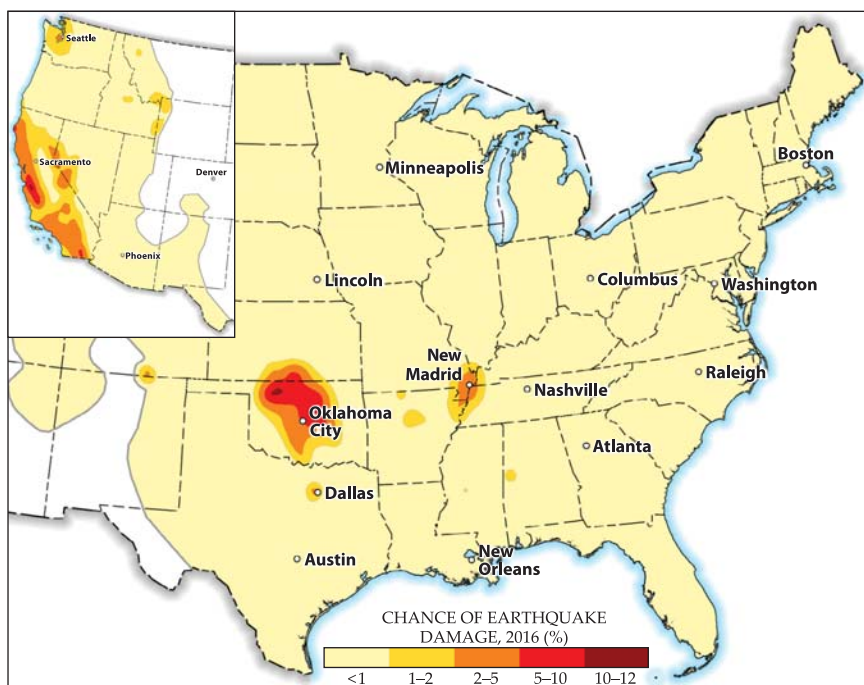




CHANCE OF EARTHQUAKE DAMAGE THIS YEAR. The map of the western states (inset) is from the US Geological Survey's 50-year model that considers only natural earthquakes. The map of the central and eastern US is a forecast based on both natural and induced earthquakes. (Adapted from figure 8 in 2016 *One-Year Seismic Hazard Forecast for the Central and Eastern United States from Induced and Natural Earthquakes*, USGS open-file report 2016-1035.)

earthquakes, says Rubinstein. To date, such distinction is made through correlating earthquakes with industrial data. But at the least, daily information about wastewater-injection locations, times, volumes, and rates would be necessary to make a clear distinction, he says.

The maps in the new study supplement the USGS's 2014 National Seismic Hazard Model forecast for natural earth-

quakes. That model projects 50 years out, a period chosen to be useful for setting building codes. Still, says Rubinstein, short-term risk could have implications for public safety, structural assessments, and regulatory practices.

The study's authors say they will wait for feedback on the new maps before deciding how often to update them.

Toni Feder

NEWS NOTES

Doctoral recipients. A record 54 070 doctoral degrees were awarded across all fields by US universities in 2014, according to NSF, which has conducted annual surveys on PhD recipients since 1957. Of those PhDs, 2246 were in physics and astronomy.

The survey notes that the US remains one of the most attractive countries for study but warns that "the continued pre-eminence of U.S. doctoral education is not assured. Other nations, recognizing the contributions doctorate recipients make to economies and cultures, are investing heavily in doctoral education."

Highlights from the latest survey include the following:

► The numbers of both citizens and noncitizens earning PhDs continue to grow, with each up more than 40% from 2004 to 2014. Noncitizens made up 29%

of all US doctoral recipients in 2014. More than half came from China, India, and South Korea.

► From 2004 to 2014, science and engineering made up 75% of all doctorates earned in the US.

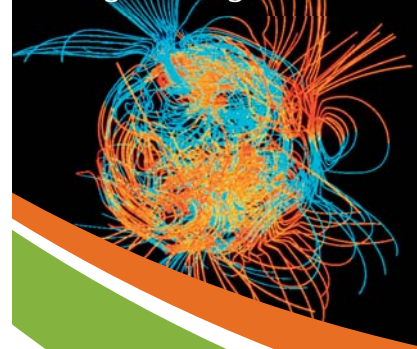
► In 2014, women earned 46% of all US doctorates, up from 39% in 1994. In physical science and engineering fields, the number of women earning doctorates grew from 1995 to 4999 over those two decades. The fastest-growing sub-fields for women were computer and information science and materials science engineering.

► From 1994 to 2014, the number of doctorates earned by African Americans grew by 70%, to 2167; among Latinos, the number more than doubled, to 2196.

The full report on the Survey of Earned Doctorates can be found at www.nsf.gov/statistics/2016/nsf16300/start.cfm.

TF

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