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Supply & Demand of Registered Nurses in the Inland Empire

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Tales of a nursing shortage...

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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    

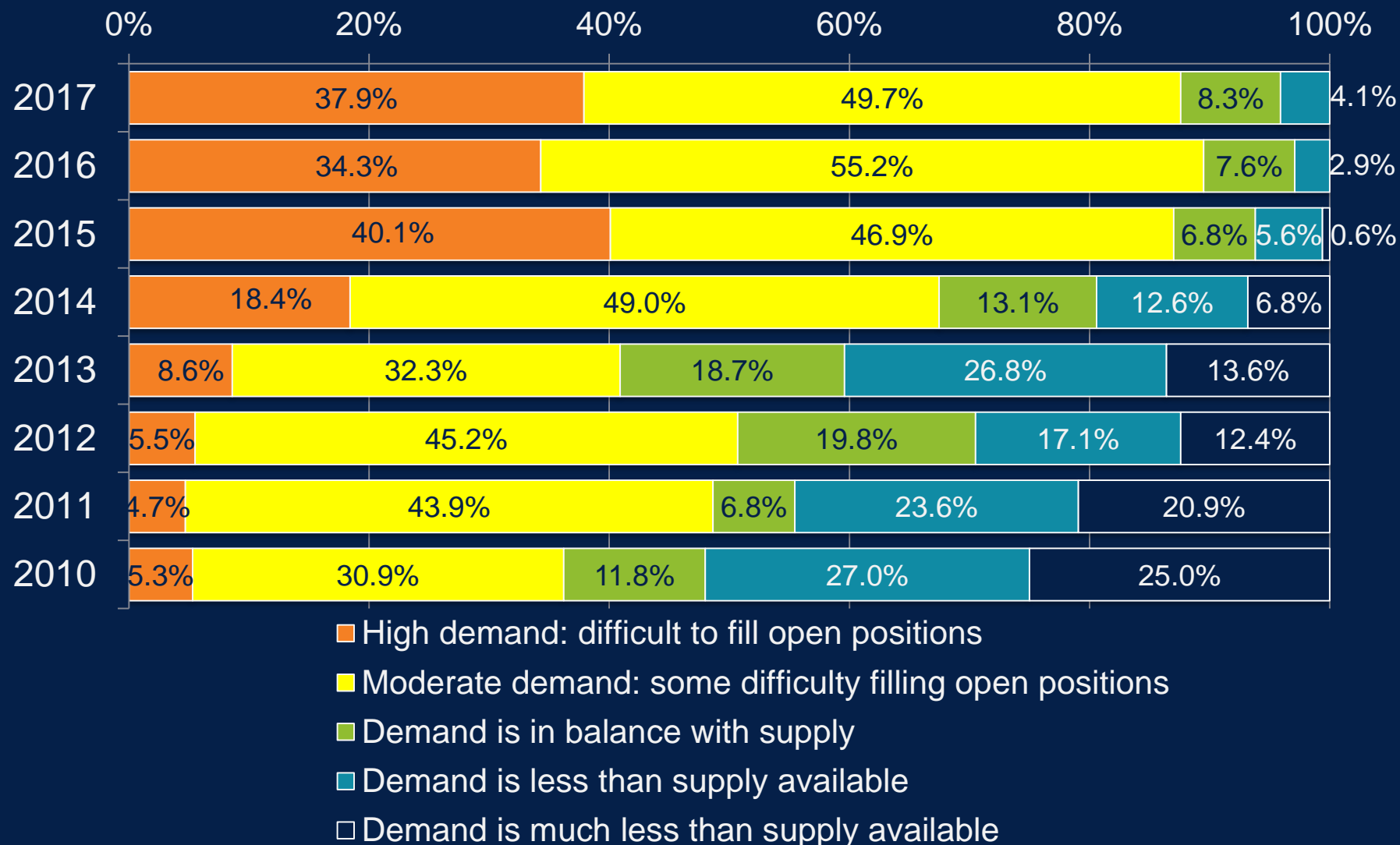
Is US headed for worst nursing shortage?

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

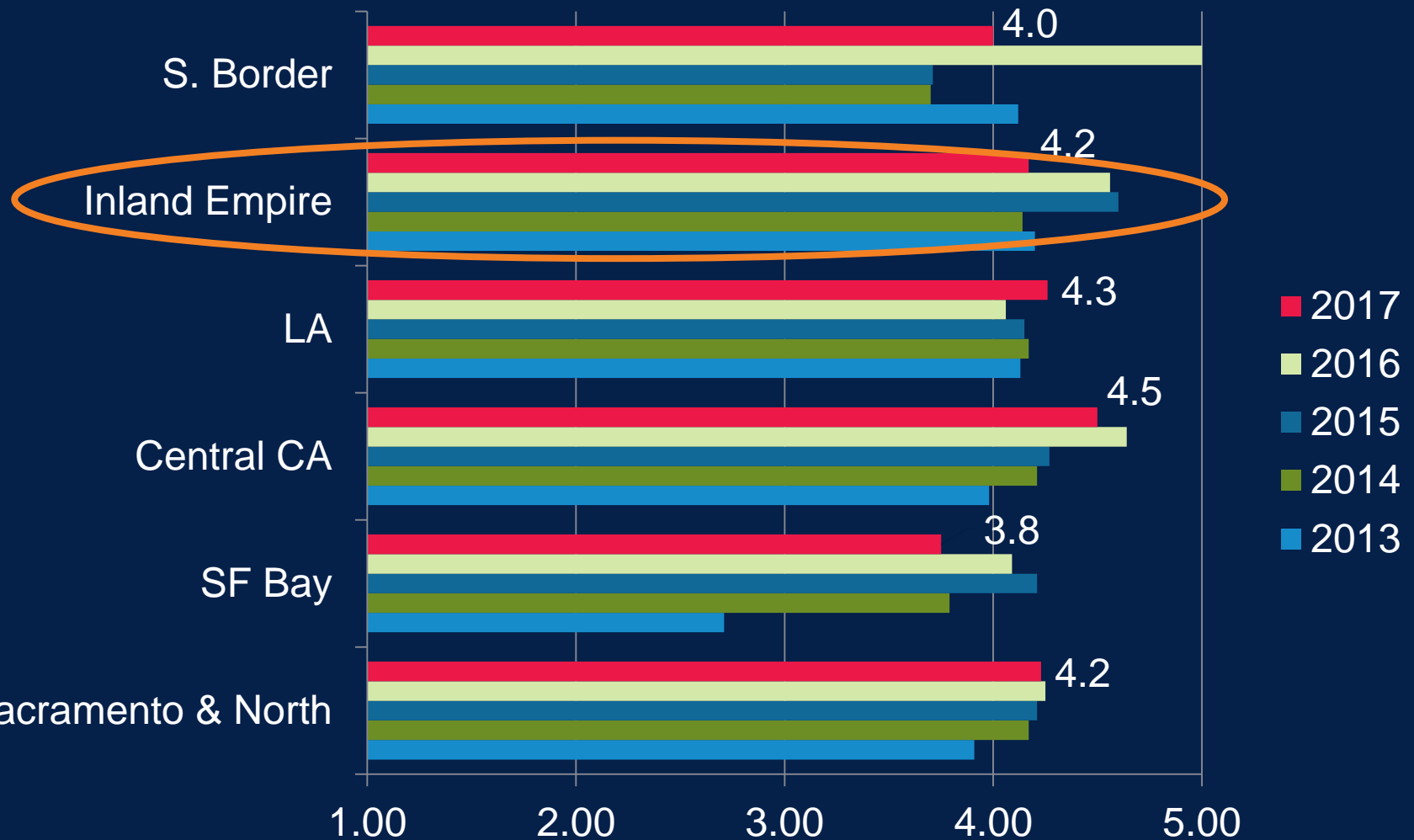
Perceptions of employers: Overall labor market



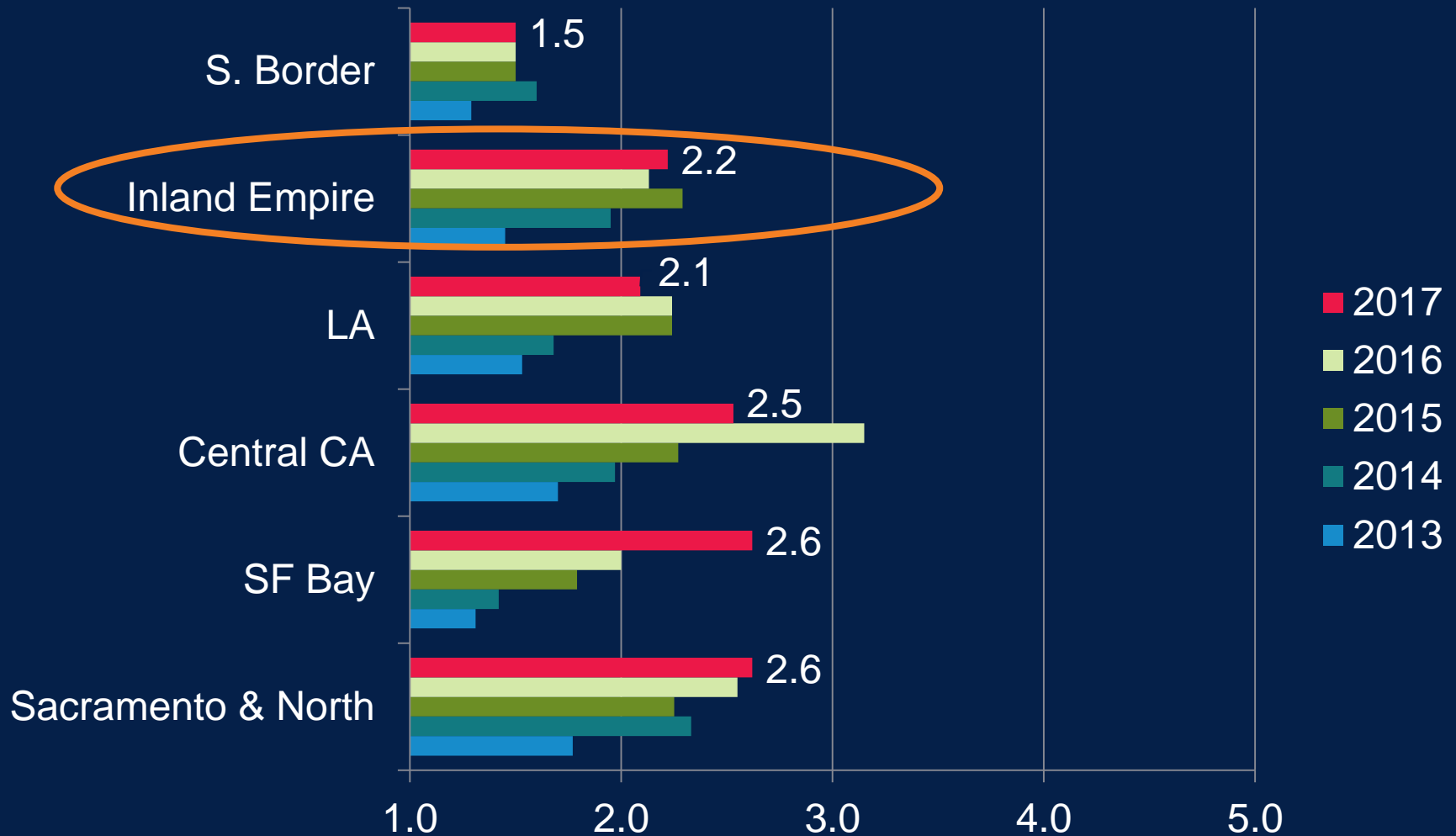
Differences across regions: Overall RN labor market



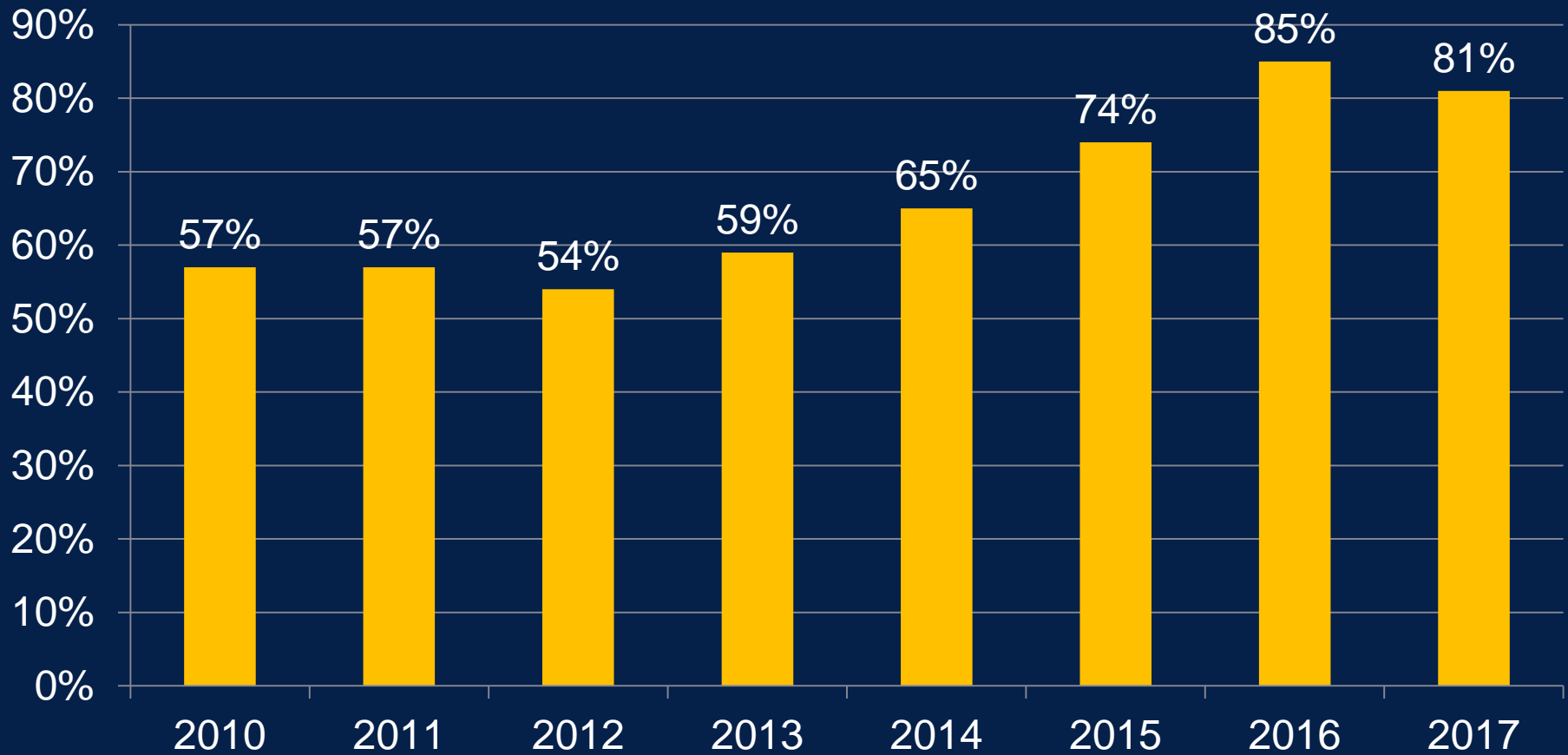
Differences across regions: Experienced RNs



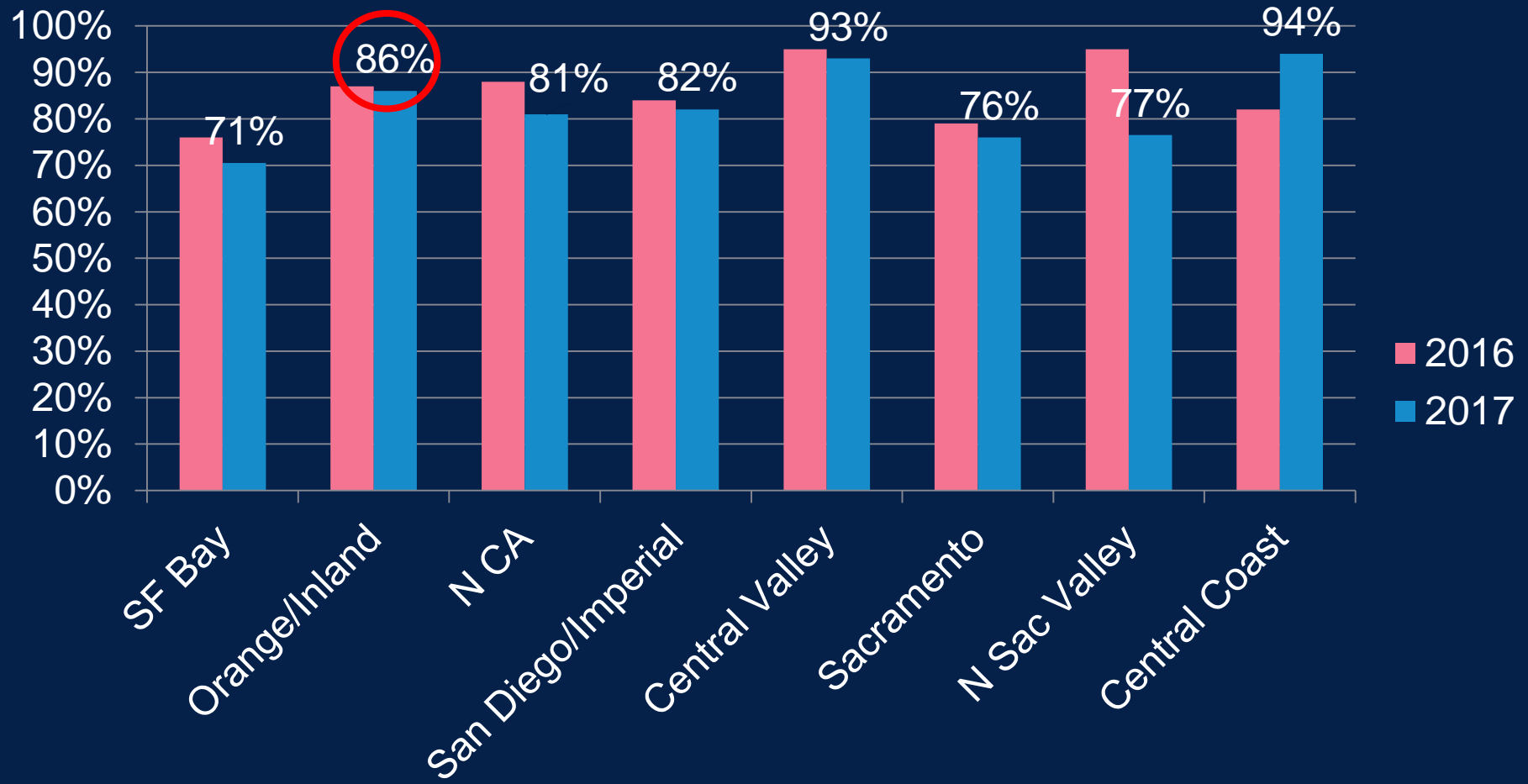
Differences across regions: New Grad RNs



New Graduate Employment

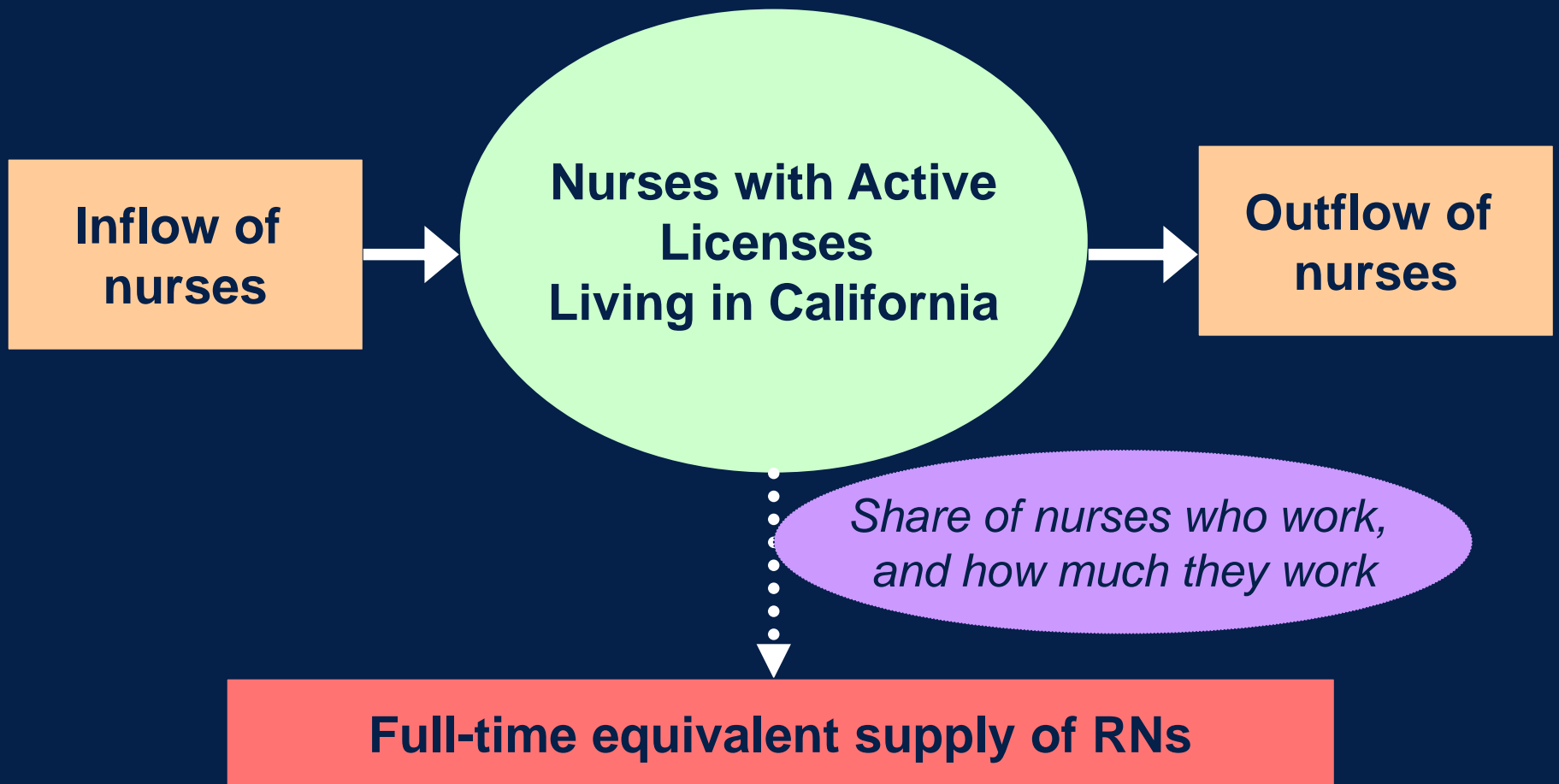


Regional Differences in New Grad Employment



Source: HealthImpact, 2018, Survey of Recent RN Graduates

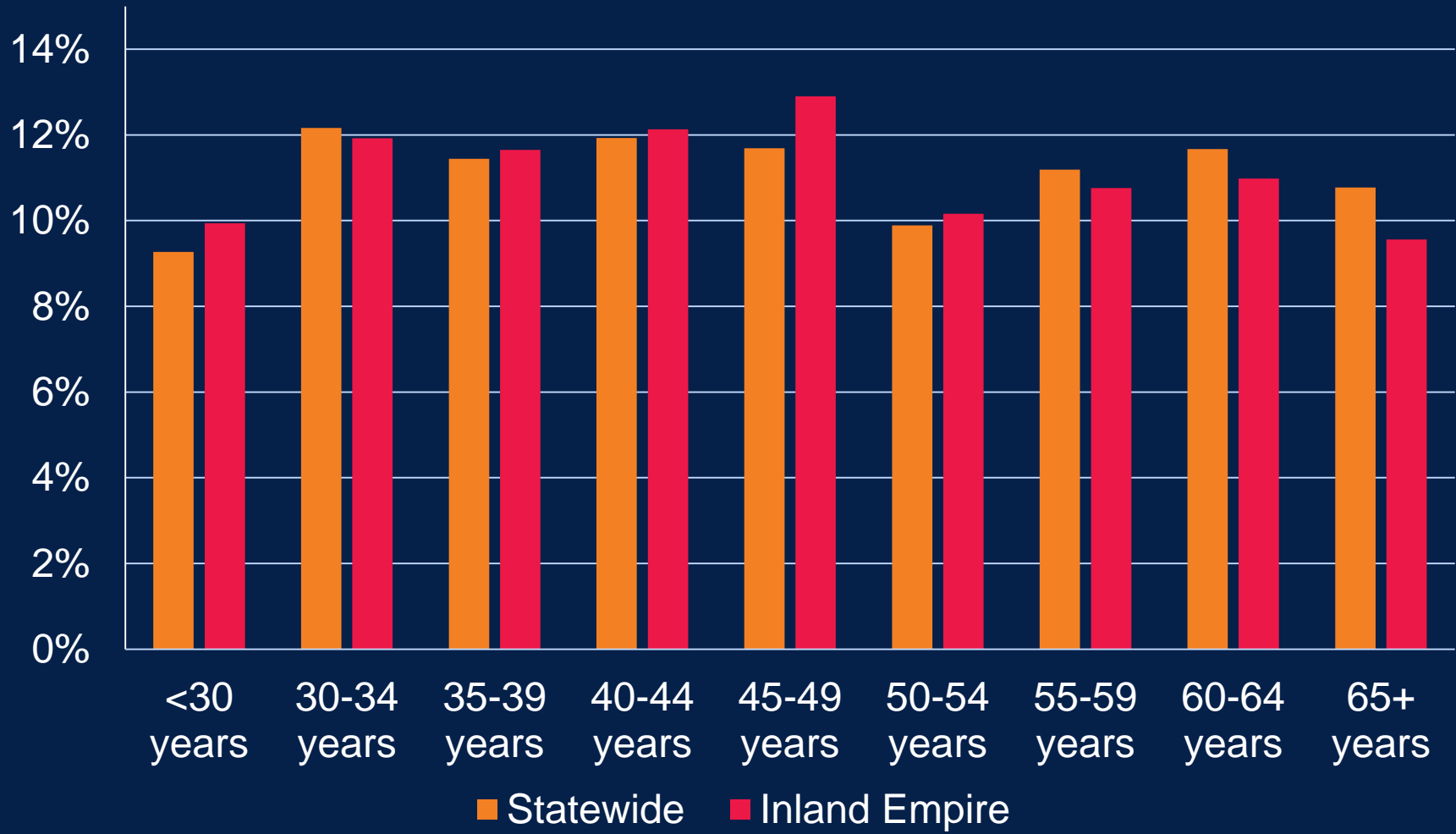
A model of the supply of RNs



Forecasting demand is harder

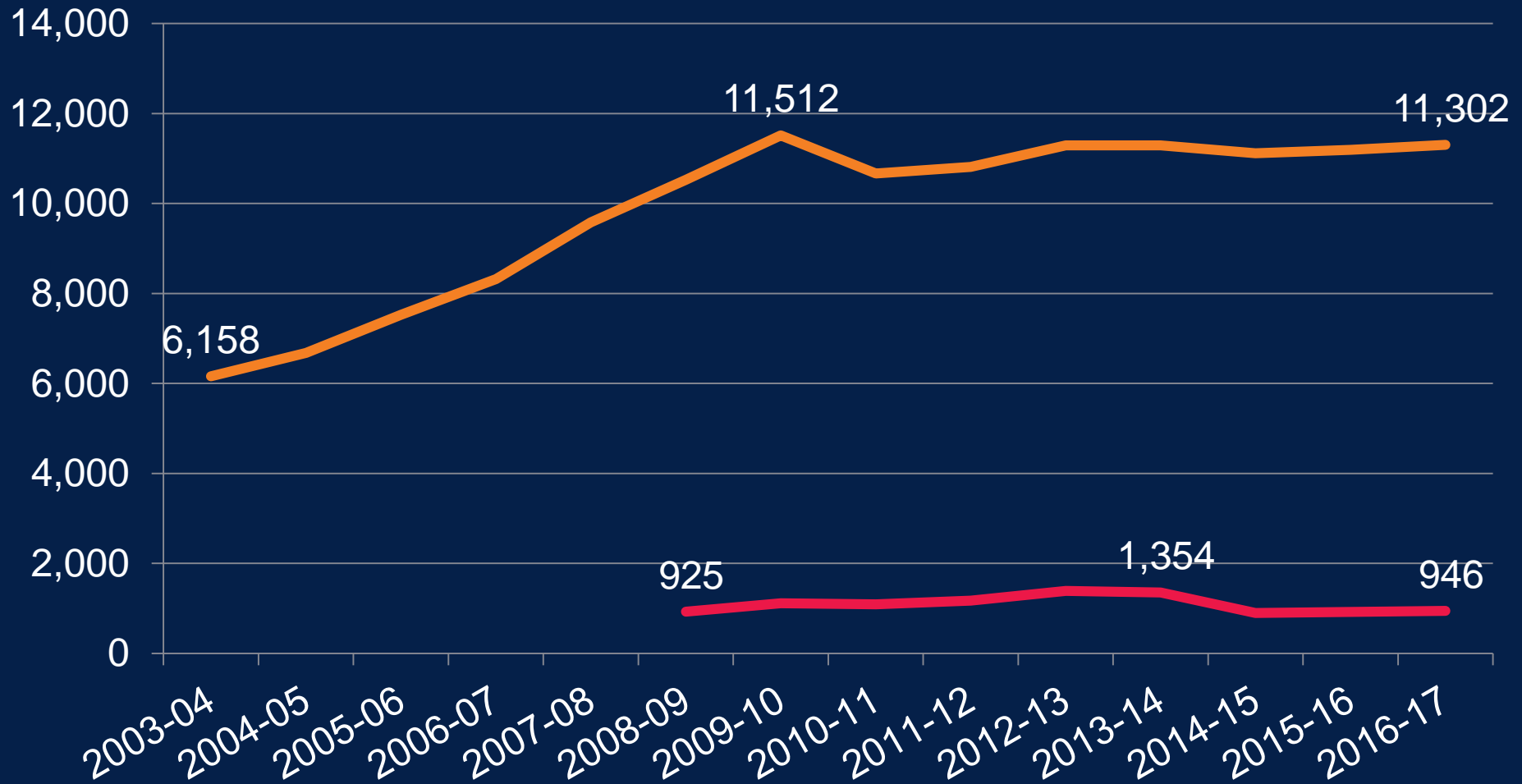
- Number of nurses per capita
 - What is the target?
 - National average?
 - Some arbitrary benchmark?
 - Estimates of how many providers are needed to provide XYZ?
- Demand-based models can be based on economic demand models
 - Easier said than done....

Age distribution of licensed RNs

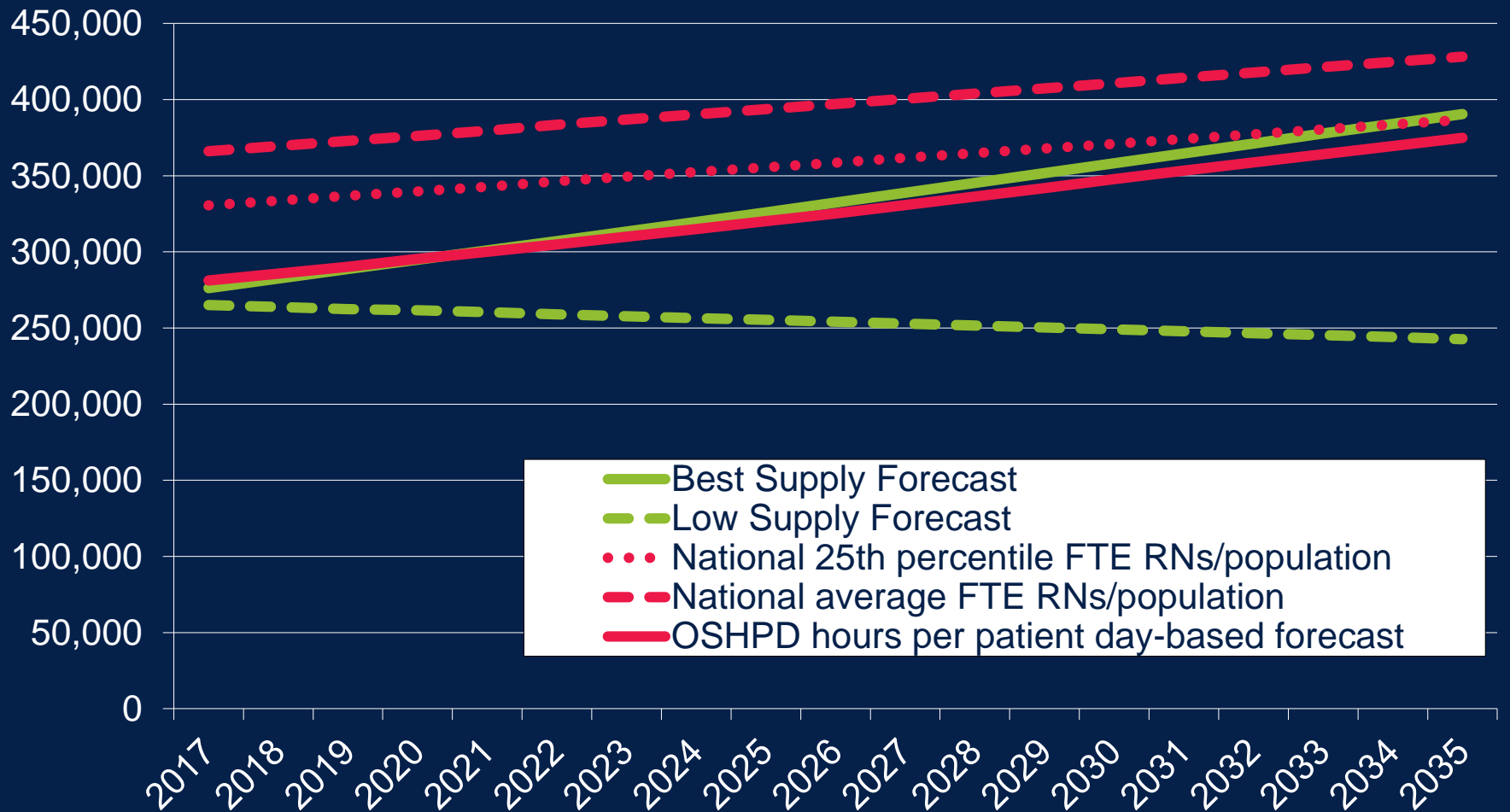


Source: Spetz et al., 2016 California Survey of RNs

RN graduations per year

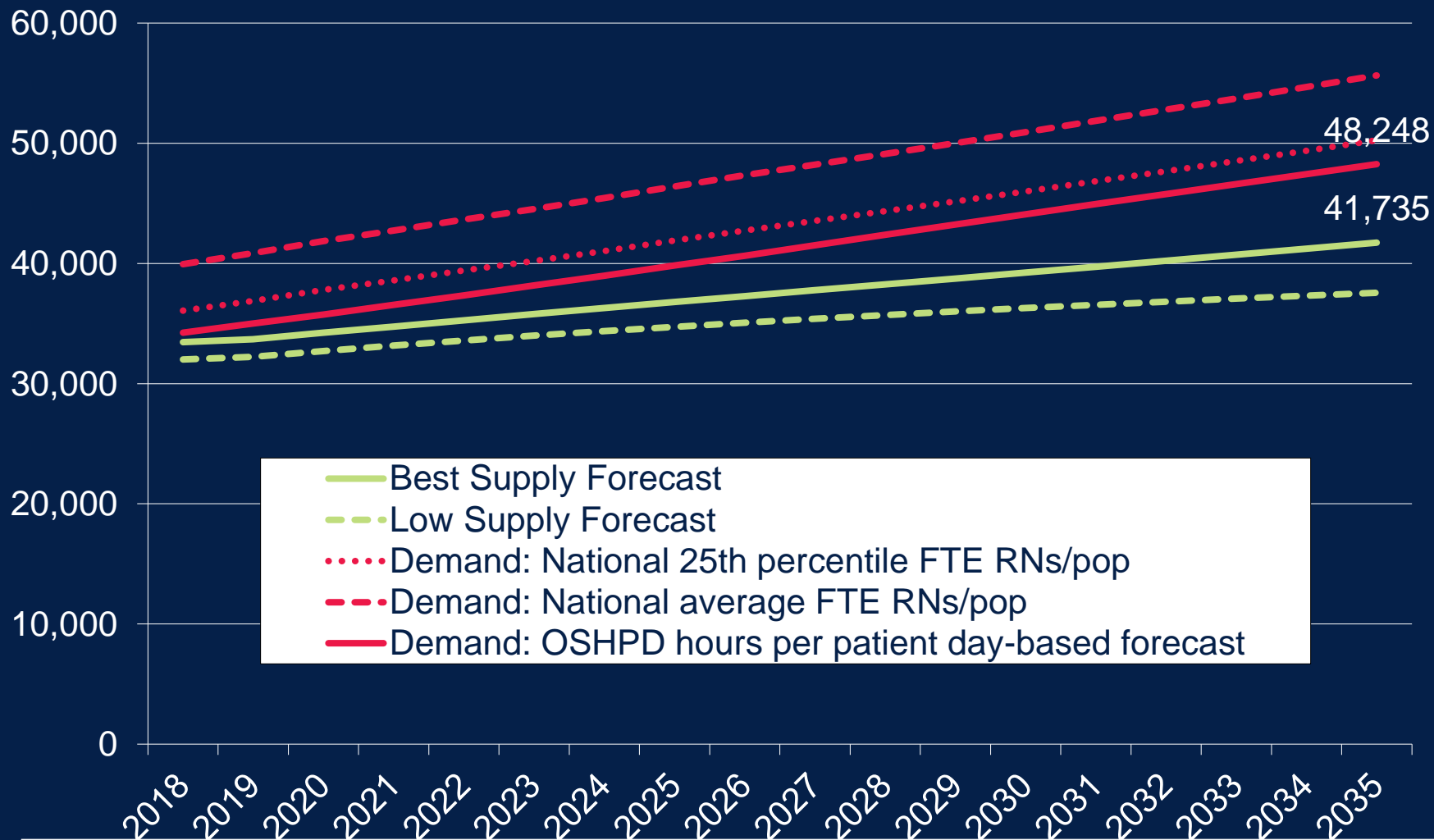


California RN supply and demand forecasts, 2017-2035



Regional differences are important

Supply & demand forecasts for Inland Empire



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

Inland Empire graduations are too low – and projected increases aren't enough

	New enrollment	Projected enrollment from 1 yr	Projected enrollment from 2 yrs	Graduations
2015-2016	1,067	1,048	1,661	923
2016-2017	954	1,300	1,048	946
2017-2018		1,444	1,309	778
2018-2019			1,451	696
2019-2020				1,053
2020-2021				1,058

Other sources of RNs to the Inland Empire

- Migration from other regions to the Inland Empire:
 - 863 per year 2016-2018
- Endorsements from other states: 213 in 2017
- Migration out of the Inland Empire: 888 per year 2016-2018
- Lapsed licenses: 1,121 per year 2016-2018
- Conclusion: Not enough new graduates to keep up with population growth

Costs of shortages and turnover

- Productivity losses due to instability in the workforce
- Premiums paid to temporary RN staff
- Losses when beds are closed, patients are deferred
- Expense of overtime pay
- Training and orientation costs
- Patient safety failures when understaffed

How do we address the challenge?

Inland Empire faces a shortage

Rapid population growth projected → workforce needs to keep up

Younger RN workforce, but not enough new graduates