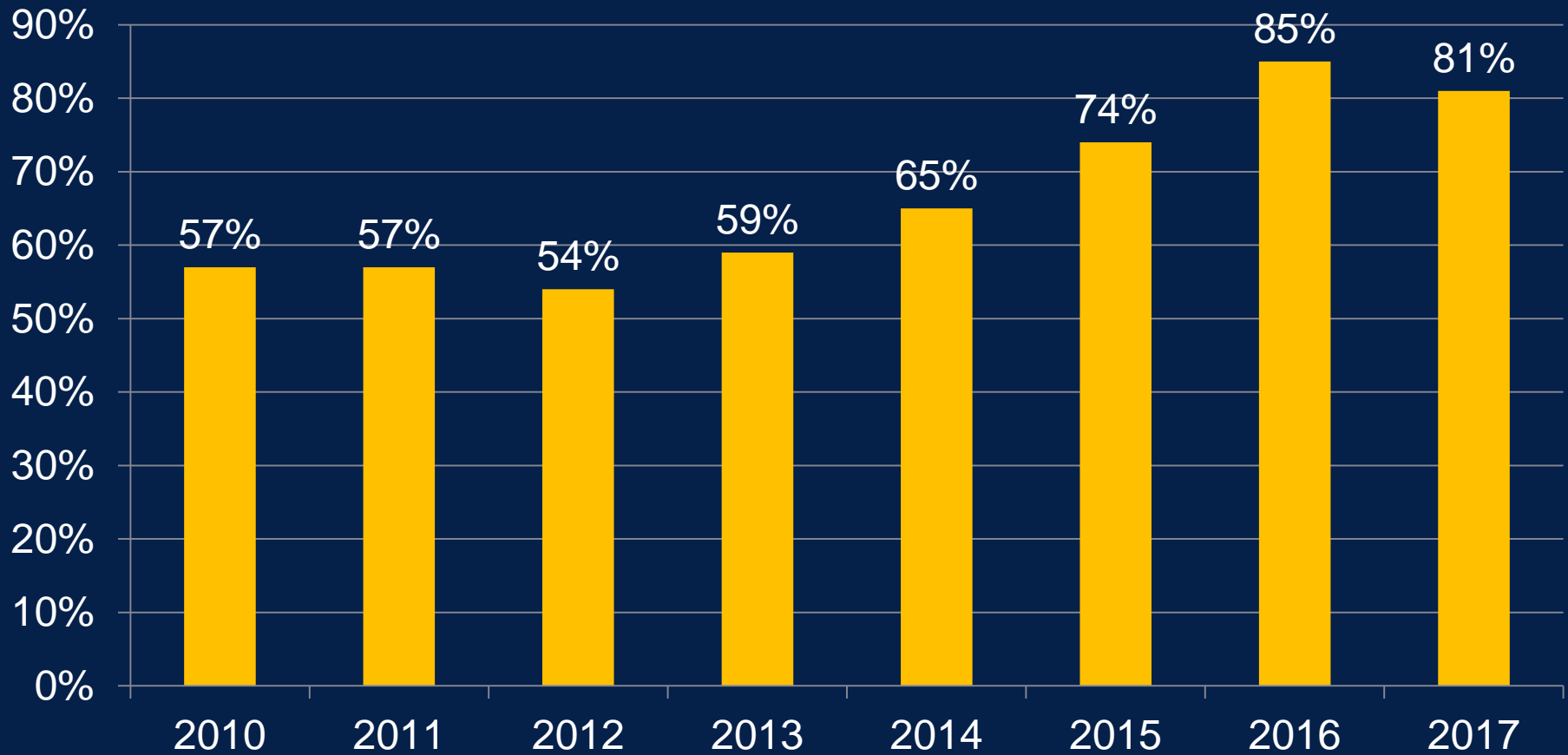
Differences across regions: Experienced RNs



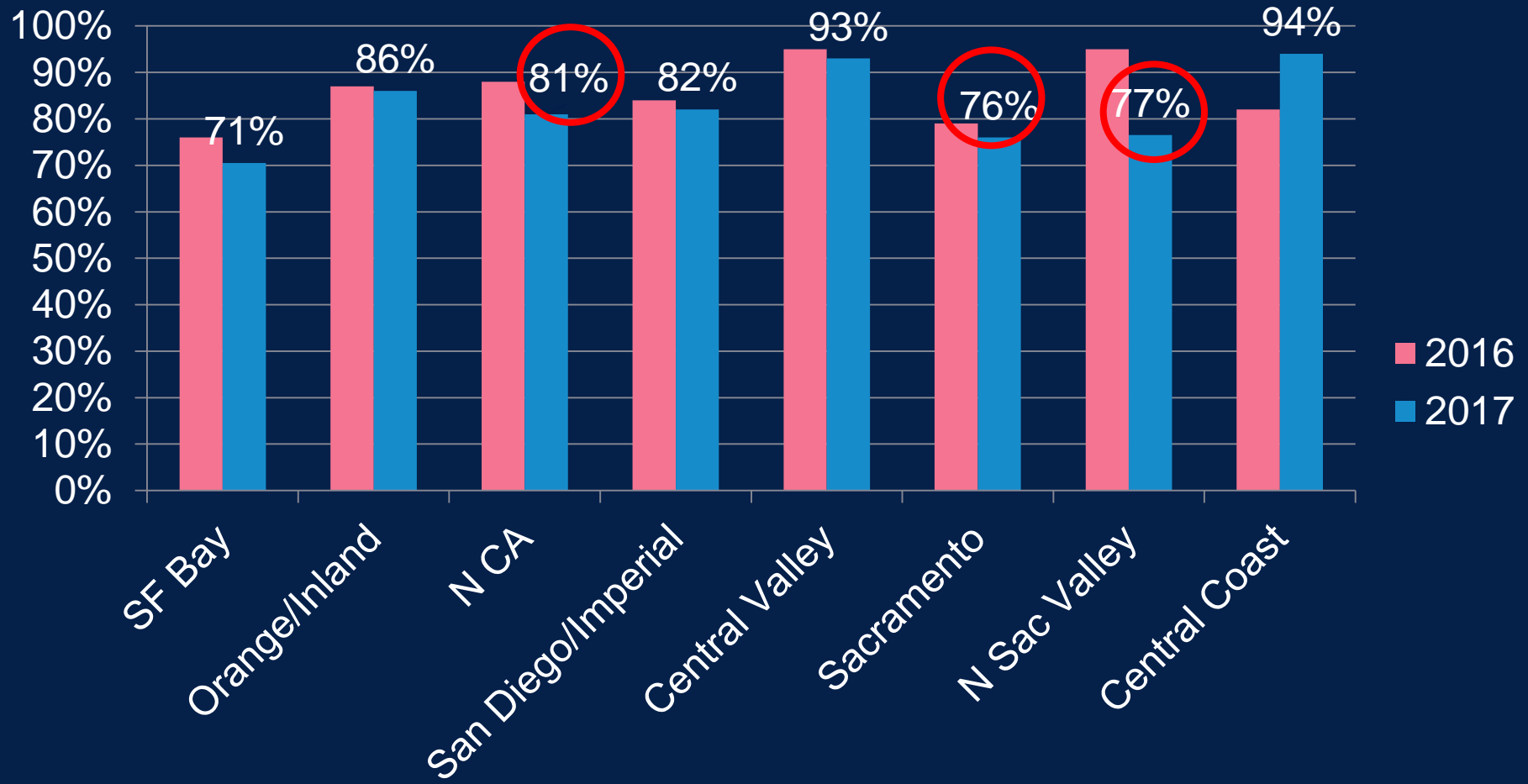
Differences across regions: New Grad RNs



New Graduate Employment

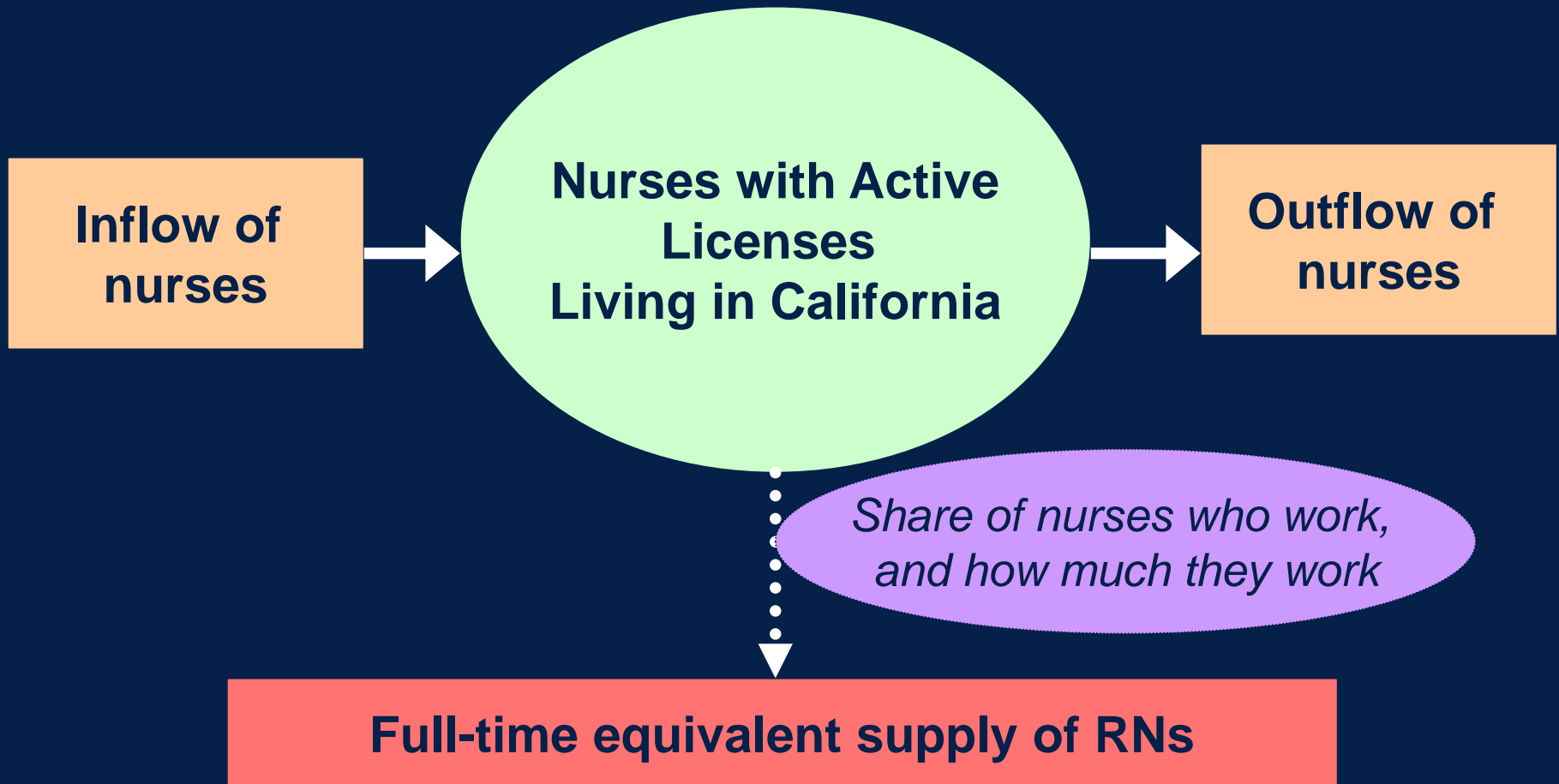


Regional Differences in New Grad Employment



Source: HealthImpact, 2018, Survey of Recent RN Graduates

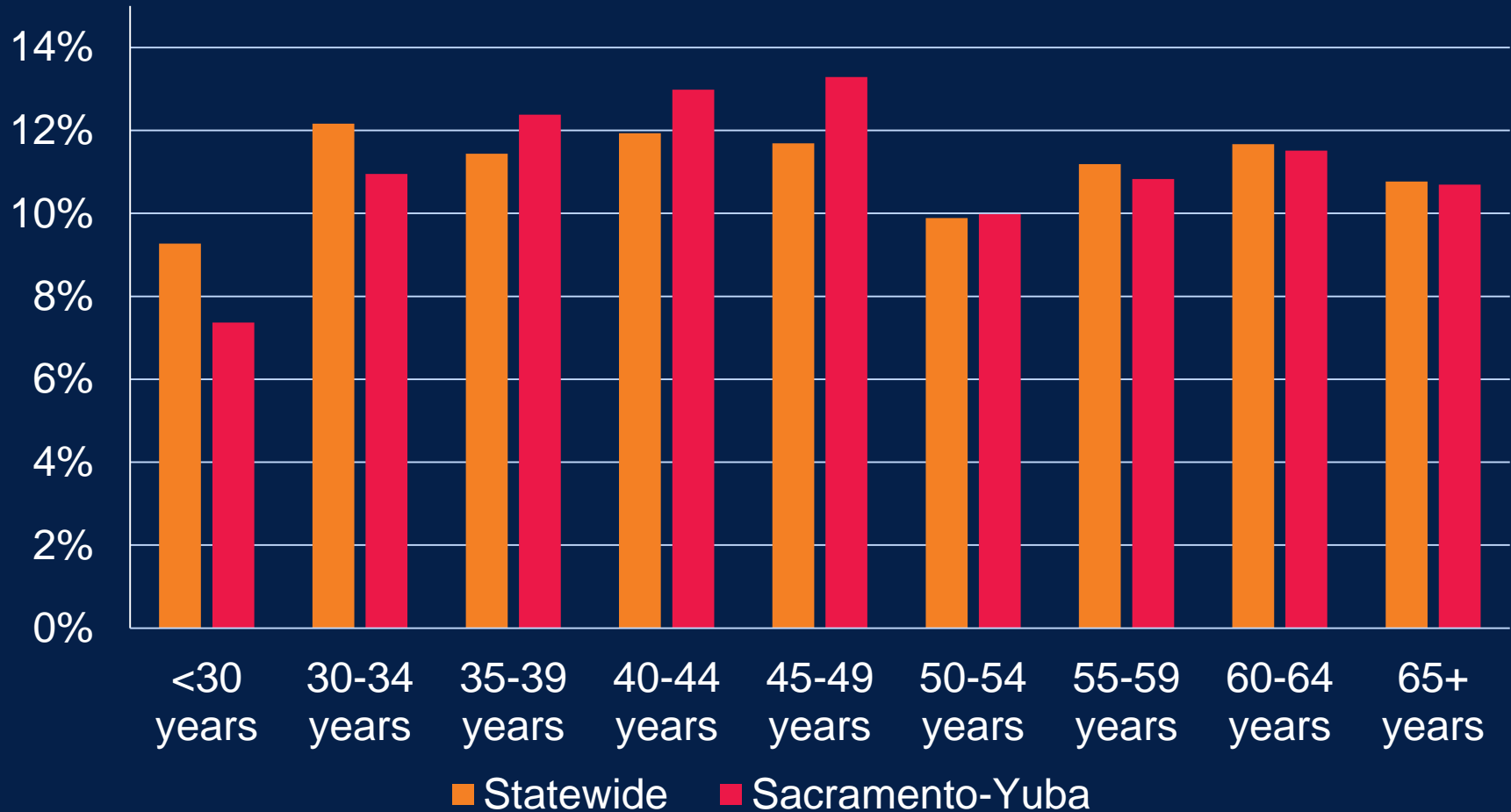
A model of the supply of RNs



Forecasting demand is harder

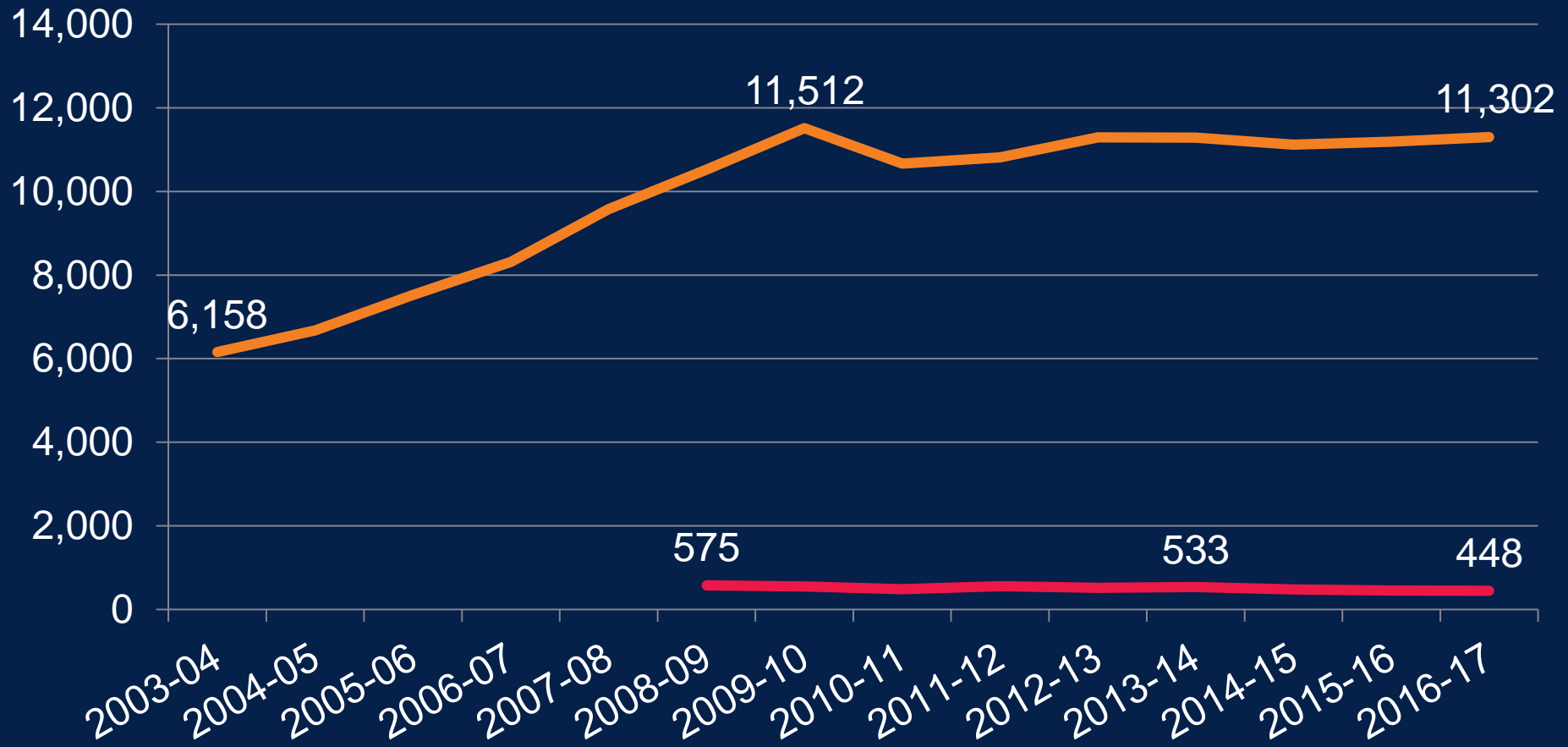
- Number of nurses per capita
 - What is the target?
 - National average?
 - Some arbitrary benchmark?
 - Estimates of how many providers are needed to provide XYZ?
- Demand-based models can be based on economic demand models
 - Easier said than done....

Age distribution of licensed RNs - Sacramento



Source: Spetz et al., 2016 California Survey of RNs

RN graduations per year - Sacramento



These numbers do not include satellite campuses

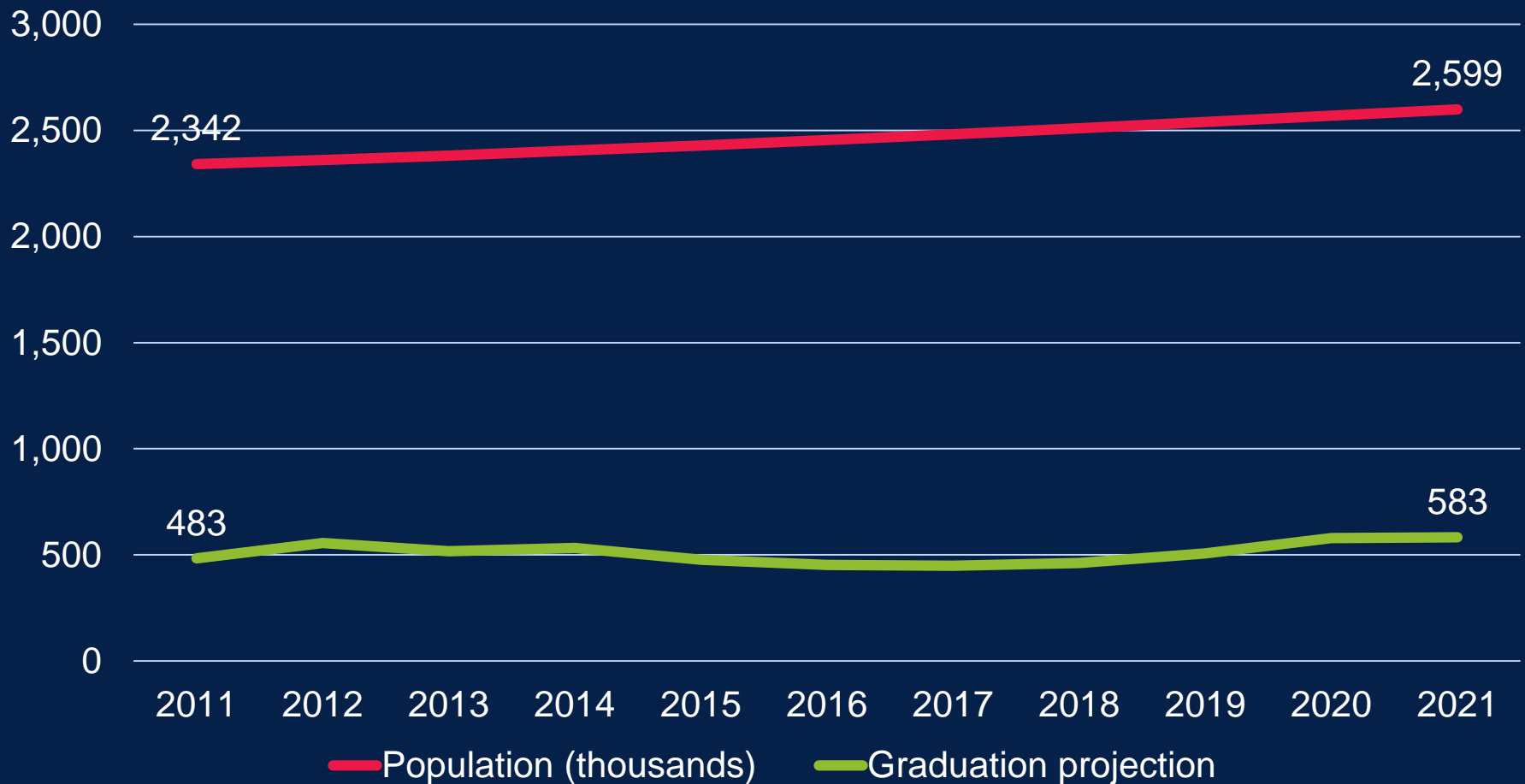
Statewide graduations are expected to hold steady

	New enrollment	Projected enrollment from 1 yr	Projected enrollment from 2 yrs	Graduations
2014-2015	13,318	12,162	13,347	11,119
2015-2016	13,152	13,110	12,177	11,191
2016-2017		13,862	13,236	10,761
2017-2018			14,219	10,627
2018-2019				11,200
2019-2020				11,489

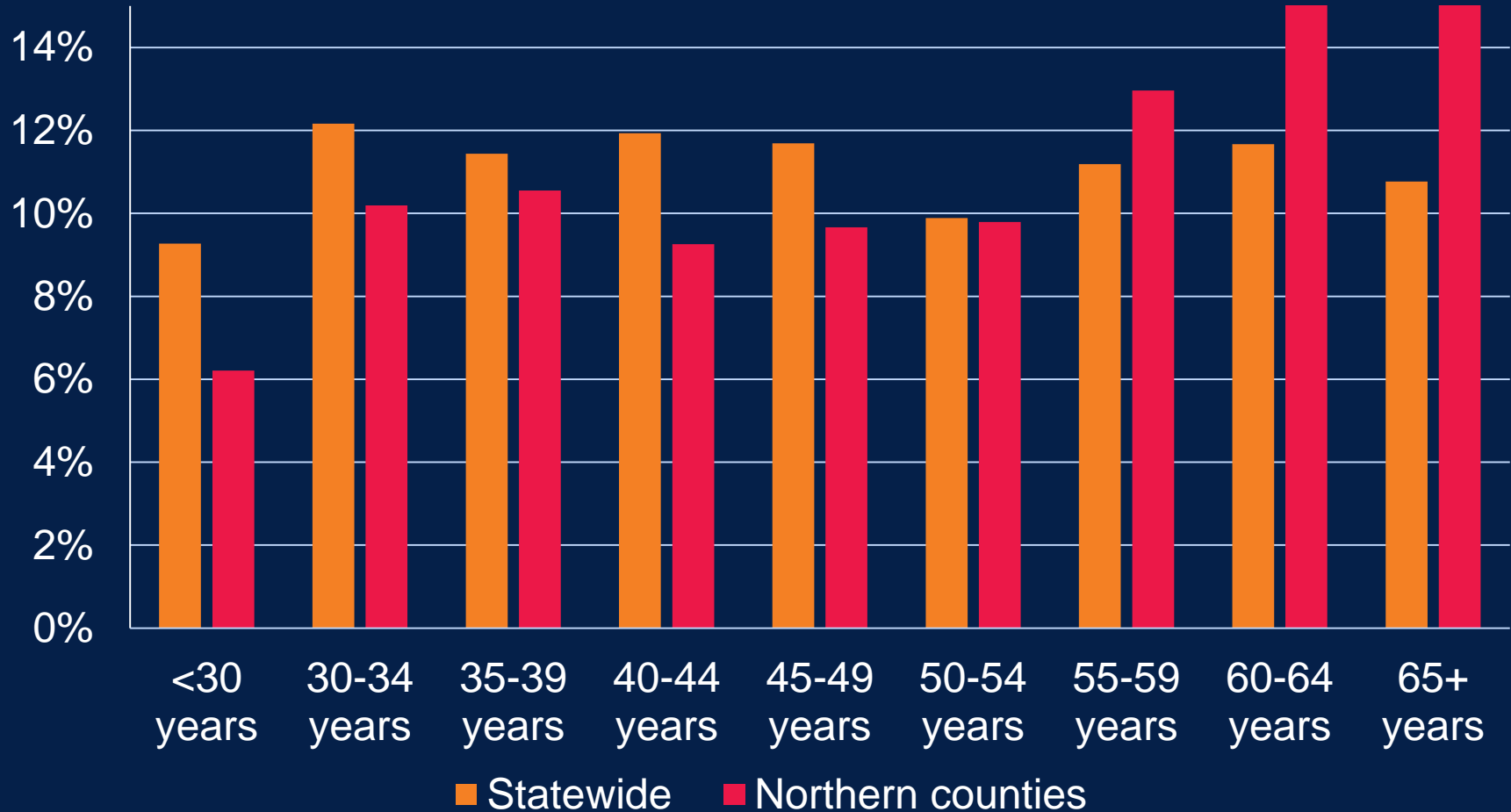
Sacramento-Yuba graduations are projected to continue to grow

	New enrollment	Projected enrollment from 1 yr	Projected enrollment from 2 yrs	Graduations
2015-2016	563	478	668	452
2016-2017	620	624	493	448
2017-2018		708	632	461
2018-2019			712	507
2019-2020				579
2020-2021				583

What is projected population growth in the Sacramento region?

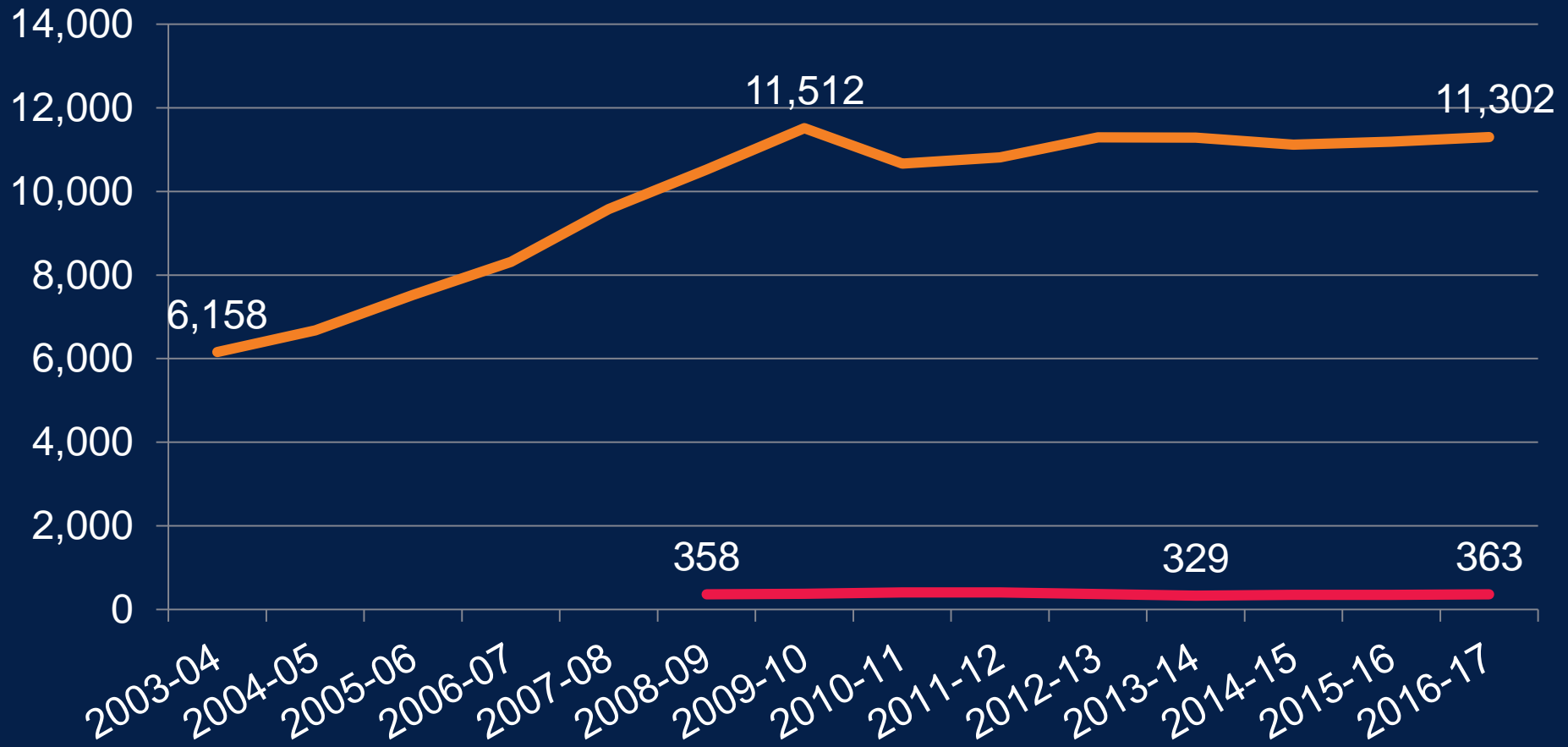


Age distribution of licensed RNs – Northern Region



Source: Spetz et al., 2016 California Survey of RNs

RN graduations per year – Northern region

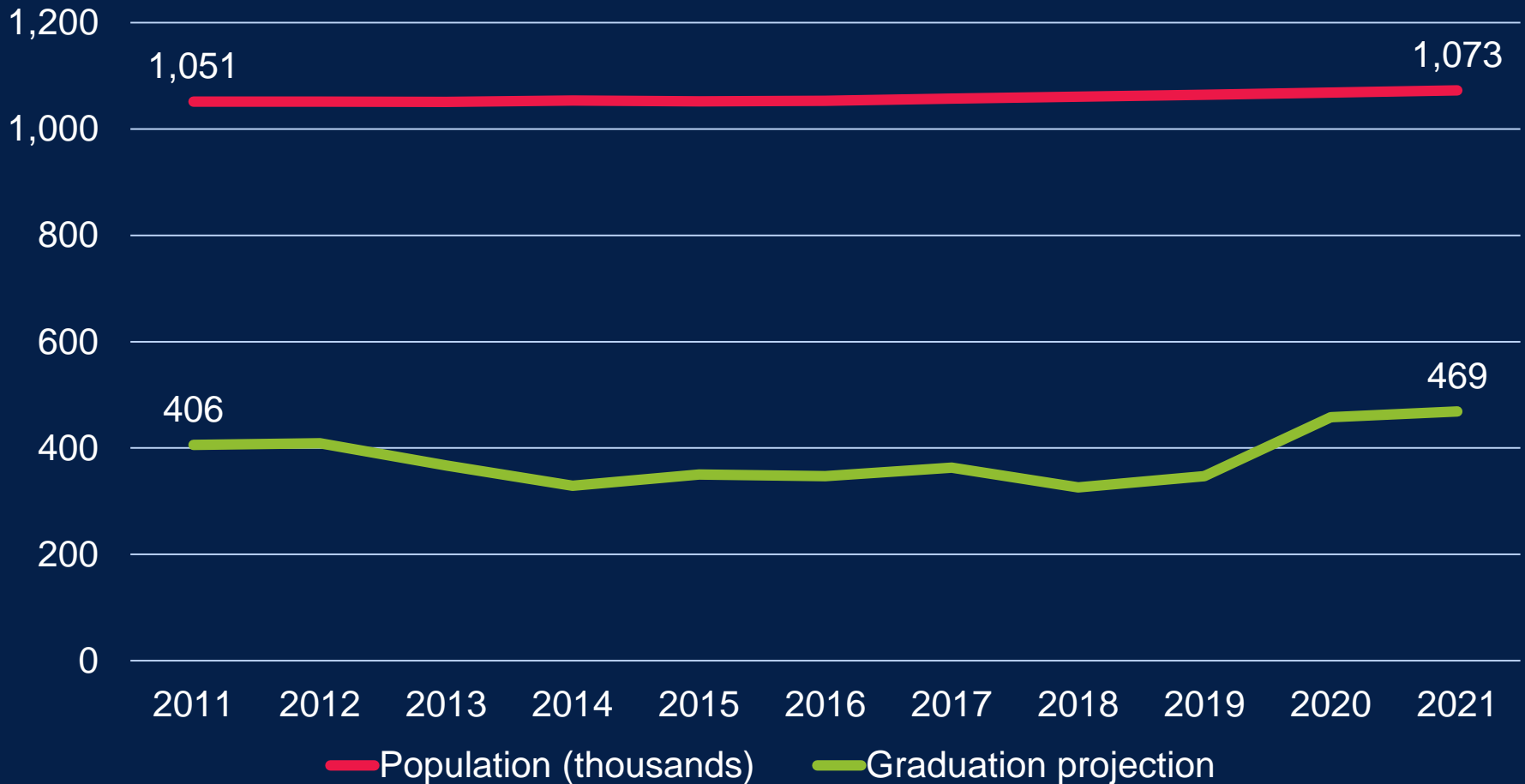


These numbers do not include satellite campuses

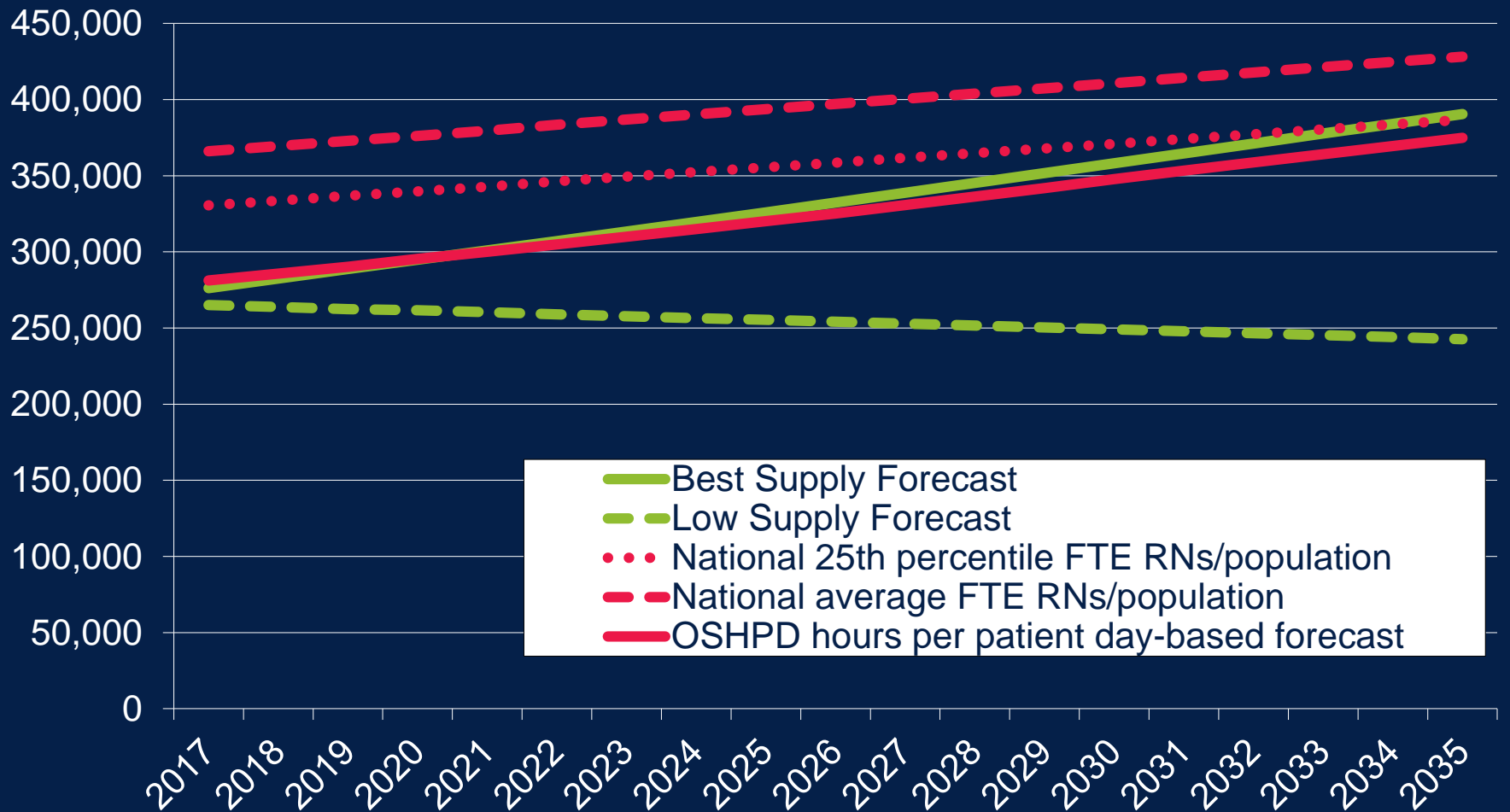
Northern region graduations are projected to grow

	New enrollment	Projected enrollment from 1 yr	Projected enrollment from 2 yrs	Graduations
2015-2016	351	365	367	347
2016-2017	373	382	356	363
2017-2018		493	385	326
2018-2019			505	347
2019-2020				458
2020-2021				469

What is projected population growth in the Northern region?

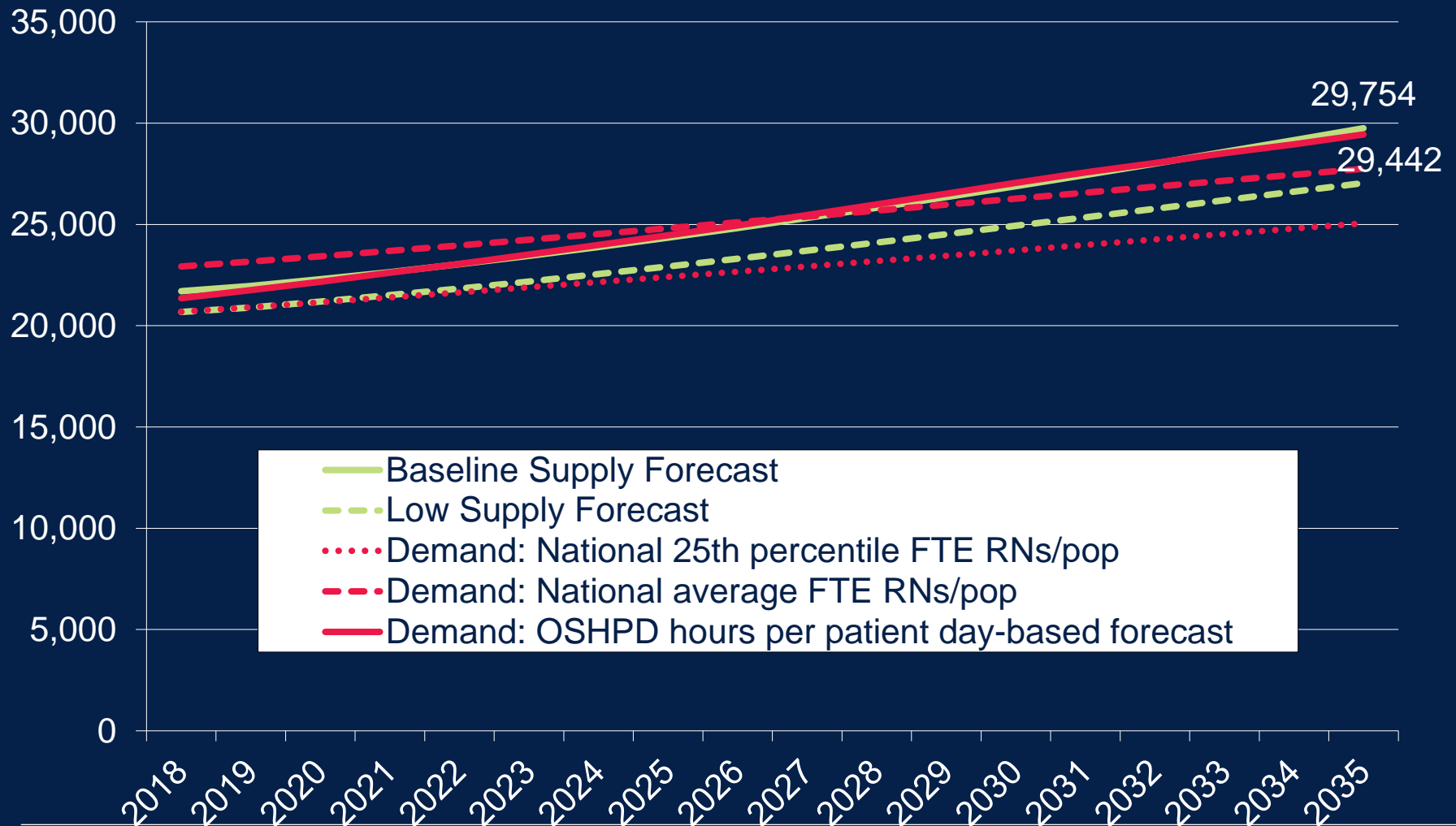


California RN supply and demand forecasts, 2017-2035



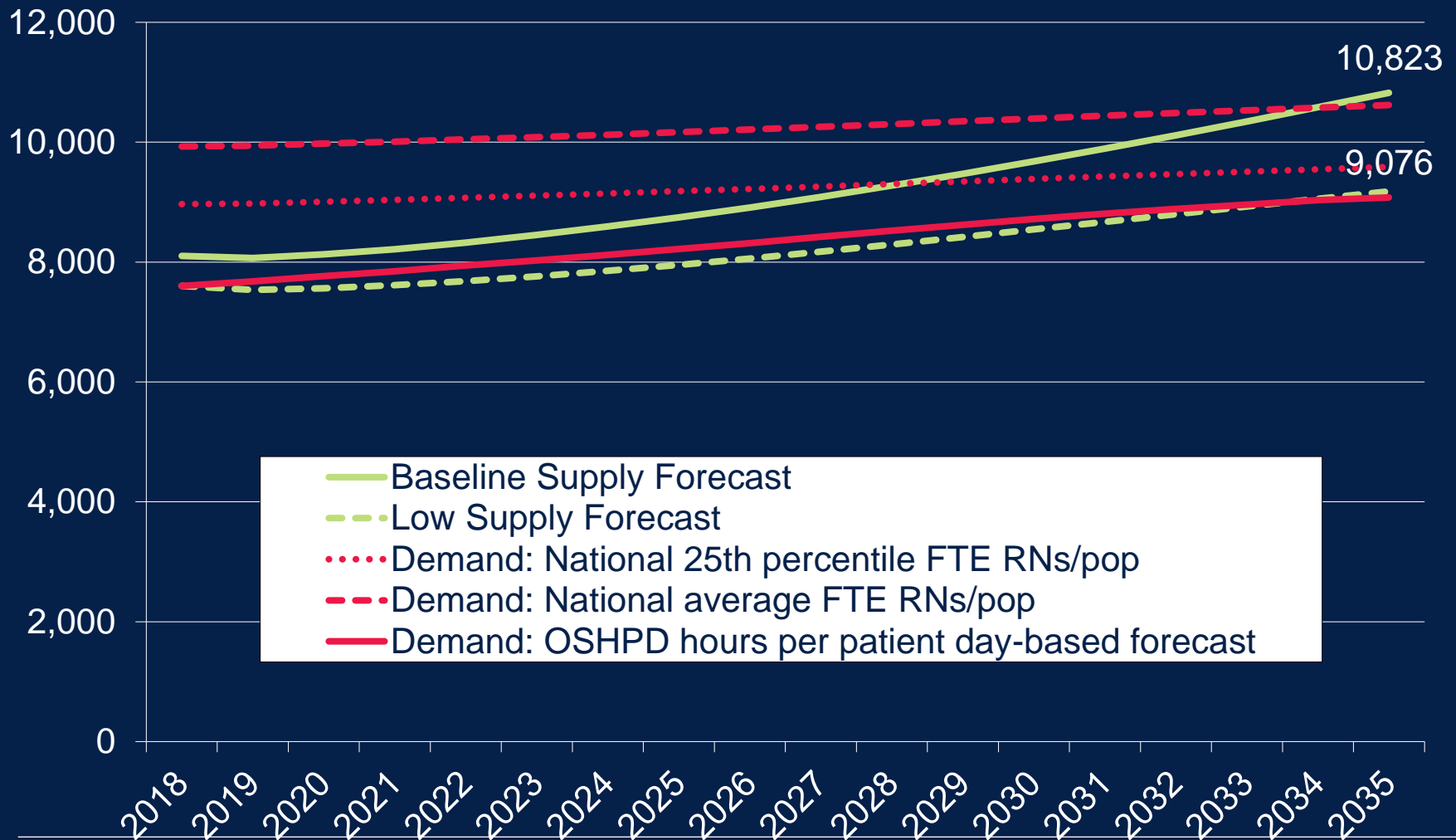
Regional differences are important

Supply & demand forecasts for Sacramento region



Regional differences are important

Supply & demand forecasts for Northern Counties



Inflows and outflows for the Sac region

- Inflows = 1,384 now, 1,506 by 2021
 - Graduations: 461 in 2016-17 583 in 2020-21
 - Migration into the region: 709 per year 2016-2018
 - Endorsements from other states: 214 in 2017
- Outflows = 1,992 now
 - Migration out of the region: 468 per year 2016-2018
 - Lapsed licenses: 1,524 per year 2016-2018
- Lapsed licenses are at predictable older ages
- New graduates tend to be younger than average – 60% <30 years
 - Migrants into the region also are young

Inflows and outflows for the Northern region

- Inflows = 669 now, 812 by 2021
 - Graduations: 326 in 2016-17 469 in 2020-21
 - Migration into the region: 239 per year 2016-2018
 - Endorsements from other states: 104 in 2017
- Outflows = 1,256 now
 - Migration out of the region: 288 per year 2016-2018
 - Lapsed licenses: 968 per year 2016-2018
- Older nurses keep their licenses longer than average
- New graduates tend to be younger than average – 53% <30 years

Balanced labor markets!

- No need for aggressive program growth – models assume 1.5% per year
- Anticipated growth of graduations in northern counties might be more than needed, but not something to worry about
- Will these new RNs move to other regions or states?
 - >50% of recent RN grads work within 40 miles of high school

How do we address the challenge?

Labor market overall is well-balanced

Younger graduates will support the workforce for many years in the future

Long working lives of nurses in Northern Counties will be important