

Table 1. Measured Magnitudes of Northern California Earthquakes Versus Empirically Derived Magnitudes

Fault or Event	Rupture Area (km ²)	Rupture Length (km)	M _w , W&C94*	M _w , W&C94*	M _w , Seismic	M _w , Geodetic	M _w , Intensity	M _w , Paleo-seismic	References
Rodgers Creek f. [last event]	770	77	6.9	7.3	—	—	—	7.1	<i>Schwartz and others</i> [1993]
Hayward f. [1868]	708	59	6.9	7.1	—	7.0	6.84 ±0.20; 7.2	—	<i>Yu and Segall</i> [1997], <i>Tuttle and Sykes</i> [1993]; <i>Topozada and others</i> [1993]
San Andreas f. [1906]	6000	470	7.8	8.2	7.7-7.9	7.9	—	—	<i>Wald and others</i> [1993]; <i>Thatcher and others</i> [1997]
Livermore [1980]	160	15	6.2	6.4	5.8	—	—	—	<i>Cockerham and others</i> [1980]
Coalinga [1983]	300	30	6.5	6.8	6.5	6.6	—	—	NEIC centroid moment tensor; <i>Stein and Ekstrom</i> [1992]
Morgan Hill [1983]	130	26	6.1	6.7	6.2	6.2	—	—	<i>Tuttle and Sykes</i> [1993]; <i>Prescott and others</i> [1984]
Loma Prieta [1989]	710	37	6.9	6.9	6.9	7.1	6.9	—	<i>Wald and others</i> [1991]; <i>Hanks and Krawinkler</i> [1991]; <i>Lisowski and others</i> [1990]; <i>Tuttle and Sykes</i> [1993]

* Moment magnitudes (M_w) of selected, well-studied historical earthquakes in northern California computed from empirical relations of *Wells and Coppersmith* [1994]