



University of California  
San Francisco



# Nursing Demand and Supply in California: Current State & Strategies for the Future

June 25, 2019

# Today's presenters

- Joanne Spetz
  - Professor, Philip R. Lee Institute for Health Policy Studies, University of California, San Francisco
- Teri Hollingsworth
  - Vice President, Human Resources Services, Hospital Association of Southern California
- Garrett Chan
  - President & CEO, Health**Impact**; Associate Adjunct Professor, UCSF
- David Auerbach
  - Director, Research and Cost Trends for Interdisciplinary Health Workforce Studies, Montana State University

# Goals for this webinar

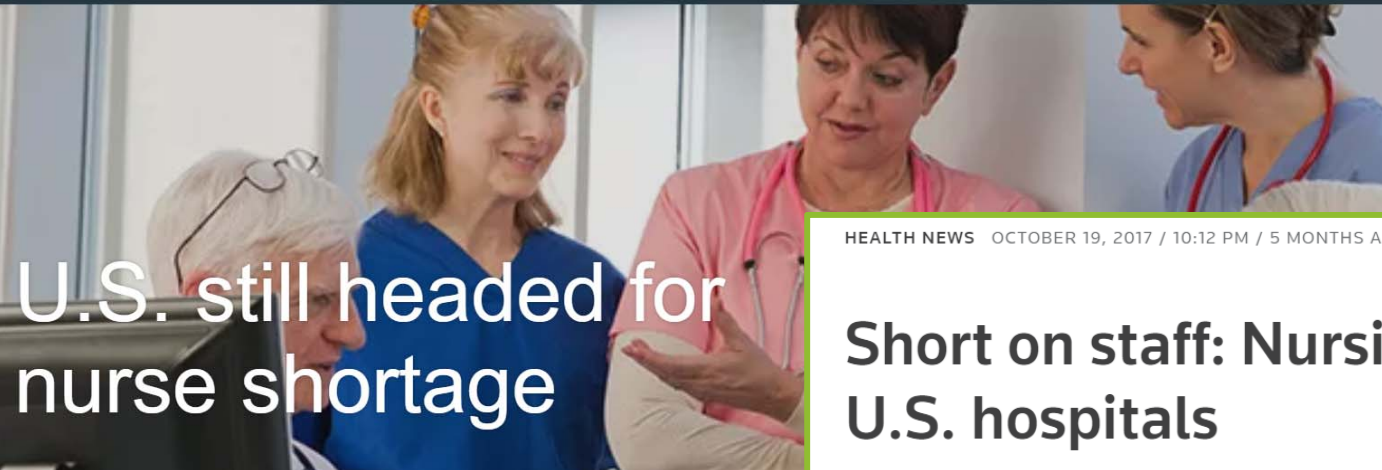
- Learn how Chief Nursing Officers perceive the current RN labor market
- Track the latest hospital vacancy and turnover data
- Understand how recently-graduated nurses are faring
- Answer the question: Is there an RN shortage in California?
  - Will there be one in the future?
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# What is going on in our RN labor market?

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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

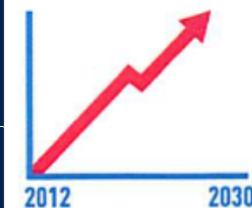
## The U.S. Is Running Out of Nurses

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

REBECCA GRANT | FEB 3, 2016 | HEALTH

California is on the **brink of a severe nursing crisis.**

**+ 4 MILLION SENIORS**



The state's population of adults 65+ years is projected to grow ~90%—or by 4M people—by 2030.<sup>1</sup>

**+193k**



California's existing nursing shortage will become the largest in the nation by 2030 unless ~193,000 new nurses are added.<sup>2</sup>

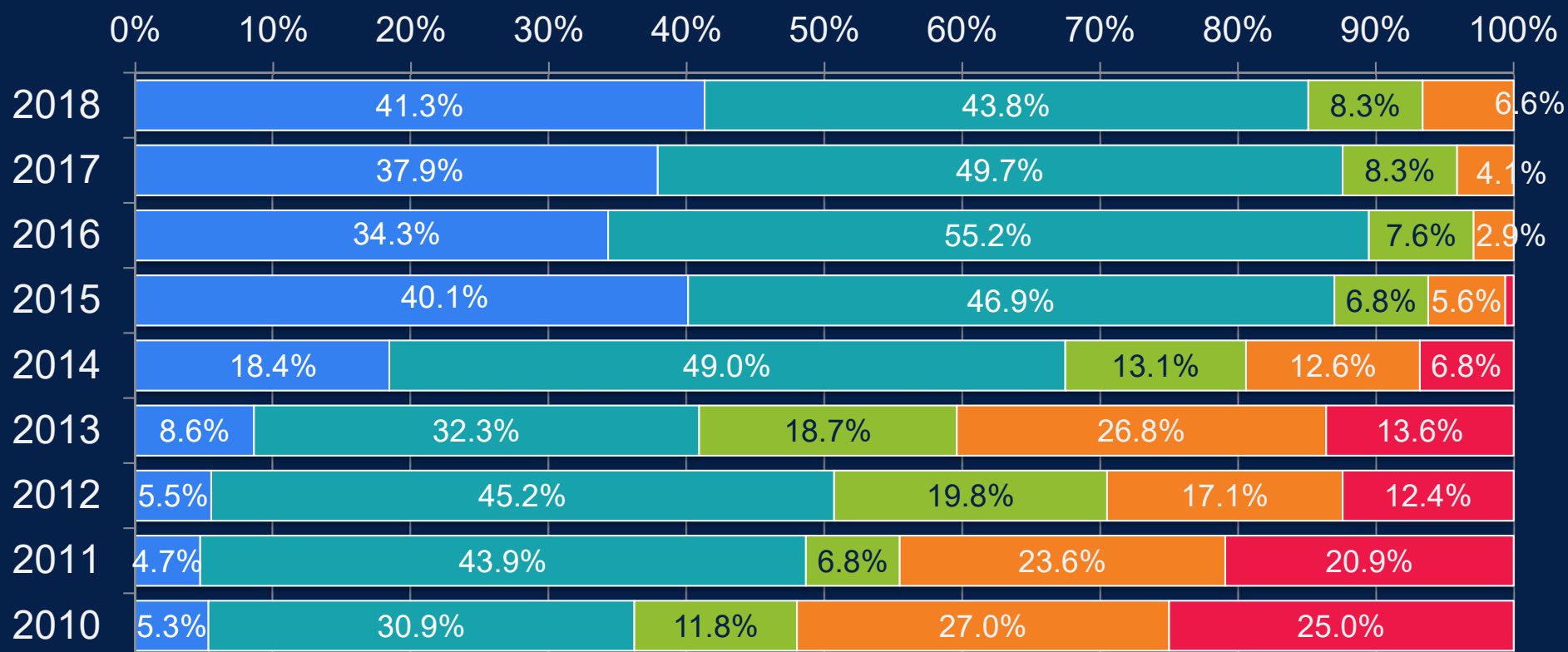
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# Survey of Chief Nursing Officers

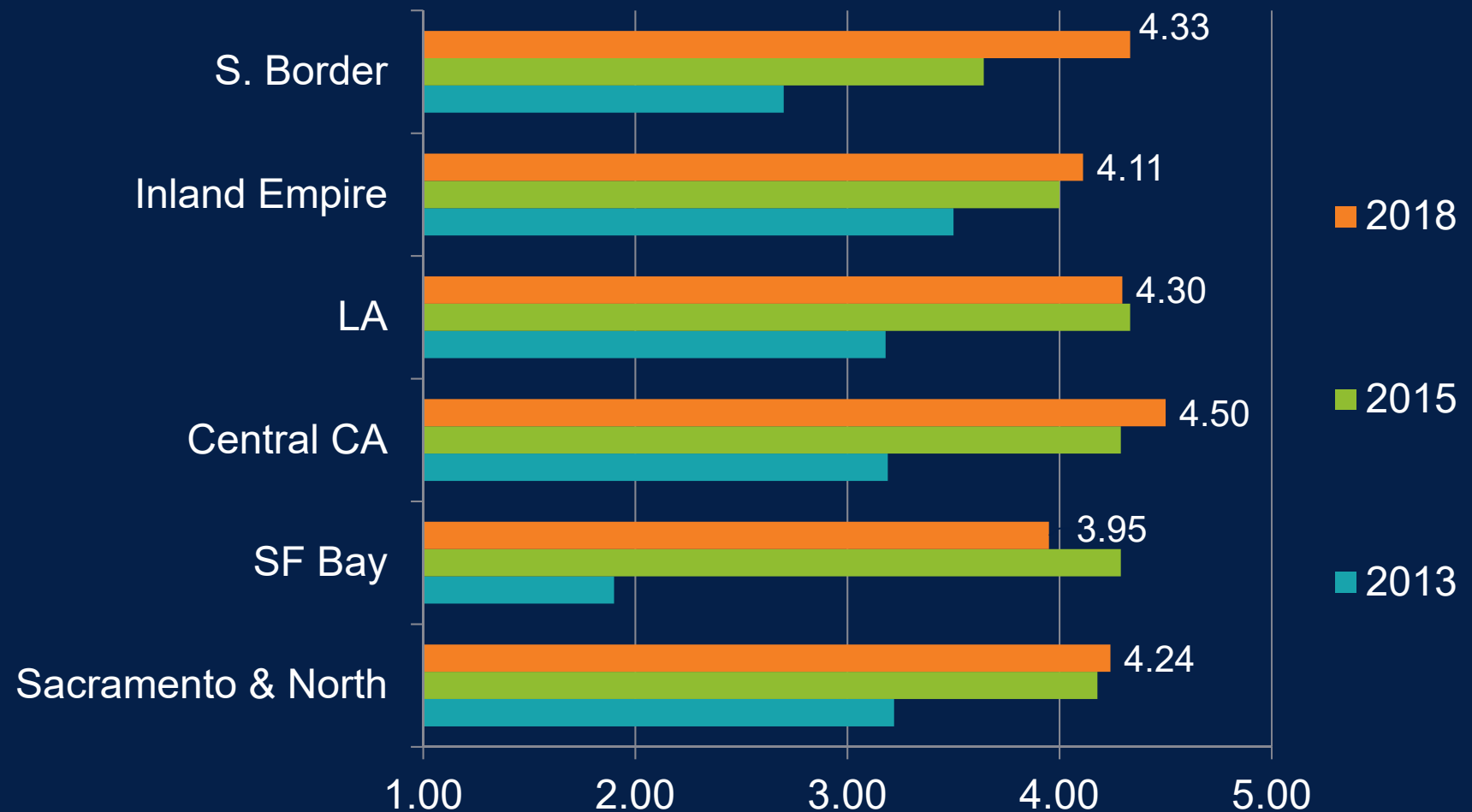
- Fielded by UCSF
- Web-based survey with option to return paper survey via fax or email
- Surveys conducted fall 2010 – fall 2018
- Data received for 118 hospitals in 2018 (25.8%)

# Perceptions of employers: Overall labor market



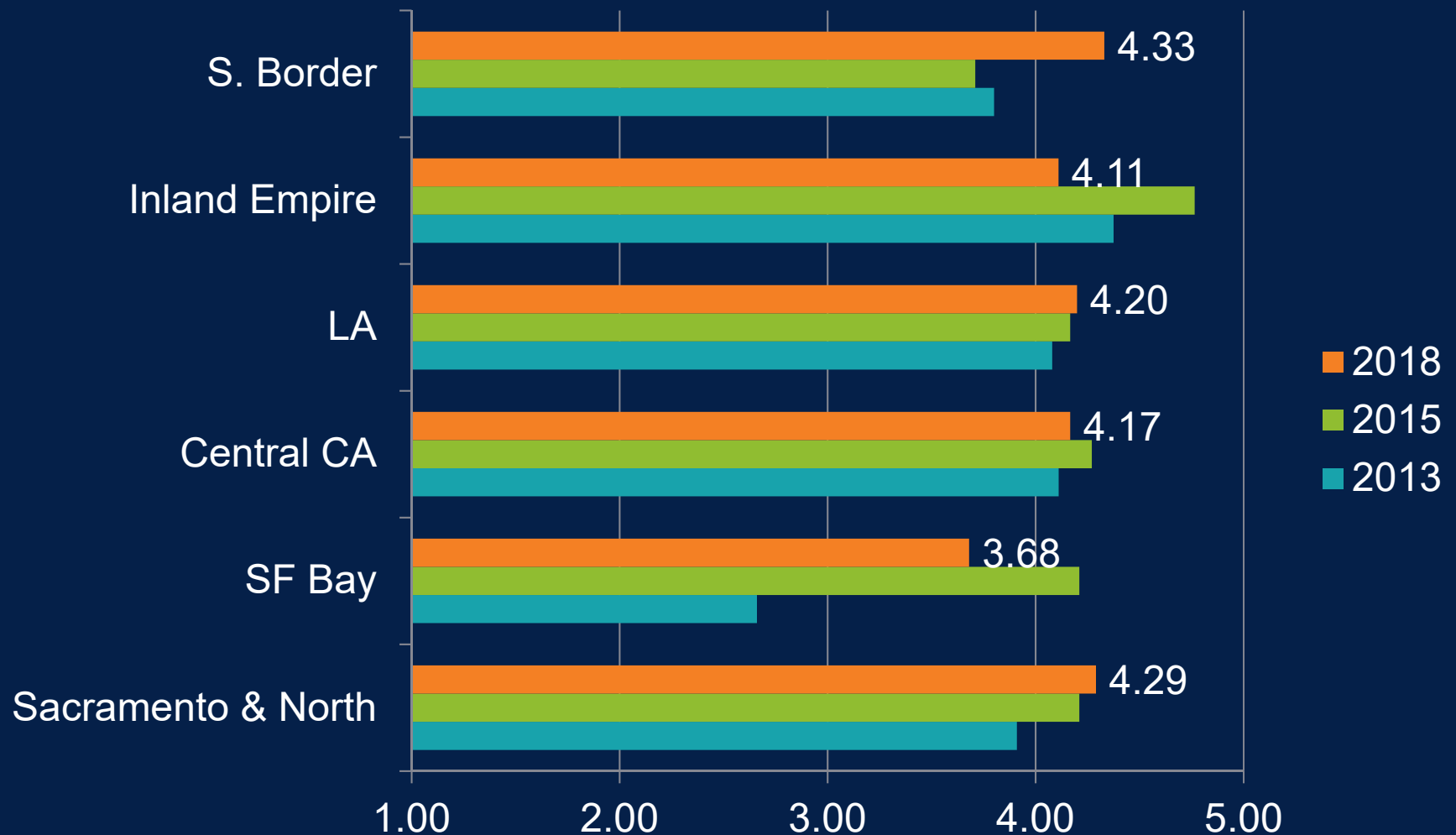
- High demand: difficult to fill open positions
- Moderate demand: some difficulty filling open positions
- Demand is in balance with supply
- Demand is less than supply available
- Demand is much less than supply available

# Differences across regions: Overall RN labor market

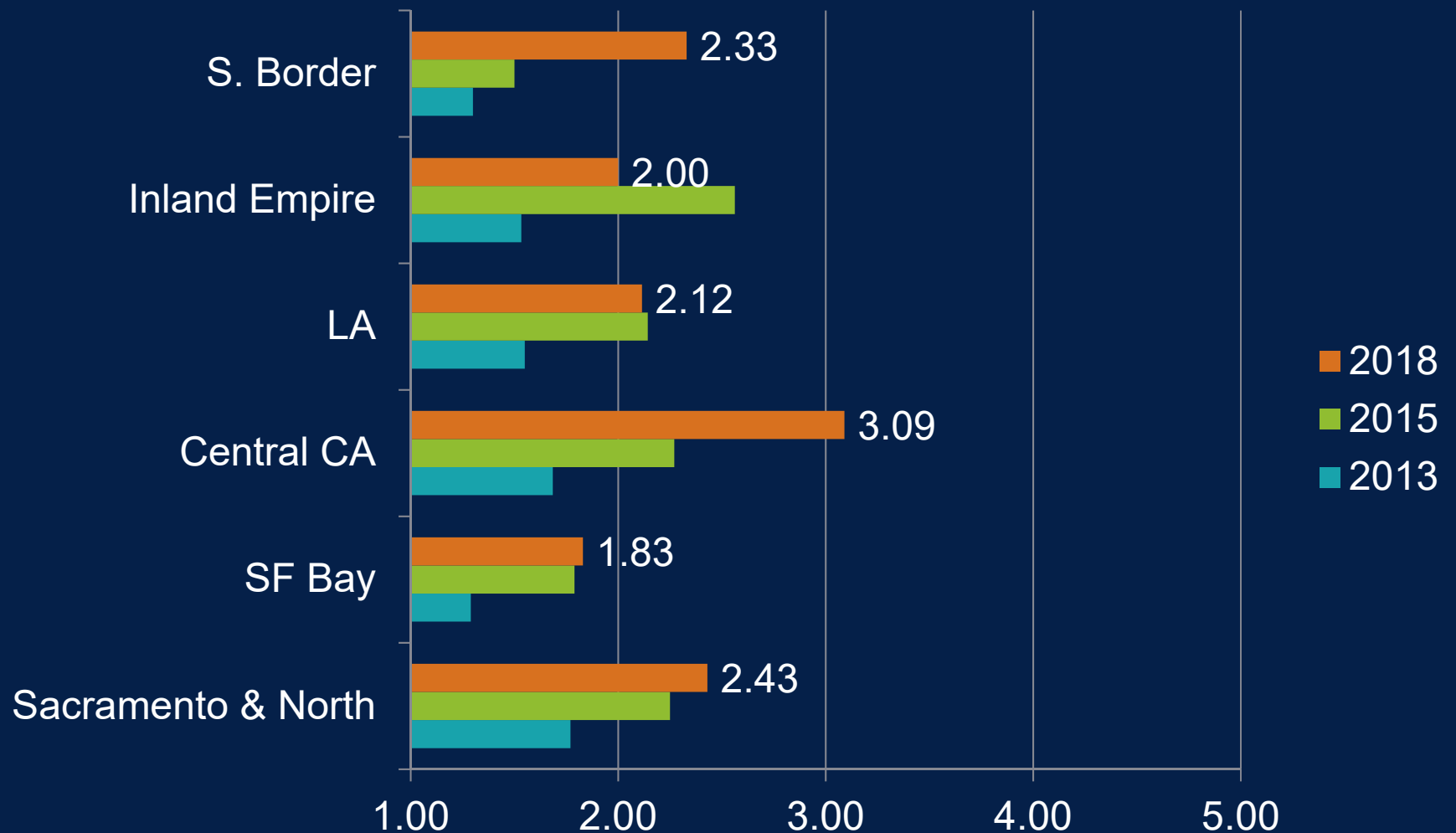




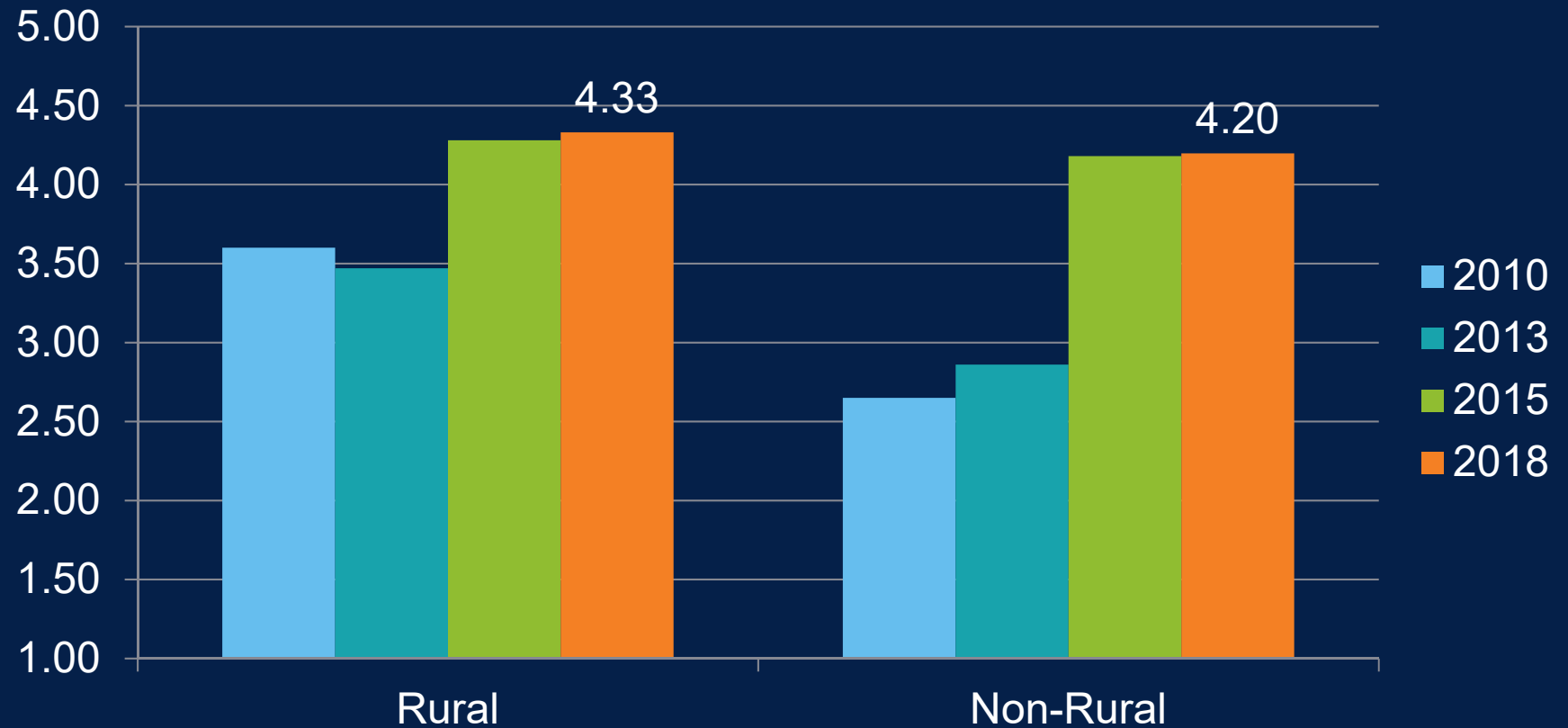
# Differences across regions: Experienced RNs



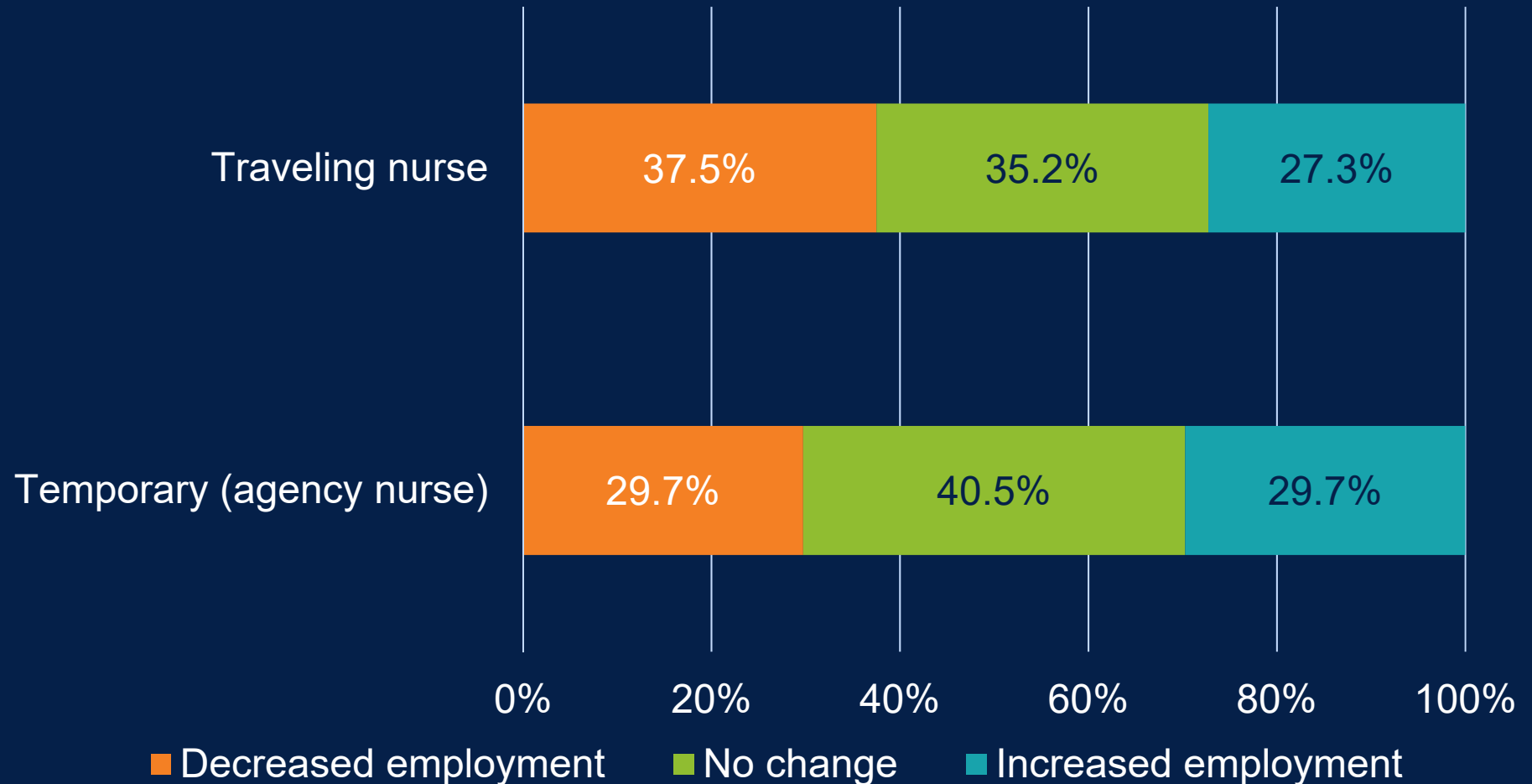
# Differences across regions: New Grad RNs



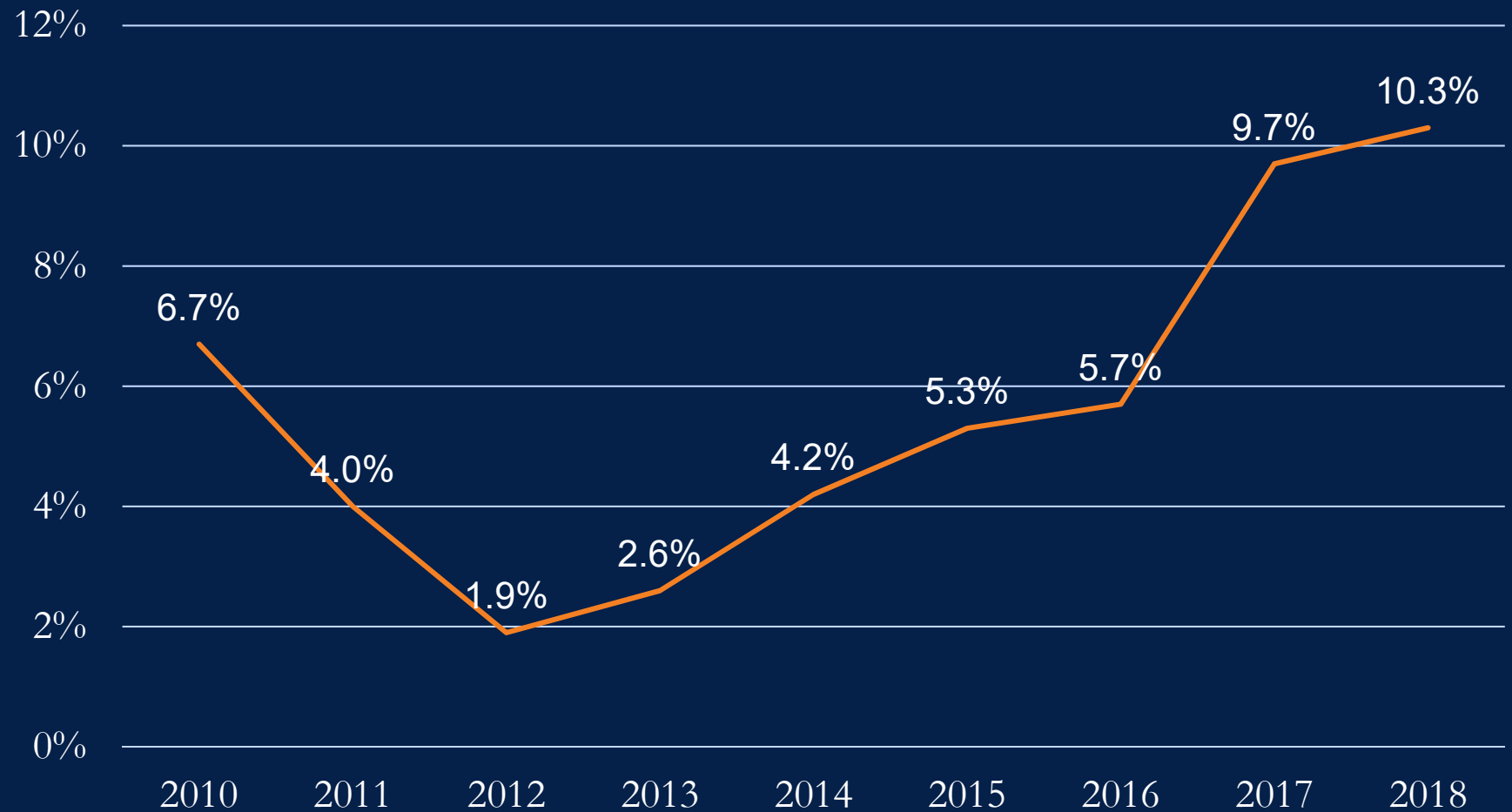
# Rural vs. urban perceptions



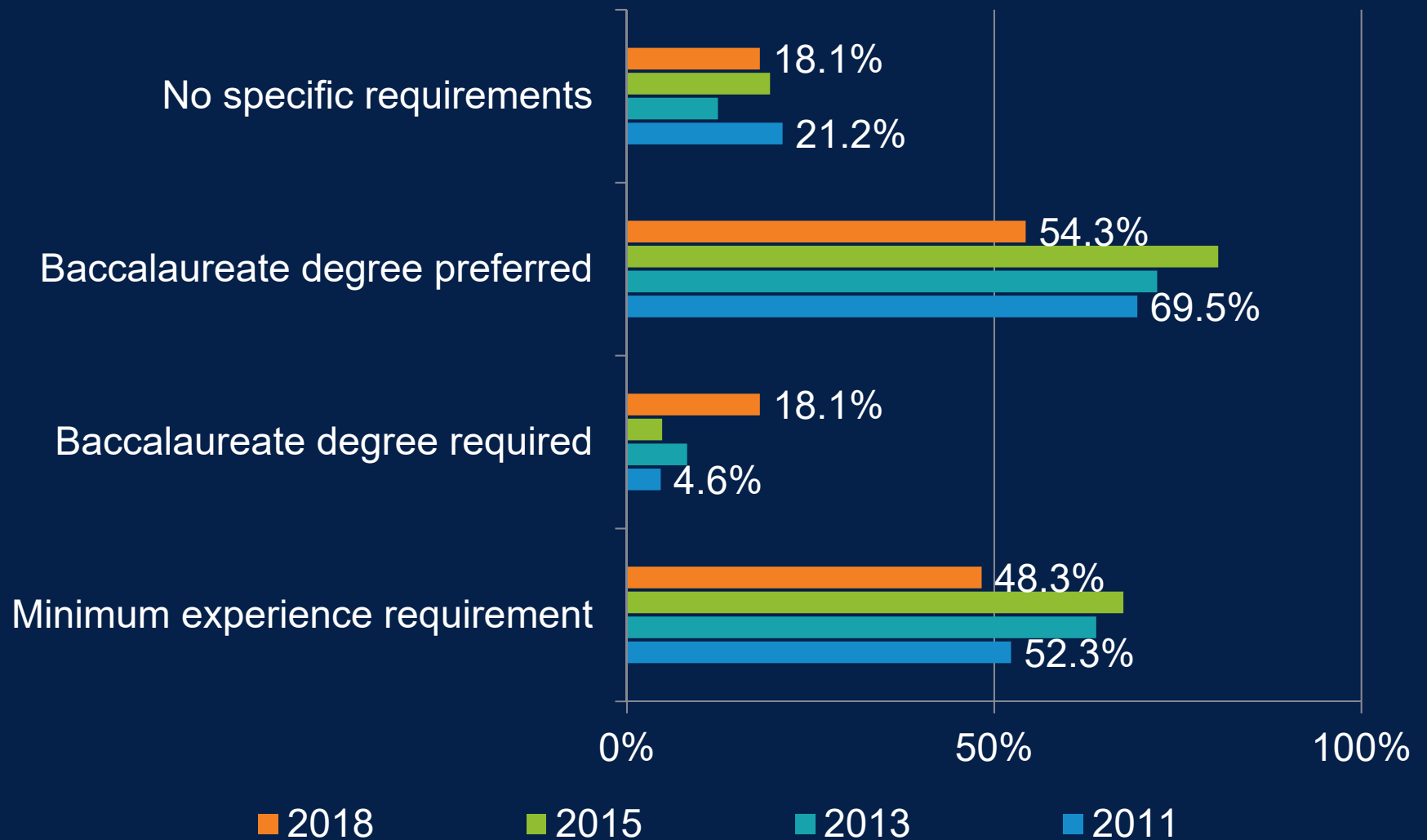
# Employment of temporary/traveling RNs – Change in the past year



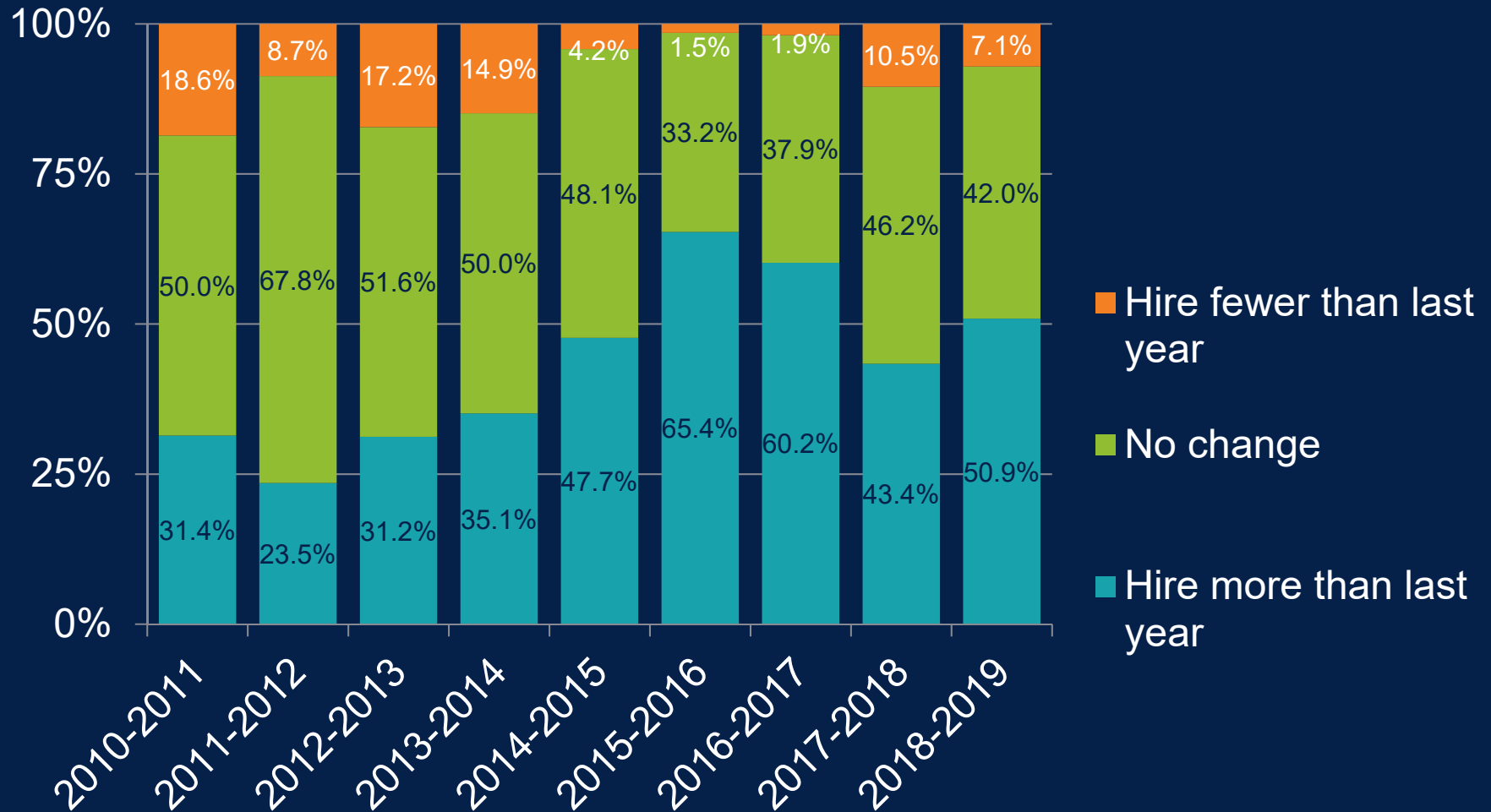
# Recruitment of internationally-educated RNs



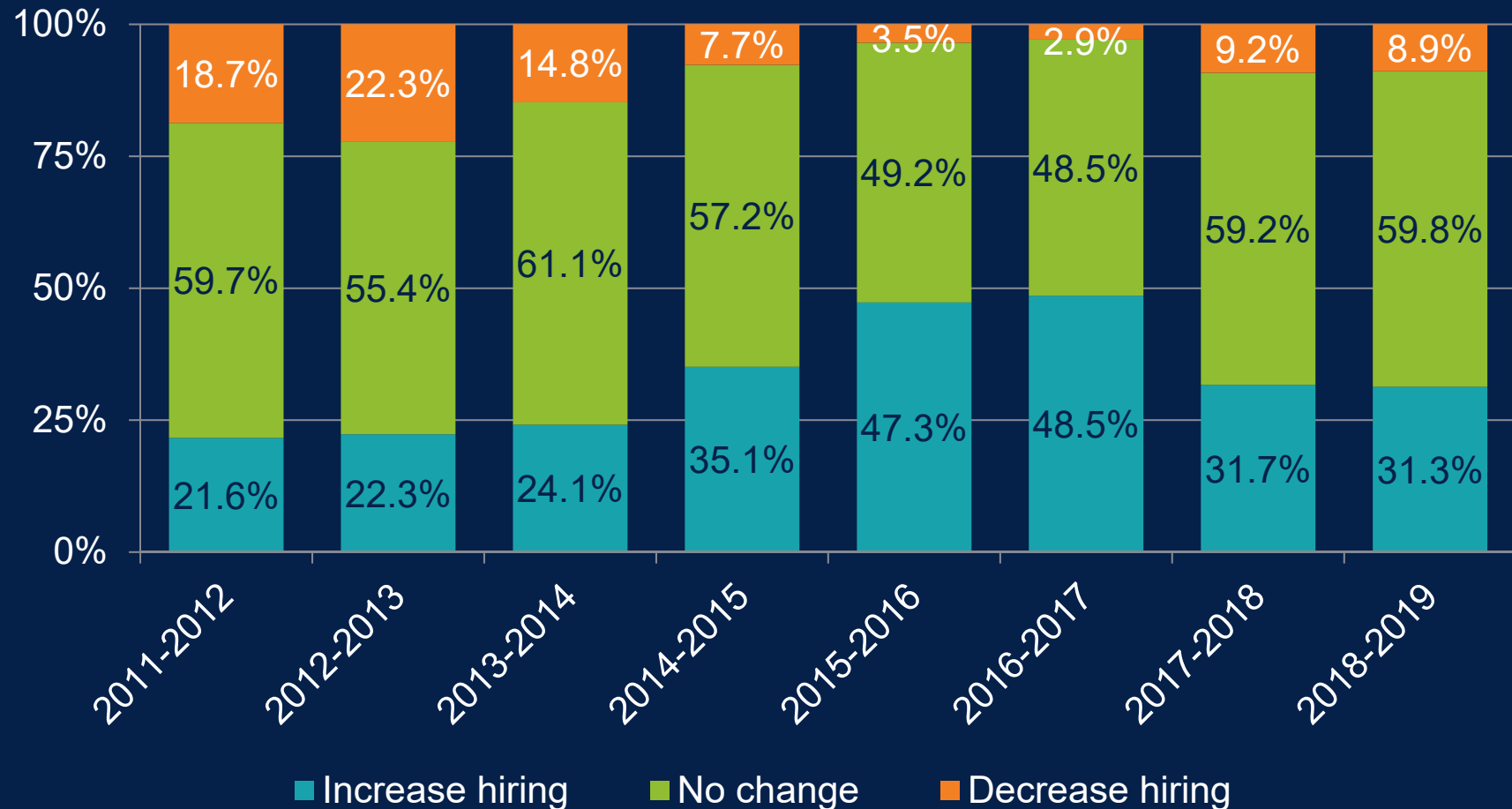
# Hiring requirements and preferences



# Overall hiring expectations for the next year



# Hiring expectations for new graduates





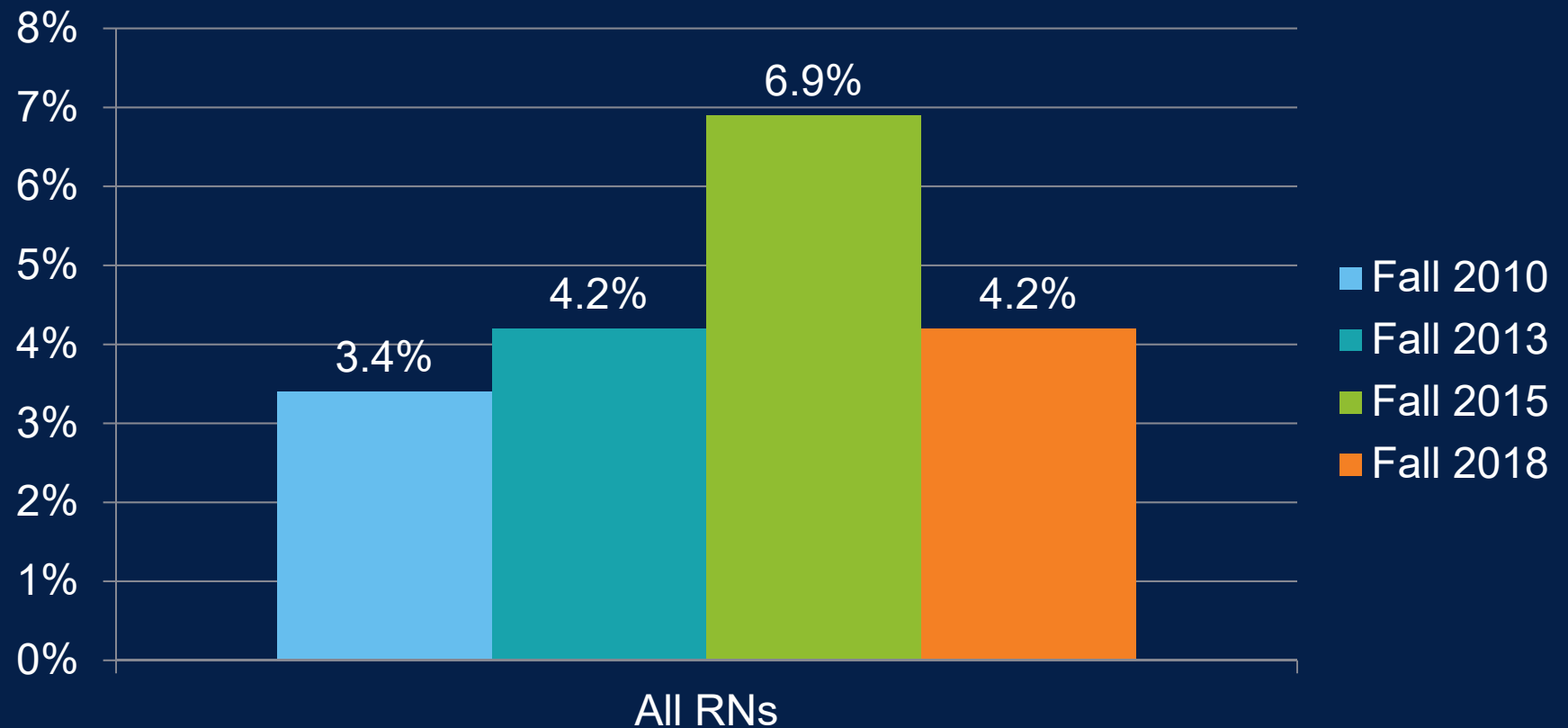
# Reasons for expected increase in new graduate hiring

- High vacancies
- Anticipating more retirements
- Developing programs to mentor new graduates
- Improved relationships with nursing schools, including collaborations on residency programs

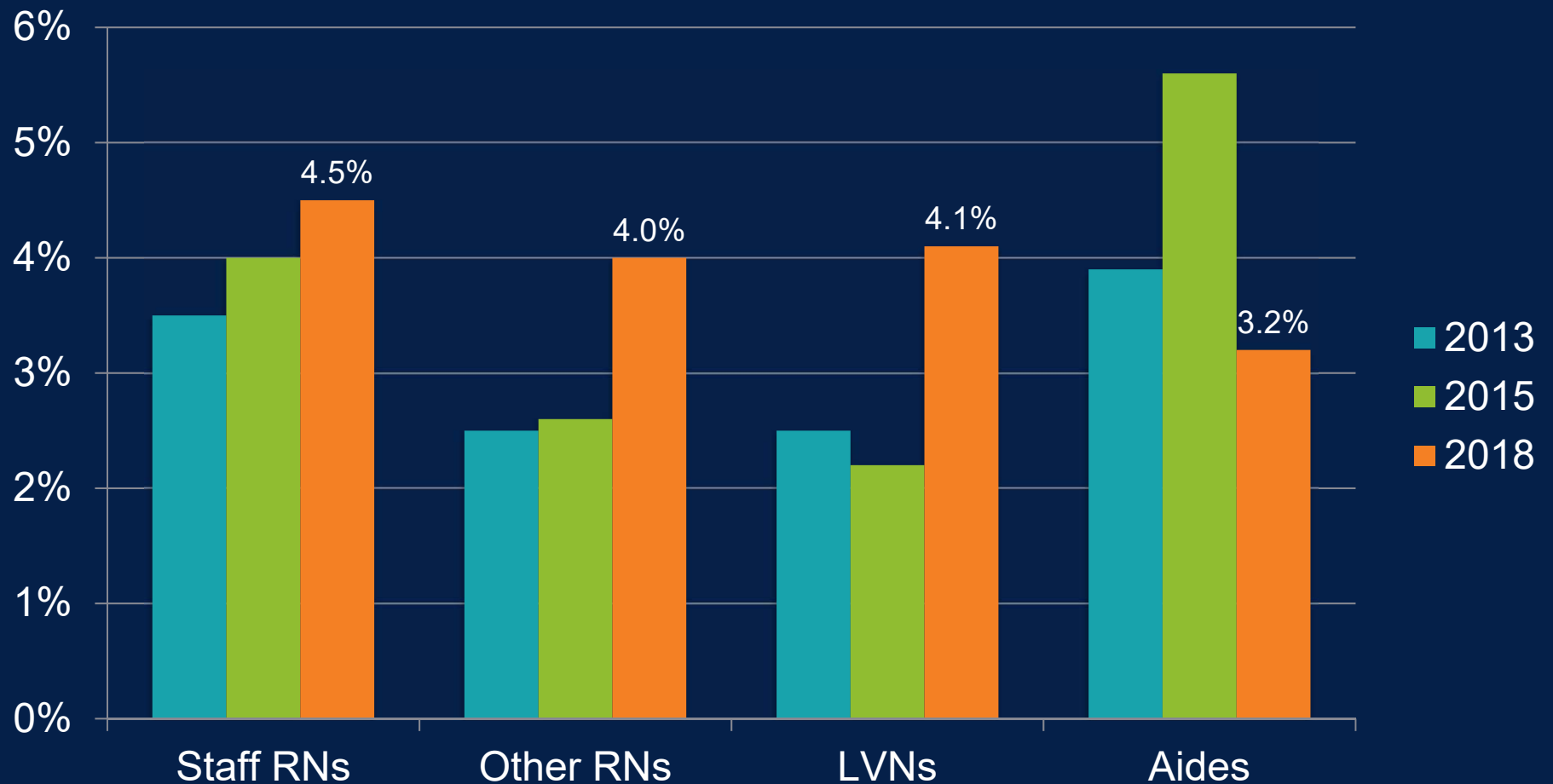
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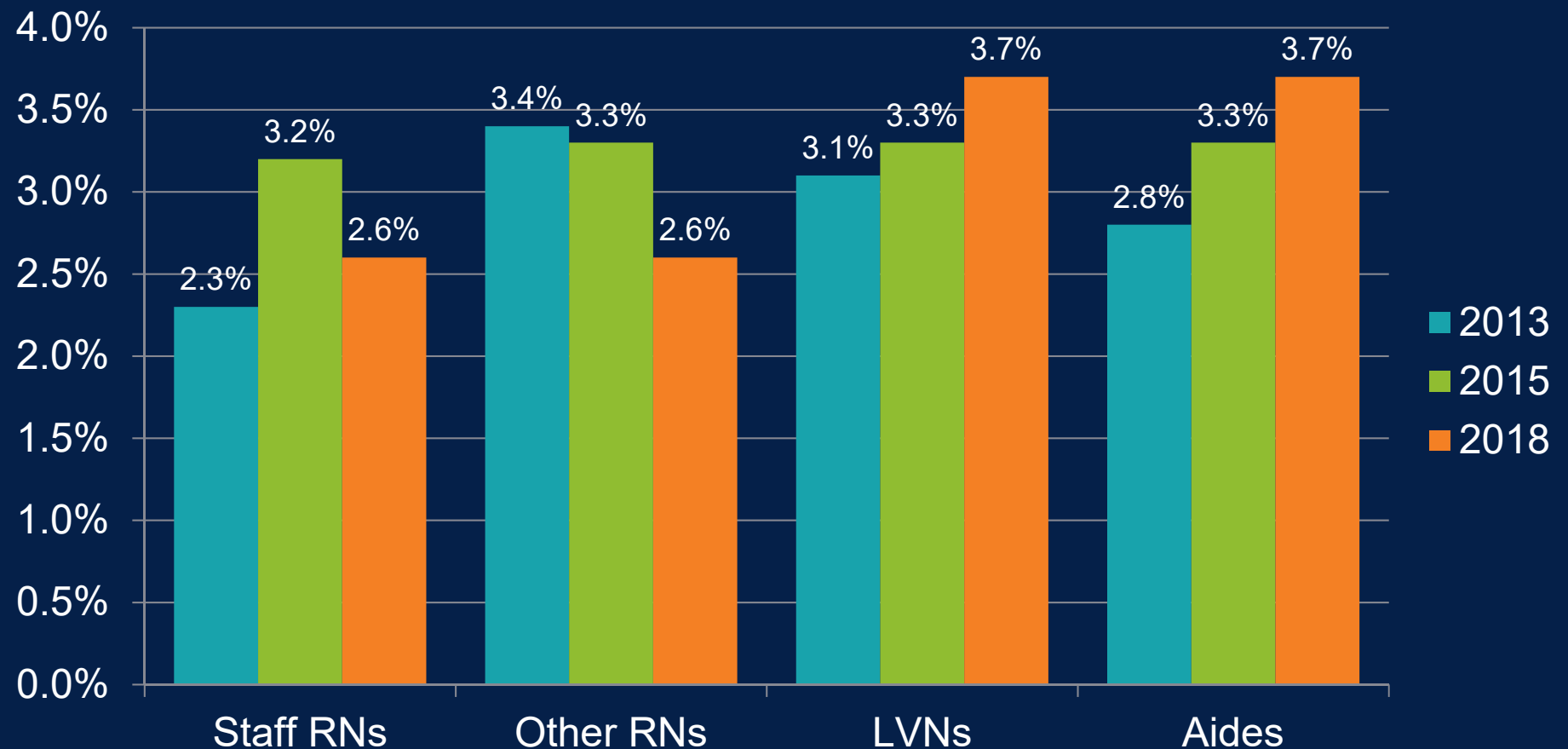
# RN Vacancies, HASC Survey, 2010 - 2018



# Quarterly hiring of full-time personnel, HASC Survey, Q3 2013 – Q3 2018



# Quarterly turnover of full-time personnel, HASC Survey, Fall 2013 - Fall 2018



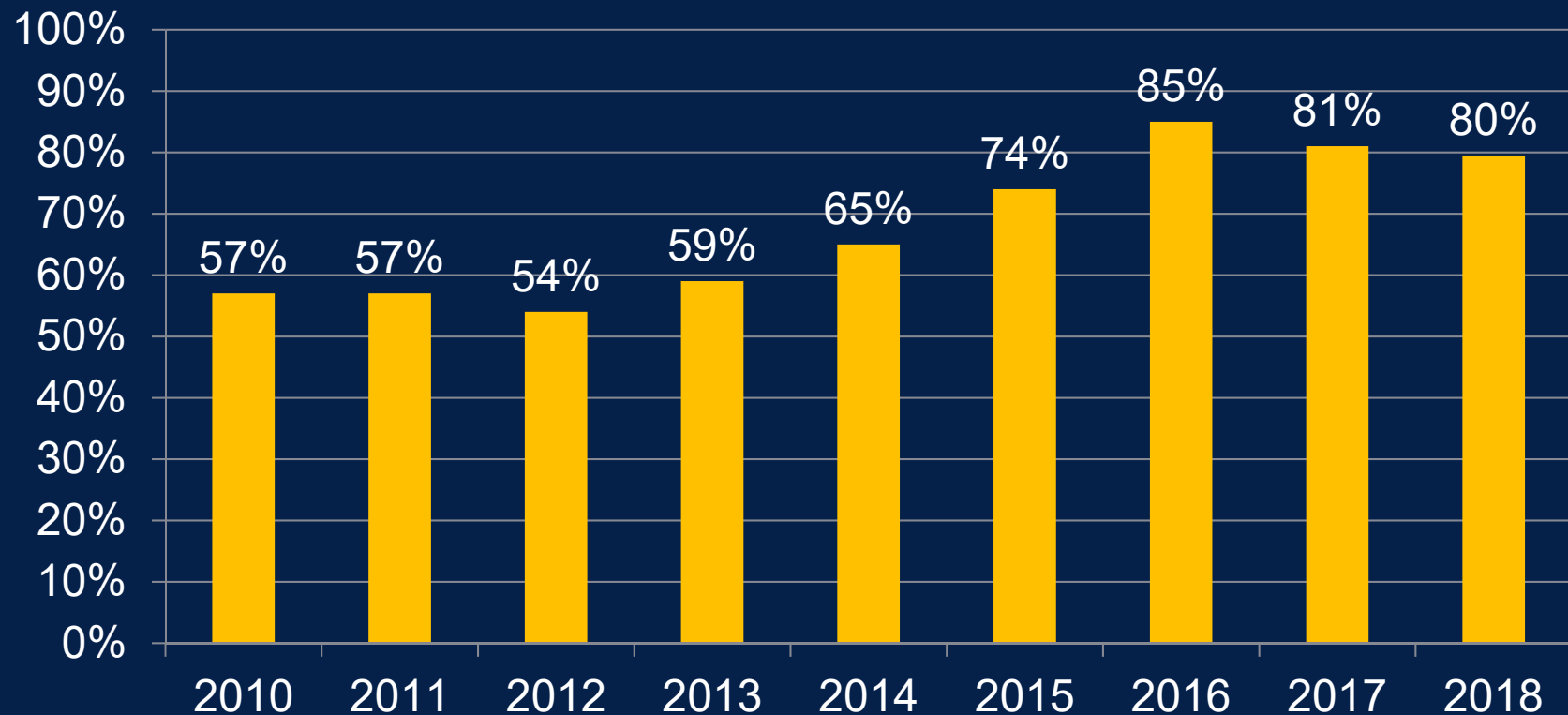
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# 2017-2018 Newly Licensed Nurse Survey

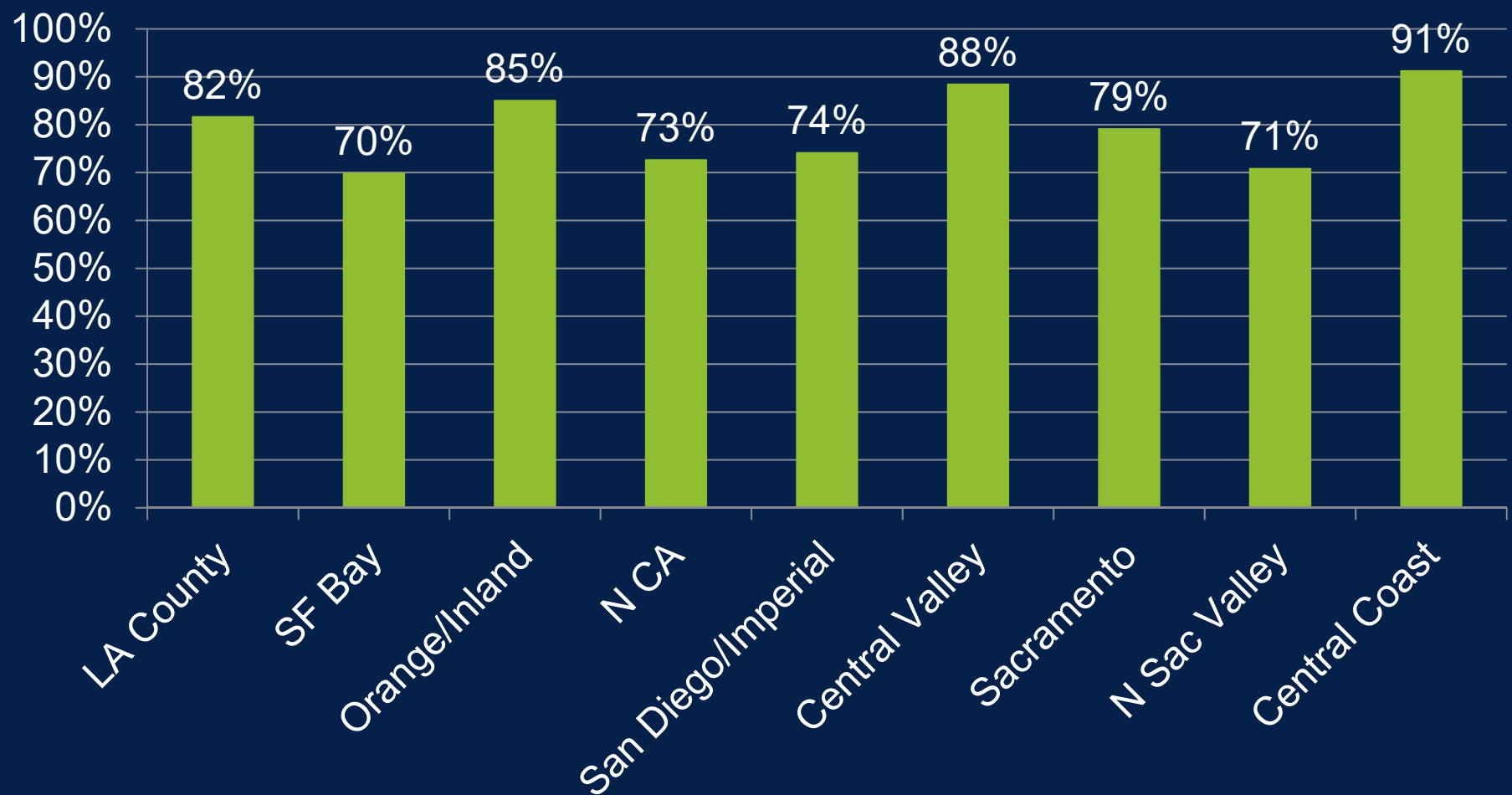
- Sample Size: Random 50% of 10,600 = 5,300 survey mailed
- RNs newly licensed between September 2017 and August 2018
- Response Rate: 21.5%

# New Graduate Employment Rate

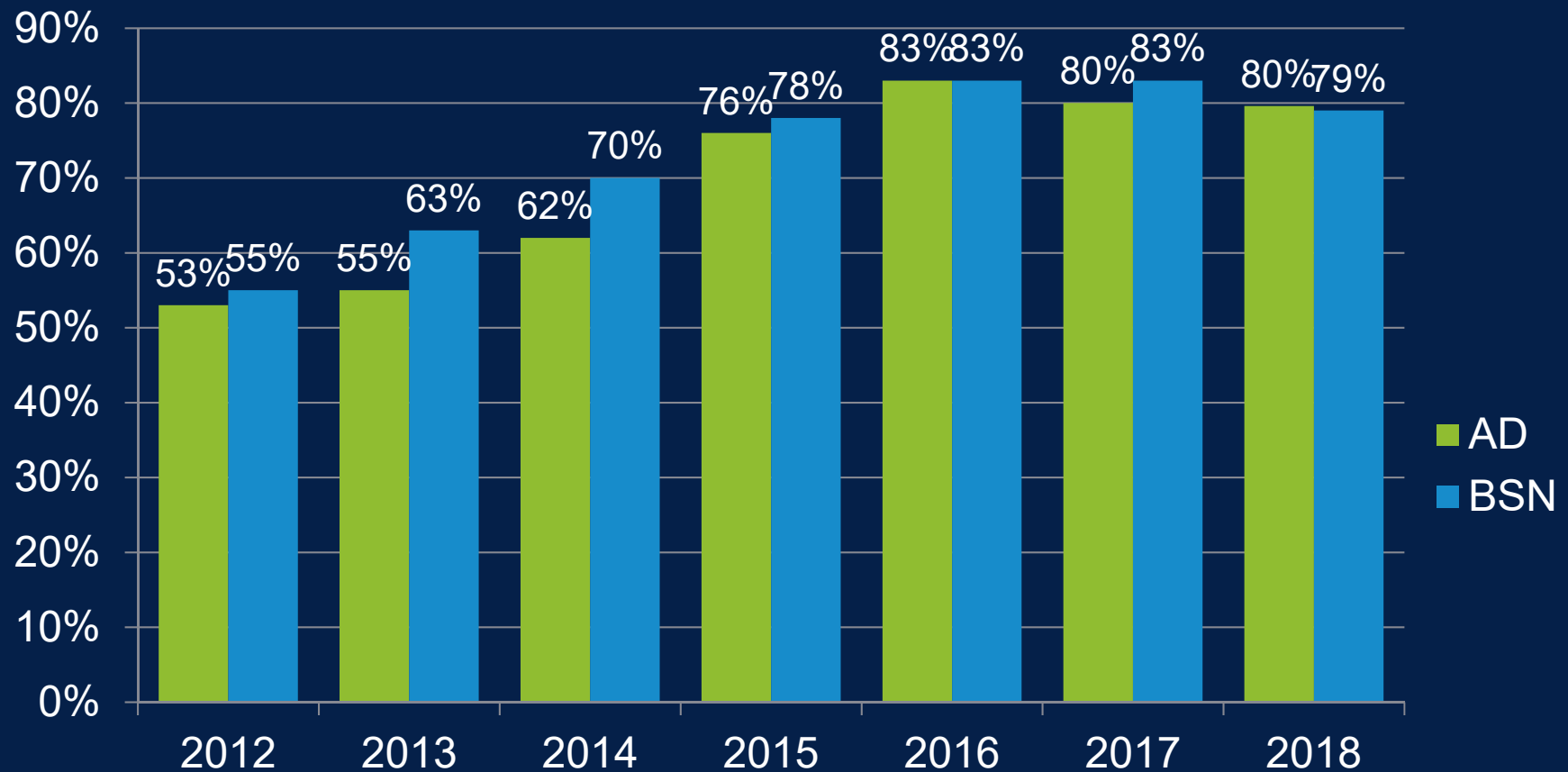




# Some Regional Differences

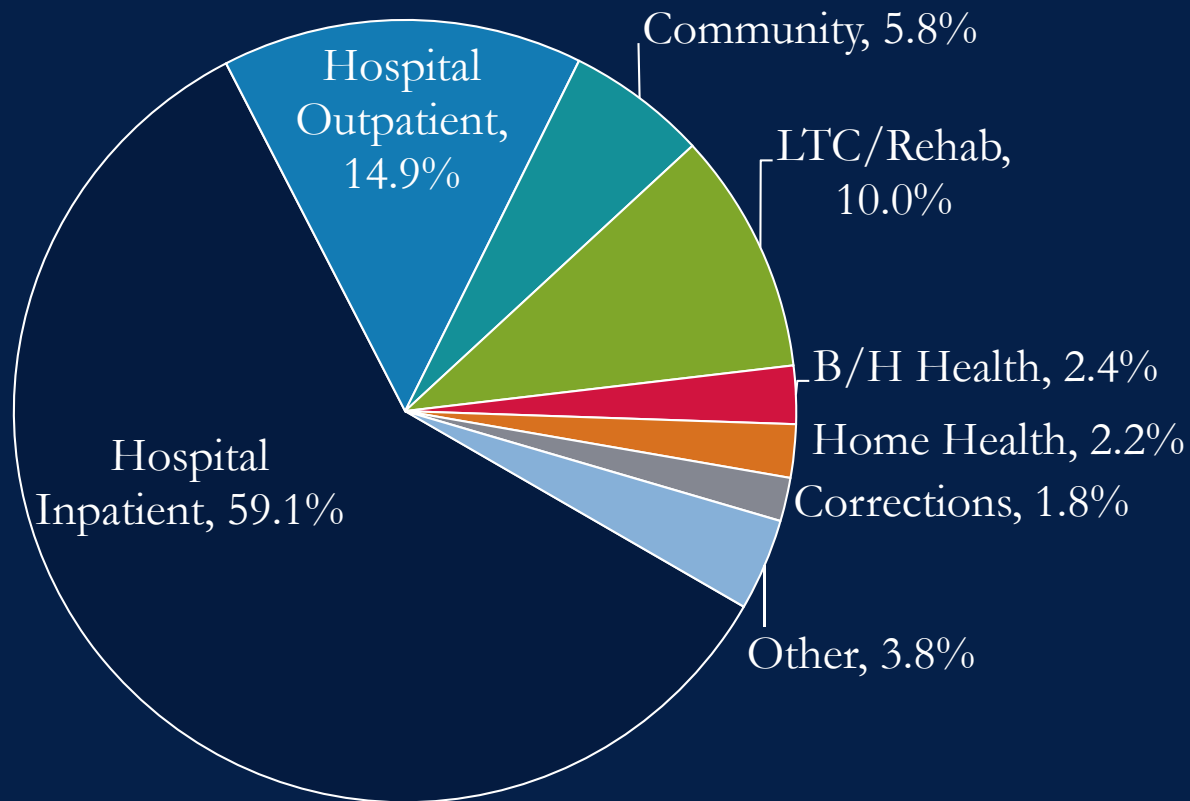


## Employment rate varies by education





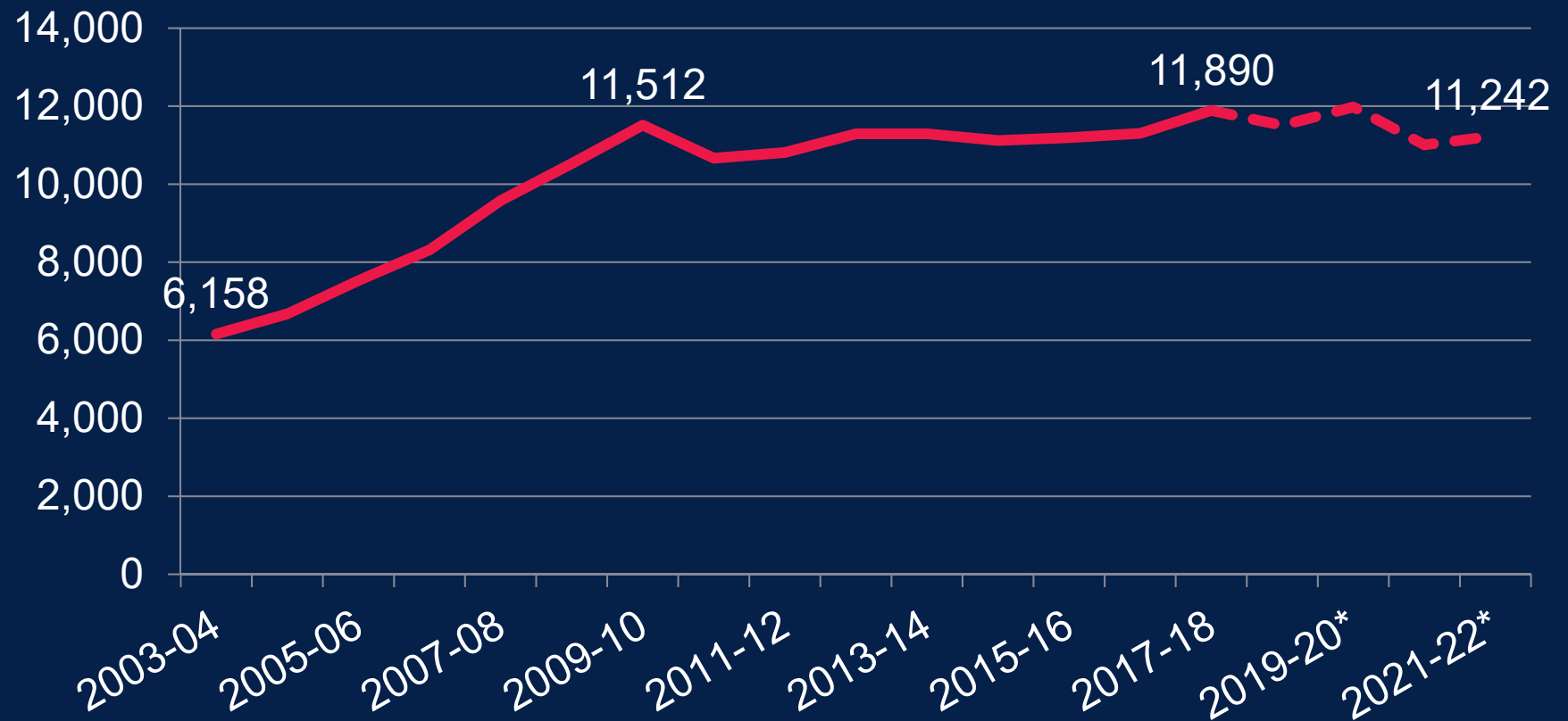
# Employment Locations



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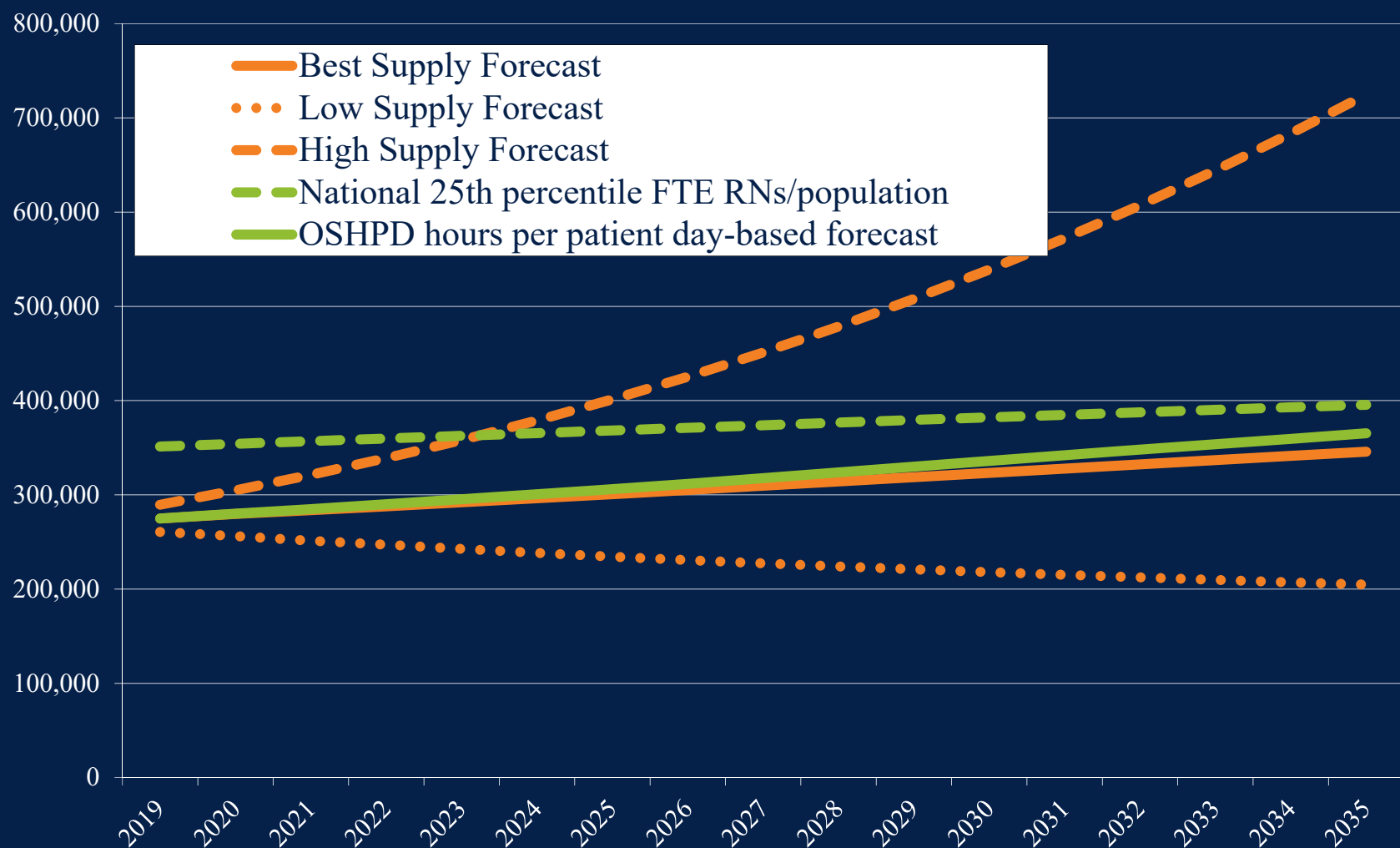
# California RN graduations per year



# Changes that affect the 2019 projections

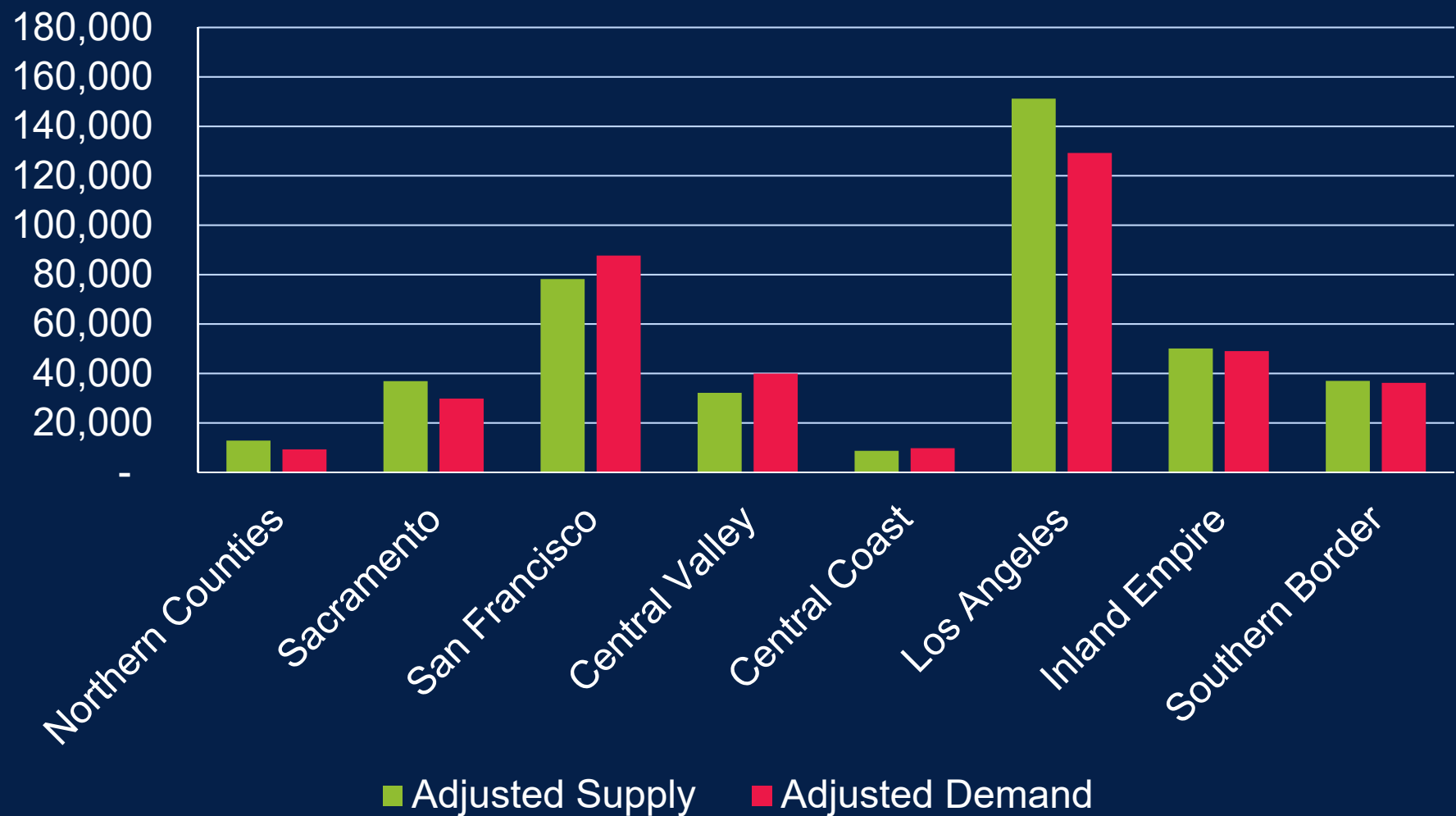
- More RNs requesting endorsement into California
  - Nearly all have out-of-state addresses – will they move here?
  - Based “best” forecast on newly-licensed RNs with California addresses 2016-2018 (subtracting new grads)
    - A bit lower than last projection model, probably too low
- Small increase in international graduates (603 in 2016, 851 in 2018)
  - International grads are a little older
- Fewer nurses moving out of California (small change)
- Slightly lower employment rates for most age groups

# Supply and demand forecasts for full-time equivalent RNs, 2019-2035



Source: Spetz, Forecasts of RN Supply & Demand, 2019

# Supply & demand forecasts for regions, 2035: Adjusted for commuting, APRNs, temps



<sup>32</sup>Source: Spetz, Regional Forecasts, published by HealthImpact, December 2018




David I Auerbach, PhD

Center for Interdisciplinary Health Workforce Studies

Peter I. Buerhaus and Douglas O. Staiger

6/25/2019

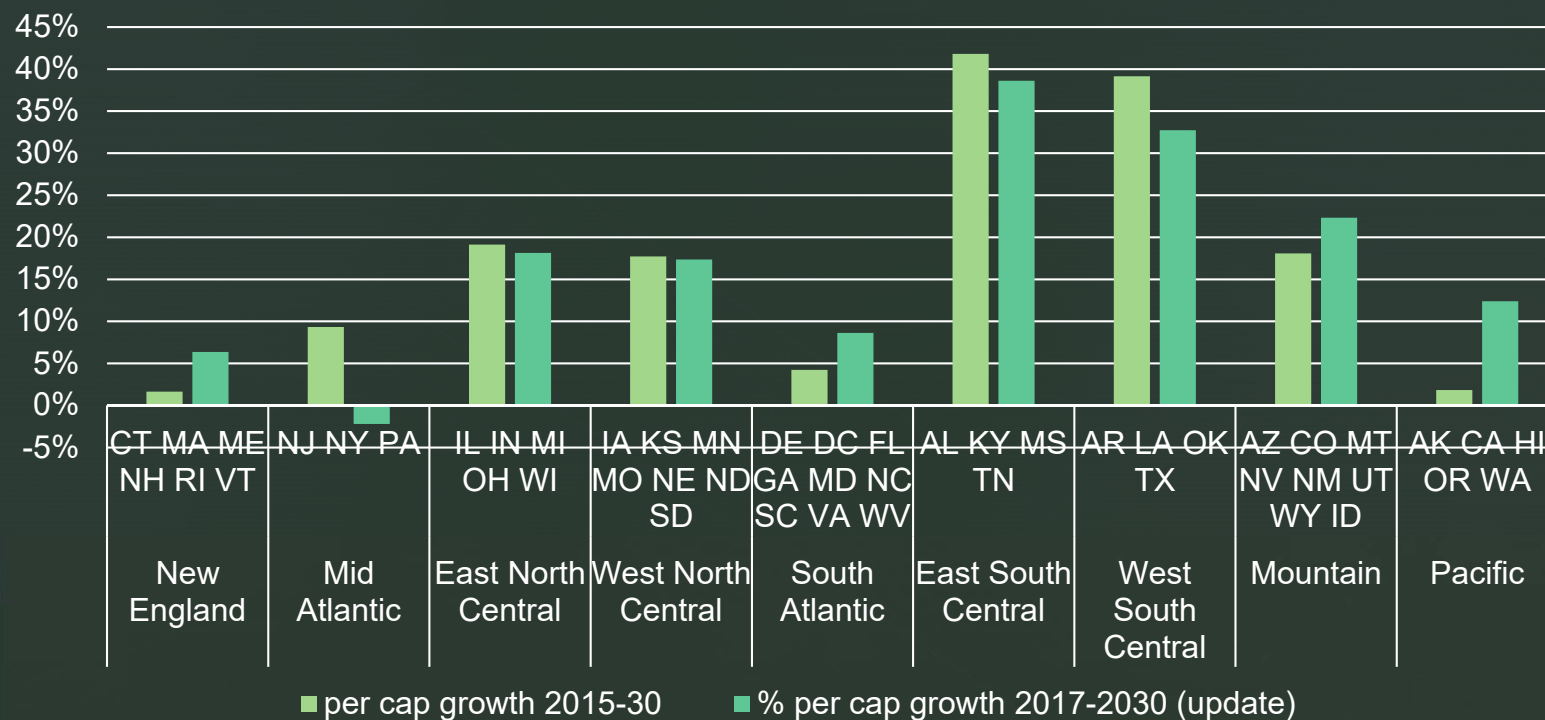


# California Registered Nurse supply and forecast

## Notes

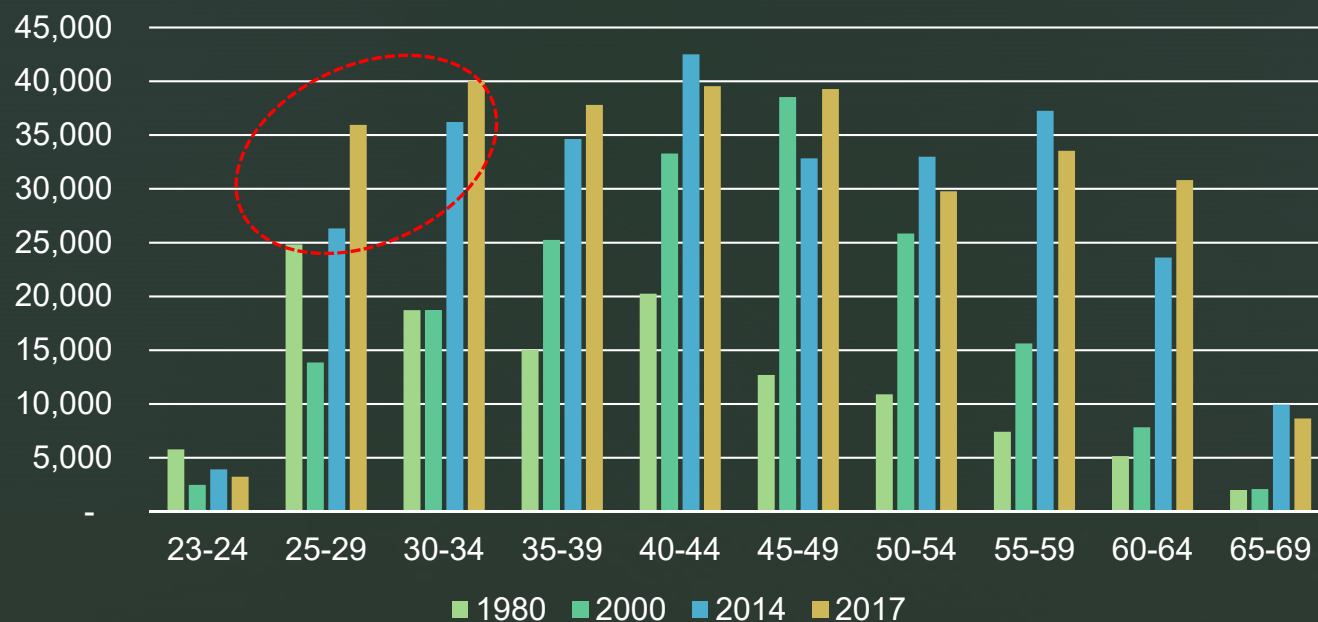
- Data sourced from the US Current Population Survey (1979-1999), the Decennial Census (2000) and the American Community Survey (2001-2017)
  - Total N = 63,013
- Workforce figures are in full-time equivalents, based on reported usual hours worked and a 40-hour workweek
- RNs analyzed between the ages of 23 and 64 (~96% of FTE workforce)

## Total % growth in the RN workforce per capita by region: 2015-2030\* and 2017-2030 (update)



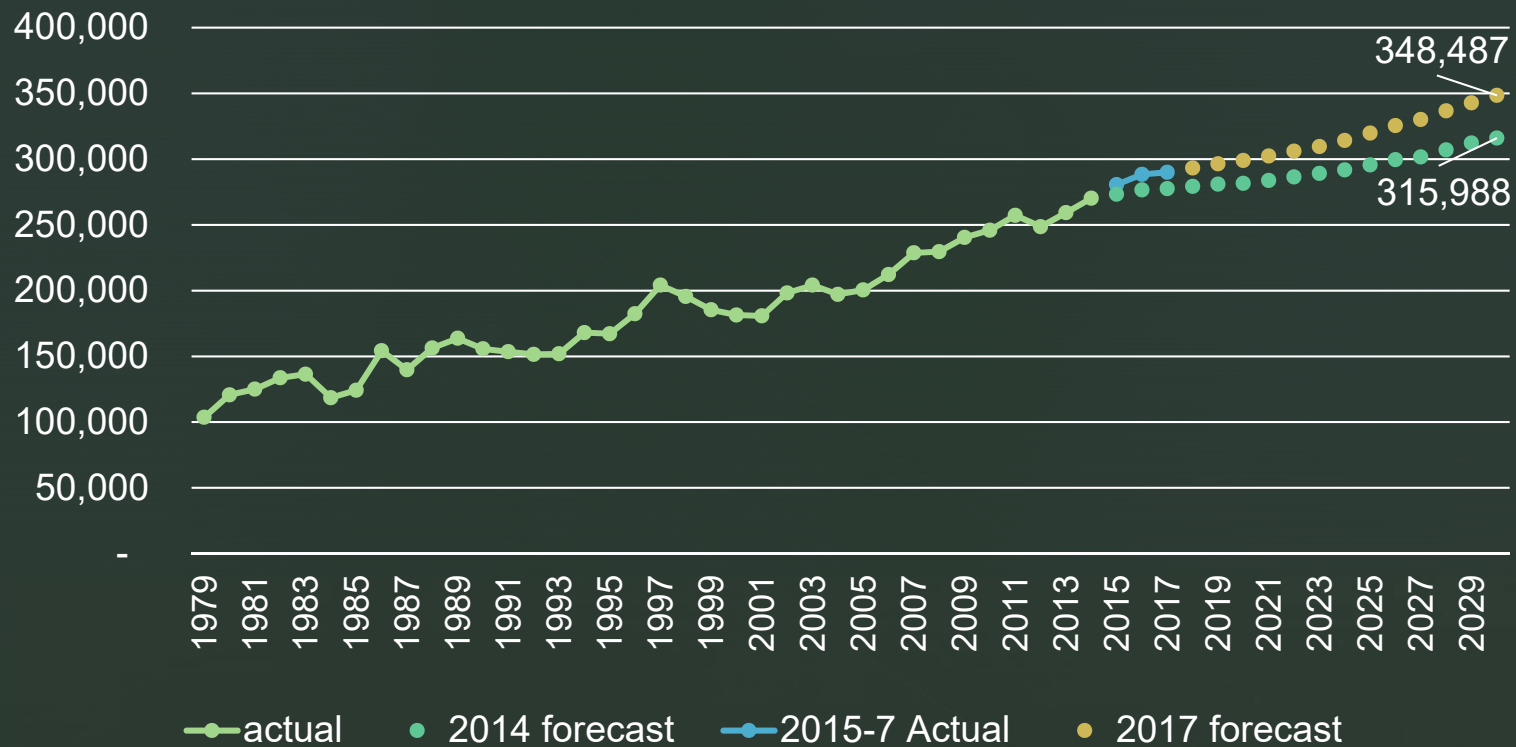
\*Auerbach, David I., and Douglas O. Staiger. "How fast will the registered nurse workforce grow through 2030? Projections in nine regions of the country." *Nursing outlook* 65.1 (2017): 116-122.

## California has had a surge in young RNs



Analysis and forecast model based data from the Current Population Survey and American Community Survey

## CA 2030 RN forecast increased from 316,000 to 348,000 after inclusion of data for 2015-2017



Analysis and forecast model based data from the Current Population Survey and American Community Survey

## Comparing projections

	2030 Supply	2030 Demand	2030 Gap	Notes
Auerbach et al. (2019)	348,487			Cohort supply model, CPS & ACS 1979-2017
Spetz (2019)	323,258	336,107	-12,849 (-3.8%)	Stock-and-flow supply, population-adjusted straight-line demand
HRSA (2017)	343,400	387,900	-44,500 (-11.5%)	Microsimulation model based on national data
California EDD (2026 projection)		327,800		Derived from national multi-industry, multi-occupation model
Zhang et al. (2017)			-141,348	Cohort supply model, CPS 2006-2015 Demand model based on projected health spending and national RNs-per-capita

# Summary: What is happening in California?

- Supply and demand are balanced statewide
  - There are important regional differences, with some areas facing surplus and others facing shortage
  - Education expansion needs to be regionally targeted
- Employers want experienced & specialty RNs
  - Are they turning overseas for this?
  - Does this explain the rise in endorsements from other states?
- More employers are requiring bachelor's degrees
  - Primarily in urban areas
  - Still less than 20% of hospitals





# Academic Practice Partnership Project Outcomes

- **Seventeen nurses filled critical vacancies**
  - Five new grad RNs and one unlicensed new grad
  - 100% pass rate at  $\geq 80\%$  on AORN Periop 101 exam
  - AORN 101 skills checklists and QSEN Competencies
  - One hospital provided promotions and salary increases
- **Qualitative Outcomes Interview tool developed**
- **One CNO completed the ROI calculation**
- **Recommendations for “model curriculum”, “ideal” Periop course, and outcomes metrics**

# Check out the UCSF website!

<http://rnworkforce.ucsf.edu>



The screenshot shows a web browser displaying the UCSF RN Workforce website. The browser's address bar shows the URL <https://rnworkforce.ucsf.edu>. The website's header features the UCSF logo and navigation links: "About UCSF", "Search UCSF", and "UCSF Medical Center". A search bar is located in the top right corner. The main heading is "RN Workforce: California's RN Labor Market". Below this, there is a navigation menu with links: "Home", "News", "Forecasting", "Demand Data", "Supply Data", "Education Data", "Publications", "Resources", "About Us", and "Contact Us". The "Home" link is highlighted. The main content area has a large heading "Welcome to RN Workforce: California's RN Labor Market" and a "News" section. The news section includes a bullet point: "Please Register for the Annual 2018 Nursing Webinar: Nursing Demand and Supply in California: Current State and Strategies for the Future" with a post date of "March 21, 2018". To the right, there is a "Our Mission" section with text describing the registered nurse (RN) workforce in California.

Secure | <https://rnworkforce.ucsf.edu>

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## RN Workforce: California's RN Labor Market

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Demand Data Supply Data Education Data Publications Resources About Us Contact Us

### Welcome to RN Workforce: California's RN Labor Market

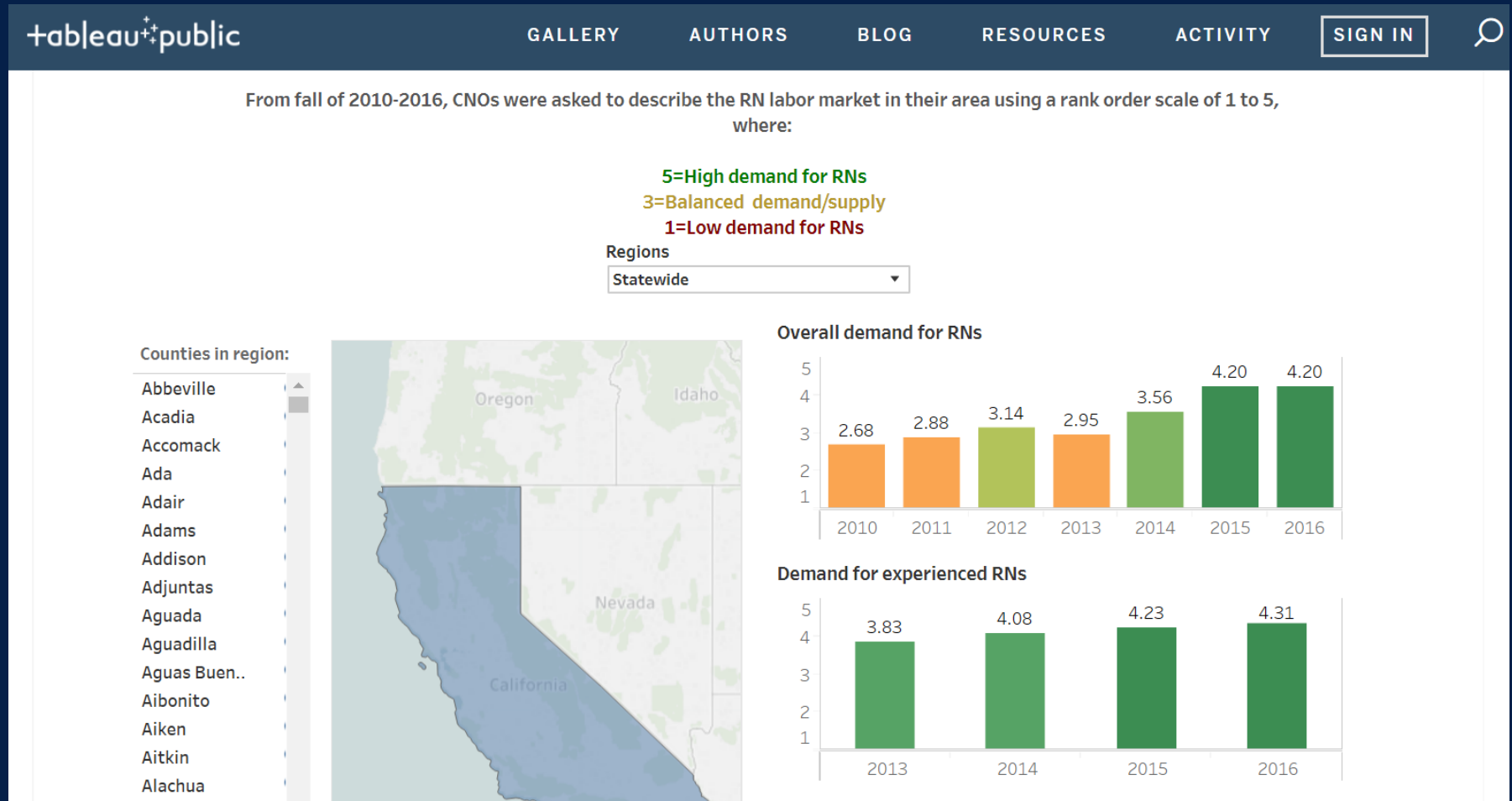
#### News

- [Please Register for the Annual 2018 Nursing Webinar: Nursing Demand and Supply in California: Current State and Strategies for the Future](#)  
Post date: March 21, 2018

#### Our Mission

The registered nurse (RN) workforce is the largest group of health professionals in California, with over 371,000 licensed nurses. RNs work in every health care setting and provide care for millions of Californians every year. Active tracking of the supply of and demand for RNs is essential to ensure that

# Interactive data displays



# Also go to the BRN website

## Forms & Publications

The screenshot shows the California Board of Registered Nursing (BRN) website. The browser address bar displays [www.rn.ca.gov/forms/reports.shtml](http://www.rn.ca.gov/forms/reports.shtml). The website header includes the **CA.GOV** logo and the **California Board of Registered Nursing** logo. A search bar is located in the top right corner. The main navigation menu includes links for **Consumers**, **Applicants**, **Licensees**, **Enforcement**, **Intervention**, and **Online Services**. The **Forms & Publications** section is active, showing a breadcrumb trail: **Home > Forms & Publications > Reports**. The **Reports** section lists several report types: **School Reports**, **Biennial RN Survey and Forecasting Reports**, **Other RN-Specific Surveys and Reports**, and **Sunset Review Reports**. Under **School Reports**, there is a link for the **2015-2016 Pre-Licensure Nursing Program Annual School Report: Data Summary and Historical Trend Analysis**. A **Quick Hits** sidebar on the right lists various services and resources, including **Processing Times**, **Apply for Licensure**, **License/Certificate Renewal**, **Verify a License**, **Forms & Publications**, **Military Personnel & Spouses/Domestic Partners**, **Nursing Practice**, **Regulations**, **Nursing Programs & Education**, **Frequently Asked Questions**, and **Careers in Nursing**.

# Questions?

Thoughts?

Ideas?

Perspectives?



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