

# Supply & Demand of Registered Nurses in the San Francisco Bay Area

Joanne Spetz, PhD, FAAN

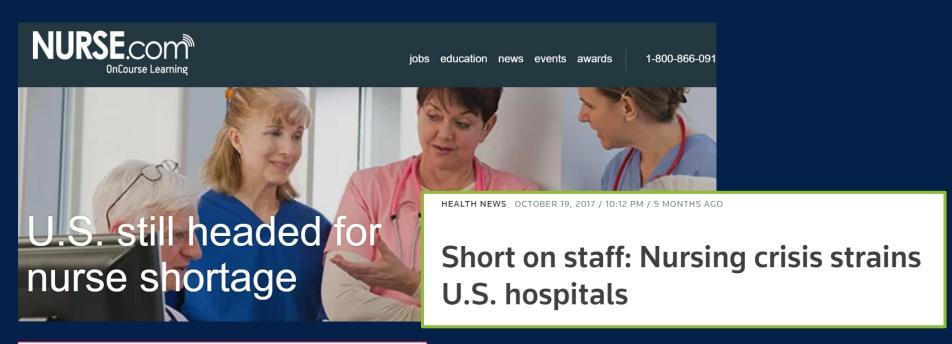
Professor, Philip R. Lee Institute for Health Policy Studies

Associate Director for Research, Healthforce Center

University of California, San Francisco

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# Tales of a nursing shortage...



#### 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

REBECCA GRANT | FEB 3, 2016 |

COLUMNISTS 77,973 SHARES







## Is US headed for worst nursing shortage?

## Forecasting future RN supply & demand

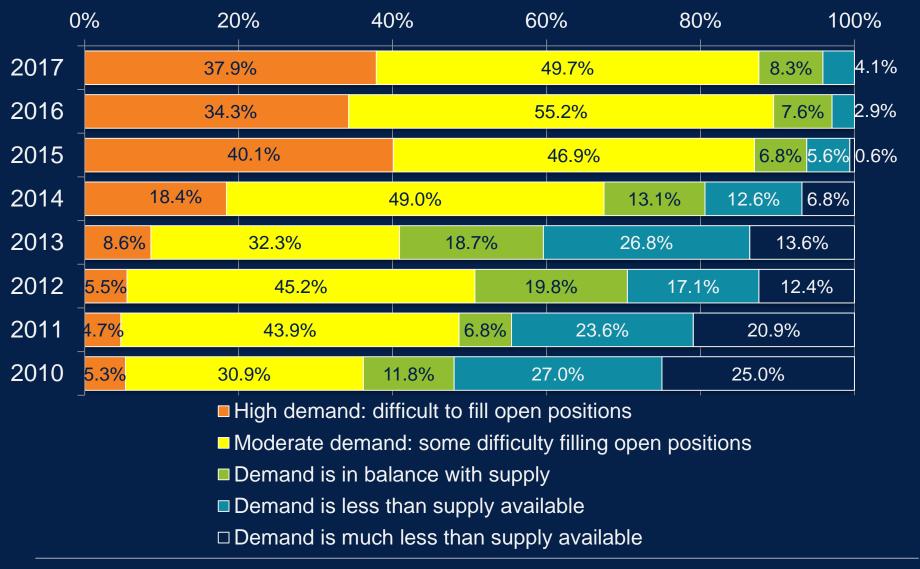
- National forecasts: market is balanced
  - National Center for Health Workforce Analysis, 2017
    - National surplus of 293,800 RNs by 2030 (8.2%)
    - Assumes supply = demand in 2014
  - Auerbach et al. 2015 128,000 RN shortage by 2025 (4%)

#### 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



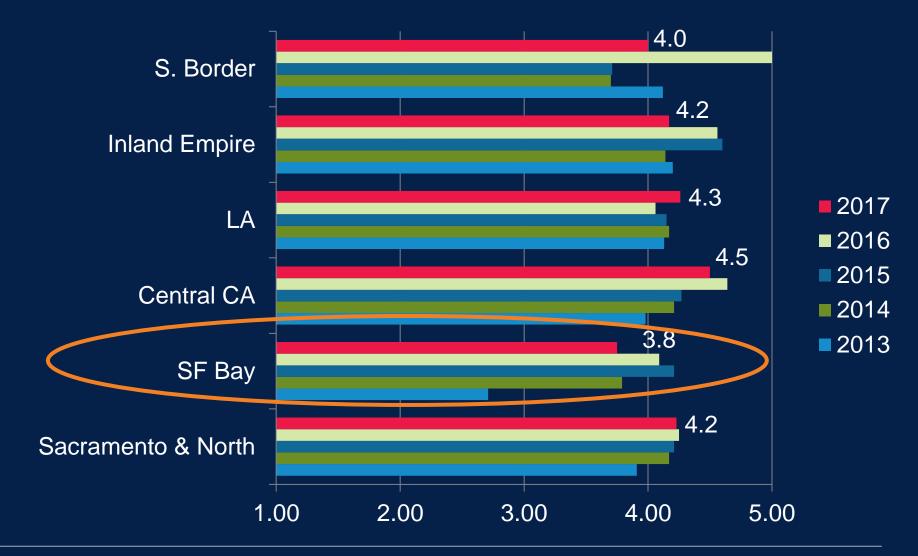


#### Differences across regions: Overall RN labor market





# Differences across regions: Experienced RNs



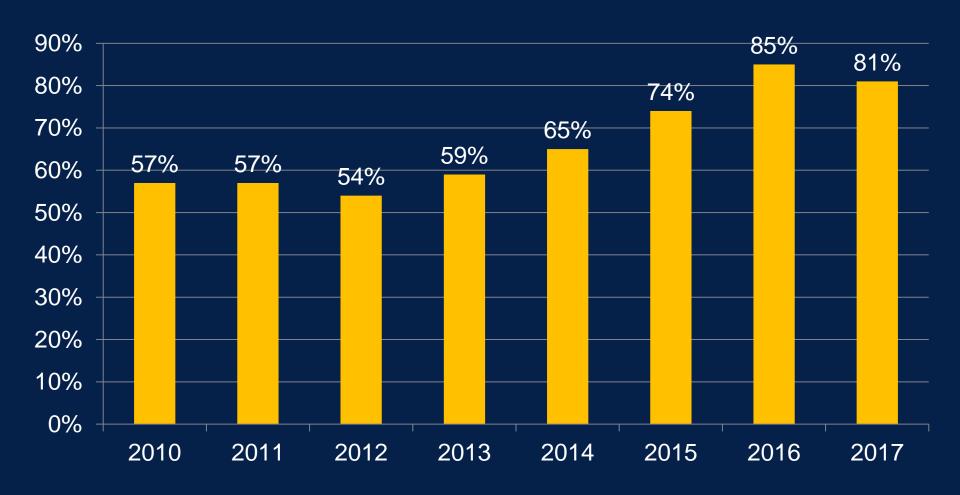


# Differences across regions: New Grad RNs



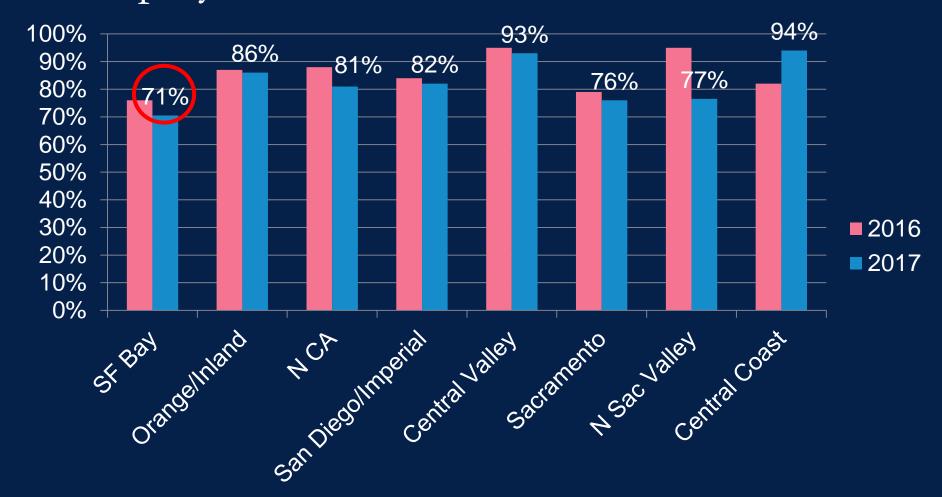


## New Graduate Employment



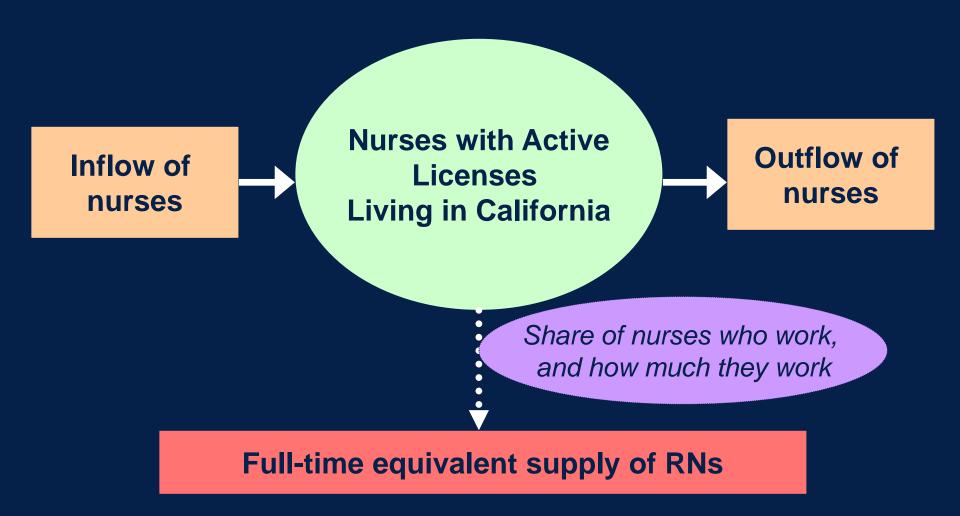


# Regional Differences in New Grad Employment





#### A model of the supply of RNs



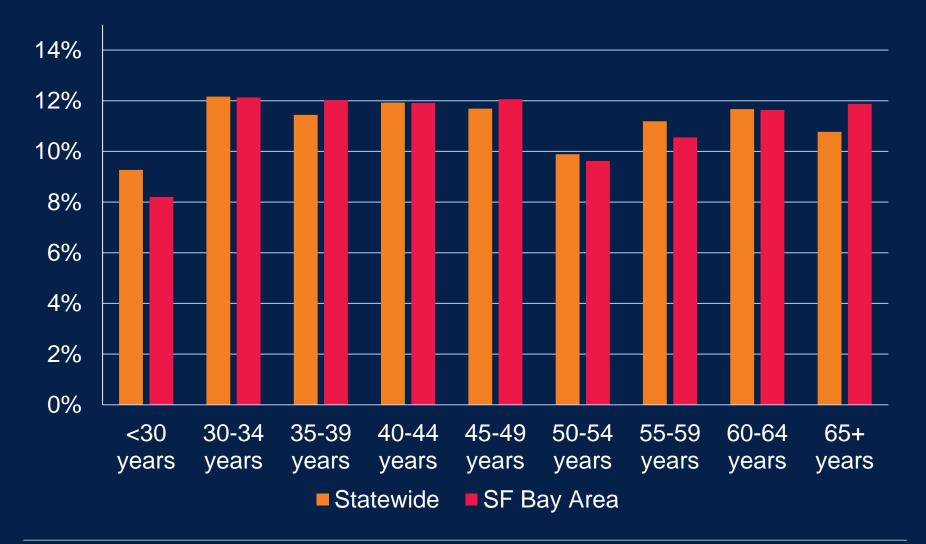


#### Forecasting demand is harder

- 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



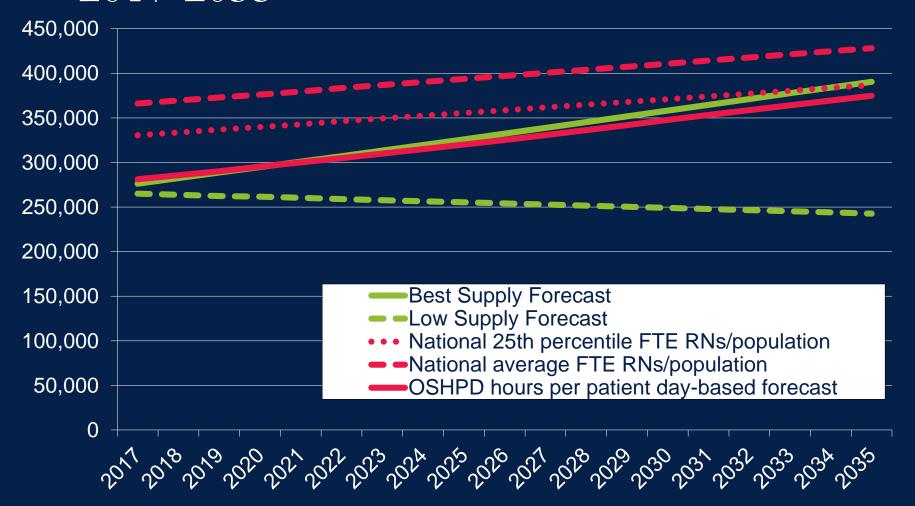


# RN graduations per year



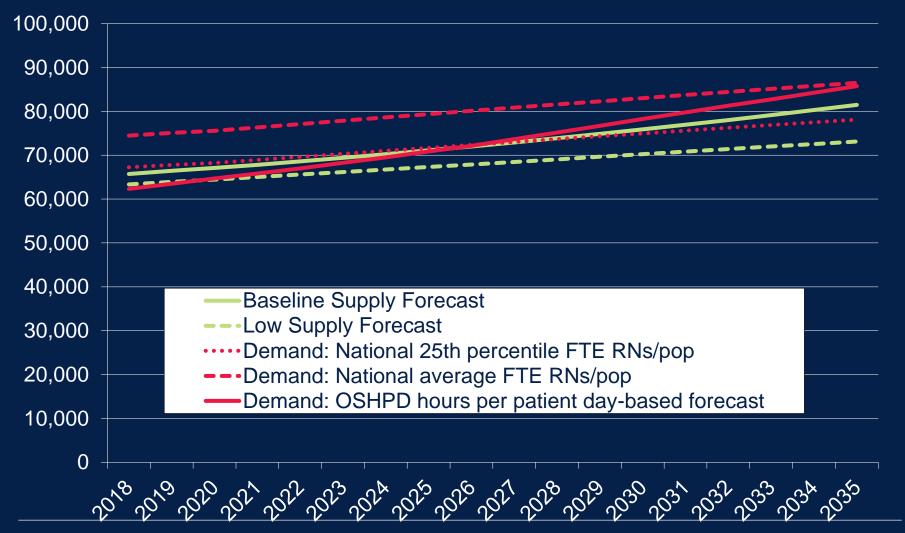


# California RN supply and demand forecasts, 2017-2035





## Regional differences are important Supply & demand forecasts for SF Bay Area





# 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



# SF Bay area graduations are growing a bit

	New enrollment	Projected enrollment from 1 yr	Projected enrollment from 2 yrs	Graduations
2015-2016	2,349	2,974	2,327	2,054
2016-2017	2,581	2,978	3,070	2,213
2017-2018		2,562	3,028	2,085
2018-2019			2,618	2,291
2019-2020				2,274
2020-2021				2,324



# Inflows and outflows for the SFBA region

- Inflows = ~3,654 now
  - Graduations: ~2,200 per year, but growing
  - Migration into the region: 791 per year 2016-2018
  - Endorsements from other states: 663 in 2017
- Outflows = ~4,120 now
  - Migration out of the region: 1,622 per year 2016-2018
  - Lapsed licenses: 2,497 per year 2016-2018
- Conclusion: Projected growth in graduations will balance inflows and outflows



#### How do we move forward?

San Francisco Bay Area is moving toward a balanced labor market

Population growth projected & education is keeping up

Employers are more interested in new graduates than in many other regions of the state – this is good strategy

