K-12 Public Schools Fact Sheet

1. How many school districts and campuses are there in the Bay Area?
   191 districts and 1757 campuses in 10 Bay Area counties:
   - Alameda: 22 districts, 356 campuses
   - Contra Costa: 19, 244
   - Marin: 20, 74
   - Napa: 6, 50
   - San Mateo: 24, 172
   - San Francisco: 3, 119
   - Santa Clara: 35, 390
   - Santa Cruz: 14, 79
   - Solano: 7, 104
   - Sonoma: 41, 169

   The Bay Area has almost one fifth of California’s 1056 school districts and 9087 K-12 campuses. About 1 million students, out of 6.2 million statewide, attend K-12 public schools in the Bay Area.

2. How many buildings are there on Bay Area campuses?
   About 3000 built between 1933 and 1978, and many more built since then.

3. How many are on DSA’s “vulnerable” list?
   Over 1000 in the Bay Area. According to DSA, these buildings provide questionable resistance to earthquakes and require additional study to determine if they meet a "life safety" standard.

4. Which Bay Area school districts have vulnerable buildings?
   Unknown. Assembly Bill 300, under which the DGS survey was executed, prohibited the identification of specific buildings, campuses, or districts. However, individual school districts may request information on their own facilities from DSA.

   Many at-risk school buildings are known to be vulnerable only because they are in proactive districts:
   - Berkeley Unified initiated a study after the 1989 Loma Prieta earthquake and found significant hazards which it has since addressed.
   - Fremont Unified began assessing 288 buildings in 1997 and is now addressing the highest risks.
   - West Contra Costa completed two rounds of seismic assessments in 2002, finding vulnerabilities on 19 elementary school campuses and five middle and high school campuses.

   School officials in some other districts acknowledge that their buildings might be dangerous in earthquakes. Despite the findings from proactive districts, however, 90% of school officials surveyed in 1999 said they believed their schools would perform well in a major event, even though half of the surveyed districts had completed almost no engineering assessments.

5. What can be done to reduce the risk, and how much will it cost?
   $4.7 billion statewide, to achieve "life safety" in all of the buildings marked "vulnerable" by DSA. In Berkeley, retrofit costs ranged from $82 to $127 per square foot at three schools. Two more vulnerable schools had to be demolished and replaced at about $200 per square foot.

   Incremental retrofit, done in coordination with regular maintenance and capital improvements, might prove an effective, affordable, and non-disruptive solution.

   Local solutions depend on the availability of district reserve funds, commitment of local communities to dedicated bond funding, matching State and Federal funds, and state policies regarding the use of maintenance or modernization funds for seismic improvement. Some cities, including Berkeley and Fremont, have shown that real risk reduction is possible despite financial and regulatory hurdles.
Notes and Sources


2. Sources: DGS (see below) and www.cde.ca.gov/dataquest. For the DGS report, prepared under Assembly Bill 300, the Division of the State Architect (DSA) screened records of about 16,000 buildings constructed statewide between 1933 and July 1, 1978. (Older buildings that pre-date the1933 Field Act have almost all been replaced or retrofitted. Newer buildings were designed and constructed under the 1976 Uniform Building Code and were deemed to meet DSA's life-safety screening criteria). From the CDE website data (see question 1), between one fifth and one sixth of the 16,000 buildings are estimated to be in the Bay Area.

3. Source: DGS. Starting with 16,000 buildings, DSA screened out all wood frame buildings, which have historically performed to a life-safety level. This left 9,659 buildings, of which 7,537 "that require detailed seismic evaluation to determine if they can be expected to achieve life safety performance" in a design earthquake equivalent to that specified for new construction by the 1997 UBC. From the CDE website data (see question 1), between one fifth and one sixth (between 1200 and 1500) of these "more vulnerable" buildings are thus estimated to be in the Bay Area.

4. Sources: For AB300, DGS and Chauhan. For Berkeley, EQE. For Fremont, LA Times, ABS Consulting, and FUSD. The FUSD site includes many documents, including histories, project schedules, and meeting minutes, related to implementation of its $157M bond measure, which passed in March 2002. For West Contra Costa, Shire. In addition, according to the 1999 LA Times article, Martinez has completed seismic upgrades, triggered by substantial renovations, in all of its 60 buildings, and Albany has completed substantially all of its necessary retrofits.

For administrators' perceptions, LA Times and Shire. Shire qutes officials from Pittsburg and Mt. Diablo, as well as West Contra Costa. The LA Times survey predated AB300 and involved 201 districts in Los Angeles, Orange, Alameda, Contra Costa, Santa Clara, San Mateo, and San Francisco counties, with quotes from Emeryville and Berkeley officials. It reports, "Half of the districts have not examined their pre-1976 buildings" and "… more than 90% [of surveyed school officials] said they believe their schools will stand up extremely or moderately well." Some of the survey data is also presented graphically in the EQE reference listed below.

5. Sources: For cost estimates, DGS, FUSD, and EQE. For incremental retrofit, FEMA 395. Fremont Unified is spending $34 million on seismic improvements, out of $157 million approved for a broad-based Health & Safety program. The Berkeley program, implemented through the 1990s, cost $158 million. For Berkeley's experience, see EQE and the EERI-NC Best Practice available online at http://quake06.org/quake06/best_practices/SFSIP.html.

References


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