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Office of Statewide Health Planning and Development

California Senate Health Committee Hearing on Hospital Seismic Safety
February 17, 2010

Testimony by:
The Office of Statewide Health Planning and Development (OSHPD)

Presented by:

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OSHPD Director

and

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Deputy Director, OSHPD Facilities Development Division

Showing the collapse of Olive View Medical Center and the Sepulveda VA hospital in the 1971 Sylmar earthquake along with destruction at Holy Cross Medical Center in the 1994 Northridge earthquake.

Why is hospital seismic safety important?

- Safety of patients and staff
- Evacuation of seriously ill patients can be fatal
- Provide medical assistance to earthquake victims
- Beacon of life and hope for a community
- Important to protect taxpayer, community, and investor dollars
- Replacing a hospital building after it is destroyed can take a decade or longer
- Prolonged earthquake recovery retards an area's long-term economic and social renewal, as well as its healthcare access

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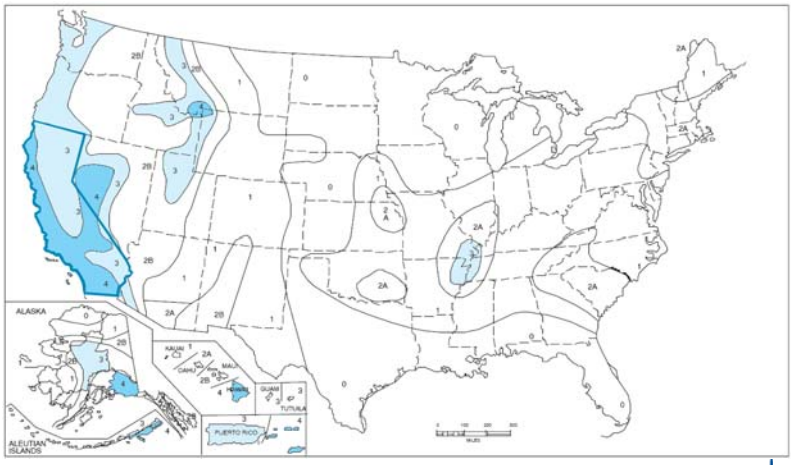
U.S. Seismic Zone Map

Large portions of California, containing our State's most populated regions, are in Seismic Zone 4 areas



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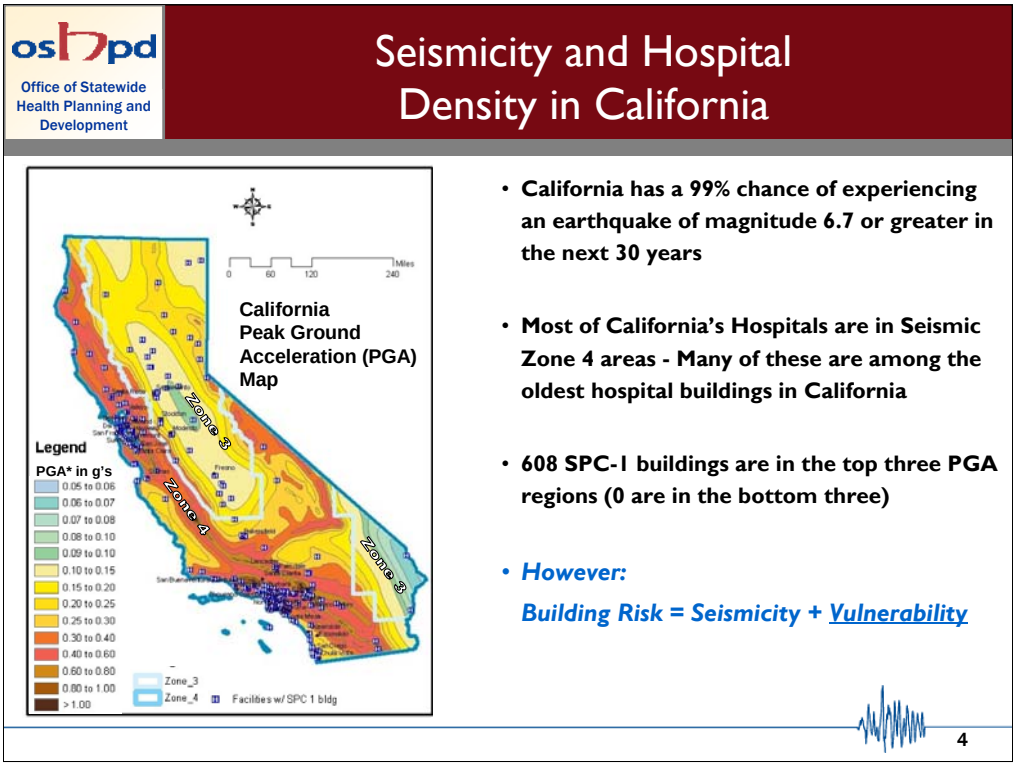
With the exception of Alaska, Hawaii, and Nevada, most other states do not have large populations in Seismic Zone 4 regions. Most of California's population, most of its hospitals, and 85% of its hospital buildings are located in Seismic Zone 4 regions.

"*California is one of the world's most seismically active regions. More than 300 faults crisscross the state, which sits atop two of Earth's major tectonic plates, the Pacific and North American plates. About 10,000 quakes each year rattle Southern California alone, although most of them are too small to be felt.*" – Sacramento Bee, 1/10/10 (after Magnitude 6.5 Ferndale Earthquake).



California has a 99% chance of experiencing an earthquake (EQ) of magnitude 6.7 or greater in the next 30 years

The chance is 97% in Southern California

The chance is 93% in Northern California

California has a 23% chance of a magnitude 6.7+ EQ between 2013 and 2020

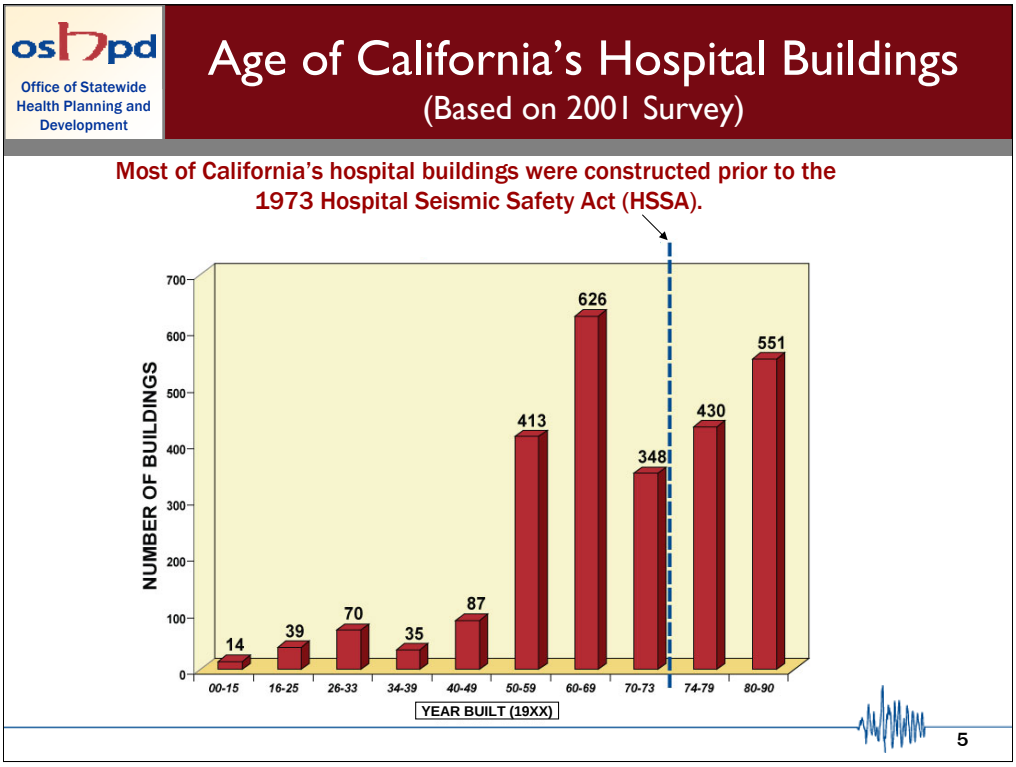
Chance of even larger EQs in California in the next 30 years:

Magnitude 7.0: 94%

Magnitude 7.5: 46%

Magnitude 8.0: 5%

Note: Buildings versus Facilities (or Hospitals) - Hospitals are usually comprised of more than one "building;" the average in California is 4-6 buildings per Facility (Hospital)



Building Risk = Seismicity + *Vulnerability*

Most of these older buildings are in California's most seismically-active regions.

When the HSSA was enacted, it was anticipated that hospitals would replace aging infrastructure, thus increasing the stock of complying hospital buildings in California.

This progressive compliance did not occur leading to the signing of SB 1953 mandating hospital compliance by certain deadlines.

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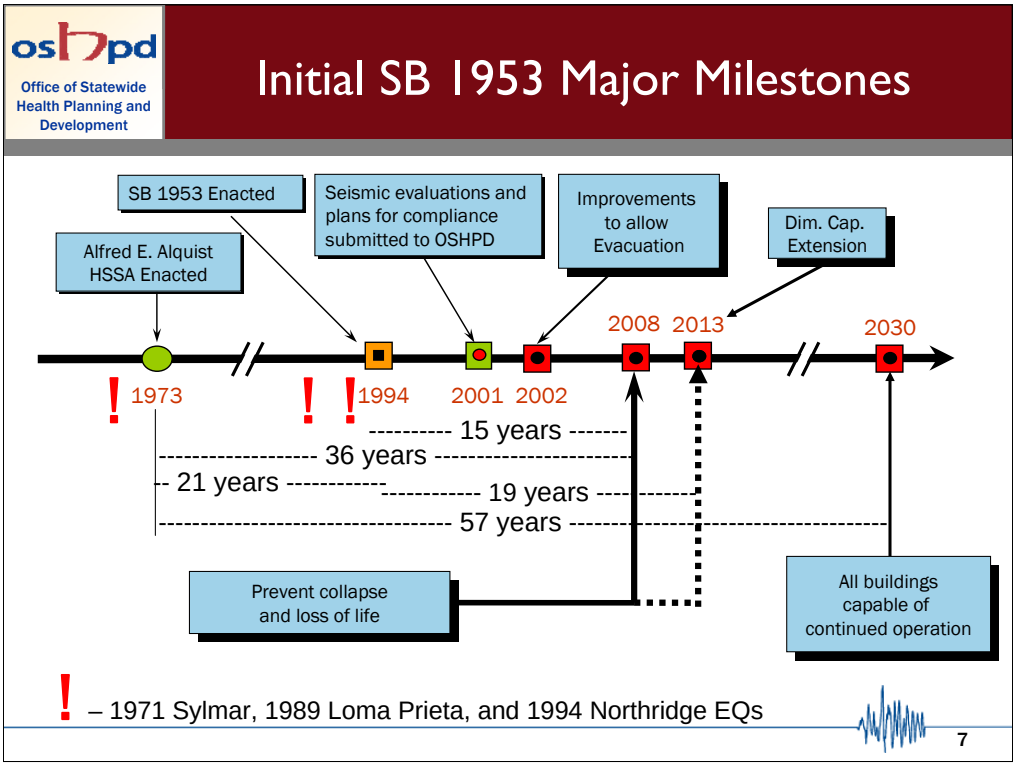
An Important Lesson from the 1994 Northridge EQ

Post-HSSA (1973) buildings had significantly better performance

	Pre-Act (51 Buildings)	Post-Act (31 Buildings)
Structural Damage		
Red tagged (Major Damage)	12 (24%)	0 (0%)
Yellow tagged	17 (33%)	1 (3%)
Green tagged	22 (43%)	30 (97%)
Nonstructural Damage		
Major	31 (61%)	7 (23%)
Minor	20 (39%)	24 (77%)

6

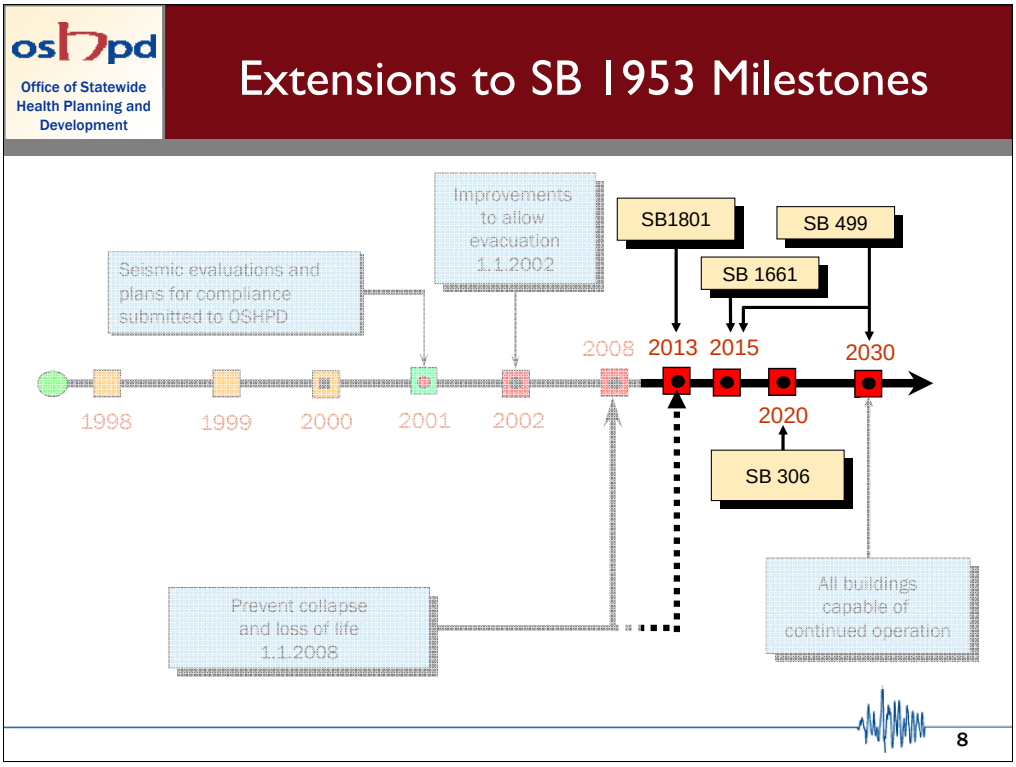
Hospital buildings constructed after the HSSA (1973) were much less likely to sustain major structural or non-structural damage in the 1994 Northridge earthquake.



California's original Hospital Seismic Safety Act was enacted in 1973, 36 years ago.

SB 1953 was passed in 1994, 15 years ago, mandating HSSA compliance.

Hospital compliance with the "Collapse Hazard/Loss of Life" deadline is to occur in 2013, 19 years after SB 1953 became law and 40 years after the original HSSA.



Four deadline extensions (extension dates are shown) have been passed since the enactment of SB 1953:

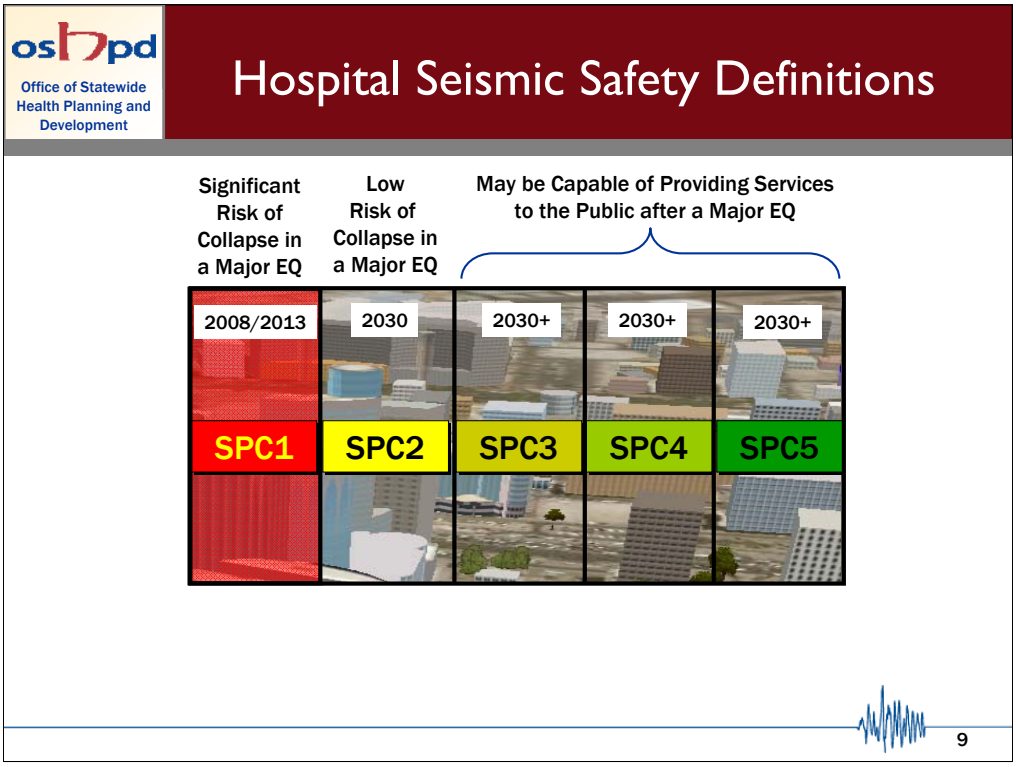
-SB 1801

-SB 1661

-SB 306

-SB 499

They will be described in detail in subsequent slides



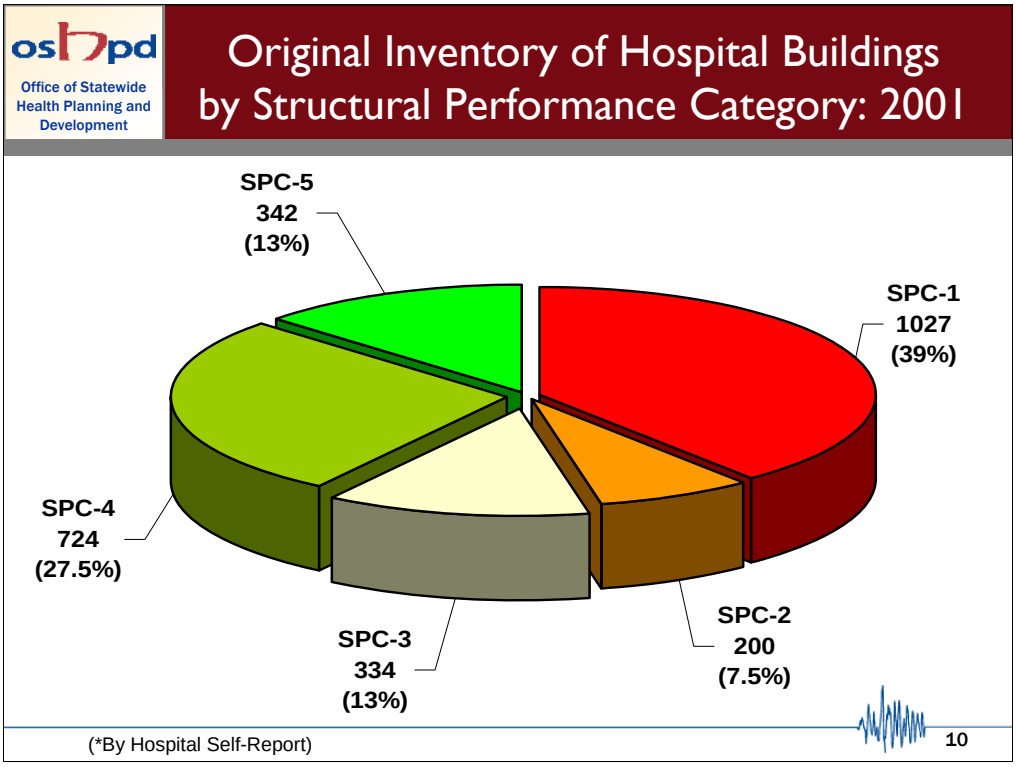
There are five “Structural Performance Categories” for hospital buildings:

-SPC-1 (“collapse hazard”) buildings must be removed from service by 2013

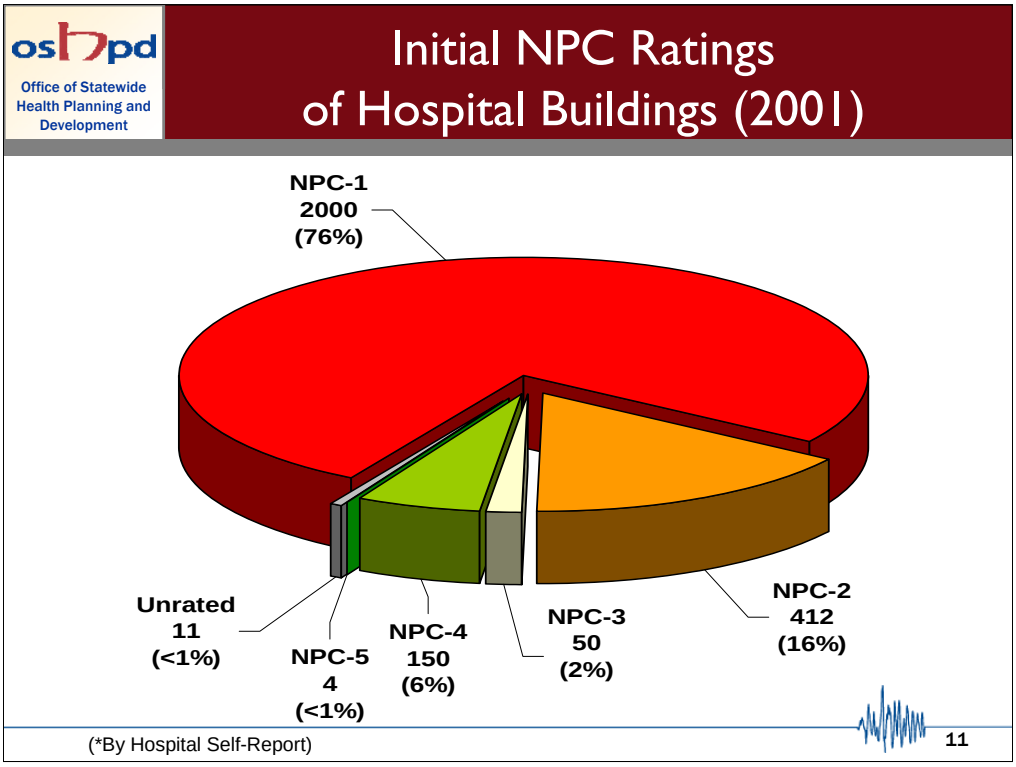
-SPC-2 buildings must be removed from service by 2030

-SPC-3, -4, and -5 buildings are able to stay in service after 2030

Note: SPC-3 and SPC-4 categories refer to existing building types only. New construction can only be SPC-5.



The original inventory of SPC-1 buildings is based on results from the 2001 Hospital Survey (voluntary hospital "self-report"), using then-"state-of-the-art" FEMA 178 standards from 1996.



There are also five “Non-structural Performance Category” (NPC) classifications

(Non-structural systems that are critical to patient care must also comply with the HSSA: HVAC, Medical Gases & Storage, Sewage, Emergency Power & Fuel Storage, etc.)

Definitions:

NPC-1: does not meet any non-structural requirements

NPC-2: means of egress for building evacuation

NPC-3: critical care areas can provide limited services after EQ

NPC-4: only utility services may be disrupted

NPC-5: capable of providing all non-structural services after major EQ

- All buildings must be NPC-2 by 2002
- All buildings must be NPC-3 or greater by 2013/15
- All buildings must be NPC-4, or -5 by 2030

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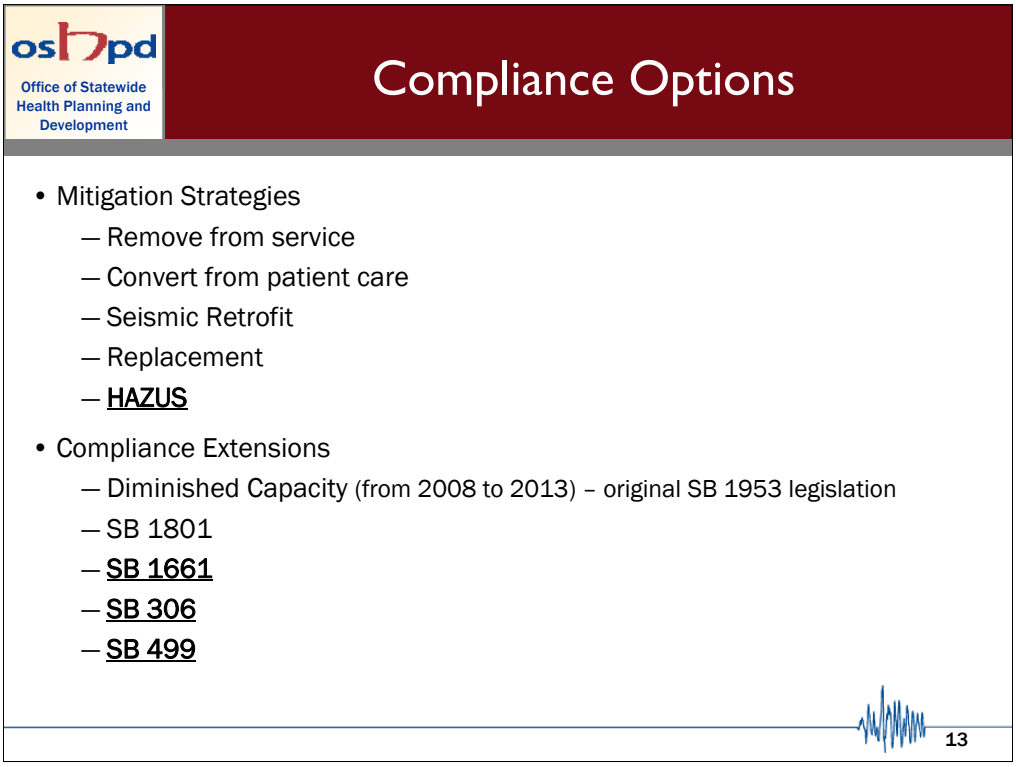
Module 2
Hospital Seismic Safety Compliance



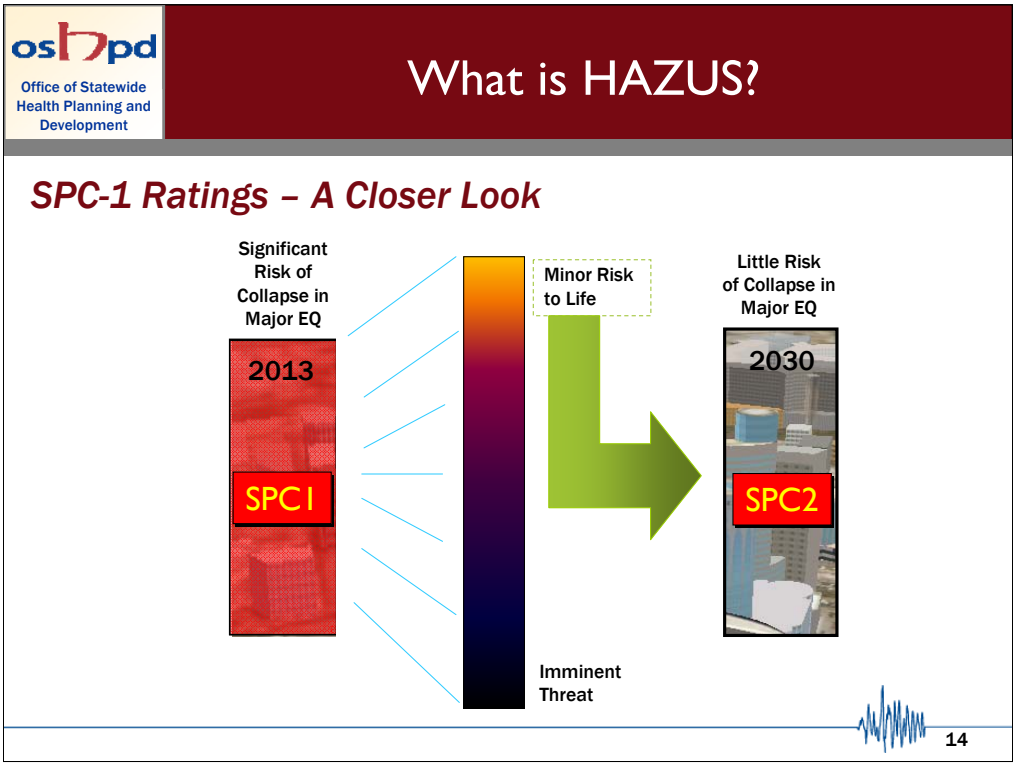
SB 1801 (only 2 facilities obtained extensions to 2013)

SB 1661 - allows SPC-1 extension from 2013 to 2015 for facilities with active compliance projects that are delayed due to circumstances beyond their control

SB 306 - SPC-1 mitigation later/fully functional hospital buildings sooner for financially challenged hospitals

SB 499 (2009) - expands HAZUS and SB 1661 extension eligibility

The effect of each legislative compliance extension (except for SB 1801) will be described in subsequent slides.



HAZUS:

"Not all SPC-1 Buildings are created equal"

"Risk equals Seismicity plus Vulnerability"

Hazards United States (HAZUS) is a standardized publicly available and contemporary nationally applicable earthquake loss estimation methodology.

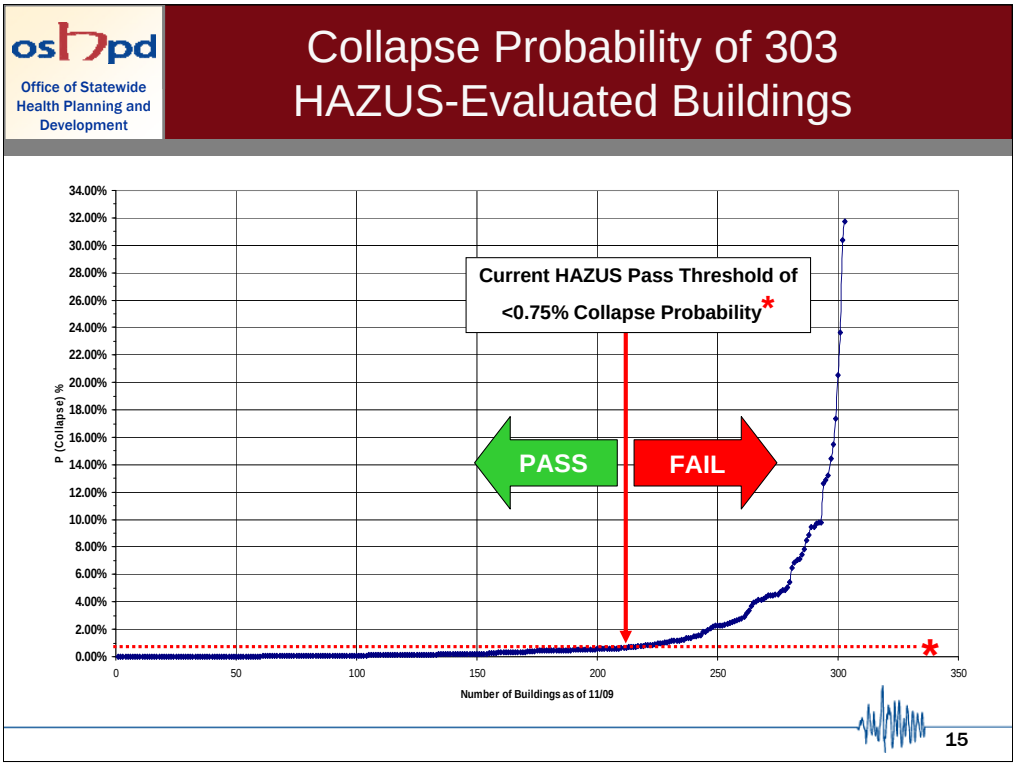
HAZUS was developed and is supported and distributed by FEMA.

HAZUS estimates damage potential considering four building-specific attributes:

- The ground motion potential at the site (seismicity + soil quality)
- The type of construction (steel, concrete, wood frame, etc.)
- The building codes in force at the time of construction
- The quality of construction

HAZUS review allows a number of SPC-1 buildings to be re-classified to SPC-2.

Participation by hospitals in HAZUS is voluntary.

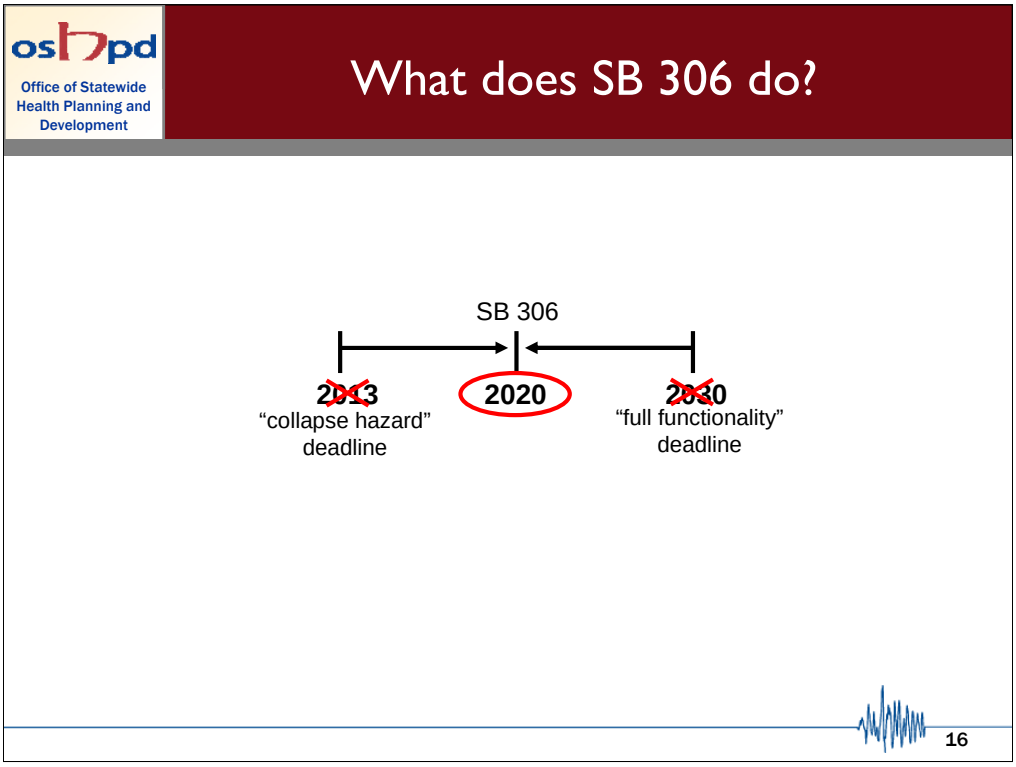


Hospitals have elected to have SPC-1 buildings reassessed by HAZUS.

To illustrate the HAZUS pass/fail concept the probability of collapse for 303 SPC-1 buildings calculated by the HAZUS methodology is illustrated graphically in ascending order.

Of these, 215 passed HAZUS (with a collapse probability of <0.75%) and became SPC-2 buildings.

79 buildings did not pass HAZUS review (with collapse probabilities ranging from 0.76% to 31.8%).



SB 306 is narrowly written: it only affects 24 hospitals.

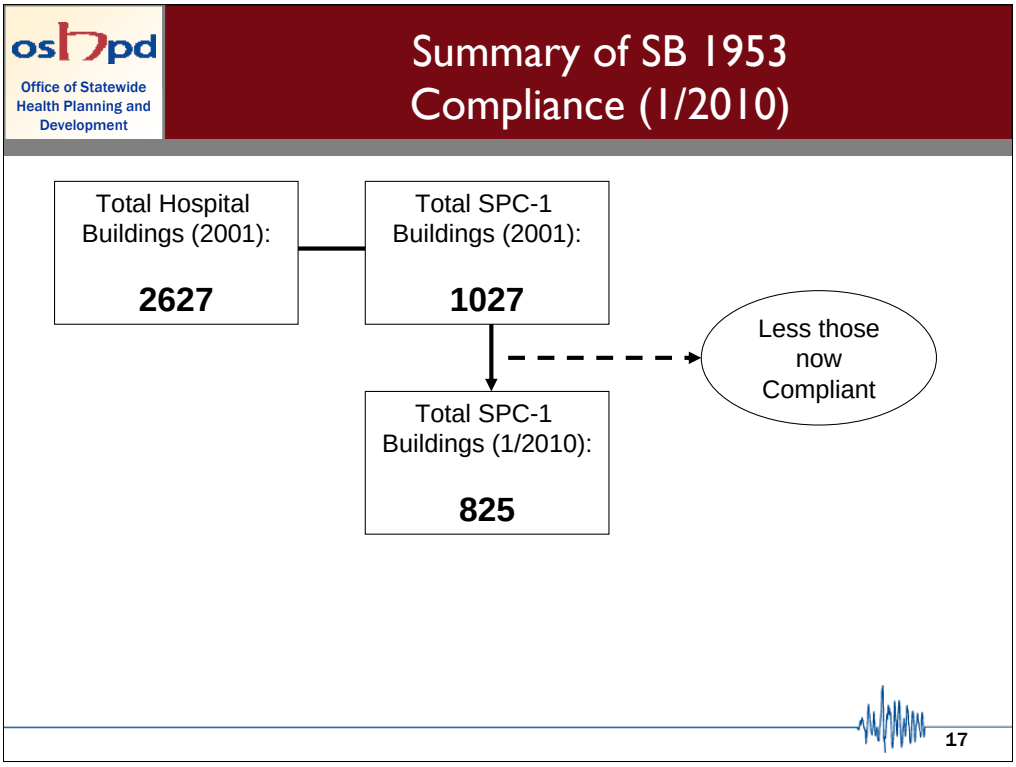
SB 306 allows hospitals that meet certain financial criteria to extend "collapse hazard" mitigation…..

from 2013/15 to 2020

…..if they also accelerate the "full functionality" requirement

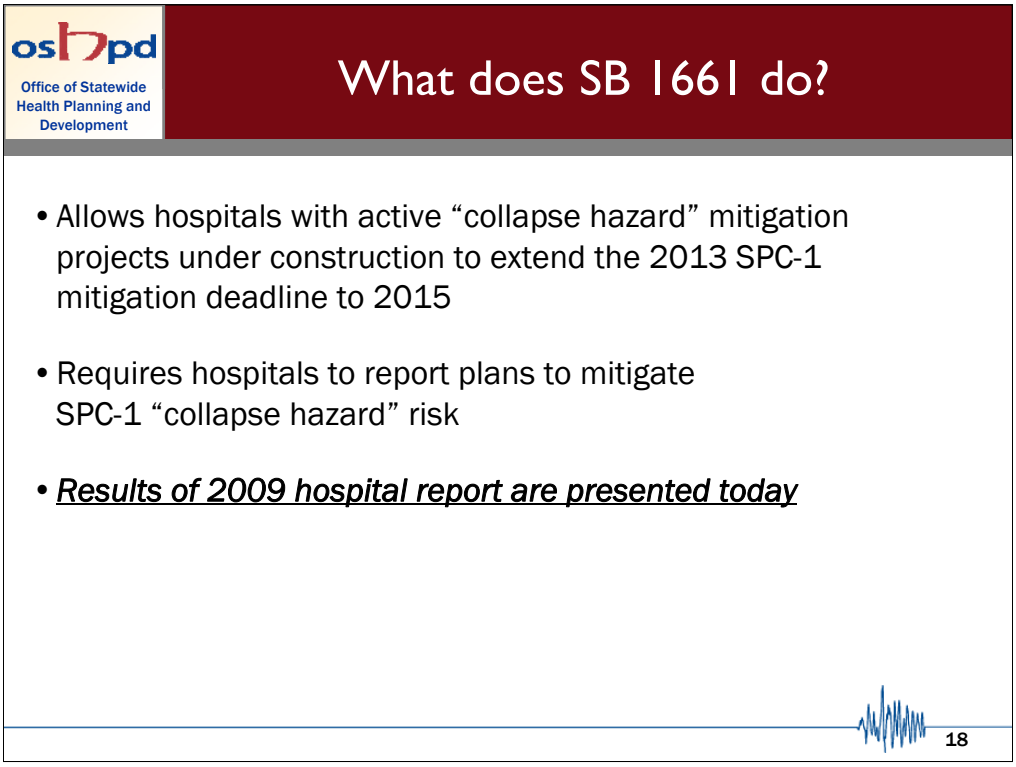
from 2030 to 2020.

SB 306 essentially requires replacement facility construction.



Those now Compliant include:

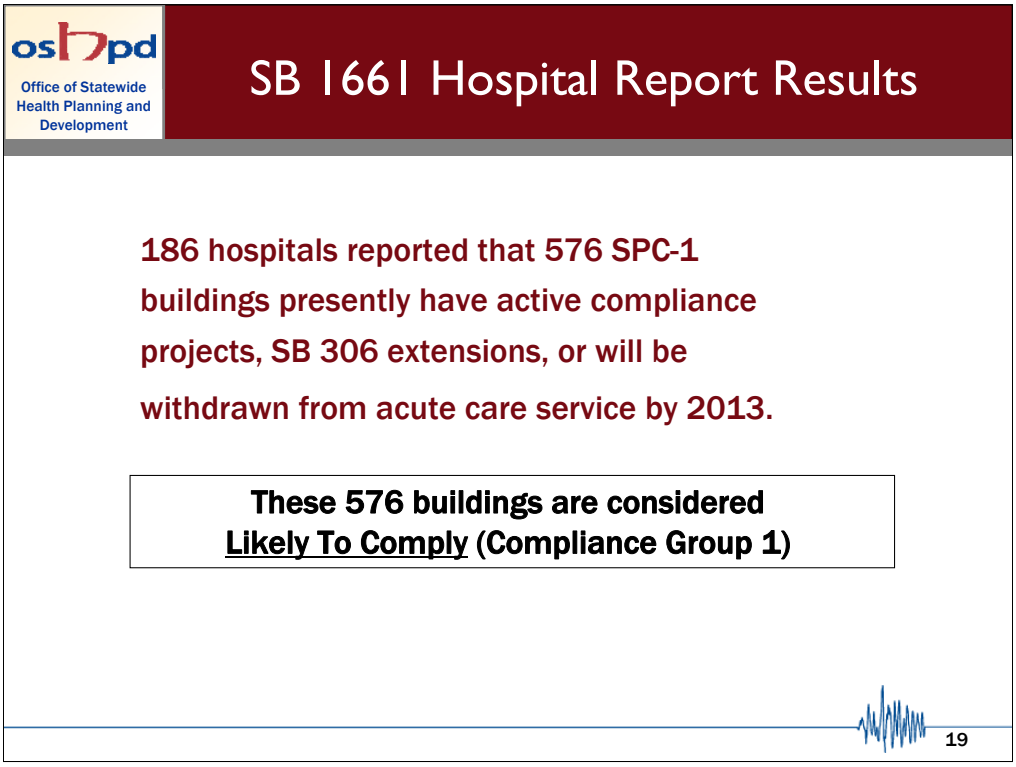
- Buildings already decommissioned from General Acute Care service
- Formerly SPC-1 buildings that have already passed HAZUS
- Formerly SPC-1 buildings that have undergone advanced engineering analysis
- Buildings that have been seismically retrofitted to SPC-2



A total of 242 hospitals, containing 819 SPC-1 buildings, reported information

Six hospitals did not provide any information on their SPC-1 buildings

As a result, findings from the 1661 hospital report should not be considered 100% complete resulting in some inconsistency in the numeric findings presented in subsequent slides



These are:

321 Buildings with active projects and replacement by 2013

74 Buildings with SB 306 Extensions to 2020

142 Buildings being withdrawn from acute care by 2013

39 Buildings with active projects and replacement by 2015 only if they are eligible for SB 1661 extensions

[Note: 130 Buildings in Compliance Group 1 also have HAZUS evaluations pending that may convert them from SPC-1 buildings to SPC-2 buildings]

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SB 1661 Hospital Report Results (continued)

Of the remaining 243 buildings, 104 SPC-1 buildings from 64 hospitals are presently under HAZUS review but have no other plans for compliance.

These 104 buildings are considered Possibly Compliant (Compliance Group 2)

20

If a conservative 50% HAZUS pass probability is assumed, 52 of these buildings will be re-categorized as SPC-2 but it is unknown which buildings these will be

All buildings presently under HAZUS review are eligible for a two-year extension to 2015 as permitted by SB 499

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SB 1661 Hospital Report Results (continued)

The remaining 139 SPC-1 buildings from 65 hospitals report no plans for compliance by the 2013/15 deadline and are not under HAZUS review.

These 139 buildings are considered Potentially Non-Compliant (Compliance Group 3)

21

Hospitals reported no plans for SB 1953 compliance for:

-54 Buildings to be removed from acute care service after 2013

-11 Buildings that have replacement projects that will be completed after 2013 (and no SB 1661 or SB 306 eligibility)

-14 Buildings that have active projects but reported no compliance timeline

-60 Buildings for which no compliance information at all is reported.

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SB 1661 Hospital Report Results
by Control Type (# SPC-1 bldgs.)

Control Type (# SPC-1 bldgs.)	Likely to Comply (Group 1)	Possibly Compliant (Group 2)	Potentially Non-compliant (Group 3)
City/County (n=82)	74 (90%)	5 (6%)	3 (4%)
District (n=79)	52 (66%)	12 (15%)	15 (19%)
Investor (n=149)	86 (58%)	41 (27%)	22 (15%)
Not-for-profit (n=480)	337 (70%)	46 (10%)	97 (20%)
University of California (n=29)	27 (93%)	0 (0%)	2 (7%)
All Buildings (n=819)	**576 (70%)**	**104 (13%)**	**139 (17%)**

22

Not all City/County hospitals applied for available SB 306 extensions

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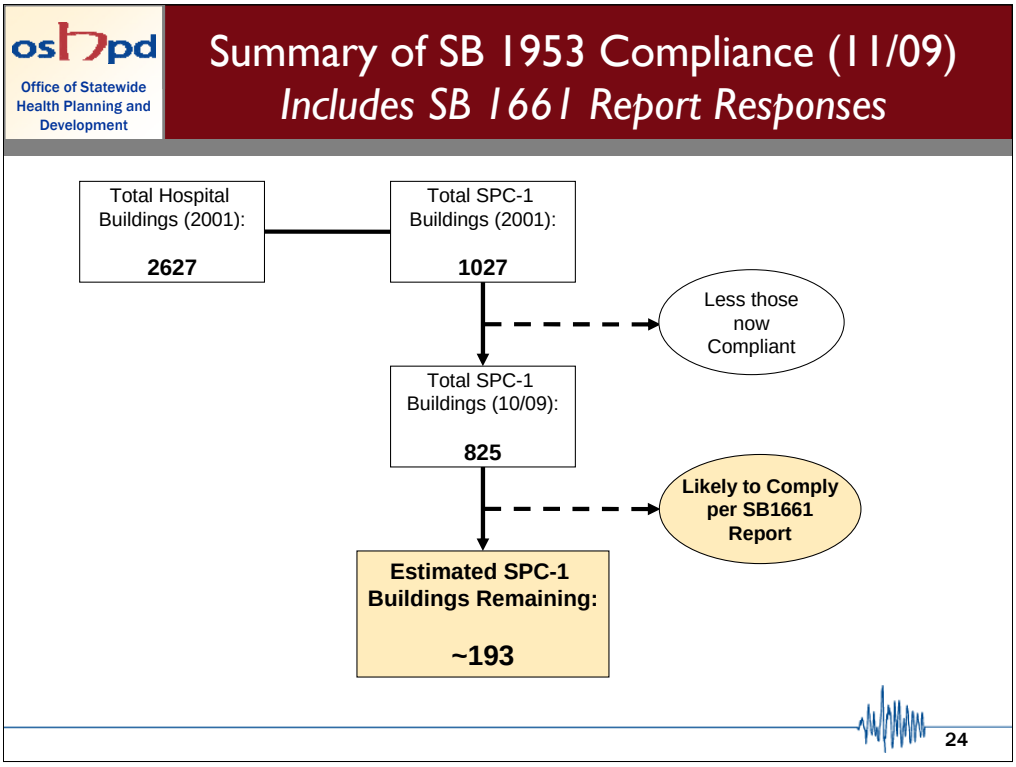
SB 1661 Hospital Report Results
by Largest Systems (# SPC-1 bldgs.)

System Affiliation (# SPC-1 bldgs)	Compliance Likely (Group 1)	Possibly Compliant (Group 2)	Potentially Non-Compliant (Group 3)
Sutter Health (n=70)	63 (90%)	3 (4%)	4 (6%)
Kaiser Foundation Hospitals (n=57)	51 (89%)	4 (7%)	2 (4%)
Catholic Healthcare West (n=55)	25 (45%)	7 (13%)	23 (42%)
Adventist Health System (n=40)	25 (62%)	10 (25%)	5 (13%)
University of California (n=29)	27 (93%)	0 (0%)	2 (7%)
unaffiliated (n=286)	198 (69%)	39 (14%)	**49 (17%)**

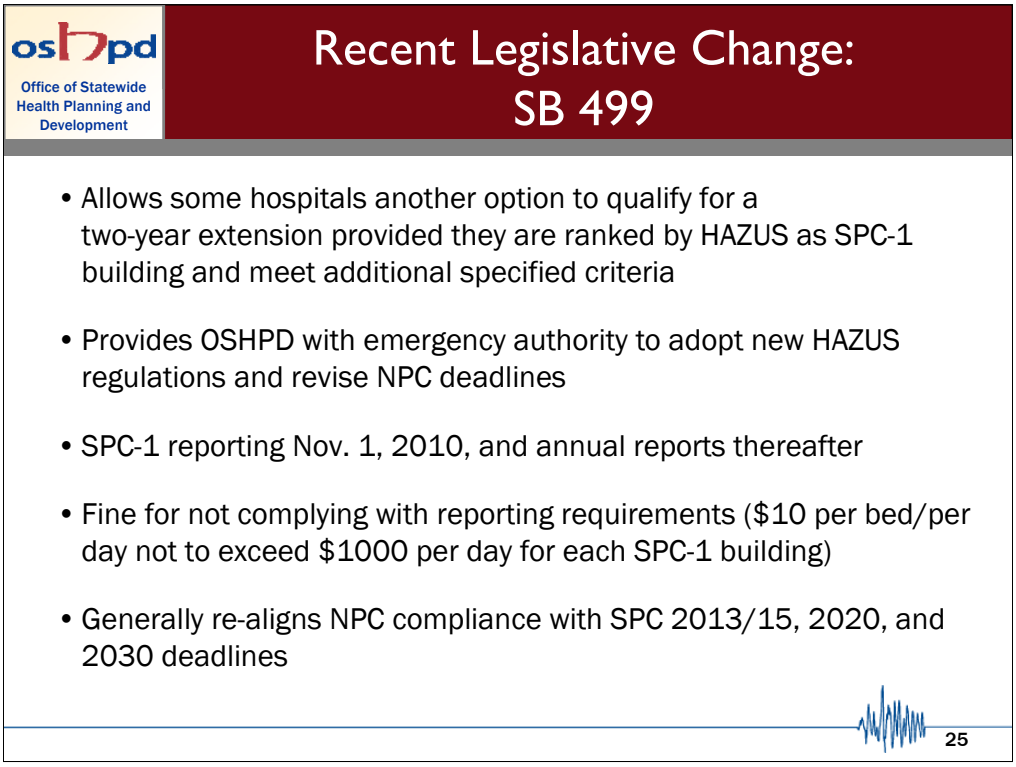
23

It is anticipated that 50% of Compliance Group 2 will be redistributed into Group 1 after completion of HAZUS evaluation



Likely to Comply per SB1661 Report includes:

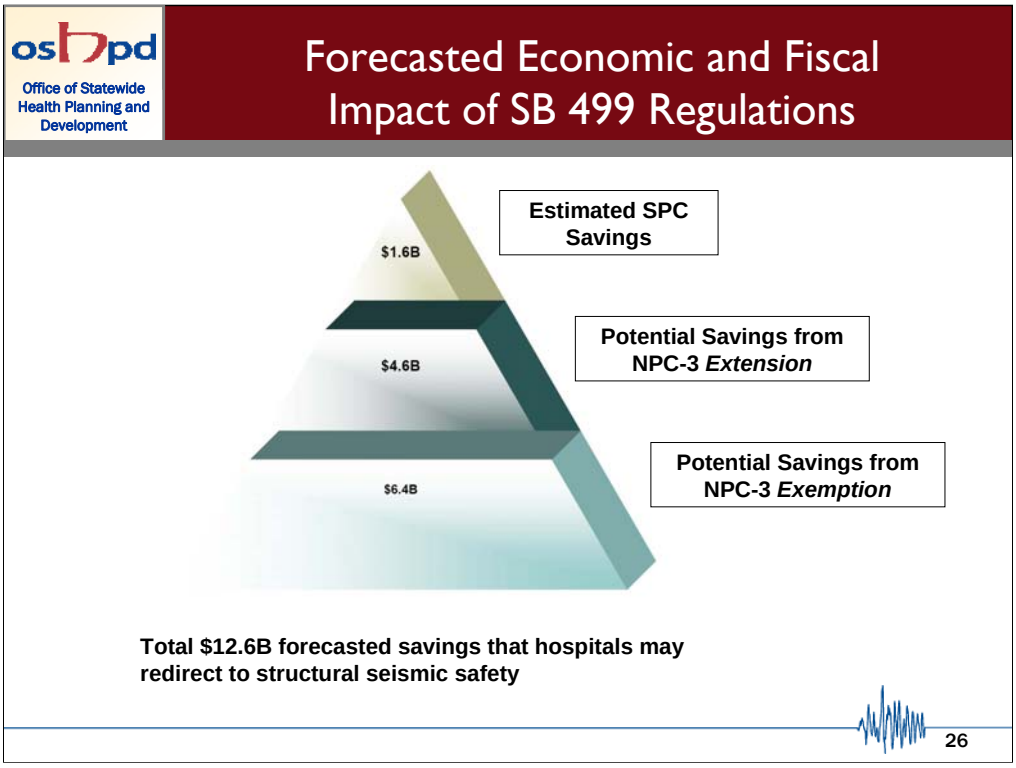
- Those likely to pass HAZUS (assumes a 50% Pass rate)
- Those participating in the SB306 program
- Those indicating that by 2013/2015 their SPC-1 buildings will be
  - retrofitted
  - replaced or
  - removed from GAC service



New HAZUS regulations include

•Increasing the maximum collapse probability threshold to be consistent with known SPC-2 buildings

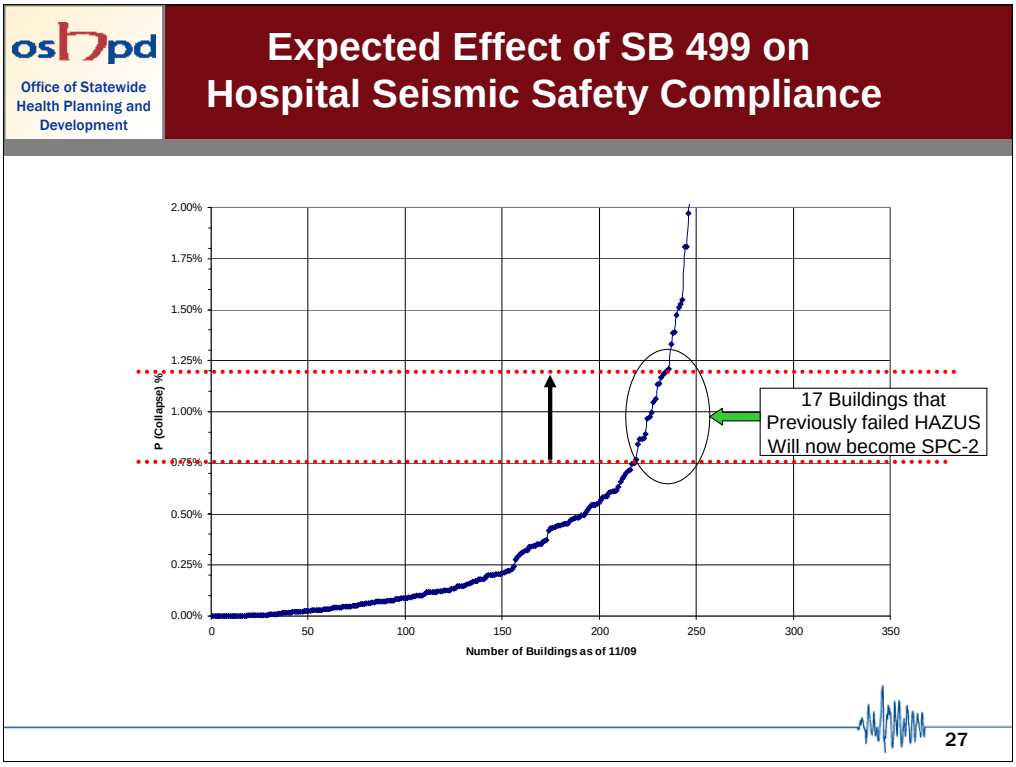
•Allowing voluntary seismic upgrades to address one or more structural irregularities



Hospitals have until 2030 to structurally upgrade, replace or remove acute care services from buildings that are reclassified as SPC-2 through the HAZUS reassessment program.

The projected savings are for construction costs only and do not include costs, such as disruption in services, loss of capacity/services, temporary relocation of services, etc., that are associated with structural and non-structural seismic compliance work. These additional costs are often double or even triple the construction cost.

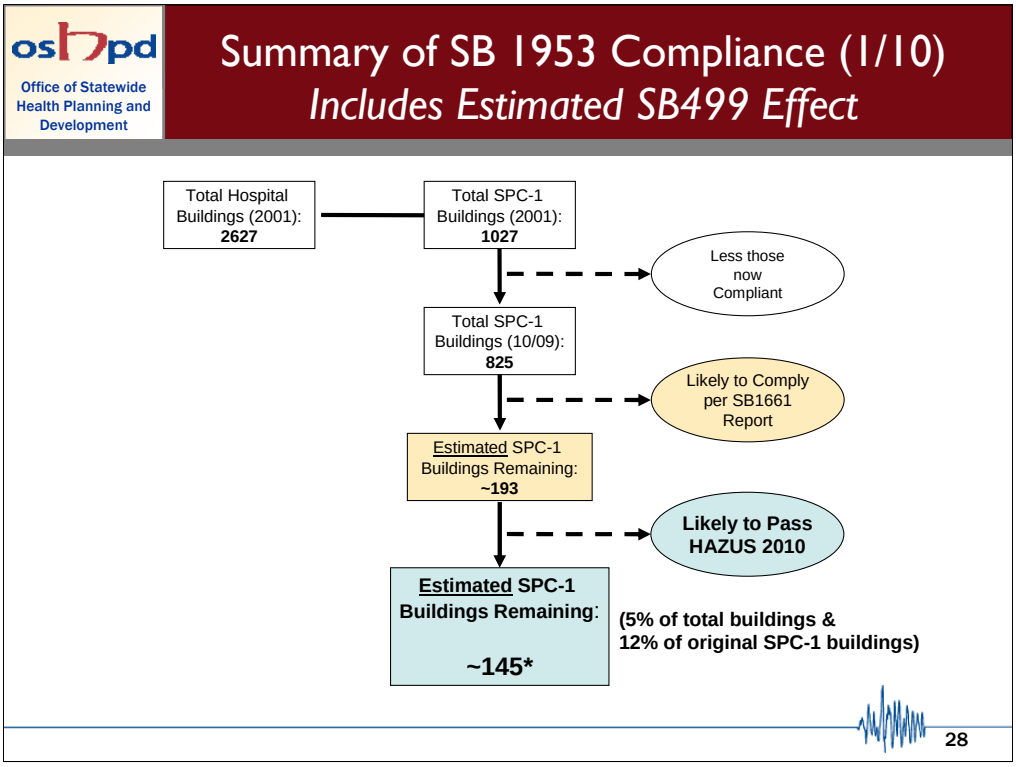
Non-structural seismic work often has additional costs because of unforeseen conditions, accessibility compliance, asbestos abatement, etc. that can make this work almost as costly as structural seismic compliance work.



The California Building Standards Commission approved moving the HAZUS collapse probability threshold from 0.75% to 1.2% at its January, 2010 meeting.

The 1.2% threshold is consistent with the highest collapse probability for existing SPC-2 buildings.

This action was adopted as an emergency regulation by OSHPD with an effective date of February 13, 2010.

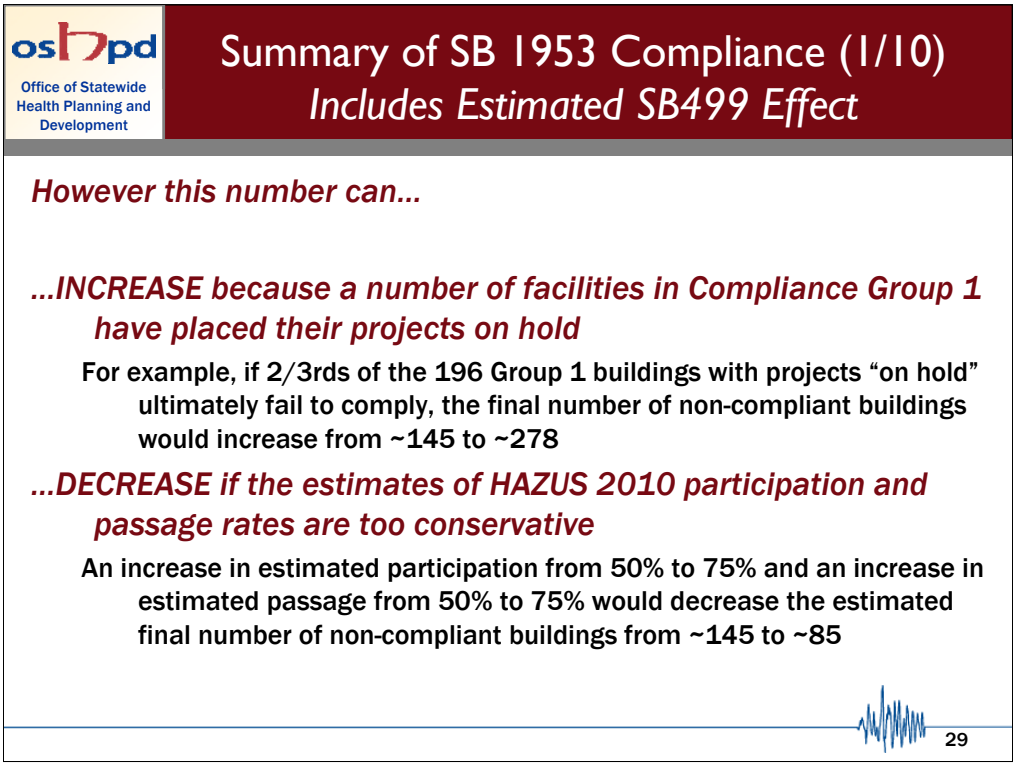


Likely to Pass HAZUS 2010 is based on adoption of regulations derived from SB 499:

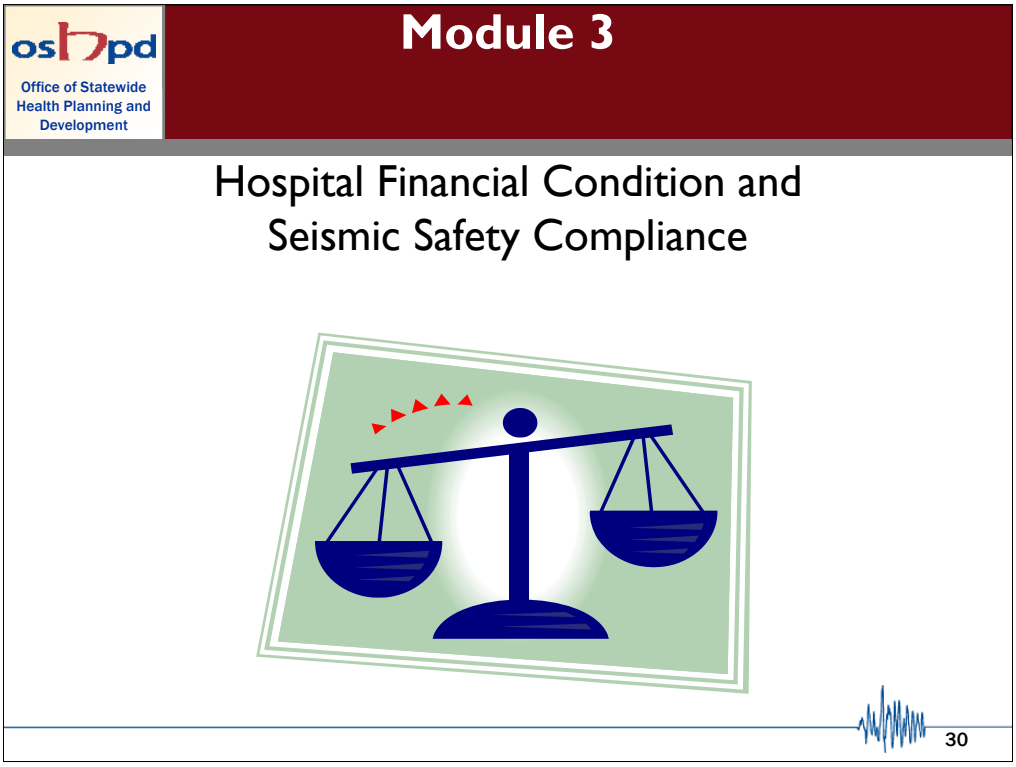
-Raising the collapse probability threshold for eligibility to 1.2%

-Allowing facilities to apply for consideration under HAZUS 2010

* This number (145) assumes that 50% of remaining SPC-1 facilities participate in HAZUS 2010 and that 50% pass.



A number of Compliance Group 1 projects that are "on hold" are also pending HAZUS evaluation that could convert a significant number of these buildings to SPC-2 status, also decreasing the number of remaining SPC-1 buildings



OSHPD hospital financial information:

- Annual Reports
  - Available through 2008
- Quarterly Reports
  - Available through Quarter 3 of 2009

Hospitals are required to submit both types of financial reports to OSHPD

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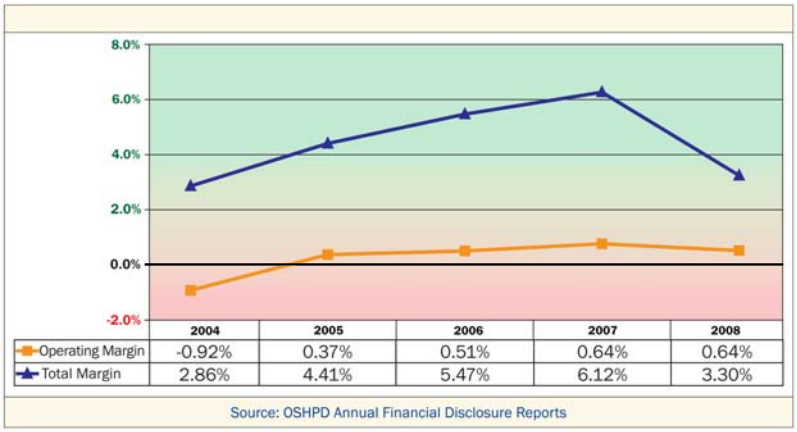
Hospital Financial Margins for the Last Five Years

Hospital Total Margins averaged +4.45% and Operating Margins averaged +0.25% from 2004 through 2008



	2004	2005	2006	2007	2008
Operating Margin	-0.92%	0.37%	0.51%	0.64%	0.64%
Total Margin	2.86%	4.41%	5.47%	6.12%	3.30%

Source: OSHPD Annual Financial Disclosure Reports

31

Operating Margin: Percent difference of profit/loss on operations over total operating revenue. A higher ratio indicates ability of facility to cover its operating costs with operating revenue. A negative operating margin means that a net loss on operations occurred.

Total Margin: Percent difference of net income over total operating revenue. Ratio is similar to operating margin, but factors in non-operating revenue. A negative total margin means net income was reported at a loss

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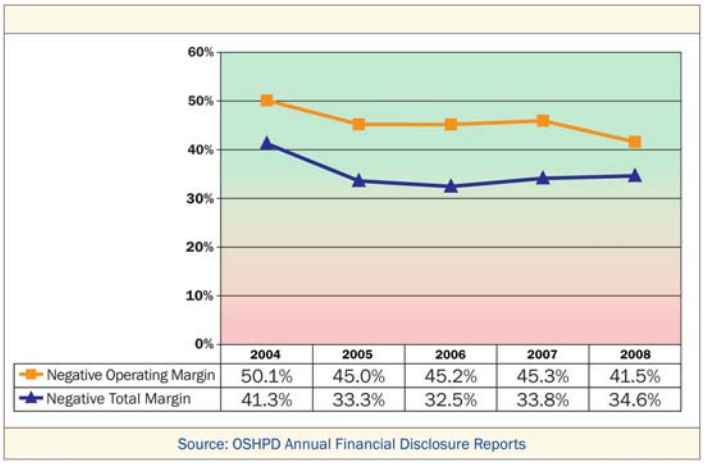
Percent of Hospitals Operating at a Loss

An average of 46% of Hospitals had Negative Operating Margins and 35% had Negative Total Margins from 2004 to 2008



	2004	2005	2006	2007	2008
Negative Operating Margin	50.1%	45.0%	45.2%	45.3%	41.5%
Negative Total Margin	41.3%	33.3%	32.5%	33.8%	34.6%

Source: OSHPD Annual Financial Disclosure Reports

32

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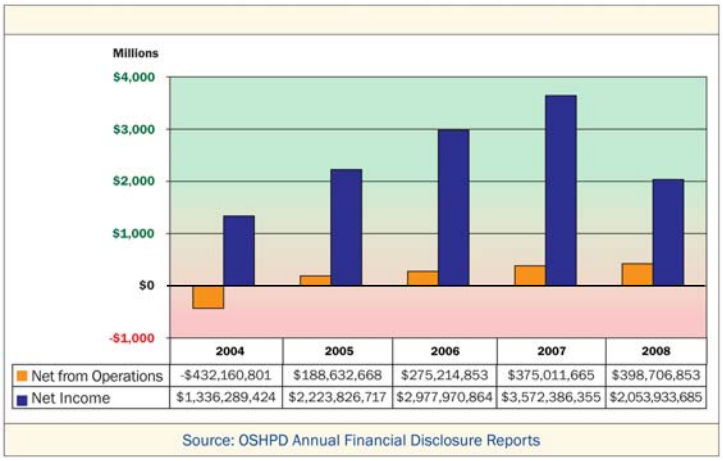
Net from Operations vs. Net Income

Hospital net income was $12 billion ($802 million from operations) from 2004 to 2008



	2004	2005	2006	2007	2008
Net from Operations	-$432,160,801	$188,632,668	$275,214,853	$375,011,665	$398,706,853
Net Income	$1,336,289,424	$2,223,826,717	$2,977,970,864	$3,572,386,355	$2,053,933,685

Source: OSHPD Annual Financial Disclosure Reports

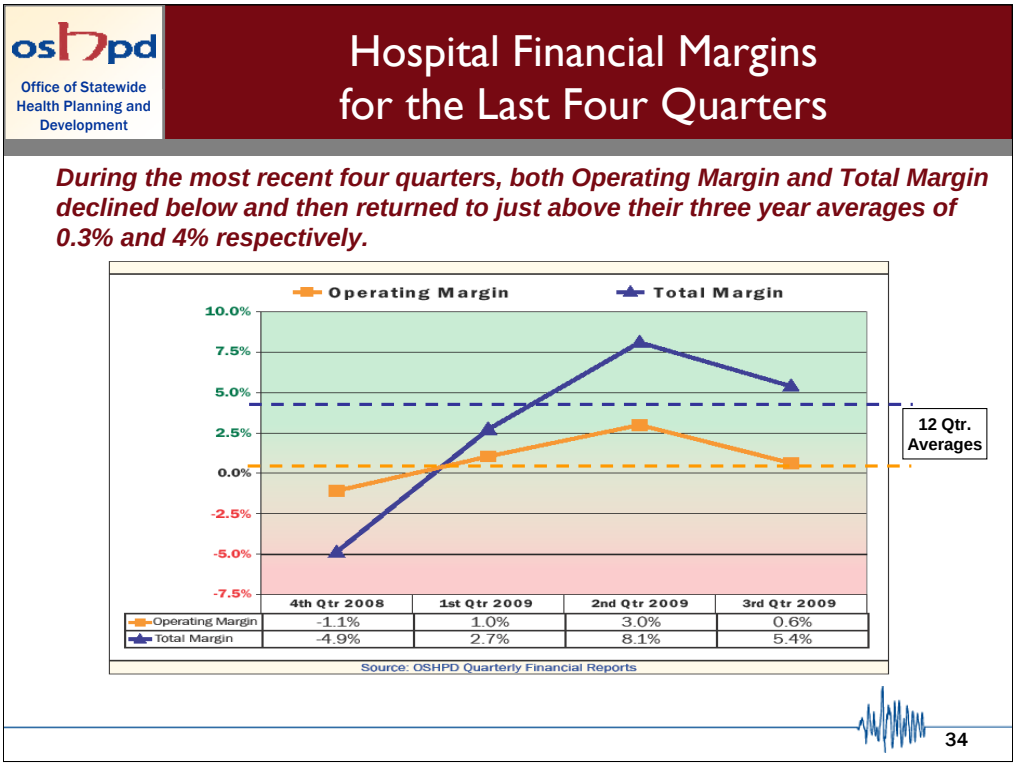
33

Net from Operations - the profit or loss from hospital operations, using only those revenue received by patients and payers, and other revenue related to operations (e.g., cafeteria sales, purchase discounts, sale of scrap, etc.). Used to calculate Operating Margin.

Formula = Total Operating Revenue (Net Patient Revenue + Other Operating Revenue) - Total Operating Expenses

Net Income - the profit or loss after all sources of revenue and expenses are included, along with income taxes and extraordinary items. Used to calculate Total Margin.

Formula = Net from Operations + Non-Operating Revenue - Non-Operating Expenses - Income Taxes - Extraordinary Items



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Total Margin: Percent difference of net income over total operating revenue. Ratio is similar to operating margin, but factors in non-operating revenue. A negative total margin means net income was reported at a loss

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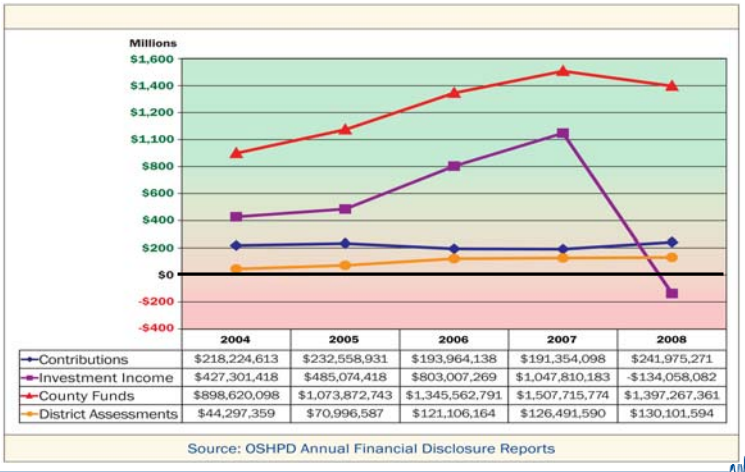
Sources of Non-Operating Revenue

Investment Income declined precipitously in 2008 (but was a net positive of $2.6 billion from 2004 to 2008)



	2004	2005	2006	2007	2008
Contributions	$218,224,613	$232,558,931	$193,964,138	$191,354,098	$241,975,271
Investment Income	$427,301,418	$485,074,418	$803,007,269	$1,047,810,183	-$134,058,082
County Funds	$898,620,098	$1,073,872,743	$1,345,562,791	$1,507,715,774	$1,397,267,361
District Assessments	$44,297,359	$70,996,587	$121,106,164	$126,491,590	$130,101,594

Source: OSHPD Annual Financial Disclosure Reports

35

Contributions - unrestricted cash donations from third parties or individuals - a type of non-operating revenue.

Investment Income - income, gains and losses from unrestricted investments - a type of non-operating revenue. SEC guidelines require reporting investment income at fair market value, as well as when investments are sold.

County Funds - appropriations received by county hospitals from Realignment Funds, County General Funds, and Other County Funds - a type of non-operating revenue.

District Assessments - assessment revenue received by district hospitals - a type of non-operating revenue. There are five categories: assessments, county allocation of taxes, special district augmentations, debt service taxes, and state homeowner's property relief.

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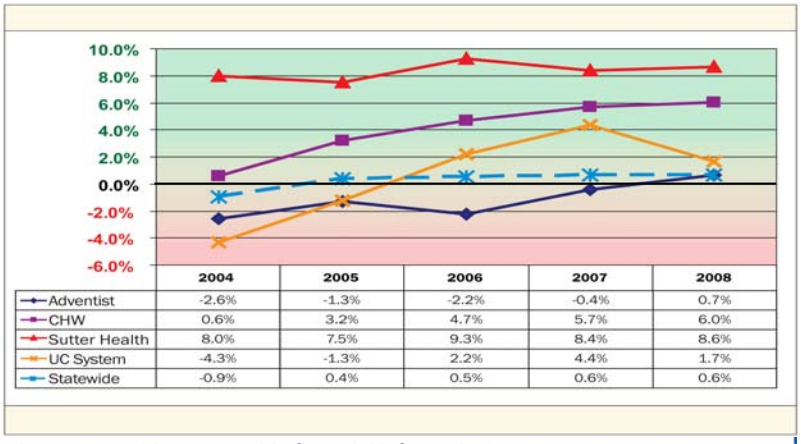
Operating Margin for Four of the largest Health Systems

Committee-Requested Examples of Operating Margin (by selected system compared to state average)



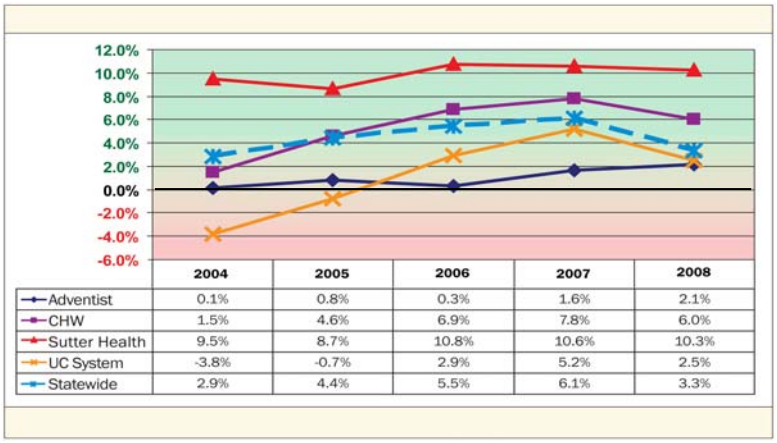
	2004	2005	2006	2007	2008
Adventist	-2.6%	-1.3%	-2.2%	-0.4%	0.7%
CHW	0.6%	3.2%	4.7%	5.7%	6.0%
Sutter Health	8.0%	7.5%	9.3%	8.4%	8.6%
UC System	-4.3%	-1.3%	2.2%	4.4%	1.7%
Statewide	-0.9%	0.4%	0.5%	0.6%	0.6%

(Kaiser does not provide comparable financial information)

Office of Statewide Health Planning and Development

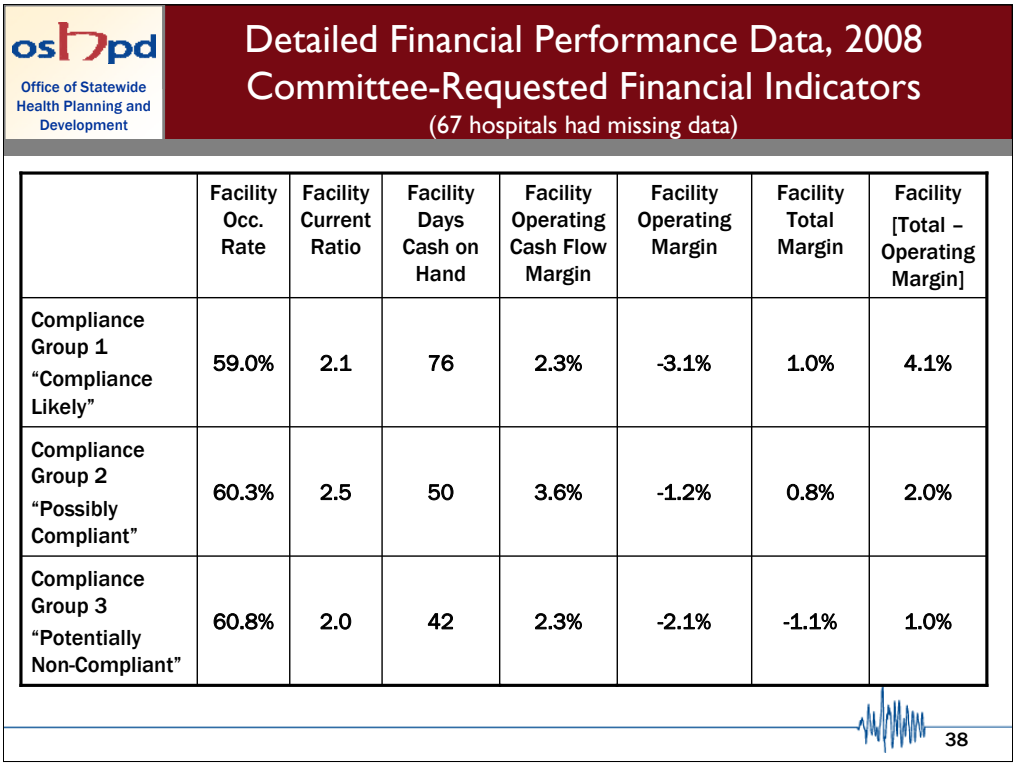
Total Margin for Four of the largest Health Systems

Committee-Requested Examples of Total Margin (by selected system compared to state average)



	2004	2005	2006	2007	2008
Adventist	0.1%	0.8%	0.3%	1.6%	2.1%
CHW	1.5%	4.6%	6.9%	7.8%	6.0%
Sutter Health	9.5%	8.7%	10.8%	10.6%	10.3%
UC System	-3.8%	-0.7%	2.9%	5.2%	2.5%
Statewide	2.9%	4.4%	5.5%	6.1%	3.3%

(Kaiser does not provide comparable financial information)



	Facility Occ. Rate	Facility Current Ratio	Facility Days Cash on Hand	Facility Operating Cash Flow Margin	Facility Operating Margin	Facility Total Margin	Facility [Total – Operating Margin]
Compliance Group 1 "Compliance Likely"	59.0%	2.1	76	2.3%	-3.1%	1.0%	4.1%
Compliance Group 2 "Possibly Compliant"	60.3%	2.5	50	3.6%	-1.2%	0.8%	2.0%
Compliance Group 3 "Potentially Non-Compliant"	60.8%	2.0	42	2.3%	-2.1%	-1.1%	1.0%

Occupancy Rate: Shows the percent of licensed beds occupied during the reporting period. A higher occupancy rate means more patients and generally more revenue. If occupancy rate is too high, it may mean insufficient beds exist and may result in ED overcrowding and/or ambulance diversion.

Current Ratio: Ratio of current assets to current liabilities. A higher ratio means more liquidity i.e., the ability of current assets to cover current liabilities.

Days Cash on Hand: Indicates number of days that current cash and cash equivalents area able to cover operating expenses. A higher number indicates that sufficient cash exists to meet operational needs. For hospitals operating in a health system, this ratio is often low at the facility level due to intercompany transactions involving cash.

Operating Cash Flow Margin: Percent difference of profit/loss on operations, excluding depreciation and interest, over total operating revenue. A higher ratio indicates ability of facility to cover its operating costs with operating revenue.

Operating Margin: Percent difference of profit/loss on operations over total operating revenue. A higher ratio indicates ability of facility to cover its operating costs with operating revenue. A negative operating margin means that a net loss on operations occurred.

Total Margin: Percent difference of net income over total operating revenue. Ratio is similar to operating margin, but factors in non-operating revenue. A negative total margin means net income was reported at a loss.

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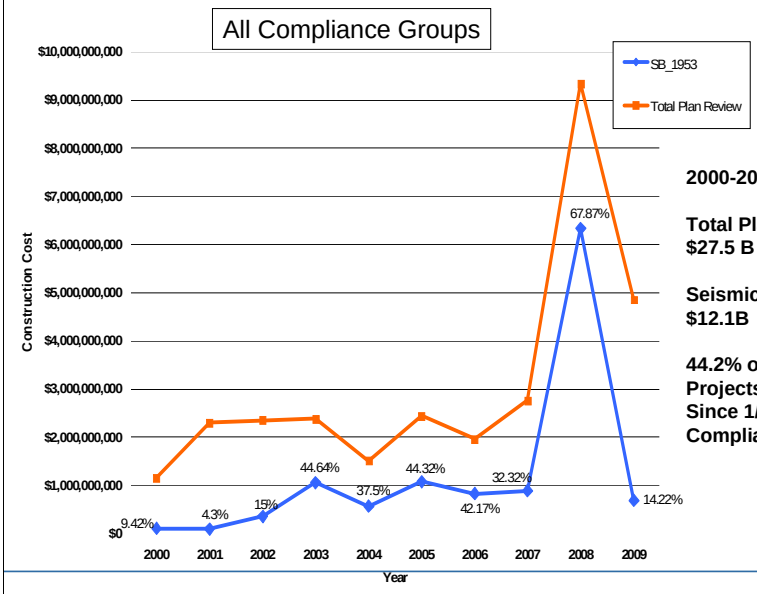
Investment in SB 1953/Seismic Compliance from 1/1/00 thru 12/31/09



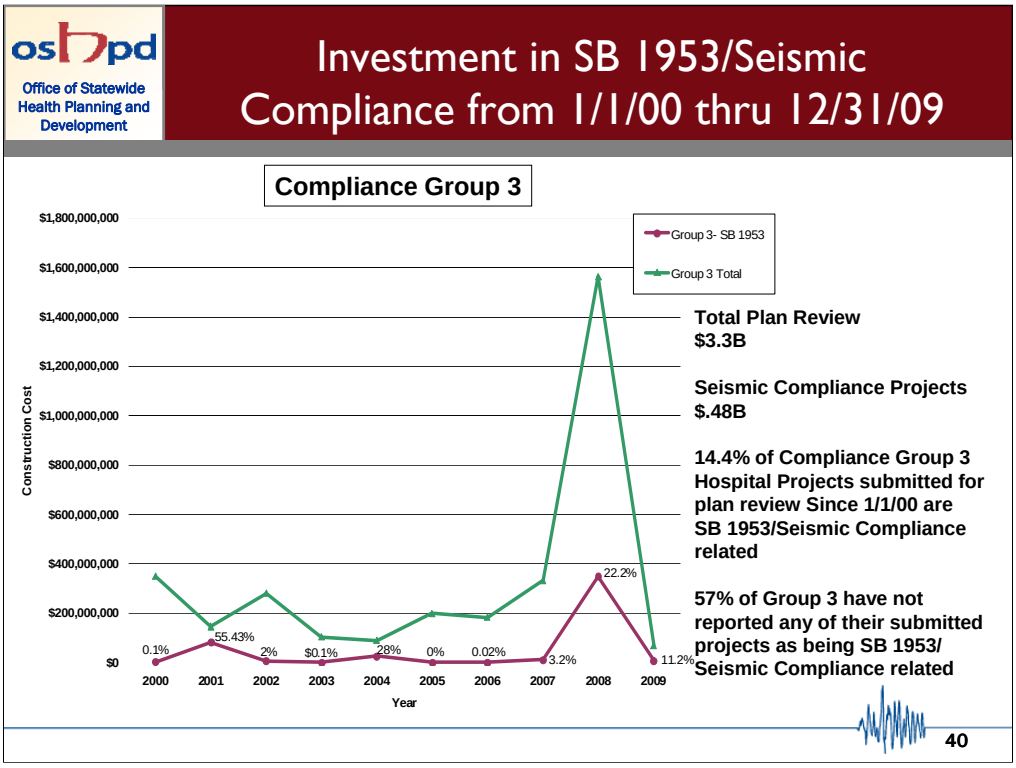
2000-2009 Plan Review Summary

Total Plan Review
$27.5 B

Seismic Compliance Projects
$12.1B

44.2% of Acute Care Hospital Projects submitted for plan review Since 1/1/00 are SB 1953/Seismic Compliance related

39



This graph depicts construction projects submitted to OSHPD for plan review for acute care hospitals subject to SB 1953 regulations only and therefore, does not reflect all projects submitted.

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End Slide....