
Hazus: Earthquake Global Risk Report

Region Name: SSA_CC_to_CO

Earthquake Scenario: ssanandreascbbnmsmn_m8p1_se

Print Date: May 06, 2024

Disclaimer:

Totals only reflect data for those census tracts/blocks included in the user's study region.

The estimates of social and economic impacts contained in this report were produced using Hazus loss estimation methodology software which is based on current scientific and engineering knowledge. There are uncertainties inherent in any loss estimation technique. Therefore, there may be significant differences between the modeled results contained in this report and the actual social and economic losses following a specific earthquake. These results can be improved by using enhanced inventory, geotechnical, and observed ground motion data.

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General Description of the Region

Hazus-MH is a regional earthquake loss estimation model that was developed by the Federal Emergency Management Agency (FEMA) and the National Institute of Building Sciences. The primary purpose of Hazus is to provide a methodology and software application to develop multi-hazard losses at a regional scale. These loss estimates would be used primarily by local, state and regional officials to plan and stimulate efforts to reduce risks from multi-hazards and to prepare for emergency response and recovery.

The earthquake loss estimates provided in this report was based on a region that includes 25 county(ies) from the following state(s):

California

Note:

Appendix A contains a complete listing of the counties contained in the region.

The geographical size of the region is 97,469.67 square miles and contains 7,197 census tracts. There are over 10,550 thousand households in the region which has a total population of 31,593,997 people. The distribution of population by Total Region and County is provided in Appendix B.

There are an estimated 9,025 thousand buildings in the region with a total building replacement value (excluding contents) of (millions of dollars). Approximately 90.00 % of the buildings (and % of the building value) are associated with residential housing.

The replacement value of the transportation and utility lifeline systems is estimated to be 404,671 and 258,692 (millions of dollars) , respectively.

Building and Lifeline Inventory

Building Inventory

Hazus estimates that there are 9,025 thousand buildings in the region which have an aggregate total replacement value of (millions of dollars) . Appendix B provides a general distribution of the building value by Total Region and County.

In terms of building construction types found in the region, wood frame construction makes up 88% of the building inventory. The remaining percentage is distributed between the other general building types.

Critical Facility Inventory

Hazus breaks critical facilities into two (2) groups: essential facilities and high potential loss facilities (HPL). Essential facilities include hospitals, medical clinics, schools, fire stations, police stations and emergency operations facilities. High potential loss facilities include dams, levees, military installations, nuclear power plants and hazardous material sites.

For essential facilities, there are 460 hospitals in the region with a total bed capacity of 82,576 beds. There are 10,456 schools, 1,958 fire stations, 674 police stations and 170 emergency operation facilities. With respect to high potential loss facilities (HPL), there are no dams identified within the inventory. The inventory also includes no hazardous material sites, no military installations and no nuclear power plants.

Transportation and Utility Lifeline Inventory

Within Hazus, the lifeline inventory is divided between transportation and utility lifeline systems. There are seven (7) transportation systems that include highways, railways, light rail, bus, ports, ferry and airports. There are six (6) utility systems that include potable water, wastewater, natural gas, crude & refined oil, electric power and communications. The lifeline inventory data are provided in Tables 1 and 2.

The total value of the lifeline inventory is over 663,363.00 (millions of dollars). This inventory includes over 17,095.16 miles of highways, 16,963 bridges, 362,659.46 miles of pipes.

Table 1: Transportation System Lifeline Inventory

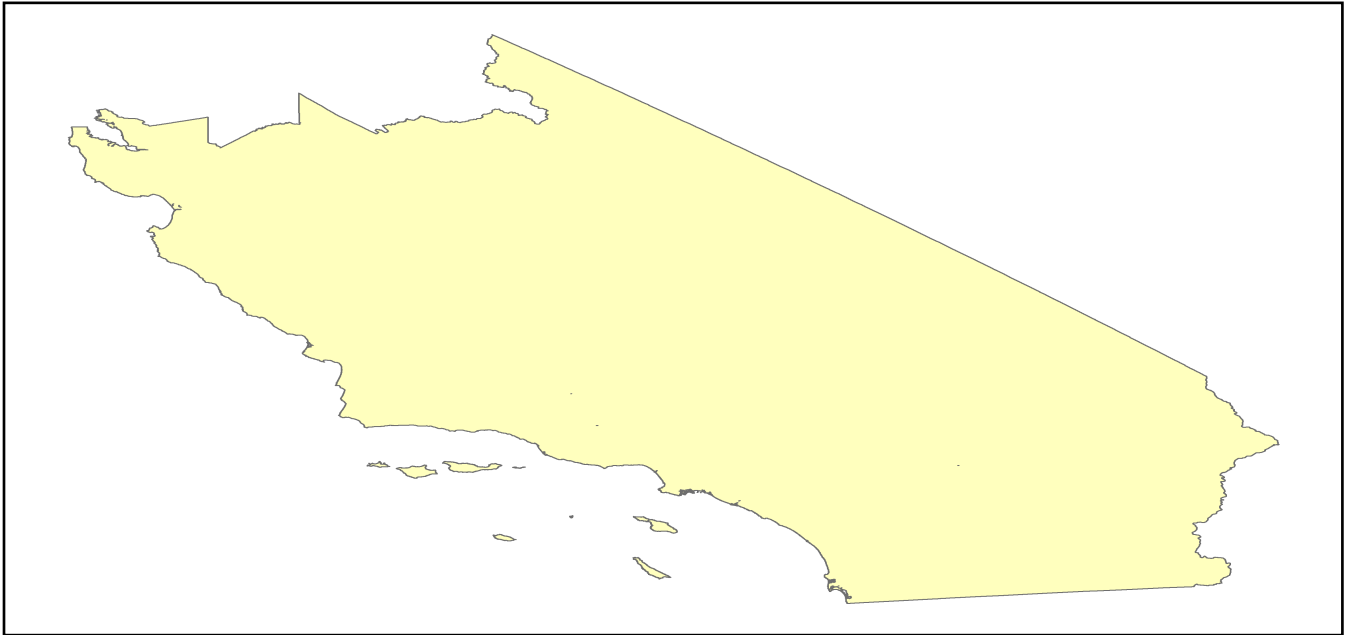
System	Component	# Locations/ # Segments	Replacement value (millions of dollars)
Highway	Bridges	16,963	92883.9900
	Segments	13,168	169603.4023
	Tunnels	83	1118.4183
	Subtotal		263605.8106
Railways	Bridges	2,825	16074.2500
	Facilities	156	415.4280
	Segments	2,997	102443.3284
	Tunnels	1	0.0938
	Subtotal		118933.1002
Light Rail	Bridges	137	25.3039
	Facilities	210	3765.5500
	Segments	11	6934.7423
	Tunnels	0	0.0000
	Subtotal		10725.5962
Bus	Facilities	70	153.5108
	Subtotal		153.5108
Ferry	Facilities	25	33.2750
	Subtotal		33.2750
Port	Facilities	428	1631.4695
	Subtotal		1631.4695
Airport	Facilities	214	6818.9904
	Runways	250	2769.7240
	Subtotal		9588.7144
		Total	404,671.50

Table 2: Utility System Lifeline Inventory

System	Component	# Locations / Segments	Replacement value (millions of dollars)
Potable Water	Distribution Lines	NA	7209.8227
	Facilities	58	2279.0520
	Pipelines	0	0.0000
		Subtotal	9488.8747
Waste Water	Distribution Lines	NA	4325.8936
	Facilities	199	34218.4082
	Pipelines	0	0.0000
		Subtotal	38544.3018
Natural Gas	Distribution Lines	NA	2883.9291
	Facilities	45	1617.5273
	Pipelines	588	24156.2405
		Subtotal	28657.6969
Oil Systems	Facilities	69	8.1420
	Pipelines	0	0.0000
		Subtotal	8.1420
Electrical Power	Facilities	788	181912.0203
		Subtotal	181912.0203
Communication	Facilities	690	81.4200
		Subtotal	81.4200
	Total		258,692.50

Earthquake Scenario

Hazus uses the following set of information to define the earthquake parameters used for the earthquake loss estimate provided in this report.



Scenario Name	ssanandreascbbnmsmn_m8p1_se
Type of Earthquake	User-defined
Fault Name	NA
Historical Epicenter ID #	NA
Probabilistic Return Period	NA
Longitude of Epicenter	NA
Latitude of Epicenter	NA
Earthquake Magnitude	8.10
Depth (km)	NA
Rupture Length (Km)	NA
Rupture Orientation (degrees)	NA
Attenuation Function	NA

Direct Earthquake Damage

Building Damage

Hazus estimates that about 244,281 buildings will be at least moderately damaged. This is over 3.00 % of the buildings in the region. There are an estimated 18,296 buildings that will be damaged beyond repair. The definition of the 'damage states' is provided in Volume 1: Chapter 5 of the Hazus technical manual. Table 3 below summarizes the expected damage by general occupancy for the buildings in the region. Table 4 below summarizes the expected damage by general building type.

Damage Categories by General Occupancy Type

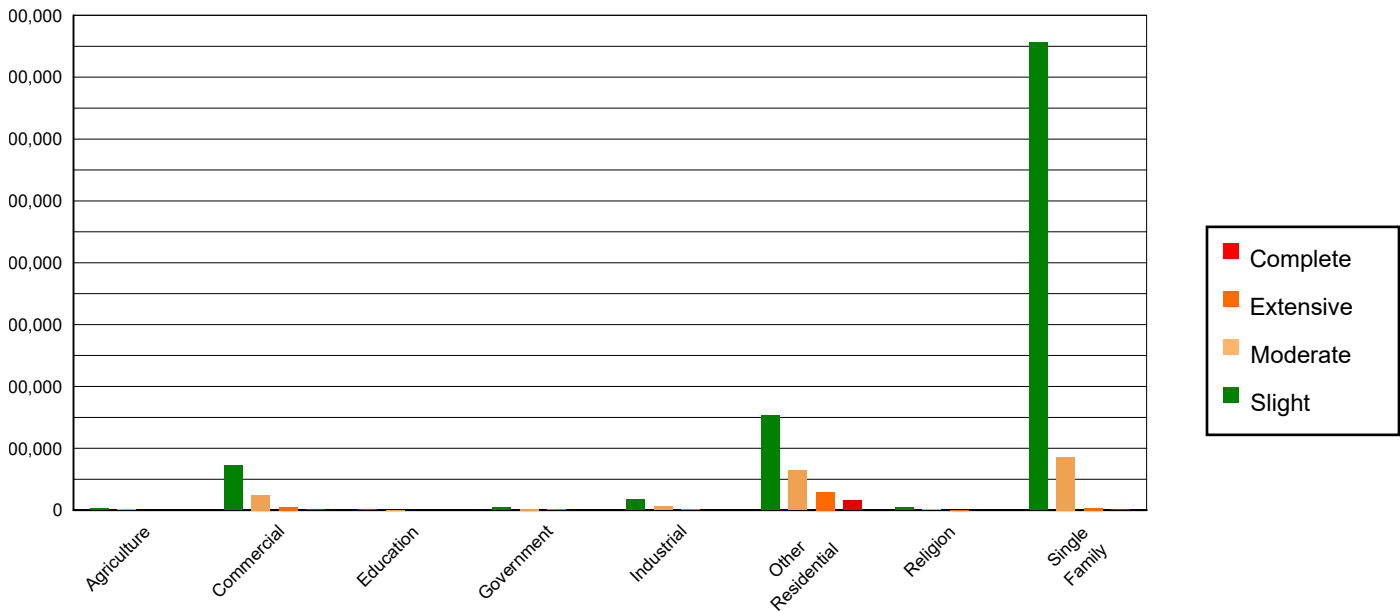


Table 3: Expected Building Damage by Occupancy

	None		Slight		Moderate		Extensive		Complete	
	Count	(%)	Count	(%)	Count	(%)	Count	(%)	Count	(%)
Agriculture	33193.31	0.43	2625.01	0.26	867.53	0.47	194.90	0.48	48.25	0.26
Commercial	509378.85	6.55	72092.38	7.14	24536.40	13.21	5142.72	12.80	1388.65	7.59
Education	16408.30	0.21	983.40	0.10	307.70	0.17	49.49	0.12	6.11	0.03
Government	42405.22	0.55	3723.21	0.37	2010.99	1.08	474.41	1.18	98.17	0.54
Industrial	137388.30	1.77	17274.78	1.71	6140.31	3.30	1232.88	3.07	215.73	1.18
Other Residential	1074271.84	13.82	153484.40	15.20	64190.58	34.55	29188.04	72.63	15490.15	84.66
Religion	26422.80	0.34	3757.20	0.37	1567.08	0.84	398.16	0.99	105.75	0.58
Single Family	5931970.94	76.33	755695.95	74.85	86176.65	46.38	3506.78	8.73	943.69	5.16
Total	7,771,440		1,009,636		185,797		40,187		18,297	

Table 4: Expected Building Damage by Building Type (All Design Levels)

	None		Slight		Moderate		Extensive		Complete	
	Count	(%)	Count	(%)	Count	(%)	Count	(%)	Count	(%)
Wood	6915934.18	88.99	878909.96	87.05	100870.45	54.29	2909.71	7.24	428.47	2.34
Steel	137598.79	1.77	23674.34	2.34	14619.66	7.87	3710.28	9.23	740.01	4.04
Concrete	153850.68	1.98	19830.01	1.96	9033.19	4.86	2050.29	5.10	249.99	1.37
Precast	79331.83	1.02	8806.20	0.87	2829.48	1.52	381.53	0.95	57.04	0.31
RM	331731.40	4.27	28119.76	2.79	11079.73	5.96	4039.03	10.05	764.46	4.18
URM	21433.32	0.28	9430.38	0.93	6445.78	3.47	1576.31	3.92	1417.61	7.75
MH	131559.34	1.69	40865.67	4.05	40918.96	22.02	25520.23	63.50	14638.91	80.01
Total	7,771,440		1,009,636		185,797		40,187		18,297	

*Note:

- RM Reinforced Masonry
- URM Unreinforced Masonry
- MH Manufactured Housing

Essential Facility Damage

Before the earthquake, the region had 82,576 hospital beds available for use. On the day of the earthquake, the model estimates that only 70,640 hospital beds (86.00%) are available for use by patients already in the hospital and those injured by the earthquake. After one week, 94.00% of the beds will be back in service. By 30 days, 99.00% will be operational.

Table 5: Expected Damage to Essential Facilities

Classification	Total	# Facilities		
		At Least Moderate Damage > 50%	Complete Damage > 50%	With Functionality > 50% on day 1
Hospitals	460	16	2	414
Schools	10,456	394	37	9,368
EOCs	170	15	1	148
PoliceStations	674	34	4	605
FireStations	1,958	48	5	1,768

Transportation Lifeline Damage

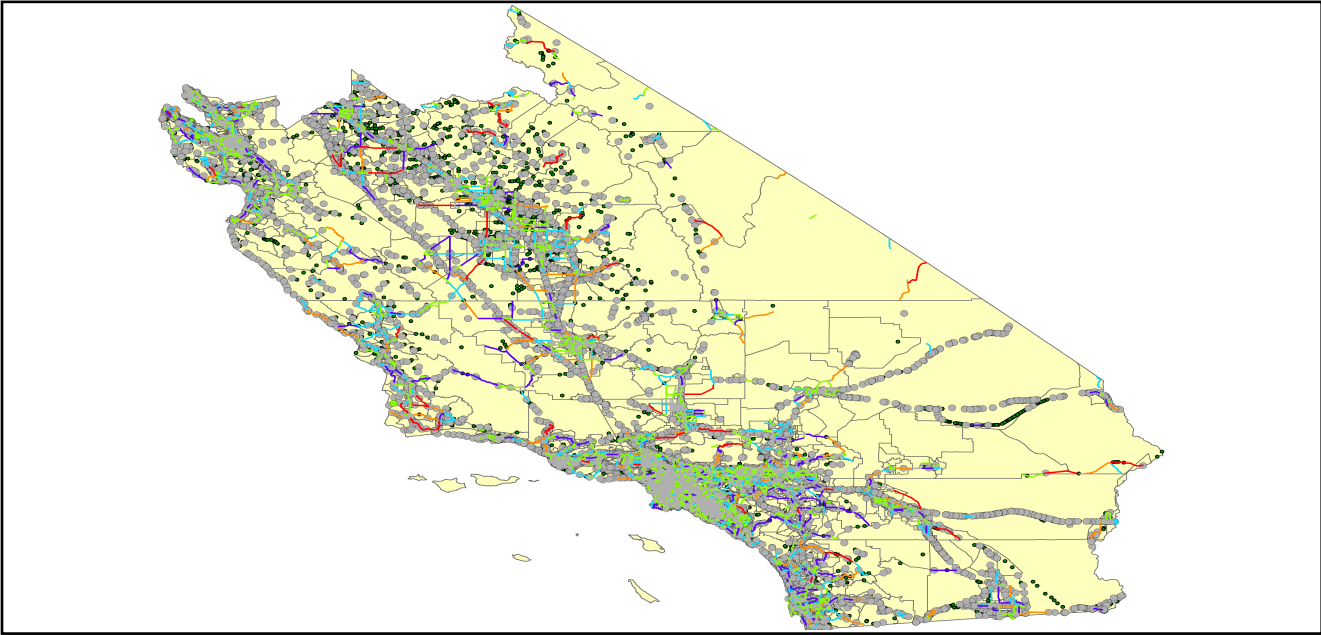


Table 6: Expected Damage to the Transportation Systems

System	Component	Number of Locations_				
		Locations/ Segments	With at Least Mod. Damage	With Complete Damage	With Functionality > 50 %	
					After Day 1	After Day 7
Highway	Segments	13,168	0	0	13,168	13,168
	Bridges	16,963	241	16	16,742	16,907
	Tunnels	83	0	0	83	83
Railways	Segments	2,997	0	0	2,997	2,997
	Bridges	2,825	8	0	2,817	2,825
	Tunnels	1	0	0	1	1
	Facilities	156	2	0	155	156
Light Rail	Segments	11	0	0	11	11
	Bridges	137	0	0	137	137
	Tunnels	0	0	0	0	0
	Facilities	210	0	0	210	210
Bus	Facilities	70	3	0	70	70
Ferry	Facilities	25	0	0	25	25
Port	Facilities	428	0	0	428	428
Airport	Facilities	214	3	0	214	214
	Runways	250	0	0	250	250

Table 6 provides damage estimates for the transportation system.

Note: Roadway segments, railroad tracks and light rail tracks are assumed to be damaged by ground failure only. If ground failure maps are not provided, damage estimates to these components will not be computed.

Tables 7-9 provide information on the damage to the utility lifeline systems. Table 7 provides damage to the utility system facilities. Table 8 provides estimates on the number of leaks and breaks by the pipelines of the utility systems. For electric power and potable water, Hazus performs a simplified system performance analysis. Table 9 provides a summary of the system performance information.

Table 7 : Expected Utility System Facility Damage

System	# of Locations				
	Total #	With at Least Moderate Damage	With Complete Damage	with Functionality > 50 %	
				After Day 1	After Day 7
Potable Water	58	5	0	50	58
Waste Water	199	12	0	166	199
Natural Gas	45	2	0	37	45
Oil Systems	69	0	0	69	69
Electrical Power	788	232	0	603	732
Communication	690	62	0	646	690

Table 8 : Expected Utility System Pipeline Damage (Site Specific)

System	Total Pipelines Length (miles)	Number of Leaks	Number of Breaks
Potable Water	223,999	40518	10129
Waste Water	134,399	20353	5088
Natural Gas	4,262	0	0
Oil	0	0	0

Table 9: Expected Potable Water and Electric Power System Performance

	Total # of Households	Number of Households without Service				
		At Day 1	At Day 3	At Day 7	At Day 30	At Day 90
Potable Water	10,550,763	1,184,969	1,136,110	1,052,523	627,933	4,226
Electric Power		476,975	318,061	139,672	14,891	620

Induced Earthquake Damage

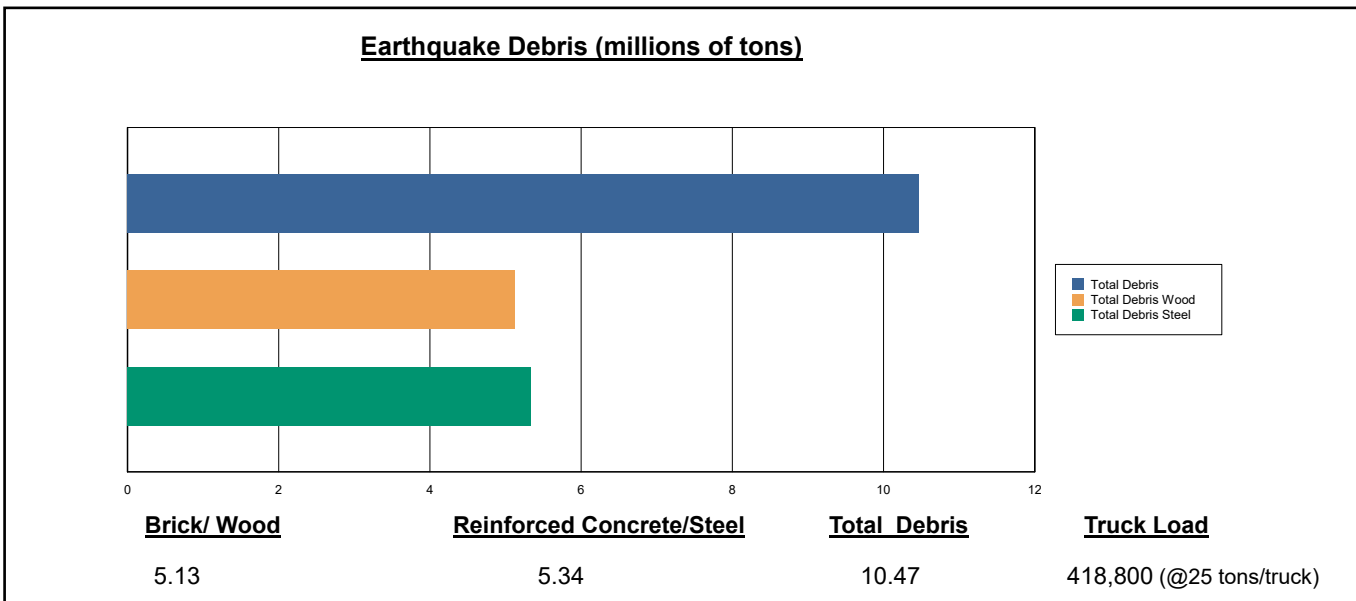
Fire Following Earthquake

Fires often occur after an earthquake. Because of the number of fires and the lack of water to fight the fires, they can often burn out of control. Hazus uses a Monte Carlo simulation model to estimate the number of ignitions and the amount of burnt area. For this scenario, the model estimates that there will be 97 ignitions that will burn about 0.81 sq. mi 0.00 % of the region's total area.) The model also estimates that the fires will displace about 7,674 people and burn about 834 (millions of dollars) of building value.

Debris Generation

Hazus estimates the amount of debris that will be generated by the earthquake. The model breaks the debris into two general categories: a) Brick/Wood and b) Reinforced Concrete/Steel. This distinction is made because of the different types of material handling equipment required to handle the debris.

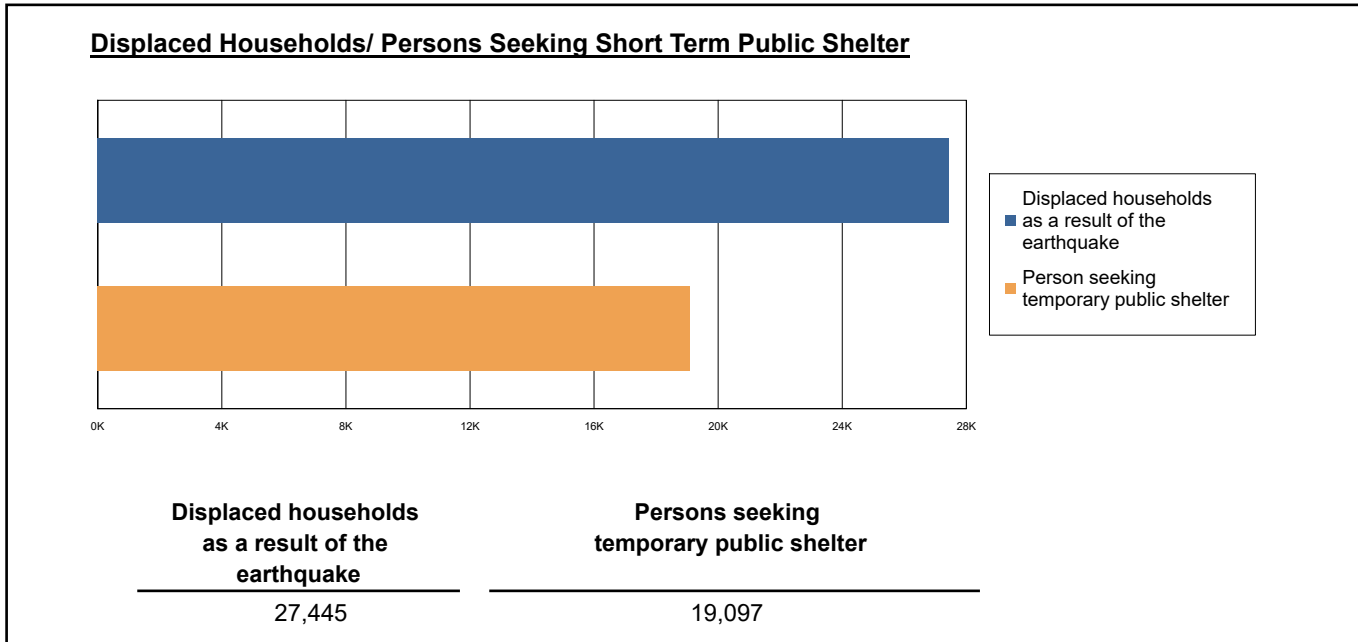
The model estimates that a total of 10,470,000 tons of debris will be generated. Of the total amount, Brick/Wood comprises 49.00% of the total, with the remainder being Reinforced Concrete/Steel. If the debris tonnage is converted to an estimated number of truckloads, it will require 418,800 truckloads (@25 tons/truck) to remove the debris generated by the earthquake.



Social Impact

Shelter Requirement

Hazus estimates the number of households that are expected to be displaced from their homes due to the earthquake and the number of displaced people that will require accommodations in temporary public shelters. The model estimates 27,445 households to be displaced due to the earthquake. Of these, 19,097 people (out of a total population of 31,593,997) will seek temporary shelter in public shelters.



Casualties

Hazus estimates the number of people that will be injured and killed by the earthquake. The casualties are broken down into four (4) severity levels that describe the extent of the injuries. The levels are described as follows;

- Severity Level 1: Injuries will require medical attention but hospitalization is not needed.
- Severity Level 2: Injuries will require hospitalization but are not considered life-threatening
- Severity Level 3: Injuries will require hospitalization and can become life threatening if not promptly treated.
- Severity Level 4: Victims are killed by the earthquake.

The casualty estimates are provided for three (3) times of day: 2:00 AM, 2:00 PM and 5:00 PM. These times represent the periods of the day that different sectors of the community are at their peak occupancy loads. The 2:00 AM estimate considers that the residential occupancy load is maximum, the 2:00 PM estimate considers that the educational, commercial and industrial sector loads are maximum and 5:00 PM represents peak commute time.

Table 10 provides a summary of the casualties estimated for this earthquake

Table 10: Casualty Estimates

		Level 1	Level 2	Level 3	Level 4
2 AM	Commercial	64.78	11.80	1.42	2.78
	Commuting	1.10	1.52	2.50	0.49
	Educational	0.00	0.00	0.00	0.00
	Hotels	2.90	0.36	0.03	0.05
	Industrial	56.06	9.38	1.02	1.98
	Other-Residential	5301.44	985.73	68.83	120.61
	Single Family	2210.81	203.50	19.92	39.24
	Total	7,637	1,212	94	165
2 PM	Commercial	4580.42	856.48	105.98	205.20
	Commuting	9.90	13.66	22.51	4.39
	Educational	1771.15	286.21	30.89	59.37
	Hotels	0.56	0.07	0.01	0.01
	Industrial	411.49	69.23	7.59	14.61
	Other-Residential	1719.69	326.02	23.60	40.79
	Single Family	652.49	65.90	6.95	13.08
	Total	9,146	1,618	198	337
5 PM	Commercial	3305.18	632.00	80.07	152.81
	Commuting	175.29	241.89	398.52	77.67
	Educational	346.03	53.00	5.61	10.74
	Hotels	0.87	0.11	0.01	0.02
	Industrial	257.18	43.27	4.75	9.13
	Other-Residential	1939.57	361.86	26.37	45.66
	Single Family	823.78	81.28	8.48	15.95
	Total	6,848	1,413	524	312

Economic Loss

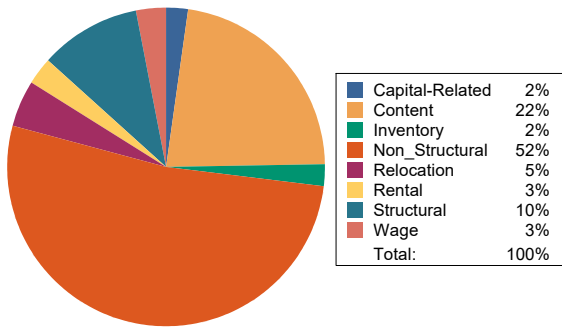
The total economic loss estimated for the earthquake is 110,240.74 (millions of dollars), which includes building and lifeline related losses based on the region's available inventory. The following three sections provide more detailed information about these losses.

Building-Related Losses

The building losses are broken into two categories: direct building losses and business interruption losses. The direct building losses are the estimated costs to repair or replace the damage caused to the building and its contents. The business interruption losses are the losses associated with inability to operate a business because of the damage sustained during the earthquake. Business interruption losses also include the temporary living expenses for those people displaced from their homes because of the earthquake.

The total building-related losses were 77,005.35 (millions of dollars); 13 % of the estimated losses were related to the business interruption of the region. By far, the largest loss was sustained by the residential occupancies which made up over 47 % of the total loss. Table 11 below provides a summary of the losses associated with the building damage.

Earthquake Losses by Loss Type (\$ millions)



Earthquake Losses by Occupancy Type (\$ millions)

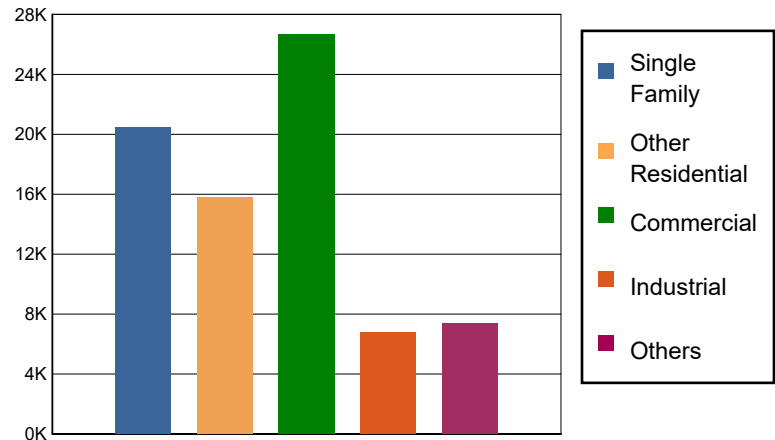


Table 11: Building-Related Economic Loss Estimates
(Millions of dollars)

Category	Area	Single Family	Other Residential	Commercial	Industrial	Others	Total
Income Losses							
	Wage	0.0000	300.2555	1683.0924	71.9344	214.7094	2,269.9917
	Capital-Related	0.0000	127.6803	1526.8018	45.5278	57.2893	1,757.2992
	Rental	207.3546	743.2773	1026.9063	36.7291	106.8925	2,121.1598
	Relocation	636.2706	736.7217	1396.7088	178.4123	735.6265	3,683.7399
	Subtotal	843.6252	1907.9348	5633.5093	332.6036	1114.5177	9832.1906
Capital Stock Losses							
	Structural	2035.5142	1839.2051	2757.8313	643.7498	775.3728	8,051.6732
	Non_Structural	12891.1335	9742.7889	10845.7759	3195.9932	3560.8836	40,236.5751
	Content	4673.8577	2329.2632	6226.5604	2242.8223	1772.6877	17,245.1913
	Inventory	0.0000	0.0000	1174.4737	341.7484	123.4997	1,639.7218
	Subtotal	19600.5054	13911.2572	21004.6413	6424.3137	6232.4438	67173.1614
	Total	20444.13	15819.19	26638.15	6756.92	7346.96	77005.35

Transportation and Utility Lifeline Losses

For the transportation and utility lifeline systems, Hazus computes the direct repair cost for each component only. There are no losses computed by Hazus for business interruption due to lifeline outages. Tables 12 & 13 provide a detailed breakdown in the expected lifeline losses.

Table 12: Transportation System Economic Losses
(Millions of dollars)

System	Component	Inventory Value	Economic Loss	Loss Ratio (%)
Highway	Segments	169603.4023	0.0000	0.00
	Bridges	92883.9900	930.9909	1.00
	Tunnels	1118.4183	1.6892	0.15
	Subtotal	263605.8106	932.6801	
Railways	Segments	102443.3284	0.0000	0.00
	Bridges	16074.2500	183.5381	1.14
	Tunnels	0.0938	0.0000	0.00
	Facilities	415.4280	35.9184	8.65
	Subtotal	118933.1002	219.4565	
Light Rail	Segments	6934.7423	0.0000	0.00
	Bridges	25.3039	0.0059	0.02
	Tunnels	0.0000	0.0000	0.00
	Facilities	3765.5500	234.6391	6.23
	Subtotal	10725.5962	234.6450	
Bus	Facilities	153.5108	12.1250	7.90
	Subtotal	153.5108	12.1250	
Ferry	Facilities	33.2750	1.4172	4.26
	Subtotal	33.2750	1.4172	
Port	Facilities	1631.4695	70.1864	4.30
	Subtotal	1631.4695	70.1864	
Airport	Facilities	6818.9904	416.3645	6.11
	Runways	2769.7240	0.0000	0.00
	Subtotal	9588.7144	416.3645	
Total		404,671.48	1,886.87	

Table 13: Utility System Economic Losses

(Millions of dollars)

System	Component	Inventory Value	Economic Loss	Loss Ratio (%)
Potable Water	Pipelines	0.0000	0.0000	0.00
	Facilities	2279.0520	147.3087	6.46
	Distribution Lines	7209.8227	182.3292	2.53
	Subtotal	9488.8747	329.6379	
Waste Water	Pipelines	0.0000	0.0000	0.00
	Facilities	34218.4082	1177.5655	3.44
	Distribution Lines	4325.8936	91.5886	2.12
	Subtotal	38544.3018	1269.1541	
Natural Gas	Pipelines	24156.2405	0.0000	0.00
	Facilities	1617.5273	102.4771	6.34
	Distribution Lines	2883.9291	31.3776	1.09
	Subtotal	28657.6969	133.8547	
Oil Systems	Pipelines	0.0000	0.0000	0.00
	Facilities	8.1420	0.2699	3.31
	Subtotal	8.1420	0.2699	
Electrical Power	Facilities	181912.0203	29608.4225	16.28
	Subtotal	181912.0203	29608.4225	
Communication	Facilities	81.4200	7.1747	8.81
	Subtotal	81.4200	7.1747	
	Total	258,692.46	31,348.51	

Appendix A: County Listing for the Region

Alameda,CA
Fresno,CA
Imperial,CA
Inyo,CA
Kern,CA
Kings,CA
Los Angeles,CA
Madera,CA
Mariposa,CA
Merced,CA
Mono,CA
Monterey,CA
Orange,CA
Riverside,CA
San Benito,CA
San Bernardino,CA
San Diego,CA
San Luis Obispo,CA
San Mateo,CA
Santa Barbara,CA
Santa Clara,CA
Santa Cruz,CA
Stanislaus,CA
Tulare,CA
Ventura,CA

Appendix B: Regional Population and Building Value Data

State	County Name	Population	Building Value (millions of dollars)		
			Residential	Non-Residential	Total
California	Alameda	1,682,353	209,951	122,639	332,590
	Fresno	1,008,654	98,532	61,772	160,304
	Imperial	179,702	20,945	12,603	33,548
	Inyo	19,016	2,951	1,970	4,921
	Kern	909,235	87,567	59,168	146,736
	Kings	152,486	13,719	7,861	21,581
	Los Angeles	10,014,009	950,697	566,995	1,517,692
	Madera	156,255	18,025	9,641	27,667
	Mariposa	17,131	3,299	1,141	4,441
	Merced	281,202	25,194	26,098	51,292
	Mono	13,195	3,293	1,083	4,377
	Monterey	439,035	47,655	28,750	76,405
	Orange	3,186,989	363,381	176,806	540,188
	Riverside	2,418,185	281,482	137,249	418,731
	San Benito	64,209	9,440	3,799	13,239
	San Bernardino	2,181,654	225,045	152,557	377,602
	San Diego	3,298,634	375,834	193,238	569,072
	San Luis Obispo	282,424	41,720	20,896	62,616
	San Mateo	764,442	110,372	44,995	155,368
	Santa Barbara	448,229	49,971	28,481	78,452
Santa Clara	1,936,259	261,111	120,471	381,582	
Santa Cruz	270,861	36,147	18,805	54,952	
Stanislaus	552,878	62,937	37,511	100,449	
Tulare	473,117	43,262	31,210	74,472	
Ventura	843,843	99,299	52,072	151,371	
Total Region		31,593,997	3,441,829	1,917,811	5,359,648

Building Damage by Count by General Occupancy

May 06, 2024

	# of Buildings					Total
	None	Slight	Moderate	Extensive	Complete	
California						
Alameda						
<i>Government</i>	10,528	0	0	0	0	10,528
<i>Agriculture</i>	422	0	0	0	0	422
<i>Commercial</i>	31,989	0	0	0	0	31,989
<i>Religion</i>	1,986	0	0	0	0	1,986
<i>Single Family</i>	344,173	0	0	0	0	344,173
<i>Other Residential</i>	61,396	0	0	0	0	61,396
<i>Education</i>	1,117	0	0	0	0	1,117
<i>Industrial</i>	10,205	0	0	0	0	10,205
Fresno						
<i>Commercial</i>	20,940	104	10	0	0	21,054
<i>Religion</i>	1,496	9	1	0	0	1,507
<i>Agriculture</i>	3,378	38	5	0	0	3,421
<i>Industrial</i>	5,311	34	3	0	0	5,348
<i>Government</i>	288	3	0	0	0	291
<i>Other Residential</i>	40,734	222	17	0	0	40,973
<i>Single Family</i>	226,181	244	0	0	0	226,425
<i>Education</i>	602	0	0	0	0	602
Imperial						

		# of Buildings					
		None	Slight	Moderate	Extensive	Complete	Total
Inyo	<i>Religion</i>	239	45	9	1	0	295
	<i>Commercial</i>	2,996	540	104	6	0	3,646
	<i>Agriculture</i>	101	28	9	0	0	138
	<i>Industrial</i>	450	102	26	2	0	580
	<i>Single Family</i>	30,318	4,979	108	0	0	35,405
	<i>Other Residential</i>	3,904	1,604	1,473	514	23	7,518
	<i>Government</i>	173	24	5	0	0	202
	<i>Education</i>	93	6	0	0	0	99
	<i>Commercial</i>	721	0	0	0	0	721
	<i>Religion</i>	57	0	0	0	0	57
	<i>Agriculture</i>	32	0	0	0	0	32
	<i>Other Residential</i>	4,050	0	0	0	0	4,050
	<i>Education</i>	41	0	0	0	0	41
	<i>Government</i>	101	0	0	0	0	101
Kern	<i>Industrial</i>	257	0	0	0	0	257
	<i>Single Family</i>	4,446	0	0	0	0	4,446
	<i>Single Family</i>	176,821	26,632	1,656	29	1	205,139
	<i>Other Residential</i>	40,457	7,519	4,491	1,769	284	54,520
	<i>Industrial</i>	4,595	1,008	365	67	12	6,047
	<i>Education</i>	423	30	9	1	0	462
	<i>Government</i>	357	62	20	4	0	443
	<i>Religion</i>	1,148	217	109	37	14	1,524
<i>Agriculture</i>	3,432	829	306	66	12	4,645	

		# of Buildings					
		None	Slight	Moderate	Extensive	Complete	Total
Kings	<i>Commercial</i>	12,377	2,195	751	189	55	15,567
	<i>Commercial</i>	2,213	88	16	1	0	2,318
	<i>Religion</i>	200	8	2	0	0	210
	<i>Agriculture</i>	290	14	2	0	0	306
	<i>Government</i>	70	2	0	0	0	72
	<i>Industrial</i>	522	27	6	0	0	555
	<i>Single Family</i>	35,660	583	2	0	0	36,245
	<i>Other Residential</i>	4,091	208	41	2	0	4,342
	<i>Education</i>	102	1	0	0	0	103
Los Angeles	<i>Industrial</i>	40,670	8,273	3,432	690	61	53,126
	<i>Single Family</i>	1,526,367	255,207	20,917	599	50	1,803,140
	<i>Other Residential</i>	402,690	59,740	13,973	4,252	1,016	481,671
	<i>Education</i>	4,870	430	158	26	2	5,486
	<i>Commercial</i>	143,746	32,990	12,141	1,826	159	190,861
	<i>Agriculture</i>	1,384	399	190	50	8	2,032
	<i>Religion</i>	7,675	1,983	837	142	14	10,651
	<i>Government</i>	2,195	558	233	42	3	3,031
Madera	<i>Commercial</i>	2,902	3	0	0	0	2,905
	<i>Religion</i>	119	0	0	0	0	119
	<i>Government</i>	111	0	0	0	0	111
	<i>Agriculture</i>	632	1	0	0	0	634
	<i>Other Residential</i>	6,628	6	0	0	0	6,635

	# of Buildings					Total
	None	Slight	Moderate	Extensive	Complete	
<i>Single Family</i>	38,905	7	0	0	0	38,912
<i>Education</i>	115	0	0	0	0	115
<i>Industrial</i>	902	1	0	0	0	903
Mariposa						
<i>Single Family</i>	8,084	0	0	0	0	8,084
<i>Other Residential</i>	307	0	0	0	0	307
<i>Education</i>	27	0	0	0	0	27
<i>Industrial</i>	94	0	0	0	0	94
<i>Commercial</i>	689	0	0	0	0	689
<i>Agriculture</i>	29	0	0	0	0	29
<i>Religion</i>	36	0	0	0	0	36
<i>Government</i>	33	0	0	0	0	33
Merced						
<i>Education</i>	163	0	0	0	0	163
<i>Government</i>	171	0	0	0	0	171
<i>Commercial</i>	4,753	1	0	0	0	4,754
<i>Agriculture</i>	7,644	8	1	0	0	7,653
<i>Religion</i>	345	0	0	0	0	345
<i>Industrial</i>	1,022	0	0	0	0	1,022
<i>Single Family</i>	63,598	0	0	0	0	63,598
<i>Other Residential</i>	10,781	6	0	0	0	10,787
Mono						
<i>Government</i>	18	0	0	0	0	18
<i>Education</i>	21	0	0	0	0	21
<i>Religion</i>	32	0	0	0	0	32

	# of Buildings					Total
	None	Slight	Moderate	Extensive	Complete	
<i>Agriculture</i>	145	0	0	0	0	145
<i>Commercial</i>	654	0	0	0	0	654
<i>Single Family</i>	7,704	0	0	0	0	7,704
<i>Industrial</i>	108	0	0	0	0	108
<i>Other Residential</i>	1,759	0	0	0	0	1,759
Monterey						
<i>Single Family</i>	90,872	4	0	0	0	90,876
<i>Industrial</i>	1,849	1	0	0	0	1,850
<i>Other Residential</i>	19,782	25	1	0	0	19,809
<i>Education</i>	239	0	0	0	0	239
<i>Government</i>	185	0	0	0	0	185
<i>Agriculture</i>	1,805	9	1	0	0	1,815
<i>Commercial</i>	9,240	6	0	0	0	9,246
<i>Religion</i>	580	0	0	0	0	580
Orange						
<i>Industrial</i>	15,913	2,289	526	63	4	18,795
<i>Other Residential</i>	69,528	12,370	3,637	177	6	85,718
<i>Single Family</i>	656,266	49,258	681	7	0	706,212
<i>Education</i>	1,807	67	13	3	0	1,890
<i>Commercial</i>	58,938	7,315	1,771	299	16	68,340
<i>Religion</i>	1,735	240	68	13	1	2,057
<i>Agriculture</i>	963	128	35	8	1	1,135
<i>Government</i>	541	84	22	3	0	650
Riverside						
<i>Religion</i>	790	356	131	34	9	1,319

	# of Buildings					Total
	None	Slight	Moderate	Extensive	Complete	
<i>Agriculture</i>	1,209	373	106	18	6	1,713
<i>Commercial</i>	28,044	12,865	4,163	994	291	46,357
<i>Single Family</i>	396,728	183,083	24,296	1,105	244	605,455
<i>Industrial</i>	4,376	1,518	421	76	18	6,409
<i>Other Residential</i>	48,131	31,397	20,571	12,611	10,089	122,799
<i>Government</i>	2,816	2,363	1,566	358	72	7,175
<i>Education</i>	778	166	40	6	1	990
San Benito						
<i>Other Residential</i>	1,375	0	0	0	0	1,375
<i>Single Family</i>	14,726	0	0	0	0	14,726
<i>Industrial</i>	326	0	0	0	0	326
<i>Education</i>	42	0	0	0	0	42
<i>Government</i>	45	0	0	0	0	45
<i>Commercial</i>	1,079	1	0	0	0	1,080
<i>Religion</i>	64	0	0	0	0	64
<i>Agriculture</i>	253	0	0	0	0	253
San Bernardino						
<i>Agriculture</i>	1,058	526	163	46	21	1,815
<i>Commercial</i>	19,431	12,989	4,996	1,761	865	40,041
<i>Religion</i>	1,012	696	376	169	67	2,320
<i>Single Family</i>	273,807	210,897	38,247	1,767	649	525,367
<i>Industrial</i>	5,083	2,853	1,112	305	119	9,474
<i>Other Residential</i>	39,064	29,189	16,961	9,560	4,047	98,821
<i>Government</i>	648	358	142	67	23	1,238

	# of Buildings					Total
	None	Slight	Moderate	Extensive	Complete	
<i>Education</i>	635	249	84	14	3	985
San Diego						
<i>Single Family</i>	761,633	1,377	9	0	0	763,020
<i>Industrial</i>	14,265	46	2	0	0	14,313
<i>Other Residential</i>	126,184	1,254	120	1	0	127,559
<i>Education</i>	1,930	2	0	0	0	1,932
<i>Religion</i>	3,049	13	1	0	0	3,063
<i>Government</i>	20,764	153	7	0	0	20,924
<i>Agriculture</i>	2,177	12	2	0	0	2,190
<i>Commercial</i>	62,132	226	11	0	0	62,369
San Luis Obispo						
<i>Religion</i>	339	16	4	0	0	360
<i>Agriculture</i>	379	32	9	1	0	421
<i>Government</i>	178	6	1	0	0	185
<i>Commercial</i>	8,839	438	91	7	1	9,375
<i>Single Family</i>	83,031	2,577	32	0	0	85,639
<i>Industrial</i>	2,385	141	27	2	0	2,556
<i>Other Residential</i>	17,579	1,874	574	167	22	20,216
<i>Education</i>	179	3	0	0	0	182
San Mateo						
<i>Religion</i>	736	0	0	0	0	736
<i>Agriculture</i>	539	0	0	0	0	539
<i>Government</i>	299	0	0	0	0	299
<i>Commercial</i>	14,395	0	0	0	0	14,395
<i>Industrial</i>	4,472	0	0	0	0	4,472

	# of Buildings					Total
	None	Slight	Moderate	Extensive	Complete	
<i>Other Residential</i>	22,453	0	0	0	0	22,453
<i>Single Family</i>	159,931	0	0	0	0	159,931
<i>Education</i>	489	0	0	0	0	489
Santa Barbara						
<i>Government</i>	221	15	3	0	0	239
<i>Other Residential</i>	19,649	3,473	955	34	1	24,111
<i>Education</i>	290	8	1	0	0	299
<i>Religion</i>	564	47	9	1	0	621
<i>Commercial</i>	8,917	748	143	11	0	9,820
<i>Agriculture</i>	408	45	10	1	0	464
<i>Single Family</i>	93,581	5,335	66	0	0	98,982
<i>Industrial</i>	2,516	258	60	6	0	2,840
Santa Clara						
<i>Other Residential</i>	59,160	0	0	0	0	59,160
<i>Single Family</i>	427,219	0	0	0	0	427,219
<i>Government</i>	502	0	0	0	0	502
<i>Education</i>	1,173	0	0	0	0	1,173
<i>Industrial</i>	9,433	0	0	0	0	9,433
<i>Commercial</i>	35,469	0	0	0	0	35,469
<i>Religion</i>	1,540	0	0	0	0	1,540
<i>Agriculture</i>	895	0	0	0	0	895
Santa Cruz						
<i>Religion</i>	359	0	0	0	0	359
<i>Agriculture</i>	840	0	0	0	0	840
<i>Single Family</i>	68,870	0	0	0	0	68,870

	# of Buildings					Total
	None	Slight	Moderate	Extensive	Complete	
<i>Other Residential</i>	14,891	1	0	0	0	14,892
<i>Industrial</i>	1,819	0	0	0	0	1,819
<i>Education</i>	225	0	0	0	0	225
<i>Commercial</i>	6,694	0	0	0	0	6,694
<i>Government</i>	127	0	0	0	0	127
Stanislaus						
<i>Other Residential</i>	19,569	0	0	0	0	19,569
<i>Single Family</i>	142,724	0	0	0	0	142,724
<i>Education</i>	307	0	0	0	0	307
<i>Government</i>	680	0	0	0	0	680
<i>Industrial</i>	3,475	0	0	0	0	3,475
<i>Commercial</i>	10,369	0	0	0	0	10,369
<i>Religion</i>	456	0	0	0	0	456
<i>Agriculture</i>	1,239	0	0	0	0	1,239
Tulare						
<i>Commercial</i>	8,694	159	20	1	0	8,873
<i>Agriculture</i>	3,425	116	14	0	0	3,555
<i>Religion</i>	813	13	1	0	0	827
<i>Government</i>	449	11	1	0	0	461
<i>Single Family</i>	111,131	901	1	0	0	112,034
<i>Other Residential</i>	19,276	648	96	2	0	20,022
<i>Industrial</i>	2,095	45	7	0	0	2,148
<i>Education</i>	268	1	0	0	0	269
Ventura						
<i>Agriculture</i>	515	67	14	2	0	598

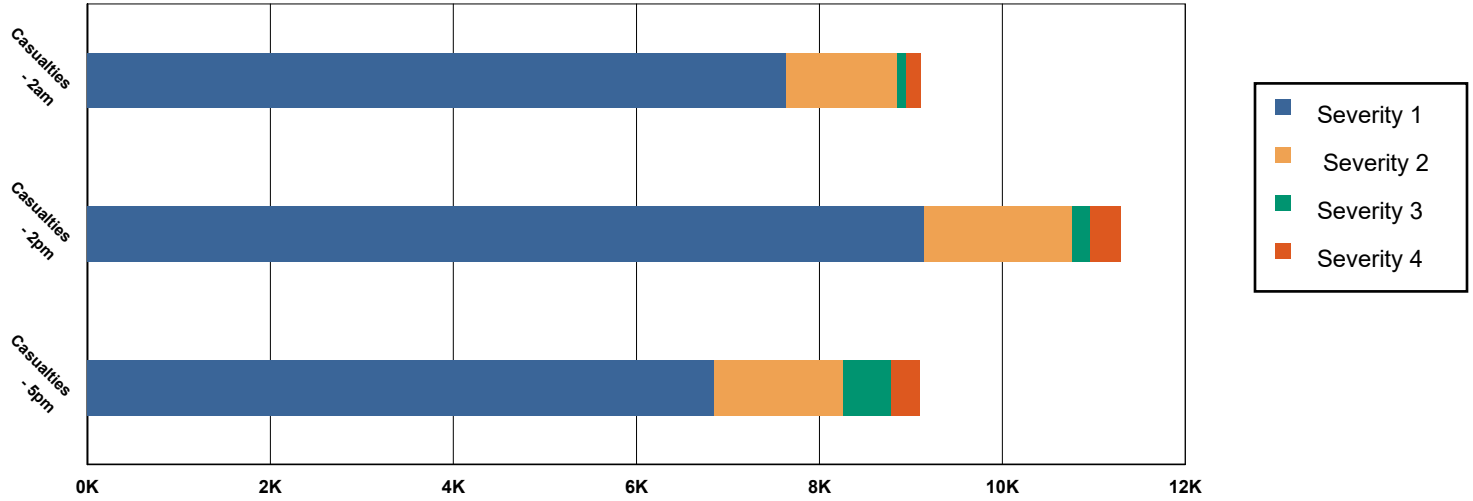
	# of Buildings					Total
	None	Slight	Moderate	Extensive	Complete	
<i>Religion</i>	1,054	113	19	1	0	1,187
<i>Industrial</i>	5,245	677	154	20	1	6,097
<i>Single Family</i>	189,195	14,611	162	0	0	203,968
<i>Other Residential</i>	20,834	3,949	1,279	98	3	26,163
<i>Education</i>	474	20	3	0	0	497
<i>Government</i>	904	84	12	1	0	1,001
<i>Commercial</i>	13,159	1,425	319	48	2	14,953
Total	7,771,440	1,009,636	185,797	40,187	18,297	9,025,357
Region Total	7,771,440	1,009,636	185,797	40,187	18,297	9,025,357

Totals only reflect data for those census tracts/blocks included in the user's study region and will reflect the entire county/state only if all of the census blocks for that county/states were selected at the time of study region creation.

Casualties Summary Report

May 06, 2024

Region Total Casualties



Injury Severity Level

Severity 1 Severity 2 Severity 3 Severity 4 Total

California

Alameda

Casualties - 2am

	Severity 1	Severity 2	Severity 3	Severity 4	Total
Single Family	0	0	0	0	0
Hotels	0	0	0	0	0
Commuting	0	0	0	0	0
Educational	0	0	0	0	0
Industrial	0	0	0	0	0
Commercial	0	0	0	0	0
Other-Residential	0	0	0	0	0

Total Casualties - 2am

0 0 0 0 0

Casualties - 2pm

	Severity 1	Severity 2	Severity 3	Severity 4	Total
Industrial	0	0	0	0	0
Educational	0	0	0	0	0
Other-Residential	0	0	0	0	0
Single Family	0	0	0	0	0
Hotels	0	0	0	0	0
Commuting	0	0	0	0	0
Commercial	0	0	0	0	0

	Injury Severity Level				Total
	Severity 1	Severity 2	Severity 3	Severity 4	
California					
Alameda					
Total Casualties - 2pm	0	0	0	0	0
Casualties - 5pm					
Commuting	0	0	0	0	0
Single Family	0	0	0	0	0
Commercial	0	0	0	0	0
Hotels	0	0	0	0	0
Educational	0	0	0	0	0
Industrial	0	0	0	0	0
Other-Residential	0	0	0	0	0
Total Casualties - 5pm	0	0	0	0	0
Fresno					
Casualties - 2am					
Hotels	0	0	0	0	0
Educational	0	0	0	0	0
Industrial	0	0	0	0	0
Commercial	0	0	0	0	0
Other-Residential	1	0	0	0	1
Single Family	0	0	0	0	0
Commuting	0	0	0	0	0
Total Casualties - 2am	1	0	0	0	1
Casualties - 2pm					
Commercial	2	0	0	0	2
Other-Residential	0	0	0	0	0
Industrial	0	0	0	0	0
Single Family	0	0	0	0	0
Hotels	0	0	0	0	0
Commuting	0	0	0	0	0
Educational	0	0	0	0	0
Total Casualties - 2pm	3	0	0	0	3
Casualties - 5pm					
Educational	0	0	0	0	0
Commuting	0	0	0	0	0
Hotels	0	0	0	0	0
Industrial	0	0	0	0	0
Single Family	0	0	0	0	0
Other-Residential	0	0	0	0	0
Commercial	1	0	0	0	1
Total Casualties - 5pm	2	0	0	0	2
Imperial					
Casualties - 2am					
Commercial	0	0	0	0	0

	Injury Severity Level				Total
	Severity 1	Severity 2	Severity 3	Severity 4	
California					
Imperial					
Casualties - 2am					
<i>Other-Residential</i>	21	2	0	0	23
<i>Educational</i>	0	0	0	0	0
<i>Single Family</i>	10	0	0	0	10
<i>Commuting</i>	0	0	0	0	0
<i>Hotels</i>	0	0	0	0	0
<i>Industrial</i>	0	0	0	0	0
Total Casualties - 2am	31	3	0	0	34
Casualties - 2pm					
<i>Educational</i>	3	0	0	0	3
<i>Industrial</i>	1	0	0	0	1
<i>Hotels</i>	0	0	0	0	0
<i>Other-Residential</i>	7	1	0	0	8
<i>Single Family</i>	3	0	0	0	3
<i>Commercial</i>	11	1	0	0	11
<i>Commuting</i>	0	0	0	0	0
Total Casualties - 2pm	24	2	0	0	26
Casualties - 5pm					
<i>Single Family</i>	4	0	0	0	4
<i>Other-Residential</i>	7	1	0	0	8
<i>Commercial</i>	7	0	0	0	8
<i>Commuting</i>	1	1	1	0	3
<i>Educational</i>	0	0	0	0	0
<i>Hotels</i>	0	0	0	0	0
<i>Industrial</i>	0	0	0	0	1
Total Casualties - 5pm	19	2	1	0	23
Inyo					
Casualties - 2am					
<i>Single Family</i>	0	0	0	0	0
<i>Commercial</i>	0	0	0	0	0
<i>Commuting</i>	0	0	0	0	0
<i>Educational</i>	0	0	0	0	0
<i>Hotels</i>	0	0	0	0	0
<i>Other-Residential</i>	0	0	0	0	0
<i>Industrial</i>	0	0	0	0	0
Total Casualties - 2am	0	0	0	0	0
Casualties - 2pm					
<i>Industrial</i>	0	0	0	0	0
<i>Hotels</i>	0	0	0	0	0
<i>Commercial</i>	0	0	0	0	0
<i>Other-Residential</i>	0	0	0	0	0
<i>Single Family</i>	0	0	0	0	0

Injury Severity Level

Severity 1 Severity 2 Severity 3 Severity 4 Total

California

Inyo

Casualties - 2pm

<i>Commuting</i>	0	0	0	0	0
<i>Educational</i>	0	0	0	0	0

Total Casualties - 2pm 0 0 0 0 0

Casualties - 5pm

<i>Other-Residential</i>	0	0	0	0	0
<i>Single Family</i>	0	0	0	0	0
<i>Commercial</i>	0	0	0	0	0
<i>Educational</i>	0	0	0	0	0
<i>Hotels</i>	0	0	0	0	0
<i>Commuting</i>	0	0	0	0	0
<i>Industrial</i>	0	0	0	0	0

Total Casualties - 5pm 0 0 0 0 0

Kern

Casualties - 2am

<i>Commercial</i>	2	0	0	0	3
<i>Commuting</i>	0	0	0	0	0
<i>Educational</i>	0	0	0	0	0
<i>Single Family</i>	46	1	0	0	47
<i>Other-Residential</i>	154	26	2	4	187
<i>Hotels</i>	0	0	0	0	0
<i>Industrial</i>	3	1	0	0	4

Total Casualties - 2am 206 28 2 4 241

Casualties - 2pm

<i>Educational</i>	28	3	0	0	32
<i>Commuting</i>	0	0	0	0	1
<i>Single Family</i>	14	0	0	0	14
<i>Hotels</i>	0	0	0	0	0
<i>Other-Residential</i>	53	9	1	1	65
<i>Commercial</i>	172	33	4	8	218
<i>Industrial</i>	21	4	0	1	26

Total Casualties - 2pm 288 50 6 11 356

Casualties - 5pm

<i>Single Family</i>	17	0	0	0	17
<i>Commercial</i>	124	25	3	6	158
<i>Other-Residential</i>	57	10	1	2	69
<i>Commuting</i>	2	3	4	1	10
<i>Educational</i>	4	0	0	0	4
<i>Hotels</i>	0	0	0	0	0
<i>Industrial</i>	13	2	0	1	16

Total Casualties - 5pm 216 41 9 9 275

	Injury Severity Level				Total
	Severity 1	Severity 2	Severity 3	Severity 4	
California					
Kings					
Casualties - 2am					
<i>Industrial</i>	0	0	0	0	0
<i>Other-Residential</i>	1	0	0	0	1
<i>Educational</i>	0	0	0	0	0
<i>Commuting</i>	0	0	0	0	0
<i>Commercial</i>	0	0	0	0	0
<i>Single Family</i>	1	0	0	0	1
<i>Hotels</i>	0	0	0	0	0
Total Casualties - 2am	2	0	0	0	2
Casualties - 2pm					
<i>Single Family</i>	0	0	0	0	0
<i>Other-Residential</i>	1	0	0	0	1
<i>Commercial</i>	2	0	0	0	2
<i>Educational</i>	0	0	0	0	0
<i>Commuting</i>	0	0	0	0	0
<i>Hotels</i>	0	0	0	0	0
<i>Industrial</i>	0	0	0	0	0
Total Casualties - 2pm	3	0	0	0	3
Casualties - 5pm					
<i>Single Family</i>	0	0	0	0	0
<i>Commercial</i>	1	0	0	0	1
<i>Commuting</i>	0	0	0	0	0
<i>Other-Residential</i>	0	0	0	0	1
<i>Educational</i>	0	0	0	0	0
<i>Hotels</i>	0	0	0	0	0
<i>Industrial</i>	0	0	0	0	0
Total Casualties - 5pm	2	0	0	0	2
Los Angeles					
Casualties - 2am					
<i>Hotels</i>	1	0	0	0	2
<i>Industrial</i>	23	3	0	0	26
<i>Educational</i>	0	0	0	0	0
<i>Single Family</i>	596	25	1	1	623
<i>Commuting</i>	0	0	0	0	1
<i>Other-Residential</i>	1,056	119	6	10	1,191
<i>Commercial</i>	21	2	0	0	24
Total Casualties - 2am	1,697	150	7	13	1,867
Casualties - 2pm					
<i>Industrial</i>	166	22	2	4	194
<i>Other-Residential</i>	322	37	2	3	363
<i>Commercial</i>	1,439	174	12	23	1,649
<i>Commuting</i>	1	2	3	1	7

Injury Severity Level

	Severity 1	Severity 2	Severity 3	Severity 4	Total
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California

Los Angeles

Casualties - 2pm

<i>Educational</i>	625	78	6	11	721
<i>Single Family</i>	163	7	0	0	171
<i>Hotels</i>	0	0	0	0	0
Total Casualties - 2pm	2,717	320	25	42	3,105

Casualties - 5pm

<i>Other-Residential</i>	396	45	2	4	447
<i>Industrial</i>	104	14	1	2	121
<i>Commuting</i>	24	32	53	10	119
<i>Single Family</i>	217	10	0	1	228
<i>Commercial</i>	1,023	129	10	19	1,180
<i>Hotels</i>	0	0	0	0	0
<i>Educational</i>	151	19	2	3	174
Total Casualties - 5pm	1,914	248	69	39	2,270

Madera

Casualties - 2am

<i>Hotels</i>	0	0	0	0	0
<i>Educational</i>	0	0	0	0	0
<i>Single Family</i>	0	0	0	0	0
<i>Commuting</i>	0	0	0	0	0
<i>Industrial</i>	0	0	0	0	0
<i>Commercial</i>	0	0	0	0	0
<i>Other-Residential</i>	0	0	0	0	0
Total Casualties - 2am	0	0	0	0	0

Casualties - 2pm

<i>Industrial</i>	0	0	0	0	0
<i>Commercial</i>	0	0	0	0	0
<i>Other-Residential</i>	0	0	0	0	0
<i>Commuting</i>	0	0	0	0	0
<i>Single Family</i>	0	0	0	0	0
<i>Hotels</i>	0	0	0	0	0
<i>Educational</i>	0	0	0	0	0
Total Casualties - 2pm	0	0	0	0	0

Casualties - 5pm

<i>Industrial</i>	0	0	0	0	0
<i>Commercial</i>	0	0	0	0	0
<i>Single Family</i>	0	0	0	0	0
<i>Educational</i>	0	0	0	0	0
<i>Other-Residential</i>	0	0	0	0	0
<i>Commuting</i>	0	0	0	0	0
<i>Hotels</i>	0	0	0	0	0

	Injury Severity Level				Total
	Severity 1	Severity 2	Severity 3	Severity 4	
California					
Madera					
Total Casualties - 5pm	0	0	0	0	0
Mariposa					
Casualties - 2am					
<i>Commuting</i>	0	0	0	0	0
<i>Single Family</i>	0	0	0	0	0
<i>Commercial</i>	0	0	0	0	0
<i>Hotels</i>	0	0	0	0	0
<i>Educational</i>	0	0	0	0	0
<i>Industrial</i>	0	0	0	0	0
<i>Other-Residential</i>	0	0	0	0	0
Total Casualties - 2am	0	0	0	0	0
Casualties - 2pm					
<i>Hotels</i>	0	0	0	0	0
<i>Industrial</i>	0	0	0	0	0
<i>Commercial</i>	0	0	0	0	0
<i>Other-Residential</i>	0	0	0	0	0
<i>Educational</i>	0	0	0	0	0
<i>Commuting</i>	0	0	0	0	0
<i>Single Family</i>	0	0	0	0	0
Total Casualties - 2pm	0	0	0	0	0
Casualties - 5pm					
<i>Other-Residential</i>	0	0	0	0	0
<i>Educational</i>	0	0	0	0	0
<i>Commuting</i>	0	0	0	0	0
<i>Hotels</i>	0	0	0	0	0
<i>Single Family</i>	0	0	0	0	0
<i>Commercial</i>	0	0	0	0	0
<i>Industrial</i>	0	0	0	0	0
Total Casualties - 5pm	0	0	0	0	0
Merced					
Casualties - 2am					
<i>Hotels</i>	0	0	0	0	0
<i>Industrial</i>	0	0	0	0	0
<i>Commercial</i>	0	0	0	0	0
<i>Single Family</i>	0	0	0	0	0
<i>Other-Residential</i>	0	0	0	0	0
<i>Educational</i>	0	0	0	0	0
<i>Commuting</i>	0	0	0	0	0
Total Casualties - 2am	0	0	0	0	0
Casualties - 2pm					
<i>Other-Residential</i>	0	0	0	0	0

	Injury Severity Level				Total
	Severity 1	Severity 2	Severity 3	Severity 4	
California					
Merced					
Casualties - 2pm					
<i>Industrial</i>	0	0	0	0	0
<i>Commercial</i>	0	0	0	0	0
<i>Commuting</i>	0	0	0	0	0
<i>Hotels</i>	0	0	0	0	0
<i>Educational</i>	0	0	0	0	0
<i>Single Family</i>	0	0	0	0	0
Total Casualties - 2pm	0	0	0	0	0
Casualties - 5pm					
<i>Industrial</i>	0	0	0	0	0
<i>Hotels</i>	0	0	0	0	0
<i>Educational</i>	0	0	0	0	0
<i>Commuting</i>	0	0	0	0	0
<i>Single Family</i>	0	0	0	0	0
<i>Commercial</i>	0	0	0	0	0
<i>Other-Residential</i>	0	0	0	0	0
Total Casualties - 5pm	0	0	0	0	0
Mono					
Casualties - 2am					
<i>Other-Residential</i>	0	0	0	0	0
<i>Industrial</i>	0	0	0	0	0
<i>Commercial</i>	0	0	0	0	0
<i>Single Family</i>	0	0	0	0	0
<i>Educational</i>	0	0	0	0	0
<i>Commuting</i>	0	0	0	0	0
<i>Hotels</i>	0	0	0	0	0
Total Casualties - 2am	0	0	0	0	0
Casualties - 2pm					
<i>Commercial</i>	0	0	0	0	0
<i>Commuting</i>	0	0	0	0	0
<i>Other-Residential</i>	0	0	0	0	0
<i>Educational</i>	0	0	0	0	0
<i>Single Family</i>	0	0	0	0	0
<i>Hotels</i>	0	0	0	0	0
<i>Industrial</i>	0	0	0	0	0
Total Casualties - 2pm	0	0	0	0	0
Casualties - 5pm					
<i>Industrial</i>	0	0	0	0	0
<i>Commuting</i>	0	0	0	0	0
<i>Hotels</i>	0	0	0	0	0
<i>Other-Residential</i>	0	0	0	0	0
<i>Educational</i>	0	0	0	0	0

	Injury Severity Level				Total
	Severity 1	Severity 2	Severity 3	Severity 4	
California					
Mono					
Casualties - 5pm					
Single Family	0	0	0	0	0
Commercial	0	0	0	0	0
Total Casualties - 5pm	0	0	0	0	0
Monterey					
Casualties - 2am					
Other-Residential	0	0	0	0	0
Commuting	0	0	0	0	0
Commercial	0	0	0	0	0
Single Family	0	0	0	0	0
Hotels	0	0	0	0	0
Educational	0	0	0	0	0
Industrial	0	0	0	0	0
Total Casualties - 2am	0	0	0	0	0
Casualties - 2pm					
Commuting	0	0	0	0	0
Commercial	0	0	0	0	0
Single Family	0	0	0	0	0
Hotels	0	0	0	0	0
Educational	0	0	0	0	0
Industrial	0	0	0	0	0
Other-Residential	0	0	0	0	0
Total Casualties - 2pm	0	0	0	0	0
Casualties - 5pm					
Commercial	0	0	0	0	0
Other-Residential	0	0	0	0	0
Industrial	0	0	0	0	0
Hotels	0	0	0	0	0
Educational	0	0	0	0	0
Commuting	0	0	0	0	0
Single Family	0	0	0	0	0
Total Casualties - 5pm	0	0	0	0	0
Orange					
Casualties - 2am					
Hotels	0	0	0	0	0
Commuting	0	0	0	0	0
Educational	0	0	0	0	0
Industrial	5	0	0	0	5
Other-Residential	113	10	0	1	124
Commercial	3	0	0	0	3
Single Family	90	1	0	0	91

	Injury Severity Level				Total
	Severity 1	Severity 2	Severity 3	Severity 4	
California					
Orange					
Total Casualties - 2am	210	11	1	1	223
Casualties - 2pm					
<i>Industrial</i>	33	3	0	0	37
<i>Other-Residential</i>	31	3	0	0	34
<i>Commuting</i>	0	0	0	0	1
<i>Commercial</i>	180	17	1	2	200
<i>Single Family</i>	24	0	0	0	24
<i>Hotels</i>	0	0	0	0	0
<i>Educational</i>	78	7	0	1	87
Total Casualties - 2pm	346	31	2	4	383
Casualties - 5pm					
<i>Hotels</i>	0	0	0	0	0
<i>Educational</i>	16	1	0	0	17
<i>Commuting</i>	2	3	5	1	11
<i>Single Family</i>	32	0	0	0	32
<i>Commercial</i>	127	13	1	2	142
<i>Other-Residential</i>	41	4	0	0	45
<i>Industrial</i>	21	2	0	0	23
Total Casualties - 5pm	239	22	6	3	270
Riverside					
Casualties - 2am					
<i>Industrial</i>	6	1	0	0	7
<i>Commercial</i>	14	3	0	1	17
<i>Other-Residential</i>	2,125	453	29	48	2,655
<i>Educational</i>	0	0	0	0	0
<i>Commuting</i>	0	0	1	0	2
<i>Single Family</i>	524	51	5	10	589
<i>Hotels</i>	1	0	0	0	1
Total Casualties - 2am	2,669	508	35	59	3,272
Casualties - 2pm					
<i>Commercial</i>	937	191	25	49	1,201
<i>Other-Residential</i>	747	161	11	18	936
<i>Educational</i>	217	34	4	7	262
<i>Single Family</i>	171	18	2	4	195
<i>Commuting</i>	3	4	7	1	16
<i>Hotels</i>	0	0	0	0	0
<i>Industrial</i>	41	7	1	2	51
Total Casualties - 2pm	2,117	415	49	80	2,662
Casualties - 5pm					
<i>Industrial</i>	26	4	1	1	32
<i>Other-Residential</i>	762	163	11	18	954

	Injury Severity Level				Total
	Severity 1	Severity 2	Severity 3	Severity 4	
California					
Riverside					
Casualties - 5pm					
<i>Educational</i>	20	2	0	0	22
<i>Single Family</i>	196	20	2	4	222
<i>Hotels</i>	0	0	0	0	0
<i>Commercial</i>	644	133	18	34	829
<i>Commuting</i>	57	75	129	25	286
Total Casualties - 5pm	1,705	398	160	82	2,345
San Benito					
Casualties - 2am					
<i>Other-Residential</i>	0	0	0	0	0
<i>Commercial</i>	0	0	0	0	0
<i>Commuting</i>	0	0	0	0	0
<i>Hotels</i>	0	0	0	0	0
<i>Educational</i>	0	0	0	0	0
<i>Single Family</i>	0	0	0	0	0
<i>Industrial</i>	0	0	0	0	0
Total Casualties - 2am	0	0	0	0	0
Casualties - 2pm					
<i>Hotels</i>	0	0	0	0	0
<i>Educational</i>	0	0	0	0	0
<i>Industrial</i>	0	0	0	0	0
<i>Other-Residential</i>	0	0	0	0	0
<i>Commercial</i>	0	0	0	0	0
<i>Commuting</i>	0	0	0	0	0
<i>Single Family</i>	0	0	0	0	0
Total Casualties - 2pm	0	0	0	0	0
Casualties - 5pm					
<i>Commuting</i>	0	0	0	0	0
<i>Commercial</i>	0	0	0	0	0
<i>Other-Residential</i>	0	0	0	0	0
<i>Single Family</i>	0	0	0	0	0
<i>Industrial</i>	0	0	0	0	0
<i>Educational</i>	0	0	0	0	0
<i>Hotels</i>	0	0	0	0	0
Total Casualties - 5pm	0	0	0	0	0
San Bernardino					
Casualties - 2am					
<i>Hotels</i>	0	0	0	0	1
<i>Single Family</i>	905	125	14	28	1,073
<i>Commercial</i>	24	6	1	2	32
<i>Commuting</i>	1	1	1	0	3
<i>Educational</i>	0	0	0	0	0

Injury Severity Level

	Severity 1	Severity 2	Severity 3	Severity 4	Total
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California

San Bernardino

Casualties - 2am

<i>Other-Residential</i>	1,772	370	31	56	2,230
<i>Industrial</i>	19	4	1	1	25
Total Casualties - 2am	2,721	507	48	88	3,363

Casualties - 2pm

<i>Industrial</i>	139	32	4	8	183
<i>Hotels</i>	0	0	0	0	0
<i>Commuting</i>	5	7	11	2	26
<i>Other-Residential</i>	541	114	10	18	683
<i>Educational</i>	798	162	21	40	1,021
<i>Single Family</i>	267	39	5	9	320
<i>Commercial</i>	1,767	435	63	122	2,388
Total Casualties - 2pm	3,517	791	114	200	4,621

Casualties - 5pm

<i>Other-Residential</i>	655	138	12	22	827
<i>Commercial</i>	1,328	329	48	92	1,797
<i>Single Family</i>	344	50	6	11	412
<i>Educational</i>	152	30	4	8	193
<i>Hotels</i>	0	0	0	0	0
<i>Commuting</i>	89	128	205	40	463
<i>Industrial</i>	87	20	3	5	114
Total Casualties - 5pm	2,655	695	278	178	3,806

San Diego

Casualties - 2am

<i>Commercial</i>	0	0	0	0	0
<i>Other-Residential</i>	3	0	0	0	3
<i>Commuting</i>	0	0	0	0	0
<i>Educational</i>	0	0	0	0	0
<i>Single Family</i>	2	0	0	0	2
<i>Industrial</i>	0	0	0	0	0
<i>Hotels</i>	0	0	0	0	0
Total Casualties - 2am	5	0	0	0	5

Casualties - 2pm

<i>Hotels</i>	0	0	0	0	0
<i>Educational</i>	1	0	0	0	1
<i>Commuting</i>	0	0	0	0	0
<i>Commercial</i>	13	0	0	0	13
<i>Other-Residential</i>	1	0	0	0	1
<i>Single Family</i>	1	0	0	0	1
<i>Industrial</i>	0	0	0	0	0
Total Casualties - 2pm	16	0	0	0	16

	Injury Severity Level				Total
	Severity 1	Severity 2	Severity 3	Severity 4	
California					
San Diego					
Casualties - 5pm					
<i>Other-Residential</i>	1	0	0	0	1
<i>Commercial</i>	8	0	0	0	8
<i>Commuting</i>	0	0	0	0	0
<i>Single Family</i>	1	0	0	0	1
<i>Educational</i>	0	0	0	0	0
<i>Hotels</i>	0	0	0	0	0
<i>Industrial</i>	0	0	0	0	0
Total Casualties - 5pm	10	0	0	0	10
San Luis Obispo					
Casualties - 2am					
<i>Commercial</i>	0	0	0	0	0
<i>Other-Residential</i>	10	1	0	0	12
<i>Industrial</i>	0	0	0	0	0
<i>Single Family</i>	3	0	0	0	3
<i>Commuting</i>	0	0	0	0	0
<i>Educational</i>	0	0	0	0	0
<i>Hotels</i>	0	0	0	0	0
Total Casualties - 2am	14	1	0	0	15
Casualties - 2pm					
<i>Single Family</i>	1	0	0	0	1
<i>Educational</i>	1	0	0	0	1
<i>Other-Residential</i>	3	0	0	0	4
<i>Hotels</i>	0	0	0	0	0
<i>Commuting</i>	0	0	0	0	0
<i>Commercial</i>	6	1	0	0	7
<i>Industrial</i>	1	0	0	0	1
Total Casualties - 2pm	13	1	0	0	14
Casualties - 5pm					
<i>Industrial</i>	1	0	0	0	1
<i>Other-Residential</i>	4	0	0	0	4
<i>Commuting</i>	0	0	0	0	0
<i>Single Family</i>	1	0	0	0	1
<i>Commercial</i>	4	0	0	0	5
<i>Hotels</i>	0	0	0	0	0
<i>Educational</i>	0	0	0	0	0
Total Casualties - 5pm	10	1	0	0	11
San Mateo					
Casualties - 2am					
<i>Industrial</i>	0	0	0	0	0
<i>Other-Residential</i>	0	0	0	0	0
<i>Single Family</i>	0	0	0	0	0

	Injury Severity Level				Total
	Severity 1	Severity 2	Severity 3	Severity 4	
California					
San Mateo					
Casualties - 2am					
Commercial	0	0	0	0	0
Educational	0	0	0	0	0
Commuting	0	0	0	0	0
Hotels	0	0	0	0	0
Total Casualties - 2am	0	0	0	0	0
Casualties - 2pm					
Other-Residential	0	0	0	0	0
Single Family	0	0	0	0	0
Commuting	0	0	0	0	0
Commercial	0	0	0	0	0
Educational	0	0	0	0	0
Hotels	0	0	0	0	0
Industrial	0	0	0	0	0
Total Casualties - 2pm	0	0	0	0	0
Casualties - 5pm					
Commercial	0	0	0	0	0
Industrial	0	0	0	0	0
Other-Residential	0	0	0	0	0
Single Family	0	0	0	0	0
Educational	0	0	0	0	0
Commuting	0	0	0	0	0
Hotels	0	0	0	0	0
Total Casualties - 5pm	0	0	0	0	0
Santa Barbara					
Casualties - 2am					
Industrial	0	0	0	0	0
Commercial	0	0	0	0	0
Other-Residential	16	1	0	0	18
Commuting	0	0	0	0	0
Educational	0	0	0	0	0
Single Family	8	0	0	0	8
Hotels	0	0	0	0	0
Total Casualties - 2am	25	1	0	0	26
Casualties - 2pm					
Commercial	13	1	0	0	14
Single Family	2	0	0	0	2
Other-Residential	5	0	0	0	5
Commuting	0	0	0	0	0
Educational	5	0	0	0	6
Hotels	0	0	0	0	0
Industrial	2	0	0	0	2

	Injury Severity Level				Total
	Severity 1	Severity 2	Severity 3	Severity 4	
California					
Santa Barbara					
Total Casualties - 2pm	28	2	0	0	29
Casualties - 5pm					
<i>Other-Residential</i>	6	0	0	0	6
<i>Single Family</i>	3	0	0	0	3
<i>Commercial</i>	9	1	0	0	10
<i>Commuting</i>	0	0	0	0	0
<i>Educational</i>	1	0	0	0	2
<i>Industrial</i>	1	0	0	0	1
<i>Hotels</i>	0	0	0	0	0
Total Casualties - 5pm	21	1	0	0	22
Santa Clara					
Casualties - 2am					
<i>Commuting</i>	0	0	0	0	0
<i>Educational</i>	0	0	0	0	0
<i>Single Family</i>	0	0	0	0	0
<i>Hotels</i>	0	0	0	0	0
<i>Industrial</i>	0	0	0	0	0
<i>Commercial</i>	0	0	0	0	0
<i>Other-Residential</i>	0	0	0	0	0
Total Casualties - 2am	0	0	0	0	0
Casualties - 2pm					
<i>Industrial</i>	0	0	0	0	0
<i>Commercial</i>	0	0	0	0	0
<i>Single Family</i>	0	0	0	0	0
<i>Commuting</i>	0	0	0	0	0
<i>Hotels</i>	0	0	0	0	0
<i>Other-Residential</i>	0	0	0	0	0
<i>Educational</i>	0	0	0	0	0
Total Casualties - 2pm	0	0	0	0	0
Casualties - 5pm					
<i>Industrial</i>	0	0	0	0	0
<i>Hotels</i>	0	0	0	0	0
<i>Other-Residential</i>	0	0	0	0	0
<i>Commercial</i>	0	0	0	0	0
<i>Commuting</i>	0	0	0	0	0
<i>Single Family</i>	0	0	0	0	0
<i>Educational</i>	0	0	0	0	0
Total Casualties - 5pm	0	0	0	0	0
Santa Cruz					
Casualties - 2am					
<i>Hotels</i>	0	0	0	0	0

	Injury Severity Level				Total
	Severity 1	Severity 2	Severity 3	Severity 4	
California					
Santa Cruz					
Casualties - 2am					
<i>Educational</i>	0	0	0	0	0
<i>Industrial</i>	0	0	0	0	0
<i>Other-Residential</i>	0	0	0	0	0
<i>Single Family</i>	0	0	0	0	0
<i>Commercial</i>	0	0	0	0	0
<i>Commuting</i>	0	0	0	0	0
Total Casualties - 2am	0	0	0	0	0
Casualties - 2pm					
<i>Industrial</i>	0	0	0	0	0
<i>Other-Residential</i>	0	0	0	0	0
<i>Commercial</i>	0	0	0	0	0
<i>Commuting</i>	0	0	0	0	0
<i>Educational</i>	0	0	0	0	0
<i>Single Family</i>	0	0	0	0	0
<i>Hotels</i>	0	0	0	0	0
Total Casualties - 2pm	0	0	0	0	0
Casualties - 5pm					
<i>Industrial</i>	0	0	0	0	0
<i>Other-Residential</i>	0	0	0	0	0
<i>Commercial</i>	0	0	0	0	0
<i>Commuting</i>	0	0	0	0	0
<i>Single Family</i>	0	0	0	0	0
<i>Hotels</i>	0	0	0	0	0
<i>Educational</i>	0	0	0	0	0
Total Casualties - 5pm	0	0	0	0	0
Stanislaus					
Casualties - 2am					
<i>Hotels</i>	0	0	0	0	0
<i>Industrial</i>	0	0	0	0	0
<i>Commercial</i>	0	0	0	0	0
<i>Single Family</i>	0	0	0	0	0
<i>Other-Residential</i>	0	0	0	0	0
<i>Commuting</i>	0	0	0	0	0
<i>Educational</i>	0	0	0	0	0
Total Casualties - 2am	0	0	0	0	0
Casualties - 2pm					
<i>Industrial</i>	0	0	0	0	0
<i>Other-Residential</i>	0	0	0	0	0
<i>Commercial</i>	0	0	0	0	0
<i>Commuting</i>	0	0	0	0	0
<i>Educational</i>	0	0	0	0	0

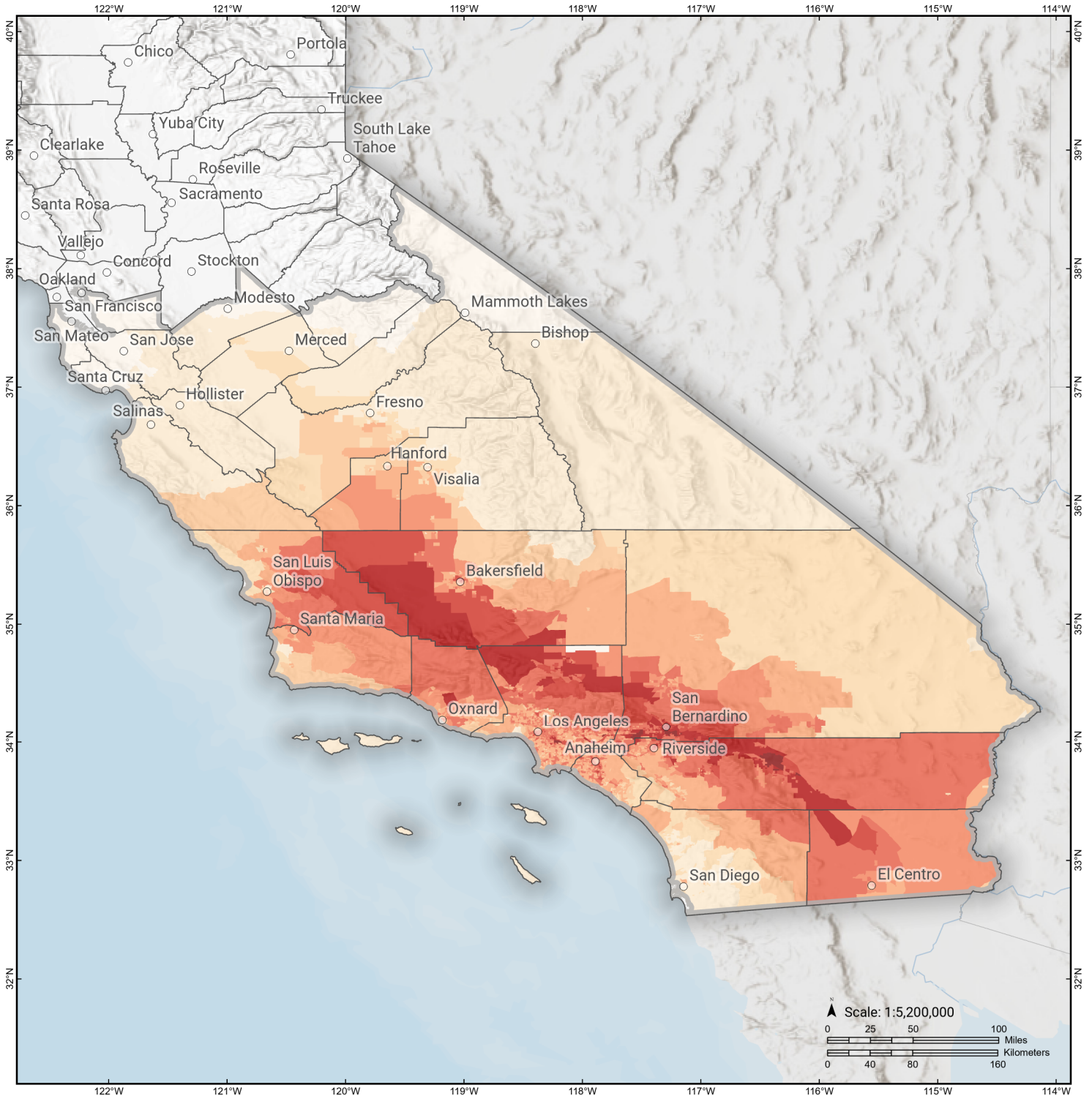
	Injury Severity Level				Total
	Severity 1	Severity 2	Severity 3	Severity 4	
California					
Stanislaus					
Casualties - 2pm					
Single Family	0	0	0	0	0
Hotels	0	0	0	0	0
Total Casualties - 2pm	0	0	0	0	0
Casualties - 5pm					
Industrial	0	0	0	0	0
Other-Residential	0	0	0	0	0
Commuting	0	0	0	0	0
Single Family	0	0	0	0	0
Commercial	0	0	0	0	0
Hotels	0	0	0	0	0
Educational	0	0	0	0	0
Total Casualties - 5pm	0	0	0	0	0
Tulare					
Casualties - 2am					
Commercial	0	0	0	0	0
Commuting	0	0	0	0	0
Single Family	1	0	0	0	1
Educational	0	0	0	0	0
Hotels	0	0	0	0	0
Industrial	0	0	0	0	0
Other-Residential	2	0	0	0	2
Total Casualties - 2am	4	0	0	0	4
Casualties - 2pm					
Industrial	0	0	0	0	0
Hotels	0	0	0	0	0
Commercial	3	0	0	0	3
Other-Residential	1	0	0	0	1
Educational	1	0	0	0	1
Commuting	0	0	0	0	0
Single Family	0	0	0	0	0
Total Casualties - 2pm	5	0	0	0	5
Casualties - 5pm					
Other-Residential	1	0	0	0	1
Commercial	2	0	0	0	2
Single Family	1	0	0	0	1
Hotels	0	0	0	0	0
Commuting	0	0	0	0	0
Educational	0	0	0	0	0
Industrial	0	0	0	0	0
Total Casualties - 5pm	4	0	0	0	4

	Injury Severity Level				Total
	Severity 1	Severity 2	Severity 3	Severity 4	
California					
Ventura					
Casualties - 2am					
<i>Educational</i>	0	0	0	0	0
<i>Commuting</i>	0	0	0	0	0
<i>Single Family</i>	24	0	0	0	24
<i>Hotels</i>	0	0	0	0	0
<i>Industrial</i>	1	0	0	0	1
<i>Commercial</i>	0	0	0	0	1
<i>Other-Residential</i>	27	2	0	0	29
Total Casualties - 2am	52	2	0	0	55
Casualties - 2pm					
<i>Industrial</i>	6	0	0	0	7
<i>Educational</i>	13	1	0	0	14
<i>Commuting</i>	0	0	0	0	0
<i>Hotels</i>	0	0	0	0	0
<i>Other-Residential</i>	7	1	0	0	8
<i>Commercial</i>	35	3	0	0	39
<i>Single Family</i>	6	0	0	0	6
Total Casualties - 2pm	68	5	0	0	74
Casualties - 5pm					
<i>Commuting</i>	0	0	1	0	2
<i>Other-Residential</i>	10	1	0	0	11
<i>Commercial</i>	26	2	0	0	29
<i>Hotels</i>	0	0	0	0	0
<i>Educational</i>	2	0	0	0	2
<i>Single Family</i>	9	0	0	0	9
<i>Industrial</i>	4	0	0	0	4
Total Casualties - 5pm	51	4	1	0	56
Region Total	NA	NA	NA	NA	NA

Totals only reflect data for those census tracts/blocks included in the user's study region and will reflect the entire county/state only if all of the census blocks for that county/states were selected at the time of study region creation.

S. San Andreas: CC+BB+NM+SM+NSB+SSB+BG+CO

Debris Generated by Census Tract

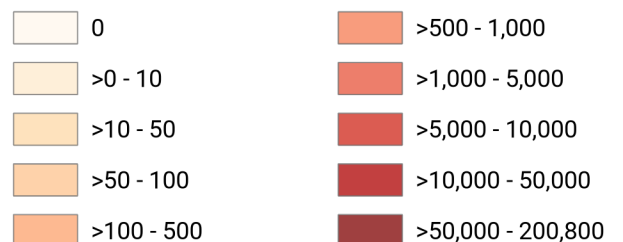


Study Region: S. San Andreas: CC+BB+NM+SM+NSB+SSB+BG+CO

Scenario: ssanandreasccbbtnmsmn_m8p1_se



Debris Generated (in tons)



Debris Summary Report

May 06, 2024

All values are in thousands of tons.

	Brick, Wood & Others	Concrete & Steel	Total
California			
Alameda	0	0	0
Fresno	2	1	4
Imperial	29	23	52
Inyo	0	0	0
Kern	159	255	413
Kings	2	2	4
Los Angeles	1,535	1,696	3,231
Madera	0	0	0
Mariposa	0	0	0
Merced	0	0	0
Mono	0	0	0
Monterey	0	0	0
Orange	151	261	412
Riverside	1,519	1,271	2,791
San Benito	0	0	0
San Bernardino	1,630	1,749	3,380
San Diego	6	2	8
San Luis Obispo	14	12	27
San Mateo	0	0	0

	Brick, Wood & Others	Concrete & Steel	Total
Santa Barbara	18	21	39
Santa Clara	0	0	0
Santa Cruz	0	0	0
Stanislaus	0	0	0
Tulare	4	3	7
Ventura	41	62	102
Total	5,111	5,360	10,470
Region Total	5,111	5,360	10,470

Totals only reflect data for those census tracts/blocks included in the user's study region and will reflect the entire county/state only if all of the census blocks for that county/states were selected at the time of study region creation.

Direct Economic Losses For Buildings

May 6, 2024

All values are in thousands of dollars

	Capital Stock Losses				Loss Ratio %	Income Losses				Total Loss
	Cost Structural Damage	Cost Non-struct. Damage	Cost Contents Damage	Inventory Loss		Relocation Loss	Capital Related Loss	Wages Losses	Rental Income Loss	
California										
Inyo	0	20	12	1	0.00	0	0	0	0	35
Imperial	43,694	237,692	102,188	17,092	0.84	14,113	6,038	6,565	6,468	433,849
San Bernardino	2,723,553	12,975,422	5,239,718	602,149	4.16	1,346,118	537,962	769,739	729,791	24,924,452
Riverside	1,871,159	9,403,647	3,589,485	202,811	2.69	827,693	333,271	390,346	457,501	17,075,915
Alameda	0	0	0	0	0.00	0	0	0	0	0
Tulare	7,225	69,613	40,885	9,763	0.10	1,390	1,286	1,499	1,118	132,779
Madera	88	1,538	902	160	0.01	7	6	7	14	2,722
Fresno	3,341	33,285	19,632	4,097	0.02	694	795	833	730	63,406
Kings	3,652	32,688	17,752	2,376	0.17	894	855	1,093	685	59,995

	Capital Stock Losses				Loss Ratio %	Income Losses				Total Loss
	Cost Structural Damage	Cost Non-struct. Damage	Cost Contents Damage	Inventory Loss		Relocation Loss	Capital Related Loss	Wages Losses	Rental Income Loss	
San Luis Obispo	19,178	129,855	59,173	6,273	0.24	6,598	4,407	4,694	4,051	234,230
San Mateo	0	0	0	0	0.00	0	0	0	0	0
San Benito	5	136	93	11	0.00	1	1	2	1	251
Stanislaus	4	175	127	22	0.00	0	1	1	1	330
Santa Clara	2	64	43	9	0.00	0	0	0	1	119
Merced	132	1,343	990	401	0.00	8	4	4	6	2,889
Santa Barbara	35,582	270,736	132,774	15,122	0.39	11,247	6,835	8,910	8,138	489,343
Mono	0	0	0	0	0.00	0	0	0	0	0
Kern	309,017	1,311,680	606,922	106,802	1.10	111,602	63,184	73,173	55,514	2,637,894
Ventura	92,077	597,277	286,856	32,681	0.46	25,827	19,522	22,909	18,482	1,095,630
Santa Cruz	9	129	88	17	0.00	1	3	3	3	253
Mariposa	0	0	0	0	0.00	0	0	0	0	0
Monterey	193	2,130	1,419	455	0.00	22	15	14	23	4,272
Orange	360,195	2,244,089	1,117,120	103,214	0.48	117,274	92,489	108,728	90,254	4,233,362
San Diego	8,154	153,456	85,334	6,467	0.03	1,285	840	2,322	1,929	259,787
Los Angeles	2,574,411	12,771,601	5,943,678	529,799	1.01	1,218,966	689,784	879,149	746,450	25,353,839
Total	8,051,674	40,236,575	17,245,192	1,639,722	0.47	3,683,740	1,757,299	2,269,992	2,121,160	77,005,354

	Capital Stock Losses				Loss Ratio %	Income Losses				Total Loss
	Cost Structural Damage	Cost Non-struct. Damage	Cost Contents Damage	Inventory Loss		Relocation Loss	Capital Related Loss	Wages Losses	Rental Income Loss	
Region Total	8,051,674	40,236,575	17,245,192	1,639,722	0.47	3,683,740	1,757,299	2,269,992	2,121,160	77,005,354

Totals only reflect data for those census tracts/blocks included in the user's study region and will reflect the entire county/state only if all of the census blocks for that county/states were selected at the time of study region creation.

Direct Economic Loss For Transportation

May 06, 2024

All values are in thousands of dollars

	Highway	Railway	Light Rail	Bus Facility	Ports	Ferries	Airport	Total
California								
Alameda								
Segments	0	0	0					0
Bridges	1	0	0					1
Tunnels	0	0	0					0
Facilities		48	0	2	192	4	399	646
Total	1	48	0	2	192	4	399	648
Fresno								
Segments	0	0	0					0
Bridges	503	8	0					511
Tunnels	0	0	0					0
Facilities		398	0	21	0	0	1,306	1,725
Total	503	406	0	21	0	0	1,306	2,236
Imperial								
Segments	0	0	0					0
Bridges	8,218	80,505	0					88,723
Tunnels	0	0	0					0
Facilities		796	0	0	0	0	5,245	6,041

	Highway	Railway	Light Rail	Bus Facility	Ports	Ferries	Airport	Total
Total	8,218	81,301	0	0	0	0	5,245	94,763
Inyo								
Segments	0	0	0					0
Bridges	1	0	0					1
Tunnels	0	0	0					0
Facilities		0	0	0	0	0	363	363
Total	1	0	0	0	0	0	363	364
Kern								
Segments	0	0	0					0
Bridges	20,339	1,179	0					21,519
Tunnels	11	0	0					11
Facilities		1,969	0	723	0	0	10,946	13,638
Total	20,351	3,148	0	723	0	0	10,946	35,168
Kings								
Segments	0	0	0					0
Bridges	308	23	0					331
Tunnels	0	0	0					0
Facilities		638	0	176	0	0	1,531	2,345
Total	308	661	0	176	0	0	1,531	2,676
Los Angeles								
Segments	0	0	0					0
Bridges	189,134	16,030	6					205,170
Tunnels	1,264	0	0					1,264
Facilities		12,367	220,194	3,478	52,046	742	222,451	511,278

	Highway	Railway	Light Rail	Bus Facility	Ports	Ferries	Airport	Total
Total	190,399	28,397	220,200	3,478	52,046	742	222,451	717,712
Madera								
Segments	0	0	0					0
Bridges	17	0	0					17
Tunnels	0	0	0					0
Facilities		26	0	21	0	0	102	149
Total	17	26	0	21	0	0	102	165
Mariposa								
Segments	0	0	0					0
Bridges	0	0	0					0
Tunnels	0	0	0					0
Facilities		0	0	10	0	0	6	15
Total	0	0	0	10	0	0	6	16
Merced								
Segments	0	0	0					0
Bridges	59	0	0					59
Tunnels	0	0	0					0
Facilities		51	0	21	0	0	410	483
Total	59	51	0	21	0	0	410	542
Mono								
Segments	0	0	0					0
Bridges	0	0	0					0
Tunnels	0	0	0					0
Facilities		0	0	5	0	0	11	16

	Highway	Railway	Light Rail	Bus Facility	Ports	Ferries	Airport	Total
Total	0	0	0	5	0	0	11	16
Monterey								
Segments	0	0	0					0
Bridges	176	2	0					177
Tunnels	0	0	0					0
Facilities		26	0	208	45	0	655	933
Total	176	27	0	208	45	0	655	1,111
Orange								
Segments	0	0	0					0
Bridges	23,351	569	0					23,921
Tunnels	22	0	0					22
Facilities		1,797	0	0	4,471	356	33,514	40,138
Total	23,374	2,366	0	0	4,471	356	33,514	64,081
Riverside								
Segments	0	0	0					0
Bridges	245,620	47,659	0					293,279
Tunnels	0	0	0					0
Facilities		3,239	0	4,753	0	0	48,886	56,878
Total	245,620	50,898	0	4,753	0	0	48,886	350,157
San Benito								
Segments	0	0	0					0
Bridges	3	0	0					3
Tunnels	0	0	0					0
Facilities		0	0	0	0	0	102	102

	Highway	Railway	Light Rail	Bus Facility	Ports	Ferries	Airport	Total
Total	3	0	0	0	0	0	102	105
San Bernardino								
Segments	0	0	0					0
Bridges	434,205	37,171	0					471,376
Tunnels	379	0	0					379
Facilities		11,348	0	1,294	0	0	62,443	75,085
Total	434,584	48,519	0	1,294	0	0	62,443	546,839
San Diego								
Segments	0	0	0					0
Bridges	440	3	0					443
Tunnels	0	0	0					0
Facilities		548	13,841	21	4,149	38	13,544	32,142
Total	440	551	13,841	21	4,149	38	13,544	32,585
San Luis Obispo								
Segments	0	0	0					0
Bridges	1,765	40	0					1,805
Tunnels	0	0	0					0
Facilities		511	0	250	1,645	0	3,172	5,578
Total	1,765	551	0	250	1,645	0	3,172	7,383
San Mateo								
Segments	0	0	0					0
Bridges	29	0	0					29
Tunnels	0	0	0					0
Facilities		0	0	0	73	0	977	1,050

	Highway	Railway	Light Rail	Bus Facility	Ports	Ferries	Airport	Total
Total	29	0	0	0	73	0	977	1,079
Santa Barbara								
<i>Segments</i>	0	0	0					0
<i>Bridges</i>	1,829	74	0					1,904
<i>Tunnels</i>	0	0	0					0
<i>Facilities</i>		913	0	571	2,326	122	4,336	8,269
Total	1,830	987	0	571	2,326	122	4,336	10,173
Santa Clara								
<i>Segments</i>	0	0	0					0
<i>Bridges</i>	12	0	0					12
<i>Tunnels</i>	0	0	0					0
<i>Facilities</i>		11	604	26	20	0	514	1,175
Total	12	11	604	26	20	0	514	1,187
Santa Cruz								
<i>Segments</i>	0	0	0					0
<i>Bridges</i>	1	0	0					1
<i>Tunnels</i>	0	0	0					0
<i>Facilities</i>		0	0	5	4	0	257	266
Total	1	0	0	5	4	0	257	267
Stanislaus								
<i>Segments</i>	0	0	0					0
<i>Bridges</i>	29	0	0					29
<i>Tunnels</i>	0	0	0					0
<i>Facilities</i>		40	0	24	0	0	26	89

	Highway	Railway	Light Rail	Bus Facility	Ports	Ferries	Airport	Total
Total	29	40	0	24	0	0	26	118
Tulare								
Segments	0	0	0					0
Bridges	457	62	0					519
Tunnels	0	0	0					0
Facilities		0	0	353	0	0	1,087	1,440
Total	457	62	0	353	0	0	1,087	1,959
Ventura								
Segments	0	0	0					0
Bridges	4,493	213	0					4,706
Tunnels	13	0	0					13
Facilities		1,192	0	163	5,214	155	4,082	10,807
Total	4,505	1,406	0	163	5,214	155	4,082	15,525
Total	932,680	219,457	234,645	12,125	70,186	1,417	416,365	1,886,875
Region Total	932,680	219,457	234,645	12,125	70,186	1,417	416,365	1,886,875

Totals only reflect data for those census tracts/blocks included in the user's study region and will reflect the entire county/state only if all of the census blocks for that county/states were selected at the time of study region creation.

Direct Economic Loss For Utilities

May 06, 2024

All values are in thousands of dollars

	Potable Water	Waste Water	Oil Systems	Natural Gas	Electric Power	Communication	Total
California							
Alameda							
<i>Facilities</i>	2	39	0	0	739	0	780
<i>Pipelines</i>	118	59	0	0			177
Total	120	98	0	0	739	0	957
Fresno							
<i>Facilities</i>	0	492	1	161	161,175	14	161,843
<i>Pipelines</i>	1,189	597	0	0			1,787
Total	1,189	1,089	1	161	161,175	14	163,629
Imperial							
<i>Facilities</i>	8,379	139,608	0	0	2,020,799	182	2,168,967
<i>Pipelines</i>	4,985	2,504	0	0			7,489
Total	13,364	142,112	0	0	2,020,799	182	2,176,456
Inyo							
<i>Facilities</i>	0	0	0	0	9,125	0	9,125

	Potable Water	Waste Water	Oil Systems	Natural Gas	Electric Power	Communication	Total
<i>Pipelines</i>	131	66	0	0			196
Total	131	66	0	0	9,125	0	9,321
Kern							
<i>Facilities</i>	12,474	46,284	66	44,135	5,925,960	650	6,029,570
<i>Pipelines</i>	23,365	11,737	0	0			35,102
Total	35,839	58,021	66	44,135	5,925,960	650	6,064,672
Kings							
<i>Facilities</i>	0	0	1	2,790	87,477	10	90,278
<i>Pipelines</i>	1,153	579	0	0			1,733
Total	1,153	579	1	2,790	87,477	10	92,010
Los Angeles							
<i>Facilities</i>	37,019	147,877	172	30,008	9,845,296	1,406	10,061,778
<i>Pipelines</i>	42,121	21,158	0	0			63,279
Total	79,140	169,035	172	30,008	9,845,296	1,406	10,125,057
Madera							
<i>Facilities</i>	0	0	0	0	5,957	1	5,957
<i>Pipelines</i>	233	117	0	0			350
Total	233	117	0	0	5,957	1	6,307
Mariposa							
<i>Facilities</i>	0	10	0	0	42	0	53
<i>Pipelines</i>	45	22	0	0			67

	Potable Water	Waste Water	Oil Systems	Natural Gas	Electric Power	Communication	Total
Total	45	33	0	0	42	0	120
Merced							
<i>Facilities</i>	0	494	0	0	21,741	2	22,238
<i>Pipelines</i>	202	101	0	0			303
Total	202	596	0	0	21,741	2	22,541
Mono							
<i>Facilities</i>	0	0	0	0	54	0	54
<i>Pipelines</i>	51	26	0	0			77
Total	51	26	0	0	54	0	131
Monterey							
<i>Facilities</i>	0	1,107	0	0	21,108	11	22,225
<i>Pipelines</i>	406	204	0	0			610
Total	406	1,311	0	0	21,108	11	22,836
Orange							
<i>Facilities</i>	3,915	31,062	12	2,300	248,886	93	286,268
<i>Pipelines</i>	3,590	1,804	0	0			5,394
Total	7,506	32,866	12	2,300	248,886	93	291,662
Riverside							
<i>Facilities</i>	41,752	334,152	0	6,440	3,792,593	2,508	4,177,445
<i>Pipelines</i>	46,128	23,171	0	0			69,299
Total	87,880	357,323	0	6,440	3,792,593	2,508	4,246,744

	Potable Water	Waste Water	Oil Systems	Natural Gas	Electric Power	Communication	Total
San Benito							
<i>Facilities</i>	0	246	0	0	0	1	247
<i>Pipelines</i>	65	33	0	0			97
Total	65	278	0	0	0	1	344
San Bernardino							
<i>Facilities</i>	37,080	310,052	0	8,266	5,728,438	1,570	6,085,406
<i>Pipelines</i>	44,154	22,180	0	0			66,334
Total	81,234	332,232	0	8,266	5,728,438	1,570	6,151,740
San Diego							
<i>Facilities</i>	376	17,211	0	1,590	225,158	38	244,373
<i>Pipelines</i>	1,444	726	0	0			2,170
Total	1,821	17,936	0	1,590	225,158	38	246,542
San Luis Obispo							
<i>Facilities</i>	348	26,647	6	0	996,673	110	1,023,785
<i>Pipelines</i>	6,907	3,469	0	0			10,376
Total	7,255	30,117	6	0	996,673	110	1,034,161
San Mateo							
<i>Facilities</i>	0	34	0	0	5	0	39
<i>Pipelines</i>	54	27	0	0			80
Total	54	60	0	0	5	0	119
Santa Barbara							

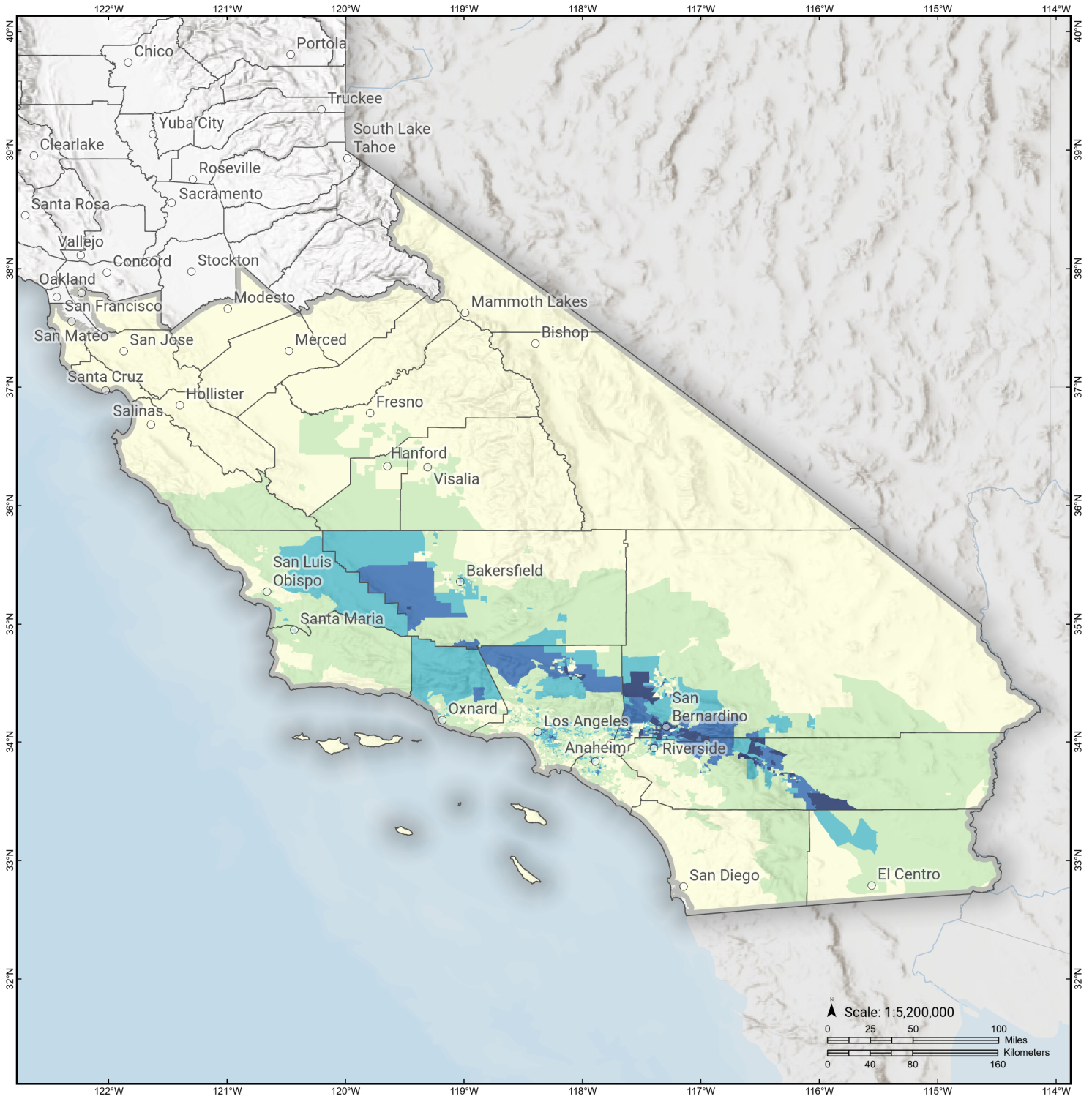
	Potable Water	Waste Water	Oil Systems	Natural Gas	Electric Power	Communication	Total
<i>Facilities</i>	0	53,274	6	4,555	81,387	313	139,534
<i>Pipelines</i>	1,698	853	0	0			2,551
Total	1,698	54,127	6	4,555	81,387	313	142,086
Santa Clara							
<i>Facilities</i>	1	8	0	0	2,829	0	2,838
<i>Pipelines</i>	138	70	0	0			208
Total	140	77	0	0	2,829	0	3,046
Santa Cruz							
<i>Facilities</i>	0	131	0	0	42	0	173
<i>Pipelines</i>	43	22	0	0			65
Total	43	153	0	0	42	0	238
Stanislaus							
<i>Facilities</i>	0	371	0	0	3,129	1	3,501
<i>Pipelines</i>	65	33	0	0			98
Total	65	404	0	0	3,129	1	3,599
Tulare							
<i>Facilities</i>	28	3,172	0	0	75,041	26	78,267
<i>Pipelines</i>	971	488	0	0			1,459
Total	999	3,660	0	0	75,041	26	79,726
Ventura							
<i>Facilities</i>	5,933	65,295	6	2,232	354,768	242	428,476

	Potable Water	Waste Water	Oil Systems	Natural Gas	Electric Power	Communication	Total
<i>Pipelines</i>	3,071	1,543	0	0			4,614
Total	9,005	66,838	6	2,232	354,768	242	433,090
Total	329,638	1,269,154	270	102,477	29,608,423	7,175	31,317,136
Region Total	329,638	1,269,154	270	102,477	29,608,423	7,175	31,317,136

Totals only reflect data for those census tracts/blocks included in the user's study region and will reflect the entire county/state only if all of the census blocks for that county/states were selected at the time of study region creation.

S. San Andreas: CC+BB+NM+SM+NSB+SSB+BG+CO

Displaced Households by Census Tract

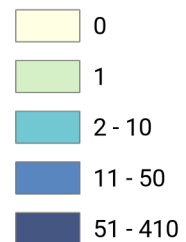


Study Region: S. San Andreas: CC+BB+NM+SM+NSB+SSB+BG+CO

Scenario: ssanandreasccbnnmsmn_m8p1_se

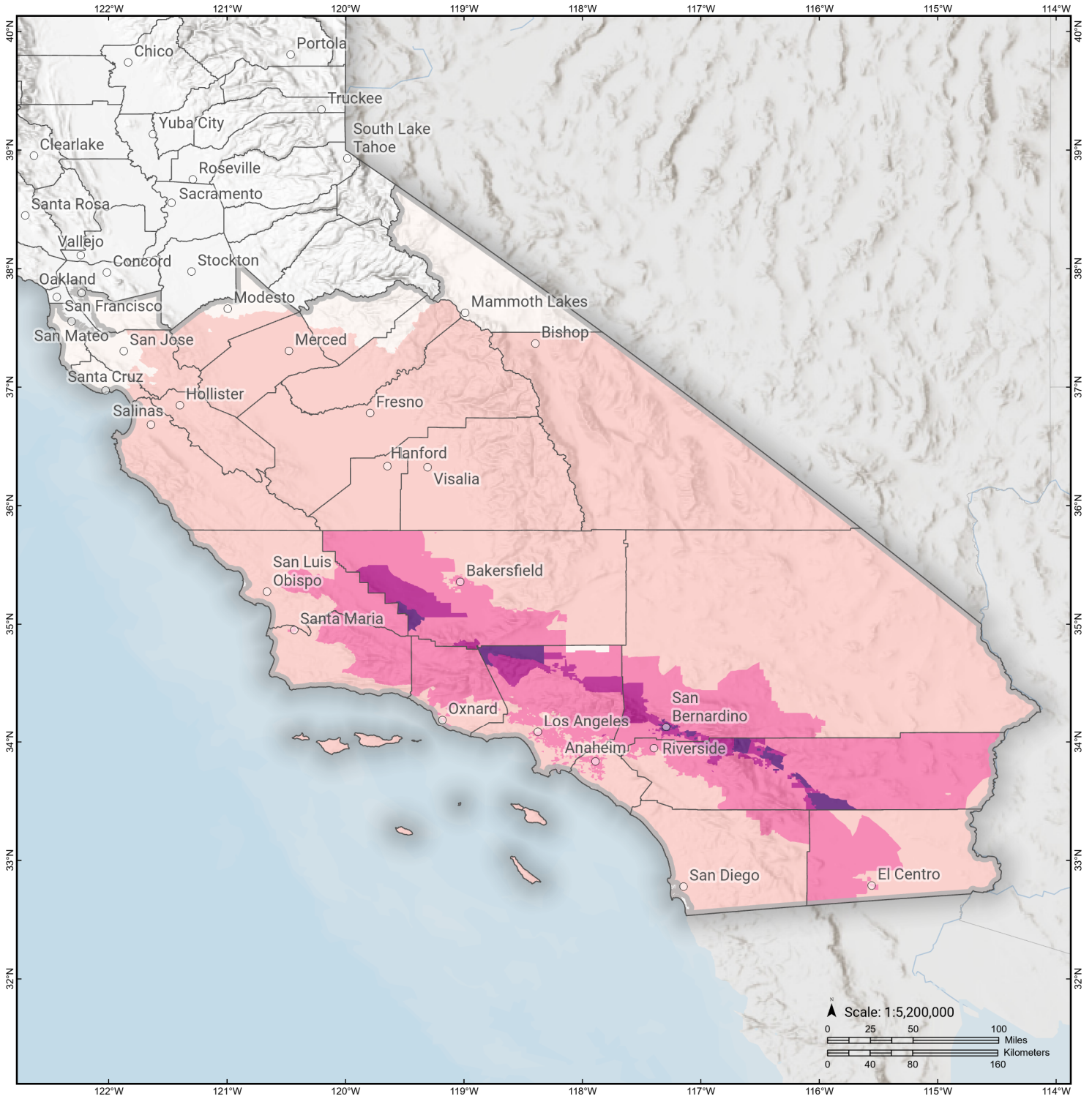


Displaced Households



S. San Andreas: CC+BB+NM+SM+NSB+SSB+BG+CO

Loss Ratio by Census Tract

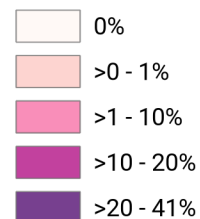


Study Region: S. San Andreas: CC+BB+NM+SM+NSB+SSB+BG+CO

Scenario: ssanandreasccbnnmsmn_m8p1_se



Loss Ratio (ratio of building related economic loss to exposed value of buildings)



Hazus Quick Assessment Report

Estimated Economic Loss (\$ Billions)

Category	Description	Range
General Building Stock	Building Damage	24.10 - 96.60
	Building Contents	3.00 - 12.00
	Business Interruption	4.90 - 19.70
Infrastructure	Lifelines Damage	
Total		38.50 - 154.00

Preliminary Damage Assessment (PDA) Estimates

Description	Residential	Commercial	Other	Total
Affected	909,200	72,100	26,300	
Minor	150,400	24,500	10,100	185,000
Major	32,700	5,100	2,300	40,100
Destroyed	16,400	1,400	470	18,270
Total		103,100	39,170	

Estimated Casualties : Night Time

Severity Level	Description	# Persons
Level 1	Medical Aid	4,000 - 15,000
Level 2	Hospital Care	600 - 2,000
Level 3	Life-threatening	50 - 190
Level 4	Fatalities	80 - 300

Estimated Shelter Needs

Type	Households	People
Displaced Households	14,000 - 55,000	35,000 - 137,500
Public Shelter	7,640	19,100

Comments :

*Hazus damage estimates are presented using FEMA Preliminary Damage Assessment (PDA) categories. These estimates should be used for planning purposes and may not reflect actual observed damages from the PDA process.

Disclaimer:

The estimates of social and economic impacts contained in this report were produced using HAZUS loss estimation methodology software which is based on current scientific and engineering knowledge. There are uncertainties inherent in any loss estimation technique. Therefore, there may be significant differences between the modeled results contained in this report and the actual social and economic losses following a specific earthquake. These results can be improved by using enhanced inventory, geotechnical, and observed ground motion data.

Earthquake Information

Location :

Origin Time:

Magnitude : 8.10

Epicenter Latitude/Longitude :
/

Depth & Type : /U

Name :
NA

Ground Motion /Attenuation :

Maximum PGA: 1.00

Information Sources:

Comments :

Population and Building Exposure

Population: 31,593,997

Building Exposure : (\$ Millions)

Residential	
Commercial	1,074,700
Other	843,122
Total	

Counties : See Appendix

Major Metro Area :

Hazus Quick Assessment Report

Estimated Economic Loss (\$ Billions)

Category	Description	Range
General Building Stock	Building Damage	24.10 - 96.60
	Building Contents	3.00 - 12.00
	Business Interruption	4.90 - 19.70
Infrastructure	Lifelines Damage	
Total		38.50 - 154.00

Preliminary Damage Assessment (PDA) Estimates

Description	Residential	Commercial	Other	Total
Affected	909,200	72,100	26,300	
Minor	150,400	24,500	10,100	185,000
Major	32,700	5,100	2,300	40,100
Destroyed	16,400	1,400	470	18,270
Total		103,100	39,170	

Estimated Casualties : Day Time

Severity Level	Description	# Persons
Level 1	Medical Aid	5,000 - 18,000
Level 2	Hospital Care	800 - 3,000
Level 3	Life-threatening	100 - 400
Level 4	Fatalities	170 - 700

Estimated Shelter Needs

Type	Households	People
Displaced Households	14,000 - 55,000	35,000 - 137,500
Public Shelter	7,640	19,100

Comments :

**Hazus damage estimates are presented using FEMA Preliminary Damage Assessment (PDA) categories. These estimates should be used for planning purposes and may not reflect actual observed damages from the PDA process.*

Disclaimer:

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Earthquake Information

Location :

Origin Time:

Magnitude : 8.10

Epicenter Latitude/Longitude :
/

Depth & Type : /U

Name :
NA

Ground Motion /Attenuation :

Maximum PGA: 1.00

Information Sources:

Comments :

Population and Building Exposure

Population: 31,593,997

Building Exposure : (\$ Millions)

Residential	
Commercial	1,074,700
Other	843,122
Total	

Counties : See Appendix

Major Metro Area :

Hazus Quick Assessment Report

Estimated Economic Loss (\$ Billions)

Category	Description	Range
General Building Stock	Building Damage	24.10 - 96.60
	Building Contents	3.00 - 12.00
	Business Interruption	4.90 - 19.70
Infrastructure	Lifelines Damage	
Total		38.50 - 154.00

Preliminary Damage Assessment (PDA) Estimates

Description	Residential	Commercial	Other	Total
Affected	909,200	72,100	26,300	
Minor	150,400	24,500	10,100	185,000
Major	32,700	5,100	2,300	40,100
Destroyed	16,400	1,400	470	18,270
Total		103,100	39,170	

Estimated Casualties : Commute Time

Severity Level	Description	# Persons
Level 1	Medical Aid	3,000 - 14,000
Level 2	Hospital Care	700 - 3,000
Level 3	Life-threatening	300 - 1,000
Level 4	Fatalities	160 - 600

Estimated Shelter Needs

Type	Households	People
Displaced Households	14,000 - 55,000	35,000 - 137,500
Public Shelter	7,640	19,100

Comments :

*Hazus damage estimates are presented using FEMA Preliminary Damage Assessment (PDA) categories. These estimates should be used for planning purposes and may not reflect actual observed damages from the PDA process.

Disclaimer:

The estimates of social and economic impacts contained in this report were produced using HAZUS loss estimation methodology software which is based on current scientific and engineering knowledge. There are uncertainties inherent in any loss estimation technique. Therefore, there may be significant differences between the modeled results contained in this report and the actual social and economic losses following a specific earthquake. These results can be improved by using enhanced inventory, geotechnical, and observed ground motion data.

Earthquake Information

Location :

Origin Time:

Magnitude : 8.10

Epicenter Latitude/Longitude :
/

Depth & Type : /U

Name :
NA

Ground Motion /Attenuation :

Maximum PGA: 1.00

Information Sources:

Comments :

Population and Building Exposure

Population: 31,593,997

Building Exposure : (\$ Millions)

Residential	
Commercial	1,074,700
Other	843,122
Total	

Counties : See Appendix

Major Metro Area :

Shelter Summary Report

May 06, 2024

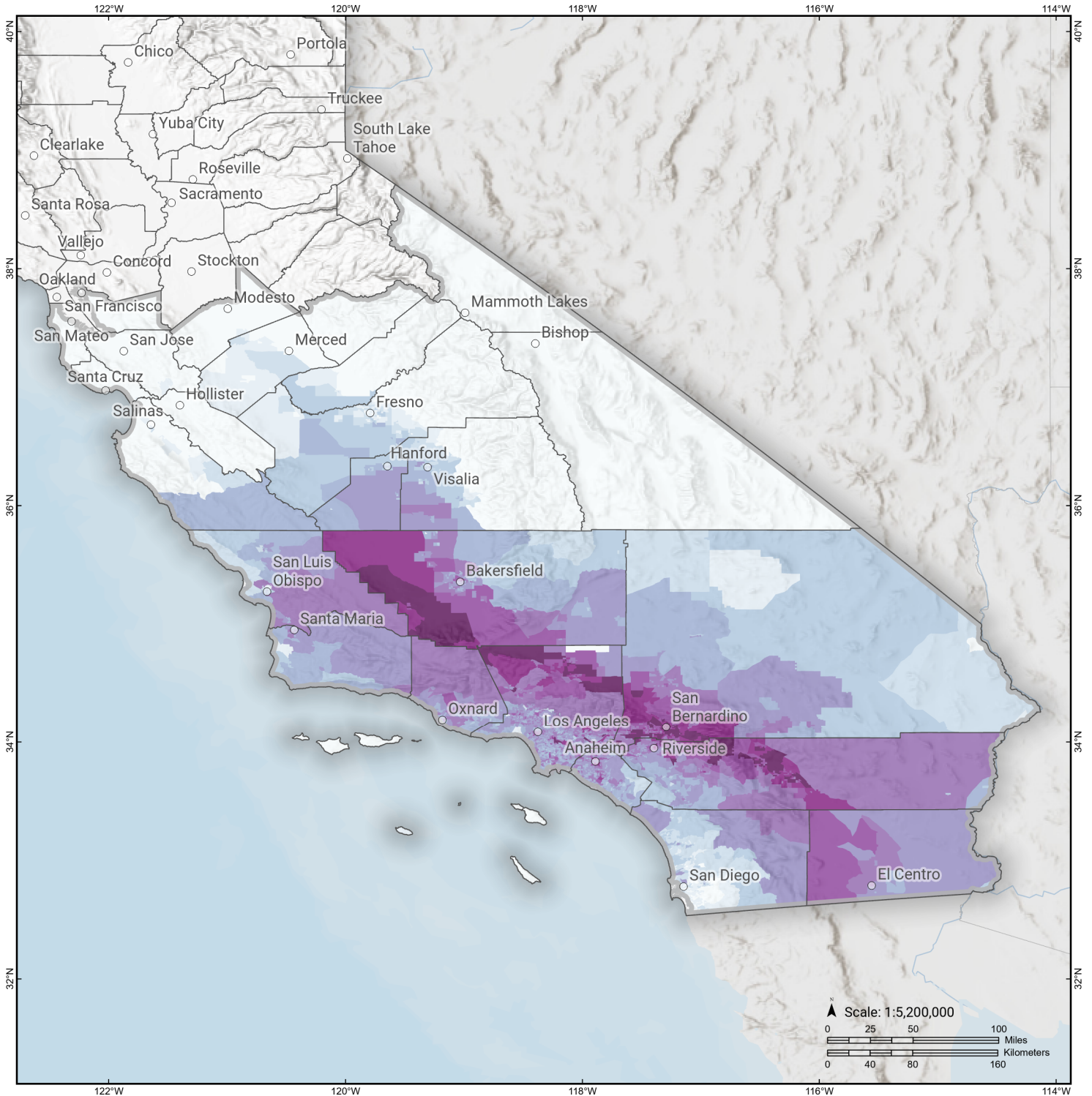
	# of Displaced Households	# of People Needing Short Term Shelter
California		
Alameda	0	0
Fresno	0	0
Imperial	10	11
Inyo	0	0
Kern	549	432
Kings	1	1
Los Angeles	6,619	4,075
Madera	0	0
Mariposa	0	0
Merced	0	0
Mono	0	0
Monterey	0	0
Orange	485	333
Riverside	4,456	3,596
San Benito	0	0
San Bernardino	15,140	10,537
San Diego	0	0
San Luis Obispo	10	5
San Mateo	0	0
Santa Barbara	40	27
Santa Clara	0	0
Santa Cruz	0	0
Stanislaus	0	0
Tulare	1	1
Ventura	134	79
Total	27,446	19,098
Region Total	27,446	19,098

# of Displaced Households	# of People Needing Short Term Shelter
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Totals only reflect data for those census tracts/blocks included in the user's study region and will reflect the entire county/state only if all of the census blocks for that county/states were selected at the time of study region creation.

S. San Andreas: CC+BB+NM+SM+NSB+SSB+BG+CO

Total Building Related Economic Loss by Census Tract



Study Region: S. San Andreas: CC+BB+NM+SM+NSB+SSB+BG+CO

Scenario: ssanandreasccbnnmsmn_m8p1_se



Economic Loss (in thousands of USD \$)

0 - 50	>4,000 - 10,000
>50 - 150	>10,000 - 30,000
>150 - 500	>30,000 - 60,000
>500 - 1,500	>60,000 - 100,000
>1,500 - 4,000	>100,000 - 792,500