
Hazus: Earthquake Global Risk Report

Region Name: Compton

Earthquake Scenario: Compton

Print Date: April 29, 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 13 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 73,530.68 square miles and contains 5,610 census tracts. There are over 8,148 thousand households in the region which has a total population of 24,407,523 people. The distribution of population by Total Region and County is provided in Appendix B.

There are an estimated 6,951 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 295,097 and 194,066 (millions of dollars) , respectively.

Building and Lifeline Inventory

Building Inventory

Hazus estimates that there are 6,951 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 87% 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 345 hospitals in the region with a total bed capacity of 63,645 beds. There are 7,824 schools, 1,397 fire stations, 472 police stations and 123 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 489,163.00 (millions of dollars). This inventory includes over 12,749.29 miles of highways, 12,131 bridges, 267,256.02 miles of pipes.

Table 1: Transportation System Lifeline Inventory

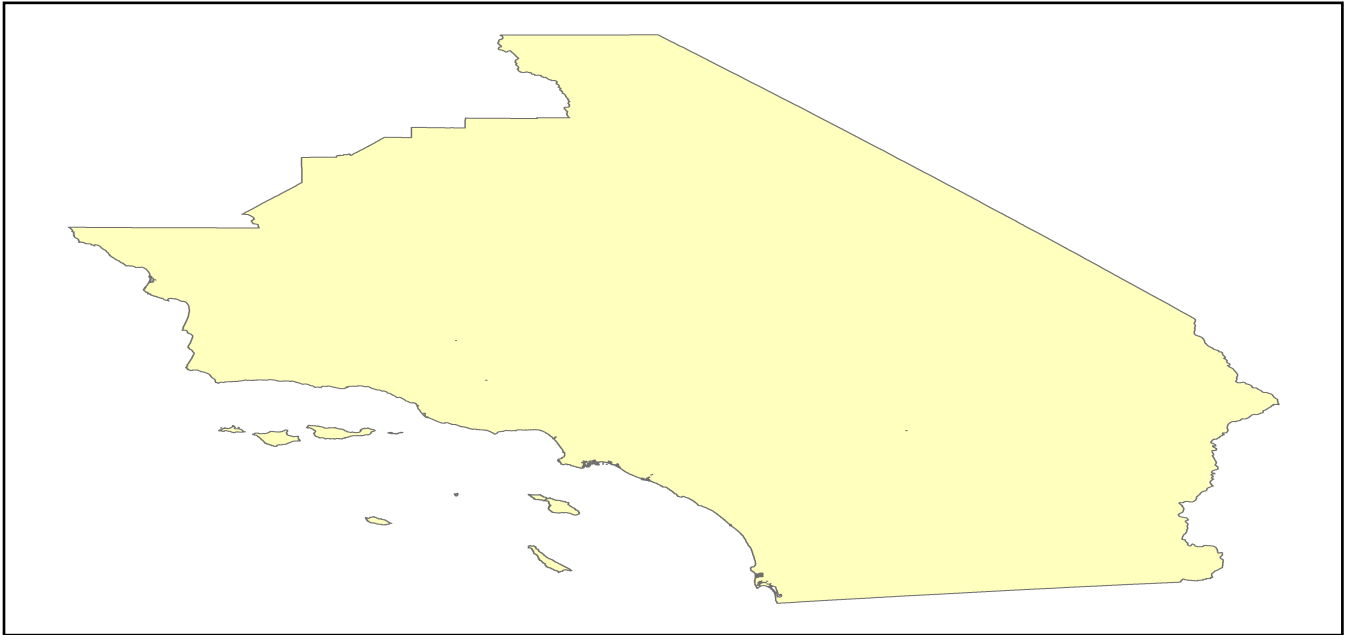
System	Component	# Locations/ # Segments	Replacement value (millions of dollars)
Highway	Bridges	12,131	68183.0231
	Segments	10,189	129524.7356
	Tunnels	62	553.5147
	Subtotal		198261.2734
Railways	Bridges	2,182	12415.5800
	Facilities	116	308.9080
	Segments	2,017	67063.3892
	Tunnels	0	0.0000
	Subtotal		79787.8772
Light Rail	Bridges	51	13.2750
	Facilities	149	3200.8000
	Segments	8	5399.1047
	Tunnels	0	0.0000
	Subtotal		8613.1797
Bus	Facilities	45	97.2975
	Subtotal		97.2975
Ferry	Facilities	22	29.2820
	Subtotal		29.2820
Port	Facilities	354	1349.3930
	Subtotal		1349.3930
Airport	Facilities	167	4844.7583
	Runways	188	2114.4318
	Subtotal		6959.1901
		Total	295,097.50

Table 2: Utility System Lifeline Inventory

System	Component	# Locations / Segments	Replacement value (millions of dollars)
Potable Water	Distribution Lines	NA	5307.8476
	Facilities	53	2082.5820
	Pipelines	0	0.0000
		Subtotal	7390.4296
Waste Water	Distribution Lines	NA	3184.7085
	Facilities	136	23385.4448
	Pipelines	0	0.0000
		Subtotal	26570.1533
Natural Gas	Distribution Lines	NA	2123.1390
	Facilities	44	1599.3257
	Pipelines	362	19300.5635
		Subtotal	23023.0282
Oil Systems	Facilities	68	8.0240
	Pipelines	0	0.0000
		Subtotal	8.0240
Electrical Power	Facilities	635	137018.3076
		Subtotal	137018.3076
Communication	Facilities	476	56.1680
		Subtotal	56.1680
	Total		194,066.10

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	Compton
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	7.45
Depth (km)	NA
Rupture Length (Km)	NA
Rupture Orientation (degrees)	NA
Attenuation Function	NA

Direct Earthquake Damage

Building Damage

Hazus estimates that about 896,487 buildings will be at least moderately damaged. This is over 13.00 % of the buildings in the region. There are an estimated 48,231 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

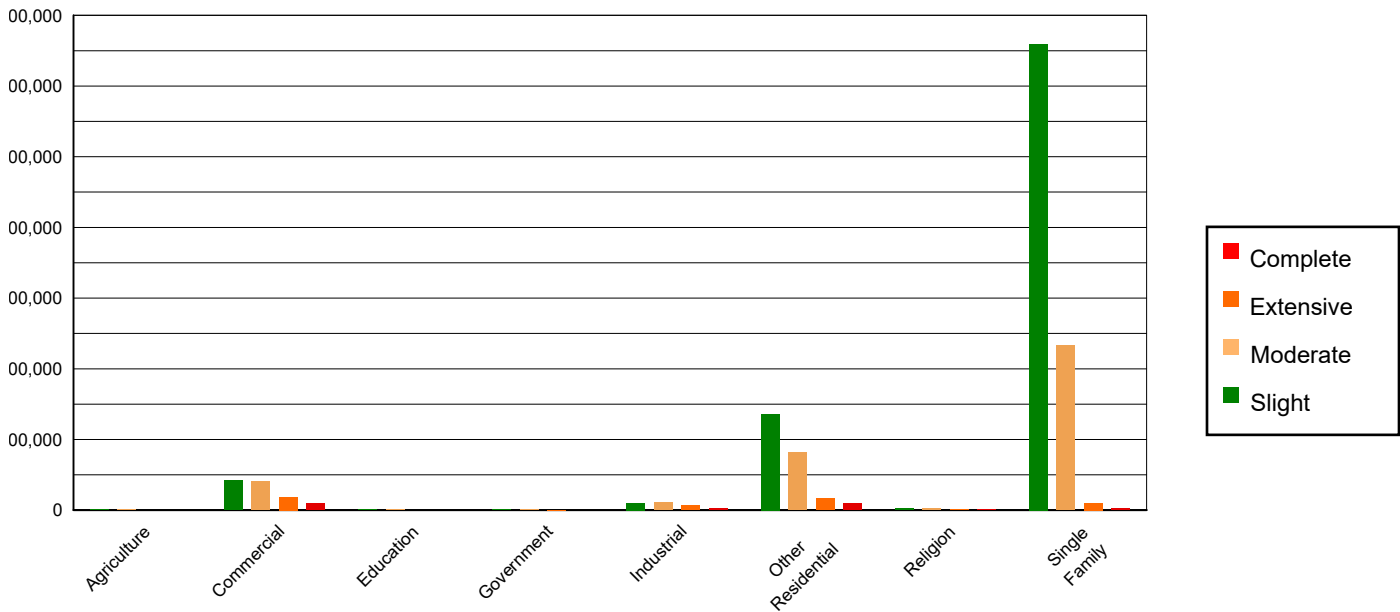


Table 3: Expected Building Damage by Occupancy

	None		Slight		Moderate		Extensive		Complete	
	Count	(%)	Count	(%)	Count	(%)	Count	(%)	Count	(%)
Agriculture	16258.75	0.37	1416.62	0.08	828.47	0.11	365.95	0.34	174.22	0.36
Commercial	254661.65	5.85	82937.32	4.87	80378.66	10.85	37253.02	34.76	18010.35	37.34
Education	8552.68	0.20	2539.30	0.15	1605.91	0.22	349.06	0.33	188.05	0.39
Government	32274.51	0.74	1363.23	0.08	1281.08	0.17	599.98	0.56	203.20	0.42
Industrial	62679.85	1.44	20567.39	1.21	22050.67	2.98	12704.39	11.86	5194.69	10.77
Other Residential	588853.08	13.53	271881.78	15.96	164111.53	22.14	33971.21	31.70	18692.40	38.76
Religion	13462.40	0.31	3860.90	0.23	4083.50	0.55	2012.37	1.88	1071.83	2.22
Single Family	3374695.80	77.55	1318999.52	77.43	466753.64	62.98	19905.99	18.58	4697.05	9.74
Total	4,351,439		1,703,566		741,093		107,162		48,232	

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

	None		Slight		Moderate		Extensive		Complete	
	Count	(%)	Count	(%)	Count	(%)	Count	(%)	Count	(%)
Wood	3845835.35	88.38	1596119.35	93.69	606479.02	81.84	25424.75	23.73	3397.79	7.04
Steel	65296.94	1.50	13264.84	0.78	22833.83	3.08	17713.14	16.53	9778.80	20.27
Concrete	60454.03	1.39	18370.59	1.08	24834.48	3.35	13966.86	13.03	8454.52	17.53
Precast	31393.45	0.72	9650.12	0.57	12761.92	1.72	5175.78	4.83	919.15	1.91
RM	167278.28	3.84	50745.38	2.98	61423.40	8.29	26307.05	24.55	2605.90	5.40
URM	5121.16	0.12	1536.54	0.09	2900.37	0.39	6318.06	5.90	15424.08	31.98
MH	176059.50	4.05	13879.24	0.81	9860.44	1.33	12256.32	11.44	7651.55	15.86
Total	4,351,439		1,703,566		741,093		107,162		48,232	

*Note:

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

Essential Facility Damage

Before the earthquake, the region had 63,645 hospital beds available for use. On the day of the earthquake, the model estimates that only 35,824 hospital beds (56.00%) are available for use by patients already in the hospital and those injured by the earthquake. After one week, 65.00% of the beds will be back in service. By 30 days, 79.00% 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	345	114	25	191
Schools	7,824	2,790	846	4,341
EOCs	123	45	7	58
PoliceStations	472	116	29	310
FireStations	1,397	314	73	976

Transportation Lifeline Damage

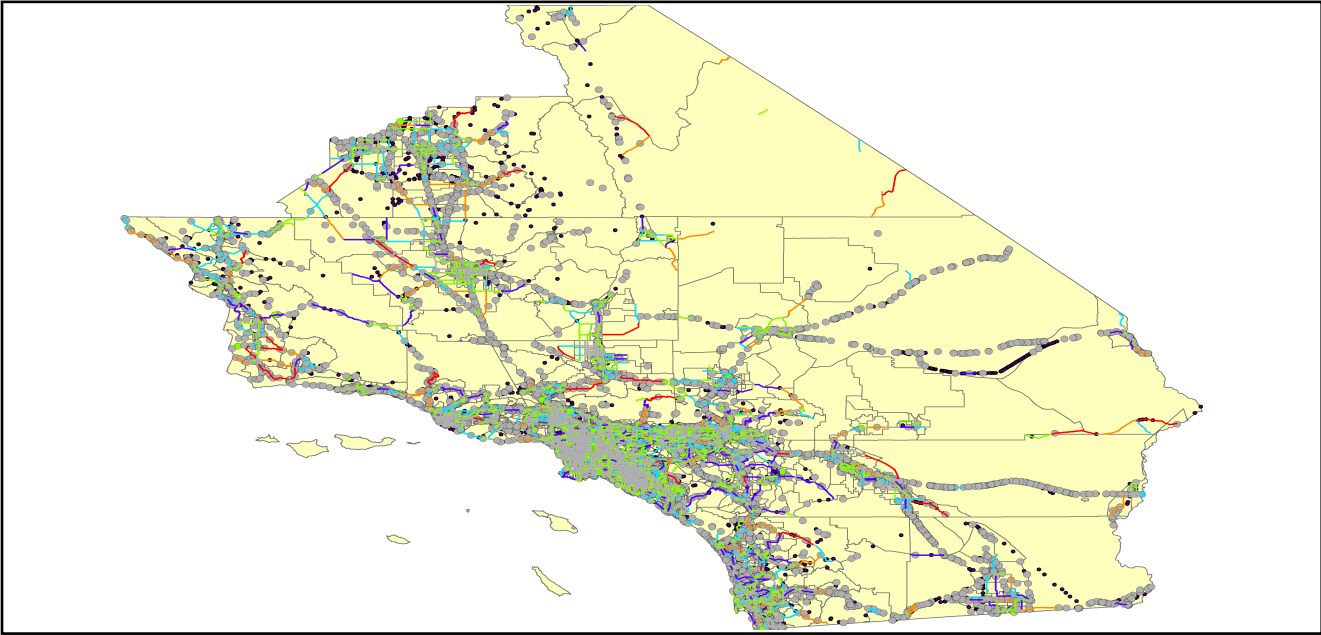


Table 6: Expected Damage to the Transportation Systems

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	10,189	0	0	10,189	10,189
	Bridges	12,131	815	102	11,422	11,870
	Tunnels	62	0	0	62	62
Railways	Segments	2,017	0	0	2,017	2,017
	Bridges	2,182	0	0	2,182	2,182
	Tunnels	0	0	0	0	0
	Facilities	116	42	0	98	116
Light Rail	Segments	8	0	0	8	8
	Bridges	51	0	0	51	51
	Tunnels	0	0	0	0	0
	Facilities	149	66	0	109	149
Bus	Facilities	45	10	0	40	45
Ferry	Facilities	22	5	0	22	22
Port	Facilities	354	36	0	351	354
Airport	Facilities	167	32	0	152	167
	Runways	188	0	0	188	188

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	53	12	0	38	53
Waste Water	136	19	0	103	136
Natural Gas	44	10	0	34	44
Oil Systems	68	44	0	21	33
Electrical Power	635	97	2	550	588
Communication	476	53	0	437	476

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

System	Total Pipelines Length (miles)	Number of Leaks	Number of Breaks
Potable Water	164,907	31599	7900
Waste Water	98,944	15873	3968
Natural Gas	3,405	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	8,148,162	2,545,937	2,517,545	2,459,160	2,069,389	1,156,197
Electric Power		3,015,487	2,235,233	1,148,525	171,108	3,646

Induced Earthquake Damage

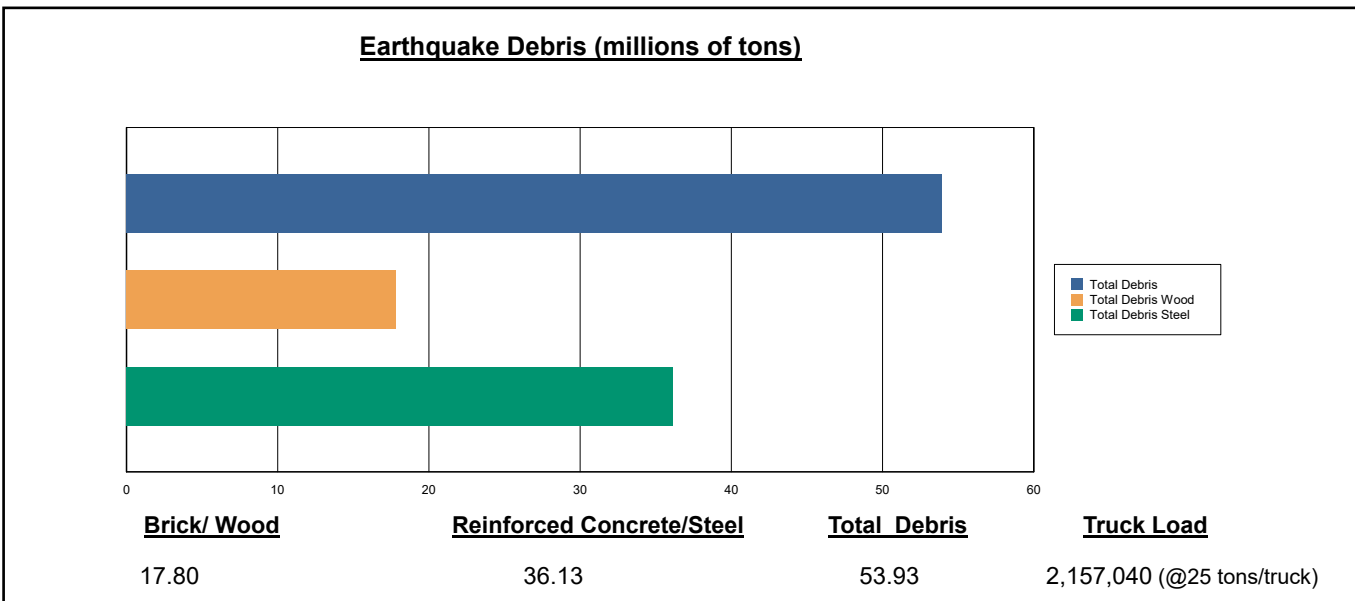
Fire Following Earthquake

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 158 ignitions that will burn about 1.49 sq. mi (0.00 % of the region's total area.) The model also estimates that the fires will displace about 20,359 people and burn about 2,500 (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.

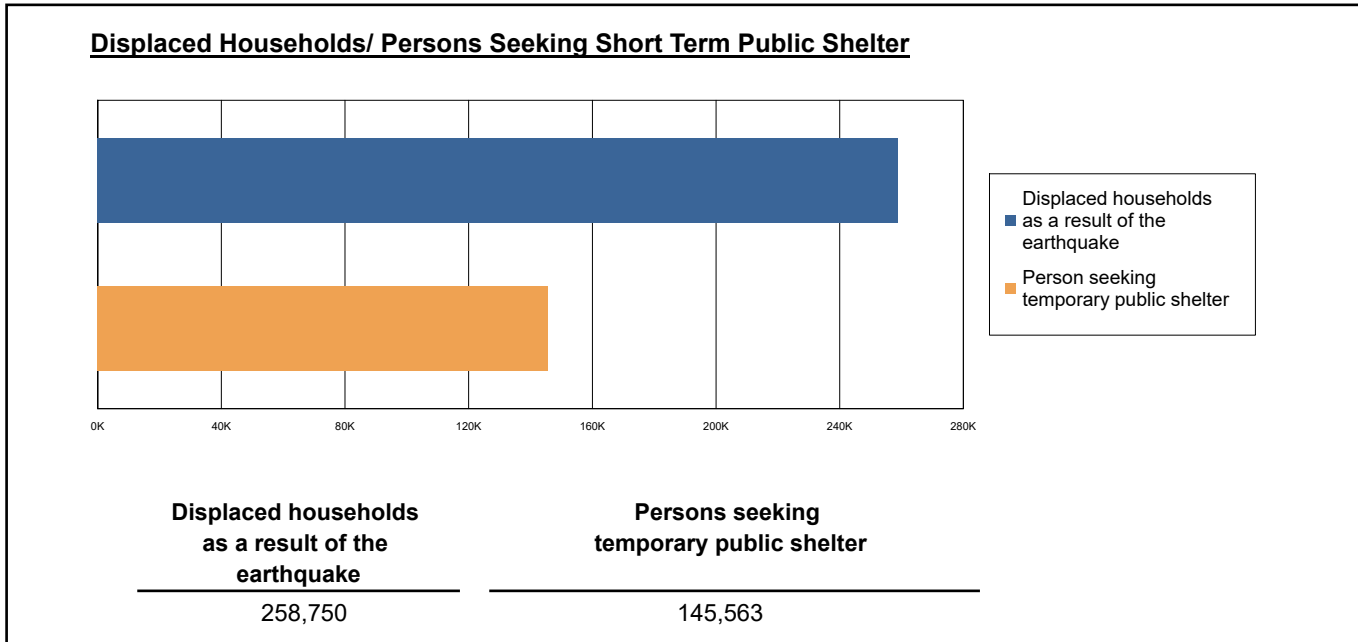
The model estimates that a total of 53,926,000 tons of debris will be generated. Of the total amount, Brick/Wood comprises 33.00% of the total, with the remainder being Reinforced Concrete/Steel. If the debris tonnage is converted to an estimated number of truckloads, it will require 2,157,040 truckloads (@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 258,750 households to be displaced due to the earthquake. Of these, 145,563 people (out of a total population of 24,407,523) 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	589.38	153.86	22.40	44.08
	Commuting	4.60	6.55	10.56	2.07
	Educational	0.00	0.00	0.00	0.00
	Hotels	32.62	7.72	1.00	1.97
	Industrial	663.11	167.36	23.23	45.40
	Other-Residential	26216.68	6413.00	856.01	1676.73
	Single Family	8337.33	1089.03	92.73	182.50
	Total	35,844	7,838	1,006	1,953
2 PM	Commercial	39729.99	10459.39	1541.40	3001.75
	Commuting	41.43	58.97	95.04	18.63
	Educational	12619.31	2923.22	406.01	784.00
	Hotels	6.30	1.50	0.20	0.38
	Industrial	4891.71	1238.07	173.33	335.20
	Other-Residential	8475.64	2149.34	307.30	569.09
	Single Family	2473.71	346.26	32.99	61.80
	Total	68,238	17,177	2,556	4,771
5 PM	Commercial	28201.52	7482.46	1119.70	2141.67
	Commuting	819.00	1162.99	1877.66	367.92
	Educational	2178.09	453.46	58.83	111.47
	Hotels	9.77	2.31	0.30	0.59
	Industrial	3057.32	773.80	108.33	209.50
	Other-Residential	10319.72	2583.72	364.94	675.48
	Single Family	3181.60	433.44	39.82	74.56
	Total	47,767	12,892	3,570	3,581

Economic Loss

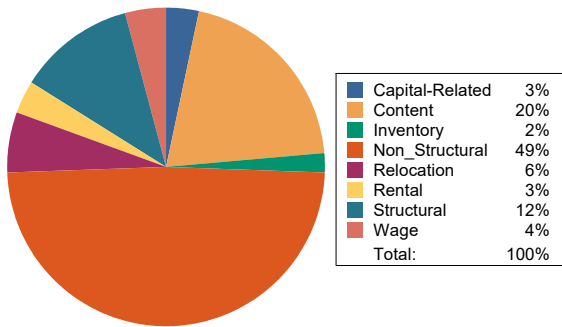
The total economic loss estimated for the earthquake is 339,014.71 (millions of dollars), which includes building and lifeline related losses based on the region's available inventory. The following three sections provide more detailed information about these losses.

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 314,002.06 (millions of dollars); 17 % 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 41 % 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)

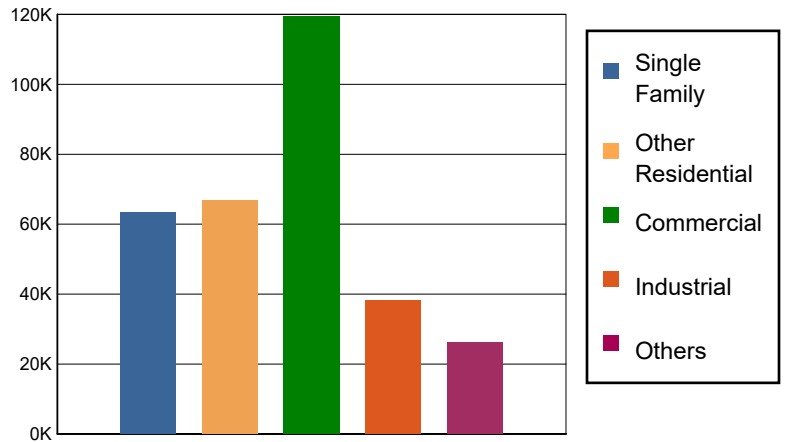


Table 11: Building-Related Economic Loss Estimates
(Millions of dollars)

Category	Area	Single Family	Other Residential	Commercial	Industrial	Others	Total
Income Losses							
	Wage	0.0000	1858.5914	9968.0272	527.7620	764.5270	13,118.9076
	Capital-Related	0.0000	790.4373	9037.6968	338.8713	247.1758	10,414.1812
	Rental	946.3134	4215.2530	4855.0714	258.5899	404.3606	10,679.5883
	Relocation	3492.9004	2727.3171	7440.9068	1217.2806	3521.0562	18,399.4611
	Subtotal	4439.2138	9591.5988	31301.7022	2342.5038	4937.1196	52612.1382
Capital Stock Losses							
	Structural	7159.3430	7059.1639	15367.2565	4978.3700	3061.0206	37,625.1540
	Non_Structural	38105.2474	40715.7648	45558.2725	17316.7948	12576.8266	154,272.9061
	Content	13748.5349	9358.7286	22858.0414	11904.6686	5608.1396	63,478.1131
	Inventory	0.0000	0.0000	4190.5592	1731.7996	91.3921	6,013.7509
	Subtotal	59013.1253	57133.6573	87974.1296	35931.6330	21337.3789	261389.9241
	Total	63452.34	66725.26	119275.83	38274.14	26274.50	314002.06

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	129524.7356	0.0000	0.00
	Bridges	68183.0231	3691.4389	5.41
	Tunnels	553.5147	35.4647	6.41
	Subtotal	198261.2734	3726.9036	
Railways	Segments	67063.3892	0.0000	0.00
	Bridges	12415.5800	263.8667	2.13
	Tunnels	0.0000	0.0000	0.00
	Facilities	308.9080	66.0096	21.37
	Subtotal	79787.8772	329.8763	
Light Rail	Segments	5399.1047	0.0000	0.00
	Bridges	13.2750	0.7183	5.41
	Tunnels	0.0000	0.0000	0.00
	Facilities	3200.8000	1028.0144	32.12
	Subtotal	8613.1797	1028.7327	
Bus	Facilities	97.2975	14.7926	15.20
	Subtotal	97.2975	14.7926	
Ferry	Facilities	29.2820	4.9328	16.85
	Subtotal	29.2820	4.9328	
Port	Facilities	1349.3930	265.3208	19.66
	Subtotal	1349.3930	265.3208	
Airport	Facilities	4844.7583	1339.1185	27.64
	Runways	2114.4318	0.0000	0.00
	Subtotal	6959.1901	1339.1185	
Total		295,097.49	6,709.68	

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	2082.5820	184.2327	8.85
	Distribution Lines	5307.8476	142.1933	2.68
	Subtotal	7390.4296	326.4260	
Waste Water	Pipelines	0.0000	0.0000	0.00
	Facilities	23385.4448	1358.0281	5.81
	Distribution Lines	3184.7085	71.4273	2.24
	Subtotal	26570.1533	1429.4554	
Natural Gas	Pipelines	19300.5635	0.0000	0.00
	Facilities	1599.3257	94.2327	5.89
	Distribution Lines	2123.1390	24.4705	1.15
	Subtotal	23023.0282	118.7032	
Oil Systems	Pipelines	0.0000	0.0000	0.00
	Facilities	8.0240	1.7995	22.43
	Subtotal	8.0240	1.7995	
Electrical Power	Facilities	137018.3076	16421.9351	11.99
	Subtotal	137018.3076	16421.9351	
Communication	Facilities	56.1680	4.6103	8.21
	Subtotal	56.1680	4.6103	
	Total	194,066.11	18,302.93	

Appendix A: County Listing for the Region

Imperial,CA

Inyo,CA

Kern,CA

Kings,CA

Los Angeles,CA

Orange,CA

Riverside,CA

San Bernardino,CA

San Diego,CA

San Luis Obispo,CA

Santa Barbara,CA

Tulare,CA

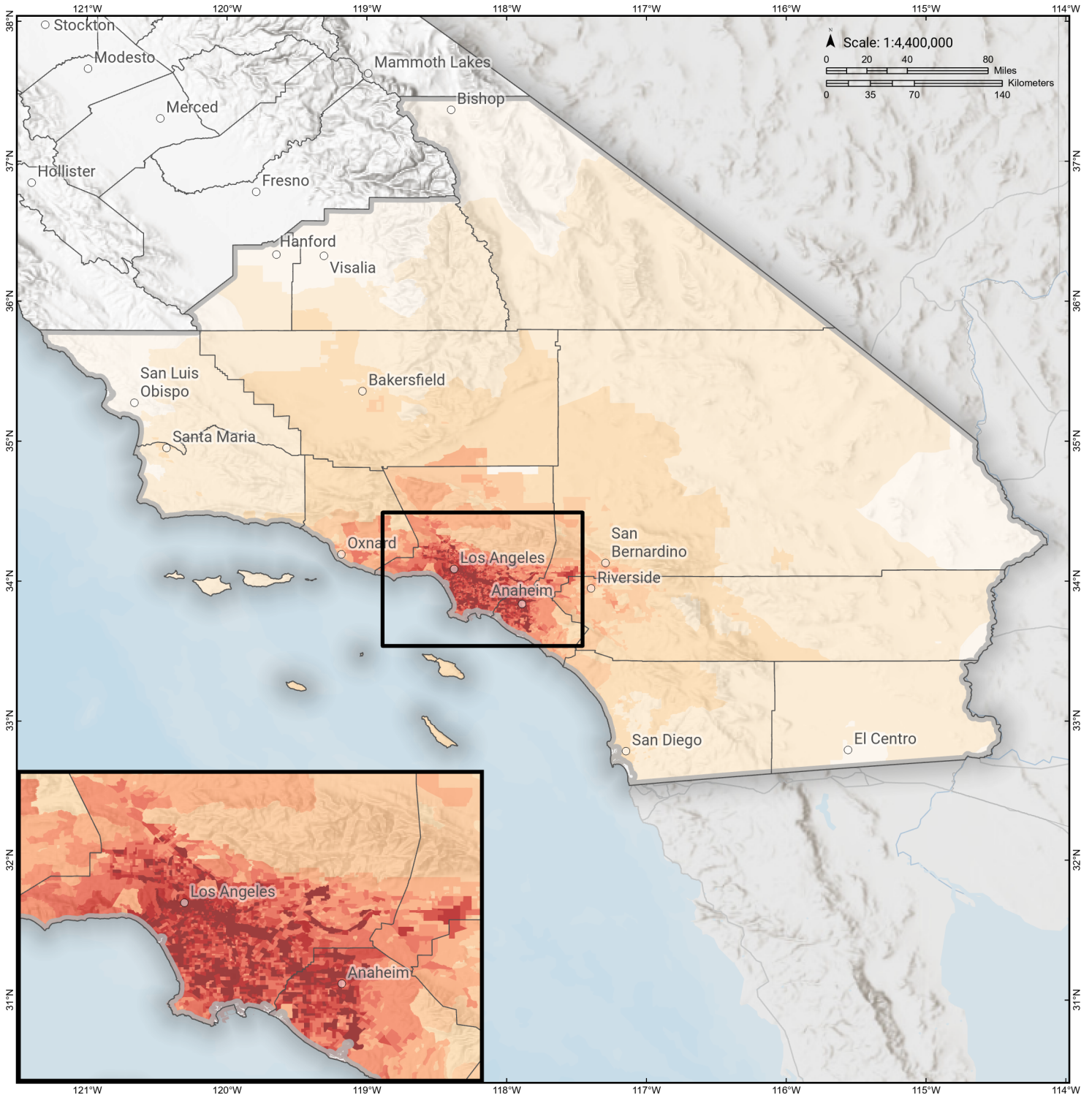
Ventura,CA

Appendix B: Regional Population and Building Value Data

State	County Name	Population	Building Value (millions of dollars)		
			Residential	Non-Residential	Total
California	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
	Orange	3,186,989	363,381	176,806	540,188
	Riverside	2,418,185	281,482	137,249	418,731
	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
	Santa Barbara	448,229	49,971	28,481	78,452
	Tulare	473,117	43,262	31,210	74,472
	Ventura	843,843	99,299	52,072	151,371
Total Region		24,407,523	2,555,873	1,441,106	3,996,982

Compton

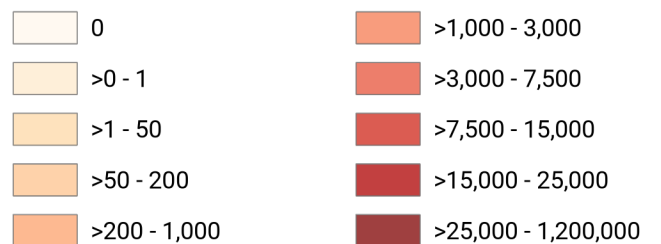
Debris Generated by Census Tract



Study Region: Compton
Scenario: comptonellbgeol_m7p45_se

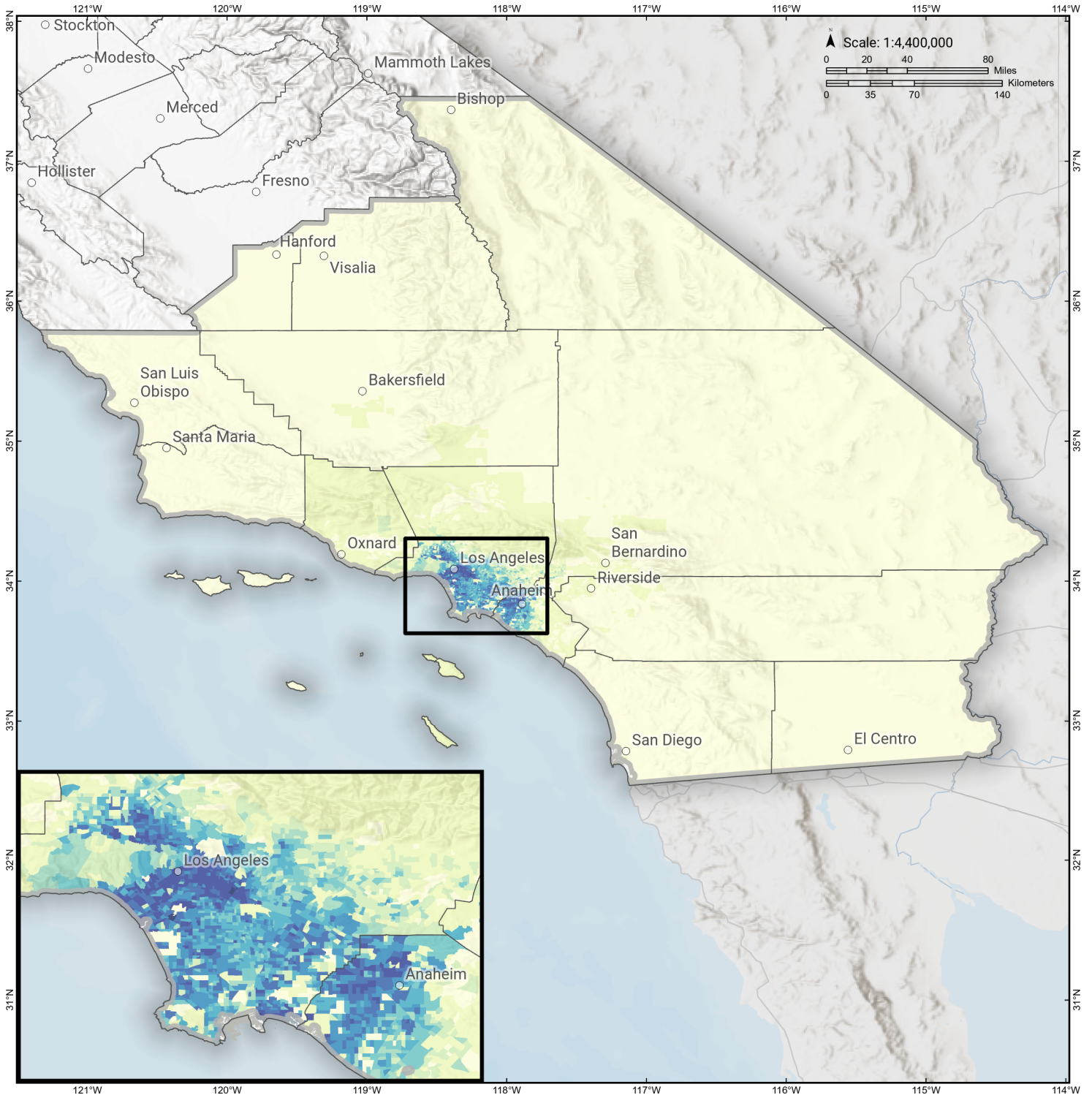


Debris Generated (in tons)



Compton

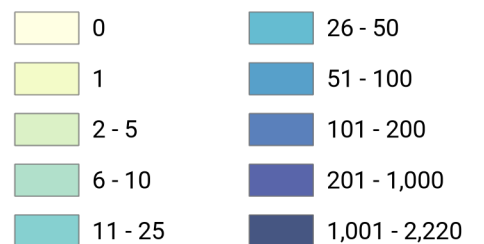
Displaced Households by Census Tract



Study Region: Compton
Scenario: comptonellbgeol_m7p45_se

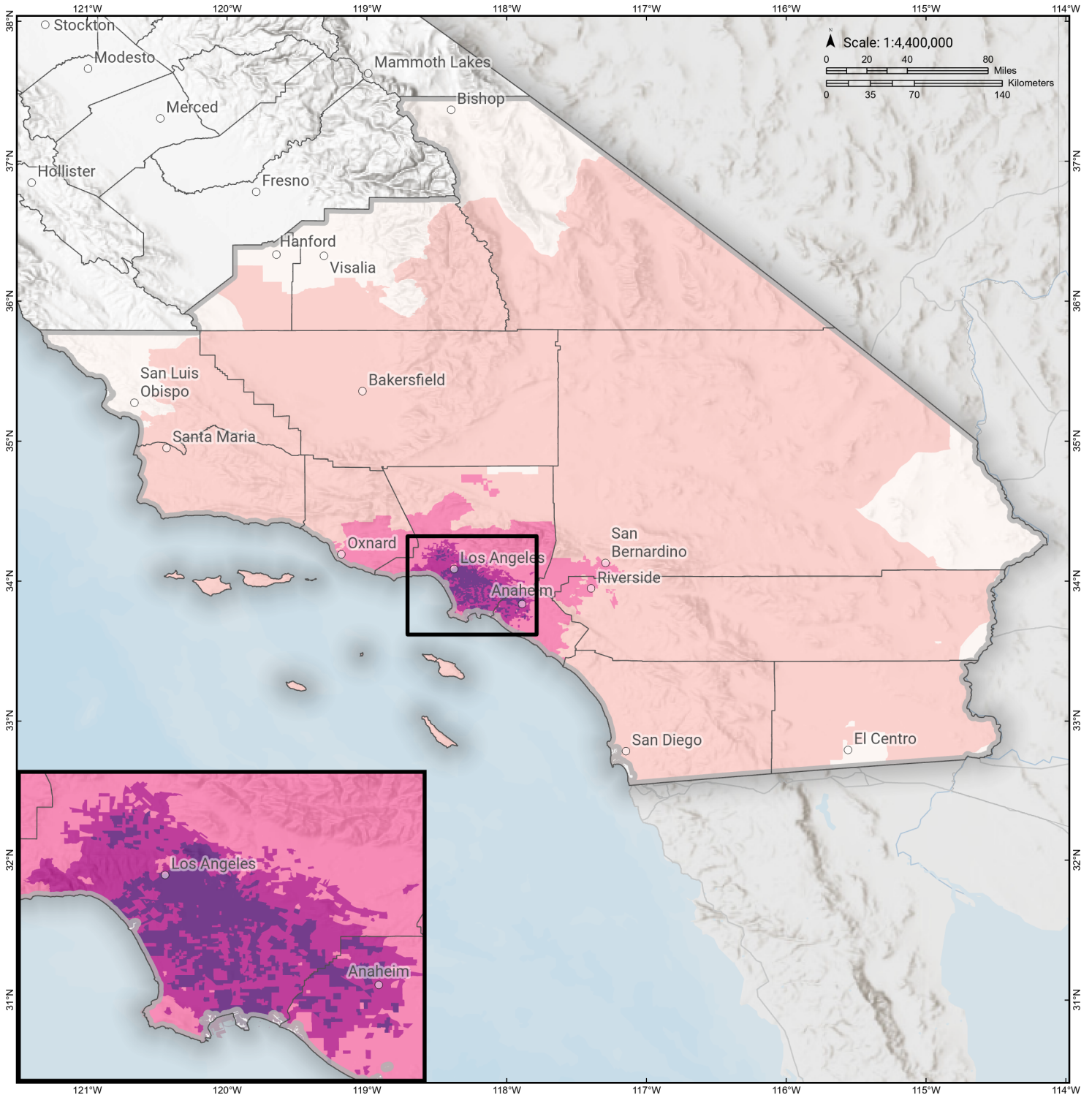


Displaced Households



Compton

Loss Ratio by Census Tract



Study Region: Compton
Scenario: comptonellbgeol_m7p45_se

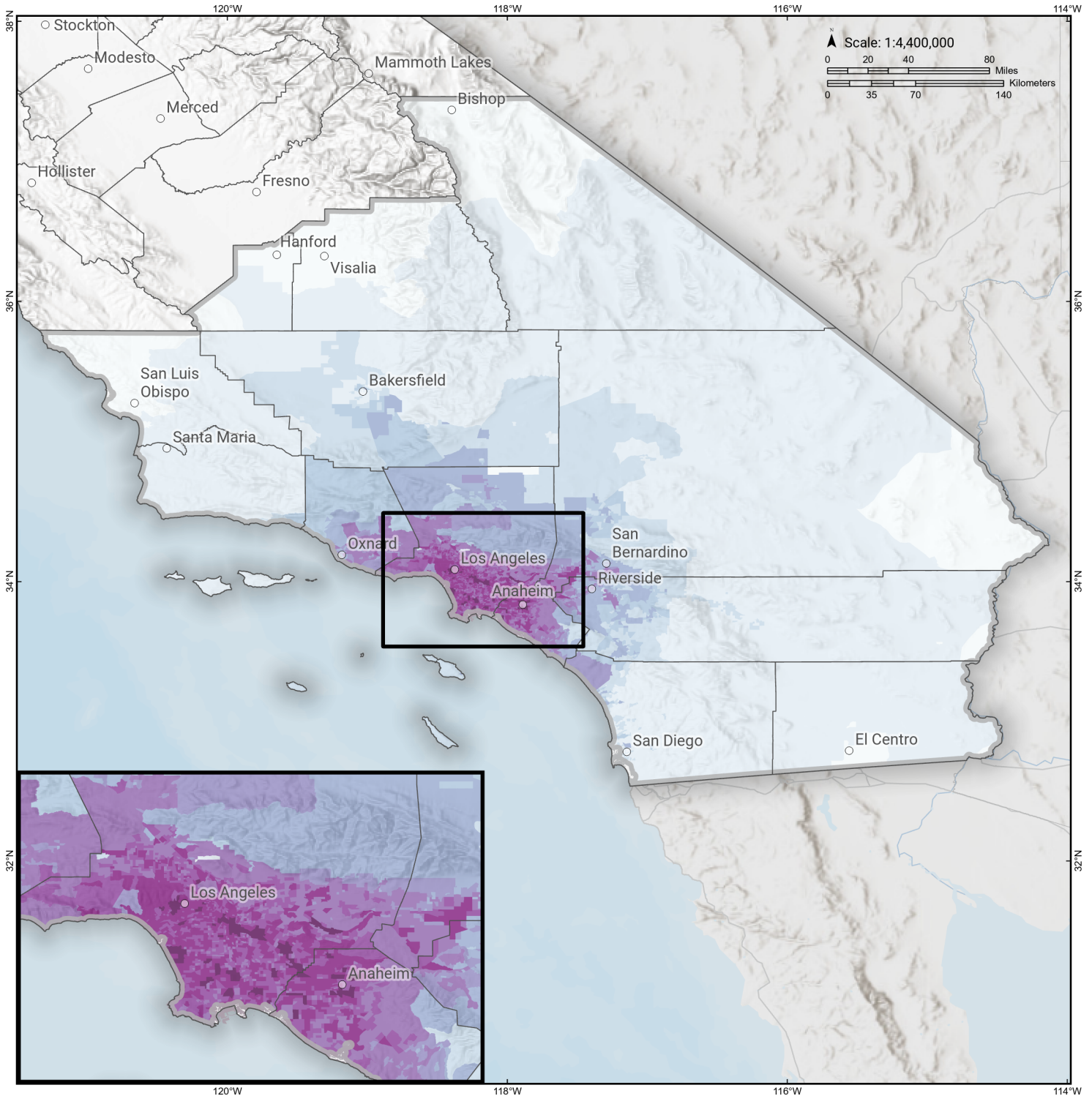


Loss Ratio (ratio of building related economic loss to exposed value of buildings)



Compton

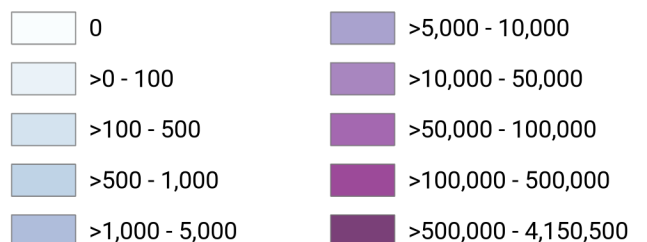
Total Building Related Economic Loss by Census Tract



Study Region: Compton
Scenario: comptonellbgeol_m7p45_se



Economic Loss (in thousands of USD \$)



Building Damage by Count by General Occupancy

April 29, 2024

	# of Buildings					Total
	None	Slight	Moderate	Extensive	Complete	
California						
Imperial						
<i>Agriculture</i>	138	0	0	0	0	138
<i>Commercial</i>	3,646	0	0	0	0	3,646
<i>Education</i>	99	0	0	0	0	99
<i>Government</i>	202	0	0	0	0	202
<i>Industrial</i>	580	0	0	0	0	580
<i>Religion</i>	295	0	0	0	0	295
<i>Other Residential</i>	7,518	0	0	0	0	7,518
<i>Single Family</i>	35,405	0	0	0	0	35,405
Inyo						
<i>Agriculture</i>	32	0	0	0	0	32
<i>Commercial</i>	721	0	0	0	0	721
<i>Education</i>	41	0	0	0	0	41
<i>Government</i>	101	0	0	0	0	101
<i>Industrial</i>	257	0	0	0	0	257
<i>Religion</i>	57	0	0	0	0	57
<i>Other Residential</i>	4,050	0	0	0	0	4,050
<i>Single Family</i>	4,446	0	0	0	0	4,446
Kern						

	# of Buildings					Total
	None	Slight	Moderate	Extensive	Complete	
<i>Agriculture</i>	4,630	14	1	0	0	4,645
<i>Commercial</i>	15,522	42	2	0	0	15,567
<i>Education</i>	462	0	0	0	0	462
<i>Government</i>	442	1	0	0	0	443
<i>Industrial</i>	6,026	20	1	0	0	6,047
<i>Religion</i>	1,518	5	0	0	0	1,524
<i>Other Residential</i>	54,099	389	31	0	0	54,520
<i>Single Family</i>	204,949	189	0	0	0	205,139
Kings						
<i>Agriculture</i>	306	0	0	0	0	306
<i>Commercial</i>	2,318	0	0	0	0	2,318
<i>Education</i>	103	0	0	0	0	103
<i>Government</i>	72	0	0	0	0	72
<i>Industrial</i>	555	0	0	0	0	555
<i>Religion</i>	210	0	0	0	0	210
<i>Other Residential</i>	4,342	0	0	0	0	4,342
<i>Single Family</i>	36,245	0	0	0	0	36,245
Los Angeles						
<i>Agriculture</i>	629	555	478	238	131	2,032
<i>Commercial</i>	29,822	53,173	61,636	30,267	15,963	190,861
<i>Education</i>	1,825	1,858	1,325	305	173	5,486
<i>Government</i>	549	729	1,043	526	185	3,031
<i>Industrial</i>	9,290	12,575	16,373	10,324	4,564	53,126
<i>Religion</i>	1,597	2,850	3,470	1,751	983	10,651
<i>Other Residential</i>	80,785	220,352	144,154	23,252	13,128	481,671

	# of Buildings					Total
	None	Slight	Moderate	Extensive	Complete	
Orange						
<i>Single Family</i>	510,594	888,447	381,662	18,004	4,433	1,803,140
<i>Agriculture</i>	367	336	270	120	42	1,135
<i>Commercial</i>	21,078	20,692	17,581	6,943	2,046	68,340
<i>Education</i>	994	568	269	44	15	1,890
<i>Government</i>	194	180	185	73	18	650
<i>Industrial</i>	5,093	5,403	5,300	2,369	631	18,795
<i>Religion</i>	576	580	553	259	89	2,057
<i>Other Residential</i>	24,283	29,664	15,791	10,420	5,560	85,718
<i>Single Family</i>	301,908	319,994	82,170	1,878	262	706,212
Riverside						
<i>Agriculture</i>	1,666	44	3	0	0	1,713
<i>Commercial</i>	43,879	2,250	223	5	0	46,357
<i>Education</i>	964	23	2	0	0	990
<i>Government</i>	6,916	228	31	1	0	7,175
<i>Industrial</i>	5,995	381	33	0	0	6,409
<i>Religion</i>	1,250	62	7	0	0	1,319
<i>Other Residential</i>	114,381	7,297	1,096	26	0	122,799
<i>Single Family</i>	578,697	26,313	440	6	0	605,455
San Bernardino						
<i>Agriculture</i>	1,362	383	61	7	1	1,815
<i>Commercial</i>	34,901	4,517	593	29	1	40,041
<i>Education</i>	926	53	5	0	0	985
<i>Government</i>	1,120	106	11	0	0	1,238
<i>Industrial</i>	8,033	1,245	188	7	0	9,474

	# of Buildings					Total
	None	Slight	Moderate	Extensive	Complete	
<i>Religion</i>	2,072	213	33	2	0	2,320
<i>Other Residential</i>	86,115	10,145	2,310	246	4	98,821
<i>Single Family</i>	469,774	53,828	1,745	18	1	525,367
San Diego						
<i>Agriculture</i>	2,188	2	0	0	0	2,190
<i>Commercial</i>	62,247	117	5	0	0	62,369
<i>Education</i>	1,931	1	0	0	0	1,932
<i>Government</i>	20,898	25	1	0	0	20,924
<i>Industrial</i>	14,295	17	1	0	0	14,313
<i>Religion</i>	3,056	7	0	0	0	3,063
<i>Other Residential</i>	127,123	414	22	0	0	127,559
<i>Single Family</i>	762,508	508	4	0	0	763,020
San Luis Obispo						
<i>Agriculture</i>	421	0	0	0	0	421
<i>Commercial</i>	9,375	0	0	0	0	9,375
<i>Education</i>	182	0	0	0	0	182
<i>Government</i>	185	0	0	0	0	185
<i>Industrial</i>	2,556	0	0	0	0	2,556
<i>Religion</i>	360	0	0	0	0	360
<i>Other Residential</i>	20,215	1	0	0	0	20,216
<i>Single Family</i>	85,639	0	0	0	0	85,639
Santa Barbara						
<i>Agriculture</i>	463	1	0	0	0	464
<i>Commercial</i>	9,803	16	1	0	0	9,820
<i>Education</i>	299	0	0	0	0	299

		# of Buildings					
		None	Slight	Moderate	Extensive	Complete	Total
Tulare	<i>Government</i>	239	0	0	0	0	239
	<i>Industrial</i>	2,834	6	0	0	0	2,840
	<i>Religion</i>	620	1	0	0	0	621
	<i>Other Residential</i>	24,033	74	4	0	0	24,111
	<i>Single Family</i>	98,946	36	0	0	0	98,982
	<i>Agriculture</i>	3,555	0	0	0	0	3,555
	<i>Commercial</i>	8,873	0	0	0	0	8,873
	<i>Education</i>	269	0	0	0	0	269
	<i>Government</i>	461	0	0	0	0	461
	<i>Industrial</i>	2,148	0	0	0	0	2,148
Ventura	<i>Religion</i>	827	0	0	0	0	827
	<i>Other Residential</i>	20,021	1	0	0	0	20,022
	<i>Single Family</i>	112,034	0	0	0	0	112,034
	<i>Agriculture</i>	501	81	15	1	0	598
	<i>Commercial</i>	12,477	2,130	336	9	0	14,953
	<i>Education</i>	458	35	4	0	0	497
	<i>Government</i>	896	94	11	0	0	1,001
	<i>Industrial</i>	5,019	920	155	4	0	6,097
	<i>Religion</i>	1,024	143	20	0	0	1,187
	<i>Other Residential</i>	21,888	3,544	704	27	0	26,163
<i>Single Family</i>	173,551	29,684	733	0	0	203,968	
Total	4,351,439	1,703,566	741,093	107,162	48,232	6,951,492	

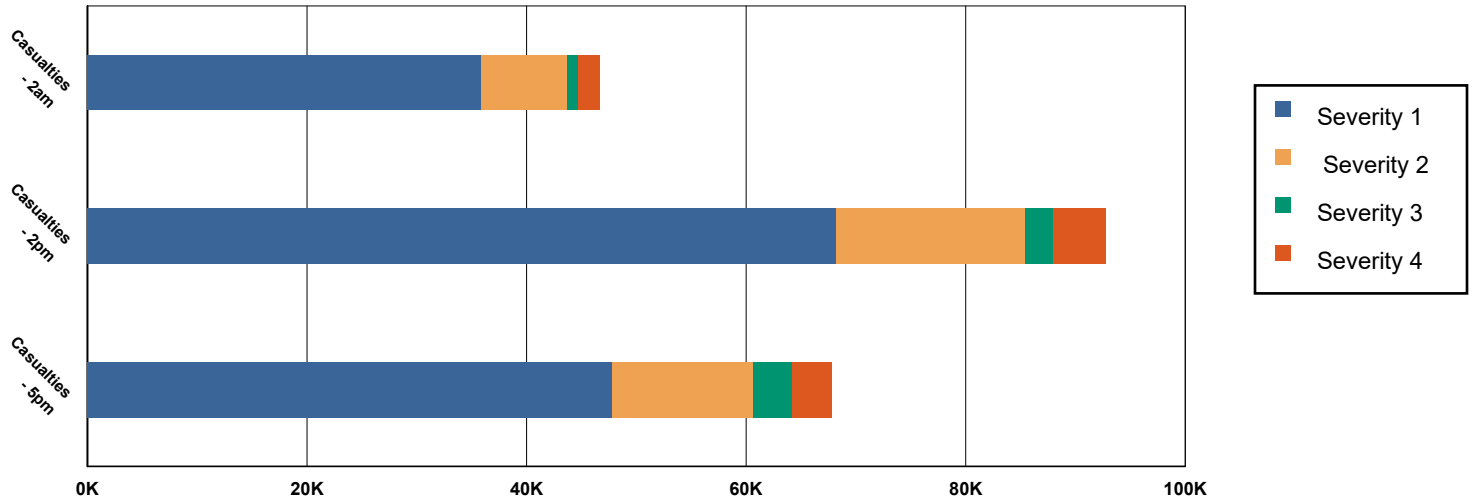
	# of Buildings					
	None	Slight	Moderate	Extensive	Complete	Total
Region Total	4,351,439	1,703,566	741,093	107,162	48,232	6,951,492

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

April 29, 2024

Region Total Casualties



Injury Severity Level

Severity 1	Severity 2	Severity 3	Severity 4	Total
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California

Imperial

Casualties - 2am

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

Casualties - 2pm

Educational	0	0	0	0	0
Industrial	0	0	0	0	0
Hotels	0	0	0	0	0
Other-Residential	0	0	0	0	0
Single Family	0	0	0	0	0
Commercial	0	0	0	0	0
Commuting	0	0	0	0	0

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

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

	Injury Severity Level				Total
	Severity 1	Severity 2	Severity 3	Severity 4	
California					
Kings					
Casualties - 2pm					
<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>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>Other-Residential</i>	0	0	0	0	0
<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	0	0	0	0	0
Los Angeles					
Casualties - 2am					
<i>Hotels</i>	30	7	1	2	40
<i>Industrial</i>	544	141	20	39	744
<i>Educational</i>	0	0	0	0	0
<i>Single Family</i>	6,661	944	85	167	7,857
<i>Commuting</i>	3	5	7	1	17
<i>Other-Residential</i>	23,218	5,799	800	1,573	31,390
<i>Commercial</i>	520	138	20	40	719
Total Casualties - 2am	30,977	7,034	933	1,822	40,766
Casualties - 2pm					
<i>Industrial</i>	4,016	1,045	149	289	5,499
<i>Other-Residential</i>	7,633	1,977	291	539	10,441
<i>Commercial</i>	35,012	9,371	1,389	2,705	48,477
<i>Commuting</i>	29	41	66	13	149
<i>Educational</i>	10,315	2,444	345	667	13,770
<i>Single Family</i>	2,010	304	30	57	2,401
<i>Hotels</i>	6	1	0	0	8
Total Casualties - 2pm	59,020	15,184	2,271	4,270	80,745
Casualties - 5pm					
<i>Other-Residential</i>	9,206	2,355	343	636	12,540
<i>Industrial</i>	2,510	653	93	180	3,437
<i>Commuting</i>	566	807	1,299	255	2,926
<i>Single Family</i>	2,555	377	36	68	3,036
<i>Commercial</i>	24,731	6,674	1,005	1,922	34,332
<i>Hotels</i>	9	2	0	1	12
<i>Educational</i>	1,653	346	45	85	2,130
Total Casualties - 5pm	41,230	11,214	2,822	3,147	58,413

Injury Severity Level

Severity 1 Severity 2 Severity 3 Severity 4 Total

California

Orange

Casualties - 2am

	Severity 1	Severity 2	Severity 3	Severity 4	Total
<i>Hotels</i>	3	0	0	0	3
<i>Commuting</i>	1	2	3	1	7
<i>Educational</i>	0	0	0	0	0
<i>Industrial</i>	117	26	3	6	152
<i>Other-Residential</i>	2,880	608	56	104	3,648
<i>Commercial</i>	67	16	2	4	89
<i>Single Family</i>	1,473	141	8	16	1,638
Total Casualties - 2am	4,541	793	73	131	5,537

Casualties - 2pm

<i>Industrial</i>	856	192	24	47	1,118
<i>Other-Residential</i>	809	171	16	30	1,025
<i>Commuting</i>	12	18	29	6	64
<i>Commercial</i>	4,578	1,081	152	297	6,108
<i>Single Family</i>	410	41	3	5	459
<i>Hotels</i>	1	0	0	0	1
<i>Educational</i>	2,259	478	61	117	2,915
Total Casualties - 2pm	8,924	1,979	285	501	11,689

Casualties - 5pm

<i>Hotels</i>	1	0	0	0	1
<i>Educational</i>	520	107	14	26	667
<i>Commuting</i>	251	353	573	112	1,289
<i>Single Family</i>	554	56	3	6	619
<i>Commercial</i>	3,370	803	114	219	4,507
<i>Other-Residential</i>	1,071	227	22	39	1,359
<i>Industrial</i>	535	120	15	29	699
Total Casualties - 5pm	6,302	1,665	742	433	9,141

Riverside

Casualties - 2am

<i>Industrial</i>	0	0	0	0	1
<i>Commercial</i>	0	0	0	0	0
<i>Other-Residential</i>	31	2	0	0	33
<i>Educational</i>	0	0	0	0	0
<i>Commuting</i>	0	0	0	0	0
<i>Single Family</i>	51	1	0	0	52
<i>Hotels</i>	0	0	0	0	0
Total Casualties - 2am	83	2	0	0	85

Casualties - 2pm

<i>Commercial</i>	31	1	0	0	33
<i>Other-Residential</i>	10	0	0	0	10
<i>Educational</i>	10	0	0	0	11
<i>Single Family</i>	14	0	0	0	14

	Injury Severity Level				Total
	Severity 1	Severity 2	Severity 3	Severity 4	
California					
Riverside					
Casualties - 2pm					
<i>Commuting</i>	0	0	0	0	0
<i>Hotels</i>	0	0	0	0	0
<i>Industrial</i>	4	0	0	0	4
Total Casualties - 2pm	69	2	0	0	72
Casualties - 5pm					
<i>Industrial</i>	2	0	0	0	2
<i>Other-Residential</i>	11	1	0	0	12
<i>Educational</i>	1	0	0	0	1
<i>Single Family</i>	18	0	0	0	19
<i>Hotels</i>	0	0	0	0	0
<i>Commercial</i>	22	1	0	0	23
<i>Commuting</i>	0	0	1	0	2
Total Casualties - 5pm	56	2	1	0	59
San Bernardino					
Casualties - 2am					
<i>Hotels</i>	0	0	0	0	0
<i>Single Family</i>	100	2	0	0	102
<i>Commercial</i>	1	0	0	0	1
<i>Commuting</i>	0	0	0	0	0
<i>Educational</i>	0	0	0	0	0
<i>Other-Residential</i>	66	4	0	0	70
<i>Industrial</i>	1	0	0	0	1
Total Casualties - 2am	168	6	0	0	175
Casualties - 2pm					
<i>Industrial</i>	9	1	0	0	9
<i>Hotels</i>	0	0	0	0	0
<i>Commuting</i>	0	0	0	0	0
<i>Other-Residential</i>	18	1	0	0	19
<i>Educational</i>	21	1	0	0	22
<i>Single Family</i>	26	1	0	0	27
<i>Commercial</i>	66	4	0	0	71
Total Casualties - 2pm	141	7	0	0	149
Casualties - 5pm					
<i>Other-Residential</i>	24	2	0	0	25
<i>Commercial</i>	49	3	0	0	52
<i>Single Family</i>	36	1	0	0	37
<i>Educational</i>	2	0	0	0	2
<i>Hotels</i>	0	0	0	0	0
<i>Commuting</i>	1	2	3	1	7
<i>Industrial</i>	6	0	0	0	6

	Injury Severity Level				Total
	Severity 1	Severity 2	Severity 3	Severity 4	
California					
San Bernardino					
Total Casualties - 5pm	117	8	3	1	128
San Diego					
Casualties - 2am					
<i>Commercial</i>	0	0	0	0	0
<i>Other-Residential</i>	1	0	0	0	1
<i>Commuting</i>	0	0	0	0	0
<i>Educational</i>	0	0	0	0	0
<i>Single Family</i>	1	0	0	0	1
<i>Industrial</i>	0	0	0	0	0
<i>Hotels</i>	0	0	0	0	0
Total Casualties - 2am	2	0	0	0	2
Casualties - 2pm					
<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>Commercial</i>	2	0	0	0	2
<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
Total Casualties - 2pm	3	0	0	0	3
Casualties - 5pm					
<i>Other-Residential</i>	0	0	0	0	0
<i>Commercial</i>	1	0	0	0	1
<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
<i>Hotels</i>	0	0	0	0	0
<i>Industrial</i>	0	0	0	0	0
Total Casualties - 5pm	2	0	0	0	2
San Luis Obispo					
Casualties - 2am					
<i>Commercial</i>	0	0	0	0	0
<i>Other-Residential</i>	0	0	0	0	0
<i>Industrial</i>	0	0	0	0	0
<i>Single Family</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
Total Casualties - 2am	0	0	0	0	0
Casualties - 2pm					
<i>Single Family</i>	0	0	0	0	0

	Injury Severity Level				Total
	Severity 1	Severity 2	Severity 3	Severity 4	
California					
San Luis Obispo					
Casualties - 2pm					
<i>Educational</i>	0	0	0	0	0
<i>Other-Residential</i>	0	0	0	0	0
<i>Hotels</i>	0	0	0	0	0
<i>Commuting</i>	0	0	0	0	0
<i>Commercial</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>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>Commercial</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
Santa Barbara					
Casualties - 2am					
<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>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 - 2am	0	0	0	0	0
Casualties - 2pm					
<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
<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>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
<i>Educational</i>	0	0	0	0	0

	Injury Severity Level				Total
	Severity 1	Severity 2	Severity 3	Severity 4	
California					
Santa Barbara					
Casualties - 5pm					
<i>Industrial</i>	0	0	0	0	0
<i>Hotels</i>	0	0	0	0	0
Total Casualties - 5pm	0	0	0	0	0
Tulare					
Casualties - 2am					
<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
<i>Hotels</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>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>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>Commercial</i>	0	0	0	0	0
<i>Single Family</i>	0	0	0	0	0
<i>Hotels</i>	0	0	0	0	0
<i>Commuting</i>	0	0	0	0	0
<i>Educational</i>	0	0	0	0	0
<i>Industrial</i>	0	0	0	0	0
Total Casualties - 5pm	0	0	0	0	0
Ventura					
Casualties - 2am					
<i>Educational</i>	0	0	0	0	0
<i>Commuting</i>	0	0	0	0	0
<i>Single Family</i>	51	1	0	0	52
<i>Hotels</i>	0	0	0	0	0
<i>Industrial</i>	1	0	0	0	1
<i>Commercial</i>	1	0	0	0	1
<i>Other-Residential</i>	19	1	0	0	20

	Injury Severity Level				Total
	Severity 1	Severity 2	Severity 3	Severity 4	
California					
Ventura					
Total Casualties - 2am	72	2	0	0	73
Casualties - 2pm					
<i>Industrial</i>	8	0	0	0	8
<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>	6	0	0	0	6
<i>Commercial</i>	40	2	0	0	42
<i>Single Family</i>	14	0	0	0	14
Total Casualties - 2pm	80	4	0	0	84
Casualties - 5pm					
<i>Commuting</i>	1	1	2	0	4
<i>Other-Residential</i>	7	0	0	0	7
<i>Commercial</i>	28	2	0	0	30
<i>Hotels</i>	0	0	0	0	0
<i>Educational</i>	2	0	0	0	2
<i>Single Family</i>	18	0	0	0	18
<i>Industrial</i>	5	0	0	0	5
Total Casualties - 5pm	60	3	2	0	66
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.

Debris Summary Report

April 29, 2024

All values are in thousands of tons.

	Brick, Wood & Others	Concrete & Steel	Total
California			
Imperial	0	0	0
Inyo	0	0	0
Kern	1	0	2
Kings	0	0	0
Los Angeles	15,400	29,720	45,119
Orange	2,308	6,054	8,362
Riverside	64	25	89
San Bernardino	179	74	253
San Diego	2	1	3
San Luis Obispo	0	0	0
Santa Barbara	0	0	1
Tulare	0	0	0
Ventura	51	45	96
Total	18,007	35,919	53,926
Region Total	18,007	35,919	53,926

Brick, Wood & Others

Concrete & Steel

Total

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

April 29, 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	1	0	0	0.00	0	0	0	0	1
Imperial	0	12	7	2	0.00	0	0	0	0	21
San Bernardino	294,956	2,138,246	1,085,800	153,728	0.64	72,260	31,582	41,835	62,183	3,880,590
Riverside	114,012	944,117	461,125	35,249	0.25	20,703	14,071	14,706	23,963	1,627,947
Kings	0	1	1	0	0.00	0	0	0	0	2
San Luis Obispo	1	49	28	5	0.00	0	0	0	0	85
Tulare	2	114	84	32	0.00	0	0	0	0	232
Santa Barbara	370	7,588	4,160	669	0.01	55	53	60	93	13,049
Kern	1,501	17,531	9,124	1,524	0.01	202	162	186	245	30,476

	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	
Ventura	129,976	968,756	464,977	47,155	0.73	26,354	18,523	22,076	20,703	1,698,520
Orange	5,915,619	24,994,011	10,443,299	941,818	5.72	3,036,638	1,809,799	2,191,756	1,565,023	50,897,964
San Diego	2,924	51,616	26,322	2,298	0.01	316	406	614	820	85,316
Los Angeles	31,165,791	125,150,864	50,983,186	4,831,272	10.30	15,242,932	8,539,586	10,847,675	9,006,556	255,767,862
Total	37,625,154	154,272,906	63,478,113	6,013,751	1.36	18,399,461	10,414,181	13,118,908	10,679,589	314,002,064
Region Total	37,625,154	154,272,906	63,478,113	6,013,751	1.36	18,399,461	10,414,181	13,118,908	10,679,589	314,002,064

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

April 29, 2024

All values are in thousands of dollars

	Highway	Railway	Light Rail	Bus Facility	Ports	Ferries	Airport	Total
California								
Imperial								
Segments	0	0	0					0
Bridges	0	0	0					0
Tunnels	0	0	0					0
Facilities		9	0	0	0	0	46	54
Total	0	9	0	0	0	0	46	54
Inyo								
Segments	0	0	0					0
Bridges	0	0	0					0
Tunnels	0	0	0					0
Facilities		0	0	0	0	0	57	57
Total	0	0	0	0	0	0	57	57
Kern								
Segments	0	0	0					0
Bridges	117	0	0					117
Tunnels	0	0	0					0
Facilities		180	0	83	0	0	1,749	2,011

	Highway	Railway	Light Rail	Bus Facility	Ports	Ferries	Airport	Total
Total	117	180	0	83	0	0	1,749	2,129
Kings								
Segments	0	0	0					0
Bridges	0	0	0					0
Tunnels	0	0	0					0
Facilities		3	0	0	0	0	0	3
Total	0	3	0	0	0	0	0	3
Los Angeles								
Segments	0	0	0					0
Bridges	2,862,932	210,951	718					3,074,601
Tunnels	34,999	0	0					34,999
Facilities		52,441	1,018,023	13,194	241,300	3,650	1,157,013	2,485,620
Total	2,897,932	263,391	1,018,741	13,194	241,300	3,650	1,157,013	5,595,221
Orange								
Segments	0	0	0					0
Bridges	802,630	52,249	0					854,879
Tunnels	465	0	0					465
Facilities		6,213	0	0	14,534	1,051	123,380	145,178
Total	803,095	58,462	0	0	14,534	1,051	123,380	1,000,522
Riverside								
Segments	0	0	0					0
Bridges	7,516	173	0					7,689
Tunnels	0	0	0					0
Facilities		1,022	0	745	0	0	5,947	7,714

	Highway	Railway	Light Rail	Bus Facility	Ports	Ferries	Airport	Total
Total	7,516	1,195	0	745	0	0	5,947	15,403
San Bernardino								
<i>Segments</i>	0	0	0					0
<i>Bridges</i>	13,215	374	0					13,589
<i>Tunnels</i>	0	0	0					0
<i>Facilities</i>		4,145	0	497	0	0	35,138	39,781
Total	13,215	4,519	0	497	0	0	35,138	53,370
San Diego								
<i>Segments</i>	0	0	0					0
<i>Bridges</i>	288	4	0					292
<i>Tunnels</i>	0	0	0					0
<i>Facilities</i>		289	9,992	21	3,922	38	10,069	24,331
Total	288	293	9,992	21	3,922	38	10,069	24,623
San Luis Obispo								
<i>Segments</i>	0	0	0					0
<i>Bridges</i>	1	0	0					1
<i>Tunnels</i>	0	0	0					0
<i>Facilities</i>		9	0	5	33	0	50	96
Total	1	9	0	5	33	0	50	97
Santa Barbara								
<i>Segments</i>	0	0	0					0
<i>Bridges</i>	16	0	0					16
<i>Tunnels</i>	0	0	0					0
<i>Facilities</i>		212	0	82	450	38	635	1,418

	Highway	Railway	Light Rail	Bus Facility	Ports	Ferries	Airport	Total
Total	16	212	0	82	450	38	635	1,433
Tulare								
<i>Segments</i>	0	0	0					0
<i>Bridges</i>	0	0	0					0
<i>Tunnels</i>	0	0	0					0
<i>Facilities</i>		0	0	2	0	0	11	14
Total	0	0	0	2	0	0	11	14
Ventura								
<i>Segments</i>	0	0	0					0
<i>Bridges</i>	4,723	116	0					4,839
<i>Tunnels</i>	0	0	0					0
<i>Facilities</i>		1,488	0	163	5,083	155	5,023	11,912
Total	4,723	1,604	0	163	5,083	155	5,023	16,751
Total	3,726,904	329,876	1,028,733	14,793	265,321	4,933	1,339,118	6,709,677
Region Total	3,726,904	329,876	1,028,733	14,793	265,321	4,933	1,339,118	6,709,677

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

April 29, 2024

All values are in thousands of dollars

	Potable Water	Waste Water	Oil Systems	Natural Gas	Electric Power	Communication	Total
California							
Imperial							
<i>Facilities</i>	29	279	0	0	9,186	0	9,494
<i>Pipelines</i>	97	49	0	0			146
Total	126	328	0	0	9,186	0	9,641
Inyo							
<i>Facilities</i>	0	0	0	0	316	0	316
<i>Pipelines</i>	32	16	0	0			48
Total	32	16	0	0	316	0	364
Kern							
<i>Facilities</i>	112	369	1	291	629,377	26	630,175
<i>Pipelines</i>	686	345	0	0			1,031
Total	798	713	1	291	629,377	26	631,206
Kings							
<i>Facilities</i>	0	0	0	4	29	0	33

	Potable Water	Waste Water	Oil Systems	Natural Gas	Electric Power	Communication	Total
<i>Pipelines</i>	55	28	0	0			83
Total	55	28	0	4	29	0	116
Los Angeles							
<i>Facilities</i>	144,260	803,463	1,718	62,037	13,046,659	3,563	14,061,700
<i>Pipelines</i>	102,935	51,707	0	0			154,642
Total	247,195	855,170	1,718	62,037	13,046,659	3,563	14,216,341
Orange							
<i>Facilities</i>	23,196	248,356	78	27,341	927,508	527	1,227,007
<i>Pipelines</i>	32,341	16,246	0	0			48,587
Total	55,537	264,602	78	27,341	927,508	527	1,275,594
Riverside							
<i>Facilities</i>	7,042	76,386	0	1,590	203,108	67	288,194
<i>Pipelines</i>	1,409	708	0	0			2,117
Total	8,452	77,094	0	1,590	203,108	67	290,311
San Bernardino							
<i>Facilities</i>	4,264	126,007	0	830	1,142,649	211	1,273,961
<i>Pipelines</i>	2,578	1,295	0	0			3,873
Total	6,841	127,302	0	830	1,142,649	211	1,277,833
San Diego							
<i>Facilities</i>	56	13,006	0	658	85,984	11	99,716
<i>Pipelines</i>	330	166	0	0			495

	Potable Water	Waste Water	Oil Systems	Natural Gas	Electric Power	Communication	Total
Total	386	13,172	0	658	85,984	11	100,211
San Luis Obispo							
<i>Facilities</i>	0	21	0	0	12,707	0	12,728
<i>Pipelines</i>	108	54	0	0			162
Total	108	75	0	0	12,707	0	12,890
Santa Barbara							
<i>Facilities</i>	0	3,663	0	296	1,207	7	5,173
<i>Pipelines</i>	100	50	0	0			150
Total	100	3,714	0	296	1,207	7	5,323
Tulare							
<i>Facilities</i>	0	0	0	0	2,623	0	2,624
<i>Pipelines</i>	67	34	0	0			101
Total	67	34	0	0	2,623	0	2,725
Ventura							
<i>Facilities</i>	5,273	86,477	2	1,186	360,582	198	453,717
<i>Pipelines</i>	1,455	731	0	0			2,186
Total	6,728	87,208	2	1,186	360,582	198	455,903
Total	326,426	1,429,455	1,799	94,233	16,421,935	4,610	18,278,459
Region Total	326,426	1,429,455	1,799	94,233	16,421,935	4,610	18,278,459

Potable Water

Waste Water

Oil Systems

Natural Gas

Electric Power

Communication

Total

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Hazus Quick Assessment Report

Estimated Economic Loss (\$ Billions)

Category	Description	Range
General Building Stock	Building Damage	95.90 - 383.80
	Building Contents	12.50 - 50.00
	Business Interruption	26.30 - 105.20
Infrastructure	Lifelines Damage	
Total		157.00 - 628.00

Preliminary Damage Assessment (PDA) Estimates

Description	Residential	Commercial	Other	Total
Affected		82,900	27,600	
Minor	630,900	80,400	27,100	738,400
Major	53,900	37,300	16,000	107,200
Destroyed	23,400	18,000	6,800	48,200
Total		218,600	77,500	

Estimated Casualties : Night Time

Severity Level	Description	# Persons
Level 1	Medical Aid	18,000 - 72,000
Level 2	Hospital Care	4,000 - 16,000
Level 3	Life-threatening	500 - 2,000
Level 4	Fatalities	1,000 - 4,000

Estimated Shelter Needs

Type	Households	People
Displaced Households	129,000 - 518,000	322,500 - 1,295,000
Public Shelter	58,230	145,560

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 : 7.45

Epicenter Latitude/Longitude :
/

Depth & Type : /U

Name :
NA

Ground Motion /Attenuation :

Maximum PGA: 1.00

Information Sources:

Comments :

Population and Building Exposure

Population: 24,407,523

Building Exposure : (\$ Millions)

Residential	
Commercial	825,275
Other	615,836
Total	

Counties : See Appendix

Major Metro Area :

Hazus Quick Assessment Report

Estimated Economic Loss (\$ Billions)

Category	Description	Range
General Building Stock	Building Damage	95.90 - 383.80
	Building Contents	12.50 - 50.00
	Business Interruption	26.30 - 105.20
Infrastructure	Lifelines Damage	
Total		157.00 - 628.00

Preliminary Damage Assessment (PDA) Estimates

Description	Residential	Commercial	Other	Total
Affected		82,900	27,600	
Minor	630,900	80,400	27,100	738,400
Major	53,900	37,300	16,000	107,200
Destroyed	23,400	18,000	6,800	48,200
Total		218,600	77,500	

Estimated Casualties : Day Time

Severity Level	Description	# Persons
Level 1	Medical Aid	34,000 - 136,000
Level 2	Hospital Care	9,000 - 34,000
Level 3	Life-threatening	1,300 - 5,000
Level 4	Fatalities	2,000 - 10,000

Estimated Shelter Needs

Type	Households	People
Displaced Households	129,000 - 518,000	322,500 - 1,295,000
Public Shelter	58,230	145,560

Comments :

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Earthquake Information

Location :

Origin Time:

Magnitude : 7.45

Epicenter Latitude/Longitude :
/

Depth & Type : /U

Name :
NA

Ground Motion /Attenuation :

Maximum PGA: 1.00

Information Sources:

Comments :

Population and Building Exposure

Population: 24,407,523

Building Exposure : (\$ Millions)

Residential	
Commercial	825,275
Other	615,836
Total	

Counties : See Appendix

Major Metro Area :

Hazus Quick Assessment Report

Estimated Economic Loss (\$ Billions)

Category	Description	Range
General Building Stock	Building Damage	95.90 - 383.80
	Building Contents	12.50 - 50.00
	Business Interruption	26.30 - 105.20
Infrastructure	Lifelines Damage	
Total		157.00 - 628.00

Preliminary Damage Assessment (PDA) Estimates

Description	Residential	Commercial	Other	Total
Affected		82,900	27,600	
Minor	630,900	80,400	27,100	738,400
Major	53,900	37,300	16,000	107,200
Destroyed	23,400	18,000	6,800	48,200
Total		218,600	77,500	

Estimated Casualties : Commute Time

Severity Level	Description	# Persons
Level 1	Medical Aid	24,000 - 96,000
Level 2	Hospital Care	6,000 - 26,000
Level 3	Life-threatening	1,800 - 7,000
Level 4	Fatalities	1,800 - 7,000

Estimated Shelter Needs

Type	Households	People
Displaced Households	129,000 - 518,000	322,500 - 1,295,000
Public Shelter	58,230	145,560

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 : 7.45

Epicenter Latitude/Longitude :
/

Depth & Type : /U

Name :
NA

Ground Motion /Attenuation :

Maximum PGA: 1.00

Information Sources:

Comments :

Population and Building Exposure

Population: 24,407,523

Building Exposure : (\$ Millions)

Residential	
Commercial	825,275
Other	615,836
Total	

Counties : See Appendix

Major Metro Area :

Shelter Summary Report

April 29, 2024

	# of Displaced Households	# of People Needing Short Term Shelter
California		
Imperial	0	0
Inyo	0	0
Kern	0	0
Kings	0	0
Los Angeles	229,761	128,022
Orange	28,711	17,383
Riverside	5	6
San Bernardino	247	139
San Diego	0	0
San Luis Obispo	0	0
Santa Barbara	0	0
Tulare	0	0
Ventura	25	14
Total	258,750	145,564
Region Total	258,750	145,564

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.