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URBAN DATA BOOK
Volume II: Urban Data
Milwaukee – Washington
Notes and Technical Appendixes

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NOVEMBER 1975
FINAL REPORT

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16. Abstract A quick reference compilation of certain population, socio-economic, employment, and modal split characteristics of the 35 largest Standard Metropolitan Statistical Areas (SMSA) in the United States is presented.

The three basic groups of urban data presented are population, socio-economic, and employment. The population data include population totals and densities for the various segments of each of the individual SMSA's (CBD, Central City, Urbanized Area, and SMSA). Also included are population totals by concentric urban rings, and population density plots (dot, contour, and isometric views). The urban ring data combined with the population density plots can be used for identifying existing urban corridors. The socio-economic data compiled by concentric urban rings include: median female and male age, proportion of population 65 years and older, median family income, number of households and families, number of home-owners and renters, average home value and average rent paid, and auto ownership. The employment data found in this report include: home-to-work flows, employment and worker densities, and a modal split distribution for each of the 35 SMSA's.

Volume I includes introductory material and the urban data, arranged alphabetically, for the SMSA's Atlanta-Miami.

Volume II includes data for the remaining SMSA's, Milwaukee-Washington, technical notes on individual tables and figures contained in both volumes, and two appendixes: Appendix A, a glossary of terms and concepts; and Appendix B, sample calculations which explain how the journey to work data were calculated.

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19. MILWAUKEE, WISCONSIN

TABLE 19-1. SOCIO-ECONOMIC DATA BY URBAN RING - MILWAUKEE

CITY TRACTS BY INNER & OUTER RADII / URBAN CHARACTERISTICS	CITY: MILWAUKEE, WISCONSIN U.A. RANK: 16		SMSA: URBANIZED AREA: CENTRAL CITY: CBD:	TOTAL POP. 1,404,000 1,252,457 717,000 2,461	LAND AREA (SQ. MI.) 1,456 457 95 .997	POP. DENSITY 964 2,714 2,551 2,468	0.0 MI. PIVOT POINT:	LATITUDE: 43° 2' 18" LONGITUDE: 87° 54' 48"				
	0.0 - 1.0 MI.	1.0 - 2.0 MI.	2.0 - 4.0 MI.	4.0 - 6.0 MI.	6.0 - 8.0 MI.	8.0 - 10.0 MI.	10.0 - 12.0 MI.	12.0 - 14.0 MI.	14.0 - 16.0 MI.	16.0 - 18.0 MI.	18.0 - 20.0 MI.
Total Pop. (%)	17,404(100.0)	100,182(100.0)	298,619(100.0)	305,505(100.0)	208,433(100.0)	135,522(100.0)	51,482(100.0)	52,454(100.0)	50,942(100.0)	57,395(100.0)	31,685(100.0)
White Pop. (%)	14,081 (80.9)	70,358 (70.2)	226,472 (75.8)	302,043 (98.9)	205,345 (98.5)	134,527 (99.3)	50,968 (99.0)	52,305 (99.7)	50,603 (99.3)	57,104 (99.5)	31,626 (99.2)
Black Pop. (%)	2,982 (17.1)	28,162 (28.1)	69,338 (23.2)	2,080 (.7)	2,176 (1.0)	509 (.4)	267 (.5)	81 (.2)	32 (.1)	113 (.2)	0 (0.0)
Span. (% of white)	540 (3.1)	6,601 (6.6)	5,619 (1.9)	1,490 (.5)	1,464 (.7)	711 (.5)	439 (.9)	189 (.4)	1,353 (2.7)	1,422 (2.5)	178 (.6)
Other (%)	341 (2.0)	1,662 (1.7)	2,809 (.9)	1,382 (.5)	912 (.4)	486 (.4)	247 (.5)	68 (.1)	307 (.6)	178 (.3)	159 (.2)
Total Male Pop.	8,952	48,137	140,644	143,918	101,980	66,958	26,098	26,285	24,723	28,630	16,018
Median Male Age	29.6	26.3	26.8	31.7	26.5	24.9	21.9	22.6	24.2	23.5	24.6
Total Female Pop.	8,452	52,045	157,975	161,587	106,453	68,564	25,384	26,169	26,219	28,765	15,667
Median Female Age	37.0	28.4	29.1	36.2	27.7	26.5	23.9	24.4	25.1	25.3	25.4
% of Total Pop. -65+	18.6	12.7	12.0	12.9	6.4	5.7	3.9	4.5	6.4	6.7	6.9
Mean Family Inc.	$8,860	$8,736	$10,445	$12,884	$12,904	$16,029	$14,961	$15,577	$14,174	$12,215	$13,671
Median Family Inc.	$6,686	$7,607	$9,573	$11,761	$12,241	$13,584	$13,511	$13,706	$12,656	$11,837	$12,325
No. of Households	8,144	33,896	78,580	91,083	54,864	34,020	11,773	12,572	11,991	13,855	7,320
No. of Families	2,331	20,173	72,974	83,530	53,166	33,542	12,040	12,490	11,806	13,765	7,744
Average H.H. Size	1.7	2.8	3.7	3.3	3.7	3.9	4.3	4.2	4.1	4.1	4.3
Average Fam. Size	2.9	3.6	3.6	3.3	3.7	3.9	4.1	4.1	4.0	3.9	3.9
Total No. of Renters	8,077	30,188	53,621	34,558	18,810	8,007	1,391	1,853	2,666	4,312	1,528
Avg. Rent Paid	$95	$89	$92	$112	$127	$137	$130	$118	$120	$107	$99
Median Rent Paid	$74	$72	$74	$116	$128	$138	$134	$119	$124	$111	$102
% of Total Pop. Renting	99.2	89.1	68.2	37.9	34.3	23.5	11.8	14.7	22.2	31.1	20.9
Total No. of Home Owners	67	3,708	24,959	56,525	36,054	26,013	10,382	10,719	9,325	9,543	5,792
Avg. Value of House	$8,123	$10,546	$16,283	$22,196	$23,943	$30,786	$29,464	$30,532	$26,245	$23,544	$26,248
Median Value of House	$6,181	$9,978	$14,763	$19,953	$22,063	$27,155	$27,666	$28,107	$23,899	$21,848	$24,385
% of Total Pop. Own Home	.8	10.9	31.8	62.1	65.7	76.5	88.2	85.3	77.8	68.9	79.1
No. Own 0 Auto. (%)	5,601 (66.9)	18,035 (48.4)	29,480 (30.2)	13,807 (13.4)	3,858 (6.5)	1,213 (3.3)	240 (1.9)	307 (2.3)	655 (5.0)	1,258 (7.8)	301 (3.5)
No. Own 1 Auto. (%)	2,527 (30.2)	15,701 (42.1)	51,067 (52.4)	59,274 (57.6)	32,103 $53.9)	14,699 (40.5)	4,249 (33.5)	5,038 (37.4)	5,304 (40.3)	7,796 (48.6)	3,885 (45.5)
No. Own 2 Autos. (%)	203 (2.4)	3,052 (8.2)	14,646 (15.0)	26,188 (25.5)	20,289 (34.0)	17,160 (47.3)	6,938 (54.8)	6,910 (51.4)	6,029 (45.9)	6,018 (37.5)	3,699 (43.3)
No. Own 3+Autos. (%)	39 (.5)	471 (1.3)	2,305 (2.4)	3,577 (3.5)	3,343 (5.6)	3,193 (8.8)	1,238 (9.8)	1,198 (8.9)	1,157 (8.8)	969 (6.0)	658 (7.7)

TABLE 19-2. JOURNEY-TO-WORK DATA - MILWAUKEE

SMSA: MILWAUKEE, WISC.

						PLACE OF RESIDENCE (000)							
						LIVING IN THE SMSA					LIVING OUTSIDE SMSA, WORKING IN IT	GRAND TOTAL	EMPLOYMENT DENSITY FOR GRAND TOTALS (PER SQ. MI.)
						SMSA TOTAL	URBANIZED AREA			RURAL AND SCATTERED URBAN			
							U.A. TOTAL	CENTRAL CITY	URBANIZED RING				
HOME-TO-WORK FLOWS	PLACE OF WORK (000)	SMSA	SMSA TOTAL			545	489	288	201	56	19	564	387
			U.A.	URBANIZED AREA TOTAL		514	477	282	195	37	16	530	1,160
				CENTRAL CITY	CENTRAL CITY TOTAL	311	293	220	73	18	7	318	3,347
					CBD	47	43	31	12	4	2	49	49,000
					OTHER	264	250	189	61	14	5	269	2,862
				URBANIZED RING		203	184	62	122	19	9	212	586
			RURAL & SCATTERED URBAN			31	12	6	6	19	3	34	34
		WORKING OUTSIDE SMSA, LIVING IN IT				12	10	4	6	2		12	
		GRAND TOTAL				557	499	292	207	58	19	576	
	WORKER DENSITY FOR GRAND TOTALS (PER SQ. MI.)					383	1,092	3,074	572	58			
	DISTRIBUTION OF WORK TRIPS BY MODE (%)	AUTO DRIVER; AUTO PASS.				77%	76%	71%	83%	86%	95%	78%	
		PUBLIC TRANSPORTATION				12	13	19	5	2	0	11	
		WALK; WORK AT HOME				10	10	9	11	9	0	9	
		TAXI; OTHER				1	1	1	1	3	5	2	

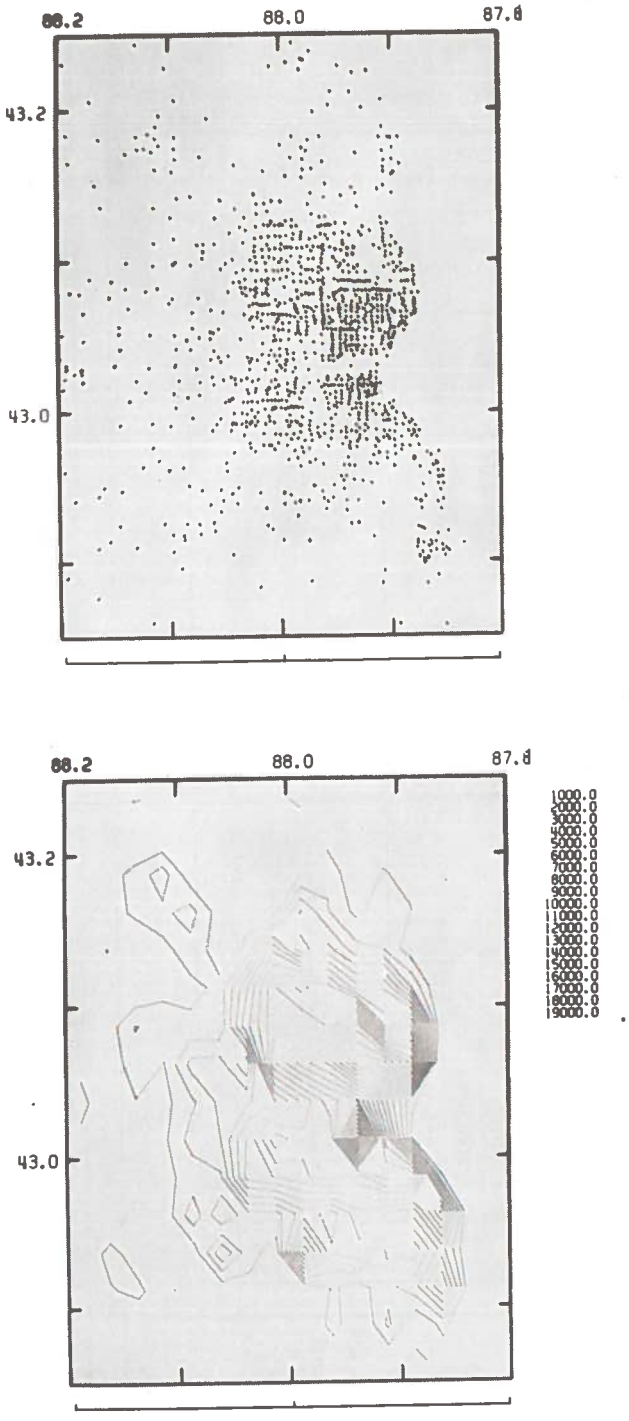
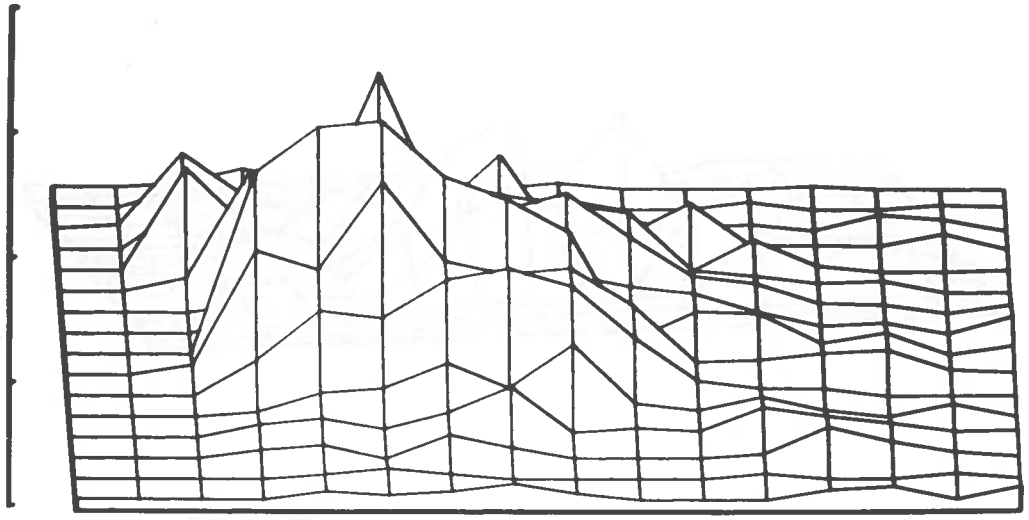


Figure 19-1. Population Density Plots - Dot and Contour Maps - Milwaukee



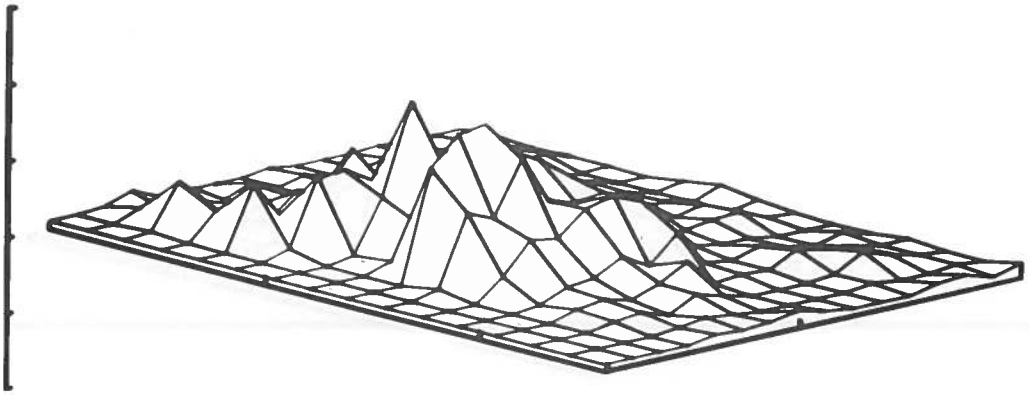
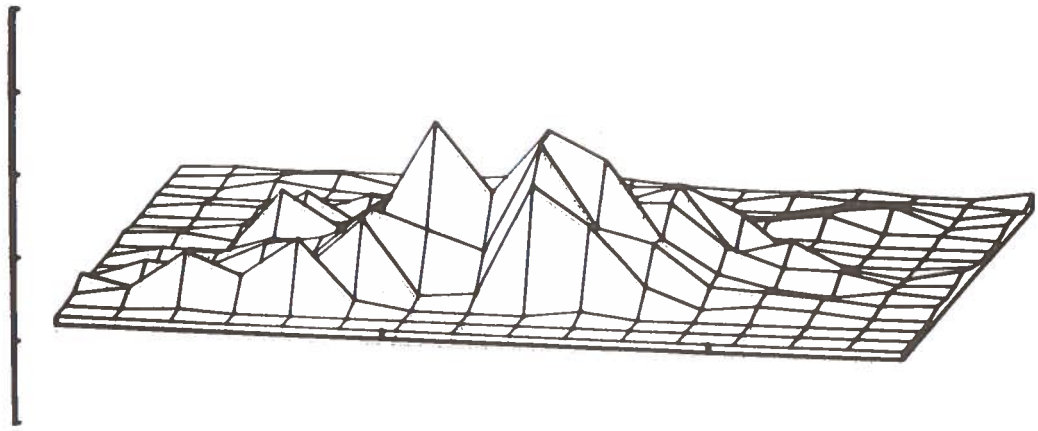
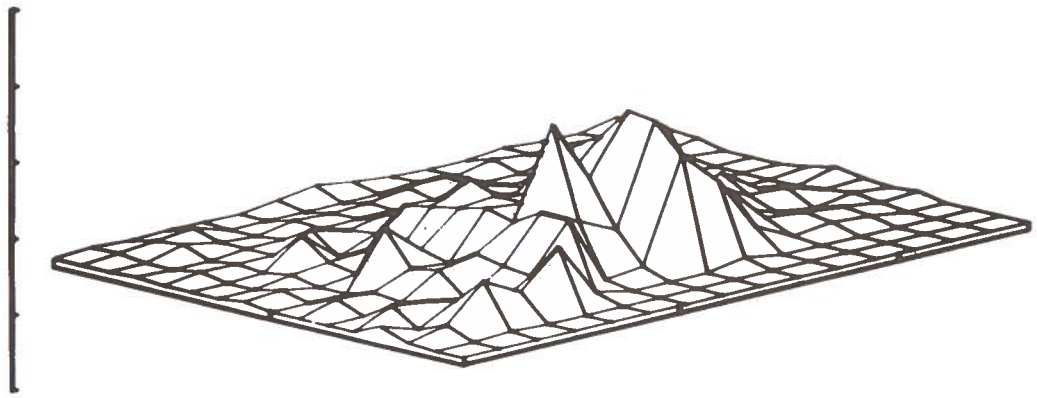


Figure 19-2. Population Density Plots - Isometric Views (0°, 45°) - Milwaukee

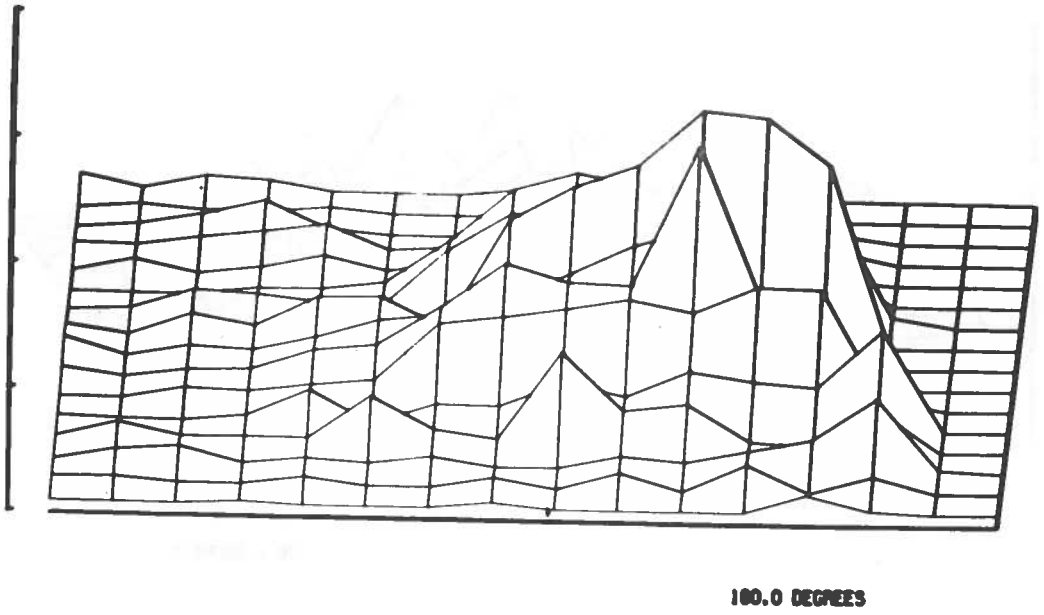


90.0 DEGREES



135.0 DEGREES

Figure 19-3. Population Density Plots - Isometric Views (90°, 135°) - Milwaukee



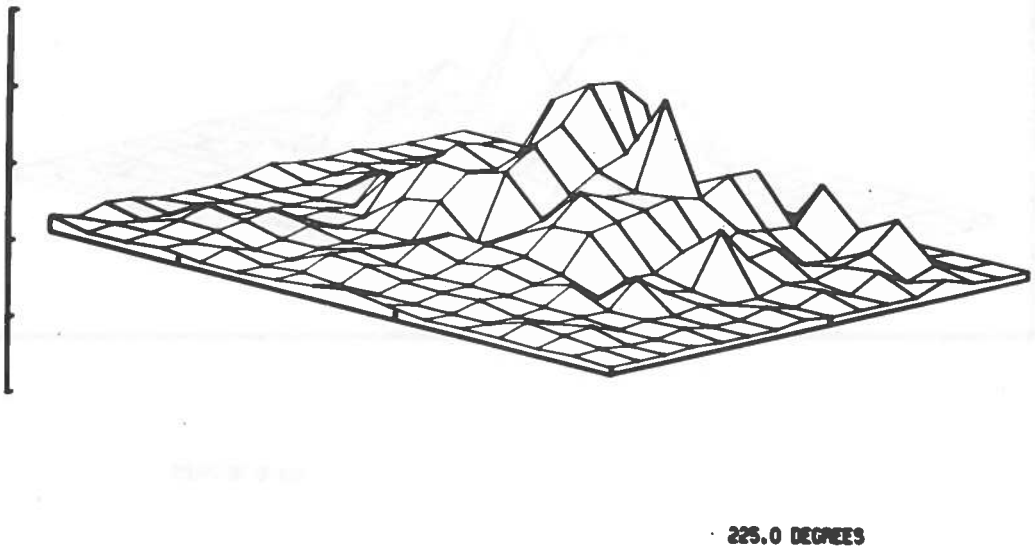
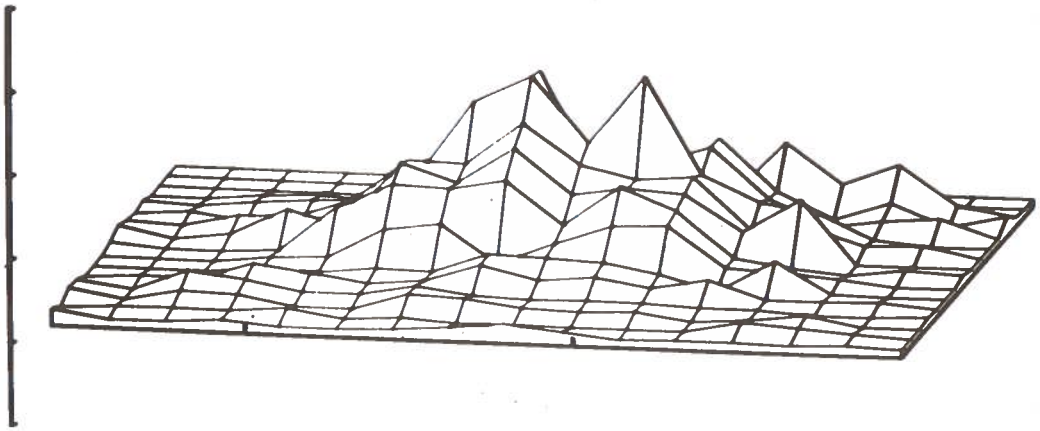
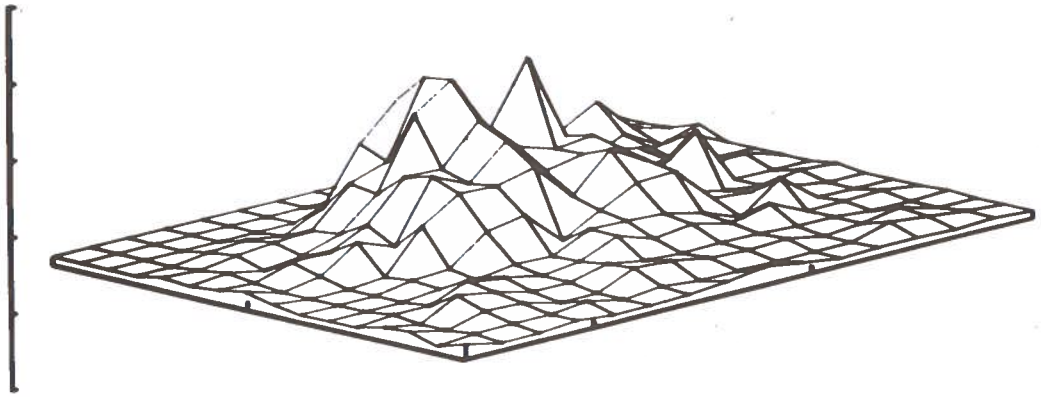


Figure 19-4. Population Density Plots - Isometric Views (180°, 225°) - Milwaukee



270.0 DEGREES



315.0 DEGREES

Figure 19-5. Population Density Plots - Isometric Views (270°, 315°) Milwaukee

20. MINNEAPOLIS-ST. PAUL, MINNESOTA

TABLE 20-1. SOCIO-ECONOMIC DATA BY URBAN RING - MINNEAPOLIS-ST. PAUL

CITY TRACTS BY INNER & OUTER RADII / URBAN CHARACTERISTICS	0.0 - 1.0 MI.	1.0 - 2.0 MI.	2.0 - 4.0 MI.	4.0 - 6.0 MI.	6.0 - 8.0 MI.	8.0 - 10.0 MI.	10.0 - 12.0 MI.	12.0 - 14.0 MI.	14.0 - 16.0 MI.	16.0 - 18.0 MI.	18.0 - 20.0 MI.
CITY: MINNEAPOLIS-ST. PAUL, MN.	TOTAL POP.	LAND AREA (SQ. MI.)	POP. DENSITY								
SMSA:	1,814,000	2,107	861								
URBANIZED AREA:	1,704,423	721	2,363								
CENTRAL CITY:	744,000	107	6,935								
CBD:	5,875	1.53	3,830								
U. A. RANK: 12	0.0 MI. PIVOT POINT:	LATITUDE: 44° 57' 54" LONGITUDE: 93° 10' 45"									
Total Pop. (%)	10,667(100.0)	54,285(100.0)	239,540(100.0)	334,271(100.0)	296,032(100.0)	275,835(100.0)	203,804(100.0)	114,813(100.0)	100,461(100.0)	47,092(100.0)	47,476(100.0)
White Pop. (%)	10,472 (98.2)	53,242 (98.1)	224,417 (93.7)	317,526 (95.0)	286,596 (96.8)	273,485 (99.1)	202,623 (99.4)	114,181 (99.4)	99,516 (99.1)	46,895 (99.6)	47,023 (99.0)
Black Pop. (%)	36 (.3)	474 (.9)	10,412 (4.3)	11,003 (3.3)	6,858 (2.3)	600 (.2)	173 (.1)	26 (.0)	283 (.3)	30 (.1)	166 (.3)
Span. (% of white)	98 (.9)	261 (.5)	2,737 (1.1)	4,820 (1.4)	2,384 (.8)	1,087 (.4)	1,031 (.5)	711 (.6)	552 (.5)	203 (.4)	0 (.0)
Other (%)	159 (1.5)	569 (1.0)	4,711 (2.0)	5,742 (1.7)	2,578 (.9)	1,750 (.6)	1,008 (.5)	606 (.5)	662 (.7)	167 (.4)	287 (.6)
Total Male Pop.	4,988	25,830	111,237	154,258	140,903	135,054	101,035	57,587	50,735	23,827	23,580
Median Male Age	26.4	25.0	27.2	28.0	26.2	24.7	21.7	21.1	19.0	20.2	25.3
Total Female Pop.	5,679	28,455	128,303	180,013	155,129	140,781	102,769	57,226	49,726	23,265	23,896
Median Female Age	29.1	29.3	29.4	29.9	28.6	25.8	23.1	21.7	21.1	21.9	26.6
% of Total Pop.-65+	13.1	13.8	13.7	13.6	9.[illegible]	5.6	3.7	3.1	2.8	4.4	8.7
Mean Family Inc.	$10,250	$13,010	$11,614	$11,399	$13,188	$14,070	$15,052	$13,985	$14,769	$15,423	$13,448
Median Family Inc.	$9,874	$11,398	$10,097	$10,410	$11,891	$12,785	$13,277	$12,804	$13,197	$12,657	$12,189
No. of Households	3,532	15,910	77,703	112,311	86,494	76,500	51,288	27,359	21,860	10,334	12,003
No. of Families	2,568	12,381	56,361	79,527	75,172	69,530	48,277	27,032	22,967	11,025	11,260
Average H.H. Size	2.7	3.1	2.9	2.9	3.4	3.6	3.9	4.2	4.5	4.5	3.8
Average Fam. Size	3.1	3.5	3.4	3.4	3.6	3.7	4.0	4.1	4.2	4.1	3.8
Total No. of Renters	2,102	7,030	40,749	64,659	27,739	20,572	11,475	5,910	1,913	1,601	3,600
Avg. Rent Paid	$93	$109	$101	$104	$126	$158	$157	$139	$139	$129	$112
Median Rent Paid	$79	$107	$96	$100	$127	$156	$161	$144	$144	$132	$116
% of Total Pop. Renting	59.5	44.2	52.4	57.6	32.1	26.9	22.4	21.6	8.8	15.5	30.0
Total No. of Home Owners	1,430	8,880	36,954	47,652	58,755	55,928	39,813	21,449	19,947	8,733	8,403
Avg. Value of House	$16,973	$22,199	$20,259	$21,464	$22,519	$25,012	$28,022	$26,738	$28,718	$26,928	$24,337
Median Value of House	$16,803	$19,956	$18,015	$19,295	$20,355	$22,706	$24,697	$24,069	$25,863	$23,682	$21,433
% of Total Pop. Own Home	40.5	55.8	47.6	42.4	67.9	73.1	77.6	78.4	91.2	84.5	70.0
No. Own 0 Auto. (%)	863 (22.2)	2,839 (16.5)	20,474 (24.3)	33,469 (27.3)	11,894 (12.8)	4,177 (5.2)	1,374 (2.6)	658 (2.2)	390 (1.6)	341 (2.9)	1,257 (9.3)
No. Own 1 Auto. (%)	2,183 (56.1)	9,598 (55.7)	42,811 (50.9)	58,454 (47.7)	47,047 (50.7)	36,944 (46.0)	22,172 (41.4)	12,201 (41.6)	8,728 (36.3)	4,912 (41.5)	6,239 (46.3)
No. Own 2 Autos. (%)	731 (18.8)	3,810 (22.1)	17,417 (20.7)	25,533 (20.9)	28,330 (30.6)	32,875 (40.9)	25,750 (48.1)	13,952 (47.5)	13,027 (54.1)	5,564 (47.0)	5,060 (37.5)
No. Own 3+Autos. (%)	117 (3.0)	991 (5.7)	3,460 (4.1)	5,054 (4.1)	5,421 (5.8)	6,335 (7.9)	4,280 (8.0)	2,533 (8.6)	1,924 (8.0)	1,032 (8.7)	920 (6.8)

TABLE 20-2. JOURNEY-TO-WORK DATA - MINNEAPOLIS-ST. PAUL

SMSA: MINNEAPOLIS-ST. PAUL, MINN.						PLACE OF RESIDENCE (000)							
						LIVING IN THE SMSA							
							URBANIZED AREA						
						SMSA TOTAL	U.A. TOTAL	CENTRAL CITY	URBANIZED RING	RURAL AND SCATTERED URBAN	LIVING OUTSIDE SMSA, WORKING IN IT	GRAND TOTAL	EMPLOYMENT DENSITY FOR GRAND TOTALS (PER SQ. MI.)
HOME-TO-WORK FLOWS	PLACE OF WORK (000)	SMSA			SMSA TOTAL	719	684	309	375	35	36	755	358
			U.A.		URBANIZED AREA TOTAL	699	675	305	370	24	29	728	1,010
				CENTRAL CITY	CENTRAL CITY TOTAL	425	411	248	163	14	17	442	4,131
					CBD	90	87	52	35	3	4	94	62,667
					OTHER	335	324	196	128	11	13	348	3,299
				URBANIZED RING		274	264	57	207	10	12	286	466
			RURAL & SCATTERED URBAN			20	9	4	5	11	7	27	20
		WORKING OUTSIDE SMSA, LIVING IN IT				12	11	3	8	1		12	
		GRAND TOTAL				731	695	312	383	36	36	767	
	WORKER DENSITY FOR GRAND TOTALS (PER SQ. MI.)					347	964	2,916	624	26			
	DISTRIBUTION OF WORK TRIPS BY MODE (%)	AUTO DRIVER; AUTO PASS.				81%	81%	70%	89%	89%	94%	82%	
		PUBLIC TRANSPORTATION				9	9	17	3	3	0	8	
		WALK; WORK AT HOME				8	9	12	6	6	0	8	
		TAXI; OTHER				2	1	1	2	2	6	2	

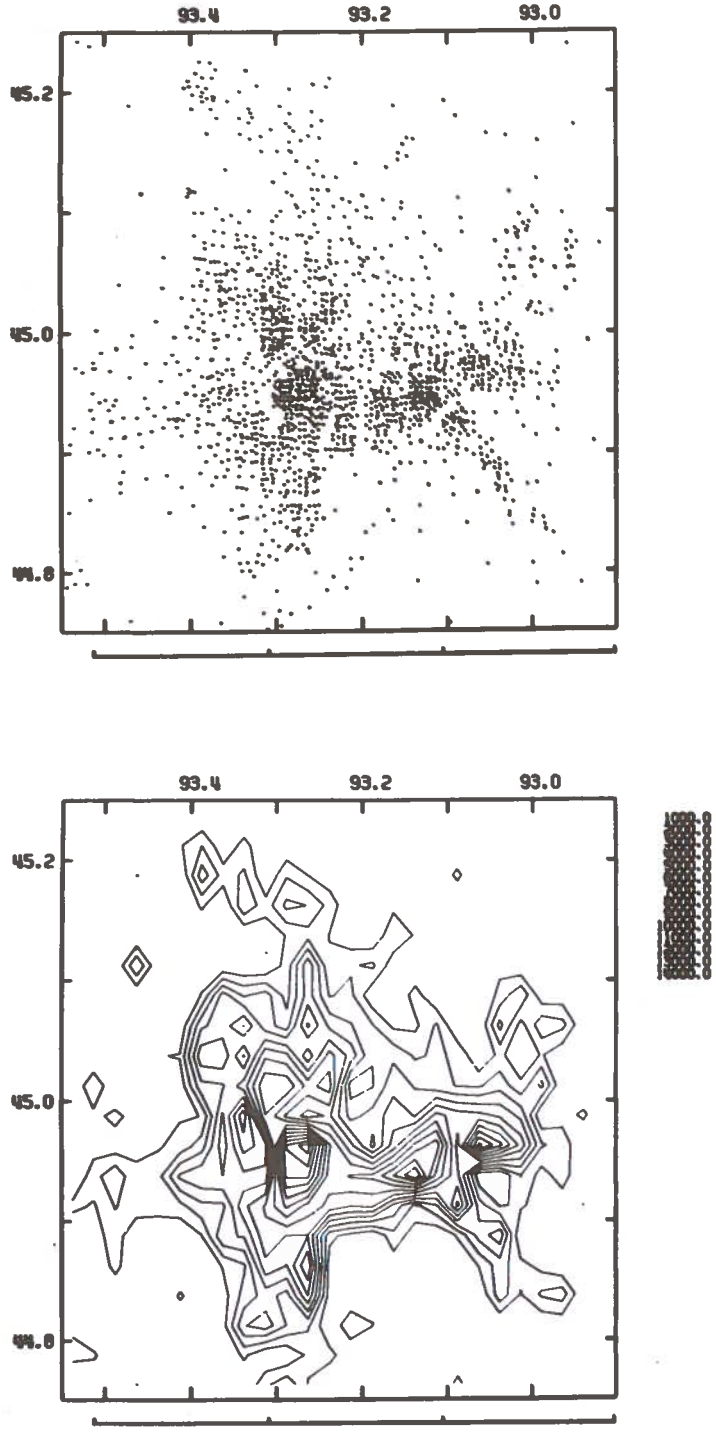
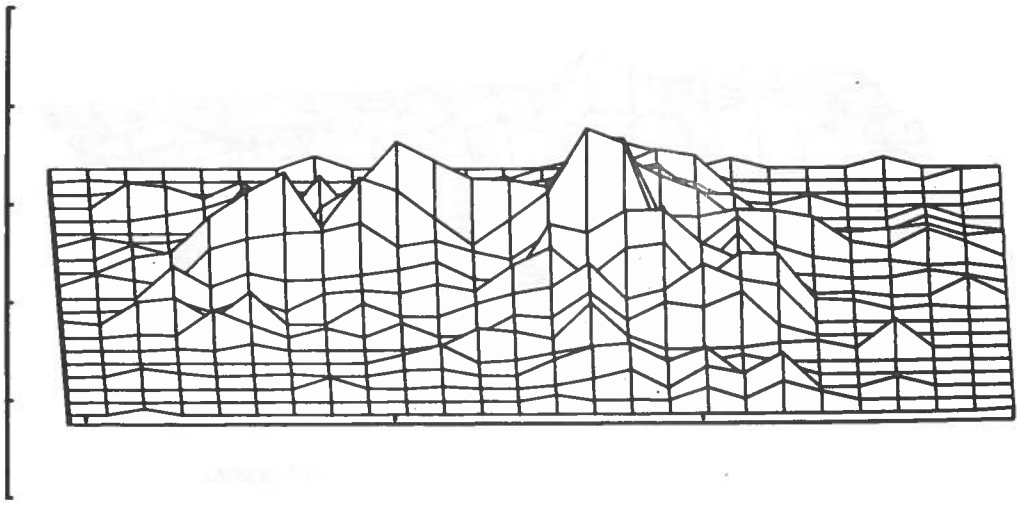


Figure 20-1. Population Density Plots - Dot and Contour Maps - Minneapolis-St. Paul



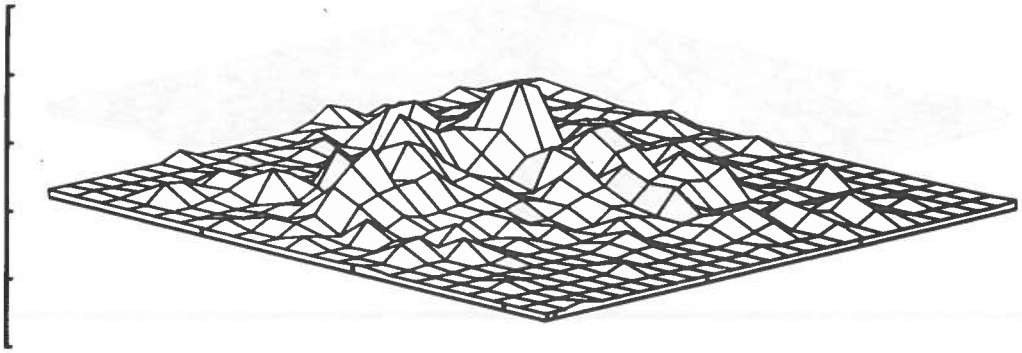
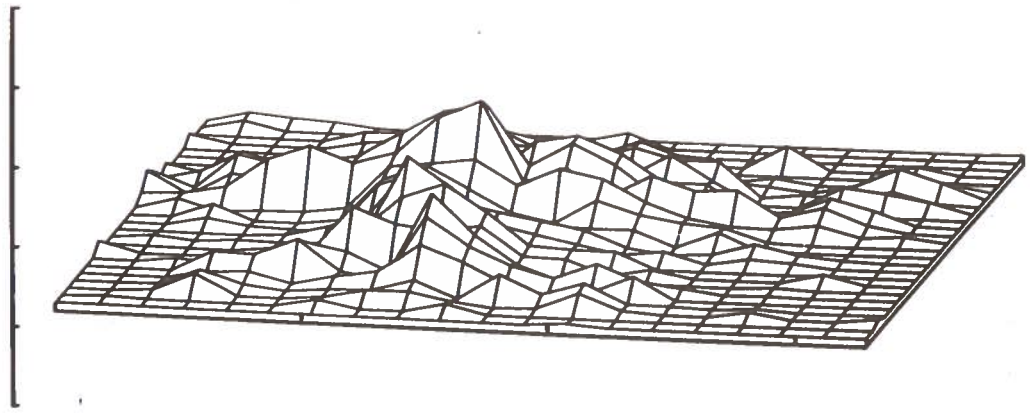
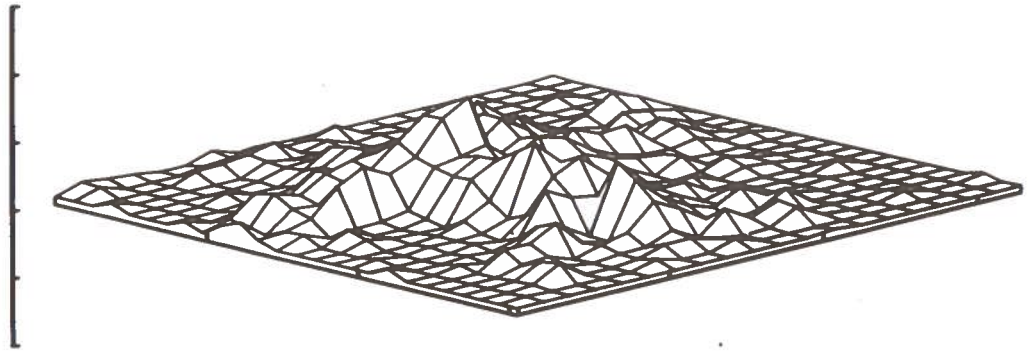


Figure 20-2. Population Density Plots - Isometric Views (0°, 45°) - Minneapolis-St. Paul

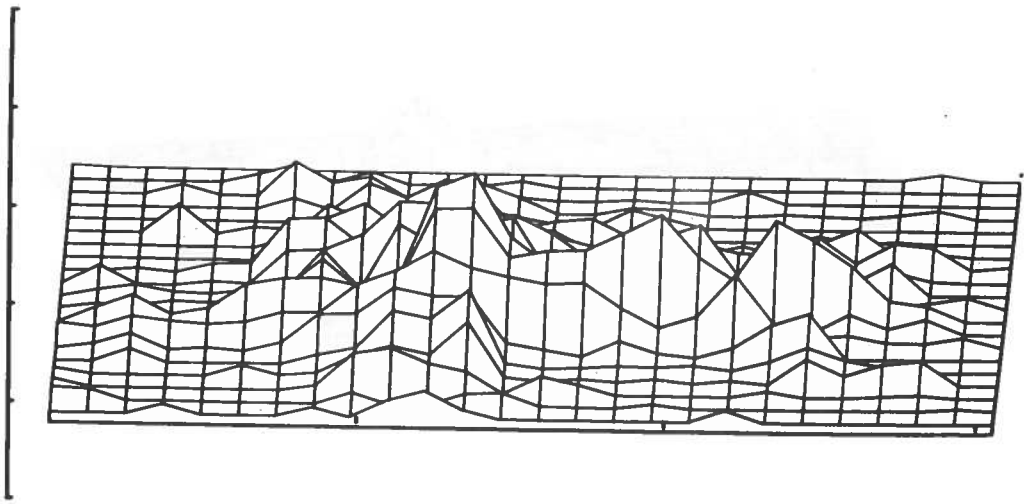


90.0 DEGREES



135.0 DEGREES

Figure 20-3. Population Density Plots - Isometric Views (90°, 135°) - Minneapolis-St. Paul



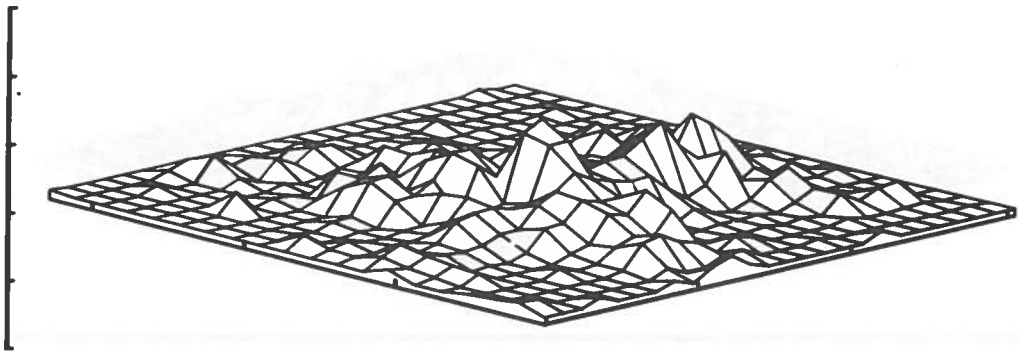
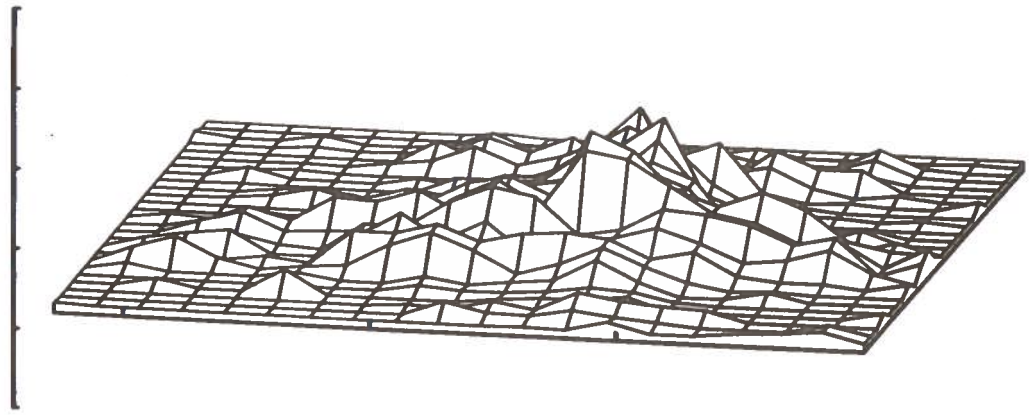
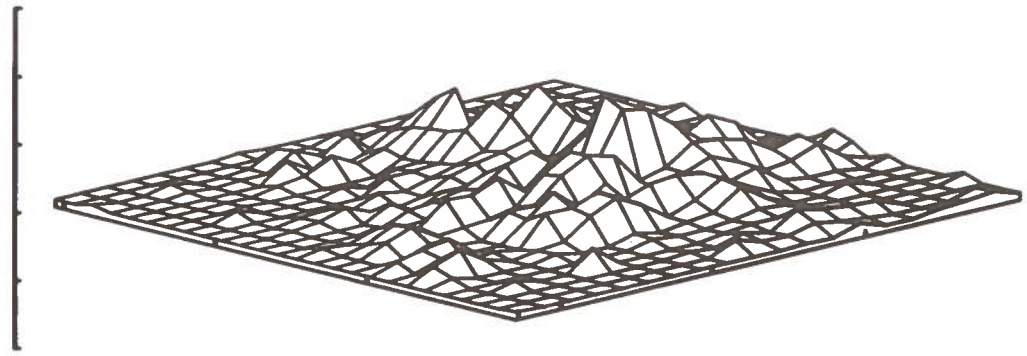


Figure 20-4. Population Density Plots - Isometric Views (180°, 225°) - Minneapolis-St. Paul



270.0 DEGREES



315.0 DEGREES

Figure 20-5. Population Density Plots - Isometric Views (270°, 315°) - Minneapolis-St. Paul

21. NEW ORLEANS, LOUISIANA*

*See Notes, Section 3.2.

TABLE 21-1. SOCIO-ECONOMIC DATA BY URBAN RING - NEW ORLEANS

CITY TRACTS BY INNER & OUTER RADII / URBAN CHARACTERISTICS	CITY: NEW ORLEANS, LA U.A. RANK: 26										
	0.0 - 1.0 MI.	1.0 - 2.0 MI.	2.0 - 4.0 MI.	4.0 - 6.0 MI.	6.0 - 8.0 MI.	8.0 - 10.0 MI.	10.0 - 12.0 MI.	12.0 - 14.0 MI.	14.0 - 16.0 MI.	16.0 - 18.0 MI.	18.0 - 20.0 MI.
Total Pop. (%)	62,052(100.0)	127,234(100.0)	293,222(100.0)	230,560(100.0)	99,281(100.0)	107,896(100.0)	42,429(100.0)	3,744(100.0)	15,826(100.0)	15,202(100.0)	2,786(100.0)
White Pop. (%)	26,677 (43.0)	53,910 (42.4)	169,169 (57.7)	185,376 (80.4)	84,103 (84.8)	98,148 (91.0)	33,719 (79.5)	2,703 (72.2)	11,849 (74.9)	12,477 (82.1)	1,850 (66.4)
Black Pop. (%)	35,112 (56.6)	72,851 (57.3)	123,207 (42.0)	44,476 (19.3)	14,802 (14.9)	9,421 (8.7)	8,596 (20.3)	1,020 (27.2)	3,873 (24.5)	2,672 (17.6)	933 (33.5)
Span. (% of white)	2,378 (3.8)	6,314 (5.0)	14,082 (4.8)	7,797 (3.4)	3,305 (3.3)	5,481 (5.1)	1,684 (4.0)	67 (1.8)	318 (2.0)	1,894 (12.5)	34 (1.2)
Other (%)	263 (0.4)	473 (0.4)	846 (0.3)	708 (0.3)	326 (0.3)	327 (0.3)	114 (0.3)	21 (0.6)	104 (0.7)	53 (0.3)	3 (0.1)
Total Male Pop.	29,093	59,237	134,743	111,161	48,209	53,201	21,065	1,890	7,905	7,635	1,458
Median Male Age	28.1	26.1	26.7	26.1	22.3	22.2	19.8	23.4	20.9	23.8	25.4
Total Female Pop.	32,959	67,997	158,479	119,399	51,022	54,695	21,364	1,854	7,921	7,567	1,328
Median Female Age	31.9	30.4	31.4	27.9	24.0	23.2	21.9	23.6	21.9	25.7	26.9
% of Total Pop. 65+	12.0	11.7	11.5	7.2	4.1	3.3	2.6	5.6	4.7	7.3	7.7
Mean Family Inc.	$6,809	$6,777	$10,019	$12,111	$10,798	$11,980	$10,931	$8,386	$9,401	$9,112	$8,250
Median Family Inc.	$5,687	$6,015	$7,767	$10,268	$9,901	$11,116	$10,142	$8,098	$8,454	$8,296	$7,812
No. of Households	20,027	35,681	86,453	63,386	25,702	26,906	10,170	865	3,008	3,197	635
No. of Families	14,384	30,329	72,227	58,079	24,775	26,135	9,854	907	3,664	3,575	632
Average H.H. Size	3.1	3.5	3.3	3.6	3.8	4.0	4.2	4.3	5.2	4.7	4.2
Average Fam. Size	3.6	3.7	3.6	3.7	3.8	4.0	4.2	4.0	4.1	4.0	4.0
Total No. of Renters	17,009	26,915	58,969	24,513	10,222	5,921	2,958	388	1,058	1,161	152
Avg. Rent Paid	$71	$58	$75	$96	$103	$108	$104	$80	$73	$79	$51
Median Rent Paid	$59	$51	$62	$87	$103	$112	$107	$80	$83	$76	$54
% of Total Pop. Renting	84.9	75.4	68.2	38.7	39.7	22.0	29.1	44.9	35.2	36.3	23.9
Total No. of Home Owners	3,018	8,766	27,485	38,873	15,540	20,985	7,212	477	1,950	2,036	483
Avg. Value of House	$17,048	$16,275	$26,002	$25,438	$22,611	$24,211	$21,298	$15,409	$18,736	$17,661	$14,235
Median Value of House	$15,412	$15,501	$21,804	$21,867	$20,837	$21,723	$18,842	$16,000	$17,235	$16,326	$11,979
% of Total Pop. Own Home	15.1	24.6	31.8	61.3	60.3	78.0	70.9	55.1	64.8	63.7	76.1
No. Own 0 Auto. (%)	12,102 (53.7)	18,965 (46.4)	34,137 (35.3)	9,721 (14.2)	3,090 (11.3)	1,784 (6.3)	803 (7.5)	130 (12.3)	433 (10.9)	694 (16.2)	132 (18.2)
No. Own 1 Auto. (%)	8,657 (38.4)	17,089 (41.8)	43,439 (44.9)	32,514 (47.4)	12,691 (46.5)	11,561 (40.9)	4,632 (43.3)	538 (51.1)	1,983 (49.7)	2,390 (55.7)	399 (54.9)
No. Own 2 Autos. (%)	1,563 (6.9)	4,171 (10.2)	16,496 (17.0)	22,413 (32.7)	9,906 (36.3)	12,918 (45.7)	4,732 (44.2)	314 (29.8)	1,400 (35.1)	1,008 (23.5)	164 (22.6)
No. Own 3+Autos. (%)	196 (0.9)	613 (1.5)	2,763 (2.9)	3,953 (5.8)	1,584 (5.8)	2,015 (7.1)	538 (5.0)	71 (6.7)	174 (4.4)	196 (4.6)	32 (4.4)

SMSA: TOTAL POP. 1,046,000 — LAND AREA (SQ. MI.) 1,975 — POP. DENSITY 530
URBANIZED AREA: 961,728 — 184 — 5,227
CENTRAL CITY: 592,000 — 86 — 6,846
CBD: 5,389 — 1.2 — 4,490

0.0 MI. PIVOT POINT: LATITUDE: 29° 57' 48" LONGITUDE: 90° 3' 48"

TABLE 21-2. JOURNEY-TO-WORK DATA - NEW ORLEANS

SMSA: NEW ORLEANS, LA.						PLACE OF RESIDENCE (000)							
						LIVING IN THE SMSA							
							URBANIZED AREA						
						SMSA TOTAL	U.A. TOTAL	CENTRAL CITY	URBANIZED RING	RURAL AND SCATTERED URBAN	LIVING OUTSIDE SMSA, WORKING IN IT	GRAND TOTAL	EMPLOYMENT DENSITY FOR GRAND TOTALS (PER SQ. MI.)
HOME-TO-WORK FLOWS	PLACE OF WORK (000)	SMSA	SMSA TOTAL			350	326	201	125	24	21	371	188
			U.A.	URBANIZED AREA TOTAL		336	320	198	122	16	18	354	1,924
				CENTRAL CITY	CENTRAL CITY TOTAL	237	226	176	50	11	9	246	2,861
					CBD	70	65	50	15	5	4	74	61,667
					OTHER	167	161	126	35	6	5	172	2,028
				URBANIZED RING		99	94	22	72	5	9	108	1,102
			RURAL & SCATTERED URBAN			14	6	3	3	8	3	17	10
		WORKING OUTSIDE SMSA, LIVING IN IT				12	10	4	6	2		12	
		GRAND TOTAL				362	336	205	131	26	21	383	
	WORKER DENSITY FOR GRAND TOTALS (PER SQ. MI.)					183	1,826	2,384	1,337	15			
	DISTRIBUTION OF WORK TRIPS BY MODE (%)	AUTO DRIVER; AUTO PASS.				70%	69%	59%	84%	85%	81%	70%	
		PUBLIC TRANSPORTATION				20	21	31	6	4	10	19	
		WALK; WORK AT HOME				7	7	7	5	8	0	6	
		TAXI; OTHER				3	3	3	5	3	9	5	

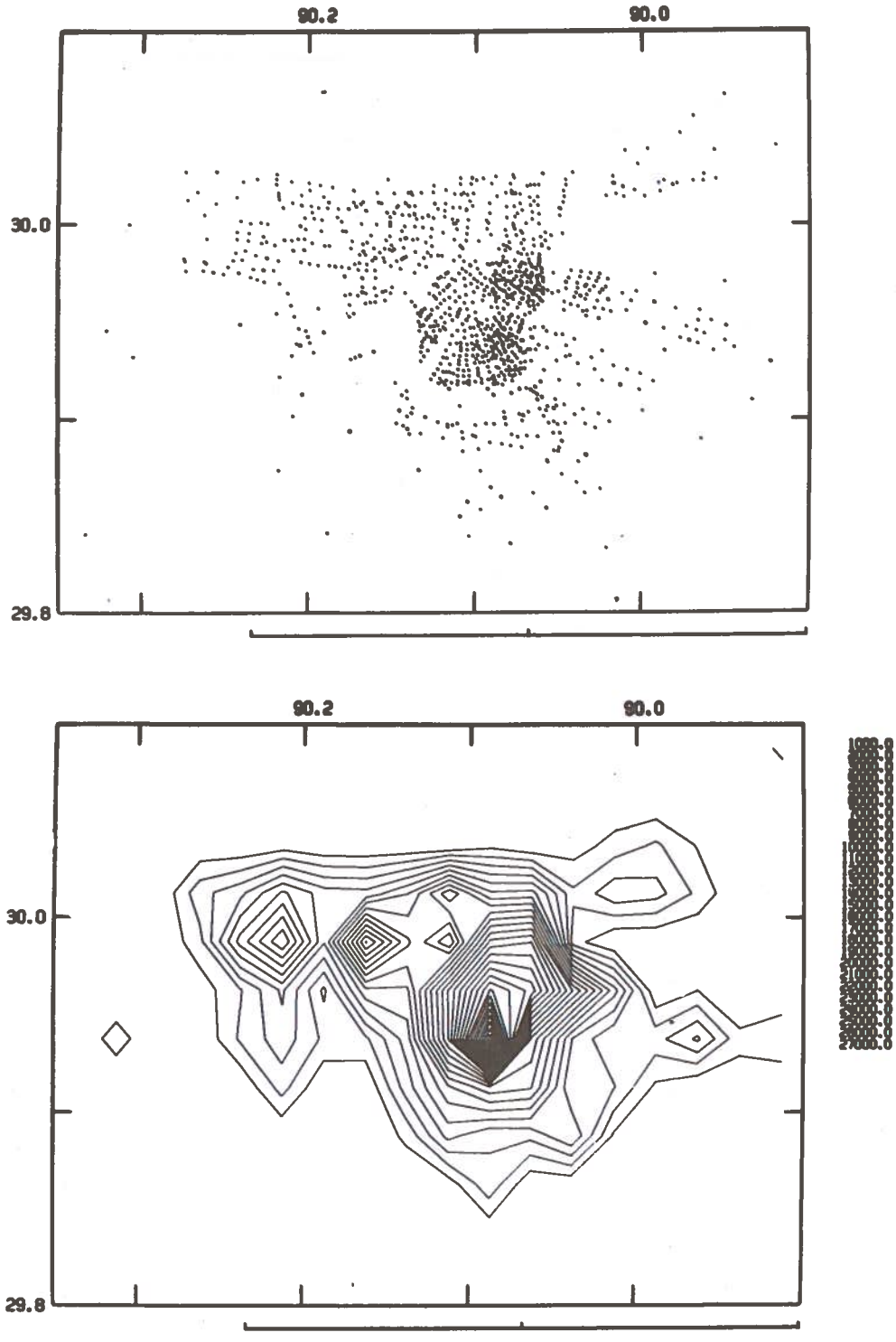
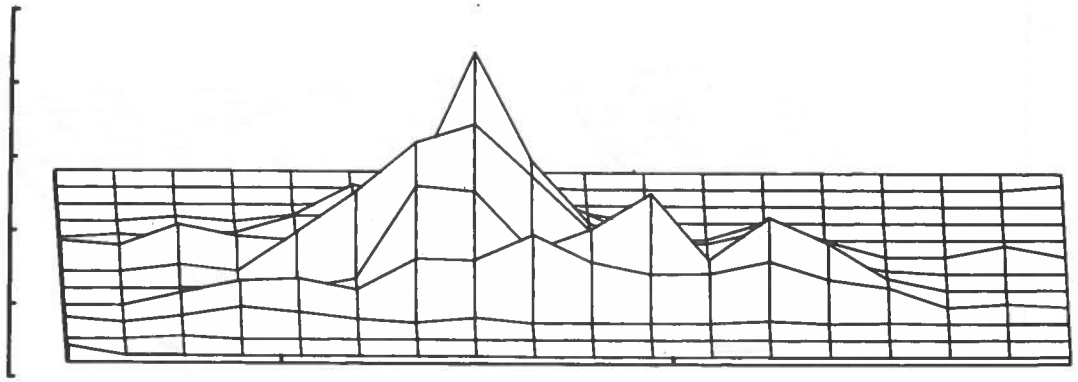
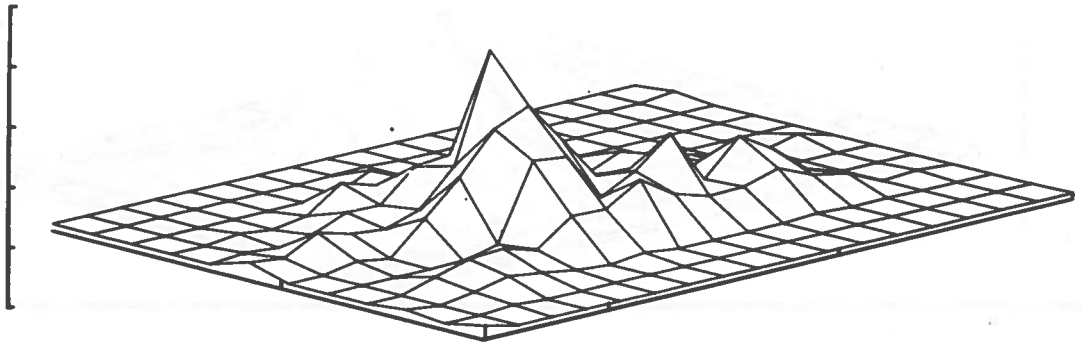


Figure 21-1. Population Density Plots - Dot and Contour Maps - New Orleans

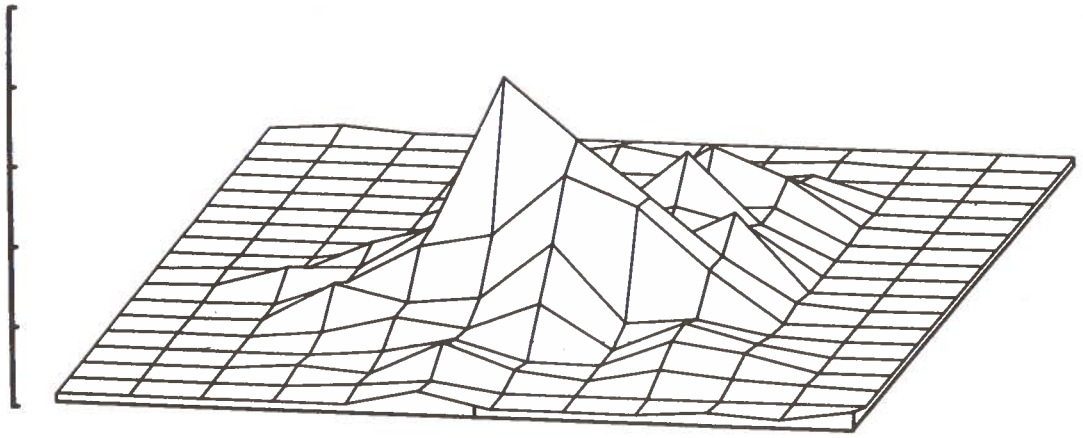


0.0 DEGREES

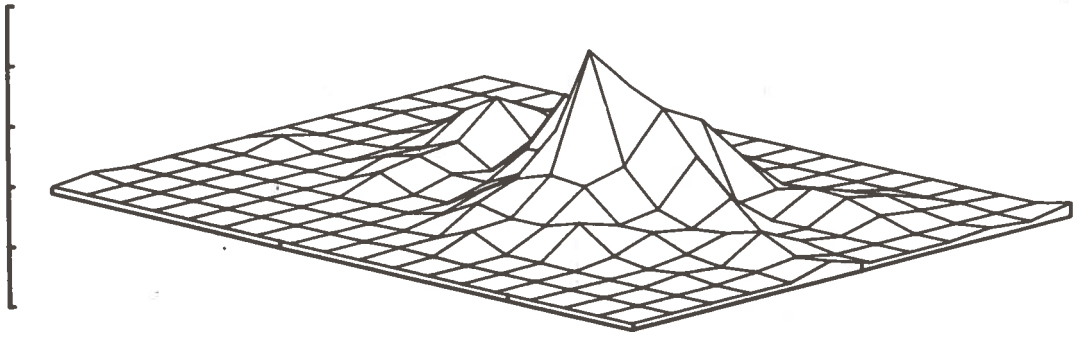


45.0 DEGREES

Figure 21-2. Population Density Plots - Isometric Views (0°, 45°) - New Orleans

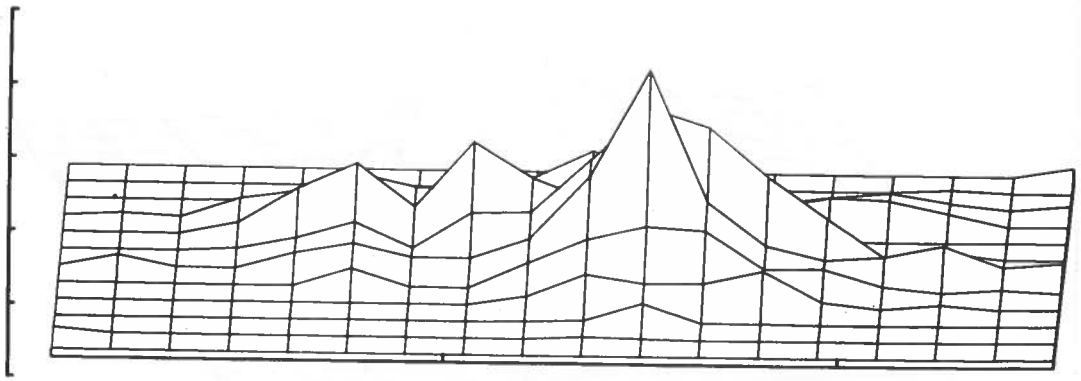


90.0 DEGREES

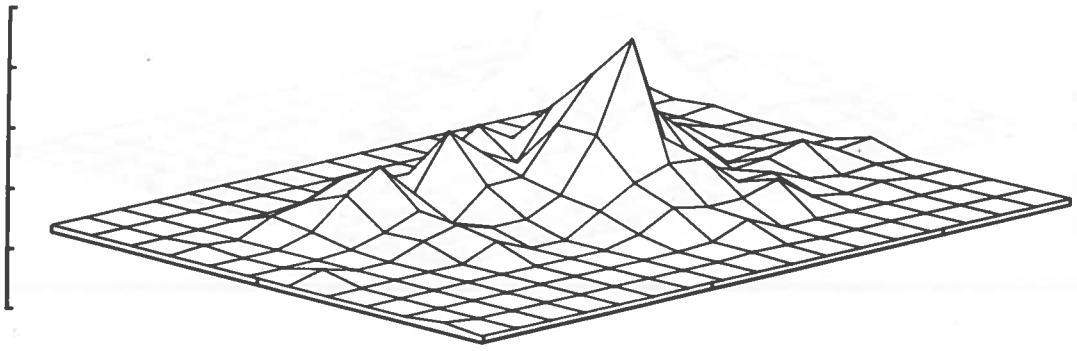


135.0 DEGREES

Figure 21-3. Population Density Plots - Isometric Views (90°, 135°) - New Orleans

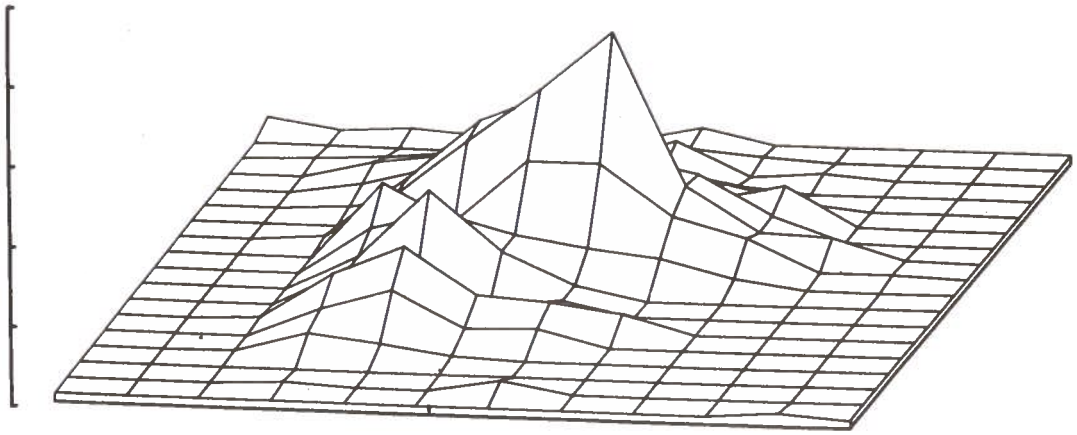


180.0 DEGREES

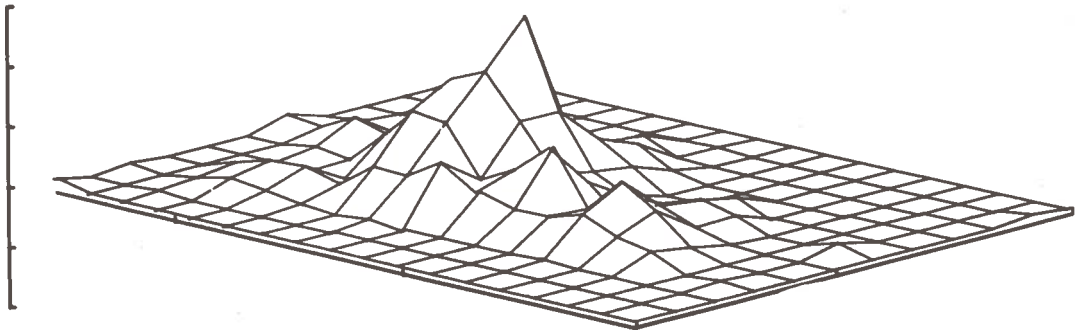


225.0 DEGREES

Figure 21-4. Population Density Plots - Isometric Views (180°, 225°) - New Orleans



270.0 DEGREES



315.0 DEGREES

Figure 21-5. Population Density Plots - Isometric Views (270°, 315°) - New Orleans

22. NEW YORK, NEW YORK*

*See Notes, Section 3.2.

TABLE 22-1. SOCIO-ECONOMIC DATA BY URBAN RING - NEW YORK

CITY TRACTS BY INNER & OUTER RADII / URBAN CHARACTERISTICS

CITY: NEW YORK, N.Y.
U.A. RANK: 1

	TOTAL POP.	LAND AREA (SQ. MI.)	POP. DENSITY
SMSA:	11,571,883	2,136	5,419
URBANIZED AREA:	16,206,841	2,425	6,683
CENTRAL CITY:	7,896,000	300	26,345
CBD:	190,909	4.023	47,448

0.0 MI. PIVOT POINT: LATITUDE: 40° 42' 30" LONGITUDE: 74° 0' 0"

URBAN CHARACTERISTICS	0.0 - 1.0 MI.	1.0 - 2.0 MI.	2.0 - 4.0 MI.	4.0 - 6.0 MI.	6.0 - 8.0 MI.	8.0 - 10.0 MI.	10.0 - 12.0 MI.	12.0 - 14.0 MI.	14.0 - 16.0 MI.	16.0 - 18.0 MI.	18.0 - 20.0 MI.
	0.0 - 1.0 MI.	1.0 - 2.0 MI.	2.0 - 4.0 MI.	4.0 - 6.0 MI.	6.0 - 8.0 MI.	8.0 - 10.0 MI.	10.0 - 12.0 MI.	12.0 - 14.0 MI.	14.0 - 16.0 MI.	16.0 - 18.0 MI.	18.0 - 20.0 MI.
Total Pop. (%)	97,506(100.0)	313,929(100.0)	1,031,839(100.0)	1,842,947(100.0)	1,693,198(100.0)	1,552,269(100.0)	1,737,195(100.0)	1,333,083(100.0)	948,607(100.0)	872,102(100.0)	706,327(100.0)
White Pop. (%)	62,546 (64.1)	251,099 (80.0)	714,155 (69.2)	1,467,298 (79.6)	1,409,331 (83.2)	1,167,896 (75.2)	1,263,287 (72.7)	1,112,418 (83.4)	873,408 (92.1)	777,871 (89.2)	666,615 (94.4)
Black Pop. (%)	7,673 (7.9)	51,966 (16.6)	302,534 (29.3)	353,038 (19.2)	258,446 (15.3)	363,875 (23.4)	452,914 (26.1)	210,452 (15.8)	69,296 (7.3)	89,532 (10.3)	36,076 (5.1)
Span. (% of white)	14,008 (14.4)	66,310 (21.1)	153,019 (14.8)	125,210 (6.8)	109,733 (6.5)	182,892 (11.8)	162,084 (9.3)	35,837 (2.7)	14,421 (1.5)	29,535 (3.4)	9,132 (1.3)
Other (%)	27,287 (28.0)	10,864 (3.5)	15,150 (1.5)	22,611 (1.2)	25,421 (1.5)	20,498 (1.3)	20,994 (1.2)	10,213 (.8)	5,903 (.6)	4,699 (.5)	3,636 (.5)
Total Male Pop.	50,799	155,978	485,745	850,457	794,475	735,107	810,213	626,700	453,056	415,628	338,242
Median Male Age	33.1	28.9	29.6	31.9	32.1	29.4	29.2	33.3	32.4	30.5	30.5
Total Female Pop.	46,707	157,951	546,094	992,490	898,723	817,162	926,982	706,383	495,551	456,474	368,085
Median Female Age	35.4	30.8	31.6	35.2	36.0	33.0	32.5	37.5	35.8	33.8	33.7
% of Total Pop. 65+	13.1	10.2	10.4	13.1	12.3	10.9	11.4	13.1	10.8	10.1	9.9
Mean Family Inc.	$9,832	$10,090	$10,380	$12,316	$11,926	$10,833	$11,111	$13,020	$15,153	$15,213	$16,890
Median Family Inc.	$7,731	$7,757	$7,994	$9,638	$10,363	$9,478	$9,737	$11,580	$12,957	$12,847	$13,870
No. of Households	31,483	114,140	346,368	596,693	499,291	457,308	516,588	387,894	258,259	238,618	194,745
No. of Families	22,999	73,266	247,253	478,760	456,130	407,415	456,610	365,296	255,089	227,609	182,652
Average H.H. Size	2.9	2.6	2.9	3.1	3.4	3.3	3.3	3.4	3.6	3.6	3.6
Average Fam. Size	3.3	3.3	3.4	3.3	3.3	3.4	3.4	3.3	3.5	3.5	3.6
Total No. of Renters	31,376	113,808	339,005	564,598	431,646	387,636	411,341	262,271	114,281	110,016	65,887
Avg. Rent Paid	$89	$101	$109	$121	$114	$107	$106	$117	$126	$118	$138
Median Rent Paid	$73	$77	$80	$94	$103	$93	$95	$111	$122	$113	$135
% of Total Pop. Renting	99.7	99.7	97.9	94.6	86.5	84.8	79.6	67.6	44.3	46.1	33.8
Total No. of Home Owners	107	332	7363	32,095	67,645	69,672	105,247	125,623	143,978	128,602	128,858
Avg. Value of House	$57,593	$36,833	$18,513	$25,633	$27,845	$28,081	$27,919	$28,291	$32,081	$34,597	$34,384
Median Value of House	$50,000	$32,090	$15,999	$23,400	$25,938	$25,505	$25,574	$25,484	$29,234	$31,628	$31,356
% of Total Pop. Own Home	.3	.3	2.1	5.4	13.5	15.2	20.4	32.4	55.7	53.9	66.2
No. Own 0 Auto. (%)	28,808 (78.9)	97,880 (78.9)	282,617 (72.3)	422,013 (60.6)	300,070 (49.8)	275,947 (51.9)	269,011 (46.0)	140,833 (30.8)	51,980 (17.5)	52,170 (19.4)	25,815 (12.1)
No. Own 1 Auto. (%)	7,322 (20.1)	24,665 (19.9)	98,313 (25.1)	241,825 (34.7)	253,761 (42.1)	203,658 (38.3)	235,401 (40.3)	220,069 (48.2)	142,439 (47.9)	116,814 (43.5)	94,698 (44.3)
No. Own 2 Autos. (%)	334 (.9)	1,303 (1.1)	8,884 (2.3)	29,622 (4.3)	44,523 (7.4)	46,014) (8.7)	69,714 (11.9)	82,994 (18.2)	86,898 (29.2)	82,614 (30.8)	78,381 (36.7)
No. Own 3*Autos. (%)	45 (.1)	191 (.2)	1,197 (.3)	3,489 (.5)	4,668 (.8)	6,245 (1.2)	10,438 (1.8)	12,991 (2.8)	16,050 (5.4)	16,994 (6.3)	14,829 (6.9)

TABLE 22-2. JOURNEY-TO-WORK DATA - NEW YORK

SMSA: NEW YORK, N.Y. (CONSOL. AREA)

						PLACE OF RESIDENCE (000)							
						LIVING IN THE SMSA							
							URBANIZED AREA						
						SMSA TOTAL	U.A. TOTAL	CENTRAL CITY	URBANIZED RING	RURAL AND SCATTERED URBAN	LIVING OUTSIDE SMSA, WORKING IN IT	GRAND TOTAL	EMPLOYMENT DENSITY FOR GRAND TOTALS (PER SQ. MI.)
HOME-TO-WORK FLOWS	PLACE OF WORK (000)	SMSA		SMSA TOTAL		6311	5894	3434	2460	417	109	6420	1,634
			U.A.	URBANIZED AREA TOTAL		6052	5769	3414	2355	283	97	6149	2,782
				CENTRAL CITY	CENTRAL CITY TOTAL	3853	3730	3160	570	123	77	3930	10,856
					CBD	871	850	750	100	21	50	921	230,250
					OTHER	2982	2880	2410	470	102	27	3009	8,405
				URBANIZED RING		2199	2039	254	1785	160	20	2219	1,200
			RURAL & SCATTERED URBAN			259	125	20	105	134	12	271	158
		WORKING OUTSIDE SMSA, LIVING IN IT				61	40	20	20	21		61	
		GRAND TOTAL				6372	5934	3454	2480	438	109	6481	
	WORKER DENSITY FOR GRAND TOTALS (PER SQ. MI.)					1,621	2,685	9,541	1,342	255			
	DISTRIBUTION OF WORK TRIPS BY MODE (%)	AUTO DRIVER; AUTO PASS.				50%	50%	29%	79%	50%	39%	50%	
		PUBLIC TRANSPORTATION				38	38	58	11	38	35	38	
		WALK; WORK AT HOME				10	10	11	8	10	1	10	
		TAXI; OTHER				2	2	2	2	2	25	2	

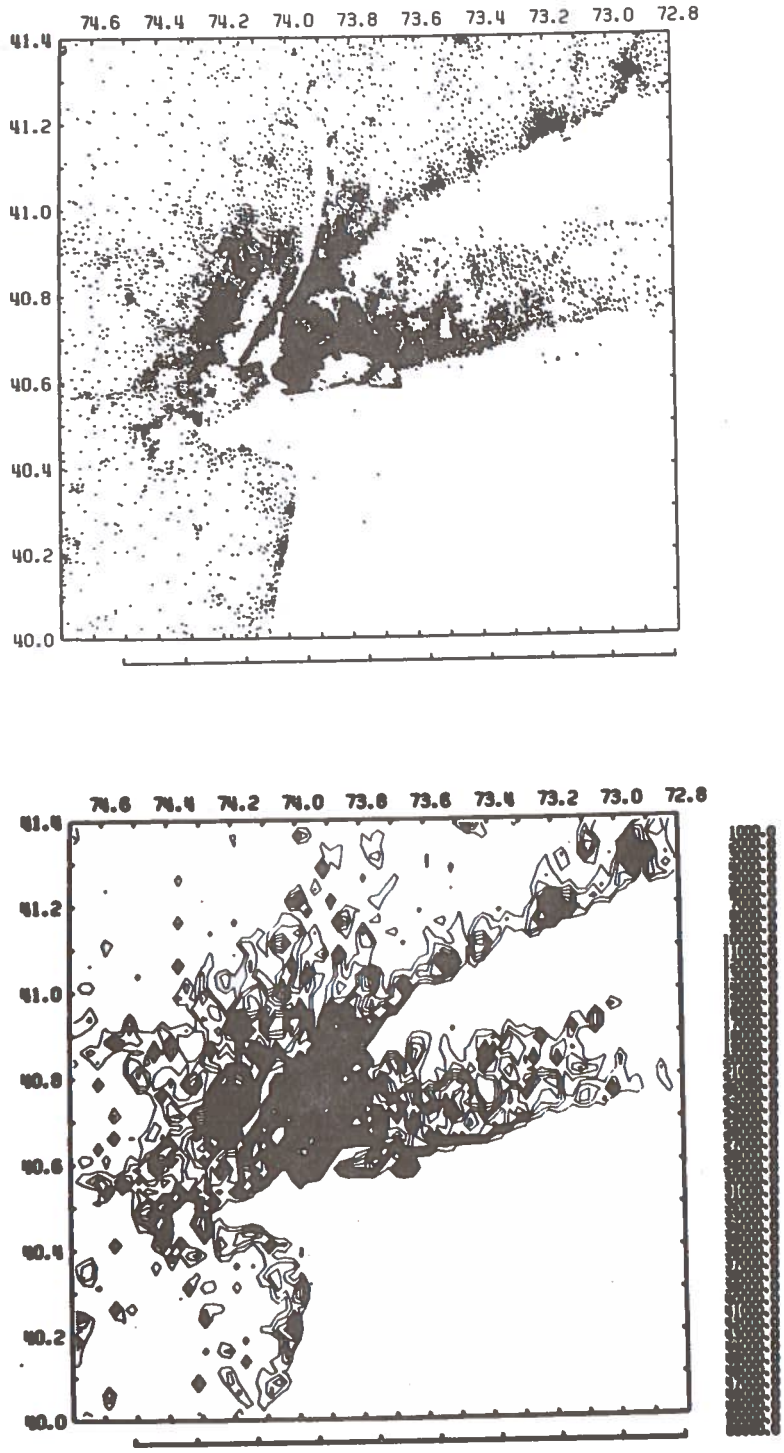
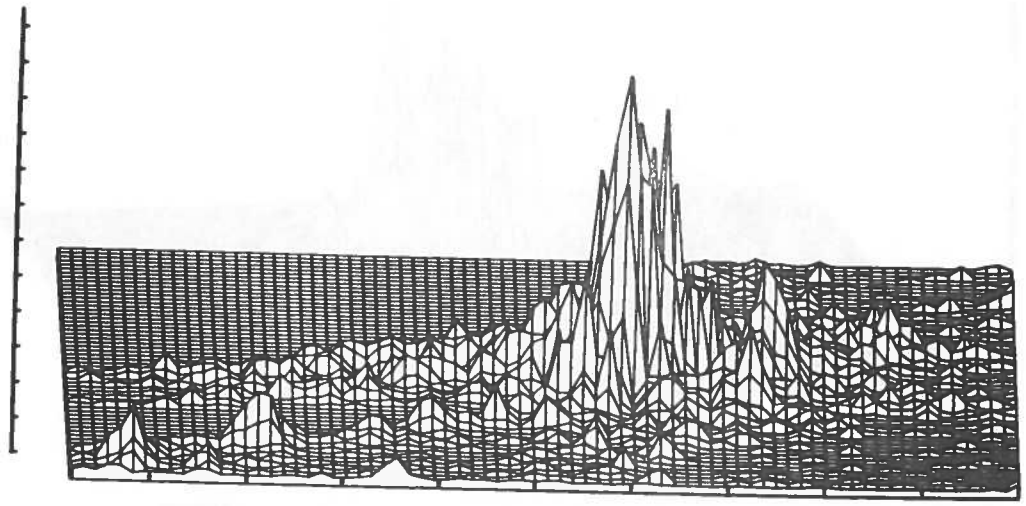
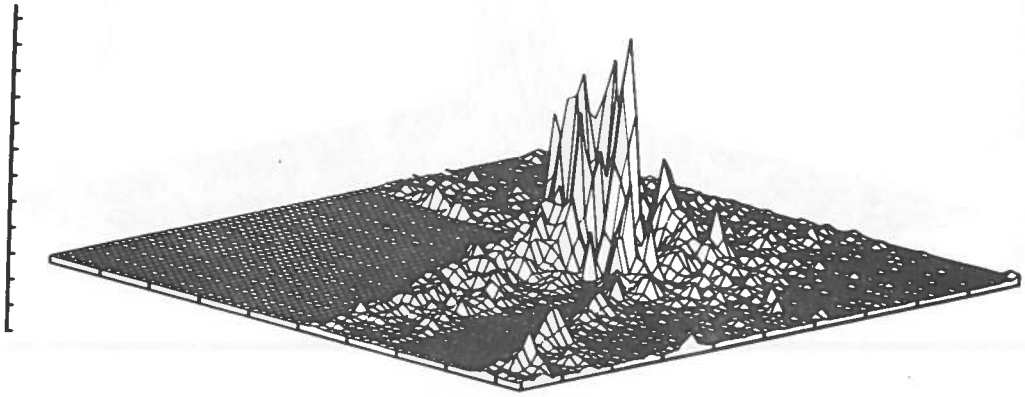


Figure 22-1. Population Density Plots - Dot and Contour Maps - New York

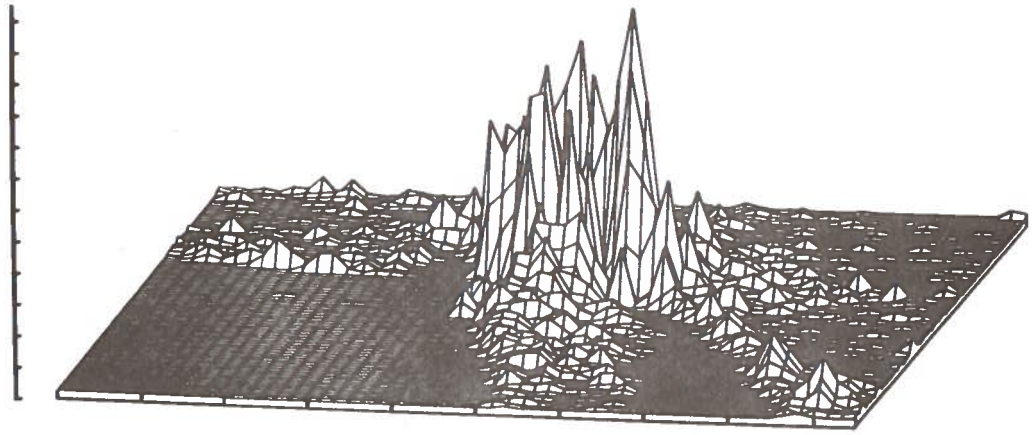


0.0 DEGREES

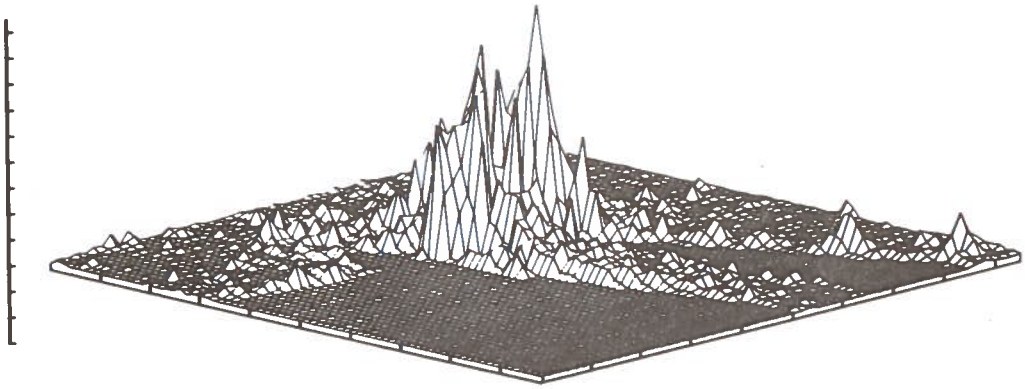


45.0 DEGREES

Figure 22-2. Population Density Plots - Isometric Views (0°, 45°) - New York

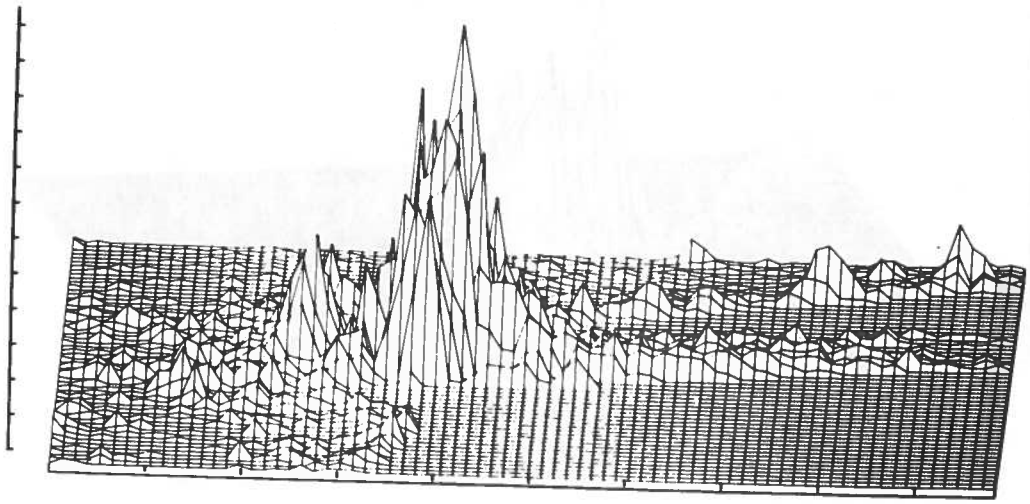


90.0 DEGREES

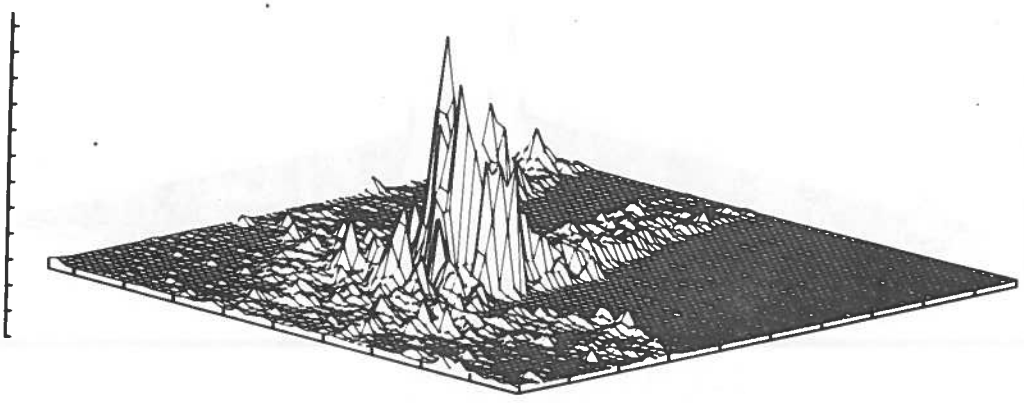


135.0 DEGREES

Figure 22-3. Population Density Plots - Isometric Views (90°, 135°) - New York

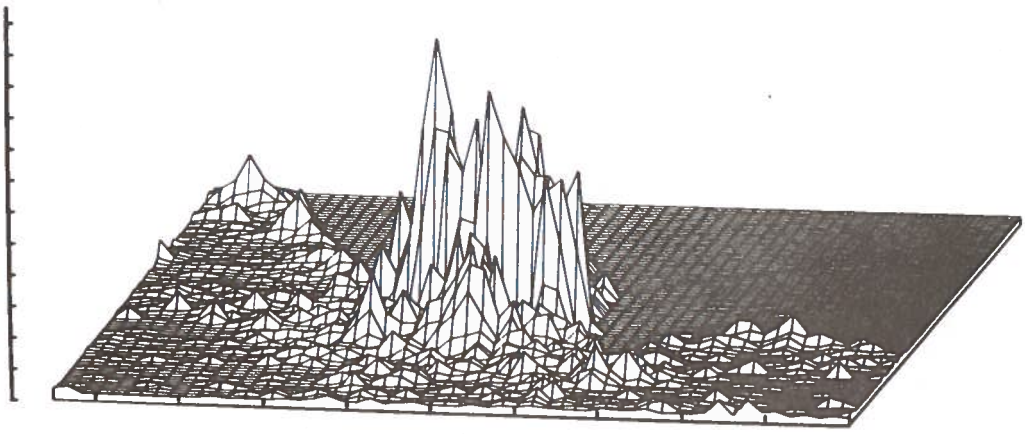


180.0 DEGREES

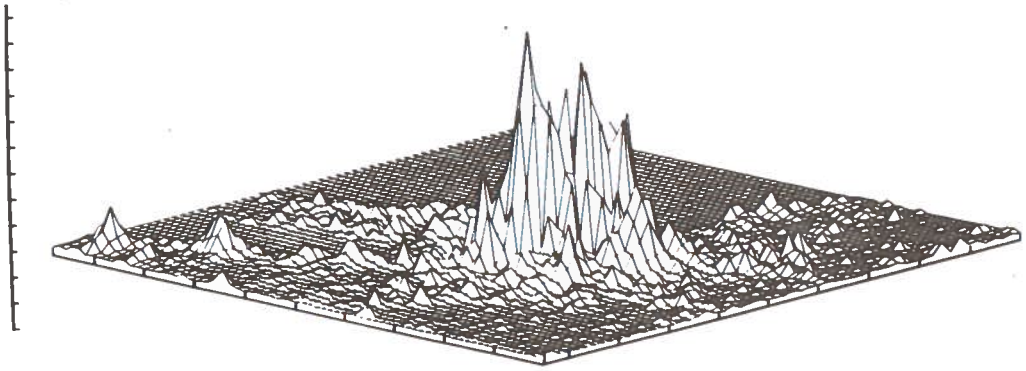


225.0 DEGREES

Figure 22-4. Population Density Plots - Isometric Views (180°, 225°) - New York



270.0 DEGREES



315.0 DEGREES

Figure 22-5. Population Density Plots - Isometric Views (270°, 315°) - New York

23. PHILADELPHIA, PENNSYLVANIA

TABLE 23-1. SOCIO-ECONOMIC DATA BY URBAN RING - PHILADELPHIA

CITY TRACTS BY INNER & OUTER RADII / URBAN CHARACTERISTICS	0.0 - 1.0 MI.	1.0 - 2.0 MI.	2.0 - 4.0 MI.	4.0 - 6.0 MI.	6.0 - 8.0 MI.	8.0 - 10.0 MI.	10.0 - 12.0 MI.	12.0 - 14.0 MI.	14.0 - 16.0 MI.	16.0 - 18.0 MI.	18.0 - 20.0 MI.
CITY: PHILADELPHIA, PA H. A. RANK: 4				SMSA: 4,822,000 / 3,553 / 1,357 URBANIZED AREA: 4,021,066 / 752 / 5,349 CENTRAL CITY: 1,950,000 / 128 / 15,234 CBD: 43,465 / 2.54 / 17,140				0.0 MI. PIVOT POINT:		LATITUDE: 39° 57' 0" LONGITUDE: 75° 9' 48"	
Total Pop. (#)	73,565(100.0)	206,400(100.0)	675,337(100.0)	580,711(100.0)	626,731(100.0)	534,245(100.0)	336,413(100.0)	300,850(100.0)	315,671(100.0)	201,601(100.0)	186,239(100.0)
White Pop. (#)	51,353 (69.8)	105,465 (51.1)	321,168 (47.6)	447,219 (77.0)	532,208 (84.9)	500,912 (93.8)	322,175 (95.8)	279,823 (93.0)	292,598 (92.7)	192,726 (95.6)	174,348 (93.6)
Black Pop. (#)	20,715 (28.2)	99,332 (48.1)	349,278 (51.7)	130,320 (22.4)	91,290 (14.6)	31,227 (5.8)	12,753 (3.8)	19,896 (6.6)	21,524 (6.8)	8,029 (4.0)	11,102 (6.0)
Span. (# of white)	667 (0.9)	6,431 (3.1)	21,509 (3.2)	3,099 (0.5)	391 (0.1)	386 (0.1)	410 (0.1)	42 (0.0)	541 (0.2)	337 (0.2)	1,239 (0.7)
Other (#)	1,497 (2.0)	1,603 (0.8)	4,891 (0.7)	3,172 (0.5)	8,233 (0.5)	2,106 (0.4)	1,485 (0.4)	1,131 (0.4)	1,549 (0.5)	846 (0.4)	789 (0.7)
Total Male Pop.	34,988	96,819	317,918	270,835	294,905	253,907	164,142	146,426	154,982	98,336	91,967
Median Male Age	38.2	28.8	25.8	30.9	29.9	30.4	28.6	26.9	25.9	25.9	25.7
Total Female Pop.	38,577	109,581	357,419	309,876	331,826	280,338	172,271	154,424	160,689	103,265	94,272
Median Female Age	39.6	31.7	29.2	36.5	34.8	34.3	31.4	28.3	27.5	27.1	27.4
% of Total Pop.-65+	17.5	11.9	9.8	13.5	11.3	10.6	8.7	7.4	6.7	6.7	6.5
Mean Family Inc.	$13,704	$8,312	$8,512	$11,082	$12,770	$14,247	$15,403	$13,679	$13,371	$13,130	$12,899
Median Family Inc.	$9,336	$7,127	$7,733	$9,918	$11,371	$12,318	$13,140	$12,384	$12,218	$12,127	$11,978
No. of Households	33,016	63,233	197,705	183,044	191,326	158,656	92,737	83,179	82,969	52,163	49,147
No. of Families	14,536	47,372	157,292	148,671	164,128	140,899	85,226	76,420	76,863	49,419	46,724
Average H.H. Size	2.1	3.2	3.4	3.1	3.2	3.3	3.5	3.6	3.7	3.8	3.7
Average Fam. Size	2.9	3.6	3.7	3.5	3.5	3.5	3.6	3.7	3.8	3.8	3.7
Total No. of Renters	28,313	37,044	94,421	66,536	55,139	44,054	23,754	22,814	20,913	14,080	13,667
Avg. Rent Paid	$122	$70	$70	$100	$106	$126	$123	$117	$113	$118	$114
Median Rent Paid	$99	$54	$55	$80	$96	$119	$120	$117	$112	$115	$114
% of Total Pop. Renting	85.8	58.6	47.8	36.3	28.8	27.8	25.6	27.4	25.2	27.0	27.8
Total No. of Home Owners	4,703	26,189	103,284	116,508	136,187	114,602	68,983	60,365	62,056	38,083	35,480
Avg. Value of House	$18,553	$8,353	$8,269	$12,283	$16,527	$20,532	$25,017	$22,416	$22,121	$21,894	$22,732
Median Value of House	$10,762	$6,678	$6,425	$10,929	$13,925	$17,473	$21,629	$19,380	$19,069	$19,447	$20,757
% of Total Pop. Own Home	14.2	41.4	52.2	63.7	71.2	72.2	74.4	72.6	74.8	73.0	72.2
No. Own 0 Auto. (#)	23,087 (63.3)	40,179 (59.4)	106,860 (50.7)	62,103 (31.7)	41,758 (20.6)	20,786 (12.5)	9,070 (7.3)	7,929 (9.1)	7,115 (8.1)	4,130 (7.4)	3,860 (7.3)
No. Own 1 Auto. (#)	11,789 (32.3)	23,057 (34.1)	85,911 (40.7)	97,446 (49.7)	105,300 (51.8)	83,179 (49.1)	43,114 (44.0)	40,429 (46.2)	38,987 (44.5)	24,360 (43.5)	22,539 (42.5)
No. Own 2 Autos. (#)	1,357 (3.7)	3,841 (5.7)	16,019 (7.6)	31,733 (16.2)	48,038 (23.7)	53,044 (31.8)	38,294 (39.1)	33,243 (38.0)	35,201 (40.1)	23,086 (41.2)	22,224 (41.9)
No. Own 3+Autos. (#)	261 (0.7)	519 (0.8)	2,111 (1.0)	4,673 (2.4)	8,008 (3.9)	9,675 (5.8)	7,514 (7.7)	5,911 (6.8)	6,388 (7.3)	4,477 (8.0)	4,405 (8.3)

TABLE 23-2. JOURNEY-TO-WORK DATA - PHILADELPHIA

SMSA: PHILADELPHIA, PA.

						PLACE OF RESIDENCE (000)							
						LIVING IN THE SMSA							
							URBANIZED AREA						
						SMSA TOTAL	U.A. TOTAL	CENTRAL CITY	URBANIZED RING	RURAL AND SCATTERED URBAN	LIVING OUTSIDE SMSA, WORKING IN IT	GRAND TOTAL	EMPLOYMENT DENSITY FOR GRAND TOTALS (PER SQ. MI.)
HOME-TO-WORK FLOWS	PLACE OF WORK (000)	SMSA		SMSA TOTAL		1766	1471	729	742	295	48	1814	511
			U.A.	URBANIZED AREA TOTAL		1635	1439	718	721	196	39	1674	2,226
				CENTRAL CITY	CENTRAL CITY TOTAL	870	825	644	181	45	12	882	6,891
					CBD	124	116	79	37	8	4	128	50,394
					OTHER	746	709	565	144	37	8	754	6,010
				URBANIZED RING		765	614	74	540	151	27	792	1,269
			RURAL & SCATTERED URBAN			131	32	11	21	99	9	140	50
		WORKING OUTSIDE SMSA, LIVING IN IT				83	57	8	49	26		83	
		GRAND TOTAL				1849	1528	737	791	321	48	1897	
	WORKER DENSITY FOR GRAND TOTALS (PER SQ. MI.)					520	2,032	5,758	1,268	115			
	DISTRIBUTION OF WORK TRIPS BY MODE (%)	AUTO DRIVER; AUTO PASS.				68%	65%	51%	78%	80%	85%	68%	
		PUBLIC TRANSPORTATION				19	22	36	10	3	4	19	
		WALK; WORK AT HOME				10	10	11	8	14	2	10	
		TAXI; OTHER				3	3	2	4	3	9	3	

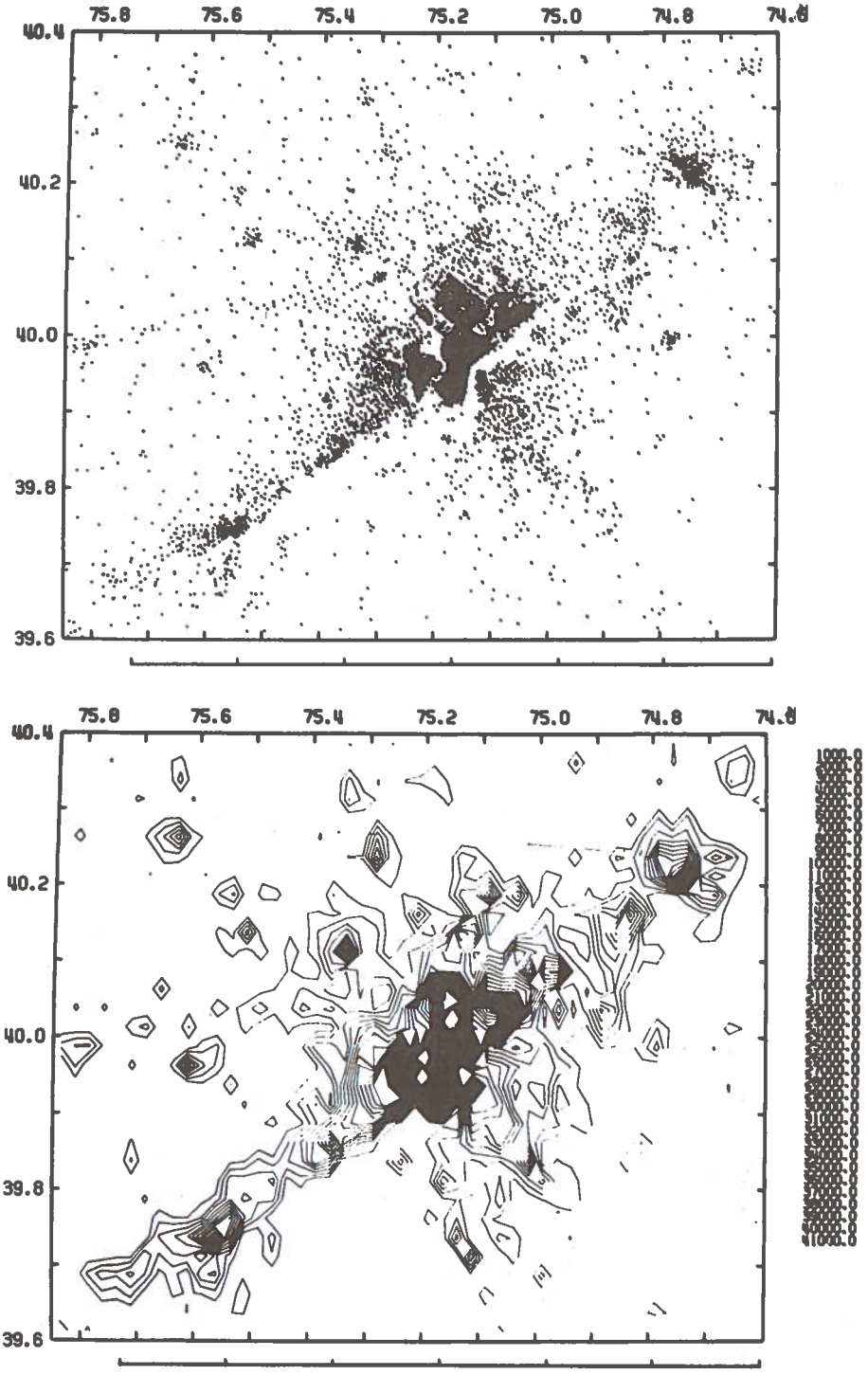
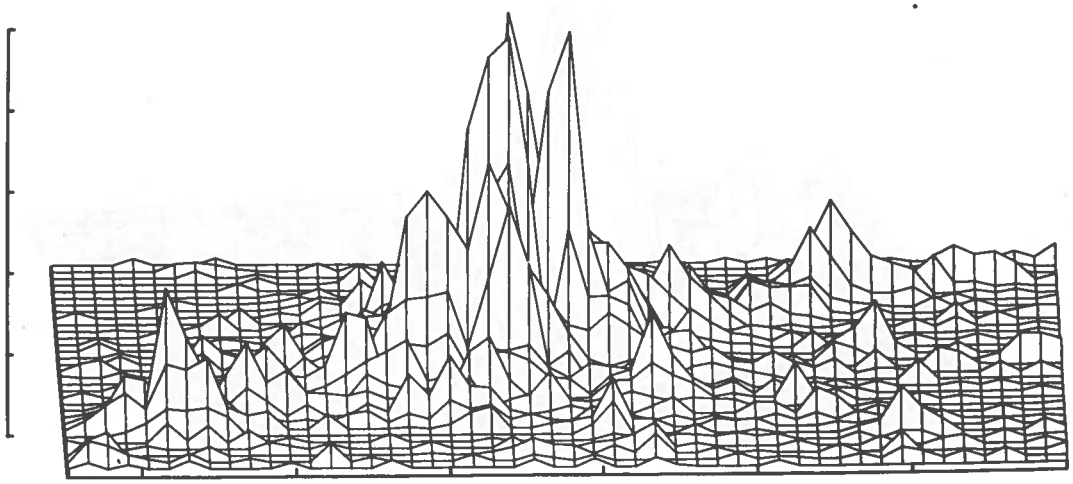
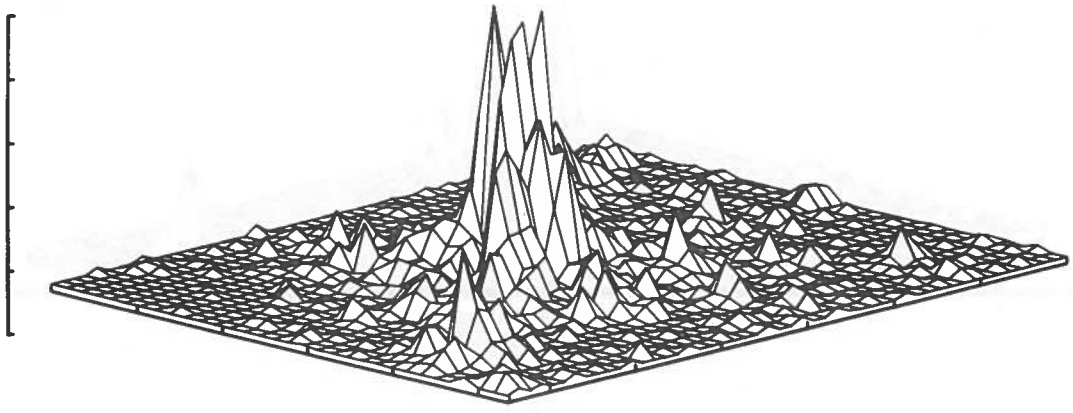


Figure 23-1. Population Density Plots - Dot and Contour Maps - Philadelphia

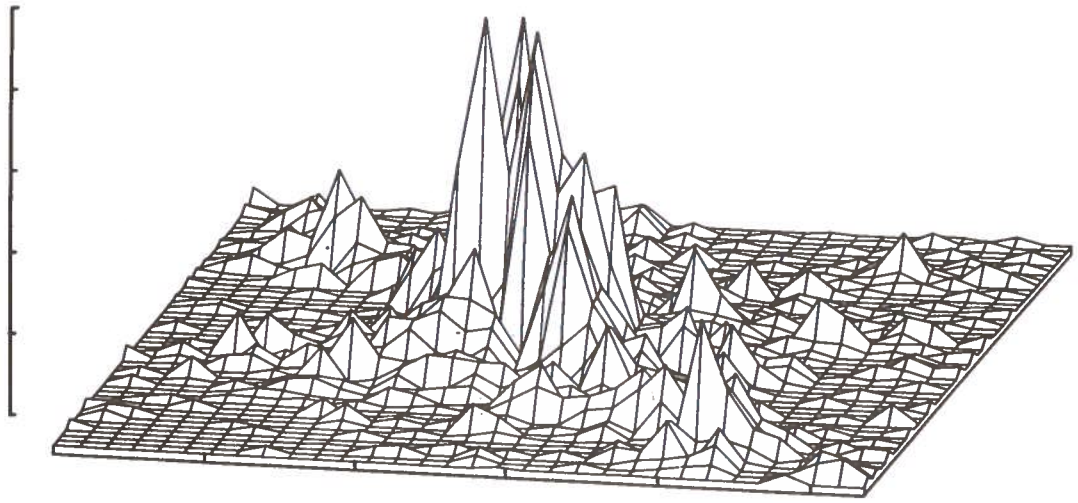


0.0 DEGREES

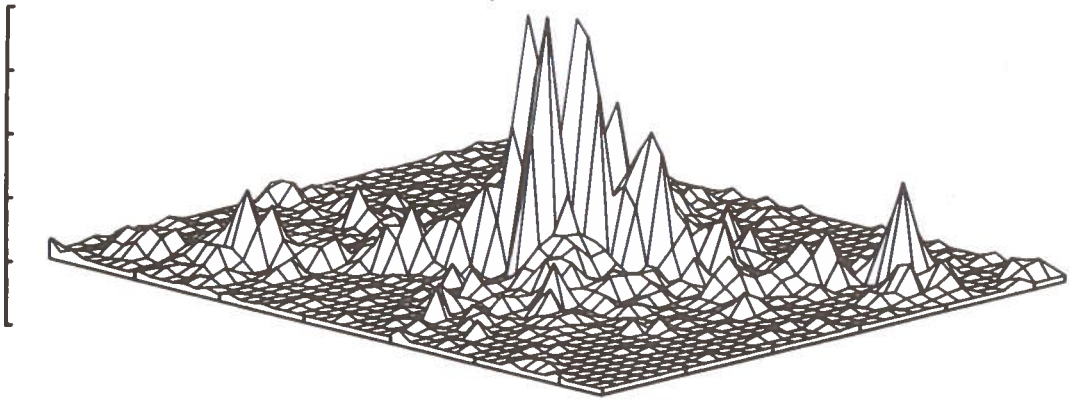


45.0 DEGREES

Figure 23-2. Population Density Plots - Isometric Views (0°, 45°) - Philadelphia

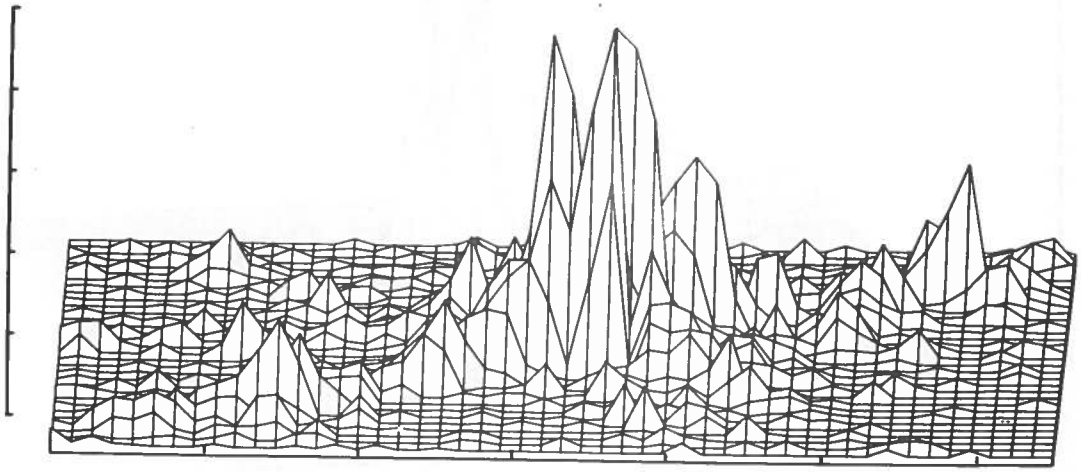


90.0 DEGREES

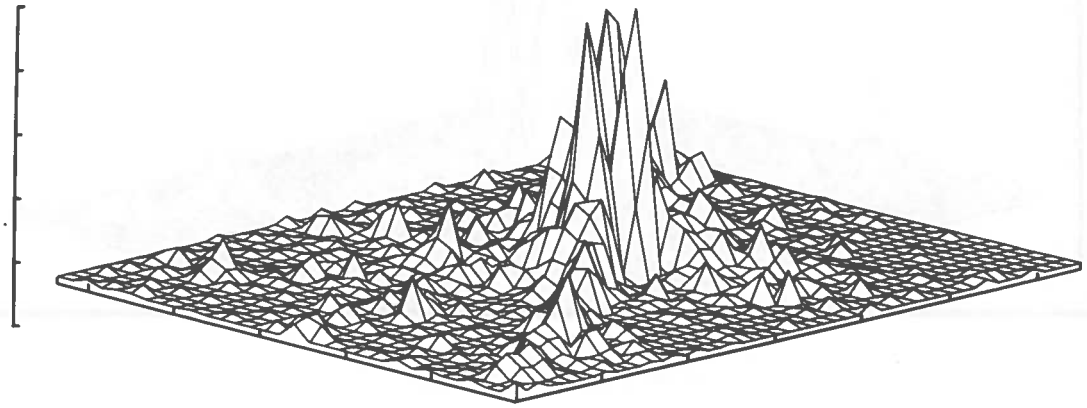


135.0 DEGREES

Figure 23-3. Population Density Plots - Isometric Views (90°, 135°) - Philadelphia

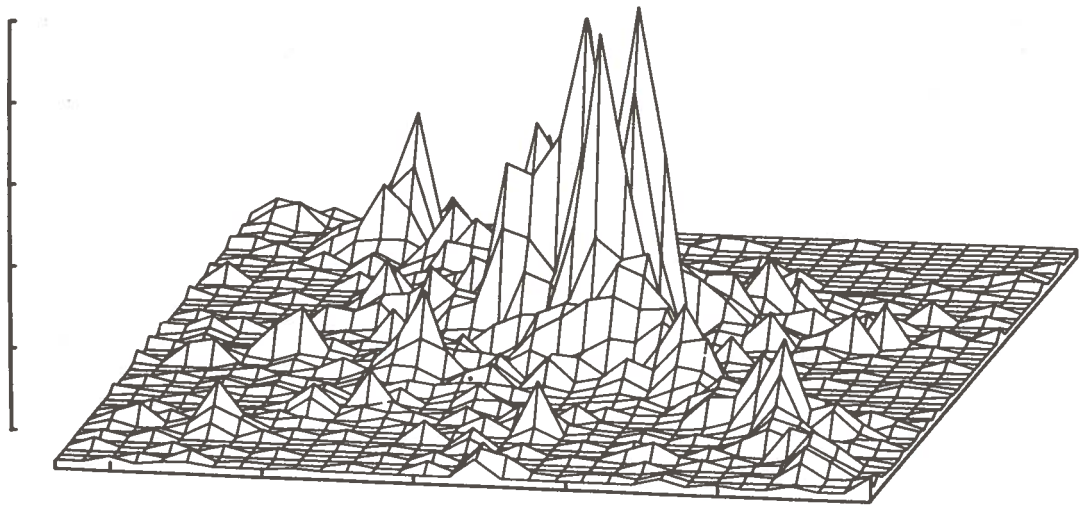


180.0 DEGREES

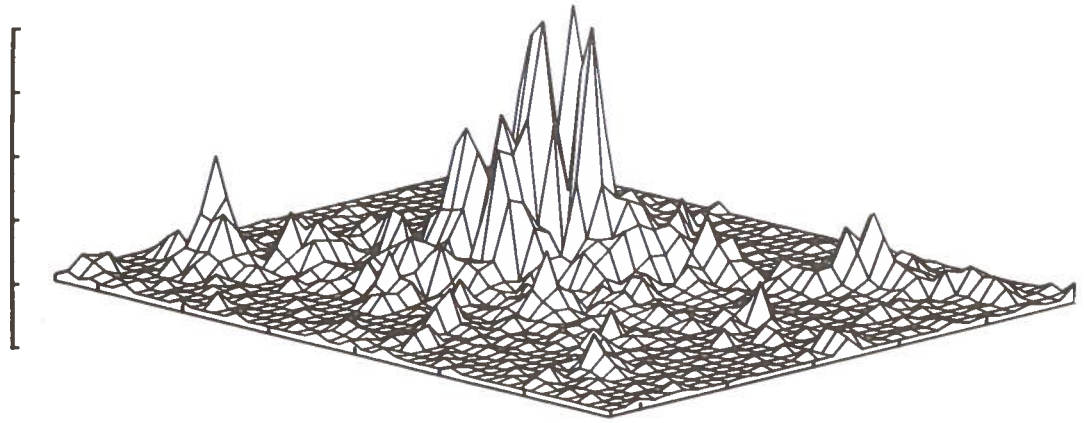


225.0 DEGREES

Figure 23-4. Population Density Plots - Isometric Views (180°, 225°) - Philadelphia



270.0 DEGREES



315.0 DEGREES

Figure 23-5. Population Density Plots - Isometric Views (270°, 315°) - Philadelphia

24. PHOENIX, ARIZONA

TABLE 24-1. SOCIO-ECONOMIC DATA BY URBAN RING - PHOENIX

CITY TRACTS BY INNER & OUTER RADII / URBAN CHARACTERISTICS	CITY: PHOENIX, ARIZONA U.S. RANK: 37	SMSA: URBANIZED AREA: CENTRAL CITY: CBD:	TOTAL POP. 968,000 863,357 582,000 4,325	LAND AREA (SQ. MI) 9,238 388 248 1.033	POP. DENSITY 105 2,228 2,346 4,187	0.0 MI. PIVOT POINT:	LATITUDE: 33° 27' 18" LONGITUDE: 112° 4' 24"			
	0.0 - 1.0 MI.	1.0 - 2.0 MI.	2.0 - 4.0 MI.	4.0 - 6.0 MI.	6.0 - 8.0 MI.	8.0 - 10.0 MI.	10.0 - 12.0 MI.	12.0 - 14.0 MI.	14.0 - 16.0 MI.	16.0 - 18.0 MI.	18.0 - 20.0 MI.
Total Pop. (%)	13,661(100.0)	52,701(100.0)	137,439(100.0)	175,941(100.0)	158,521(100.0)	152,917(100.0)	76,020(100.0)	40,775(100.0)	53,432(100.0)	43,447(100.0)	14,576(100.0)
White Pop. (%)	12,892 (94.4)	45,133 (85.6)	125,107 (91.0)	162,138 (92.2)	154,395 (97.4)	150,308 (98.3)	74,748 (98.3)	40,302 (98.8)	51,662 (96.7)	41,426 (95.3)	13,535 (92.9)
Black Pop. (%)	174 (1.3)	5,996 (11.4)	8,771 (6.4)	11,640 (6.6)	988 (0.6)	531 (0.3)	73 (0.1)	30 (0.1)	1,421 (2.7)	1,305 (3.0)	84 (0.6)
Span. (% of white)	1,989 (14.6)	17,627 (33.4)	26,653 (19.4)	22,073 (12.5)	15,706 (9.9)	15,852 (10.4)	8,119 (10.7)	7,218 (17.7)	8,211 (15.4)	8,789 (20.2)	2,035 (14.0)
Other (%)	595 (4.4)	1,572 (3.0)	3,561 (2.6)	2,163 (1.2)	3,138 (2.0)	2,078 (1.4)	1,199 (1.6)	443 (1.1)	349 (0.7)	716 (1.6)	957 (6.6)
Total Male Pop.	7,088	24,666	65,713	84,644	77,354	75,344	37,767	20,134	25,287	22,258	7,247
Median Male Age	36.5	27.9	27.5	26.6	24.5	24.2	22.5	23.6	30.7	24.7	30.2
Total Female Pop.	6,573	28,035	71,726	91,297	81,167	77,573	38,253	20,641	28,145	21,189	7,329
Median Female Age	38.9	31.4	29.8	28.8	26.5	25.4	24.0	24.9	33.7	26.8	30.0
% of Total Pop. 65+	19.2	15.5	10.6	7.9	6.0	6.1	5.0	6.9	19.3	10.4	11.0
Mean Family Inc.	$8,192	$8,055	$9,685	$11,856	$13,734	$12,295	$12,733	$11,202	$10,148	$9,408	$9,467
Median Family Inc.*	$6,936	$6,628	$8,544	$10,581	$11,764	$10,879	$12,035	$9,898	$8,721	$8,388	$8,584
No. of Households	6,039	17,968	43,238	50,205	41,522	41,037	18,492	8,934	15,887	10,544	2,194
No. of Families	2,760	12,720	35,038	45,674	39,109	37,716	18,649	10,112	15,027	10,933	3,828
Average H.H. Size	2.1	2.9	3.1	3.5	3.8	3.6	4.1	4.5	3.4	3.9	6.6
Average Fam. Size	3.1	3.4	3.4	3.6	3.8	3.6	3.9	3.8	3.3	3.6	3.6
Total No. of Renters	4,996	11,117	22,717	16,797	10,323	13,992	2,830	2,457	5,079	4,478	560
Avg. Rent Paid	$85	$71	$100	$127	$125	$116	$119	$92	$103	$77	$67
Median Rent Paid	$74	$61	$94	$129	$124	$116	$118	$90	$93	$81	$64
% of Total Pop. Renting	82.7	61.9	52.5	33.5	24.9	34.1	15.3	27.5	32.0	42.5	25.5
Total No. of Home Owners	1,043	6,851	20,521	33,408	31,199	27,045	15,662	6,477	10,808	6,066	1,634
Avg. Value of House	$14,334	$13,794	$14,079	$18,594	$23,350	$22,396	$23,795	$20,887	$20,127	$18,312	$18,323
Median Value of House	$12,728	$12,078	$12,987	$16,423	$19,261	$19,378	$22,023	$17,774	$18,980	$16,483	$17,384
% of Total Pop. Own Home	17.3	38.1	47.5	66.5	75.1	65.9	84.7	72.5	68.0	57.5	74.5
No. Own 0 Auto. (%)	2,034 (32.2)	5,476 (28.4)	6,297 (33.1)	2,956 (5.4)	2,004 (4.4)	2,442 (5.4)	563 (2.8)	592 (5.1)	1,595 (8.7)	984 (7.7)	267 (6.0)
No. Own 1 Auto. (%)	3,214 (50.9)	9,437 (49.0)	24,368 (50.8)	24,716 (45.1)	17,233 (38.1)	19,360 (43.1)	7,669 (38.2)	5,334 (46.0)	10,422 (57.0)	6,668 (52.5)	2,471 (55.7)
No. Own 2 Autos. (%)	883 (14.0)	3,749 (19.4)	14,213 (29.7)	21,753 (39.7)	20,308 (44.8)	18,617 (41.4)	9,331 (46.5)	4,311 (37.2)	5,105 (27.9)	4,180 (32.9)	1,371 (30.9)
No. Own 3+Autos. (%)	186 (2.9)	614 (3.2)	3,049 (6.4)	5,426 (9.9)	5,739 (12.7)	4,500 (10.0)	2,520 (12.5)	1,347 (11.6)	1,162 (6.4)	867 (6.8)	330 (7.4)

TABLE 24-2. JOURNEY-TO-WORK DATA - PHOENIX

SMSA: PHOENIX, ARIZONA						PLACE OF RESIDENCE (000)							
						LIVING IN THE SMSA					LIVING OUTSIDE SMSA, WORKING IN IT	GRAND TOTAL	EMPLOYMENT DENSITY FOR GRAND TOTALS (PER SQ. MI.)
							URBANIZED AREA			RURAL AND SCATTERED URBAN			
						SMSA TOTAL	U.A. TOTAL	CENTRAL CITY	URBANIZED RING				
HOME-TO-WORK FLOWS	PLACE OF WORK (000)	SMSA TOTAL				355	322	223	99	33	5	360	39
		SMSA	U.A. TOTAL			335	312	218	94	23	4	339	874
		SMSA	U.A.	CENTRAL CITY	CENTRAL CITY TOTAL	235	225	189	36	10	2	237	956
		SMSA	U.A.	CENTRAL CITY	CBD	21	20	17	3	1	1	22	22,000
		SMSA	U.A.	CENTRAL CITY	OTHER	214	205	172	33	9	1	215	870
		SMSA	U.A.	URBANIZED RING		100	87	29	58	13	2	102	729
		SMSA	RURAL & SCATTERED URBAN			20	10	5	5	10	1	21	2
		WORKING OUTSIDE SMSA, LIVING IN IT				6	5	3	2	1		6	
		GRAND TOTAL				361	327	226	101	34	5	366	
	WORKER DENSITY FOR GRAND TOTALS (PER SQ. MI.)					39	843	911	721	4			
	DISTRIBUTION OF WORK TRIPS BY MODE (%)	AUTO DRIVER; AUTO PASS.				89%	90%	91%	87%	85%	80%	89%	
		PUBLIC TRANSPORTATION				1	1	1	1	0	0	1	
		WALK; WORK AT HOME				6	6	5	8	6	0	6	
		TAXI; OTHER				4	3	3	4	9	20	4	

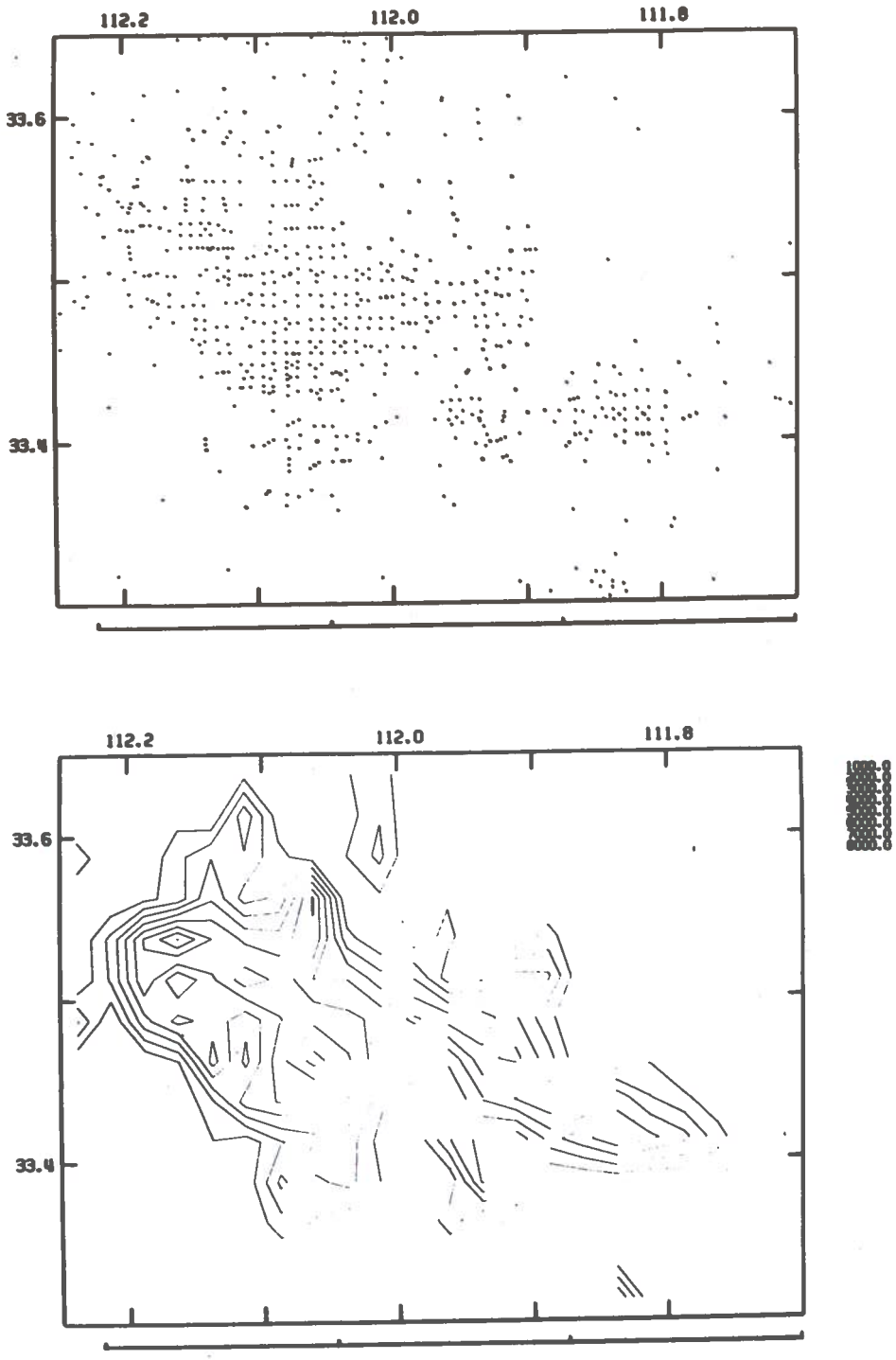
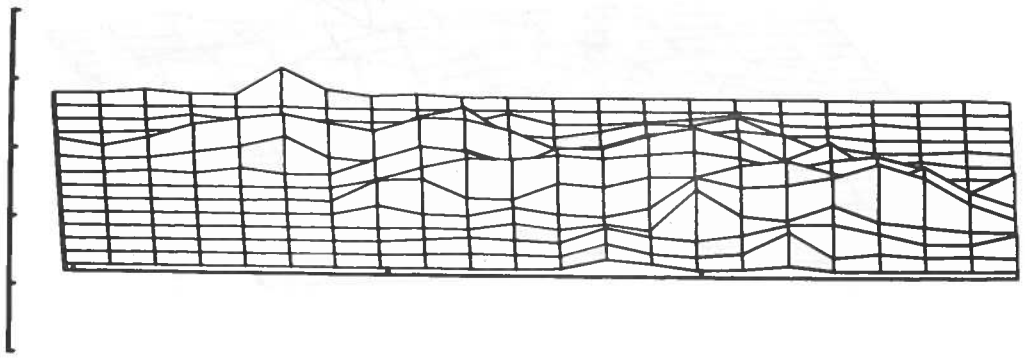
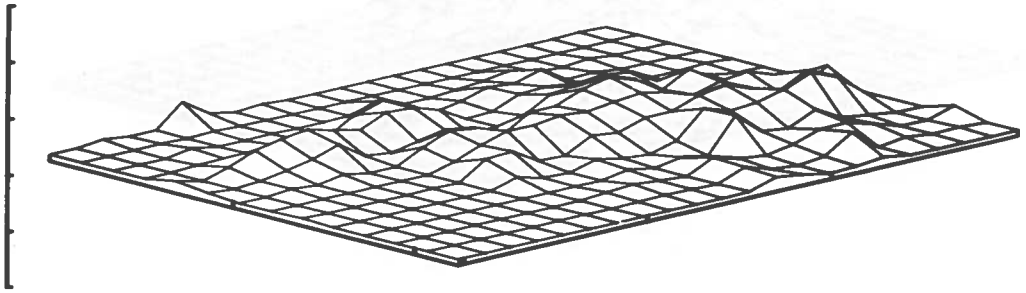


Figure 24-1. Population Density Plots - Dot and Contour Maps - Phoenix

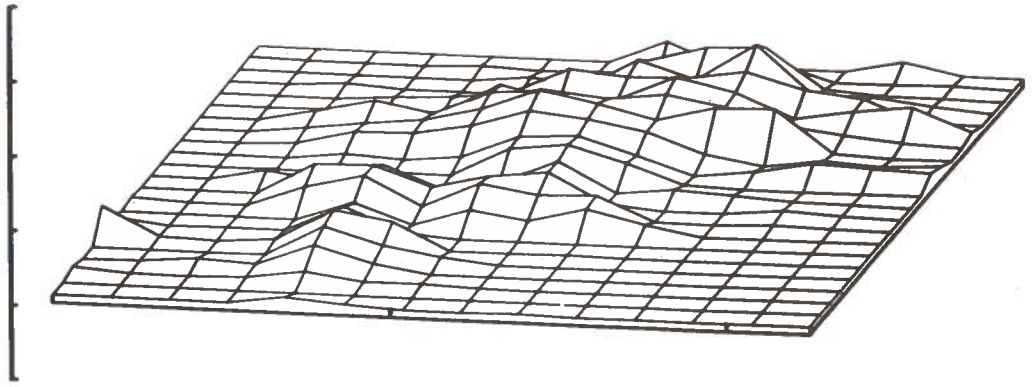


0.0 DEGREES

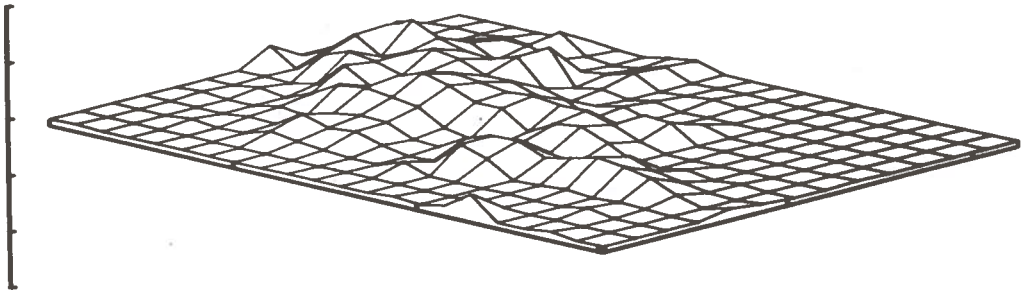


45.0 DEGREES

Figure 24-2. Population Density Plots - Isometric Views (0°, 45°) - Phoenix

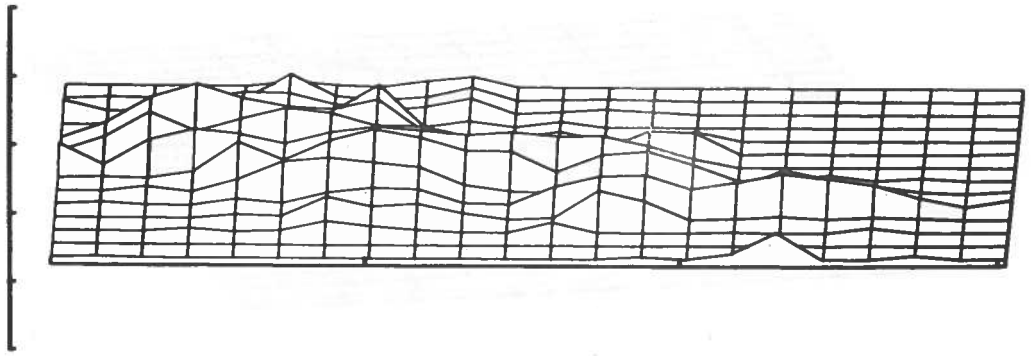


90.0 DEGREES

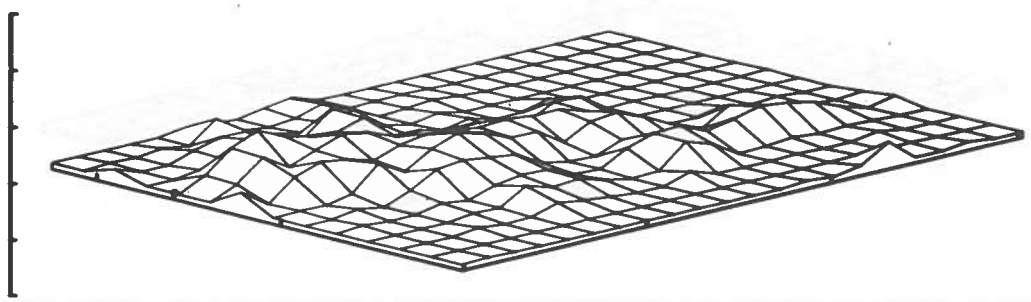


135.0 DEGREES

Figure 24-3. Population Density Plots - Isometric Views (90°, 135°) - Phoenix

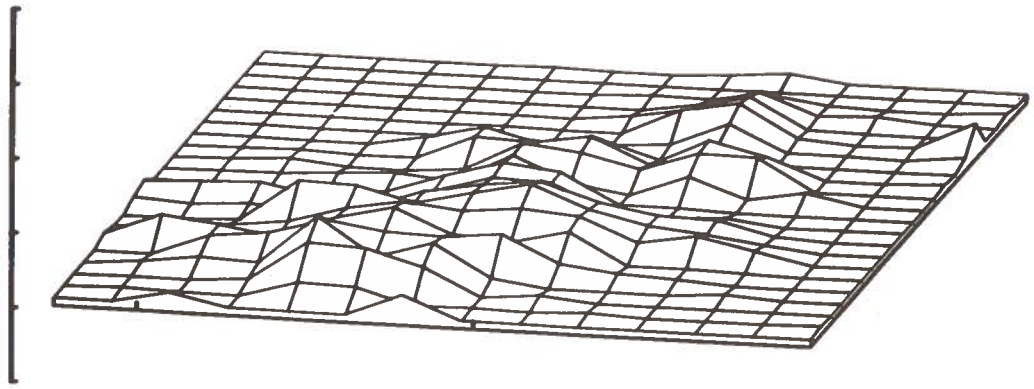


180.0 DEGREES

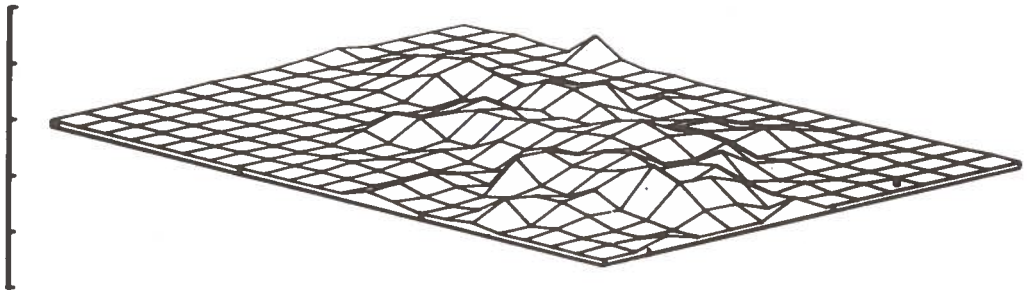


225.0 DEGREES

Figure 24-4. Population Density Plots - Isometric Views (180°, 225°) - Phoenix



270.0 DEGREES



315.0 DEGREES

Figure 24-5. Population Density Plots - Isometric Views (270°, 315°) - Phoenix

25. PITTSBURGH, PENNSYLVANIA

TABLE 25-1. SOCIO-ECONOMIC DATA BY URBAN RING - PITTSBURGH

CITY TRACTS BY INNER & OUTER RADII

URBAN CHARACTERISTICS

CITY: PITTSBURGH, PA.
H.A. RANK: 11

	TOTAL POP.	LAND AREA (SQ. MI.)	POP. DENSITY
SMSA:	2,401,000	3,049	788
URBANIZED AREA:	1,846,042	596	3,095
CENTRAL CITY:	520,000	55	9,422
CBD:	2,944	0.55	5,352

0.0 MI. PIVOT POINT: LATITUDE: 40° 26' 12" LONGITUDE: 80° 0' 30"

URBAN CHARACTERISTICS	0.0 - 1.0 MI.	1.0 - 2.0 MI.	2.0 - 4.0 MI.	4.0 - 6.0 MI.	6.0 - 8.0 MI.	8.0 - 10.0 MI.	10.0 - 12.0 MI.	12.0 - 14.0 MI.	14.0 - 16.0 MI.	16.0 - 18.0 MI.	18.0 - 20.0 MI.
Total Pop. (#)	20,332(100.0)	99,740(100.0)	305,322(100.0)	341,351(100.0)	282,210(100.0)	193,825(100.0)	163,729(100.0)	123,567(100.0)	128,220(100.0)	126,714(100.0)	102,018(100.0)
White Pop. (#)	19,799 (97.4)	70,459 (70.6)	271,507 (88.9)	316,844 (92.8)	241,699 (85.6)	185,284 (95.6)	156,292 (95.5)	119,746 (96.9)	124,128 (96.8)	123,997 (97.9)	95,070 (93.2)
Black Pop. (#)	460 (2.3)	28,893 (29.0)	32,316 (10.6)	22,954 (6.7)	39,794 (14.1)	8,018 (4.1)	7,127 (4.4)	3,473 (2.8)	3,587 (2.8)	2,382 (1.9)	6,700 (6.6)
Span. (% of white)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	40 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
Other (#)	73 (0.4)	388 (0.4)	1,499 (0.5)	1,553 (0.5)	717 (0.3)	523 (0.3)	250 (4.4)	348 (0.3)	505 (0.4)	335 (0.3)	248 (0.2)
Total Male Pop.	9,687	47,123	141,393	158,744	134,569	94,277	78,674	60,490	63,103	62,026	49,855
Median Male Age	33.2	32.4	29.4	32.1	30.2	30.9	30.1	28.3	29.0	30.3	29.9
Total Female Pop.	10,645	52,617	163,929	182,607	147,641	99,548	85,055	63,077	65,117	64,688	52,163
Median Female Age	35.7	35.8	35.1	36.8	32.6	32.9	32.8	30.1	30.4	32.6	32.2
% of Total Pop. -65+	13.1	13.9	12.8	13.0	9.7	8.9	9.7	7.9	8.3	8.7	9.7
Mean Family Inc.	$12,282	$8,299	$10,715	$12,713	$12,130	$13,264	$11,785	$11,825	$10,583	$10,393	$9,689
Median Family Inc.	$9,516	$7,463	$9,257	$10,529	$10,754	$11,246	$10,236	$10,622	$9,870	$9,472	$9,172
No. of Households	6,533	32,197	91,395	107,335	80,360	53,553	46,413	33,782	34,781	34,476	27,008
No. of Families	4,699	23,606	75,591	89,720	72,529	50,122	43,028	32,026	33,849	33,793	26,981
Average H.H. Size	2.9	3.0	3.2	3.1	3.4	3.5	3.5	3.6	3.7	3.7	3.8
Average Fam. Size	3.4	3.5	3.5	3.4	3.6	3.6	3.6	3.6	3.6	3.6	3.6
Total No. of Renters	3,852	20,201	43,084	47,124	25,003	13,192	12,760	8,590	9,861	8,600	7,219
Avg. Rent Paid	$123	$69	$89	$105	$93	$82	$77	$88	$69	$64	$57
Median Rent Paid	$81	$56	$71	$95	$80	$68	$65	$78	$61	$59	$56
% of Total Pop. Renting	59.0	62.7	47.1	43.9	31.1	24.6	27.5	25.4	28.4	24.9	26.7
Total No. of Home Owners	2,681	11,996	48,311	60,211	55,357	40,361	33,653	25,192	24,920	25,876	19,789
Avg. Value of House	$11,005	$9,912	$15,112	$19,971	$19,439	$21,148	$17,649	$18,629	$17,901	$16,711	$15,227
Median Value of House	$10,315	$8,746	$13,688	$17,546	$17,637	$17,814	$15,392	$16,856	$16,766	$15,287	$14,208
% of Total Pop. Own Home	41.0	37.3	52.9	56.1	68.9	75.4	72.5	74.6	71.6	75.1	73.3
No. Own 0 Auto. (#)	2,909 (40.2)	18,381 (51.4)	33,161 (33.1)	26,636 (23.1)	14,856 (17.3)	8,513 (14.8)	7,921 (15.7)	3,490 (9.5)	5,612 (14.5)	4,850 (12.6)	4,481 (14.4)
No. Own 1 Auto. (#)	3,407 (47.1)	14,081 (39.4)	50,170 (50.0)	60,741 (52.6)	44,358 (51.6)	28,074 (48.7)	26,112 (51.8)	19,184 (52.1)	19,214 (49.5)	20,340 (52.8)	17,158 (55.1)
No. Own 2 Autos. (#)	851 (11.8)	2,814 (7.9)	14,518 (14.5)	24,957 (21.6)	24,005 (27.9)	18,294 (31.7)	14,262 (28.3)	12,386 (33.6)	12,309 (31.7)	11,731 (30.4)	8,350 (26.8)
No. Own 3*Autos. (#)	63 (0.9)	497 (1.4)	2,428 (2.4)	3,185 (2.8)	2,779 (3.2)	2,739 (4.8)	2,125 (4.2)	1,788 (4.9)	1,675 (4.3)	1,632 (4.2)	1,125 (3.6)

TABLE 25-2. JOURNEY-TO-WORK DATA - PITTSBURGH

SMSA: PITTSBURGH, PA.						PLACE OF RESIDENCE (000)							
						LIVING IN THE SMSA					LIVING OUTSIDE SMSA, WORKING IN IT	GRAND TOTAL	EMPLOYMENT DENSITY FOR GRAND TOTALS (PER SQ. MI.)
						SMSA TOTAL	URBANIZED AREA			RURAL AND SCATTERED URBAN			
							U.A. TOTAL	CENTRAL CITY	URBANIZED RING				
HOME-TO-WORK FLOWS	PLACE OF WORK (000)	SMSA			SMSA TOTAL	823	645	184	461	178	38	861	282
			U.A.		URBANIZED AREA TOTAL	723	605	180	425	118	23	746	1,252
				CENTRAL CITY	CENTRAL CITY TOTAL	307	253	149	104	54	7	314	5,709
					CBD	74	67	29	38	7	2	76	138,182
					OTHER	233	186	120	66	47	5	238	4,371
				URBANIZED RING		416	352	31	321	64	16	432	799
			RURAL & SCATTERED URBAN			100	40	4	36	60	15	115	47
		WORKING OUTSIDE SMSA, LIVING IN IT				23	16	3	13	7		23	
		GRAND TOTAL				846	661	187	474	185	38	884	
	WORKER DENSITY FOR GRAND TOTALS (PER SQ. MI.)					278	1,109	3,400	876	75			
	DISTRIBUTION OF WORK TRIPS BY MODE (%)	AUTO DRIVER; AUTO PASS.				74%	70%	57%	76%	85%	89%	74%	
		PUBLIC TRANSPORTATION				14	17	29	13	4	3	14	
		WALK; WORK AT HOME				10	11	13	10	9	3	10	
		TAXI; OTHER				2	2	1	1	2	5	2	

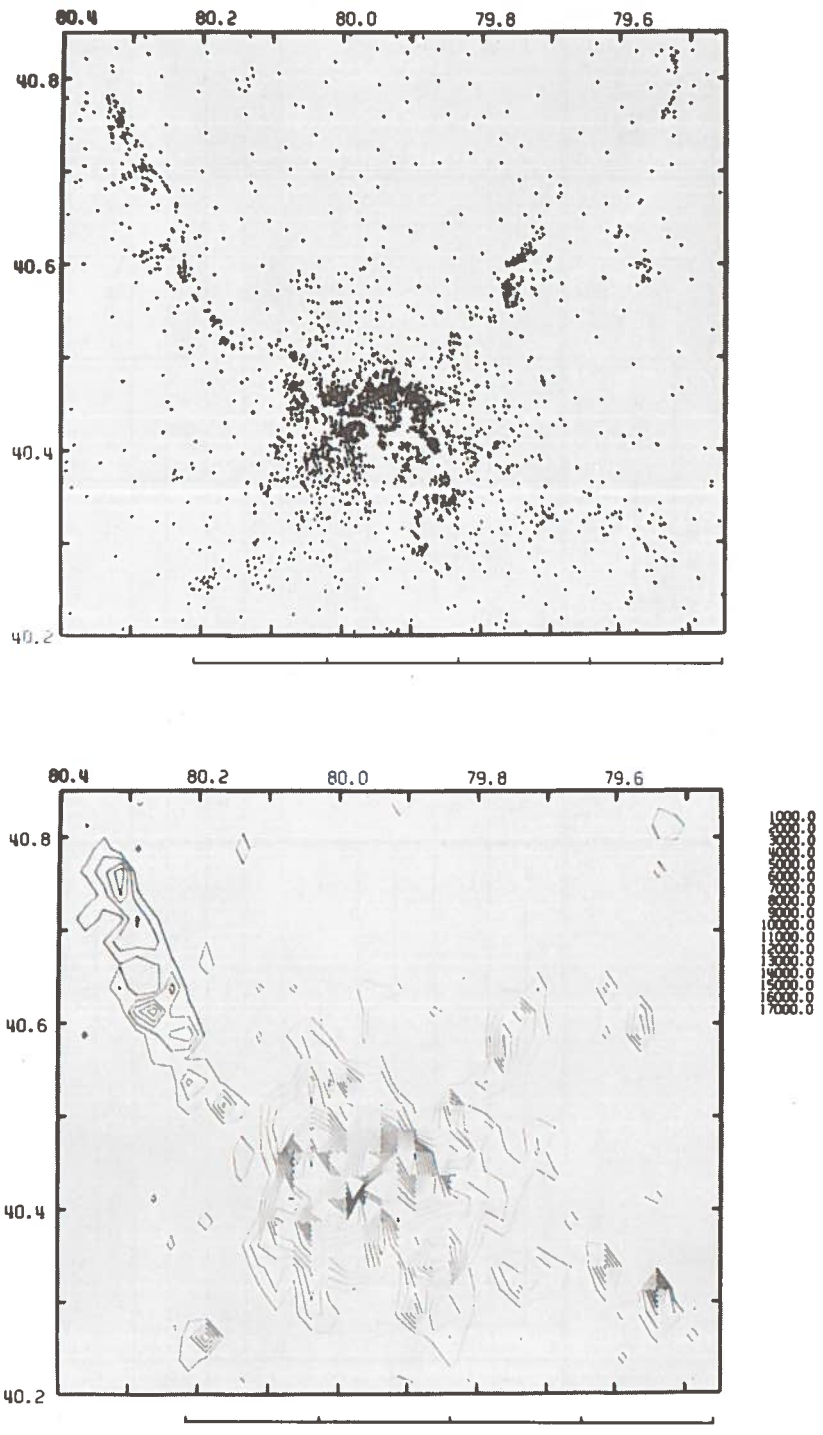
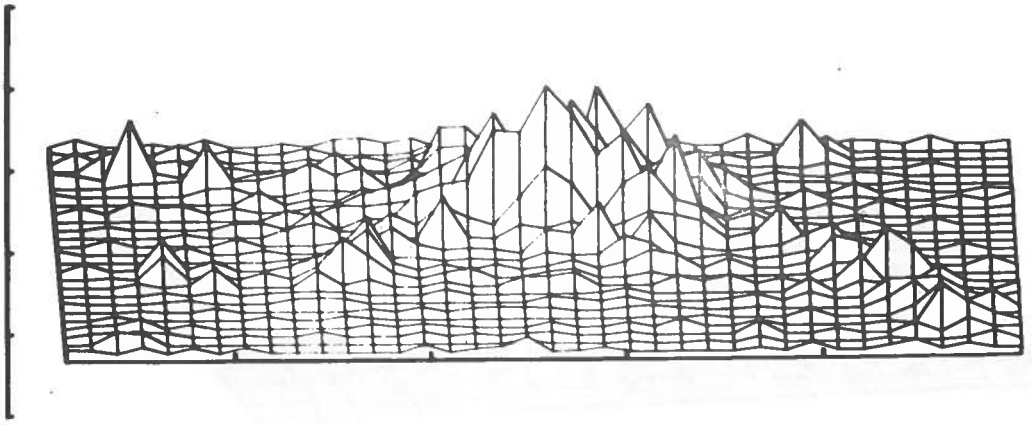
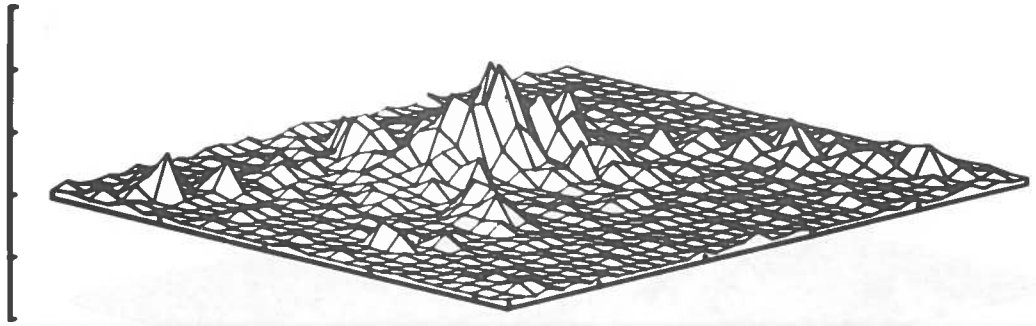


Figure 25-1. Population Density Plots - Dot and Contour Maps - Pittsburgh

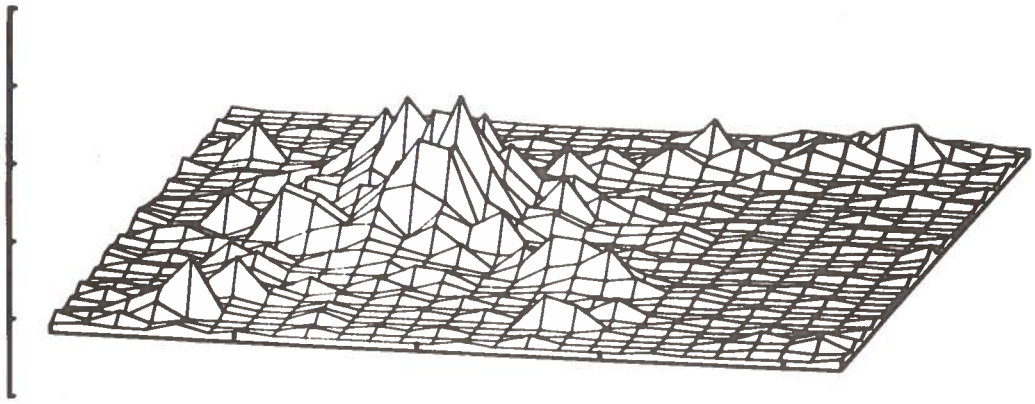


0.0 DEGREES

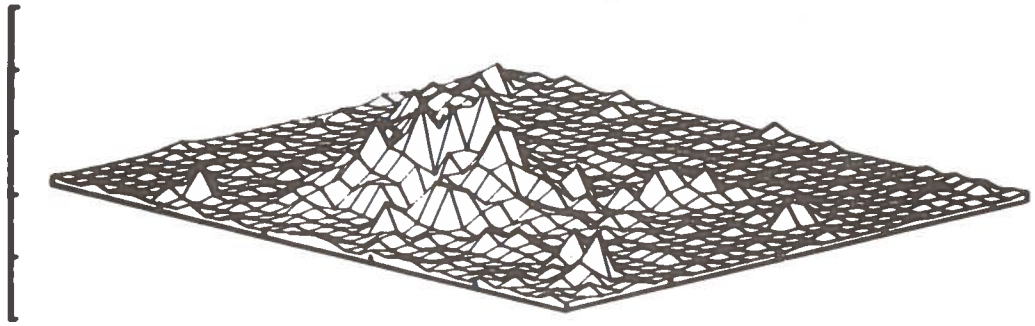


45.0 DEGREES

Figure 25-2. Population Density Plots - Isometric Views (0°, 45°) - Pittsburgh

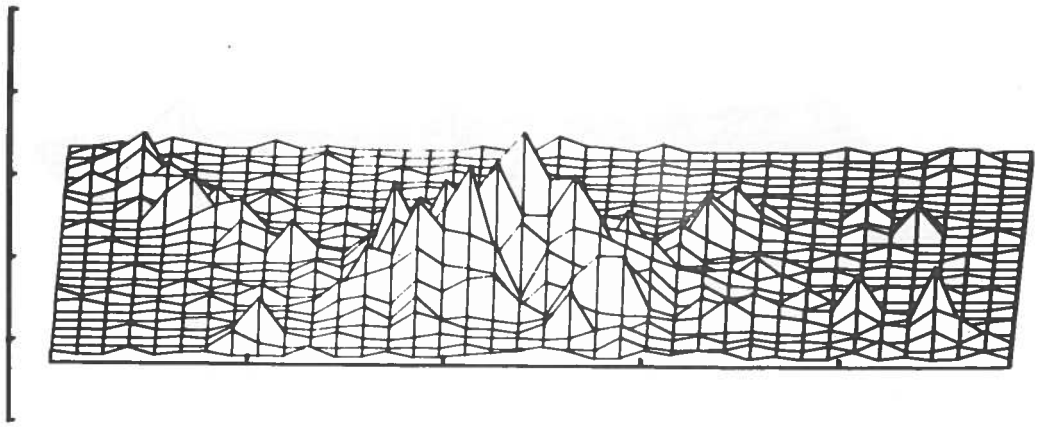


90.0 DEGREES

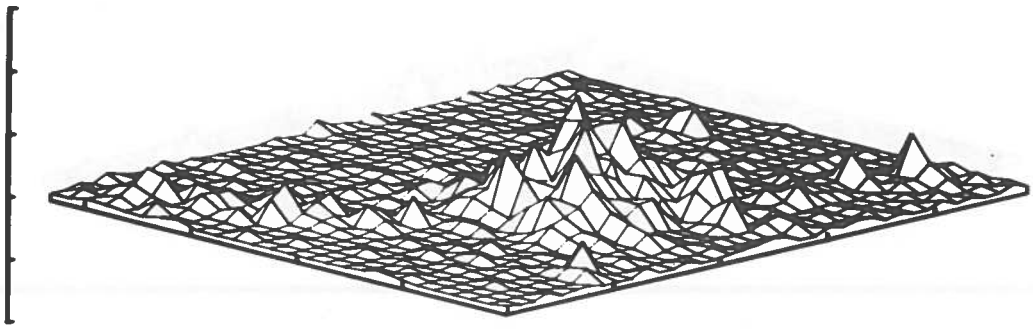


135.0 DEGREES

Figure 25-3. Population Density Plots - Isometric Views (90°, 135°) - Pittsburgh

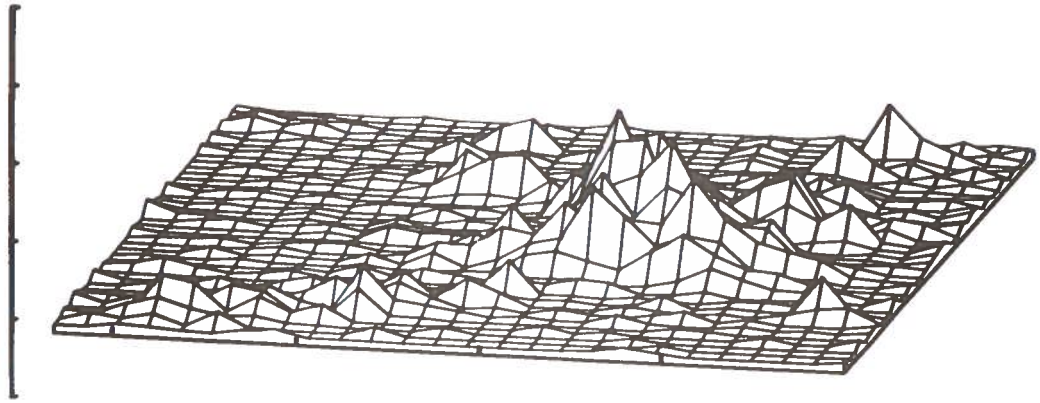


180.0 DEGREES

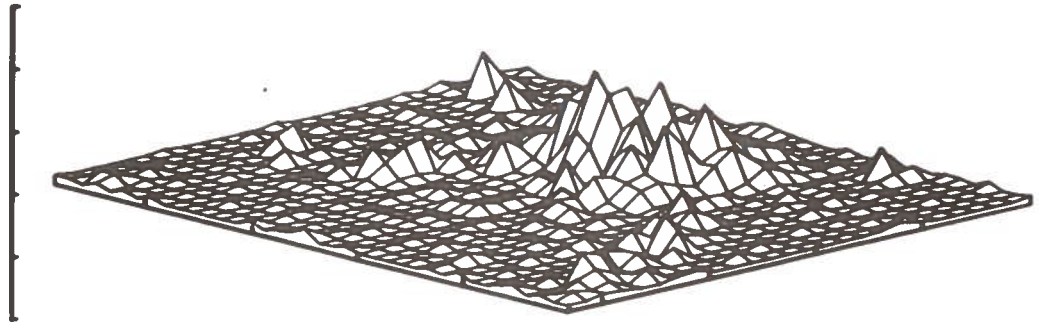


225.0 DEGREES

Figure 25-4. Population Density Plots - Isometric Views (180°, 225°) - Pittsburgh



270.0 DEGREES



315.0 DEGREES

Figure 25-5. Population Density Plots - Isometric Views (270°, 315°) - Pittsburgh

26. PORTLAND, OREGON

TABLE 26-1. SOCIO-ECONOMIC DATA BY URBAN RING - PORTLAND

CITY TRACTS BY INNER & OUTER RADII / URBAN CHARACTERISTICS

CITY: PORTLAND, OREGON
U. A. RANK: 28

	TOTAL POP.	LAND AREA (SQ. MI.)	POP. DENSITY
SMSA:	1,007,000	3,650	276
URBANIZED AREA:	824,926	267	3,092
CENTRAL CITY:	380,000	89	4,265
CBD:	3,010	0.4	7,584

0.0 MI. PIVOT POINT: LATITUDE: 45° 32' 6" / LONGITUDE: 122° 37' 12"

URBAN CHARACTERISTICS	0.0 - 1.0 MI.	1.0 - 2.0 MI.	2.0 - 4.0 MI.	4.0 - 6.0 MI.	6.0 - 8.0 MI.	8.0 - 10.0 MI.	10.0 - 12.0 MI.	12.0 - 14.0 MI.	14.0 - 16.0 MI.	16.0 - 18.0 MI.	18.0 - 20.0 MI.
Total Pop. (%)	27,007(100.0)	86,534(100.0)	193,429(100.0)	158,642(100.0)	169,177(100.0)	108,603(100.0)	88,352(100.0)	39,516(100.0)	27,308(100.0)	28,879(100.0)	21,160(100.0)
White Pop. (%)	26,496 (98.1)	80,584 (93.1)	172,923 (89.4)	155,166 (97.8)	166,126 (98.2)	107,590 (99.1)	87,471 (99.0)	39,222 (99.3)	27,118 (99.3)	28,507 (98.7)	20,923 (98.9)
Black Pop. (%)	78 (0.3)	4,101 (4.7)	15,731 (8.1)	1,175 (0.7)	932 (0.6)	84 (0.1)	90 (0.1)	0 (0.0)	50 (0.2)	61 (0.2)	45 (0.2)
Span. (% of white)	285 (1.1)	1,535 (1.8)	2,703 (1.4)	2,000 (1.3)	1,873 (1.1)	776 (0.7)	884 (1.0)	334 (0.8)	374 (1.4)	527 (1.8)	303 (1.4)
Other (%)	433 (1.6)	1,849 (2.1)	4,775 (2.5)	2,301 (1.5)	2,119 (1.3)	929 (0.9)	791 (0.9)	294 (0.7)	140 (0.5)	311 (1.1)	192 (0.9)
Total Male Pop.	11,988	39,269	92,603	76,019	81,471	53,182	43,421	19,692	13,686	14,187	10,608
Median Male Age	31.8	30.5	31.1	28.9	27.2	26.8	26.6	26.2	26.8	28.2	27.9
Total Female Pop.	15,019	47,265	100,826	82,623	87,706	55,421	44,931	19,824	13,622	14,692	10,552
Median Female Age	40.7	38.1	33.7	30.1	28.6	27.6	27.4	27.9	27.4	29.9	30.0
% of Total Pop.-65+	18.3	17.8	14.0	10.2	8.9	7.1	7.7	8.7	7.5	11.3	10.1
Mean Family Inc.	$12,835	$10,751	$10,175	$13,031	$13,037	$12,166	$12,583	$11,375	$10,999	$10,999	$10,815
Median Family Inc.	$11,448	$9,445	$9,320	$11,116	$11,218	$11,391	$11,583	$10,926	$10,442	$9,961	$9,821
No. of Households	9,765	32,063	72,394	51,026	52,170	30,329	23,697	10,978	5,984	6,280	4,007
No. of Families	6,982	22,420	48,088	42,184	44,467	29,165	23,182	10,292	7,159	7,256	5,375
Average H.H. Size	2.8	2.6	2.6	3.1	3.2	3.6	3.7	3.6	4.5	4.5	5.2
Average Fam. Size	3.3	3.2	3.2	3.4	3.4	3.5	3.6	3.6	3.6	3.6	3.7
Total No. of Renters	3,302	14,691	37,252	15,529	18,942	8,391	6,805	3,081	1,606	2,069	1,103
Avg. Rent Paid	$106	$92	$89	$100	$106	$113	$109	$94	$84	$85	$71
Median Rent Paid	$109	$84	$78	$100	$107	$113	$111	$89	$86	$76	$65
% of Total Pop. Renting	33.8	45.8	51.5	30.4	36.3	27.7	28.7	28.1	26.8	32.9	27.5
Total No. of Home Owners	6,463	17,372	35,142	35,497	33,228	21,938	16,892	7,897	4,378	4,211	2,904
Avg. Value of House	$17,626	$14,854	$15,006	$20,078	$21,482	$21,371	$23,485	$19,531	$20,415	$19,163	$18,630
Median Value of House	$16,610	$13,879	$13,790	$17,043	$18,557	$19,460	$21,476	$18,107	$18,967	$17,562	$16,568
% of Total Pop. Own Home	66.2	54.2	48.5	69.6	63.7	72.3	71.3	71.9	73.2	67.1	72.5
No. Own 0 Auto. (%)	1,690 (17.0)	7,170 (21.4)	19,375 (25.8)	5,991 (11.2)	5,435 (9.9)	1,842 (5.4)	1,376 (5.1)	1,068 (8.7)	381 (4.7)	839 (9.4)	514 (8.1)
No. Own 1 Auto. (%)	5,029 (50.5)	17,440 (51.9)	35,247 (46.9)	24,754 (46.5)	24,108 (43.7)	14,890 (43.8)	11,241 (41.9)	5,197 (42.2)	3,535 (43.4)	3,840 (43.2)	2,783 (43.6)
No. Own 2 Autos. (%)	2,719 (27.3)	7,485 (22.3)	16,822 (22.4)	18,766 (35.2)	21,276 (38.6)	14,462 (42.6)	12,281 (45.8)	4,884 (39.7)	3,377 (41.5)	3,432 (38.6)	2,386 (37.4)
No. Own 3+Autos. (%)	530 (5.3)	1,480 (4.4)	3,656 (4.9)	3,758 (7.1)	4,319 (7.8)	2,786 (8.2)	1,931 (7.2)	1,160 (9.4)	847 (10.4)	783 (8.8)	693 (10.9)

TABLE 26-2. JOURNEY-TO-WORK DATA - PORTLAND

SMSA: PORTLAND, OREGON						PLACE OF RESIDENCE (000)							
						LIVING IN THE SMSA					LIVING OUTSIDE SMSA, WORKING IN IT	GRAND TOTAL	EMPLOYMENT DENSITY FOR GRAND TOTALS (PER SQ. MI.)
						SMSA TOTAL	URBANIZED AREA			RURAL AND SCATTERED URBAN			
							U.A. TOTAL	CENTRAL CITY	URBANIZED RING				
HOME-TO-WORK FLOWS	PLACE OF WORK (000)	SMSA	SMSA TOTAL			379	317	149	168	62	12	391	107
			U.A.	URBANIZED AREA TOTAL		341	303	144	159	38	10	351	1,315
				CENTRAL CITY	CENTRAL CITY TOTAL	216	189	119	70	27	6	222	2,494
					CBD	32	29	18	11	3	1	33	82,500
					OTHER	184	160	101	59	24	5	189	2,133
				URBANIZED RING		125	114	25	89	11	4	129	725
			RURAL & SCATTERED URBAN			38	14	5	9	24	2	40	12
		WORKING OUTSIDE SMSA, LIVING IN IT				10	8	3	5	2		10	
		GRAND TOTAL				389	325	152	173	64	12	401	
	WORKER DENSITY FOR GRAND TOTALS (PER SQ. MI.)					107	1,217	1,708	972	19			
	DISTRIBUTION OF WORK TRIPS BY MODE (%)	AUTO DRIVER; AUTO PASS.				84%	83%	77%	89%	86%	92%	84%	
		PUBLIC TRANSPORTATION				6	7	11	3	2	0	6	
		WALK; WORK AT HOME				8	8	10	6	9	0	8	
		TAXI; OTHER				2	2	2	2	3	8	2	

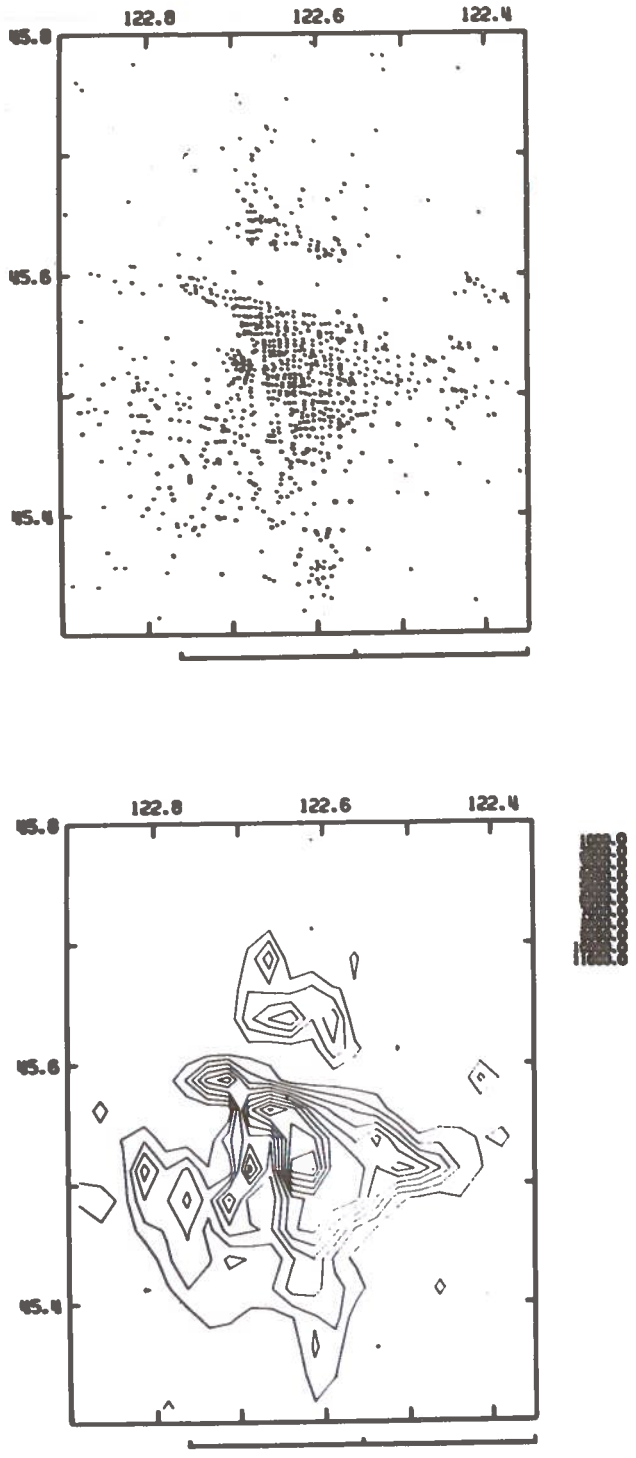
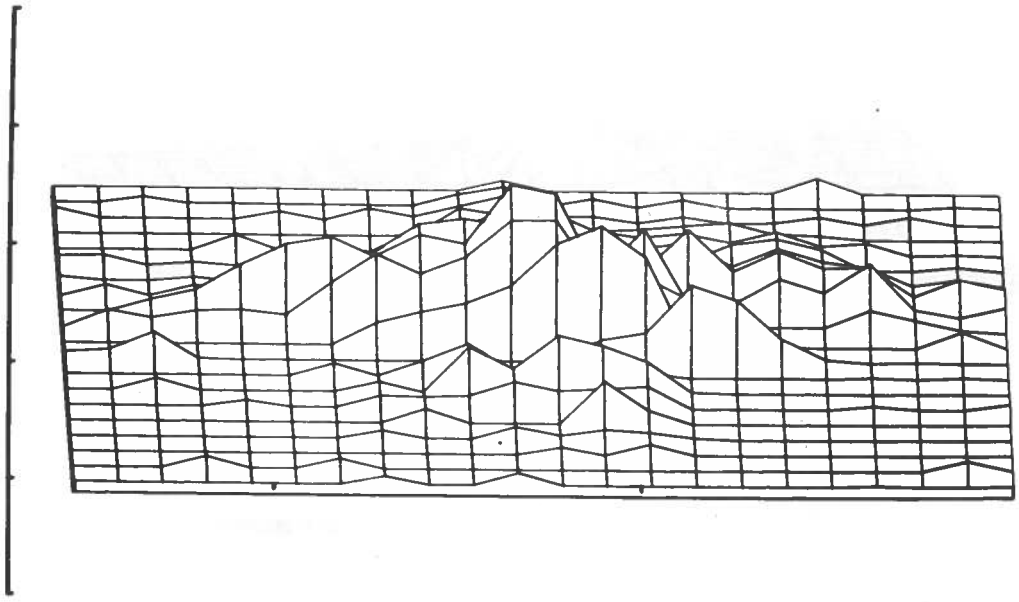


Figure 26-1. Population Density Plots - Dot and Contour Maps - Portland



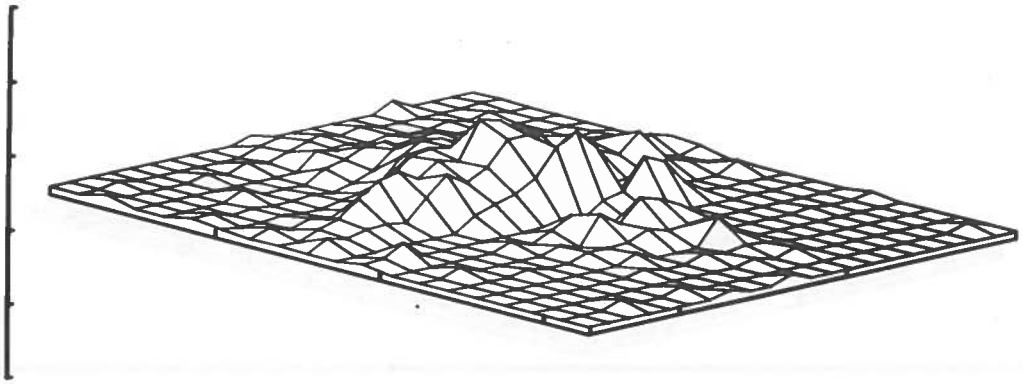
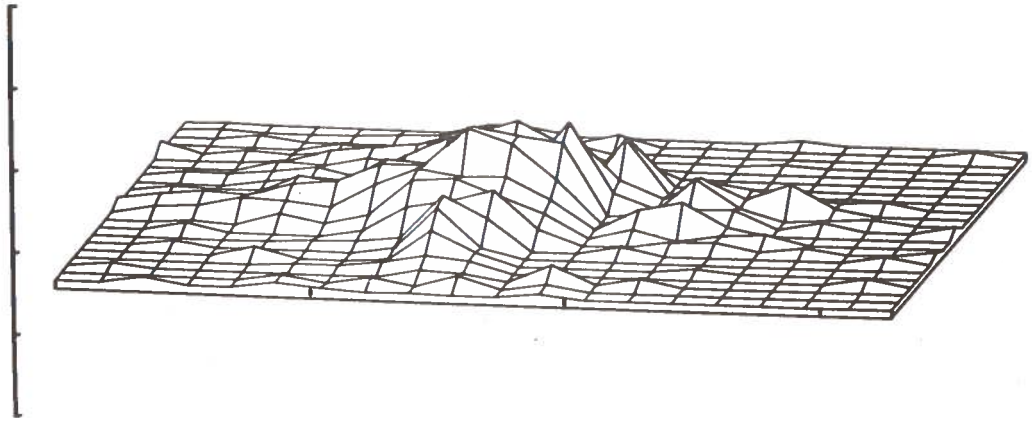
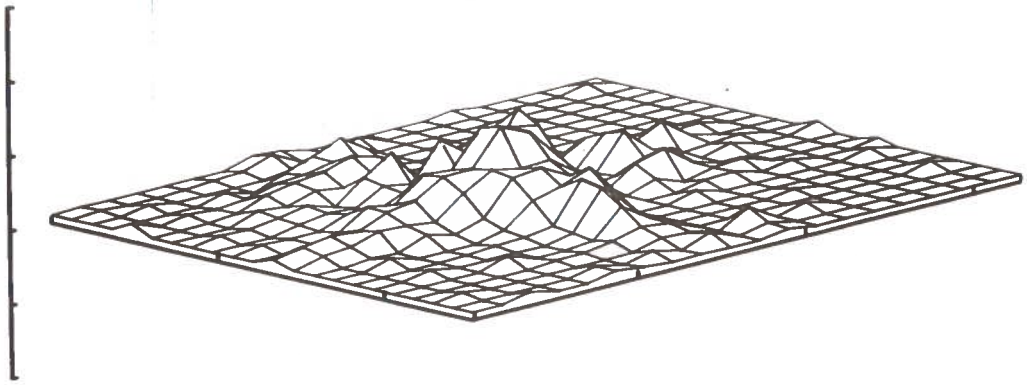


Figure 26-2. Population Density Plots - Isometric Views (0°, 45°) - Portland

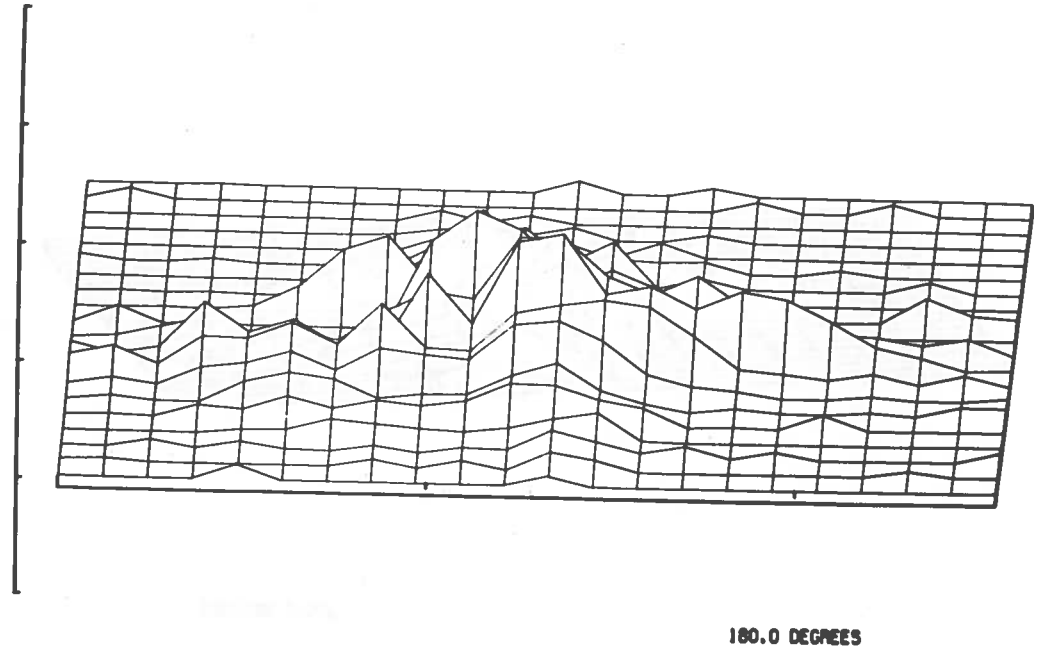


90.0 DEGREES



135.0 DEGREES

Figure 26-3. Population Density Plots - Isometric Views (90°, 135°) - Portland



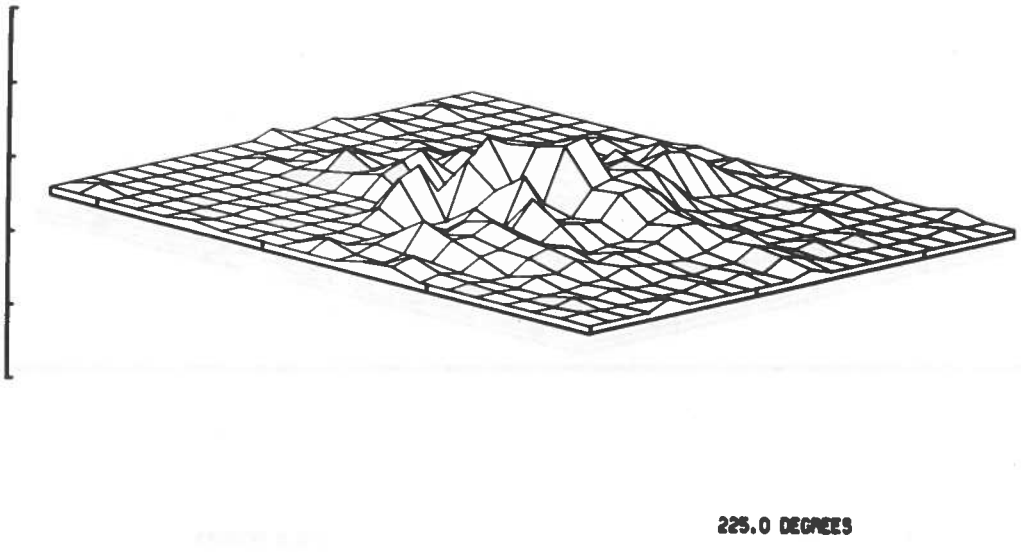
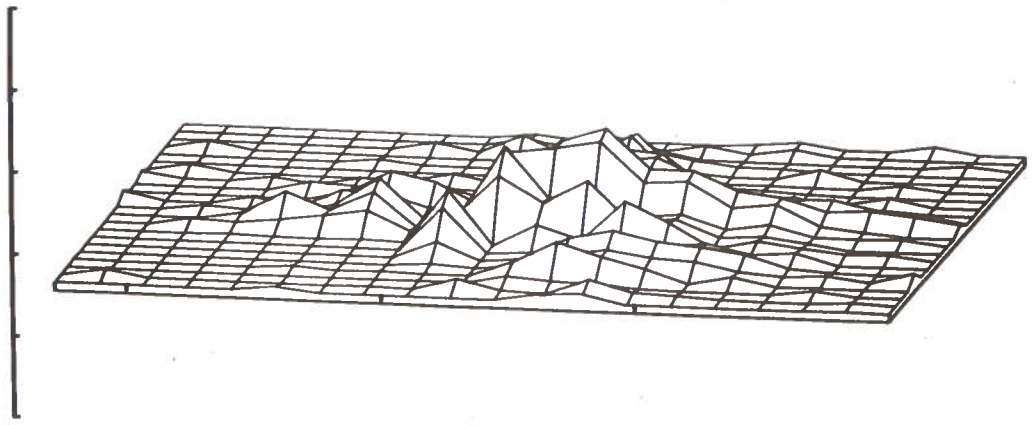
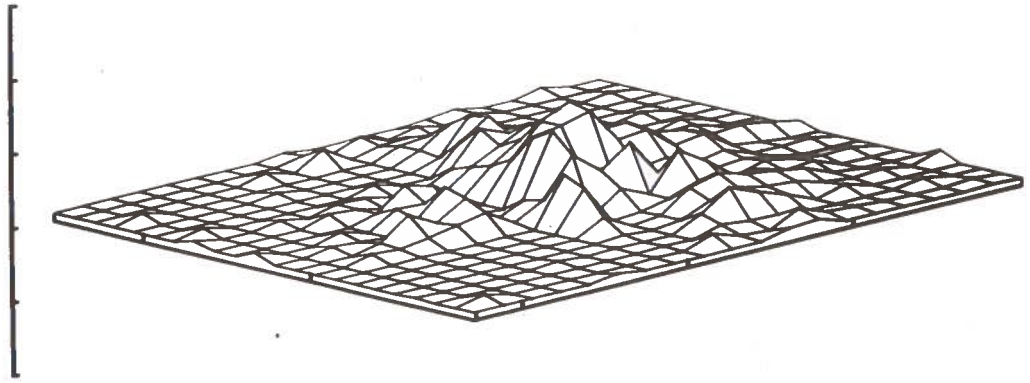


Figure 26-4. Population Density Plots - Isometric Views (180°, 225°) - Portland



270.0 DEGREES



315.0 DEGREES

Figure 26-5. Population Density Plots - Isometric Views (270°, 315°) - Portland

27. PROVIDENCE, RHODE ISLAND

TABLE 27-1. SOCIO-ECONOMIC DATA BY URBAN RING - PROVIDENCE

CITY: PROVIDENCE, R.I.
U.A. RANK: 30

	TOTAL POP.	LAND AREA (Sq. MI)	POP. DENSITY
SMSA:	914,000	679	1,346
URBANIZED AREA:	795,311	244	3,258
CENTRAL CITY:	340,000	62	5,498
CBD:	1,560	0.49	3,189

0.0 MI. PIVOT POINT: LATITUDE: 41° 49' 0" LONGITUDE: 71° 24' 24"

URBAN CHARACTERISTICS / CITY TRACTS BY INNER & OUTER RADII	0.0 - 1.0 MI.	1.0 - 2.0 MI.	2.0 - 4.0 MI.	4.0 - 6.0 MI.	6.0 - 8.0 MI.	8.0 - 10.0 MI.	10.0 - 12.0 MI.	12.0 - 14.0 MI.	14.0 - 16.0 MI.	16.0 - 18.0 MI.	18.0 - 20.0 MI.
Total Pop. (%)	$24,845(100.0)	95,008(100.0)	195,066(100.0)	154,846(100.0)	90,889(100.0)	79,019(100.0)	97,662(100.0)	98,974(100.0)	127,777(100.0)	141,672(100.0)	50,933(100.0)
White Pop. (%)	19,386 (78.0)	83,972 (88.4)	191,623 (98.2)	153,885 (99.4)	90,544 (99.6)	78,803 (99.7)	97,266 (99.6)	97,663 (98.7)	126,024 (98.6)	139,984 (98.8)	50,411 (99.0)
Black Pop. (%)	4,976 (20.0)	9,849 (10.4)	2,702 (1.4)	512 (0.3)	170 (0.2)	39 (0.0)	99 (0.1)	760 (0.8)	829 (0.6)	917 (0.6)	237 (0.5)
Span. (% of white)	235 (0.9)	807 (0.8)	1,040 (0.5)	615 (0.4)	445 (0.5)	110 (0.1)	634 (0.6)	547 (0.6)	520 (0.4)	946 (0.7)	241 (0.5)
Other (%)	483 (1.9)	1,187 (1.2)	741 (0.4)	449 (0.2)	175 (0.2)	177 (0.2)	297 (0.3)	551 (0.7)	924 (0.7)	771 (0.5)	285 (0.6)
Total Male Pop.	12,856	43,942	91,451	74,177	44,043	38,405	47,668	50,192	60,408	67,975	25,075
Median Male Age	24.5	30.0	30.0	31.6	28.2	26.9	27.1	26.0	28.3	27.6	23.2
Total Female Pop.	11,989	51,066	103,615	80,669	46,846	40,614	49,994	48,782	67,369	73,697	25,858
Median Female Age	28.4	36.7	36.3	35.4	31.0	30.1	29.0	29.9	32.3	30.6	24.5
% of Total Pop. 65+	13.1	15.5	13.1	12.2	8.1	9.4	8.9	8.6	12.3	10.9	6.0
Mean Family Inc.	$10,119	$10,422	$10,786	$11,226	$12,038	$12,623	$11,498	$11,009	$9,912	$10,274	$12,036
Median Family Inc.	$7,737	$8,370	$9,611	$10,138	$11,174	$10,880	$10,790	$10,008	$8,833	$9,508	$11,464
No. of Households	7,227	29,444	53,873	43,097	23,982	21,043	25,871	24,753	34,528	35,046	11,387
No. of Families	4,557	24,424	52,205	40,321	23,163	20,220	24,985	24,532	32,284	35,408	11,366
Average H.H. Size	2.7	3.2	3.6	3.5	3.7	3.7	3.7	3.8	3.5	3.9	4.2
Average Fam. Size	3.3	3.3	3.4	3.5	3.7	3.7	3.7	3.6	3.5	3.6	4.0
Total No. of Renters	6,650	23,254	27,117	17,668	5,367	6,714	8,125	10,612	23,818	17,740	2,472
Avg. Rent Paid	$74	$67	$65	$69	$66	$75	$77	$69	$58	$67	$101
Median Rent Paid	$63	$59	$58	$61	$61	$64	$68	$61	$54	$60	$102
% of Total Pop. Renting	92.0	79.0	50.3	41.0	22.4	31.9	31.4	42.9	69.0	50.6	21.7
Total No. of Home Owners	557	6,190	26,756	25,429	18,615	14,329	17,746	14,141	10,710	17,306	8,915
Avg. Value of House	$26,285	$21,402	$18,959	$20,089	$19,929	$21,989	$20,934	$21,742	$19,024	$18,617	$21,731
Median Value of House	$16,935	$15,750	$17,612	$18,158	$18,328	$18,500	$19,066	$19,588	$17,350	$17,182	$20,286
% of Total Pop. Own Home	8.0	21.0	49.7	59.0	77.6	68.1	68.6	57.1	31.0	49.4	78.3
No. Own 0 Auto. (%)	3,377(41.1)	11,070(31.6)	11,421(17.8)	6,394 (13.1)	1,777 (6.7)	2,362 (10.1)	2,407 (8.3)	3,450 (12.1)	9,993 (24.3)	6,597 (15.3)	798 (6.3)
No. Own 1 Auto. (%)	3,764(45.9)	17,254(49.2)	32,638(50.9)	24,241 (49.6)	11,674 (44.4)	10,411 (44.4)	13,570 (46.8)	14,103 (49.4)	20,611 (50.0)	22,335 (51.9)	6,294 (49.6)
No. Own 2 Autos. (%)	916(11.2)	5,914(16.9)	17,314(27.0)	15,680 (32.1)	10,610 (40.2)	8,838 (37.7)	10,966 (37.8)	9,540 (33.4)	9,091 (22.1)	11,981 (27.9)	4,873 (38.4)
No. Own 3+Autos. (%)	151 (1.8)	798 (2.3)	2,721 (4.2)	2,555 (5.2)	2,307 (8.7)	1,857 (7.9)	2,051 (7.1)	1,470 (5.1)	1,489 (3.6)	2,095 (4.9)	729 (5.7)

TABLE 27-2. JOURNEY-TO-WORK DATA - PROVIDENCE

SMSA: PROVIDENCE-PAWTUCKET-WARWICK, R.I. - MASS.						PLACE OF RESIDENCE (000)							
						LIVING IN THE SMSA					LIVING OUTSIDE SMSA, WORKING IN IT	GRAND TOTAL	EMPLOYMENT DENSITY FOR GRAND TOTALS (PER SQ. MI.)
						SMSA TOTAL	URBANIZED AREA			RURAL AND SCATTERED URBAN			
							U.A. TOTAL	CENTRAL CITY	URBANIZED RING				
HOME-TO-WORK FLOWS	PLACE OF WORK (000)	SMSA	SMSA TOTAL			325	285	130	155	40	20	345	508
			U.A.	URBANIZED AREA TOTAL		303	272	126	146	31	18	321	1,316
				CENTRAL CITY	CENTRAL CITY TOTAL	169	159	101	58	10	7	176	2,839
					CBD	21	20	11	9	1	1	22	44,000
					OTHER	148	139	90	49	9	6	154	2,504
				URBANIZED RING		134	113	25	88	21	11	145	797
			RURAL & SCATTERED URBAN			22	13	4	9	9	2	24	55
		WORKING OUTSIDE SMSA, LIVING IN IT				46	42	8	34	4		46	
		GRAND TOTAL				371	327	138	189	44	20	391	
	WORKER DENSITY FOR GRAND TOTALS (PER SQ. MI.)					546	1,340	2,226	1,039	101			
	DISTRIBUTION OF WORK TRIPS BY MODE (%)	AUTO DRIVER; AUTO PASS.				84%	82%	80%	84%	93%	100%	84%	
		PUBLIC TRANSPORTATION				5	6	8	4	0	0	5	
		WALK; WORK AT HOME				9	10	10	10	5	0	9	
		TAXI; OTHER				2	2	2	2	2	0	2	

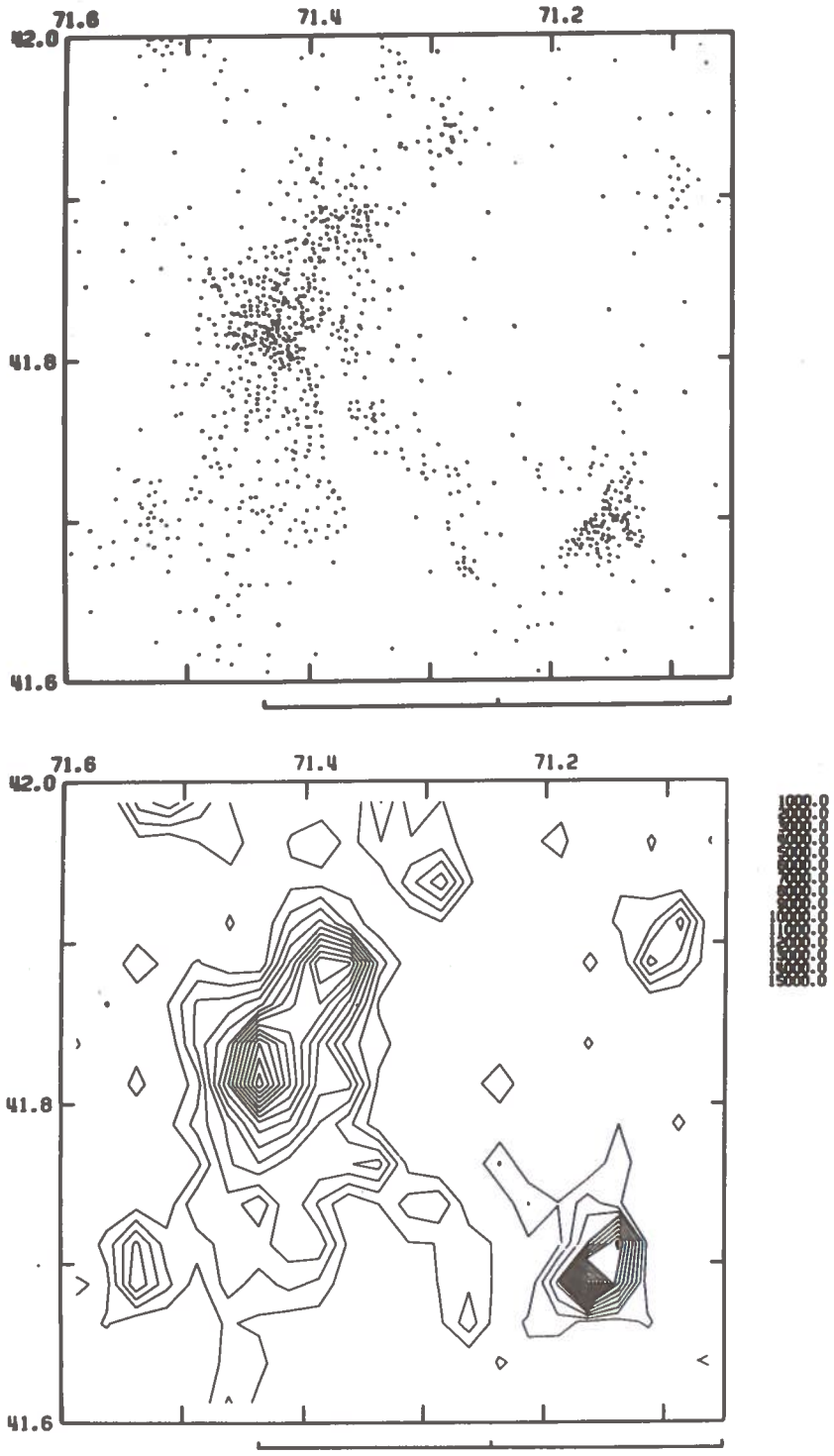
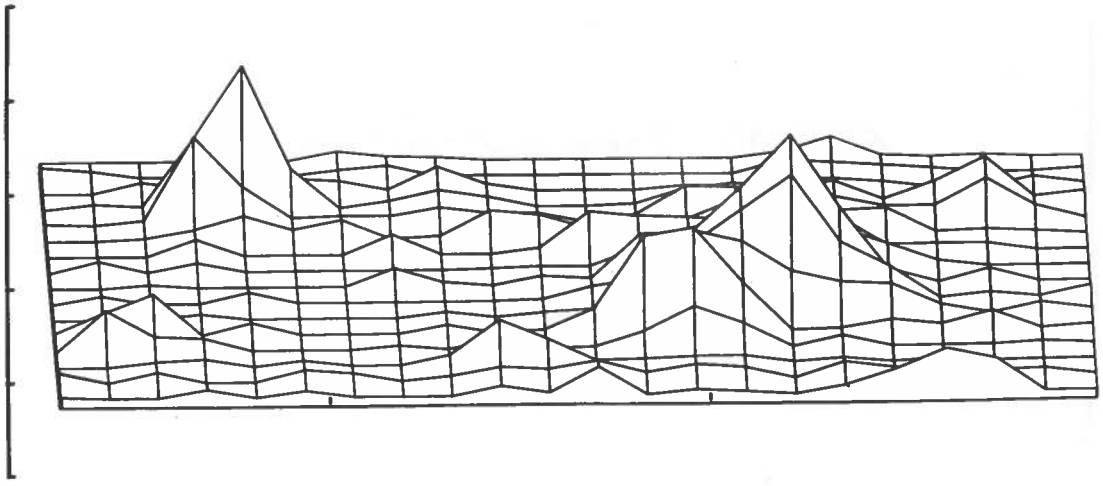
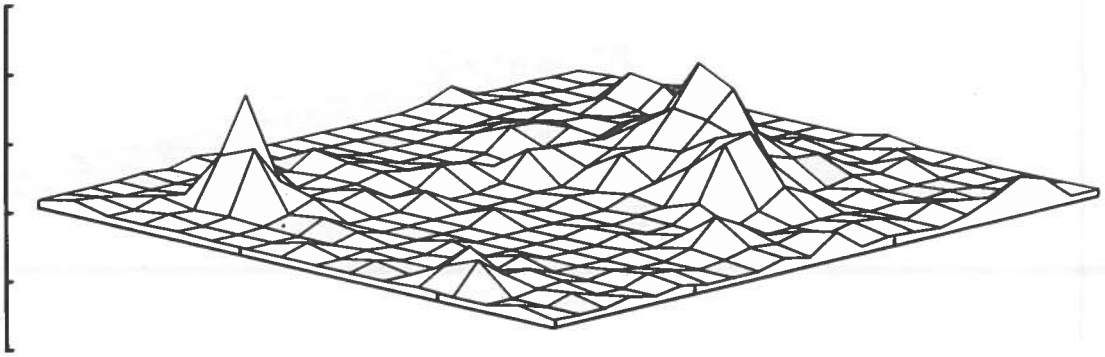


Figure 27-1. Population Density Plots - Dot and Contour Maps - Providence

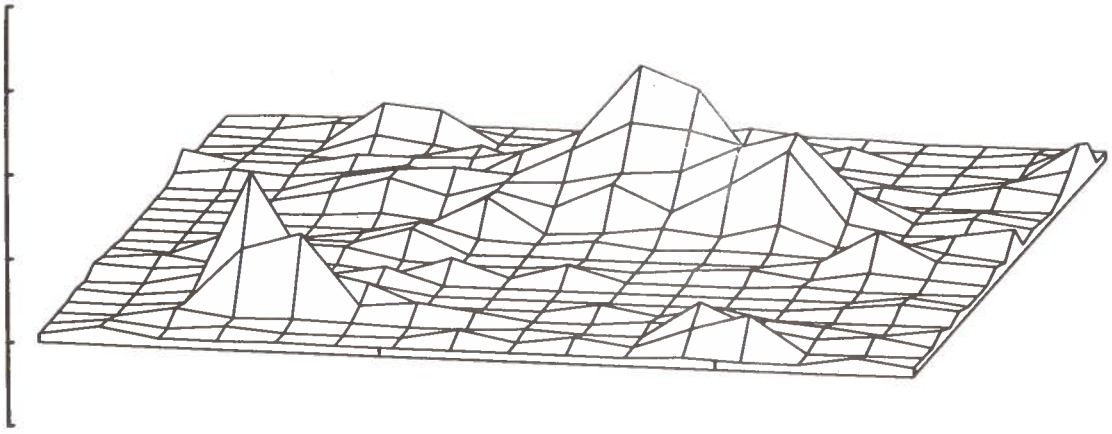


0.0 DEGREES

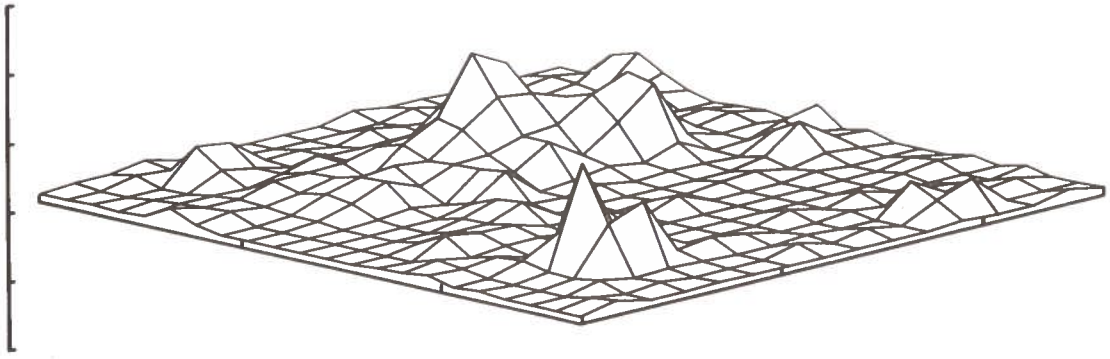


45.0 DEGREES

Figure 27-2. Population Density Plots - Isometric Views (0°, 45°) - Providence

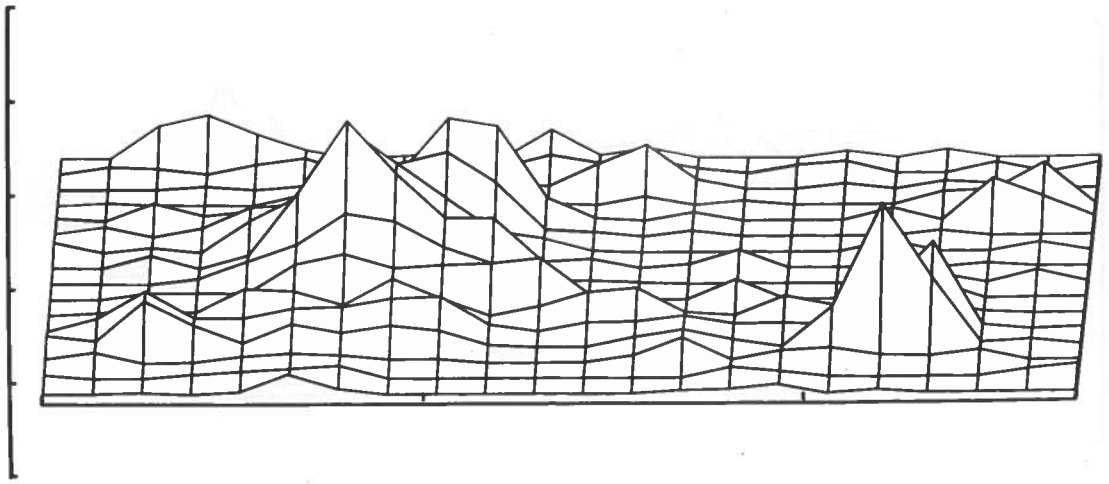


90.0 DEGREES

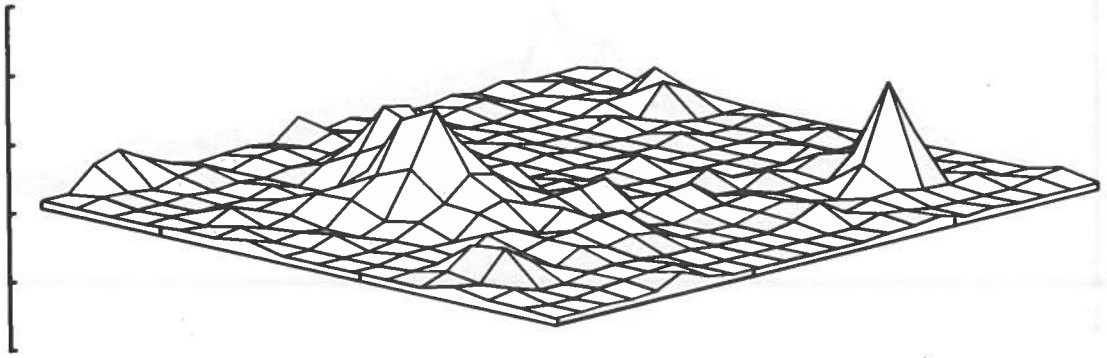


135.0 DEGREES

Figure 27-3. Population Density Plots - Isometric Views (90°, 135°) - Providence

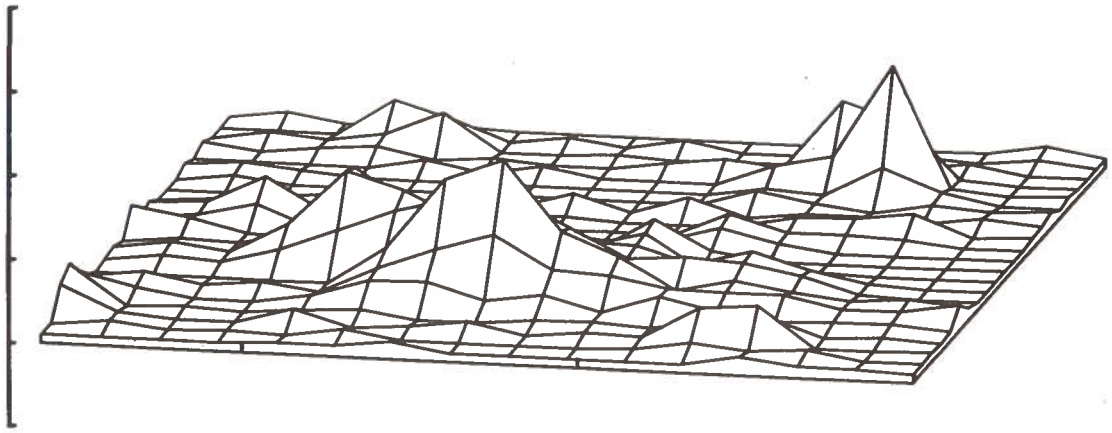


180.0 DEGREES

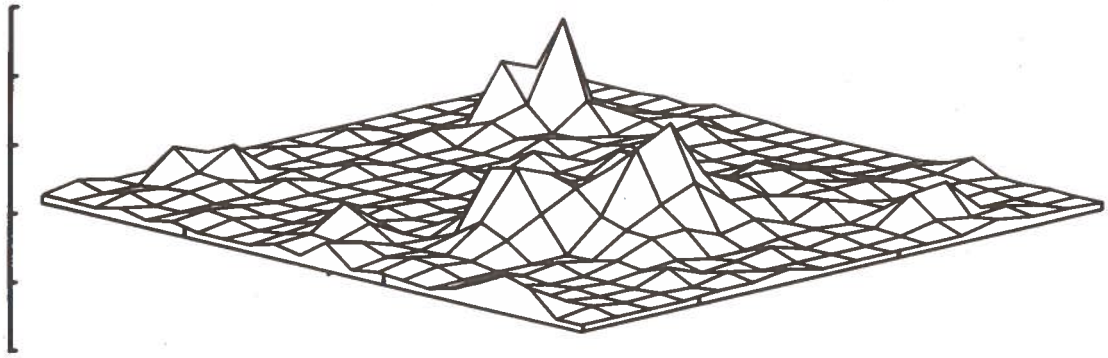


225.0 DEGREES

Figure 27-4. Population Density Plots - Isometric Views (180°, 225°) - Providence



270.0 DEGREES



315.0 DEGREES

Figure 27-5. Population Density Plots - Isometric Views (270°, 315°) - Providence

28. ST. LOUIS, MISSOURI

TABLE 28-1. SOCIO-ECONOMIC DATA BY URBAN RING - ST. LOUIS

CITY TRACTS BY INNER & OUTER RADII / URBAN CHARACTERISTICS

CITY: ST. LOUIS, MO.
U. A. RANK: 10

	TOTAL POP.	LAND AREA (SQ. MI.)	POP. DENSITY
SMSA:	2,363,000	4,118	574
URBANIZED AREA:	1,882,944	461	4,088
CENTRAL CITY:	622,000	61	10,167
CBD:	587	0.355	1,654

0.0 MI. PIVOT POINT: LATITUDE: 38° 37' 0" LONGITUDE: 90° 11' 36"

	0.0 - 1.0 MI.	1.0 - 2.0 MI.	2.0 - 4.0 MI.	4.0 - 6.0 MI.	6.0 - 8.0 MI.	8.0 - 10.0 MI.	10.0 - 12.0 MI.	12.0 - 14.0 MI.	14.0 - 16.0 MI.	16.0 - 18.0 MI.	18.0 - 20.0 MI.
Total Pop. (%)	17,251(100.0)	41,691(100.0)	286,638(100.0)	332,951(100.0)	292,021(100.0)	254,510(100.0)	252,986(100.0)	234,779(100.0)	127,701(100.0)	88,115(100.0)	137,407(100.0)
White Pop. (%)	11,323 (65.6)	18,323 (43.9)	155,613 (54.3)	189,701 (57.0)	250,677 (85.8)	244,440 (96.0)	240,531 (95.1)	231,360 (98.5)	125,733 (98.5)	87,500 (99.3)	133,797 (97.4)
Black Pop. (%)	5,767 (33.4)	23,168 (55.6)	129,843 (45.3)	142,229 (42.7)	39,865 (13.7)	8,757 (3.4)	11,776 (4.7)	2,690 (1.1)	1,473 (1.2)	343 (0.4)	3,227 (2.3)
Span. (%of white)	164 (1.0)	308 (0.7)	2,407 (0.8)	3,617 (1.1)	2,410 (0.8)	2,212 (0.9)	2,230 (0.9)	1,993 (0.8)	1,352 (1.1)	818 (0.9)	1,071 (.08)
Other (%)	161 (0.9)	200 (0.5)	1,182 (0.4)	1,021 (0.3)	1,479 (0.5)	1,313 (0.5)	679 (0.3)	729 (0.3)	495 (0.4)	272 (0.3)	383 (0.3)
Total Male Pop.	8,256	19,029	130,777	152,618	137,583	121,586	122,327	114,546	63,190	43,467	67,168
Median Male Age	27.5	19.9	26.9	28.5	28.8	29.1	27.2	26.3	23.5	23.3	26.3
Total Female Pop.	8,995	22,662	155,861	180,333	154,438	132,924	130,659	120,233	64,511	44,648	70,239
Median Female Age	31.6	25.3	32.3	33.9	33.7	32.0	29.1	27.6	24.5	24.4	27.7
% of Total Pop.-65+	15.2	10.7	14.0	13.5	12.5	9.7	7.5	6.4	4.2	4.5	8.2
Mean Family Inc.	$8,459	$6,396	$8,020	$9,055	$11,829	$13,657	$14,513	$14,739	$14,030	$14,500	$11,335
Median Family Inc.	$6,137	$5,767	$7,236	$8,925	$10,443	$12,142	$12,239	$12,821	$12,709	$12,896	$10,519
No. of Households	6,093	11,056	85,774	99,635	89,712	78,039	72,027	63,647	33,199	21,763	36,409
No. of Families	3,459	8,809	66,592	82,313	76,161	68,182	65,913	60,417	31,631	21,631	35,044
Average H.H. Size	2.7	3.7	3.2	3.3	3.2	3.2	3.5	3.7	3.8	4.0	3.7
Average Fam. Size	3.6	4.1	3.6	3.6	3.4	3.4	3.6	3.7	3.9	3.9	3.6
Total No. of Renters	5,926	10,159	66,219	52,038	31,844	20,350	15,257	14,914	6,906	4,121	11,184
Avg. Rent Paid	$88	$49	$65	$78	$97	$123	$109	$123	$131	$119	$79
Median Rent Paid	$78	$51	$55	$61	$97	$124	$114	$123	$129	$105	$73
% of Total Pop. Renting	97.3	91.9	77.2	52.2	35.5	26.1	21.2	23.4	20.8	18.9	30.7
Total No. of Home Owners	$167	897	19,555	47,597	57,868	57,689	56,770	48,733	26,293	17,642	25,225
Avg. Value of House	$6,252	$9,110	$10,651	$13,769	$15,940	$20,546	$21,489	$23,082	$22,912	$24,970	$17,989
Median Value of House	$5,562	$8,075	$10,033	$12,893	$14,578	$18,297	$18,099	$19,875	$19,812	$21,483	$15,771
% of Total Pop. Own Home	2.7	8.1	22.8	47.8	64.5	73.9	78.8	76.6	79.2	81.1	69.3
No. Own 0 Auto. (%)	4,130 (62.0)	7,237 (57.5)	43,594 (44.2)	33,722 (30.3)	16,176 (16.8)	5,564 (6.9)	4,956 (6.6)	3,602 (5.2)	1,298 (3.7)	930 (4.0)	3,754 (9.1)
No. Own 1 Auto. (%)	2,199 (33.0)	4,339 (34.5)	44,354 (44.9)	56,416 (50.7)	51,254 (53.1)	39,274 (48.5)	33,830 (45.3)	29,746 (43.3)	14,249 (41.0)	9,156 (39.1)	20,725 (50.2)
No. Own 2 Autos. (%)	299 (4.5)	868 (6.9)	9,648 (9.8)	18,459 (16.6)	25,324 (26.2)	31,300 (38.7)	30,399 (40.7)	30,317 (44.1)	16,782 (48.2)	11,724 (50.1)	15,003 (36.3)
No. Own 3*Autos. (%)	33 (0.5)	133 (1.1)	1,082 (1.1)	2,578 (2.3)	3,728 (3.9)	4,841 (6.0)	5,431 (7.3)	5,067 (7.4)	2,464 (7.1)	1,503 (6.8)	1,821 (4.4)

TABLE 28-2. JOURNEY-TO-WORK DATA - ST. LOUIS

SMSA: ST. LOUIS, MO.						PLACE OF RESIDENCE (000)							
						LIVING IN THE SMSA					LIVING OUTSIDE SMSA, WORKING IN IT	GRAND TOTAL	EMPLOYMENT DENSITY FOR GRAND TOTALS (PER SQ. MI.)
							URBANIZED AREA			RURAL AND SCATTERED URBAN			
						SMSA TOTAL	U.A. TOTAL	CENTRAL CITY	URBANIZED RING				
HOME-TO-WORK FLOWS	PLACE OF WORK (000)	SMSA	SMSA TOTAL			863	698	222	476	165	31	894	217
			U.A.	URBANIZED AREA TOTAL		767	661	215	446	106	27	794	1,722
				CENTRAL CITY	CENTRAL CITY TOTAL	363	329	175	154	34	9	372	6,098
					CBD	32	29	13	16	3	2	34	95,775
					OTHER	331	300	162	138	31	7	338	5,573
				URBANIZED RING		404	332	40	292	72	18	422	1,055
			RURAL & SCATTERED URBAN			96	37	7	30	59	4	100	27
		WORKING OUTSIDE SMSA, LIVING IN IT				13	8	1	7	5		13	
		GRAND TOTAL				876	706	223	483	170	31	907	
	WORKER DENSITY FOR GRAND TOTALS (PER SQ. MI.)					213	1,531	3,656	1,208	47			
	DISTRIBUTION OF WORK TRIPS BY MODE (%)	AUTO DRIVER; AUTO PASS.				84%	82%	70%	88%	89%	87%	84%	
		PUBLIC TRANSPORTATION				7	9	20	4	1	3	7	
		WALK; WORK AT HOME				7	7	9	6	8	0	7	
		TAXI; OTHER				2	2	1	2	2	10	2	

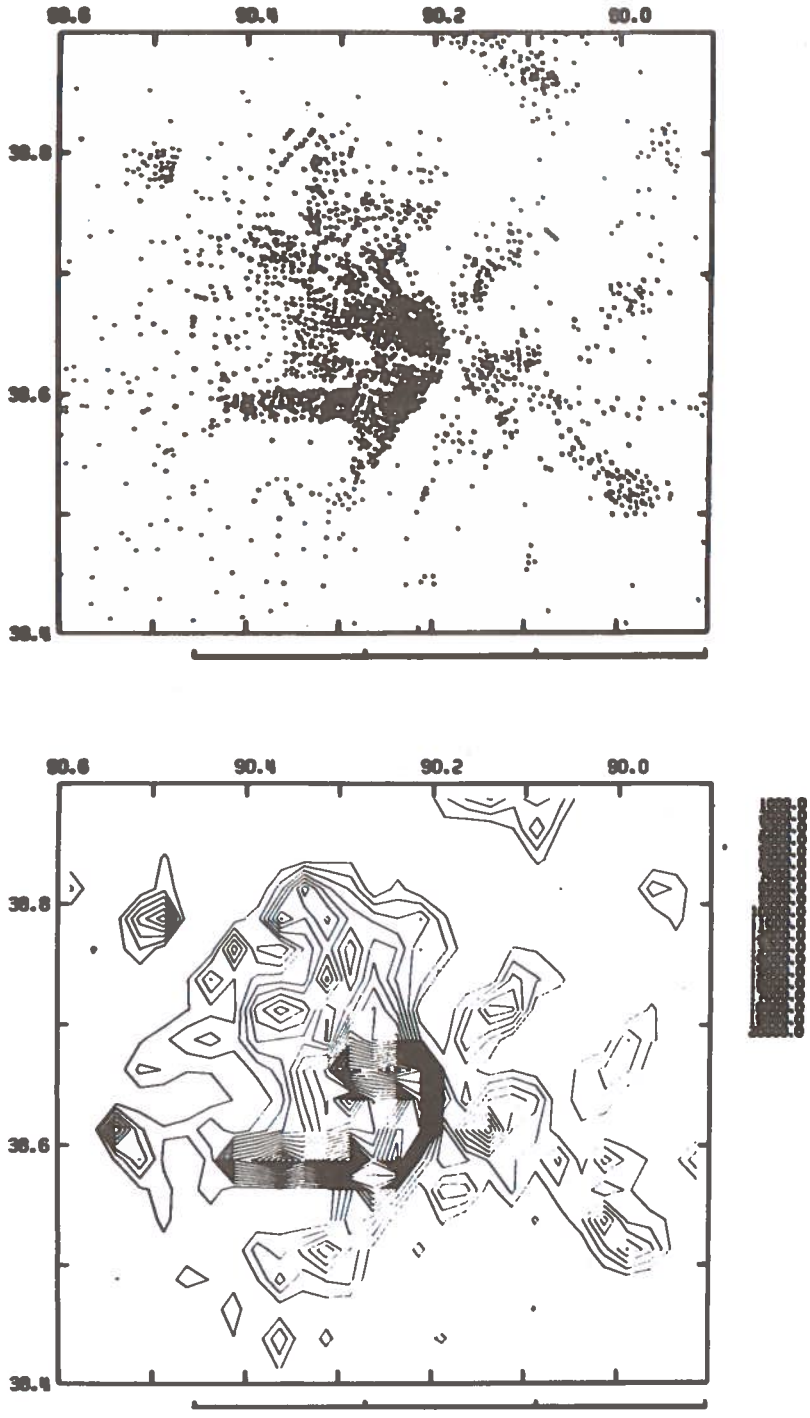
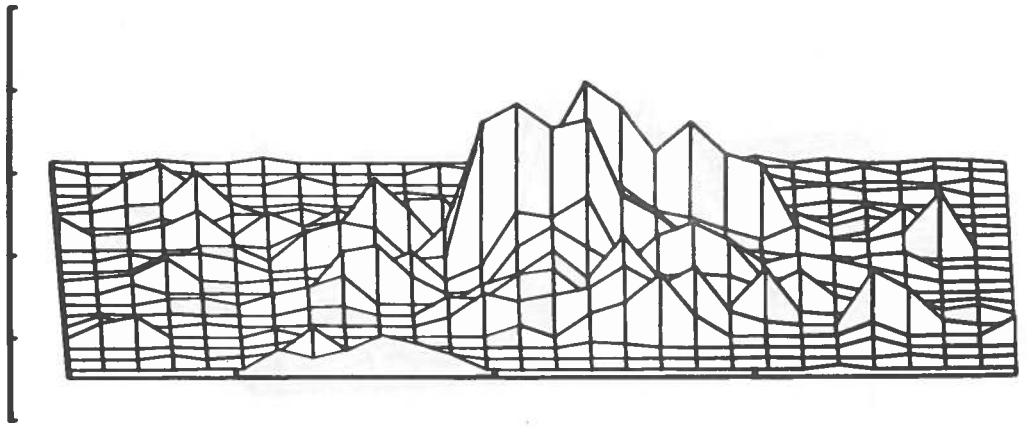
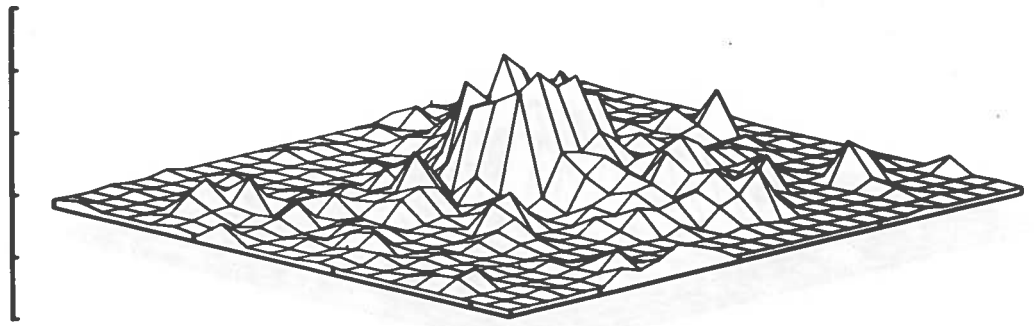


Figure 28-1. Population Density Plots - Dot and Contour Maps - St. Louis



0.0 DEGREES



45.0 DEGREES

Figure 28-2. Population Density Plots - Isometric Views (0°, 45°) - St. Louis

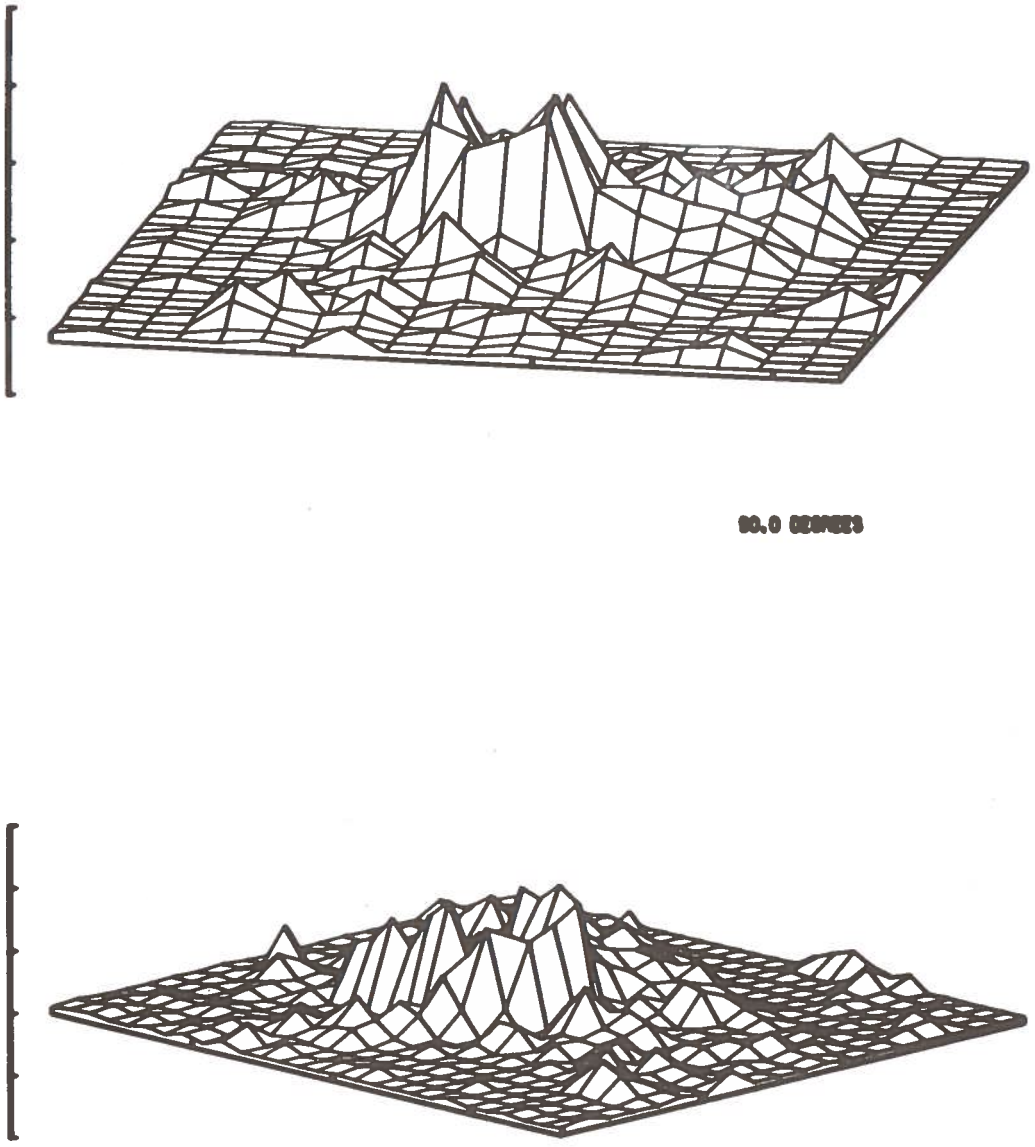
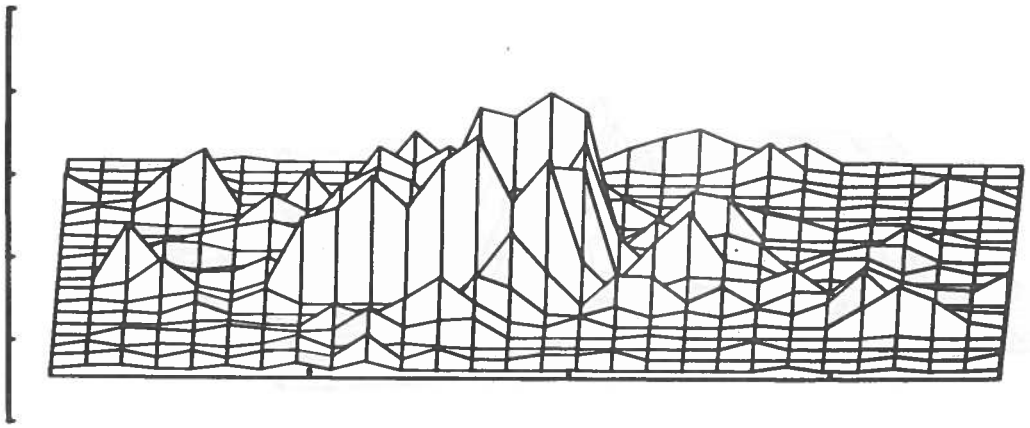
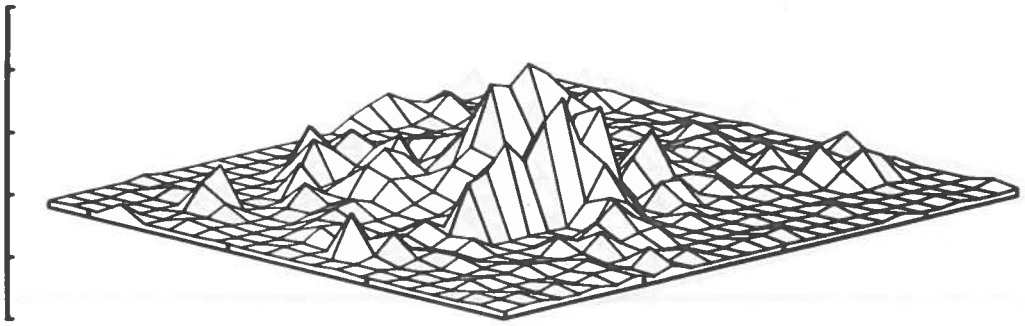


Figure 28-3. Population Density Plots - Isometric Views (90°, 135°) - St. Louis

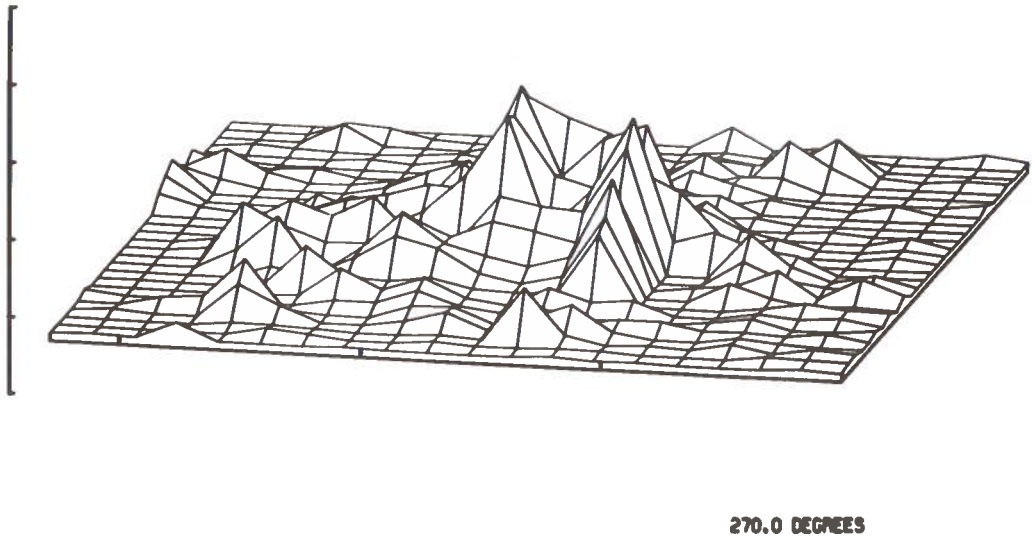


180.0 DEGREES



225.0 DEGREES

Figure 28-4. Population Density Plots - Isometric Views (180°, 225°) - St. Louis



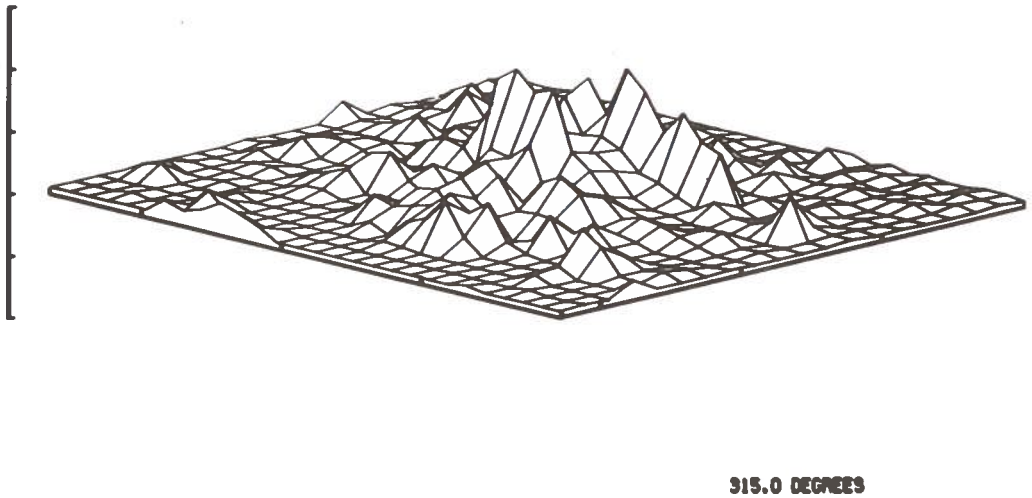


Figure 28-5. Population Density Plots - Isometric Views (270°,315°) - St. Louis

29. SAN ANTONIO, TEXAS

TABLE 29-1. SOCIO-ECONOMIC DATA BY URBAN RING - SAN ANTONIO

CITY: SAN ANTONIO, TX
U. A. RANK: 32

	TOTAL POP.	LAND AREA (SQ. MI.)	POP. DENSITY
SMSA:	864,014	1,960	441
URBANIZED AREA:	772,513	223	3,466
CENTRAL CITY:	654,289	184	3,556
CBD:	3,275	1.01	3,240

0.0 MI. PIVOT POINT: LATITUDE: 29° 25' 24" LONGITUDE: 98° 29' 42"

CITY TRACTS BY INNER & OUTER RADII / URBAN CHARACTERISTICS	0.0 - 1.0 MI.	1.0 - 2.0 MI.	2.0 - 4.0 MI.	4.0 - 6.0 MI.	6.0 - 8.0 MI.	8.0 - 10.0 MI.	10.0 - 12.0 MI.	12.0 - 14.0 MI.	14.0 - 16.0 MI.	16.0 - 18.0 MI.	18.0 - 20.0 MI.
Total Pop. (%)	18,382(100.0)	72,480(100.0)	251,992(100.0)	220,479(100.0)	132,475(100.0)	77,594(100.0)	9,733(100.0)	20,992(100.0)	20,551(100.0)	9,648(100.0)	60(100.0)
White Pop. (%)	17,956 (97.7)	63,032 (87.0)	219,351 (87.0)	209,728 (95.1)	127,389 (96.2)	75,312 (97.1)	9,675 (99.4)	20,142 (96.0)	19,991 (97.3)	9,457 (98.0)	60(100.0)
Black Pop. (%)	352 (1.9)	9,064 (12.5)	30,576 (12.1)	9,056 (4.1)	3,812 (2.9)	1,551 (2.0)	0 (.0)	708 (3.4)	427 (2.1)	127 (1.3)	0 (.0)
Span. (% of white)	15,163 (82.5)	54,450 (75.1)	154,701 (61.4)	90,244 (40.9)	32,875 (24.8)	15,213 (19.6)	1,055 (10.8)	4,342 (20.7)	5,401 (26.3)	2,929 (30.4)	0 (.0)
Other (%)	74 (.4)	384 (.5)	2,065 (.8)	1,695 (.8)	1,274 (1.0)	731 (.9)	58 (.6)	142 (.7)	133 (.6)	64 (.7)	0 (.0)
Total Male Pop.	8,900	33,312	119,367	106,003	72,721	38,388	5,286	10,651	10,682	4,817	48
Median Male Age	27.1	24.0	23.3	24.0	20.7	21.6	26.8	24.1	22.7	24.2	24.8
Total Female Pop.	9,482	39,168	132,625	114,476	59,754	39,206	4,447	10,341	9,869	4,831	12
Median Female Age	29.7	28.8	27.3	26.6	24.8	22.7	29.7	25.5	23.2	24.0	28.9
% of Total Pop.-65+	15.3	13.2	10.1	6.6	4.2	1.7	7.6	5.8	3.8	7.8	0.0
Mean Family Inc.	$4,678	$5,816	$7,983	$10,372	$12,732	$10,864	$11,877	$11,337	$9,942	$8,078	$8,722
Median Family Inc.	$3,951	$4,971	$6,764	$8,997	$10,624	$9,818	$10,917	$8,958	$8,650	$6,947	$6,714
No. of Households	6,370	22,564	72,323	63,559	32,534	21,264	2,453	5,953	5,260	2,758	11
No. of Families	3,622	16,654	57,467	54,192	28,815	19,586	2,262	5,415	4,752	2,453	11
Average H.H. Size	2.7	3.2	3.4	3.4	3.5	3.6	3.5	3.5	3.7	3.5	2.7
Average Fam. Size	3.9	3.9	3.9	3.8	3.8	3.8	3.7	3.7	3.9	3.8	2.7
Total No. of Renters	5,279	12,482	27,306	18,751	10,353	5,080	252	1,215	1,855	681	0
Avg. Rent Paid	$51	$52	$62	$101	$126	$129	$74	$95	$62	$69	0
Median Rent Paid	$52	$52	$56	$97	$132	$132	$69	$92	$79	$65	0
% of Total Pop. Renting	87.5	59.6	39.9	30.4	33.8	26.1	14.2	27.3	46.9	34.5	0
Total No. of Home Owners	754	8,458	41,134	42,971	20,278	14,382	1,525	3,235	2,104	1,292	0
Avg. Value of House	$10,577	$8,736	$11,106	$14,499	$21,215	$20,433	$25,358	$21,453	$17,833	$15,855	0
Median Value of House	$8,894	$6,949	$9,236	$12,691	$18,507	$18,295	$24,086	$19,632	$16,139	$13,443	0
% of Total Pop. Own Home	12.5	40.4	60.1	69.6	66.2	73.9	85.8	72.7	53.1	65.5	0
No. Own 0 Auto. (%)	3,960 (61.9)	8,628 (38.6)	13,987 (19.3)	4,484 (7.0)	1,045 (3.2)	258 (1.2)	61 (2.5)	320 (5.3)	199 (3.8)	178 (6.6)	0
No. Own 1 Auto. (%)	1,895 (29.6)	10,057 (45.0)	36,552 (50.5)	30,143 (47.3)	13,182 (40.8)	9,930 (46.9)	801 (33.1)	2,567 (42.8)	2,687 (51.5)	1,495 (55.3)	0
No. Own 2 Autos. (%)	428 (6.7)	3,154 (14.1)	18,289 (25.3)	23,759 (37.3)	14,672 (45.4)	9,446 (44.6)	1,148 (47.5)	2,579 (43.0)	1,863 (35.7)	847 (31.3)	0
No. Own 3+Autos. (%)	118 (1.8)	503 (2.3)	3,574 (4.9)	5,294 (8.3)	3,447 (10.7)	1,559 (7.4)	407 (16.8)	532 (8.9)	473 (9.1)	182 (6.7)	0

TABLE 29-2. JOURNEY-TO-WORK DATA - SAN ANTONIO

SMSA: SAN ANTONIO, TEXAS

						PLACE OF RESIDENCE (000)							
						LIVING IN THE SMSA							
							URBANIZED AREA						
						SMSA TOTAL	U.A. TOTAL	CENTRAL CITY	URBANIZED RING	RURAL AND SCATTERED URBAN	LIVING OUTSIDE SMSA, WORKING IN IT	GRAND TOTAL	EMPLOYMENT DENSITY FOR GRAND TOTALS (PER SQ. MI.)
HOME-TO-WORK FLOWS	PLACE OF WORK (000)	SMSA			SMSA TOTAL	312	281	225	56	31	10	322	164
			U.A.		URBANIZED AREA TOTAL	290	270	219	51	20	9	299	1,341
				CENTRAL CITY	CENTRAL CITY TOTAL	255	237	201	36	18	8	263	1,429
					CBD	32	30	28	2	2	1	33	33,000
					OTHER	223	207	173	34	16	7	230	1,257
					URBANIZED RING	35	33	18	15	2	1	36	923
					RURAL & SCATTERED URBAN	22	11	6	5	11	1	23	13
					WORKING OUTSIDE SMSA, LIVING IN IT	6	5	3	2	1		6	
					GRAND TOTAL	318	286	228	58	32	10	322	
					WORKER DENSITY FOR GRAND TOTALS (PER SQ. MI.)	162	1,283	1,239	1,487	18			
	DISTRIBUTION OF WORK TRIPS BY MODE (%)				AUTO DRIVER; AUTO PASS.	80%	80%	86%	63%	83%	89%	80%	
					PUBLIC TRANSPORTATION	6	6	7	3	0	1	6	
					WALK; WORK AT HOME	12	12	5	32	13	4	12	
					TAXI; OTHER	2	2	2	2	4	6	2	

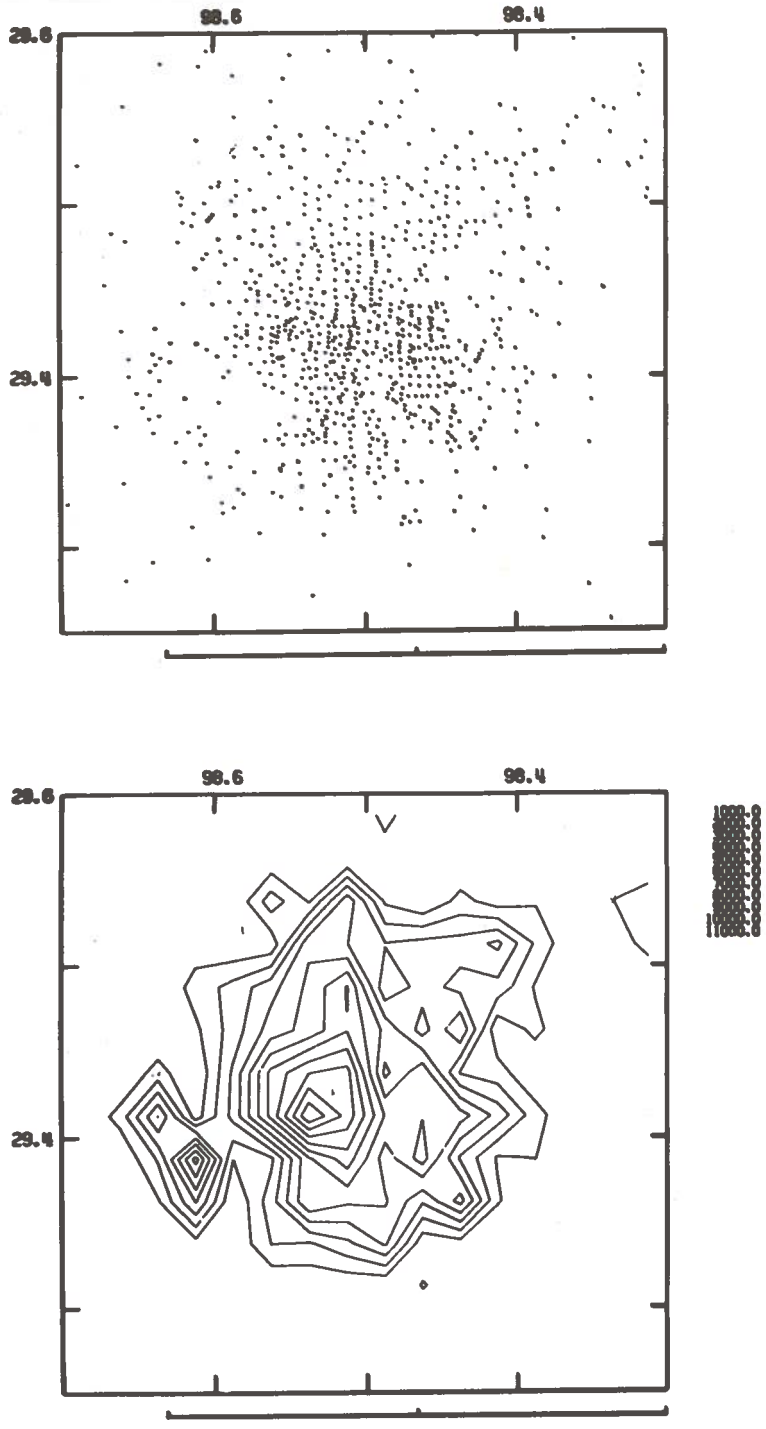
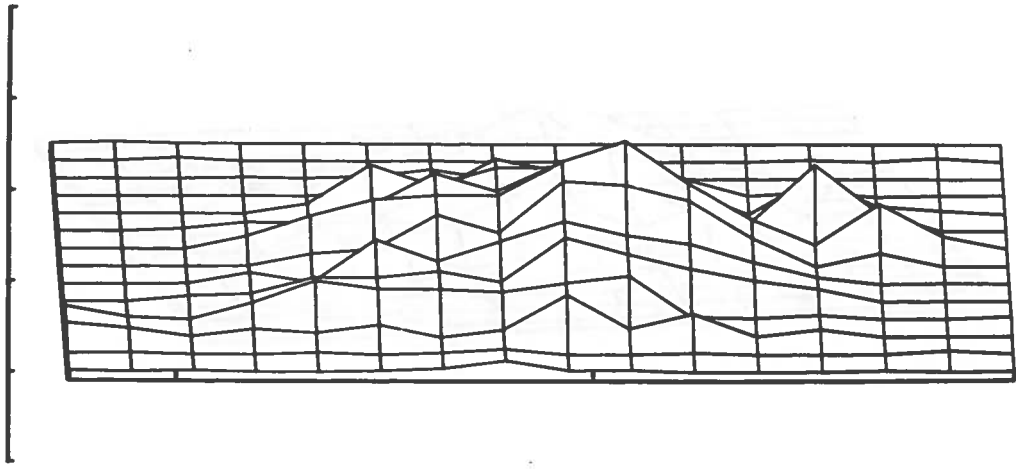
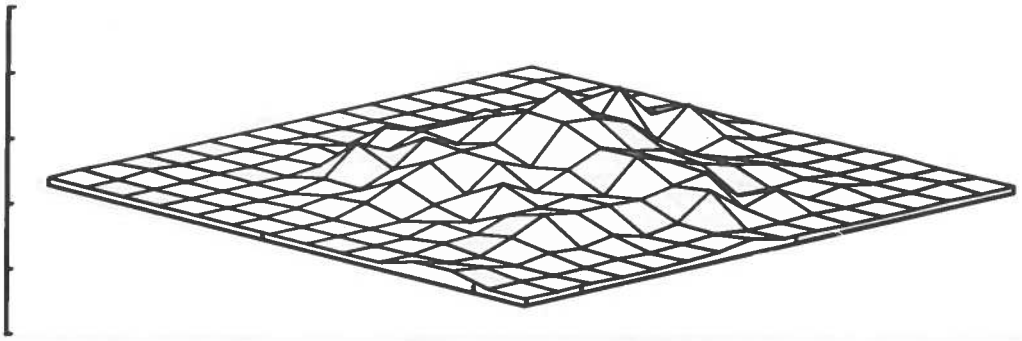


Figure 29-1. Population Density Plots - Dot and Contour Maps - San Antonio

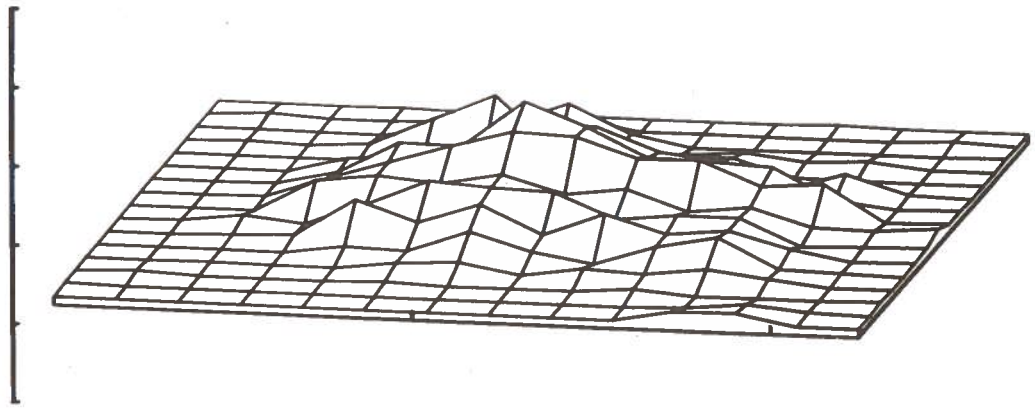


0.0 DEGREES

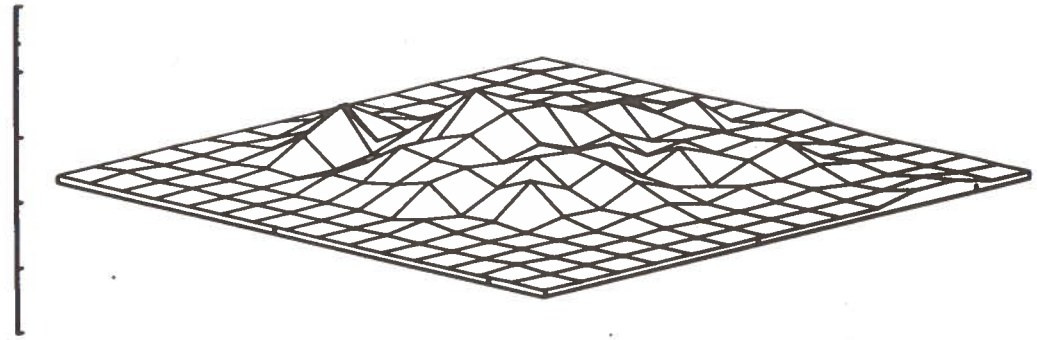


45.0 DEGREES

Figure 29-2. Population Density Plots - Isometric Views (0°, 45°) - San Antonio

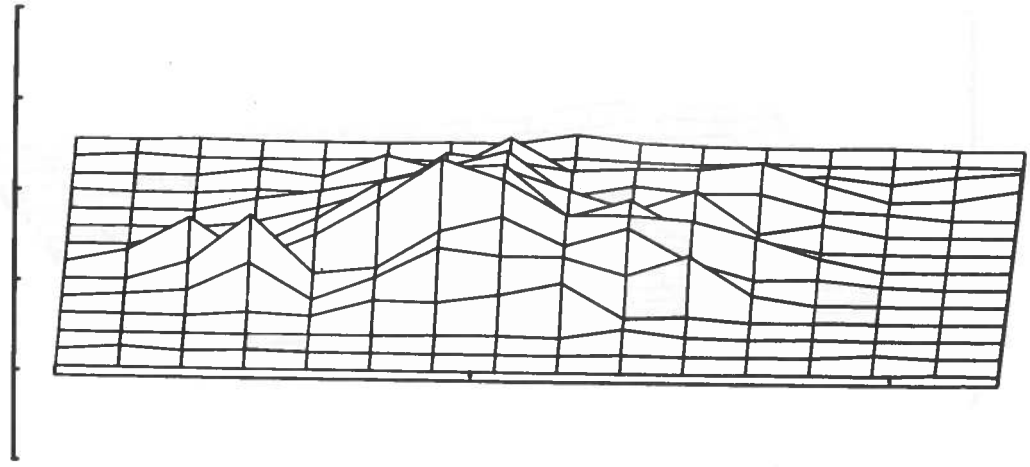


90.0 DEGREES

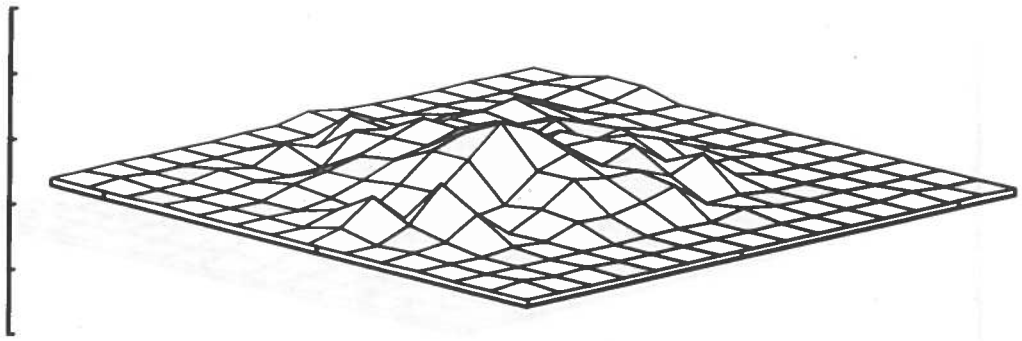


135.0 DEGREES

Figure 29-3. Population Density Plots - Isometric Views (90°, 135°) - San Antonio

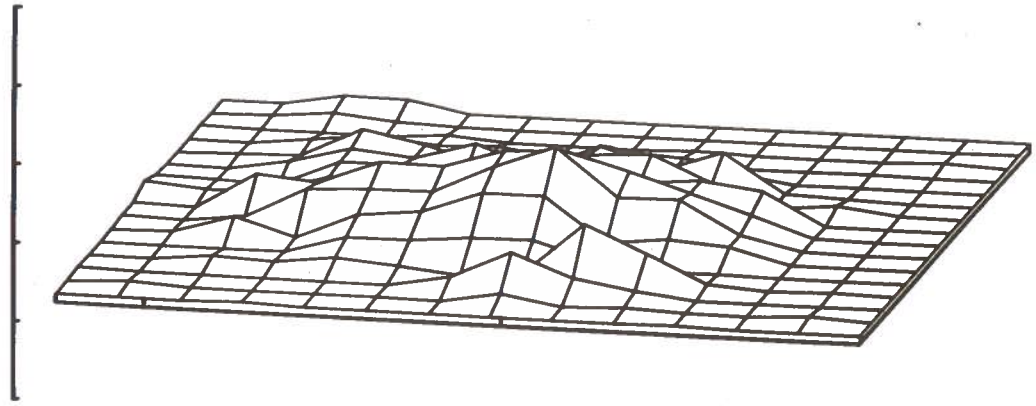


180.0 DEGREES

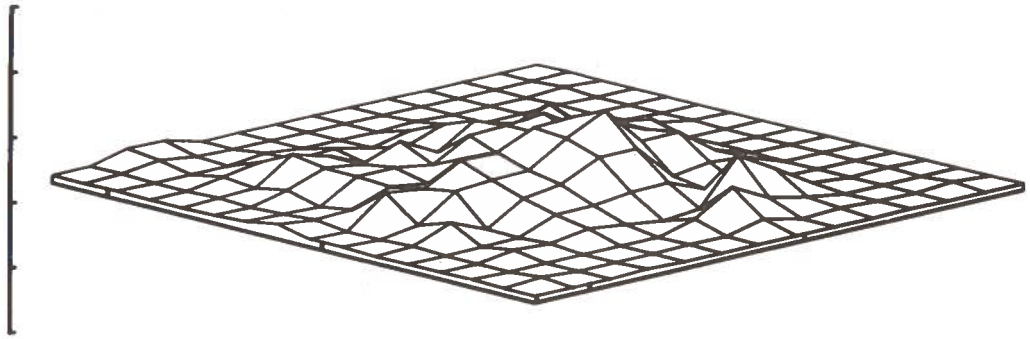


225.0 DEGREES

Figure 29-4. Population Density Plots - Isometric Views (180°, 225°) - San Antonio



270.0 DEGREES



315.0 DEGREES

Figure 29-5. Population Density Plots - Isometric Views (270°, 315°) - San Antonio

30. SAN DIEGO, CALIFORNIA*

*See Notes, Section 3.2.

TABLE 30-1. SOCIO-ECONOMIC DATA BY URBAN RING - SAN DIEGO

CITY TRACTS BY INNER & OUTER RADII / URBAN CHARACTERISTICS	0.0 - 1.0 MI.	1.0 - 2.0 MI.	2.0 - 4.0 MI.	4.0 - 6.0 MI.	6.0 - 8.0 MI.	8.0 - 10.0 MI.	10.0 - 12.0 MI.	12.0 - 14.0 MI.	14.0 - 16.0 MI.	16.0 - 18.0 MI.	18.0 - 20.0 MI.
CITY: SAN DIEGO, CALIFORNIA U. A. RANK: 19				SMSA: TOTAL POP. 1,358,000; LAND AREA (SQ. MI.) 4,262; POP. DENSITY 319 URBANIZED AREA: 1,198,323; 381; 3,148 CENTRAL CITY: 694,000; 213; 3,261 CBD: 5,618; 0.325; 11,132				0.0 MI. PIVOT POINT: LATITUDE: 32° 42' 48" LONGITUDE: 117° 9' 12"			
Total Pop. (%)	16,991(100.0)	40,945(100.0)	188,436(100.0)	237,900(100.0)	195,046(100.0)	194,553(100.0)	112,797(100.0)	50,715(100.0)	32,664(100.0)	24,976(100.0)	12,001(100.0)
White Pop. (%)	13,726 (80.8)	30,521 (74.5)	158,878 (84.3)	214,439 (90.1)	184,812 (94.8)	188,694 (97.0)	108,171 (95.9)	50,191 (99.0)	32,297 (98.9)	24,667 (98.8)	11,833 (98.6)
Black Pop. (%)	2,495 (14.7)	8,782 (21.4)	22,517 (11.9)	14,076 (5.9)	5,598 (2.9)	828 (0.4)	824 (0.7)	105 (0.2)	0 (0.0)	25 (0.1)	0 (0.0)
Span. (% of white)	3,500 (20.6)	7,928 (19.4)	27,547 (14.6)	32,175 (13.5)	21,186 (10.9)	24,852 (12.8)	15,401 (13.7)	3,755 (7.4)	2,664 (8.2)	1,424 (5.7)	884 (7.4)
Other (%)	770 (4.5)	1,642 (4.0)	7,041 (3.7)	9,385 (3.9)	4,636 (2.4)	5,031 (2.6)	3,802 (3.4)	419 (0.8)	367 (1.1)	284 (1.1)	168 (1.4)
Total Male Pop.	10,561	19,424	111,184	117,272	100,479	96,153	54,433	24,463	16,280	12,332	6,013
Median Male Age	34.1	27.2	24.1	26.2	24.1	24.4	25.5	25.2	23.9	26.0	25.3
Total Female Pop.	6,430	21,521	77,252	120,628	94,567	98,400	58,364	26,252	16,384	12,644	5,988
Median Female Age	32.1	29.1	30.9	28.4	28.3	26.8	28.6	27.2	25.2	26.9	26.2
% of Total Pop.-65+	17.8	11.6	10.6	8.1	6.9	5.7	7.8	9.7	5.0	6.9	5.6
Mean Family Inc.	$6,766	$9,387	$9,160	$11,972	$11,498	$12,479	$13,823	$10,965	$12,457	$11,758	$10,743
Median Family Inc.	$5,685	$8,204	$7,844	$10,404	$10,823	$11,366	$12,113	$10,027	$11,946	$11,362	$10,387
No. of Households	7,674	15,126	54,947	74,739	58,141	52,753	31,413	13,123	8,433	6,352	2,605
No. of Families	2,660	10,053	37,643	59,681	47,527	49,011	28,203	12,695	7,970	6,410	3,121
Average H.H. Size	1.8	2.7	2.6	3.0	3.1	3.6	3.6	3.6	3.8	3.9	4.6
Average Fam. Size	3.0	3.4	3.1	3.4	3.4	3.7	3.7	3.5	3.9	3.6	3.6
Total No. of Renters	7,170	10,487	36,642	35,361	27,206	17,805	10,399	6,297	1,821	1,988	582
Avg. Rent Paid	$70	$102	$103	$119	$130	$132	$146	$120	$124	$125	$105
Median Rent Paid	$57	$87	$102	$120	$129	$130	$136	$124	$122	$127	$105
% of Total Pop. Renting	93.4	69.3	66.7	47.3	46.8	33.8	33.1	48.0	21.6	31.3	22.3
Total No. of Home Owners	504	4,639	18,305	39,378	30,935	34,948	21,014	6,826	6,612	4,364	2,023
Avg. Value Of House	$17,219	$22,512	$20,567	$25,530	$23,177	$26,531	$31,224	$22,920	$26,066	$26,685	$22,067
Median Value of House	$15,348	$19,926	$17,600	$22,111	$21,441	$23,033	$27,585	$20,241	$22,879	$23,391	$21,131
% of Total Pop. Own Home	6.6	30.7	33.3	52.7	53.2	66.2	66.9	52.0	78.4	68.7	77.7
No. Own 0 Autos. (%)	4,870 (60.9)	4,088 (26.0)	12,559 (21.9)	7,608 (9.8)	4,870 (7.8)	2,944 (5.2)	2,152 (6.3)	1,116 (7.2)	306 (3.5)	322 (4.3)	57 (1.6)
No. Own 1 Auto. (%)	2,596 (32.5)	7,925 (50.5)	31,147 (54.2)	37,019 (47.4)	29,288 (47.1)	23,929 (42.3)	14,377 (41.8)	7,235 (46.5)	3,306 (37.3)	3,040 (40.8)	1,461 (42.3)
No. Own 2 Autos. (%)	448 (5.6)	3,098 (19.7)	11,573 (20.1)	26,994 (34.6)	22,496 (36.2)	23,813 (42.1)	14,324 (41.6)	5,903 (37.9)	4,071 (45.9)	3,262 (43.8)	1,509 (43.7)
No. Own 3+Autos. (%)	81 (1.0)	597 (3.8)	2,184 (3.8)	6,396 (8.2)	5,501 (8.9)	5,944 (10.5)	3,540 (10.3)	1,303 (8.4)	1,179 (13.3)	820 (11.0)	430 (12.4)

TABLE 30-2. JOURNEY-TO-WORK DATA - SAN DIEGO

SMSA: SAN DIEGO, CALIF.

						PLACE OF RESIDENCE (000)							
						LIVING IN THE SMSA							
							URBANIZED AREA						
						SMSA TOTAL	U.A. TOTAL	CENTRAL CITY	URBANIZED RING	RURAL AND SCATTERED URBAN	LIVING OUTSIDE SMSA, WORKING IN IT	GRAND TOTAL	EMPLOYMENT DENSITY FOR GRAND TOTALS (PER SQ. MI.)
HOME-TO-WORK FLOWS	PLACE OF WORK (000)	SMSA			SMSA TOTAL	530	468	279	189	62	7	537	126
			U.A.		URBANIZED AREA TOTAL	497	456	273	183	41	6	503	1,320
				CENTRAL CITY	CENTRAL CITY TOTAL	322	303	236	67	19	3	325	1,526
					CBD	22	20	16	4	2	1	23	70,769
					OTHER	300	283	220	63	17	2	302	1,420
				URBANIZED RING		175	153	37	116	22	3	178	1,060
			RURAL & SCATTERED URBAN			33	12	6	6	21	1	34	9
		WORKING OUTSIDE SMSA, LIVING IN IT				10	8	4	4	2		10	
		GRAND TOTAL				540	476	283	193	64	7	547	
	WORKER DENSITY FOR GRAND TOTALS (PER SQ. MI.)					127	1,249	1,329	1,149	17			
	DISTRIBUTION OF WORK TRIPS BY MODE (%)	AUTO DRIVER; AUTO PASS.				76%	76%	75%	78%	69%	86%	76%	
		PUBLIC TRANSPORTATION				4	5	5	4	2	0	4	
		WALK; WORK AT HOME				17	16	17	14	23	0	17	
		TAXI; OTHER				3	3	3	4	6	14	3	

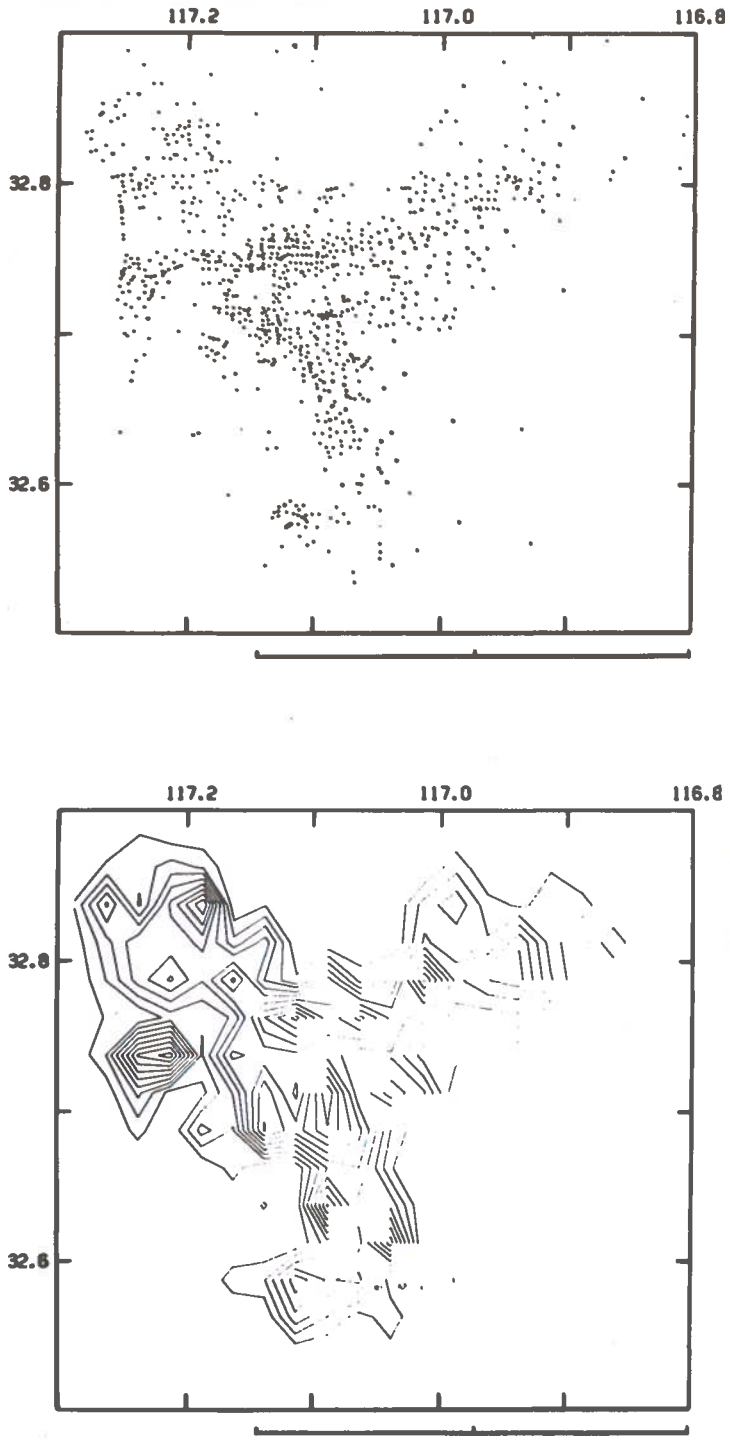
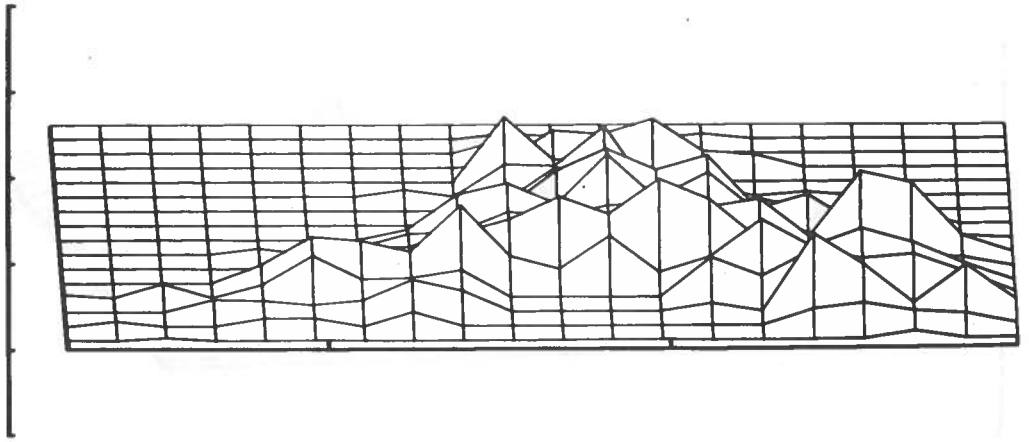
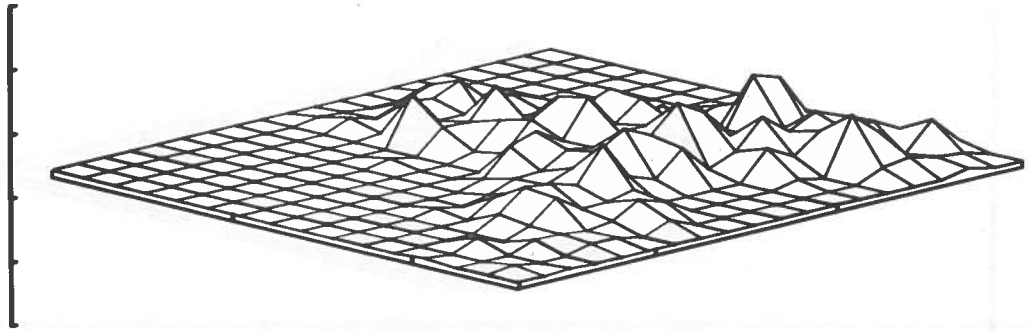


Figure 30-1. Population Density Plots - Dot and Contour Maps - San Diego

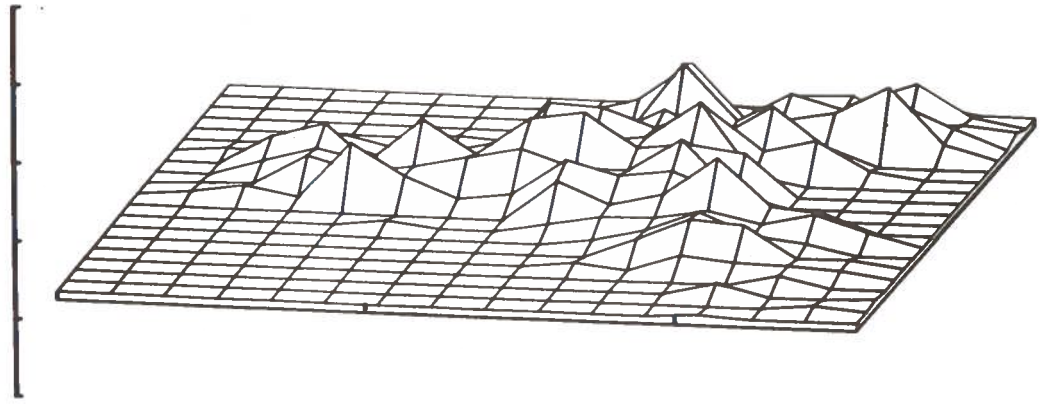


0.0 DEGREES

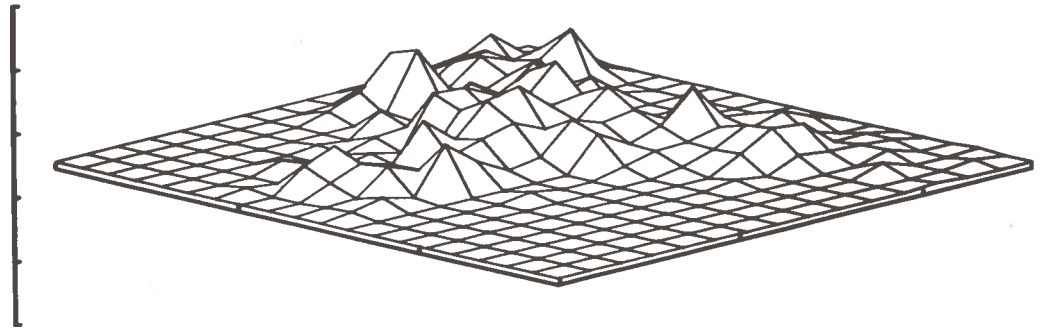


45.0 DEGREES

Figure 30-2. Population Density Plots - Isometric Views (0°, 45°) - San Diego

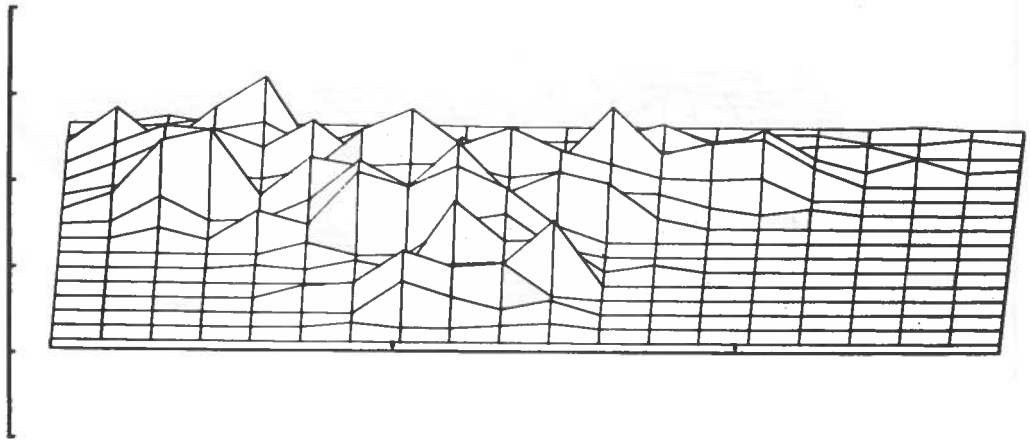


90.0 DEGREES

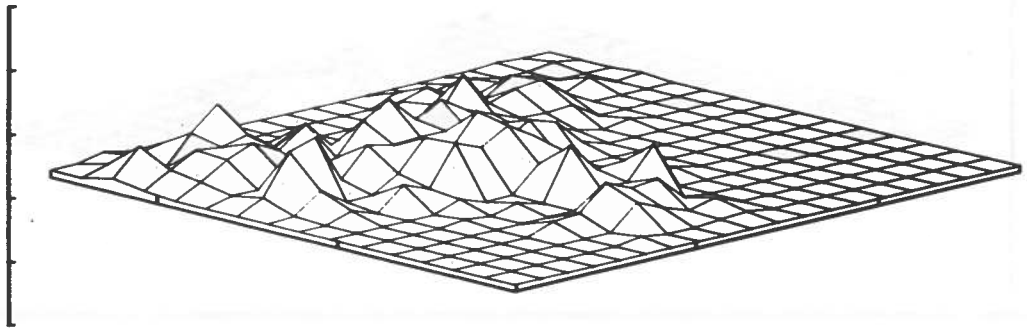


135.0 DEGREES

Figure 30-3. Population Density Plots - Isometric Views (90°, 135°) - San Diego

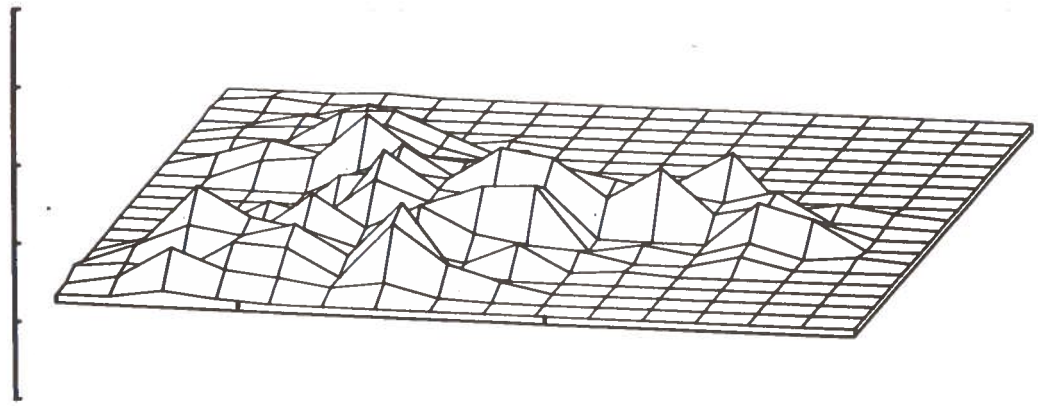


180.0 DEGREES

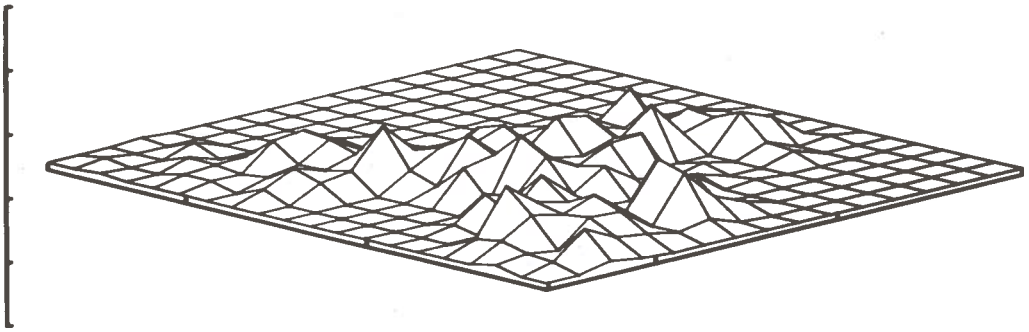


225.0 DEGREES

Figure 30-4. Population Density Plots - Isometric Views (180°, 225°) - San Diego



270.0 DEGREES



315.0 DEGREES

Figure 30-5. Population Density Plots - Isometric Views (270°, 315°) - San Diego

31. SAN FRANCISCO-OAKLAND, CALIFORNIA*

*See Notes, Section 3.2.

TABLE 31-1. SOCIO-ECONOMIC DATA BY URBAN RING - SAN FRANCISCO-OAKLAND

CITY: SAN FRANCISCO - OAKLAND, CAL.
U. A. RANK: 6

	TOTAL POP.	LAND AREA (SQ. MI.)	POP. DENSITY
SMSA:	3,108,000	2,478	1,254
URBANIZED AREA:	2,987,850	681	4,387
CENTRAL CITY:	1,077,000	99	10,903
CBD:	26,156	1.128	23,185

0.0 MI. PIVOT POINT: LATITUDE: 37° 46' 30" LONGITUDE: 122° 25' 0"

CITY TRACTS BY INNER & OUTER RADII / URBAN CHARACTERISTICS	0.0 - 1.0 MI.	1.0 - 2.0 MI.	2.0 - 4.0 MI.	4.0 - 6.0 MI.	6.0 - 8.0 MI.	8.0 - 10.0 MI.	10.0 - 12.0 MI.	12.0 - 14.0 MI.	14.0 - 16.0 MI.	16.0 - 18.0 MI.	18.0 - 20.0 MI.
Total Pop. (%)	53,148(100.0)	264,695(100.0)	255,474(100.0)	166,668(100.0)	119,064(100.0)	258,147(100.0)	351,575(100.0)	245,675(100.0)	225,300(100.0)	181,977(100.0)	159,973(100.0)
White Pop. (%)	32,902 (61.9)	178,668 (67.5)	194,931 (76.3)	125,303 (75.2)	97,208 (81.6)	173,525 (67.2)	283,802 (80.7)	180,096 (73.3)	207,848 (92.3)	175,502 (96.4)	154,566 (96.6)
Black Pop. (%)	13,310 (25.0)	33,658 (12.7)	27,145 (10.6)	24,083 (14.4)	15,743 (13.2)	65,762 (25.5)	48,096 (13.7)	57,598 (23.4)	10,397 (4.6)	1,084 (0.6)	1,276 (0.8)
Span. (% of white)	9,281 (17.5)	36,790 (13.9)	40,091 (15.7)	21,656 (13.0)	15,871 (13.3)	26,399 (10.2)	31,665 (9.0)	23,351 (9.5)	23,488 (10.4)	18,148 (10.0)	20,050 (12.5)
Other (%)	6,936 (13.1)	52,369 (19.8)	33,398 (13.1)	17,282 (10.4)	6,113 (5.1)	18,860 (7.3)	19,677 (5.6)	7,981 (3.2)	7,055 (3.1)	5,391 (3.0)	4,131 (2.6)
Total Male Pop.	30,031	127,461	120,475	79,741	62,446	124,367	169,615	119,657	108,790	89,261	77,567
Median Male Age	37.7	33.9	31.2	31.1	26.5	29.4	28.3	30.1	31.1	27.9	28.8
Total Female Pop.	23,117	137,234	134,999	86,927	56,618	133,780	181,960	126,018	116,510	92,716	82,406
Median Female Age	34.7	34.8	36.0	37.6	27.9	31.6	31.0	31.1	33.8	29.5	30.6
% of Total Pop. +65+	15.6	14.2	13.6	12.6	6.3	11.7	11.2	19.5	9.3	6.7	8.4
Mean Family Inc.	$9,005	$11,679	$13,447	$12,887	$12,528	$11,387	$13,595	$12,829	$16,060	$14,450	$14,319
Median Family Inc.	$6,850	$9,225	$11,408	$11,730	$11,484	$10,141	$11,742	$11,576	$13,358	$13,192	$13,150
No. of Households	26,702	112,787	84,729	54,823	36,803	96,750	122,394	77,259	74,609	54,901	46,581
No. of Families	9,062	54,643	63,141	44,443	27,624	64,040	87,009	64,707	61,050	48,061	42,916
Average H.H. Size	1.9	2.3	2.9	2.9	3.0	2.6	2.8	3.1	3.0	3.3	3.4
Average Fam. Size	3.1	3.1	3.3	3.3	3.5	3.2	3.2	3.4	3.3	3.5	3.4
Total No. of Renters	26,447	105,099	47,732	20,965	20,557	67,073	60,678	29,861	28,021	18,108	17,026
Avg. Rent Paid	$95	$131	$137	$142	$121	$118	$128	$124	$143	$150	$145
Median Rent Paid	$85	$125	$138	$152	$121	$112	$125	$121	$139	$147	$143
% of Total Pop. Renting	99.0	93.2	56.3	38.2	55.9	69.3	49.6	38.7	37.6	33.0	36.6
Total No. of Home Owners	255	7,688	36,997	33,858	16,246	29,677	61,716	47,398	46,588	36,793	29,555
Avg. Value of House	$28,676	$34,455	$30,774	$29,087	$28,831	$26,542	$29,516	$28,164	$33,524	$31,557	$30,909
Median Value of House	$24,788	$29,922	$28,156	$27,304	$26,460	$23,777	$26,749	$24,037	$28,999	$28,582	$28,823
% of Total Pop. Own Home	1.0	6.8	43.7	61.8	44.1	30.7	50.4	61.3	62.4	67.0	63.4
No. Own 0 Auto. (%)	20,008 (71.2)	62,627 (50.5)	24,525 (26.4)	10,596 (18.5)	7,258 (18.7)	25,300 (24.6)	21,456 (16.8)	10,242 (12.7)	7,081 (9.1)	3,121 (5.6)	3,449 (6.7)
No. Own 1 Auto. (%)	7,005 (24.9)	49,355 (39.8)	49,100 (52.9)	32,043 (55.9)	19,010 (48.9)	52,324 (50.9)	62,746 (49.0)	37,992 (46.9)	33,358 (43.0)	24,053 (42.1)	22,460 (43.5)
No. Own 2 Autos. (%)	917 (3.3)	10,360 (8.4)	16,434 (17.7)	12,557 (21.9)	10,641 (27.4)	21,454 (20.9)	36,755 (28.7)	27,352 (33.8)	30,045 (38.7)	24,752 (43.3)	21,158 (41.0)
No. Own 3+Autos. (%)	155 (0.6)	1,569 (1.3)	2,786 (3.0)	2,122 (3.7)	1,929 (5.0)	3,734 (3.6)	7,047 (5.5)	5,352 (6.6)	7,093 (9.1)	5,170 (9.0)	4,564 (8.8)

TABLE 31-2. JOURNEY-TO-WORK DATA - SAN FRANCISCO-OAKLAND

SMSA: SAN FRANCISCO - OAKLAND, CALIF.						PLACE OF RESIDENCE (000)							
						LIVING IN THE SMSA							
							URBANIZED AREA						
						SMSA TOTAL	U.A. TOTAL	CENTRAL CITY	URBANIZED RING	RURAL AND SCATTERED URBAN	LIVING OUTSIDE SMSA, WORKING IN IT	GRAND TOTAL	EMPLOYMENT DENSITY FOR GRAND TOTALS (PER SQ. MI.)
HOME-TO-WORK FLOWS	PLACE OF WORK (000)	SMSA	SMSA TOTAL			1203	1126	456	676	77	73	1276	515
			U.A.	URBANIZED AREA TOTAL		1172	1101	445	656	71	71	1243	1,825
				CENTRAL CITY	CENTRAL CITY TOTAL	606	576	389	187	30	26	632	6,384
					CBD	178	172	111	61	6	5	183	162,234
					OTHER	428	404	278	126	24	21	449	4,588
				URBANIZED RING		566	525	56	469	41	45	611	1,050
			RURAL & SCATTERED URBAN			31	25	5	20	6	2	33	18
		WORKING OUTSIDE SMSA, LIVING IN IT				50	46	6	40	4		50	
		GRAND TOTAL				1253	1172	456	716	81	73	1326	
	WORKER DENSITY FOR GRAND TOTALS (PER SQ. MI.)					506	1,721	4,606	1,230	45			
	DISTRIBUTION OF WORK TRIPS BY MODE (%)	AUTO DRIVER; AUTO PASS.				74%	74%	56%	85%	75%	84%	74%	
		PUBLIC TRANSPORTATION				15	16	30	7	4	5	14	
		WALK; WORK AT HOME				8	8	12	5	17	1	8	
		TAXI; OTHER				3	2	2	3	4	10	4	

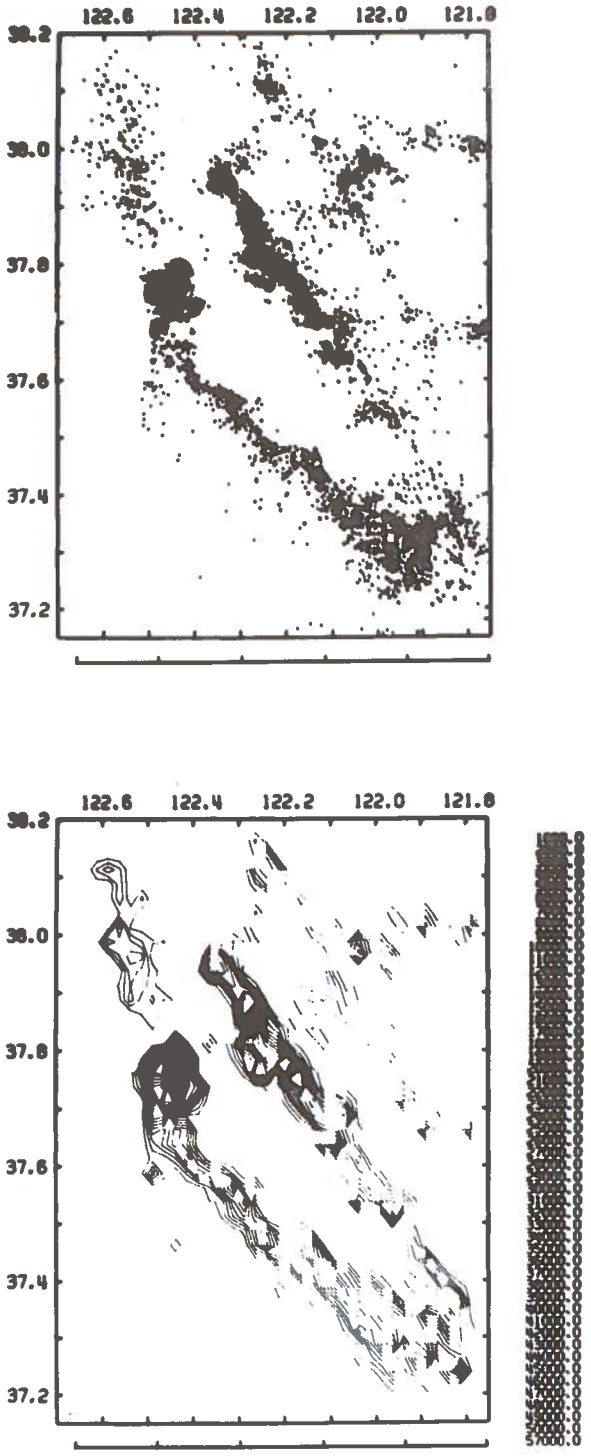
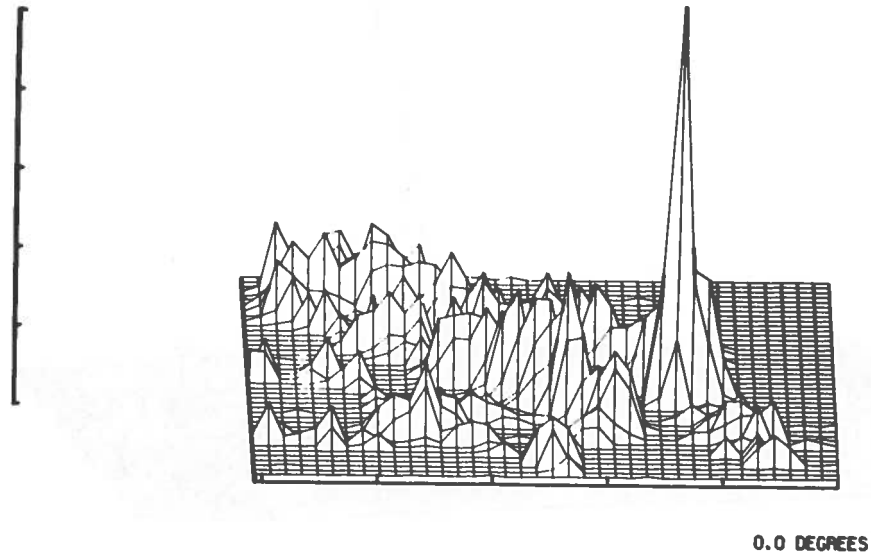


Figure 31-1. Population Density Plots - Dot and Contour Maps - San Francisco-Oakland



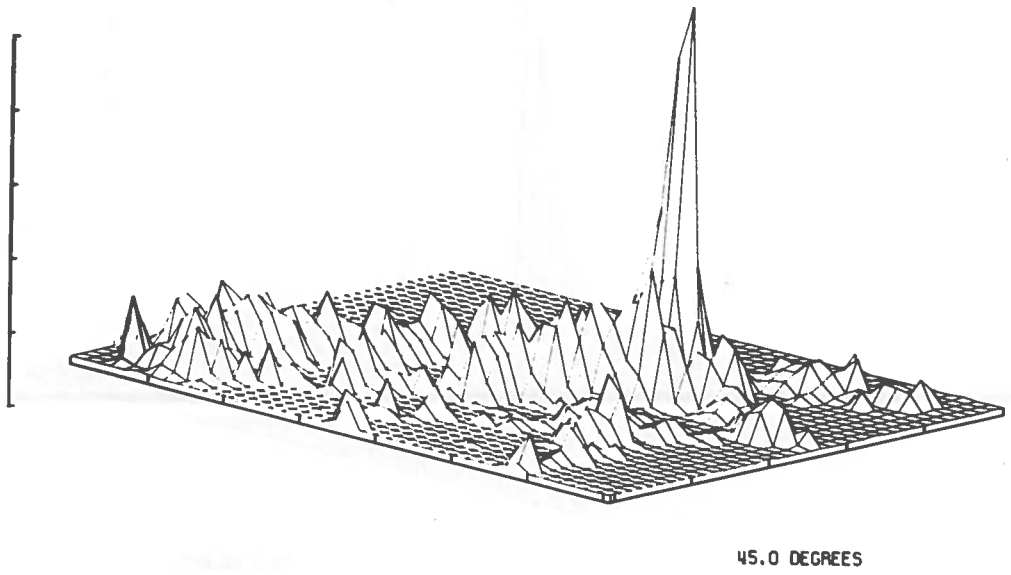
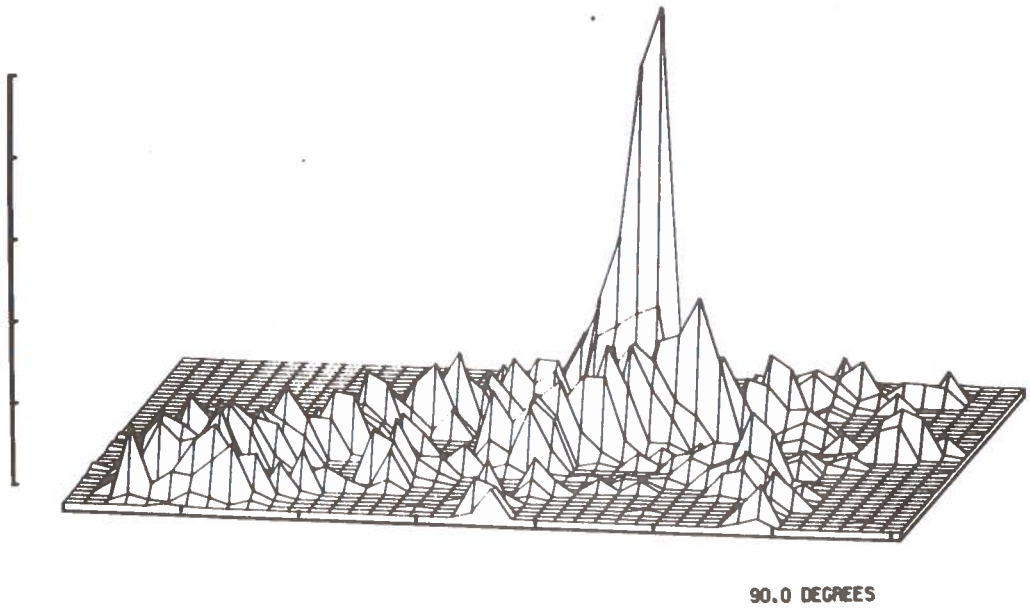
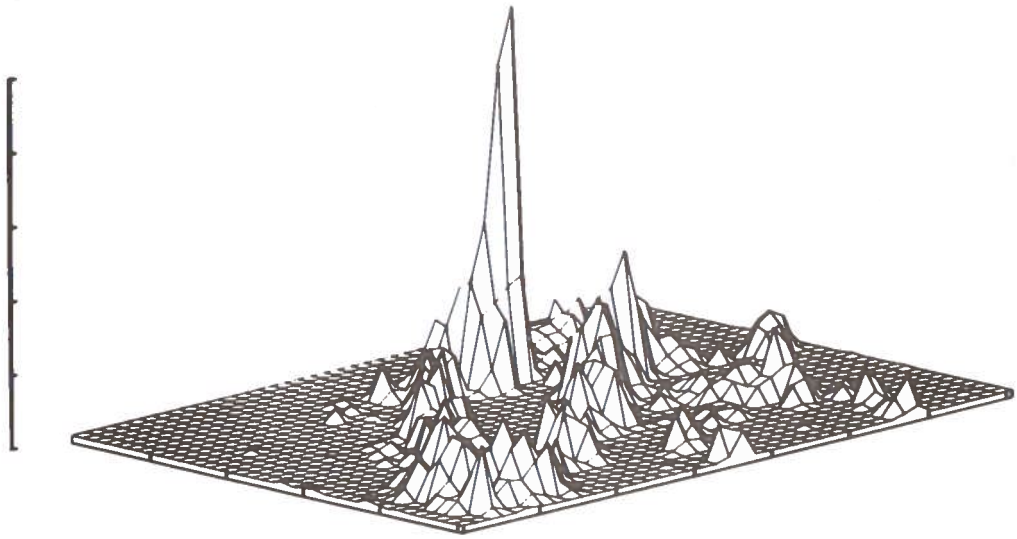


Figure 31-2. Population Density Plots - Isometric Views (0°, 45°) - San Francisco-Oakland

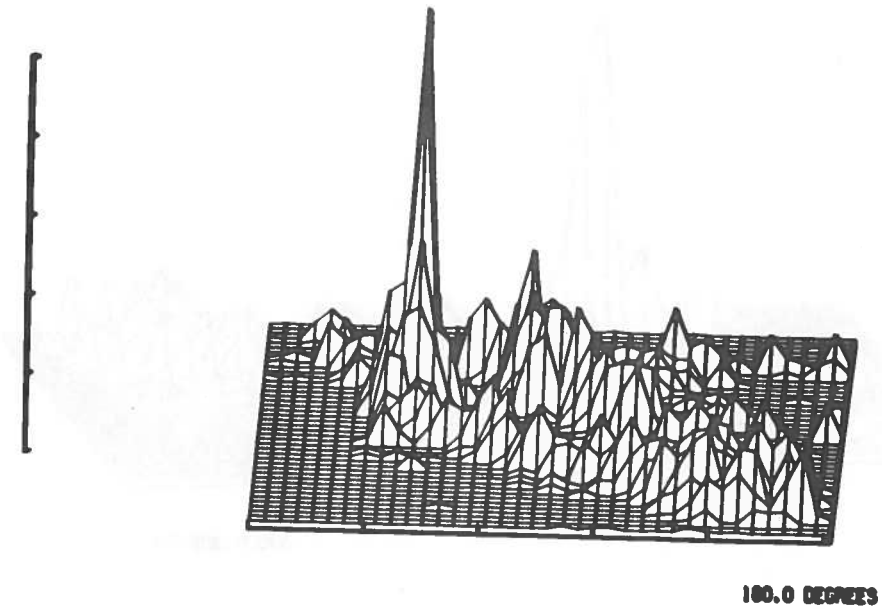


90.0 DEGREES



135.0 DEGREES

Figure 31-3. Population Density Plots - Isometric Views (90°, 135°) - San Francisco-Oakland



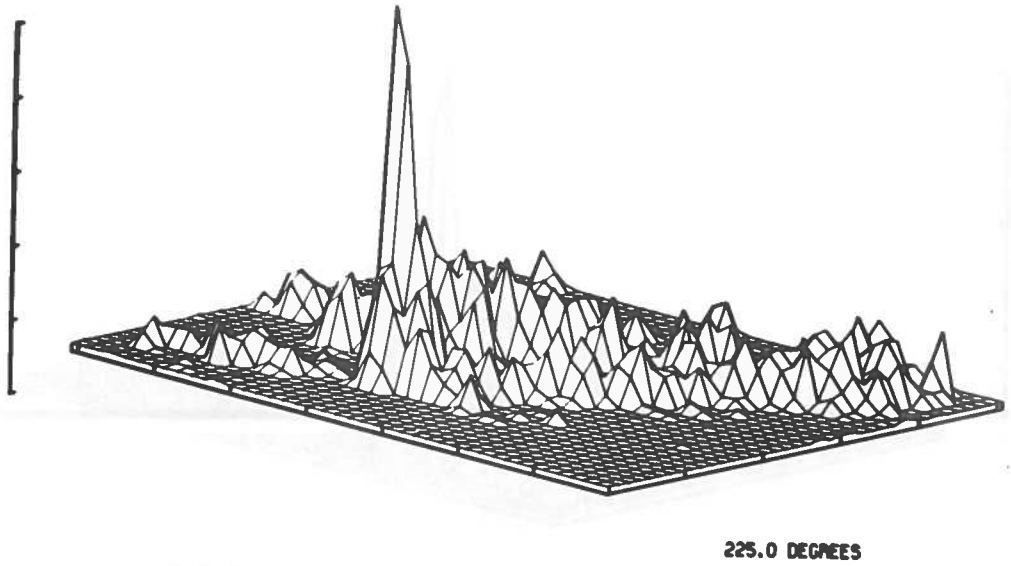
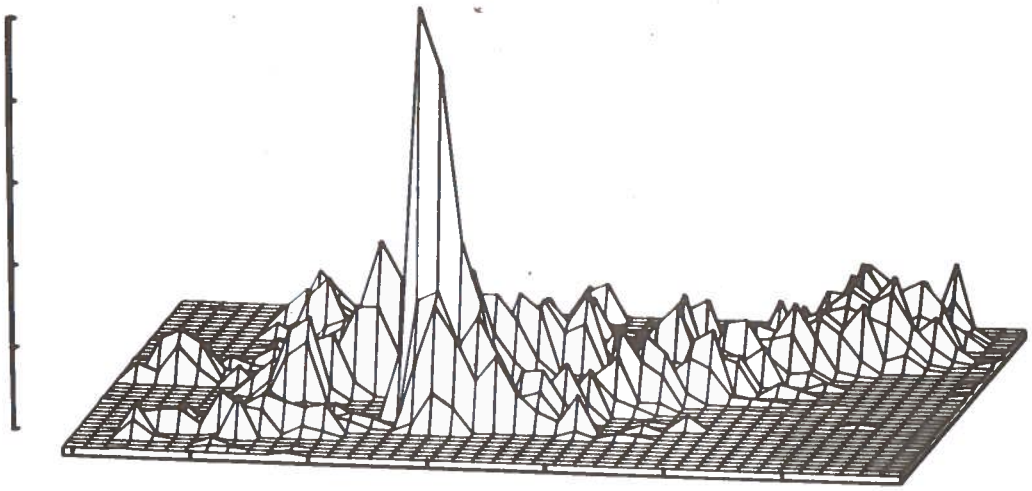
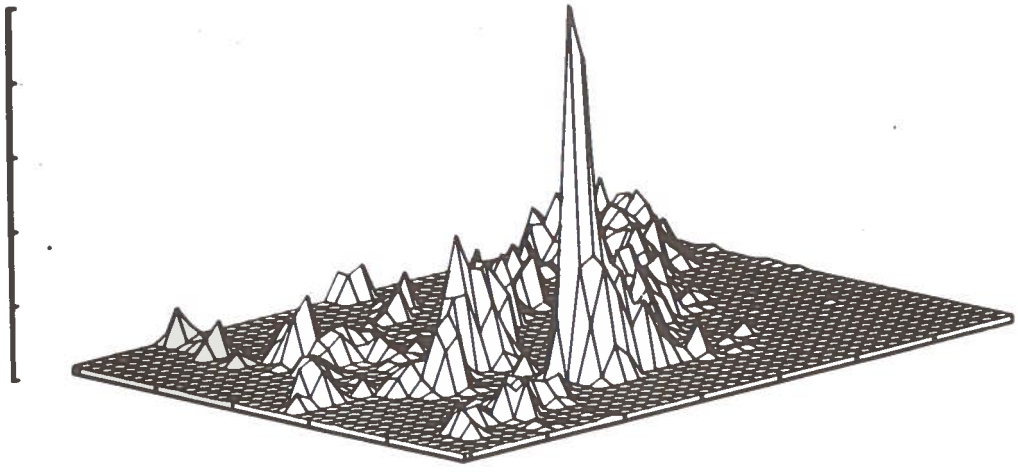


Figure 31-4. Population Density Plots - Isometric Views (180°, 225°) - San Francisco-Oakland



270.0 DEGREES



315.0 DEGREES

Figure 31-5. Population Density Plots - Isometric Views (270°, 315°) - San Francisco-Oakland

32. SAN JOSE, CALIFORNIA*

*See Notes, Section 3.2.

TABLE 32-1. SOCIO-ECONOMIC DATA BY URBAN RING - SAN JOSE

CITY TRACTS BY INNER & OUTER RADII / URBAN CHARACTERISTICS

CITY: SAN JOSE, CALIFORNIA
U. A. RANK 25

	TOTAL POP.	LAND AREA (SQ. MI.)	POP. DENSITY
SMSA:	1,067,000	1,300	820
URBANIZED AREA:	1,025,273	277	3,699
CENTRAL CITY:	444,000	116	3,817
CBD:	12,274	1.4	8,796

0.0 MI. PIVOT POINT: LATITUDE: 37° 20' 6" LONGITUDE: 121° 53' 0"

URBAN CHARACTERISTICS	0.0 - 1.0 MI.	1.0 - 2.0 MI.	2.0 - 4.0 MI.	4.0 - 6.0 MI.	6.0 - 8.0 MI.	8.0 - 10.0 MI.	10.0 - 12.0 MI.	12.0 - 14.0 MI.	14.0 - 16.0 MI.	16.0 - 18.0 MI.	18.0 - 20.0 MI.
Total Pop. (%)	28,637(100.0)	47,582(100.0)	159,909(100.0)	256,450(100.0)	236,501(100.0)	128,883(100.0)	68,026(100.0)	68,986(100.0)	96,373(100.0)	101,001(100.0)	74,858(100.0)
White Pop. (%)	25,968 (90.7)	43,672 (91.8)	148,141 (92.6)	244,829 (95.5)	227,288 (96.1)	123,209 (95.6)	63,636 (93.5)	65,982 (95.6)	91,611 (95.1)	80,889 (80.1)	72,484 (96.8)
Black Pop. (%)	980 (3.4)	1,385 (2.9)	6,165 (3.9)	3,043 (1.2)	1,574 (0.7)	1,187 (0.9)	759 (1.1)	664 (1.0)	1,087 (1.1)	16,261 (16.1)	427 (0.6)
Span. (% of white)	8,097 (28.3)	22,247 (46.8)	46,784 (29.3)	44,058 (17.2)	24,678 (10.4)	14,081 (10.9)	7,851 (11.5)	6,827 (9.9)	11,673 (12.1)	13,046 (12.9)	10,875 (14.5)
Other (%)	1,689 (5.9)	2,525 (5.3)	5,603 (3.5)	8,578 (3.3)	7,639 (3.2)	4,487 (3.5)	3,631 (5.3)	2,340 (3.4)	3,675 (3.8)	3,851 (3.8)	1,947 (2.6)
Total Male Pop.	14,011	23,408	77,404	126,088	117,151	63,553	33,825	34,403	47,299	50,955	36,641
Median Male Age	26.9	26.8	25.1	23.8	23.4	25.6	27.4	26.2	25.6	25.0	28.3
Total Female Pop.	14,626	24,174	82,505	130,362	119,350	65,330	34,201	34,583	49,074	50,046	38,217
Median Female Age	26.5	28.9	26.9	24.5	24.5	27.2	28.0	27.3	27.0	25.8	33.0
% of Total Pop.-65+	12.0	12.4	2.5	4.0	3.6	5.5	5.8	5.1	5.5	6.4	11.0
Mean Family Inc.	$8,249	$8,853	$11,254	$13,334	$14,005	$15,664	$15,251	$17,037	$14,453	$13,435	$16,267
Median Family Inc.	$7,120	$8,094	$10,489	$12,614	$13,365	$14,272	$13,754	$14,440	$13,352	$11,915	$12,906
No. of Households	10,183	15,474	46,920	67,570	61,522	36,807	20,905	20,446	28,213	29,525	23,241
No. of Families	4,643	11,743	39,541	63,777	59,457	32,665	17,096	16,945	24,004	23,164	19,599
Average H.H. Size	2.4	3.0	3.3	3.7	3.8	3.5	3.2	3.3	3.4	3.2	3.1
Average Fam. Size	3.1	3.4	3.6	3.8	3.8	3.7	3.4	3.6	3.7	3.6	3.4
Total No. of Renters	8,391	9,448	21,357	22,272	16,563	12,723	10,296	7,635	9,729	13,531	8,714
Avg. Rent Paid	$107	$106	$128	$150	$161	$149	$153	$167	$157	$145	$141
Median Rent Paid	$102	$111	$130	$151	$163	$150	$154	$167	$155	$137	$175
% of Total Pop. Renting	82.4	61.1	45.5	33.0	26.9	34.6	49.3	37.3	34.5	45.8	37.5
Total No. of Home Owners	1,792	6,026	25,563	45,298	44,959	24,084	10,609	12,811	18,484	15,994	14,527
Avg. Value of House	$19,134	$19,691	$23,912	$27,506	$29,710	$35,808	$35,689	$37,069	$30,209	$28,373	$36,343
Median Value of House	$17,756	$18,325	$22,031	$25,612	$28,207	$33,312	$33,010	$33,216	$27,942	$24,043	$31,647
% of Total Pop. Own Home	17.6	38.9	54.5	67.0	73.1	65.4	50.7	62.7	65.5	54.2	62.5
No. Own 0 Auto. (%)	3,296 (31.0)	3,365 (20.4)	5,189 (10.2)	2,491 (3.5)	1,640 (2.5)	1,520 (3.9)	929 (4.1)	631 (3.0)	1,463 (5.0)	2,719 (8.9)	1,750 (7.1)
No. Own 1 Auto. (%)	4,804 (45.1)	8,588 (51.9)	24,016 (47.3)	27,144 (37.9)	23,138 (35.0)	13,600 (35.2)	9,059 (40.0)	7,756 (36.7)	11,254 (38.8)	14,028 (45.8)	10,340 (42.0)
No. Own 2 Autos. (%)	1,871 (17.6)	3,956 (23.9)	17,614 (34.7)	34,636 (48.4)	34,368 (51.9)	19,177 (49.6)	10,113 (44.7)	10,214 (48.3)	13,286 (45.8)	11,574 (37.8)	9,887 (40.2)
No. Own 3+Autos. (%)	675 (6.3)	624 (3.8)	3,983 (7.8)	7,292 (10.2)	7,023 (10.6)	4,336 (11.2)	2,543 (11.2)	2,559 (12.1)	3,012 (10.4)	2,304 (7.5)	2,640 (10.7)

TABLE 32-2. JOURNEY-TO-WORK DATA - SAN JOSE

SMSA: SAN JOSE, CALIF.

						PLACE OF RESIDENCE (000)							
						LIVING IN THE SMSA							
							URBANIZED AREA						
						SMSA TOTAL	U.A. TOTAL	CENTRAL CITY	URBANIZED RING	RURAL AND SCATTERED URBAN	LIVING OUTSIDE SMSA, WORKING IN IT	GRAND TOTAL	EMPLOYMENT DENSITY FOR GRAND TOTALS (PER SQ. MI.)
HOME-TO-WORK FLOWS	PLACE OF WORK (000)	SMSA		SMSA TOTAL		350	339	142	197	11	35	385	296
			U.A.	URBANIZED AREA TOTAL		343	335	140	195	8	34	377	1,361
				CENTRAL CITY	CENTRAL CITY TOTAL	128	125	82	43	3	7	135	1,164
					CBD	12	11	8	3	1	1	13	9,286
					OTHER	116	114	74	40	2	6	122	1,065
				URBANIZED RING		215	210	58	152	5	27	242	1,503
			RURAL & SCATTERED URBAN			7	4	2	2	3	1	8	8
		WORKING OUTSIDE SMSA, LIVING IN IT				48	46	14	32	2		48	
		GRAND TOTAL				398	385	156	229	13	35	433	
	WORKER DENSITY FOR GRAND TOTALS (PER SQ. MI.)					306	1,390	1,345	1,422	13			
	DISTRIBUTION OF WORK TRIPS BY MODE (%)	AUTO DRIVER; AUTO PASS.				89%	89%	91%	87%	100%	94%	89%	
		PUBLIC TRANSPORTATION				2	2	1	3	0	3	2	
		WALK; WORK AT HOME				6	6	5	7	0	0	5	
		TAXI; OTHER				3	3	3	3	0	3	4	

Population Density Plots for San Jose are included in those for San Francisco (Figures 31-1 through 31-5).

33. SEATTLE, WASHINGTON

TABLE 33-1. SOCIO-ECONOMIC DATA BY URBAN RING - SEATTLE

CITY: SEATTLE-EVERETT, WASH. U.A. RANK: 17

	TOTAL POP.	LAND AREA (SQ. MI)	POP. DENSITY
SMSA:	1,425,000	4,229	337
URBANIZED AREA:	1,238,107	413	2,998
CENTRAL CITY:	584,000	113	5,177
CBD:	4,049	0.513	7,900

0.0 MI. PIVOT POINT: LATITUDE: 47° 35' 48" LONGITUDE: 122° 19' 30"

URBAN CHARACTERISTICS / CITY TRACTS BY INNER & OUTER RADII	0.0 - 1.0 MI.	1.0 - 2.0 MI.	2.0 - 4.0 MI.	4.0 - 6.0 MI.	6.0 - 8.0 MI.	8.0 - 10.0 MI.	10.0 - 12.0 MI.	12.0 - 14.0 MI.	14.0 - 16.0 MI.	16.0 - 18.0 MI.	18.0 - 20.0 MI.
Total Pop. (%)	23,083(100.0)	31,627(100.0)	166,181(100.0)	189,749(100.0)	192,312(100.0)	180,951(100.0)	116,855(100.0)	148,530(100.0)	125,944(100.0)	73,384(100.0)	59,338(100.0)
White Pop. (%)	13,837 (59.9)	22,954 (72.6)	129,922 (78.2)	180,066 (94.9)	187,221 (97.4)	176,856 (97.7)	115,046 (98.5)	145,899 (98.2)	122,518 (97.3)	71,847(97.9)	58,425 (98.4)
Black Ppp. (%)	3,847 (16.7)	6,320 (20.0)	23,402 (14.1)	2,932 (1.5)	994 (0.5)	793 (0.4)	288 (0.2)	325 (0.2)	1,093 (0.9)	363 (0.5)	164 (0.3)
Span. (% of white)	502 (2.2)	444 (1.4)	4,606 (2.8)	3,703 (2.0)	3,229 (1.7)	2,351 (1.3)	1,819 (1.6)	2,399 (1.6)	2,048 (1.6)	653 (0.9)	662 (1.1)
Other (%)	5,399 (23.4)	2,353 (7.4)	12,857 (7.7)	6,751 (3.6)	4,097 (2.1)	3,302 (1.8)	1,521 (1.3)	2,306 (1.6)	2,333 (1.9)	1,174 (1.6)	799 (1.3)
Total Male Pop.	12,166	15,318	78,569	90,667	93,706	88,880	58,113	73,868	63,861	36,994	30,030
Median Male Age	47.8	39.8	30.0	27.6	28.8	26.4	24.4	24.6	25.1	24.8	23.7
Total Female Pop.	10,917	16,309	87,612	99,082	98,606	92,071	58,742	74,662	62,083	36,390	29,358
Median Female Age	46.8	47.0	33.6	30.0	31.4	27.4	24.5	25.5	26.5	25.4	24.3
% of Total Pop.-65+	26.4	22.6	12.6	10.8	9.1	6.3	3.4	5.9	7.0	5.5	5.1
Mean Family Inc.	$9,465	$8,756	$12,632	$14,063	$13,819	$13,635	$14,557	$13,091	$11,932	$12,334	$11,803
Median Family Inc.	$7,700	$7,815	$11,147	$11,957	$12,493	$12,610	$13,337	$12,279	$11,518	$11,829	$11,360
No. of Households	11,543	17,333	61,090	65,036	62,428	55,133	31,694	38,796	35,835	19,232	14,116
No. of Families	3,839	5,771	41,983	47,941	51,605	47,227	29,539	37,501	31,648	18,741	14,998
Average H.H. Size	1.7	1.7	2.7	2.8	3.1	3.2	3.7	3.8	3.4	3.8	4.2
Average Fam. Size	2.9	2.7	3.2	3.2	3.4	3.5	3.8	3.7	3.5	3.7	3.7
Total No. of Renters	10,451	15,940	28,990	26,986	17,544	18,122	6,191	8,569	13,409	5,337	3,549
Avg. Rent Paid	$83	$91	$112	$113	$125	$126	$133	$113	$106	$110	$105
Median Rent Paid	$68	$77	$110	$114	$125	$127	$133	$120	$108	$115	$113
% of Total Pop. Renting	90.5	92.0	47.5	41.5	28.1	32.9	19.5	22.1	37.4	27.8	25.1
Total No. of Home Owners	1,092	1,393	32,100	38,050	44,884	37,011	25,503	30,227	22,426	13,895	10,567
Avg. Value of House	$17,386	$17,433	$22,229	$26,266	$24,347	$25,266	$26,975	$25,242	$23,649	$24,152	$24,063
Median Value of House	$16,792	$16,574	$19,310	$21,409	$21,467	$22,386	$24,041	$22,855	$21,570	$22,369	$21,634
% of Total Pop. Own Home	9.5	8.0	52.5	58.5	71.9	67.1	80.5	77.9	62.6	72.2	74.9
No. Own 0 Auto. (%)	7,771 (63.9)	9,789 (53.4)	12,832 (20.1)	11,061 (16.4)	6,369 (9.9)	3,840 (6.7)	1,177 (3.5)	2,037 (4.7)	3,656 (9.4)	1,054 (4.9)	808 (4.7)
No. Own 1 Auto. (%)	3,566 (29.3)	7,037 (38.4)	32,505 (50.8)	32,487 (48.3)	29,228 (45.3)	24,795 (43.0)	12,653 (37.9)	17,813 (41.5)	18,099 (46.4)	9,712 (45.0)	7,383 (43.1)
No. Own 2 Autos. (%)	634 (5.2)	1,277 (7.0)	15,469 (24.2)	19,847 (29.5)	23,659 (36.7)	24,249 (42.1)	16,232 (48.6)	18,936 (44.1)	14,327 (36.7)	8,949 (41.5)	7,232 (42.3)
No. Own 3*Autos. (%)	186 (1.5)	219 (1.2)	3,179 (5.0)	3,891 (5.8)	5,279 (8.2)	4,714 (8.2)	3,341 (10.0)	4,112 (9.6)	2,963 (7.6)	1,856 (8.6)	1,693 (9.9)

TABLE 33-2. JOURNEY-TO-WORK DATA - SEATTLE

SMSA: SEATTLE - EVERETT, WASH.

						PLACE OF RESIDENCE (000)							
						LIVING IN THE SMSA							
							URBANIZED AREA						
						SMSA TOTAL	U.A. TOTAL	CENTRAL CITY	URBANIZED RING	RURAL AND SCATTERED URBAN	LIVING OUTSIDE SMSA, WORKING IN IT	GRAND TOTAL	EMPLOYMENT DENSITY FOR GRAND TOTALS (PER SQ. MI.)
HOME-TO-WORK FLOWS	PLACE OF WORK (000)	SMSA			SMSA TOTAL	524	465	236	229	59	20	544	129
			U.A.		URBANIZED AREA TOTAL	493	458	234	224	35	17	510	1,235
				CENTRAL CITY	CENTRAL CITY TOTAL	338	313	206	107	25	10	348	3,080
					CBD	38	36	25	11	2	1	39	78,000
					OTHER	300	277	181	96	23	9	309	2,747
					URBANIZED RING	155	145	28	117	10	7	162	540
					RURAL & SCATTERED URBAN	31	7	2	5	24	3	34	9
					WORKING OUTSIDE SMSA, LIVING IN IT	14	12	4	8	2		14	
					GRAND TOTAL	538	477	240	237	61	20	558	
					WORKER DENSITY FOR GRAND TOTALS (PER SQ. MI.)	127	1,155	2,124	790	16			
	DISTRIBUTION OF WORK TRIPS BY MODE (%)				AUTO DRIVER; AUTO PASS.	84%	83%	76%	90%	92%	80%	84%	
					PUBLIC TRANSPORTATION	7	8	13	2	0	0	7	
					WALK; WORK AT HOME	7	7	8	5	7	5	7	
					TAXI; OTHER	2	2	3	3	1	15	2	

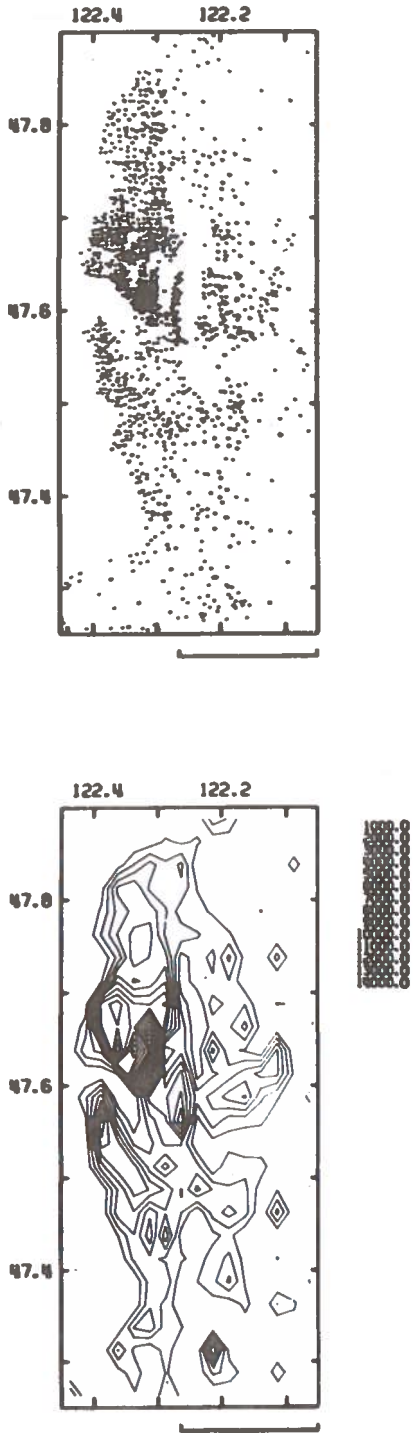
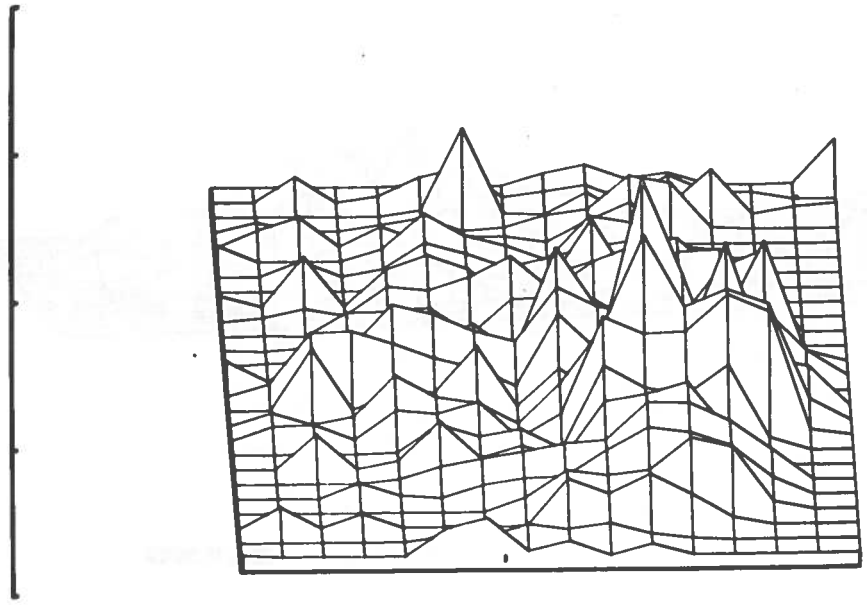


Figure 33-1. Population Density Plots - Dot and Contour Maps - Seattle



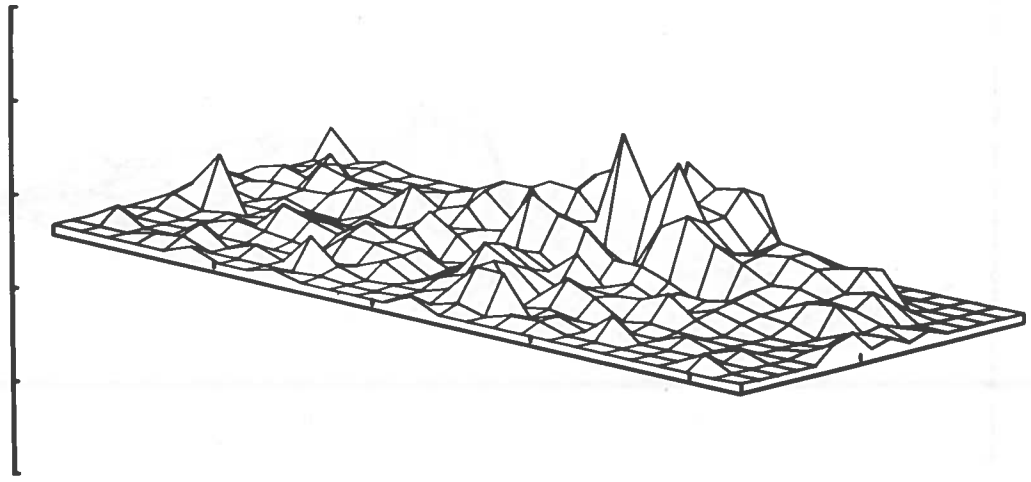
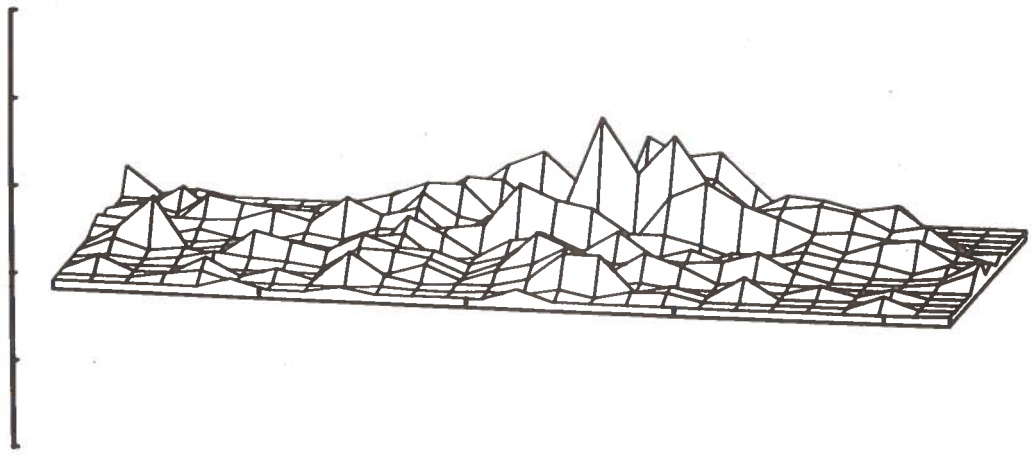
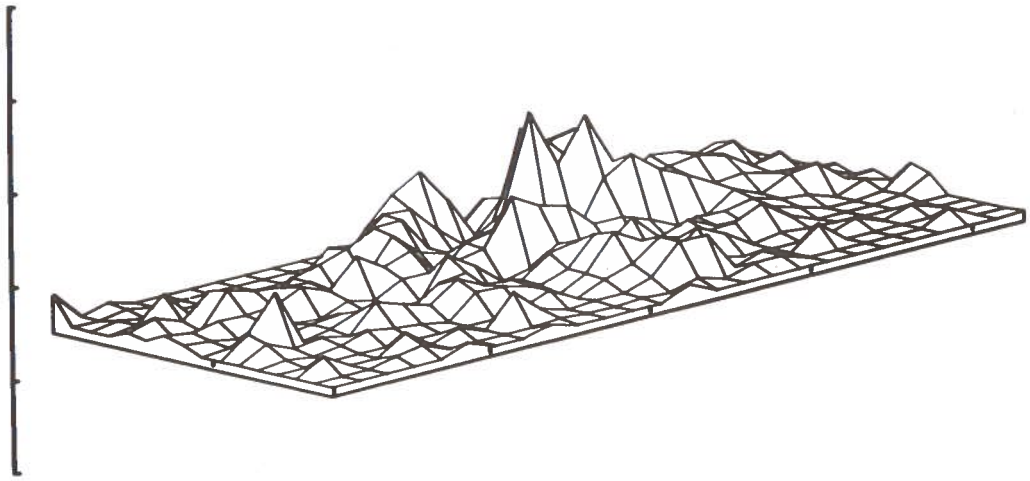


Figure 33-2. Population Density Plots - Isometric Views (0°, 45°) - Seattle

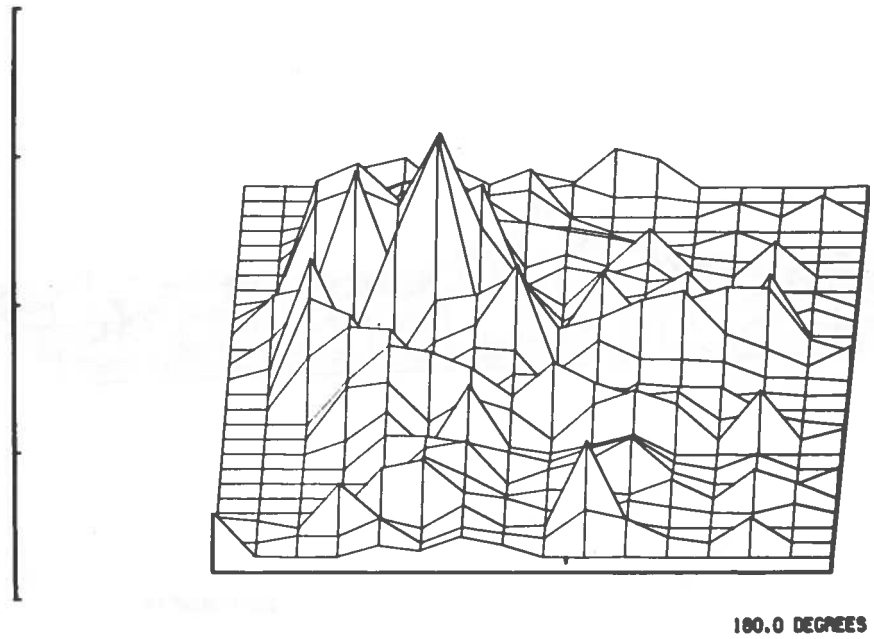


90.0 DEGREES



135.0 DEGREES

Figure 33-3. Population Density Plots - Isometric Views (90°, 135°) - Seattle



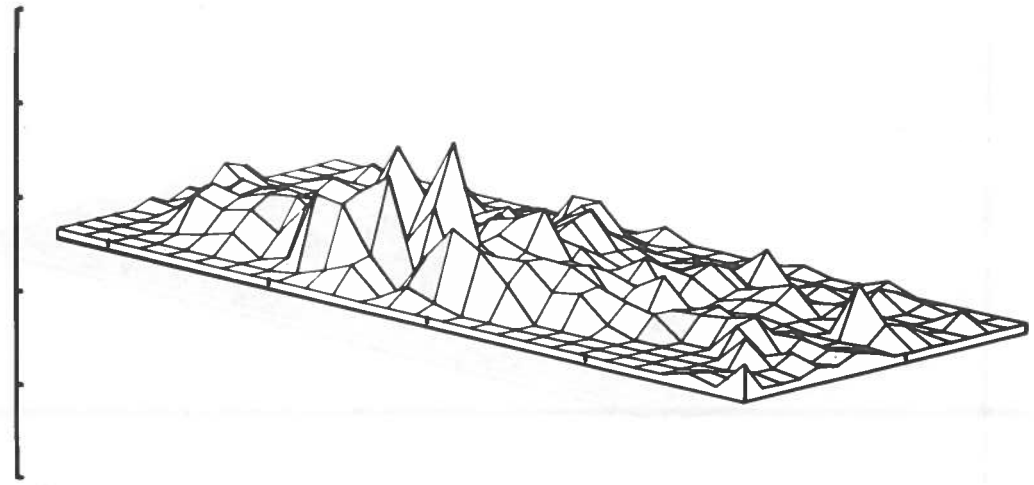
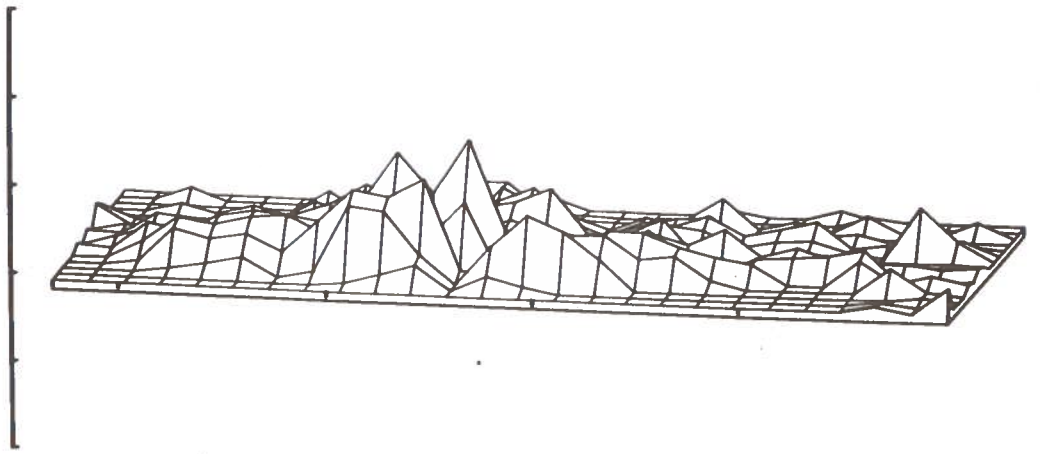
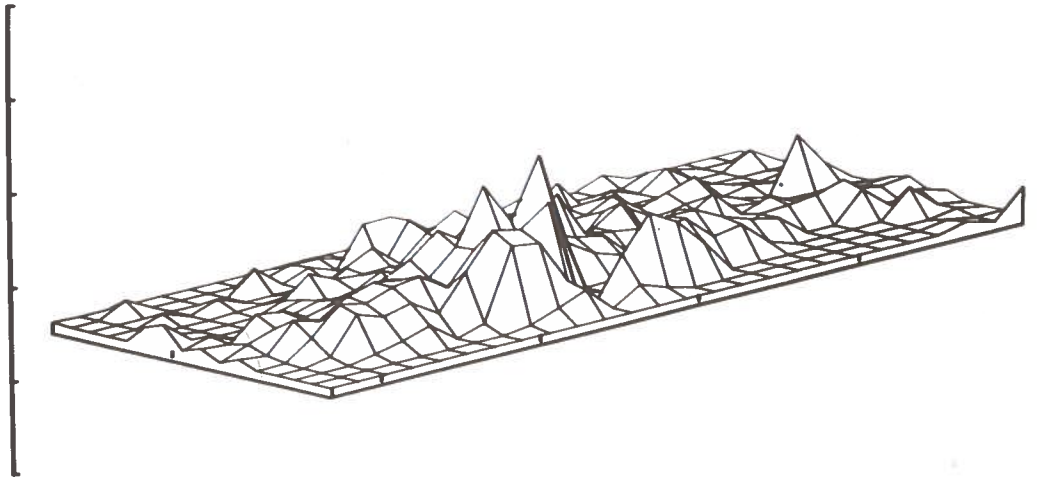


Figure 33-4. Population Density Plots - Isometric Views (180°, 225°) - Seattle



270.0 DEGREES



315.0 DEGREES

Figure 33-5. Population Density Plots - Isometric Views (270°, 315°) - Seattle

34. TAMPA-ST. PETERSBURG, FLORIDA

*See Notes, Section 3.2.

TABLE 34-1. SOCIO-ECONOMIC DATA BY URBAN RING - TAMPA-ST. PETERSBURG

CITY: TAMPA-ST. PETERSBURG, FLORIDA
U. A. RANK: 36

	TOTAL POP.	LAND AREA (SQ. MI.)	POP. DENSITY
SMSA:	1,012,594	1,303	777
URBANIZED AREA:	863,901	292	2,959
CENTRAL CITY:	493,803	140	3,527
CBD:	6,808	4.83	1,411

0.0 MI. PIVOT POINT: LATITUDE: 27° 57' 60" LONGITUDE: 82° 27' 0"

URBAN CHARACTERISTICS \ CITY TRACTS BY INNER & OUTER RADII	0.0 - 1.0 MI.	1.0 - 2.0 MI.	2.0 - 4.0 MI.	4.0 - 6.0 MI.	6.0 - 8.0 MI.	8.0 - 10.0 MI.	10.0 - 12.0 MI.	12.0 - 14.0 MI.	14.0 - 16.0 MI.	16.0 - 18.0 MI.	18.0 - 20.0 MI.
Total Pop. (%)	28,880(100.0)	42,922(100.0)	100,661(100.0)	112,925(100.0)	82,568(100.0)	29,762(100.0)	33,717(100.0)	1,544(100.0)	56,850(100.0)	91,074(100.0)	152,718(100.0)
White Pop. (%)	14,148 (49.0)	19,636 (45.7)	87,933 (87.4)	109,298 (96.8)	78,926 (89.9)	26,743 (89.9)	32,938 (97.7)	1,485 (96.2)	56,029 (98.6)	90,767 (99.7)	125,496 (82.2)
Black Pop. (%)	14,703 (50.9)	23,178 (54.0)	12,482 (12.4)	3,314 (2.9)	3,197 (3.9)	2,842 (9.5)	648 (1.9)	48 (3.1)	723 (1.3)	107 (.1)	26,867 (17.6)
Span. (% of white)	6,981 (24.2)	5,874 (13.7)	19,439 (19.3)	11,099 (9.8)	5,289 (6.4)	1,116 (3.9)	1,371 (4.1)	69 (4.5)	901 (1.6)	1,229 (1.3)	1,273 (.8)
Other (%)	29 (.1)	108 (.3)	246 (.2)	313 (.3)	445 (.5)	177 (.6)	131 (.4)	11 (.7)	98 (.2)	200 (.2)	355 (.2)
Total Male Pop.	12,962	20,139	47,394	54,915	40,550	16,205	16,585	705	26,783	41,195	70,448
Median Male Age	28.5	30.0	31.8	27.7	24.0	24.8	26.7	28.3	39.1	47.9	41.9
Total Female Pop.	15,918	22,783	53,267	58,010	42,018	13,557	17,132	839	30,067	49,879	82,270
Median Female Age	33.4	33.9	36.6	29.7	24.8	26.8	27.8	26.0	43.7	53.7	47.0
% of Total Pop.-65+	15.6	13.3	14.3	8.5	5.6	7.1	8.0	10.9	23.0	34.2	27.7
Mean Family Inc.	$5,606	$6,976	$9,695	$10,661	$10,527	$9,037	$10,087	$9,791	$10,112	$8,368	$8,764
Median Family Inc.	$4,642	$6,141	$8,068	$9,157	$9,423	$7,996	$9,259	$8,957	$8,288	$6,895	$7,285
No. of Households	10,257	14,487	36,692	36,171	24,330	8,017	10,248	487	21,197	39,779	60,318
No. of Families	7,083	10,654	27,017	30,323	20,970	6,874	9,002	430	16,790	26,019	43,851
Average H.H. Size	2.8	2.9	2.7	3.1	3.2	3.4	3.3	3.2	2.6	2.2	2.5
Average Fam. Size	3.4	3.5	3.2	3.5	3.5	3.7	3.6	3.4	3.0	2.8	3.0
Total No. of Renters	6,014	5,562	11,463	6,442	5,222	2,091	1,380	49	2,466	12,129	15,702
Avg. Rent Paid	$52	$59	$83	$100	$115	$45	$81	$63	$88	$85	$79
Median Rent Paid	$51	$54	$70	$94	$119	$59	$82	$78	$81	$73	$67
% of Total Pop. Renting	63.9	40.8	33.1	19.2	24.3	34.2	18.0	11.0	15.2	39.1	30.5
Total No. of Home Owners	3,399	8,059	23,204	27,154	16,293	4,019	6,282	397	13,768	18,855	35,704
Avg. Value of House	$8,456	$9,210	$12,817	$14,557	$16,970	$12,535	$18,188	$14,477	$17,052	$14,301	$15,560
Median Value of House	$6,882	$7,399	$11,078	$12,801	$14,451	$10,636	$16,773	$13,181	$14,213	$12,739	$14,001
% of Total Pop. Own Home	36.1	59.2	66.9	80.8	75.7	65.8	82.0	89.0	84.8	60.9	69.5
No. Own 0 Auto. (%)	4,366 (42.6)	4,549 (31.5)	6,262 (17.1)	2,368 (6.6)	849 (3.5)	634 (7.9)	366 (3.6)	21 (4.5)	2,593 (12.2)	9,370 (23.5)	11,559 (19.2)
No. Own 1 Auto. (%)	4,210 (41.1)	6,367 (44.0)	17,495 (47.7)	16,809 (46.8)	11,486 (47.5)	4,201 (52.3)	4,389 (42.9)	229 (49.2)	11,367 (53.7)	21,724 (54.5)	33,233 (55.1)
No. Own 2 Autos. (%)	1,379 (13.5)	3,009 (20.8)	10,783 (29.4)	13,880 (38.6)	10,167 (42.0)	2,759 (34.3)	4,600 (44.9)	160 (34.4)	5,964 (28.2)	7,384 (18.5)	13,022 (21.6)
No. Own 3+Autos. (%)	297 (2.9)	539 (3.7)	2,141 (5.8)	2,864 (8.0)	1,701 (7.0)	442 (5.5)	879 (8.6)	55 (11.8)	1,245 (5.9)	1,366 (3.4)	2,523 (4.2)

TABLE 34-2. JOURNEY-TO-WORK DATA - TAMPA-ST. PETERSBURG

SMSA: TAMPA - ST. PETERSBURG, FLA.						PLACE OF RESIDENCE (000)							
						LIVING IN THE SMSA					LIVING OUTSIDE SMSA, WORKING IN IT	GRAND TOTAL	EMPLOYMENT DENSITY FOR GRAND TOTALS (PER SQ. MI.)
						SMSA TOTAL	URBANIZED AREA			RURAL AND SCATTERED URBAN			
							U.A. TOTAL	CENTRAL CITY	URBANIZED RING				
HOME-TO-WORK FLOWS	PLACE OF WORK (000)	SMSA	SMSA TOTAL			334	285	173	112	49	10	344	264
			U.A.	URBANIZED AREA TOTAL		303	274	168	106	29	8	311	1,065
				CENTRAL CITY	CENTRAL CITY TOTAL	205	190	142	48	15	5	210	1,500
					CBD	22	20	15	5	2	1	23	4,792
					OTHER	183	170	127	43	13	4	187	1,383
				URBANIZED RING		98	84	26	58	14	3	101	665
			RURAL & SCATTERED URBAN			31	11	5	6	20	2	33	33
		WORKING OUTSIDE SMSA, LIVING IN IT				12	9	3	6	3		12	
		GRAND TOTAL				346	294	176	118	52	10	356	
	WORKER DENSITY FOR GRAND TOTALS (PER SQ. MI.)					266	1,007	1,257	776	51			
	DISTRIBUTION OF WORK TRIPS BY MODE (%)	AUTO DRIVER; AUTO PASS.				88%	88%	87%	90%	87%	90%	88%	
		PUBLIC TRANSPORTATION				3	3	5	1	2	1	3	
		WALK; WORK AT HOME				6	6	6	6	8	3	6	
		TAXI; OTHER				3	3	2	3	3	6	3	

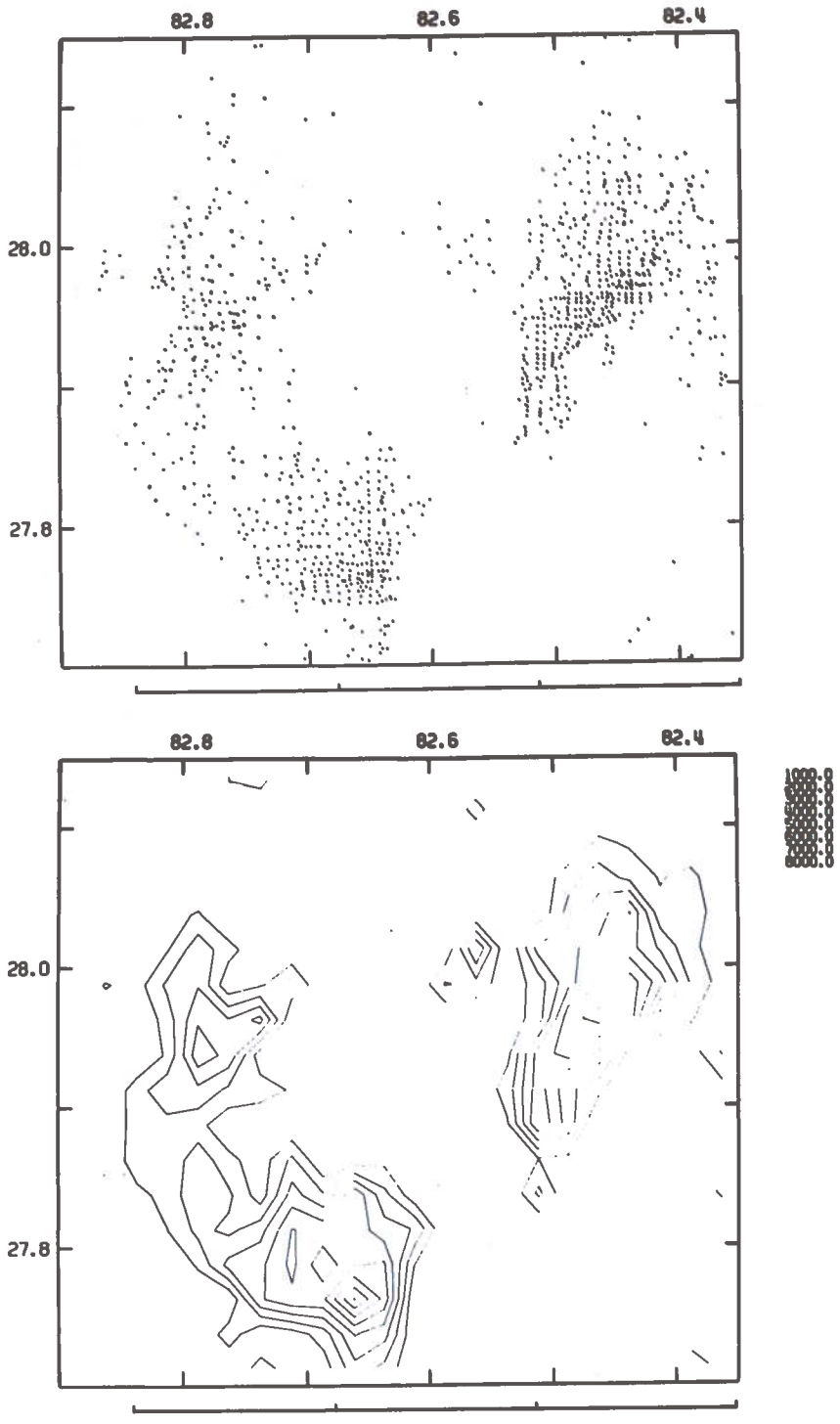
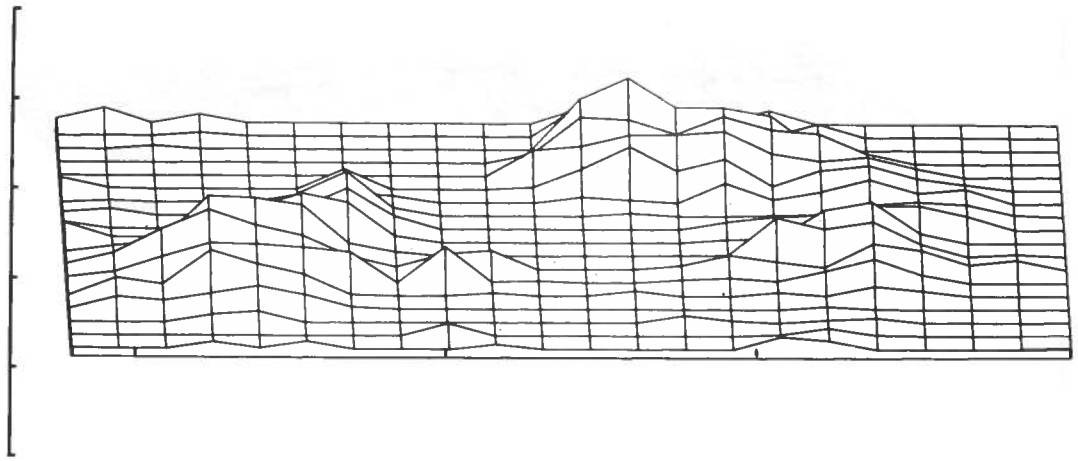
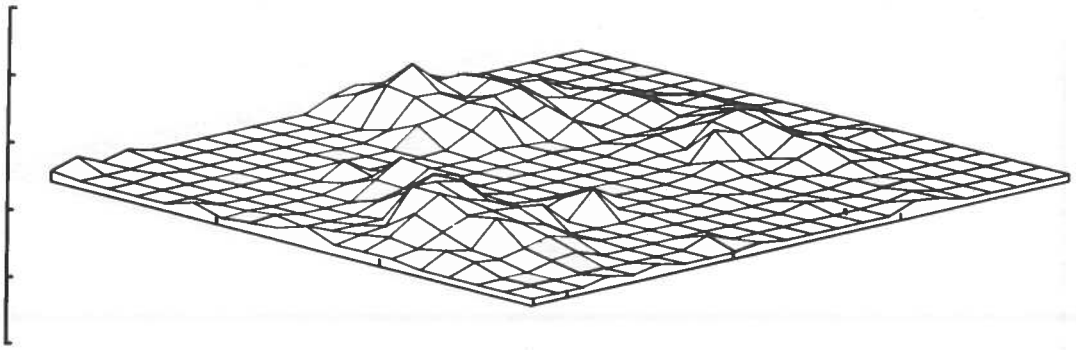


Figure 34-1. Population Density Plots - Dot and Contour Maps - Tampa-St. Petersburg

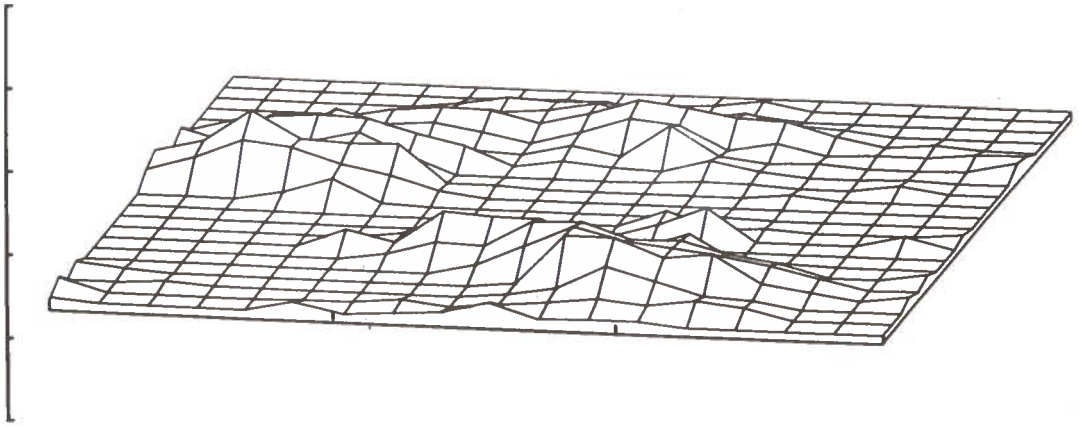


0.0 DEGREES

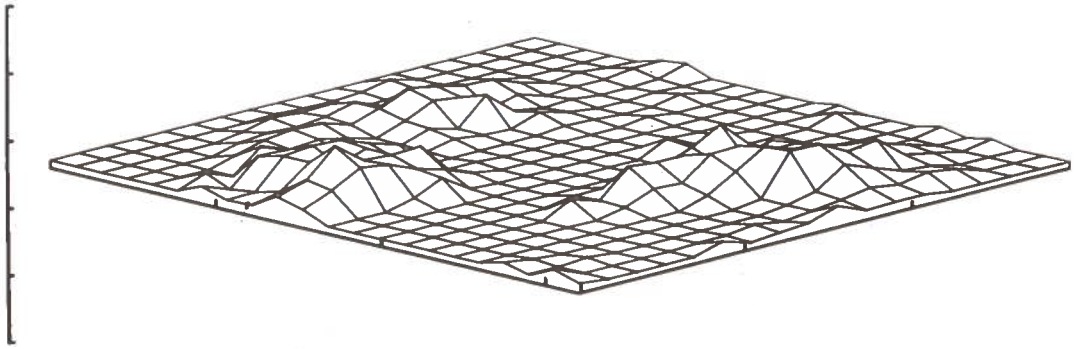


45.0 DEGREES

Figure 34-2. Population Density Plots - Isometric Views (0°, 45°) - Tampa-St. Petersburg

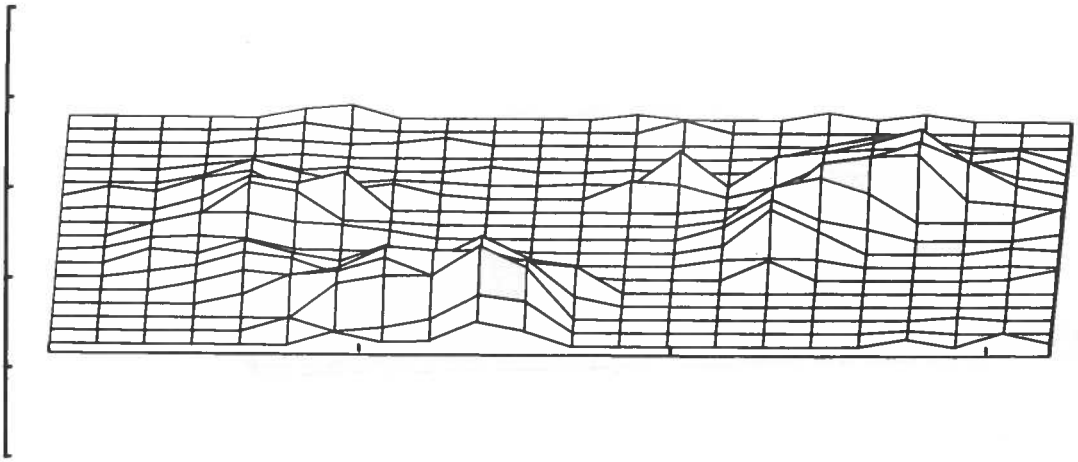


90.0 DEGREES

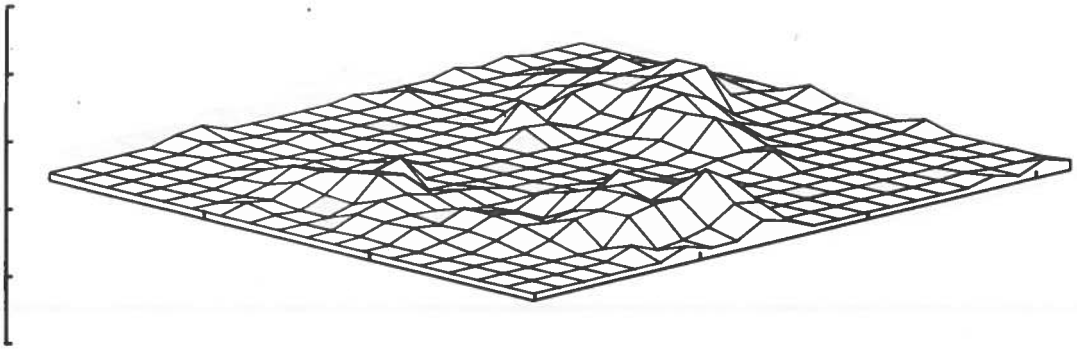


135.0 DEGREES

Figure 34-3. Population Density Plots - Isometric Views (90°, 135°) - Tampa-St. Petersburg

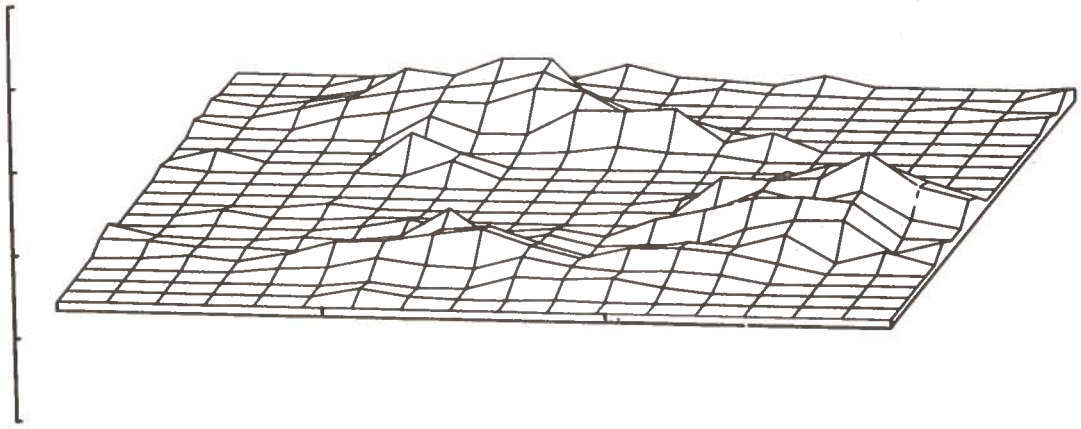


180.0 DEGREES

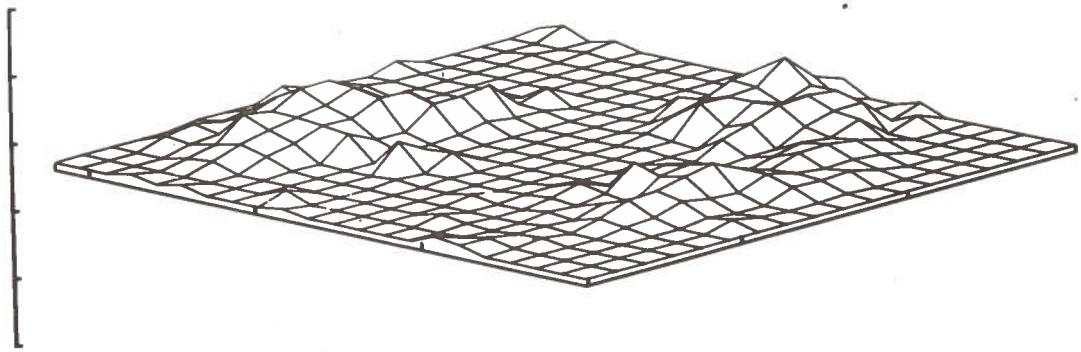


225.0 DEGREES

Figure 34-4. Population Density Plots - Isometric Views (180°, 225°) - Tampa-St. Petersburg



270.0 DEGREES



315.0 DEGREES

Figure 34-5. Population Density Plots - Isometric Views (270°, 315°) - Tampa-St. Petersburg

35. WASHINGTON, DISTRICT OF COLUMBIA

TABLE 35-1. SOCIO-ECONOMIC DATA BY URBAN RING - WASHINGTON

CITY: WASHINGTON, D.C.
U. A. RANK: 8

	TOTAL POP.	LAND AREA (SQ. MI.)	POP. DENSITY
SMSA:	2,862,000	2,352	1,217
URBANIZED AREA:	2,481,489	495	5,018
CENTRAL CITY:	757,000	61	12,321
CBD:	5,105	1.38	3,691

0.0 MI. PIVOT POINT: LATITUDE: 38° 53' 30" LONGITUDE: 77° 2' 0"

CITY TRACTS BY INNER & OUTER RADII / URBAN CHARACTERISTICS	0.0 - 1.0 MI.	1.0 - 2.0 MI.	2.0 - 4.0 MI.	4.0 - 6.0 MI.	6.0 - 8.0 MI.	8.0 - 10.0 MI.	10.0 - 12.0 MI.	12.0 - 14.0 MI.	14.0 - 16.0 MI.	16.0 - 18.0 MI.	18.0 - 20.0 MI.
Total Pop. (%)	13,429(100.0)	132,231(100.0)	398,195(100.0)	511,995(100.0)	467,926(100.0)	387,254(100.0)	276,042(100.0)	219,329(100.0)	119,898(100.0)	80,670(100.0)	68,757(100.0)
White Pop. (%)	11,750 (87.5)	48,382 (36.6)	148,068 (37.2)	273,480 (53.4)	405,066 (86.6)	353,838 (91.4)	262,365 (95.0)	209,598 (95.6)	111,168 (92.7)	74,250 (92.0)	63,221 (91.9)
Black Pop. (%)	982 (7.3)	81,794 (61.9)	245,435 (61.6)	233,061 (45.5)	57,382 (12.3)	29,354 (7.6)	10,827 (3.9)	7,827 (3.6)	7,941 (6.6)	5,868 (7.3)	5,309 (7.7)
Span. (% of white)	334 (2.9)	3,560 (2.7)	9,663 (2.4)	11,519 (2.2)	16,101 (3.4)	8,663 (2.2)	6,943 (2.5)	5,118 (2.3)	2,215 (1.8)	1,479 (1.8)	822 (1.2)
Other (%)	697 (5.2)	2,055 (1.6)	4,692 (1.2)	5,454 (1.1)	5,478 (1.2)	4,062 (1.0)	2,850 (1.0)	1,904 (0.9)	789 (0.7)	552 (0.7)	227 (0.3)
Total Male Pop.	6,224	62,373	187,060	237,337	224,583	190,829	135,746	110,007	60,221	40,399	34,470
Median Male Age	34.0	30.5	28.1	26.9	26.7	24.4	24.8	23.2	23.3	22.1	23.1
Total Female Pop.	7,205	69,858	211,135	274,658	243,343	196,425	140,296	109,322	59,677	40,271	34,287
Median Female Age	37.4	33.2	30.2	28.5	28.1	25.4	26.0	24.5	23.9	22.9	24.4
% of Total Pop.-65+	12.6	11.3	9.7	7.8	6.6	3.7	3.5	2.9	5.5	2.7	4.4
Mean Family Inc.	$14,589	$12,064	$12,102	$13,640	$15,415	$15,886	$16,944	$17,810	$15,802	$15,412	$14,098
Median Family Inc.	$11,341	$18,331	$9,590	$11,737	$13,148	$14,144	$15,670	$17,061	$14,350	$14,660	$12,931
No. of Households	7,660	53,547	135,826	168,112	154,149	105,307	74,957	54,505	29,818	19,585	16,716
No. of Families	1,349	24,552	86,676	128,285	123,045	95,676	69,824	52,263	28,582	19,456	16,891
Average H.H. Size	1.4	2.4	2.7	3.0	3.0	3.5	3.7	3.9	3.9	4.1	4.0
Average Fam. Size	2.6	3.4	3.4	3.4	3.4	3.7	3.8	4.0	3.9	4.0	3.8
Total No. of Renters	7,590	48,049	105,791	102,956	91,203	41,347	28,746	14,797	12,058	6,141	6,785
Avg. Rent Paid	$133	$125	$125	$127	$146	$154	$174	$170	$139	$158	$138
Median Rent Paid	$125	$116	$116	$124	$143	$151	$172	$172	$147	$159	$140
% of Total Pop. Renting	99.1	89.7	77.9	61.2	59.2	39.3	38.3	27.1	40.4	31.4	40.6
Total No. of Home Owners	70	5,498	30,035	65,156	62,946	63,960	46,211	39,708	17,760	13,444	9,931
Avg. Value of House	$37,910	$30,552	$25,927	$28,123	$31,308	$30,263	$33,921	$36,753	$36,201	$31,034	$32,503
Median Value of House	$36,500	$21,769	19,971	$24,192	$27,481	$27,672	$31,505	$35,301	$35,643	$29,574	$30,150
% of Total Pop. Own Home	0.9	10.3	22.1	38.8	40.8	60.7	61.7	72.9	59.6	68.6	59.4
No. Own 0 Auto. (%)	5,371 (69.3)	32,305 (56.4)	55,734 (39.5)	40,467 (23.4)	18,533 (11.8)	4,273 (4.0)	2,322 (3.0)	1,192 (2.1)	1,334 (4.2)	844 (4.0)	936 (5.0)
No. Own 1 Auto. (%)	2,119 (27.4)	21,322 (37.2)	67,257 (47.7)	89,666 (51.9)	78,516 (49.8)	47,824 (44.3)	30,207 (38.4)	18,071 (32.2)	12,548 (39.2)	8,605 (40.5)	8,067 (42.8)
No. Own 2 Autos. (%)	240 (3.1)	3,000 (5.2)	15,793 (11.2)	36,410 (21.1)	51,313 (32.6)	46,985 (43.5)	38,952 (49.5)	31,237 (55.7)	15,324 (47.8)	10,071 (47.5)	8,227 (43.7)
No. Own 3+Autos. (%)	15 (0.2)	650 (1.1)	2,293 (1.6)	6,329 (3.7)	9,198 (5.8)	8,889 (8.2)	7,147 (9.1)	5,613 (10.0)	2,823 (8.8)	1,701 (8.0)	1,602 (8.5)

TABLE 35-2. JOURNEY-TO-WORK DATA - WASHINGTON

SMSA: WASHINGTON, D.C.

						PLACE OF RESIDENCE (000)							
						LIVING IN THE SMSA							
							URBANIZED AREA						
						SMSA TOTAL	U.A. TOTAL	CENTRAL CITY	URBANIZED RING	RURAL AND SCATTERED URBAN	LIVING OUTSIDE SMSA, WORKING IN IT	GRAND TOTAL	EMPLOYMENT DENSITY FOR GRAND TOTALS (PER SQ. MI.)
HOME-TO-WORK FLOWS	PLACE OF WORK (000)	SMSA	SMSA TOTAL			1190	1056	329	727	134	64	1254	533
			U.A.	URBANIZED AREA TOTAL		1080	980	319	661	108	54	1142	2,307
				CENTRAL CITY	CENTRAL CITY TOTAL	549	501	270	231	48	22	571	9,361
					CBD	143	133	59	74	10	4	147	105,000
					OTHER	406	368	211	157	38	18	424	7,114
				URBANIZED RING		539	479	49	430	60	32	571	1,316
			RURAL & SCATTERED URBAN			102	76	10	66	26	10	112	60
		WORKING OUTSIDE SMSA, LIVING IN IT				40	32	5	27	8		40	
		GRAND TOTAL				1230	1088	334	754	142	64	1294	
	WORKER DENSITY FOR GRAND TOTALS (PER SQ. MI.)					523	2,198	5,475	1,737	77			
	DISTRIBUTION OF WORK TRIPS BY MODE (%)	AUTO DRIVER; AUTO PASS.				74%	72%	49%	82%	89%	88%	74%	
		PUBLIC TRANSPORTATION				15	17	36	9	2	3	15	
		WALK; WORK AT HOME				8	8	12	7	5	3	8	
		TAXI; OTHER				3	3	3	2	4	6	3	

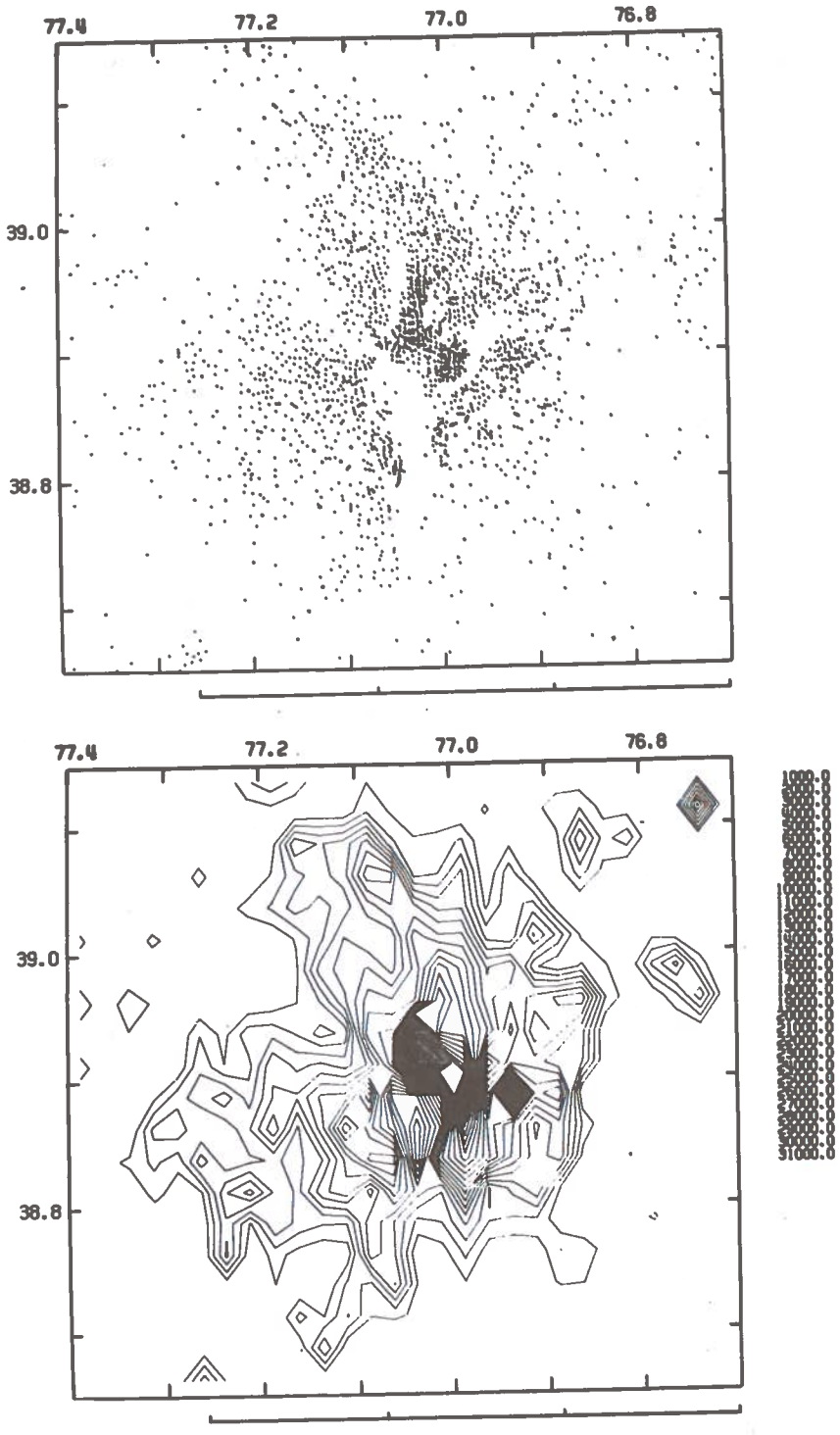
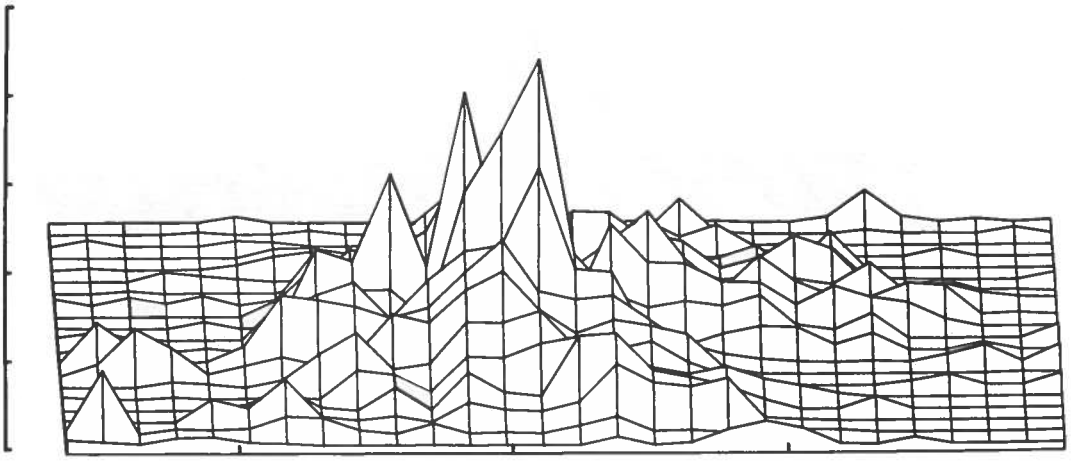
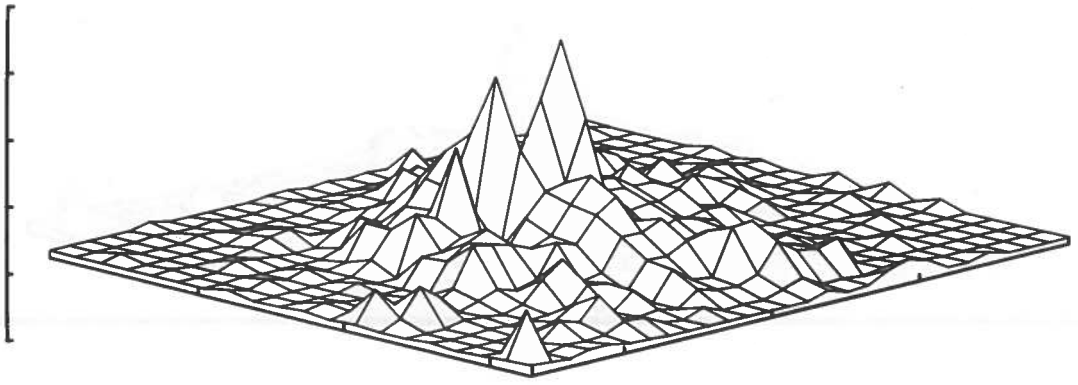


Figure 35-1. Population Density Plots - Dot and Contour Maps - Washington

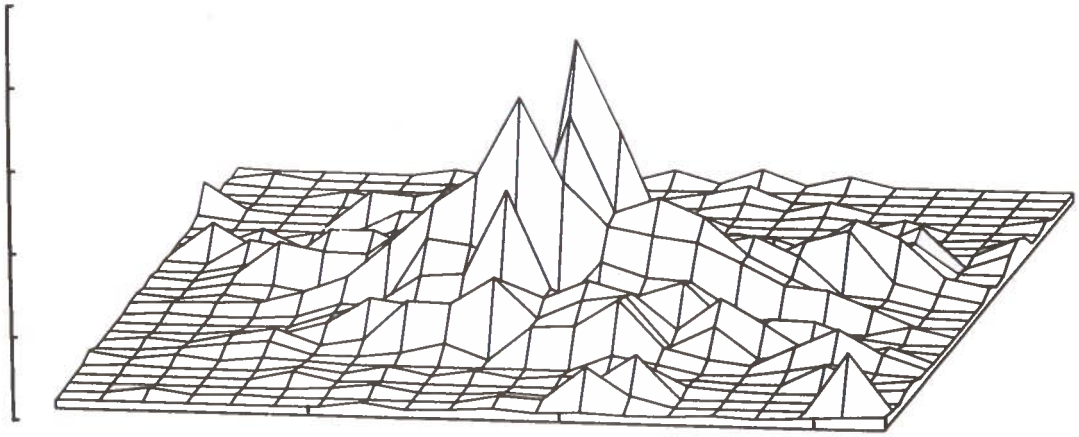


0.0 DEGREES

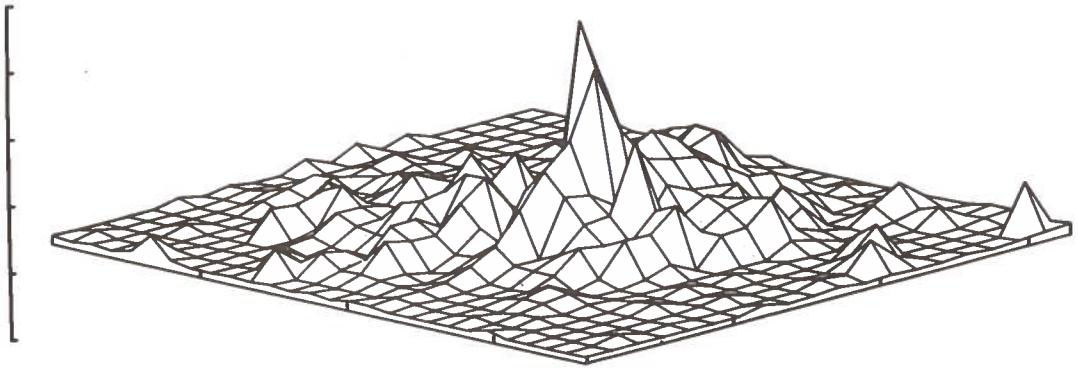


45.0 DEGREES

Figure 35-2. Population Density Plots - Isometric Views (0°, 45°) - Washington

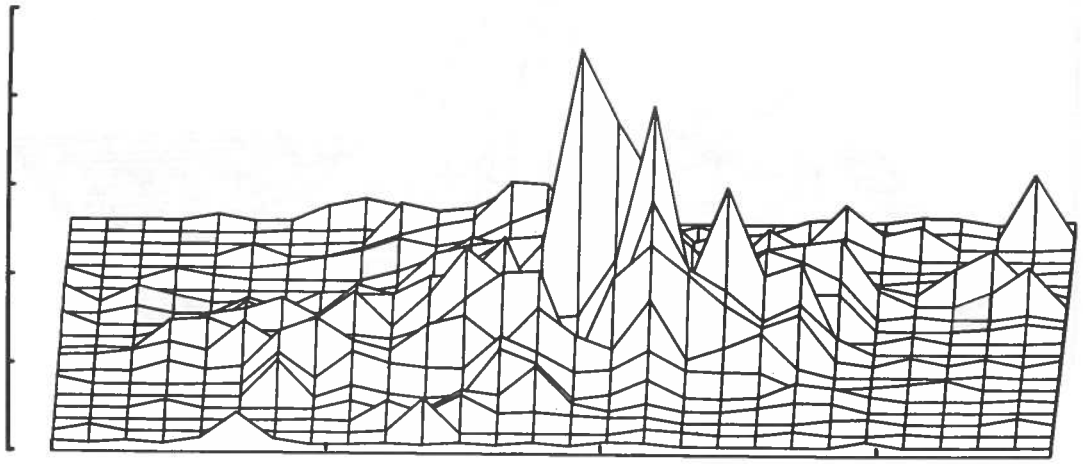


90.0 DEGREES

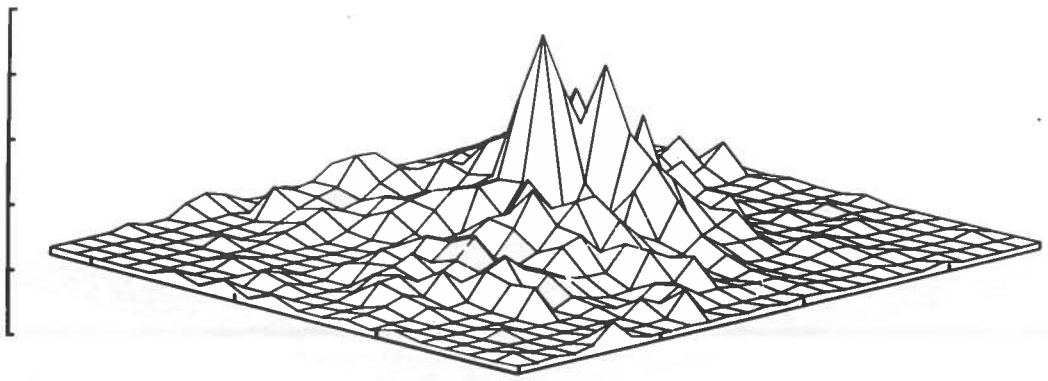


135.0 DEGREES

Figure 35-3. Population Density Plots - Isometric Views (90°, 135°) - Washington

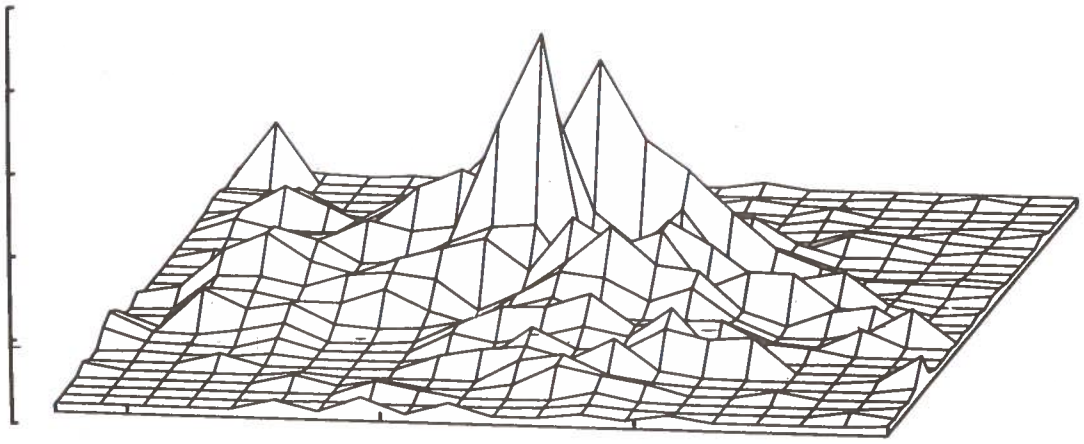


180.0 DEGREES

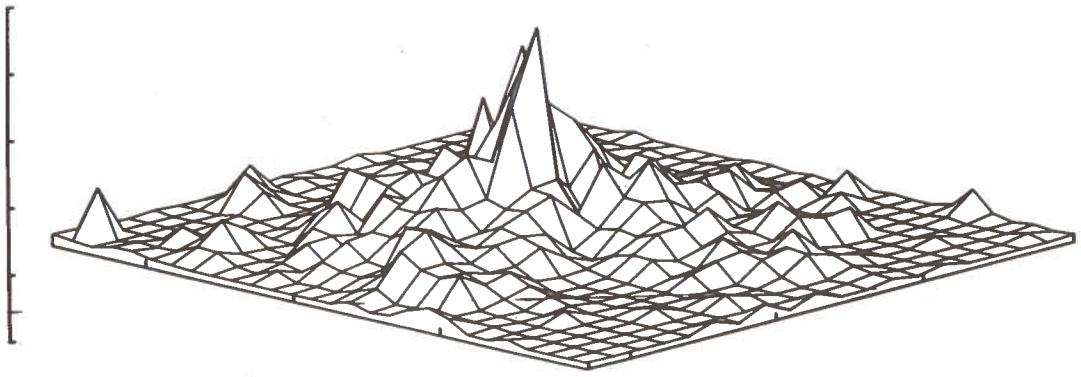


225.0 DEGREES

Figure 35-4. Population Density Plots - Isometric Views (180°, 225°) - Washington



270.0 DEGREES



315.0 DEGREES

Figure 35-5. Population Density Plots - Isometric Views (270°, 315°) - Washington

3.2 NOTES ON INDIVIDUAL SMSA'S

This section includes all footnotes or special addendums to data on the 35 SMSA's presented in the previous section. Individual SMSA's are listed below in alphabetical order.

The land areas/population densities for all 35 CBD's were obtained from National Planning Data Corporation (NPDC), Ithaca, New York. In order to derive the land areas of the individual CBD's, NPDC used an electronic planimeter on detailed block-statictical maps.

5. Chicago IL

a. Population and land area data listed at the top of Table 5-1 are based solely on the Chicago SMSA.

b. Journey-to-work data in Table 5-2 are based on the Chicago Standard Consolidated Area (SCA). Therefore, the land areas used to calculate worker and employment densities in Table 5-2 are based on the Chicago SCA, and not those found at the top of Table 5-1. The SCA based land areas are as follows:

SMSA	4,657 sq. mi.
U.A.	1,409 sq. mi.
C.C.	301 sq. mi.
CBD	1.55 sq. mi.

c. The Chicago SCA consists of the Chicago SMSA and the Gary-Hammond-E. Chicago SMSA. The central cities of this SCA include: Chicago IL, Gary IN, Hammond IN, and E. Chicago IL.

d. The U.A. of the Chicago SCA includes the portions of the Aurora IL, and Joliet IL, urbanized areas that lie within the Chicago SMSA.

e. The CBD land area of the Chicago SCA excludes the CBD(s) of central cities outside the Chicago SMSA (i.e. the same CBD land area used at the top of Table 5-1).

9. Dallas-Ft. Worth TX

a. Data in Table 9-1 and Figures 9-1 through 9-5 are based upon the combined areas of Dallas and Ft. Worth.

b. Journey-to-work data in Table 9-2 are based solely on the Dallas SMSA.

c. The individual land areas for the Dallas SMSA (as used in Table 9-2), the Ft. Worth SMSA, and the combined Dallas-Ft. Worth SMSA (as used in Table 9-1) are:

Unit	Dallas* (Table 9-2)	Ft. Worth	Dallas-Ft. Worth (Table 9-1)
SMSA	4,564 sq. mi.	1,607 sq. mi.	6,171 sq. mi.
U.A.	674 sq. mi.	396	1,070
C.C.	266	205	471
CBD	1.4	0.7	2.1

*land areas used in computing worker and employment densities in the Journey-to-Work table.

d. The pivot point for the ring data in Table 9-1 was placed at the center of the Dallas CBD.

e. Population density plots in Figures 9-1 through 9-5 include Ft. Worth.

13. Houston, TX

Central City data used in Tables 13-1 and 13-2 are for the portion of the Houston C.C. contained within the U.A. boundary.

14. Indianapolis IN

Central City data used in Tables 14-1 and 14-2 are for the portion of the Indianapolis C.C. contained within the U.A. boundary.

15. Kansas City KS-MO

Central City data used in Tables 15-1 and 15-2 are

for the portion of the Kansas City C.C. contained within the U.A. boundary.

16. Los Angeles-Long Beach, CA

a. Population and land area data listed at the top of the table in Table 16-1 are based solely on the Los Angeles-Long Beach SMSA.

b. Journey-to-work data in Table 16-2 are based on the Los Angeles SCA. Therefore, the land areas used to calculate worker and employment densities in Table 16-2 are based on those of the Los Angeles SCA, and not those found at the top of Table 16-1. The SCA based land areas are as follows:

SMSA	4,851 sq. mi.
U.A.	1,502 sq. mi.
C.C.	589 sq. mi.
CBD	2.76 sq. mi.

c. The Los Angeles SCA consists of the Los Angeles-Long Beach SMSA (Los Angeles County) and the Anaheim Santa Ana-Garden Grove SMSA (Orange County). The Central cities of this SCA include: Los Angeles, Long Beach, Anaheim, Santa Ana, and Garden Grove

d. The urbanized area of the Los Angeles SCA excludes the portion of the Los Angeles-Long Beach urbanized area outside the Los Angeles SCA (i.e., in the San Bernardino-Riverside-Ontario SMSA).

e. The CBD land area of the Los Angeles SCA excludes the CBD(s) of central cities outside the Los Angeles-Long Beach SMSA (i.e., the same CBD land area used at the top of Table 16-1).

21. New Orleans, LA

Central city data used in Tables 21-1 and 21-2 are for the portion of the New Orleans C.C. contained within the U.A. boundary.

22. New York NY

a. Population and land area data at the top of Table 22-1 are based solely on the New York SMSA.

b. Journey-to-work data in Table 22-2 are based on the New York-Northern New Jersey SCA. Therefore, the land areas used to calculate worker and employment densities in Table 22-2 are based on those of the New York SCA, and not those found at the top of Table 22-1. The SCA based land areas are as follows:

SMSA	3,930 sq. mi.
U.A.	2,210 sq. mi.
C.C.	362 sq. mi.
CBD	4.0 sq. mi.

c. The New York-Northern New Jersey SCA consists of the New York SMSA, the Newark SMSA, the Jersey City SMSA, and the Patterson-Clifton-Passaic SMSA, plus Middlesex and Somerset Counties NJ. The central cities of this SCA include: New York NY, Newark NJ, Jersey City NJ, Patterson NJ, Clifton NJ, and Passaic NJ.

d. The Urbanized Area of the New York-Northern New Jersey SCA excludes the portion of the New York-Northern New Jersey Urbanized Area outside the New York-Northern New Jersey SCA.

e. The CBD land area of the New York-Northern New Jersey SCA excludes the CBD's of central cities outside the New York SMSA (i.e., the same CBD land area used at the top of Table 22-1).

30. San Diego CA

Central city data used in Tables 30-1 and 30-2 are for the portion of the San Diego central city contained within the U.A. boundary.

31. San Francisco-Oakland CA

a. The pivot point used to obtain the ring data in Table 31-1 was centered on the San Francisco CBD, since a point halfway between San Francisco and Oakland lies in San Francisco Bay.

b. The population density plots in Figures 31-1 through 31-5 include the cities of Oakland and San Jose in addition to San Francisco.

c. The Journey-to-Work data in Table 31-2 exclude the portion of the San Francisco-Oakland Urbanized Area contained with the Vallejo Napa SMSA. The data recorded at the top of Table 31-1 include all portions of the Urbanized Area.

32. San Jose CA

a. Central city data used in Tables 32-1 and 32-2 are for the portion of the San Jose central city contained within the U.A. boundary.

b. No population density plots are provided for San Jose, since they are included in the dot contour and isometric views of San Francisco (Figures 31-1 through 31-5).

34. Tampa-St. Petersburg FL

The pivot point used to obtain the ring data in Table 34-1 was centered on the Tampa CBD (the larger of the two cities), since a point halfway between Tampa and St. Petersburg lies in Tampa Bay.

4. SOURCES

1. EMPLOYMENT DATA (SMSA, U.A., C.C., CBD)

   a. Characteristics of the Population PC(1)

      U.S. Bureau of the Census, March 1973:

      Chapter A - Number of Inhabitants - Tables 9, 11, and 13.

      Chapter C - General Social and Economic Characteristics - Table 82.

      Chapter D - Detailed Characteristics - Tables 190, 242.

   b. Journey To Work, U.S. Bureau of the Census, June 1973 - Tables 1 and 2.

2. POPULATION AND LAND AREA DATA

   a. County and City Data Book, 1972, U.S. Bureau of the Census - Tables 3, 4, 6, B-1, and B-2 (SMSA, U.A. and C.C.).

   b. Population Density and Land Area of 35 CBD's, National Planning Data Corporation, Rochester & Ithaca, N.Y., 1974-75 (CBD).

3. POPULATION DENSITY PLOTS (DOT, CONTOUR & ISOMETRIC VIEWS)

   Oak Ridge National Laboratory, Union Carbide Corporation, Carsten M. Haaland, June 1974.

4. POPULATION/SOCIO-ECONOMIC RING DATA

   U.S. Bureau of the Census data as compiled by C.A.C.I., Inc.'s SITE program, and made available by Tymshare.

5. GLOSSARY OF TERMS AND CONCEPTS

   1970 Census User's Guide - Part I,
   U.S. Bureau of the Census, Oct. 1970.

APPENDIX A
GLOSSARY OF TERMS AND CONCEPTS

The definitions of the terms and concepts used in this glossary are included to aid in interpreting the data appearing in the tables of this report. For the most part, the definitions are taken directly from publications of the U.S. Bureau of the Census.

Central Business District (CBD) - The downtown retail trade area of a city. As defined by the Census Bureau, the CBD is an area of very ligh land valuation characterized by a high concentration of retail business offices, theaters, hotels, and service businesses, and with a high traffic flow. CBD's consist of one or more census tracts and have been defined only in cities with a population of 100,000 or more.

Central City (C.C.) of an SMSA - The largest city in an SMSA is always a Central City. One or two additional cities may be secondary Central Cities in the SMSA on the basis and in the order of the following criteria:

a. The additional city or cities must have a population one-third or more that of the largest city, with a minimum population of 25,000; however, both cities are considered Central Cities in those instances where cities qualify under criterion A.2 for SMSA's (see "SMSA" definition).

b. The additional city or cities must have at least 250,000 inhabitants.

Central City (C.C.) of an Urbanized Area - An U.A. contains at least one city with 50,000 inhabitants, as well as the surrounding closely settle incorporated and unincorporated areas that meet the criteria for urbanized ring (fringe) areas. However, a few U.A.'s contain twin cities with a combined population of at least 50,000.

Employment Density - Employment density for a certain geographic area (SMSA, U.A., C.C., etc.) is calculated as follows: the total number of people having jobs (employment) located in the particular geographic area is divided by the land area of the geographic area (number of jobs/sq. mi.).

Family - A family consists of two or more persons living in the same household related by blood, marriage, or adoption. (No families are recognized in group quarters.) All persons living in a household related to each other are regarded as one family. The number of families does not necessarily equal the number of households, since not all households include families.

Household - All persons occupying a single housing unit are referred to as a household. (The number of households is equivalent to the number of occupied housing units.) A house, an apartment, or other groups of rooms, or a single room is regarded as a housing unit when it is occupied or intended for occupancy as separate living quarters.

Land Area - The land area of any geographic area includes dry land and land temporarily or partially covered by water, such as marshland, swamps, and river flood plains; streams, sloughs, estuaries, and canals less than one-eight of a statute mile in width; and lakes, reserviors, and ponds less than 40 acres in area.

Population Density - Population density for a certain geographic area (SMSA, U.A., etc) is calculated as follows: the population of the geographic area is divided by the land area of the geographic area (persons/sq. mi.).

Rural and Scattered Urban - This consists of the remaining rural and urban portions of counties not included as part of the urbanized ring of the U.A., but still within the boundries of the SMSA. Thus, with the exception of the New York and Los Angeles SMSA's*, the SMSA consists of two components — the U.A., and the Rural and Scattered Urban.

Standard Consolidated Area (SCA) - A SCA consists of several contiguous SMSA's plus additional counties that do not appear to meet formal integration criteria, but do have strong interrelationships of other kinds with the SMSA(s).

*Both New York and Los Angeles Urbanized Areas (U.A.'s) extend into counties outside the boundaries of the SMSA.

Standard Metropolitan Statistical Area (SMSA) - An SMSA consists of a county or a group of counties containing at least one city (or twin cities) having a population of 50,000 or more, plus adjacent counties which are metropolitan in character and economically and socially integrated with the central city. The name of the central city or cities is used as the name of the SMSA. There is no limit to the number of adjacent counties included in the SMSA as long as they are integrated with the central city; nor is an SMSA limited to a single state: boundaries may cross state lines, as in the case of the Washington DC-Maryland-Virginia SMSA.

The criteria for SMSA's are:

A. Population Size

Each SMSA must include at least:

1. One city with 50,000 inhabitants or more, or
2. Two cities having contiguous boundaries and constituting, for general economic and social purposes, a single community with a combined population of at least 50,000, the smaller of which must have a population of at least 15,000. If two or more adjacent counties each have a city of 50,000 inhabitants or more and cities are within 20 miles of each other (city limits to city limits), they will be included in the same area unless there is definite evidence that the two cities are not economically and socially integrated.

B. Metropolitan Character of Outlying Counties

The following specific criteria must be met:

1. At least 75% of the labor force of the county must be in the nonagricultural labor force.
2. The county must meet at least one of the following conditions:

a. It must have 50% or more of its population living in contiguous minor civil divisions having a density of at least 150 persons per square mile, in an unbroken chain of minor civil divisions with such density radiating from a central city in the area; or

b. The number of nonagricultural workers employed in the county must equal at least 10% of the number of nonagricultural workers employed in the county containing the largest city in the area, or the outlying county must be the place of employment of at least 10,000 nonagricultural workers; or

c. The nonagricultural labor force living in the county must equal at least 10% of the nonagricultural labor force living in the county containing the largest city in the area, or the outlying county must be the place of residence of a nonagricultural labor force of at least 10,000.

C. Integration of Central County and Outlying Counties

Sufficient economic and social communication includes:

1. At least 25% of the workers living in the given outlying county must work in the county or counties containing the central city or cities of the area, or

2. At least 25% of those working in the given outlying county must live in the county or counties containing the central city or cities of the area.

D. New England Cities and Towns

In New England, where city and town are administratively more important than the county, and data are compiled locally for the minor civil divisions, cities and towns are the units used in defining SMSA's. Here, a population density of at least 100 persons per square mile is used as the measure of metropolitan character and the integration criteria for the towns and cities are similar to Criterion C above.

Urbanized Area (U.A.) - An Urbanized Area contains a city (or twin cities) of 50,000 or more population (central city), plus the surrounding closely settled incorporated and unincorporated areas which meet certain criteria of population size and density (urbanized ring). The U.S. was established primarily to distinguish the urban from the rural population in the vicinity of large cities. Thus, U.A.'s differ from SMSA's in that U.A.'s exclude the rural portions of counties composing the SMSA's, and exclude places which were separated by rural territory from density populated fringe around the central city. The boundaries of an U.A. are not permanent since they are defined on the basis of the population distribution at the time of the census. The components of U.A.'s include the Central City (as defined above) and the urbanized ring (as defined below). The specific population size and density requirements for determining the inclusion of closely settled areas into the urbanized ring of the U.A. are found below; see "Urbanized Ring."

Urbanized Ring - In addition to its central city or cities, a U.A. also contains the following types of contiguous areas, which together constitute its urbanized ring (or urban fringe, as used by the Census Bureau):

a. Incorporated places with 2,500 or more inhabitants.

b. Incorporated places with less than 2,500 inhabitants, provided each has a closely settled area of 100 dwelling units or more.

c. Enumeration districts in unincorporated areas with a population density of 1,000 inhabitants or more per square mile. (The area of large nonresidential tracts devoted to such urban land uses as railroad yards, factories, and cemeteries is excluded in computing the population density.)

d. Other enumeration districts in unincorporated territory with lower population density provided that one of the following purposes is served: (1) To eliminate enclaves, (2) to close indentations in the urbanized area of one

mile or less across the open end, or (3) to link outlying enumeration districts of qualifying density that lie no more than 1-1/2 miles from the main body of the urbanized area.

Worker Density - Worker density for a certain geographic area (SMSA, U.A., C.C., etc.) is calculated as follows: the total number of workers living in a particular geographic area is divided by the land area of the geographic area (number of workers/sq. mi.). The main distinction between worker and employment density is that worker density for a geographic area includes all those people who live in that area (i.e., U.A., C.C., etc.) and are classified as a worker, regardless of their place of work (including both persons working in and outside the geographic area); employment density for a certain geographic area, on the other hand, includes all workers whose place of employment (job) is in that particular area, regardless of their place of residence (including both persons living in and outside of the area).

APPENDIX B
SAMPLE CALCULATIONS: JOURNEY-TO-WORK DATA

This appendix shows how certain statistics on the Journey-to-Work tables were derived for this report. Most of the statistics found in the Journey-to-Work tables (Table 2 for each SMSA) were obtained from U.S. Bureau of the Census publications and from several sources shown below. However, no journey-to-work data were available for the urbanized area (U.A.) other than the total number of workers residing in the U.A. (grand total of Column 2). Therefore, U.A. data had to be derived.

The derivation process for U.A. journey-to-work data is shown below using the Dayton, Ohio, SMSA as an example. Dayton was selected because it contained an U.A. with multiple counties, portions of which were not contained within the boundary of the Dayton SMSA. To be consistent with earlier sections, portions of the U.A. not within the SMSA were excluded. The Dayton example included identities, notations, and the actual number that appear on the Journey-to-Work table in Section 3 of this report (Table 10-2).

As previously noted, several identities were used to calculate certain statistics in the Journey-to-Work table. The following are the necessary identities:

1. Urbanized Ring = U.A. - Central City
2. Rural & Scattered Urban = SMSA - U.A.
3. Other = Central City - CBD

Identities 1 and 2 apply to both columes and the rows of the Journey-to-Work table, while 3 applies only to the rows.

The U.A. derivation process consists of the following steps: (1) obtaining the population of the component parts of the U.A. (i.e., the U.A. portions of counties within the SMSA boundary), (2) obtaining the population of each of the above counties, (3) dividing (1) by (2) to obtain proportion(s), and (4) applying proportion(s) to the home-to-work data for counties found in the

census publications in order to derive the number of work trips for all the U.A. categories (column 2, row 2).

Before showing the above steps of the U.A. derivation process for Dayton, Ohio, it is first necessary to provide a complete listing of the notation, known data, and the derivation assumptions. This information will provide the user with the background necessary for interpreting the formulae used to derive the row and column categories for the U.A.

1. Notation

   a. Geographic Location

      S = SMSA

      U = Urbanized Area (U.A.)

      CC = Central City

      CB = Central Business District

      OT = Central City other than Central Business District (OT = CC - CB)

      UR = Urban Ring (UR = U - CC)

      R = Rural and Scattered Urban (R = S - U)

      O = Outside SMSA

      i,j = County i, County j within SMSA

      U_i = Urbanized area of county i

   b. Worker Residence

      W_X = no. of workers residing in location X, where X = {S, U, CC, UR, R, O, i, U_i}

   c. Job Location

      J_Y = no. of jobs in location Y, where Y = {S, U, CC, CB, OT, R, O, j, U_j, NR}

      (note: NR = job location not reported)

d. Journey-to-Work

$W_X \cdot J_Y$ = no. of workers living in location X, with jobs in location Y

The above notation refers to the intersection of worker residence and job location. Some examples are:

(1) $W_S \cdot J_{CB}$ = number of workers living in the SMSA and having jobs in the CBD.

(2) $W_U \cdot J_{CC}$ = number of workers living in the U.A. and having jobs in the C.C.

e. Other Notation

(1) p_{U_i} = U.A. population of County i

(2) p_i = Total population of County i

(3) ρ_i = p_{U_i}/p_i

2. Known Data

The following journey-to-work data are obtainable from U.S. Census publications:

a. W_X for X = {S, U, CC, O, i}

b. J_Y for Y = {S, CC, CB, OT, O, J}

c. $W_X \cdot J_Y$ is known for the following journey-to-work pairs (X, Y):

(S, S), (S, CC), (S, CB), (S, OT), (S, O),

(CC, S), (CC, CC), (CC, CB), (CC, OT),

(CC, O), (O, S), (O, CC), (O, CB), (O, OT),

(i, S), (i, CC), (i, O), (S, j), (CC, j),

(O, j), (i, j), and (i, NR).

3. Derived Data

a. $W_U \cdot J_Y$ for Y = {S, U, CC, CB, OT, UR, R, O}

b. $W_X \cdot J_U$ for X = {S, U, CC, UR, R, O}

c. $W_{UR} \cdot J_Y$ for Y = {S, U, CC, CB, OT, UR, R, O}

d. $W_X \cdot J_{UR}$ for X = {S, U, CC, UR, R, O}

e. $W_R \cdot J_Y$ for Y = {S, U, CC, CB, OT, UR, R, O}

f. $W_X \cdot J_R$ for X = {S, U, CC, UR, R, O}

4. Derivation Assumptions

a. $W_{U_i} = \rho_i \cdot W_i$

The number of workers living in the U.A. portion of county i is proportional to the U.A. population of county i.

b. $J_{U_j} = \rho_j \cdot J_j$

The number of jobs in the U.A. portion of county j is proportional to the U.A. population of county j.

c. $W_U \cdot J_U = \sum_j \sum_i W_{U_i} \cdot J_{U_j}$

$= \sum_j \sum_i \rho_i \cdot \rho_j (W_i \cdot J_j)$, and for

(1) $i = j$ $\rho_i \cdot \rho_j = \rho_i$

(2) $i \neq j$ $\rho_i \cdot \rho_j = \rho_i \times \rho_j$ (joint probability proportion)

a) Workers residing in U.A. portion of county i with jobs in county i are assumed to take jobs only in U.A. portion of county i.

b) Workers living in U.A. portion of one county ($\rho_i \cdot W_i$) are assumed to take jobs in the U.A. portion of another county according to the proportion of U.A. jobs in the other county ($\rho_j \cdot J_j$); i.e., worker residence in one county and place of employment in a different county are independent of one another.

d. For the remaining journey-to-work trips, the following general formulae apply:

(1) $W_U \cdot J_Y = \sum_i W_{U_i} \cdot J_Y = \sum_i \rho_i (W_i \cdot J_Y)$,

$W_X \cdot J_U = \sum_j W_X \cdot J_{U_j} = \sum_i \rho_j (W_X \cdot J_j)$,

where X and Y = {S, CC, O}

(2) Where X and Y = {UR, R}, identities 1) and 2) apply:

$W_U \cdot J_{UR} = W_U \cdot J_U - W_U \cdot J_{CC}$

$W_U \cdot J_R = W_U \cdot J_S - W_U \cdot J_U$

$W_{UR} \cdot J_U = W_U \cdot J_U - W_{CC} \cdot J_U$

$W_R \cdot J_U = W_S \cdot J_U - W_U \cdot J_U$

(3) Where Y = {CB, OT},

$W_U \cdot J_{CB}$ and $W_U \cdot J_{OT}$ are calculated by using the proportional split as occurs between $W_S \cdot J_{CB}$ and $W_S \cdot J_{OT}$

It is necessary to examine each component county of the U.A., since the journey-to-work data are listed in the census publication by county. The above notation and assumptions are incorporated below into the formulae for the second row and column of the Journey-to-Work table.

5. Applications of the Formulae to the Dayton, Ohio Journey-to-Work Data

Using the notation and assumptions outlined above the following section shows the equations and the results for the second row and column of the Dayton Journey-to-Work table.

a. Known Data

(1) County 1 = Greene County, Ohio

County 2 - Montgomery County, Ohio

(2) $p_{U_1} = 60,822$ $\quad p_{U_2} = 545,727$

$p_1 = 120,057$ $\quad p_2 = 606,148$

(3) (All journey-to-work numbers are expressed in terms of thousands of workers.)

$W_1 \cdot J_S = 42$ $\quad W_2 \cdot J_S = 208$

$W_1 \cdot J_1 = 23$ $\quad W_2 \cdot J_1 = 9$

$W_1 \cdot J_2 = 19$ $\quad W_2 \cdot J_2 = 197$

$W_1 \cdot J_{CC} = 13$ $\quad W_2 \cdot J_{CC} = 132$

$W_1 \cdot J_O = 2$ $\quad W_2 \cdot J_O = 5$

$W_S \cdot J_1 = 34$ $\quad W_S \cdot J_2 = 220$

$W_{CC} \cdot J_1 = 3$ $\quad W_{CC} \cdot J_2 = 78$

$W_O \cdot J_1 = 6$ $\quad W_O \cdot J_2 = 23$

$W_S \cdot J_{CB} = 26$ $\quad W_S \cdot J_{OT} = 135$

$W_S \cdot J_{CC} = 161$

b. U.A. Population Proportions (ρ_i)

(1) $\rho_1 = p_{U_1}/p_1 = 60,822/120,057 = .486$

(2) $\rho_2 = p_{U_2}/p_2 = 545,727/606,148 = .90$

(3) $\rho_1 \cdot \rho_2 = .486 \times .90 = .437$

(joint population proportion for inter-county work trips)

c. Second Column Results

(1) $W_U \cdot J_S = \sum_i W_{U_i} \cdot J_S = \sum_i \rho_i (W_i \cdot J_S)$

$= \rho_1 (W_1 \cdot J_S) + \rho_2 (W_2 \cdot J_S)$

$= .486(42) + .90(208) = \underline{\underline{207}}$

(2) $W_U \cdot J_U = \sum_j \sum_i W_{u_i} \cdot J_{U_j} = \sum_j \sum_i \rho_i \cdot \rho_j (W_i \cdot J_i)$,

where for $i = j$: $\rho_i \cdot \rho_j = \rho_i$

$i \neq j$: $\rho_i \cdot \rho_j = \rho_i \times \rho_j$

There are 2 counties in the Dayton U.A.; hence, there are 4 possible intercounty work trip combinations. Two of these involve the use of joint population proportions ($\rho_i \cdot \rho_j$) when $i \neq j$.

$$\sum_j \sum_i \rho_i \, \rho_j (W_i \cdot J_j) = \rho_1 (W_1 \cdot J_1) + \rho_1 \, \rho_2 (W_1 \cdot J_2) + \rho_1 \, \rho_2 (W_2 \cdot J_1) + \rho_2 (W_2 \cdot J_2)$$

$$= .486(23) + .437(19) + .437(9) + .90(197) = \underline{\underline{200}}$$

(3) $W_U \cdot J_{CC} = \sum_i W_{U_i} \cdot J_{CC} = \sum_i \rho_i (W_i \cdot J_{CC})$

$= \rho_1 (W_1 \cdot J_{CC}) + \rho_2 (W_2 \cdot J_{CC})$

$= .486(13) + .90(132) = \underline{\underline{125}}$

(4) $W_U \cdot J_{CB}$, $W_U \cdot J_{OT}$: There is no breakdown in the census books for $W_i \cdot J_{CB}$ or $W_i \cdot J_{OT}$; therefore $W_U \cdot J_{CC}$ is proportionately split among the above cells according to the amounts in $W_S \cdot J_{CBD}$ and $W_S \cdot J_{OT}$:

$$W_U \cdot J_{CB} = \frac{W_S \cdot J_{CB}}{W_S \cdot J_{CC}} (W_U \cdot J_{CC}) = .162(125) = \underline{\underline{20}}$$

$$W_U \cdot J_{OT} = \frac{W_S \cdot J_{OT}}{W_C \cdot J_{CC}} (W_U \cdot J_{CC}) = .839(125) = \underline{\underline{105}}$$

(5) $W_U \cdot J_{UR} = (W_U \cdot J_U) - (W_U \cdot J_{CC})$ [(2)-(3)]

$= \underline{\underline{75}}$

(6) $W_U \cdot J_R = (W_U \cdot J_S) - W_U \cdot J_U)$ [(1)-(2)]

$= \underline{\underline{7}}$

(7) $W_U \cdot J_O = \sum_i W_{U_i} \cdot J_O = \sum_i \rho_i (W_i \cdot J_O)$

$= \rho_1 (W_1 \cdot J_O) + \rho_2 (W_2 \cdot J_O)$

$= .486(2) + .90(5) = \underline{\underline{6}}$

(8) $W_U = (W_U \cdot J_S) + (W_U \cdot J_O)$ [(1)+(2)]

$= \underline{\underline{213}}$

d. Second Row Results

(1) $W_S \cdot J_U = \sum_j W_S \cdot J_{U_j} = \sum_j \rho_j (W_S \cdot J_j)$

$= \rho_1 (W_S \cdot J_1) + \rho_2 (W_S \cdot J_2)$

$= .486(34) + .90(225) = \underline{\underline{220}}$

(2) $W_U \cdot J_U = \sum_j \sum_i W_{U_i} \cdot J_{U_j} = \underline{\underline{200}}$

[same as c.(2)]

(3) $W_{CC} \cdot J_U = \sum_j W_{CC} \cdot J_{U_j} = \sum_j \rho_j (W_{CC} \cdot J_j)$

$= \rho_1 (W_{CC} \cdot J_1) + \rho_2 (W_{CC} \cdot J_2)$

$= .486(3) + .90(78) = \underline{\underline{72}}$

(4) $W_{UR} \cdot J_U = (W_U \cdot J_U) - (W_{CC} \cdot J_U)$ [(2)-(3)]

$= \underline{\underline{128}}$

(5) $W_R \cdot J_U = (W_S \cdot J_U) - (W_U \cdot J_U)$ [(1)-(2)]

$= \underline{\underline{20}}$

(6) $W_O \cdot J_U = \sum_j W_O \cdot J_{U_j} = \sum_j \rho_j (W_O \cdot J_j)$

$= \rho_1 (W_O \cdot J_1) + \rho_2 (W_O \cdot J_2)$

$= .487(6) + .90(23) = \underline{\underline{24}}$

(7) $J_U = (W_S \cdot J_U) + (W_O \cdot J_U)$ [(1)+(6)]

$= \underline{\underline{244}}$

e. Second Column Adjustments

As previously noted in Section 2.2, the home-to-work data in each column of the Journey-to-Work table should be adjusted to include: "Place of Job – Not Reported." For the second column, this was achieved by allocating these work trips to $W_U \cdot J_S$ and $W_U \cdot J_O$ according to the proportion of reported work trips in each category. The remaining categories under $W_U \cdot J_S$ (excluding $W_U \cdot J_O$), are then subsequently adjusted by the same percentage increase. The proportional adjustments are shown below for the second column.

(1) For each county in the U.A.:

a) $A_i = W_{U_i} \cdot J_S = \rho_i (W_i \cdot J_S)$

$A_1 = .486(42) = \underline{\underline{20}}$ $A_2 = .90(208) = \underline{\underline{187}}$

b) $\beta_i = W_{U_i} \cdot J_O = \rho_i (W_i \cdot J_O)$

$\beta_i = .486(2) = \underline{\underline{1}}$ $\beta_2 = .90(5) = \underline{\underline{5}}$

c) $\gamma_{1,i} = \frac{A_i}{A_i + \beta_i}$ $\gamma_{2,i} = \frac{i}{A_i + \beta_i}$

$\gamma_{1,1} = 20/21 = \underline{\underline{.95}}$ $\gamma_{2,1} = 1/21 = \underline{\underline{.05}}$

$\gamma_{1,2} = 187/192 = \underline{\underline{.97}}$ $\gamma_{2,2} = 5/192 = \underline{\underline{.03}}$

(2) Additional work trips allocated to $W_U \cdot J_S$:

$$\sum_i \gamma_{1,i} \cdot \left(W_{U_i} \cdot J_{NR}\right) = \sum_i \gamma_{1,i} \cdot \rho_i (W_i \cdot J_{NR})$$

$$= \gamma_{1,1} \cdot \rho_1 (W_1 \cdot J_{NR}) + \gamma_{1,2} \cdot \rho_2 (W_2 \cdot J_{NR})$$

$$= \left[.95 \times .486(4)\right] + \left[.97 \times .90(20)\right] = 19$$

$$(W_U \cdot J_S)_{ADJ} = 207 + 19 = \underline{\underline{226}}$$

(3) Additional work trips allocated to $W_U \cdot J_O$:

$$\sum_i \gamma_{2,i} \cdot \left(W_{U_i} \cdot J_{NR}\right) = \sum_i \gamma_{2,i} \cdot \rho_i (W_i \cdot J_{NR})$$

$$= \gamma_{2,1} \cdot \rho_1 (W_1 \cdot J_{NR}) + \gamma_{2,2} \cdot \rho_2 (W_2 \cdot J_{NR})$$

$$= \left[.05 \times .486(4)\right] + \left[.03 \times .90(20)\right] = 1$$

$$(W_U \cdot J_O)_{ADJ} = 6 + 1 = \underline{7}$$

(4) 9.2% (19/207=0.092) increase applied to remaining cells:

$$(W_U \cdot J_U)_{ADJ} = 200(1.092) = \underline{\underline{218}}$$

(5) $(W_U \cdot J_{CC})_{ADJ} = 125(1.092) = \underline{\underline{137}}$

(6) $(W_U \cdot J_{CB})_{ADJ} = 20(1.092) = \underline{\underline{22}}$

(7) $(W_U \cdot J_{OT})_{ADJ} = 105(1.092) = \underline{\underline{115}}$

(8) $(W_U \cdot J_{UR})_{ADJ} = 75(1.092)$ [(4)-(5)] = $\underline{\underline{81}}$

(9) $(W_U \cdot J_R)_{ADJ} = 7(1.092)$ [(2)-(4)] = $\underline{\underline{8}}$

(10) $(W_U)_{ADJ} = 213(1.092) = \underline{\underline{233}}$

f. Other Column Adjustments

The remaining five columns across the Journey-to-Work table are also adjusted for "place of job-not reported" (J_{NR}). This process is illustrated below using the

the second row (U.A.) of the Dayton Journey-to-Work table as an example. The procedure involves using the percentage increase factors developed for three of the columns on the table (SMSA, U.A., C.C.), plus the two identities for the reamining two columns (U.R. and R. & S.U.). The adjustment for the second column has already been shown above. However, for the SMSA total and C.C. total columns the adjustment factor applied is calculated below. Note that the adjustment factor will vary from column to column as the proportion of J_{NR} changes.

(1) $(W_S \cdot J_U)_{ADJ} = (W_S \cdot J_U) \times \left[1 + \left(\frac{W_S \cdot J_{NR}}{W_S}\right)\left(\frac{W_S \cdot J_S}{W_S}\right)\right]$

$= 220 \times [1 + .106] = \underline{\underline{244}}$

(2) $(W_U \cdot J_U)_{ADJ} = 200(1.092) = \underline{\underline{218}}$

(3) $(W_{CC} \cdot J_U)_{ADJ} = (W_{CC} \cdot J_U) \times \left[1 + \left(\frac{W_{CC} \cdot J_{NR}}{W_{CC}}\right)\left(\frac{W_{CC} \cdot J_S}{W_{CC}}\right)\right]$

$= 72 \times [1 + .15] = \underline{\underline{83}}$

(4) $(W_{UR} \cdot J_U)_{ADJ} = [(2)-(3)] = \underline{\underline{135}}$

(5) $(W_R \cdot J_U)_{ADJ} = [(1)-(2)] = \underline{\underline{26}}$

(6) $(W_O \cdot J_U) = \underline{\underline{24}}$ (No Adjustment)

(7) $(J_U)_{ADJ} = [(1)+((6)] = \underline{\underline{268}}$