

Figure 4.1-36. Measured or estimated monthly average ozone concentrations (24-hr) in CHS communities for 1975 through 1993.

Mean Monthly 10-6 Ozone by Calendar Month

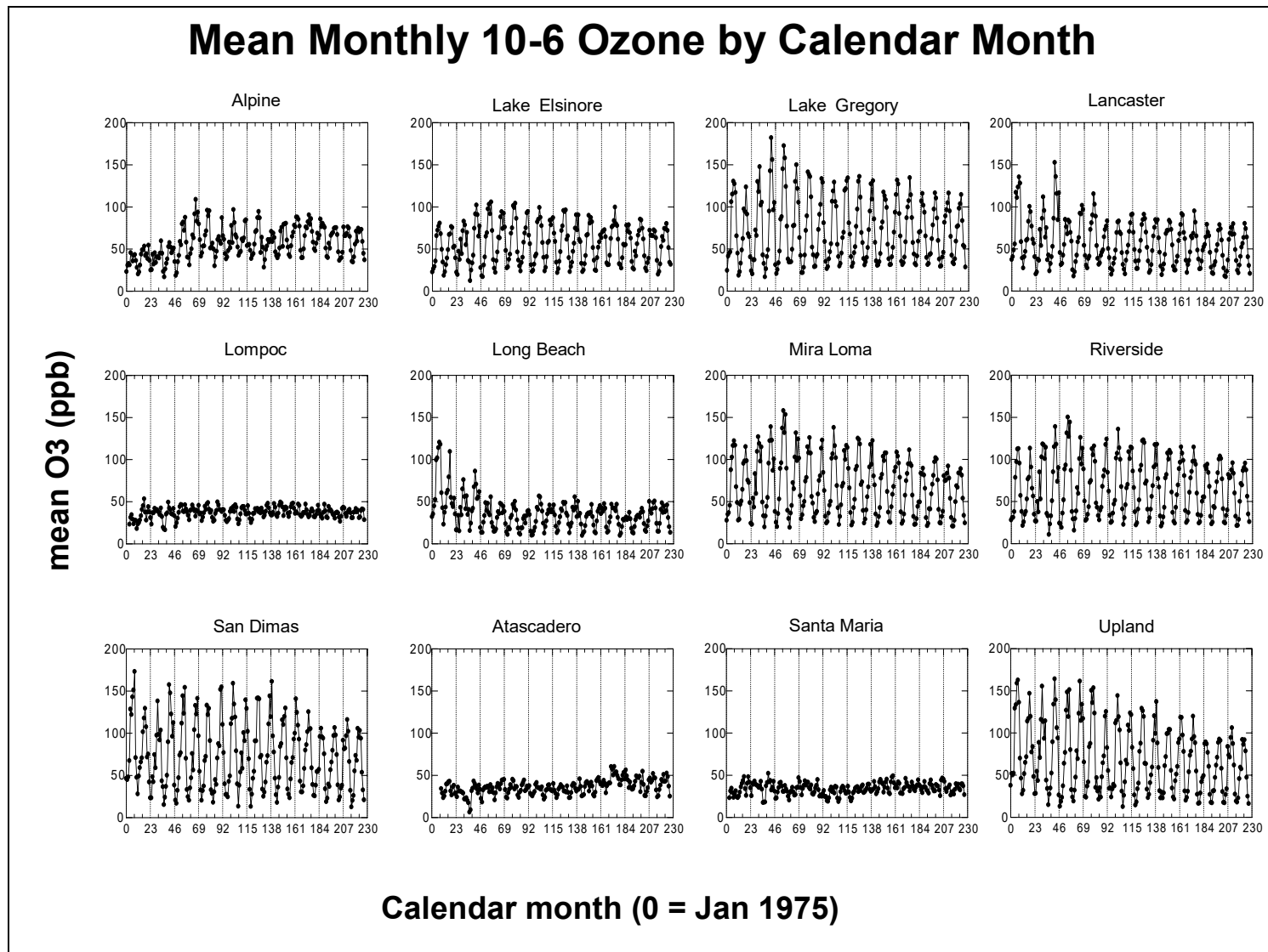


Figure 4.1-37. Measured and estimated monthly average ozone concentrations (10 AM – 6 PM) in CHS communities for 1975 through 1993.

Mean Monthly NO₂ by Calendar Month

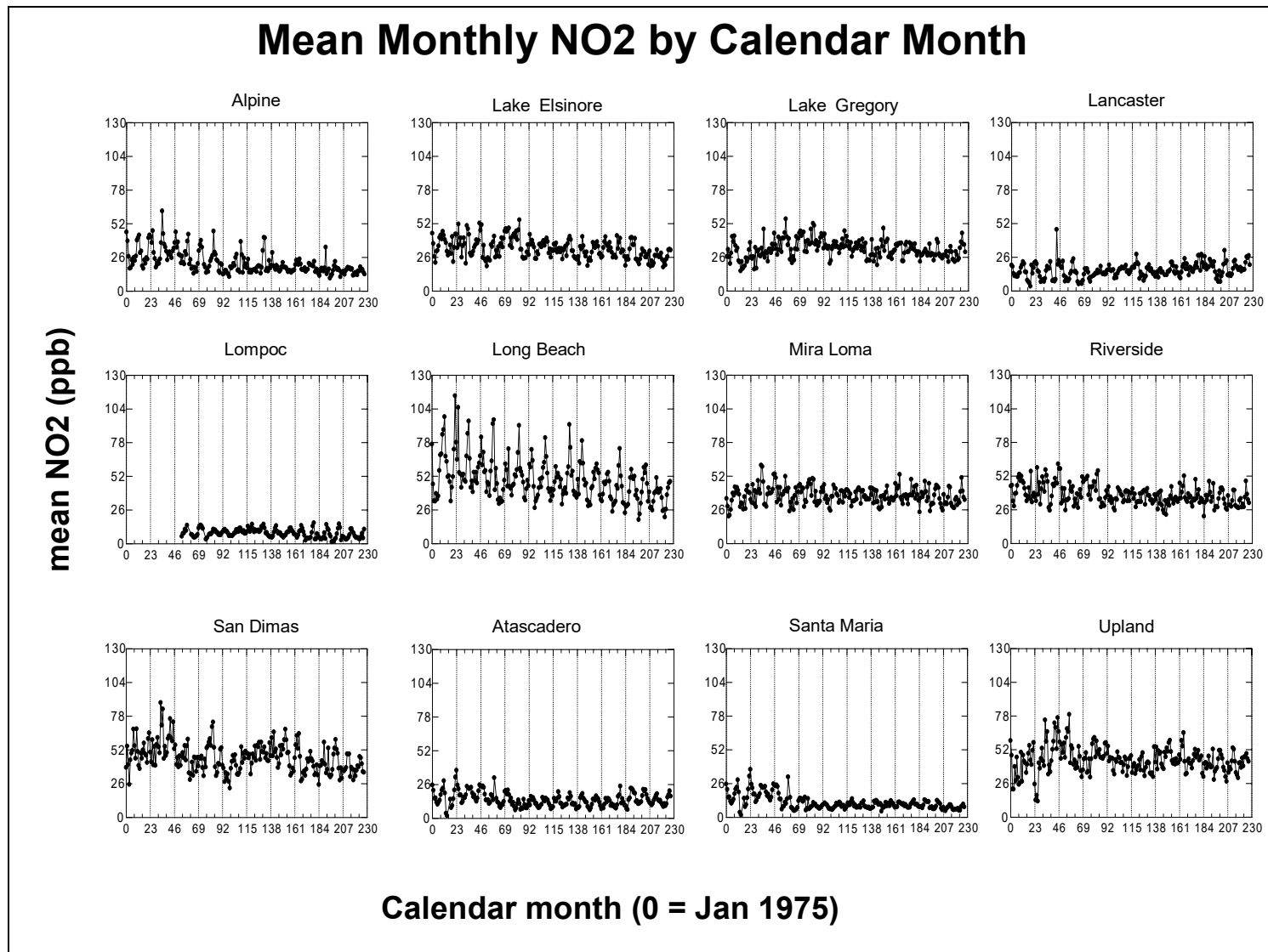


Figure 4.1-38. Measured and estimated monthly average NO₂ concentrations in CHS communities for 1975 through 1993.

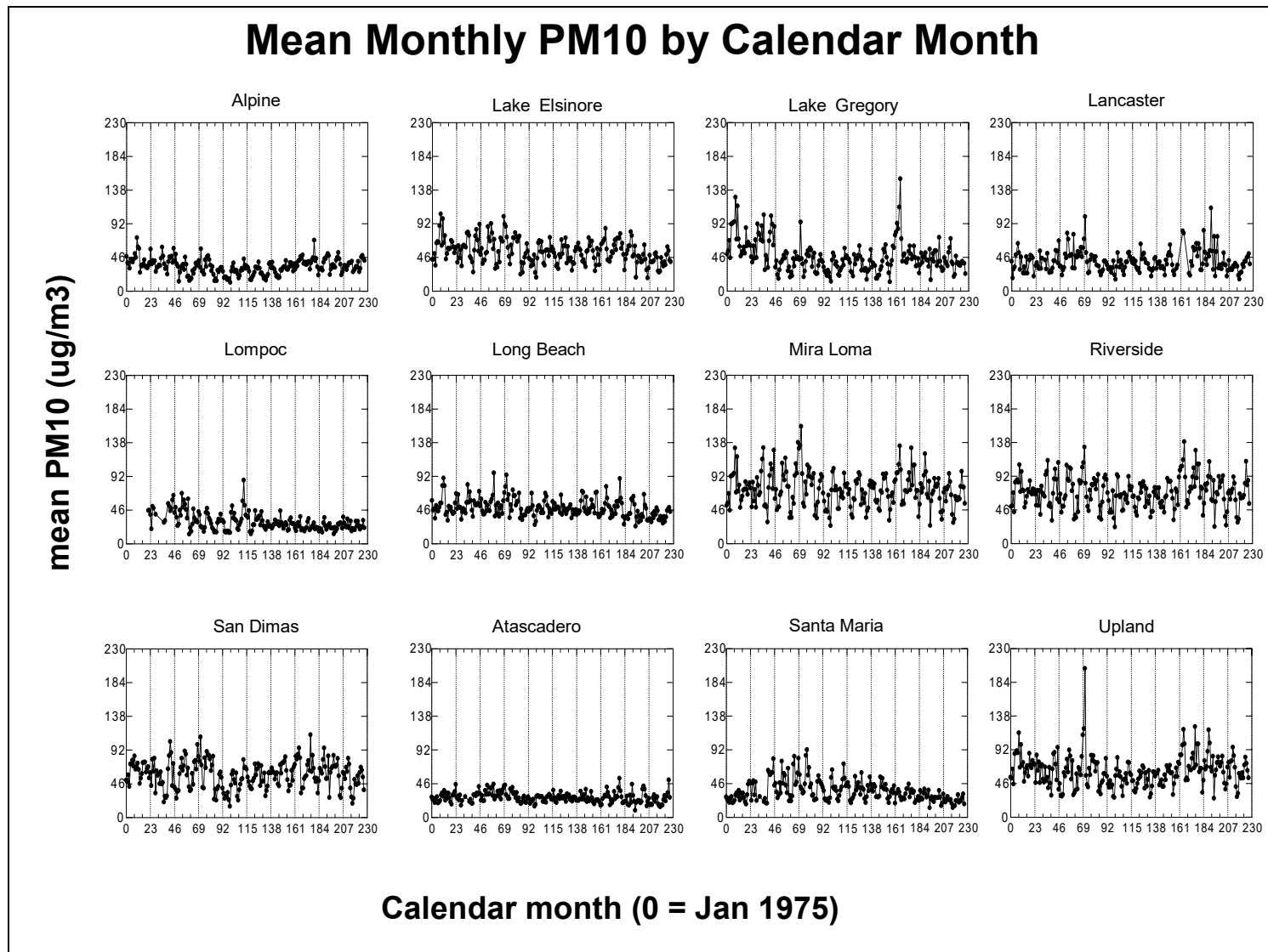


Figure 4.1-39. Measured and estimated monthly average PM₁₀ concentrations in CHS communities for 1975 through 1993.

Table 4.1-11. Percentage of CHS residences located near freeways.

Community	Within 100 m (%)	Within 300 m (%)	Within 500 m (%)	Average Freeway Traffic Volume (10 ³ vehicles/day)	Average HDV (%)
Atascadero	3	17	30	40	5.1
Santa Maria	1	6	13	23	3.2
Lompoc	*	*	*	*	*
Lancaster	0	1	4	44	4.6
Lake Arrowhead	*	*	*	*	*
San Dimas	1	6	10	122	10.0
Upland	1	4	8	116	10.5
Mira Loma	2	7	13	124	9.5
Riverside	3	9	18	130	10.2
Long Beach	2	10	20	224	6.9
Lake Elsinore	1	5	10	76	7.1
Alpine	3	15	25	48	5.1
Mean	2	8	15	95	7.2

* There are no freeways in Lompoc or Lake Arrowhead.

Table 4.1-12. Percentage of CHS residences located near principal or minor arterials.

Community	Within 100 m (%)	Within 300 m (%)	Within 500 m (%)	Average Arterial Traffic Volume (10 ³ vehicles/day)	Average HDV (%)
Atascadero*	6	16	26	13	2.0
Santa Maria*	4	30	48	26	2.0
Lompoc*	3	27	44	23	2.0
Lancaster	15	47	79	26	2.0
Lake Arrowhead*	8	19	27	16	2.8
San Dimas	18	49	71	19	2.3
Upland	16	43	64	17	2.7
Mira Loma	17	46	66	17	3.2
Riverside	17	47	65	11	3.4
Long Beach	22	66	85	38	2.1
Lake Elsinore	7	21	35	10	2.3
Alpine	14	25	35	21	2.0
Mean	12	36	54	20	2.4

* Data are for principal arterials in Atascadero, Santa Maria, Lompoc, and Lake Arrowhead, and for minor arterials in the other communities.

Table 4.1-13. Average estimated traffic density at CHS participant residences by community.

Community & Abbreviation		All Traffic Density Assignments		Nonzero Traffic Density Assignments	
		Mean	Median	Mean	Median
Lompoc	LMP	10.5	2.4	17.5	10.8
Lake Arrowhead	LKA	11.1	4.2	14.9	8.4
Lake Elsinore	LKE	12.3	0	28.1	14
Mira Loma	MRL	12.9	1	21.7	9
Lancaster	LAN	17.9	4.9	28.1	14.2
Atascadero	ATS	18.5	5.5	26.8	13.2
Alpine	ALP	20.8	4.8	35.6	20.1
Upland	UPL	25.8	9.1	28.4	11.1
Santa Maria	SMA	26.1	14.4	30.8	18.5
San Dimas	SDM	35.1	14.3	43.7	21.4
Riverside	RIV	60.2	11.7	85.3	33.1
Long Beach	LGB	78.3	47.4	85.5	53

Table 4.1-14. Estimated average and top decile NO₂ and NO_x concentrations at CHS residences along with the percentage attribution from heavy-duty and light duty vehicles operating on freeways and nonfreeways.

Location	Pollutant	All Residences					Top 10% of Traffic Exposed Residence				
		Mean (ppb & ppm)	Heavy Duty Vehicles		Light Duty Vehicles		Mean (ppb/ppm)	Heavy Duty Vehicles		Light Duty Vehicles	
			Freeway	Non-frwy	Freeway	Non-frwy		Freeway	Non-frwy	Freeway	Non-frwy
Atascadero	NO ₂	1.43	12%	2%	33%	53%	3.53	13%	2%	35%	50%
Santa Maria	NO ₂	1.85	2%	5%	13%	80%	3.35	1%	6%	8%	84%
Lompoc	NO ₂	0.73	0%	4%	0%	96%	1.89	0%	5%	0%	95%
Lancaster	NO ₂	1.91	6%	7%	13%	73%	3.73	5%	9%	11%	75%
Lake Arrowhead	NO ₂	1.30	0%	6%	0%	94%	3.82	0%	4%	0%	96%
San Dimas	NO ₂	7.38	19%	3%	39%	39%	12.00	25%	4%	37%	34%
Upland	NO ₂	4.26	16%	5%	17%	62%	9.88	18%	7%	19%	56%
Mira Loma	NO ₂	3.93	31%	3%	34%	32%	6.11	30%	4%	31%	35%
Riverside	NO ₂	7.20	32%	4%	40%	24%	19.99	41%	1%	46%	11%
Long Beach	NO ₂	10.08	18%	3%	37%	41%	16.40	22%	2%	47%	29%
Lake Elsinore	NO ₂	1.88	22%	5%	36%	37%	4.62	22%	6%	38%	34%
Alpine	NO ₂	2.53	16%	4%	47%	33%	9.41	9%	4%	32%	55%
Atascadero	NO _x	2.36	12%	2%	33%	53%	5.82	12%	2%	35%	51%
Santa Maria	NO _x	2.75	2%	5%	13%	80%	5.11	1%	6%	8%	85%
Lompoc	NO _x	1.13	0%	5%	0%	95%	2.94	0%	5%	0%	95%
Lancaster	NO _x	3.48	6%	7%	13%	73%	6.68	5%	9%	12%	75%
Lake Arrowhead	NO _x	1.44	0%	6%	0%	94%	4.26	0%	3%	0%	97%
San Dimas	NO _x	13.90	19%	3%	39%	39%	22.21	25%	4%	37%	34%
Upland	NO _x	6.42	16%	5%	17%	62%	14.78	18%	7%	19%	56%
Mira Loma	NO _x	7.63	31%	3%	34%	32%	11.55	30%	4%	31%	34%
Riverside	NO _x	11.88	32%	4%	40%	24%	31.84	41%	1%	46%	11%
Long Beach	NO _x	22.03	18%	3%	37%	41%	35.36	22%	2%	47%	29%
Lake Elsinore	NO _x	2.61	22%	5%	36%	37%	6.33	22%	6%	38%	34%
Alpine	NO _x	2.90	16%	4%	47%	33%	10.83	9%	4%	32%	55%

Table 4.1-15. Estimated average and top decile PM_{2.5} OC and EC concentrations at CHS residences along with the percentage attribution from heavy-duty and light duty vehicles operating on freeways and nonfreeways.

Location	Pollutant	All Residences					Top 10% of Traffic Exposed Residence				
		Mean ($\mu\text{g}/\text{m}^3$)	Heavy Duty Vehicles		Light Duty Vehicles		Mean ($\mu\text{g}/\text{m}^3$)	Heavy Duty Vehicles		Light Duty Vehicles	
			Frwy	Non-frwy	Frwy	Non-frwy		Frwy	Non-frwy	Frwy	Non-frwy
Atascadero	OC	0.26	4%	1%	26%	68%	0.64	5%	2%	27%	67%
Santa Maria	OC	0.36	1%	3%	9%	88%	0.68	0%	3%	5%	91%
Lompoc	OC	0.16	0%	2%	0%	98%	0.41	0%	2%	0%	98%
Lancaster	OC	0.40	2%	4%	10%	85%	0.78	1%	4%	8%	86%
Lake Arrowhead	OC	0.17	0%	2%	0%	98%	0.52	0%	2%	0%	98%
San Dimas	OC	1.43	7%	2%	35%	56%	2.20	8%	3%	32%	57%
Upland	OC	0.73	5%	2%	13%	79%	1.61	6%	4%	16%	75%
Mira Loma	OC	0.71	12%	2%	35%	51%	1.08	12%	3%	32%	54%
Riverside	OC	1.05	13%	2%	43%	41%	2.46	19%	1%	56%	24%
Long Beach	OC	2.44	6%	2%	33%	58%	3.61	8%	1%	45%	46%
Lake Elsinore	OC	0.28	8%	3%	35%	55%	0.67	8%	3%	37%	51%
Alpine	OC	0.29	6%	2%	43%	48%	1.27	3%	2%	25%	70%
Atascadero	EC	0.04	16%	6%	26%	51%	0.09	17%	7%	26%	49%
Santa Maria	EC	0.05	3%	14%	10%	73%	0.09	2%	18%	6%	75%
Lompoc	EC	0.02	0%	11%	0%	87%	0.05	0%	13%	0%	87%
Lancaster	EC	0.06	7%	19%	10%	64%	0.11	6%	22%	8%	64%
Lake Arrowhead	EC	0.02	0%	14%	0%	84%	0.06	0%	11%	0%	88%
San Dimas	EC	0.23	23%	7%	31%	38%	0.38	26%	12%	27%	35%
Upland	EC	0.11	18%	12%	13%	57%	0.26	19%	17%	14%	50%
Mira Loma	EC	0.13	35%	8%	27%	30%	0.20	33%	11%	24%	31%
Riverside	EC	0.20	35%	9%	32%	23%	0.53	46%	5%	37%	12%
Long Beach	EC	0.39	22%	8%	30%	40%	0.61	27%	6%	38%	29%
Lake Elsinore	EC	0.05	24%	11%	29%	35%	0.12	25%	14%	30%	31%
Alpine	EC	0.05	20%	10%	38%	32%	0.18	11%	11%	25%	54%

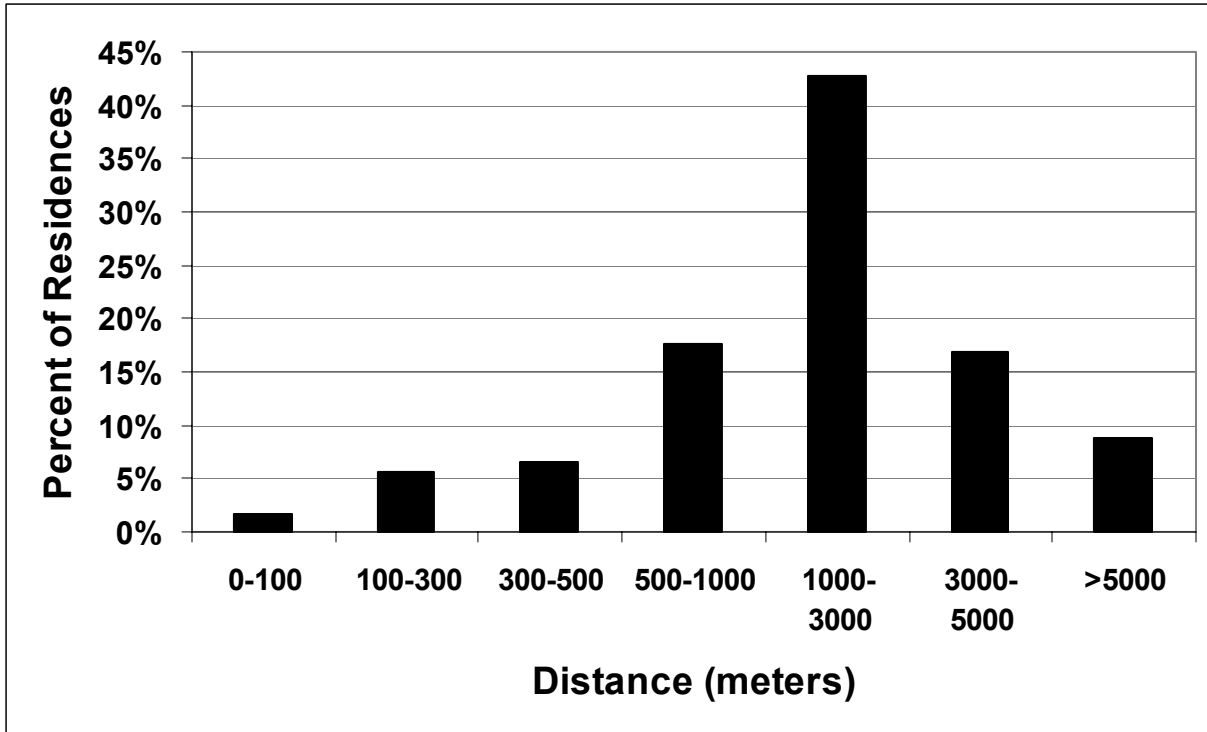


Figure 4.1-40. Distribution of distances between CHS residences and the nearest freeway.

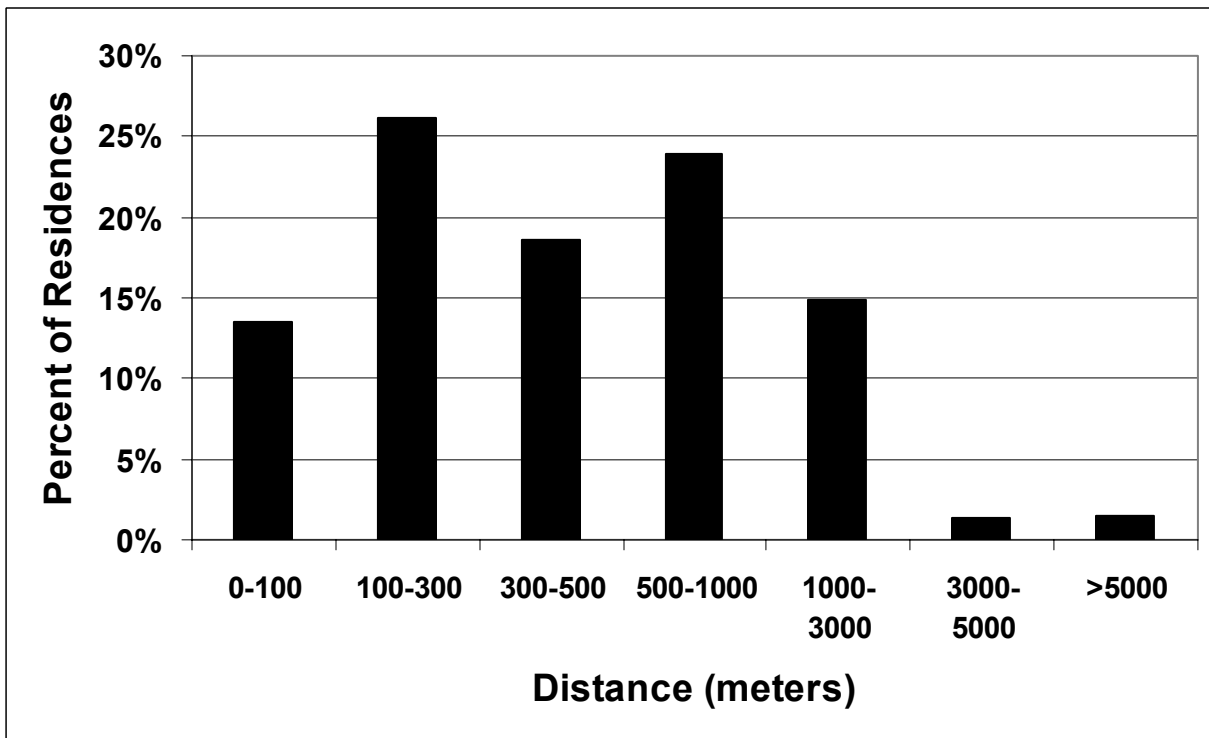


Figure 4.1-41. Distribution of distances between CHS residences and the nearest principal arterial or minor arterial.

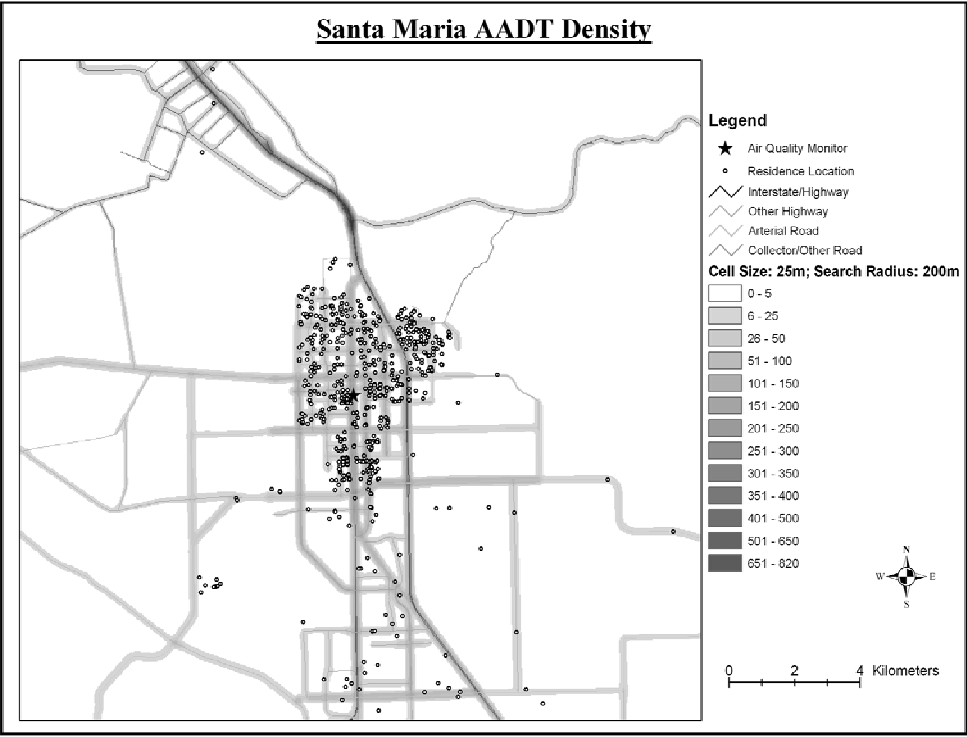
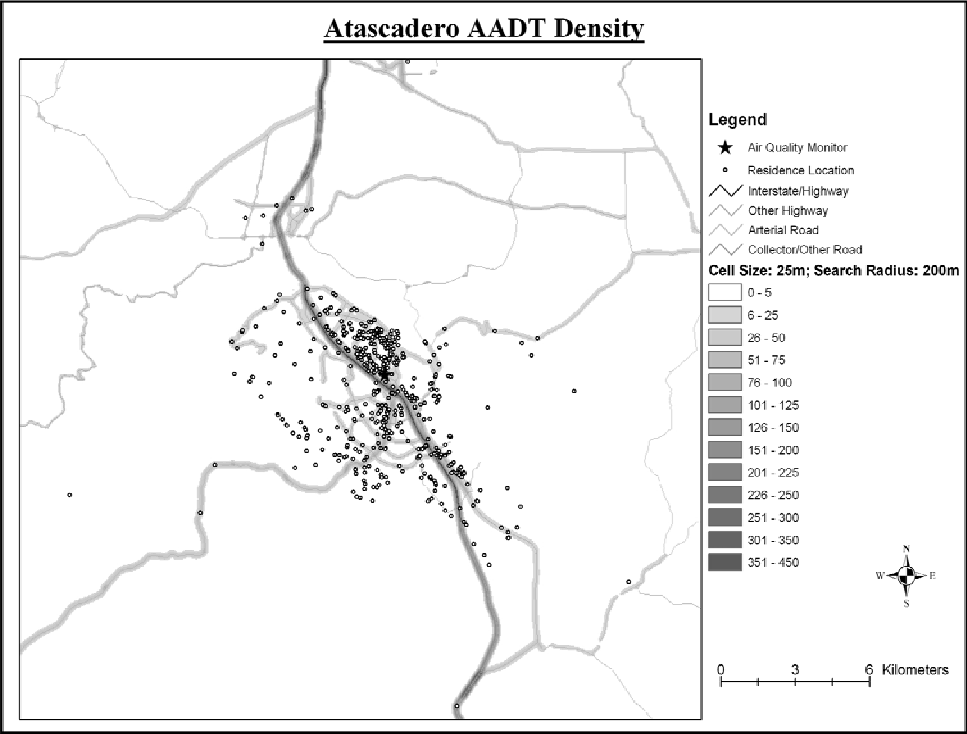


Figure 4.1-42. Spatially mapped traffic density in Atascadero and Santa Maria.

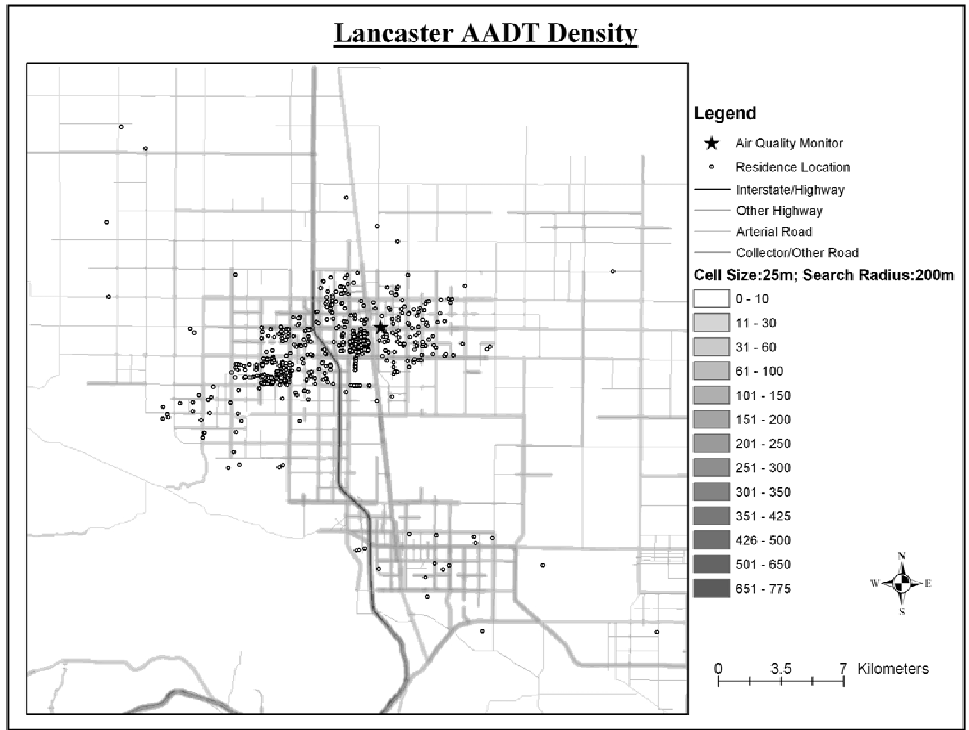
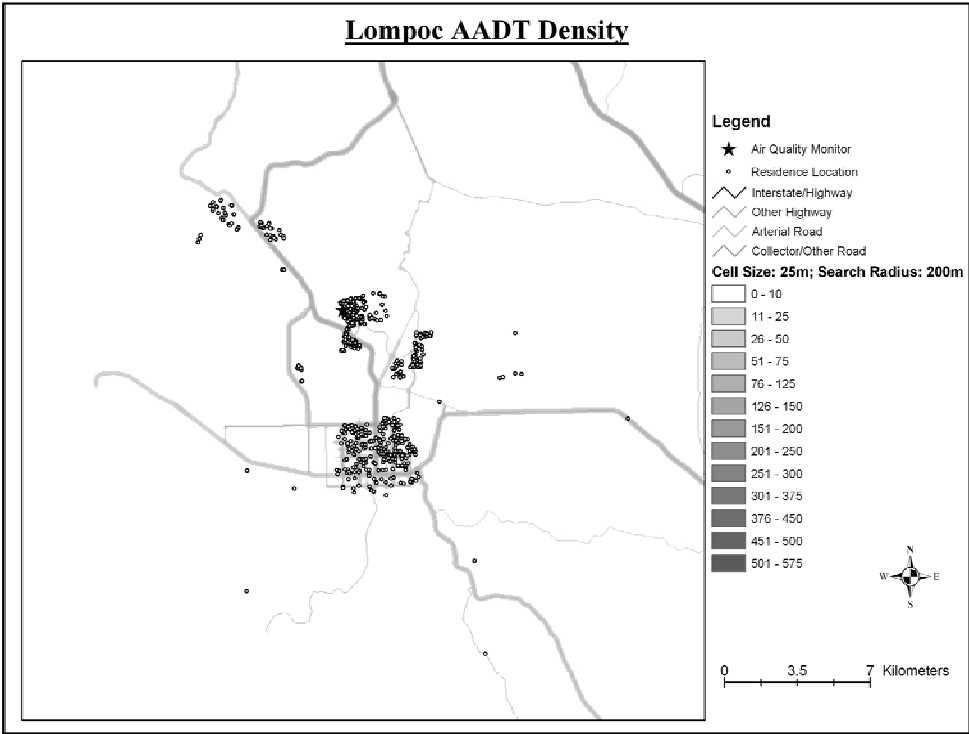


Figure 4.1-43. Spatially mapped traffic density in Lompoc and Lancaster.