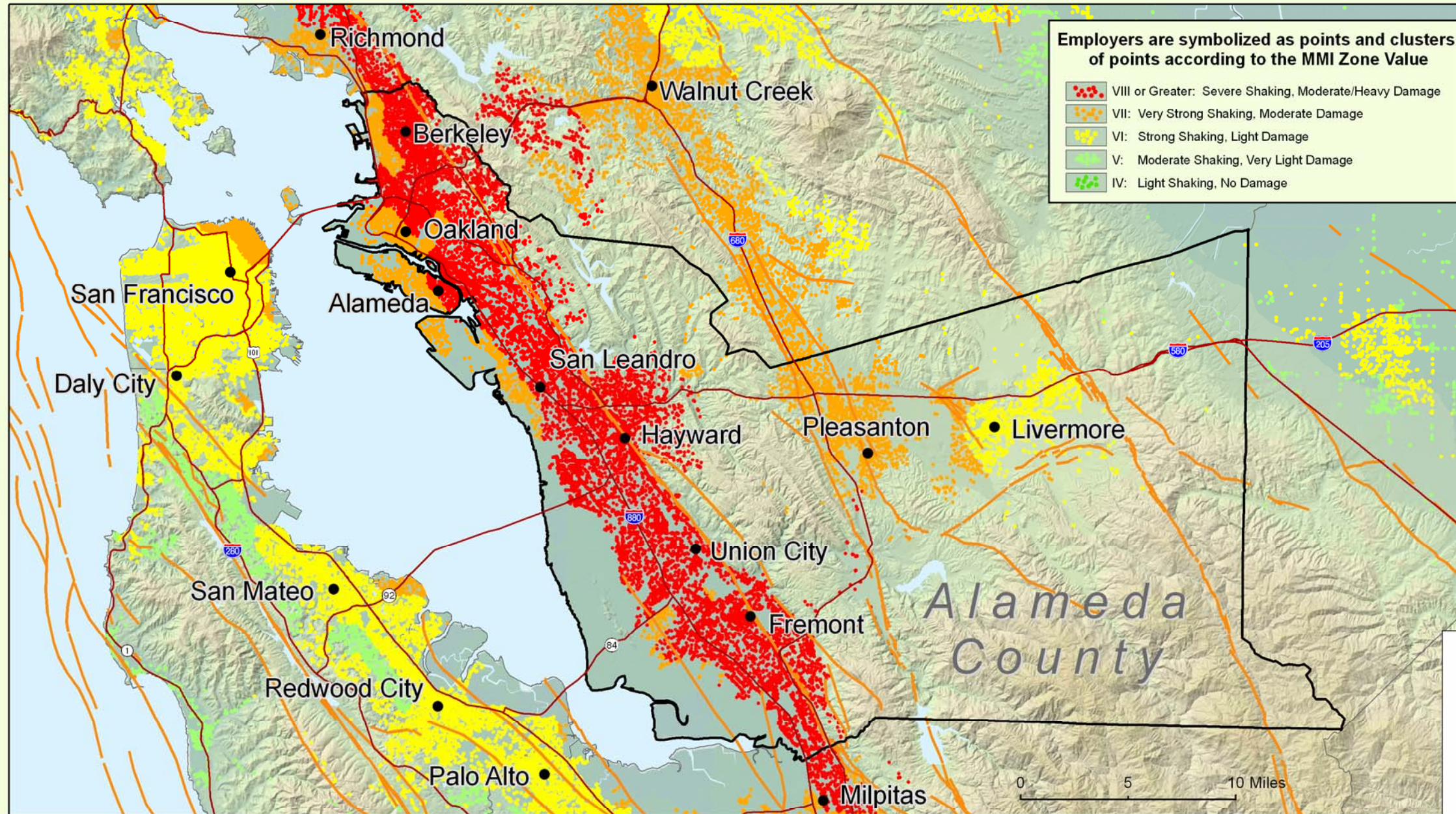


# Labor Market Risks of a Magnitude 6.9 Earthquake in Alameda County



**Employers are symbolized as points and clusters of points according to the MMI Zone Value**

- VIII or Greater: Severe Shaking, Moderate/Heavy Damage
- VII: Very Strong Shaking, Moderate Damage
- VI: Strong Shaking, Light Damage
- V: Moderate Shaking, Very Light Damage
- IV: Light Shaking, No Damage

The Hayward fault underlies Alameda County, a populous, urban area in Northern California, and is estimated to have a 27 percent chance of experiencing a seismic event by 2032. Alameda County is home to 41,000 employers, 682,000 employees, and a total quarterly payroll of \$9.3 billion.

The County also lies over approximately three-fourths of the length of the Hayward fault and is therefore the county in the region most exposed to earthquakes on this fault. When we overlaid employers on shaking intensity zones, we found that a large number of employers are located in areas which are expected to experience the greatest intensity as measured by MMI.

Within Alameda County, we estimate that:

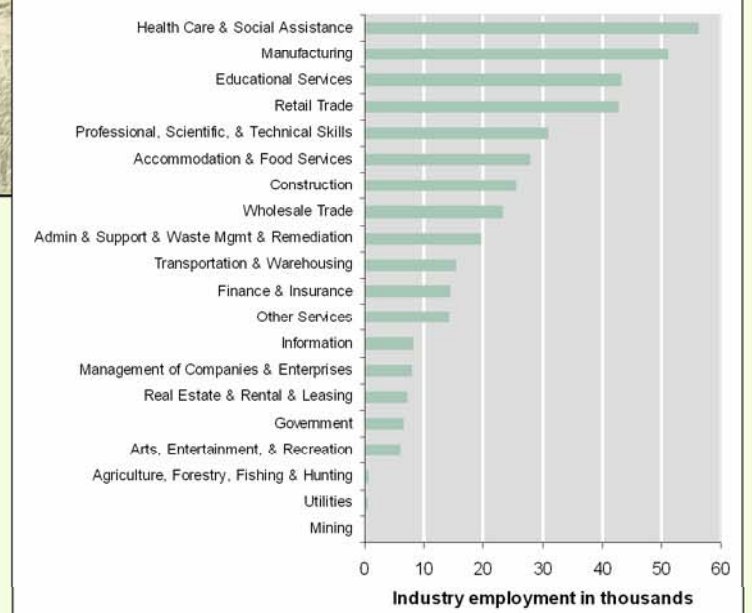
Approximately 90 percent of the businesses, employees, and payrolls are located in or attributed to the most intense shaking zones on the map (MMI-VII and MMI-VIII and higher).

More than half of the businesses, employees, and payrolls are in the zones characterized as having severe shaking and moderate to heavy damage (MMI-VIII+).

There are more than 600,000 employees in the most intense shaking zones earning \$8.2 billion in quarterly payrolls.

The interruption to business from a M6.9 Hayward earthquake could affect nearly all businesses and employees in Alameda County.

**Potential Employment Exposure from a Hayward M6.9 Earthquake, Alameda County, MMI VIII or Greater**



The map of shaking intensities measured by the Modified Mercalli Intensity (MMI) scale delineates the shaking intensity zones that would occur throughout the area in the event of an earthquake of magnitude 6.9 on the Hayward fault. As is apparent, the most intense (MMI VIII+) zone would be primarily within the borders of Alameda County.

— Fault Lines

**Modified Mercalli Intensity Scale Zone Value**

- VIII or Greater: Severe Shaking, Moderate/Heavy Damage
- VII: Very Strong Shaking, Moderate Damage
- VI: Strong Shaking, Light Damage
- V: Moderate Shaking, Very Light Damage
- IV: Light Shaking, No Damage



Data sources:  
 Quarterly Census of Employment and Wages (QCEW) developed through a cooperative program between the states and the U.S. Bureau of Labor Statistics.  
 MMI Shaking Zones for a potential 6.9 Earthquake on the Hayward Fault, California Geological Survey

Data notes:  
 Business Establishments and Wage data are from 2006 Third Quarter.  
 Employment is from September 2006.  
 Domestic employers are not included in the data.

Data Analysis and Cartography:  
 State of California/ Employment Development Department/Labor Market Information Division  
 September 2007