The Impact of the Nursing Shortage on the Feasibility of Requiring Minimum Nurse-to-Patient Ratios

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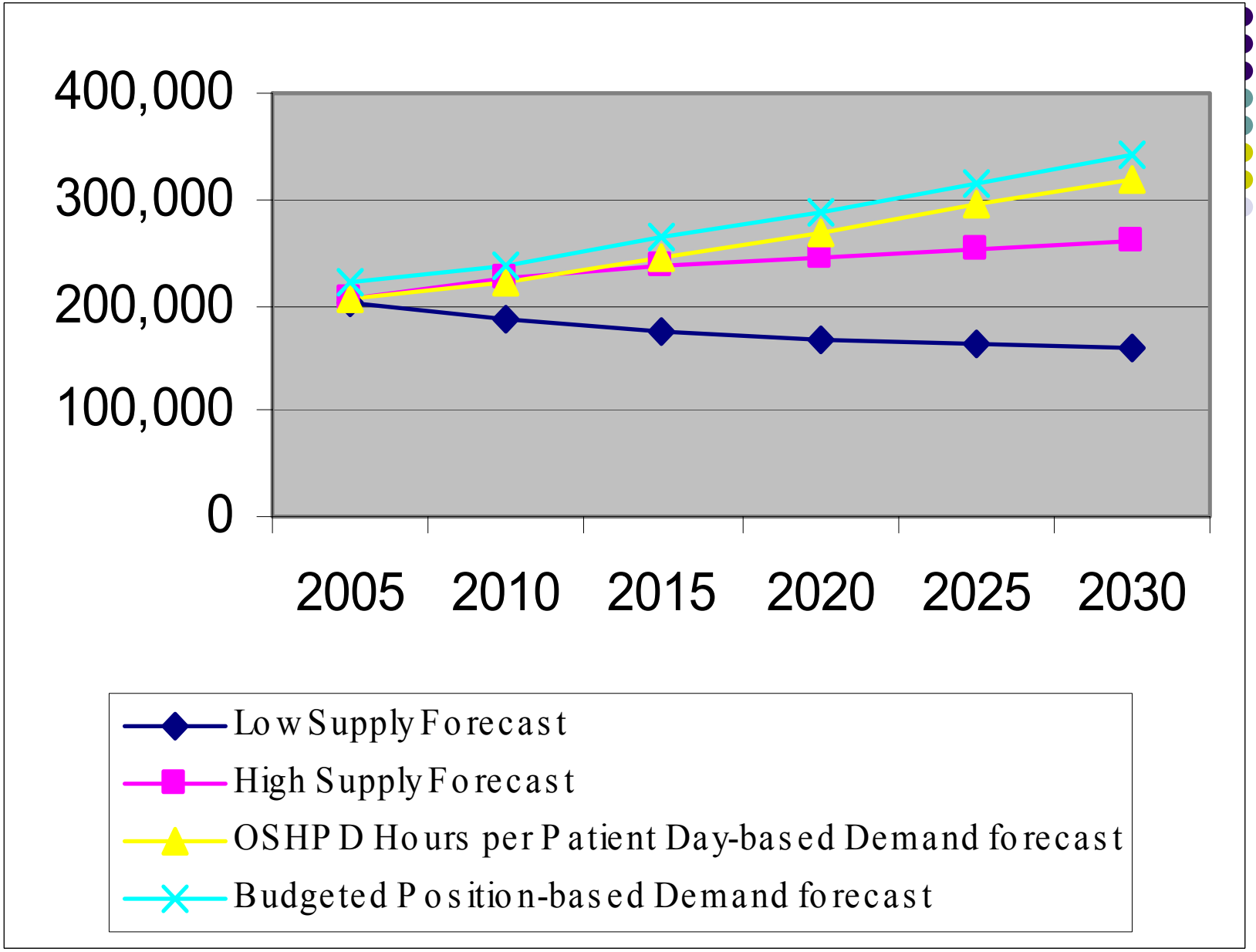
March 30, 2005

AB 394 signed October 1999

- Department of Health Services established minimum licensed-nurse-to-patient ratios for each type of hospital unit
- Unlicensed personnel are prohibited from performing certain tasks
- Regulations were implemented initially January 2004
- Scheduled to further tightening January 2005- but held by governor
- Then March 2005, court ruled that they are to be enacted immediately

How Bad is the Shortage in California?

- RN to Pop-49th in US
  - Between 70,000 and 120,000 new nurses are needed to meet demand in 2020
- Hospital vacancy rates-double digit
- Constrained educational capacity
- Poor hospital work environment
  - Growing numbers of licensed nurses are thought to be working outside nursing
- Shortened LOS-work “speed up”
- Shortage of bedside nurses & nursing faculty


400,000
300,000
200,000
100,000
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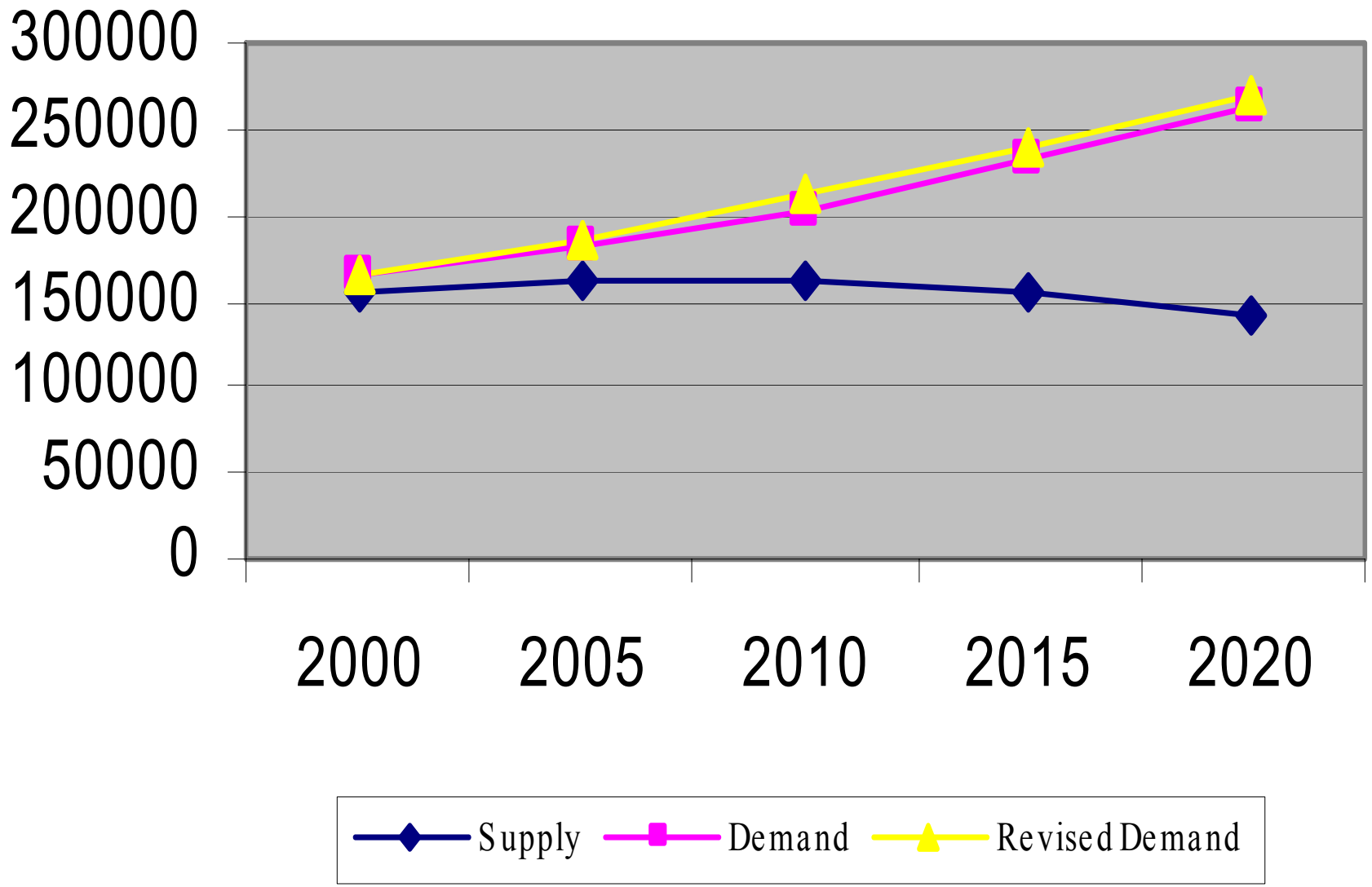
2005
2010
2015
2020
2025
2030
Low Supply Forecast
High Supply Forecast
OSHPD Hours per Patient Day-based Demand forecast
Budgeted Position-based Demand forecast


300000
250000
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Supply
Demand
Revised Demand

The California Workforce Initiative

Variation in medical-surgical nurse staffing

	25th percentile	50th percentile	75th percentile	Maximum
Number of med-surg units in hospital	1	2	3	30
Patient-to-RN ratio, day shift	5	6	7	12
Patient-to-RN ratio, night shift	6	8	9	26
Hours per patient day	6.7	7.6	8.4	27.7
RN Hours per patient day	3.5	4.2	5.2	24

Source: CWI Survey, 2000. Data are for medical-surgical units of 111 California hospitals.

California OSHPD
Variation in hours per patient day

Unit	# Hosp's	25th Percentile	Median	75th Percentile
Med-Surg ICU	308	13.02	14.82	17.19
Coronary ICU	94	11.29	13.97	16.21
Pediatric ICU	30	13.84	16.82	21.11
NICU	148	8.57	11.48	13.13
Med-Surg Acute	342	3.35	4.13	5.10
Obstetrics	246	3.69	5.04	7.07
Newborn Nursery	254	2.38	3.50	5.64
Sub-Acute Care	38	1.30	1.63	2.76

Source: OSHPD, 1999-2000

Share of hospitals not in compliance with DHS proposal

	DHS survey data		OSHPD data	
	Initial ratios	Later ratios	Initial ratios	Later ratios
Med-Surg	~20%	~50%	15%	36%
Pediatric	~40%	~40%	23%	23%
Obstetrics	25%	25%	29%	29%
L & D	5%	5%	15%	15%

Source: OSHPD; Kravitz, et al.

Estimated statewide FTE shortage from DHS survey data

	Initial ratios	Later ratios
Total	4,880	7,230
Med-Surg	1,030	2,460
Pediatric	490	490
Obstetrics	520	520
L & D	20	20

Source: Kravitz, Sauve, et al.

The Haves and the Have-Nots

- Money for RN salaries after the long dry 90s
- Future thinkers versus the head-in-the- sand group
- Public poor versus Private wealthy

Who has the right ratio now?

- Preponderance of research finds that more nurses are associated with better patient outcomes
- Causal link has not been demonstrated
- There is no “right” ratio

Who will never have the right ratio?

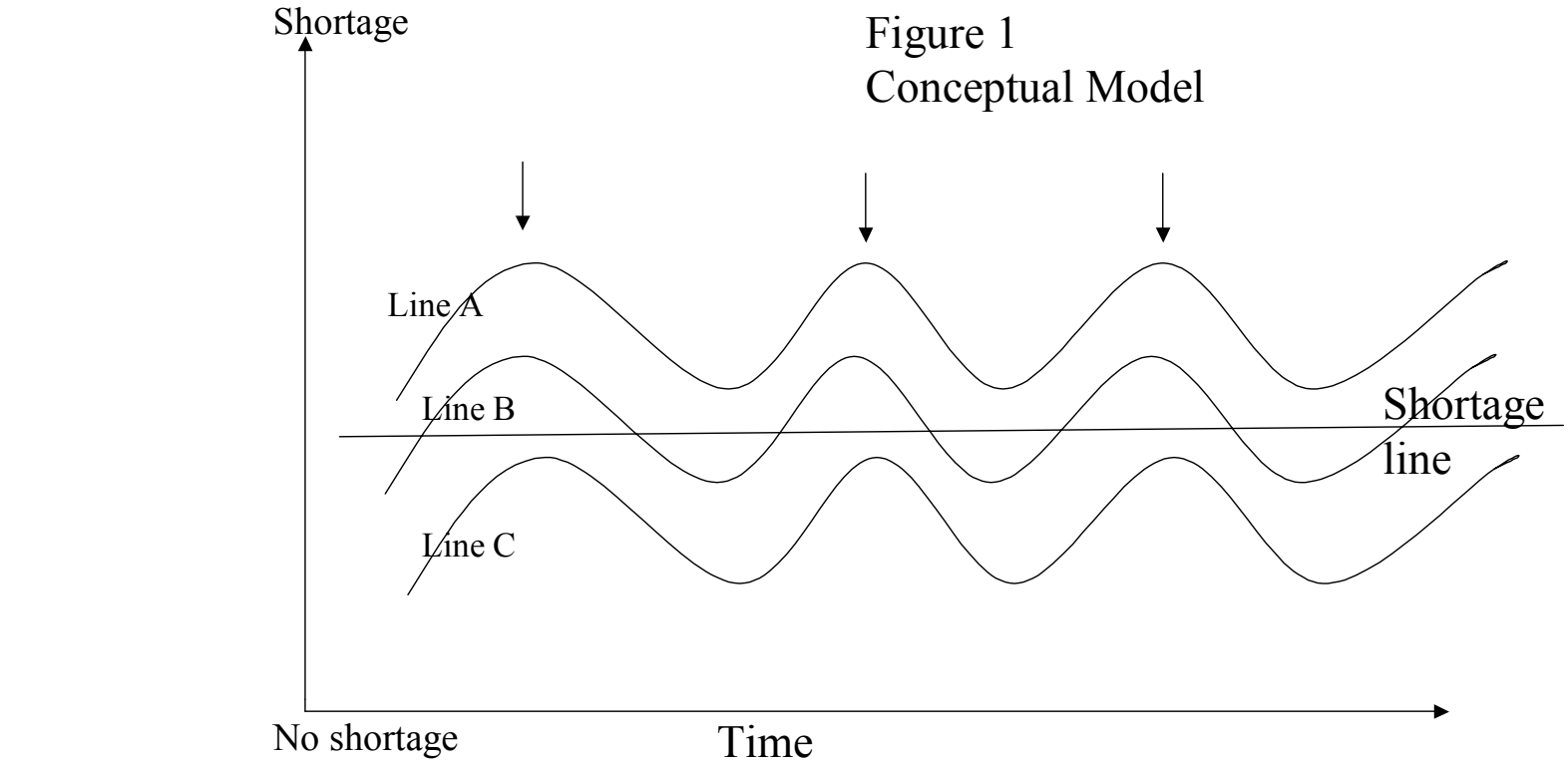
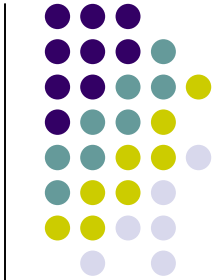


Figure 1
Conceptual Model

The arrow indicates periods of market-wide shortage of RNs in the US. Line A represents those hospitals that are always in shortage. Line B represents those hospitals that move in and out of shortage. Line C represents those hospitals that are never in shortage. The Shortage Line is the average point that hospitals declare shortage.

Predictors of Shortage



Persistent shortage (1990 & 1992)

- Deep South & West
- High Medicare & Medicaid populations.
- High county % of non-white population.
- Using team/functional instead of primary/total patient care as method of nursing care delivery.

Intermittent Shortage (1990)

- Deep South & Midwest
- Higher case mix index
- High county % of non-white population.
- Using team/functional instead of primary/total patient care as method of nursing care delivery.

Is the nursing shortage improving?

- Recently, there has been an increase in RNs in the US
- Buerhaus, 2004 the increase in nurses is primarily from RNs who have
  - Came out of retirement
  - Immigrants

What if hospitals cannot find the staff needed to meet the ratios?

- The nursing shortage in California will persist in the long term without greater supply
- Will hospitals turn away patients?
  - Will hospitals close units?
  - Will hospitals close entirely?
- Will hospitals have to meet the ratios every minute of every day?

Center for California Health Workforce Studies
UCSF

- Where is the enforcement of the legislation?
- No penalty
- DHS has suffered reductions in staff

Life Cycle of Shortages

- Cycles of shortage/excess are probably normal.
- Nursing markets are local, not national.
- Intermittent shortages will self-correct as local wages increase.
- Subsidized educational programs depress the wage rate.

What to do...

- Allow the market to correct itself.
- Link education to licensure… recognition that all nurses are not the same
- Eradicate salary-fixing practices of employers.
- Change “on-the-job” behaviors of physicians and hospital executives that drive nurses from the direct care hospital workforce.

But…

- The ratios cannot be sustained in light of the shortage
- Creative care delivery methods could be tried—but any legislated solution will likely not allow those methods

Acknowledgements & Sources

- Funding: Federal Reserve Bank of Boston

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