

United States
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Agency

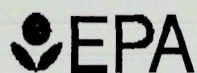
Region 5
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Chicago, IL 60604-3507

Illinois, Indiana
Michigan, Ohio
Minnesota, Wisconsin

Environmental Sciences

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Project LEAP— Phase 1

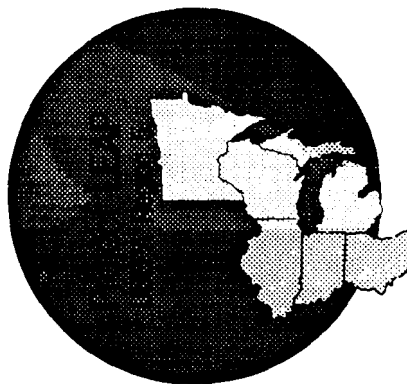
Spatial And Numerical Dimensions of Young Minority Children Exposed to Low-Level Environmental Sources of Lead

Geographic Information Systems Appendix

**SPATIAL AND NUMERICAL DIMENSIONS OF
YOUNG MINORITY CHILDREN EXPOSED TO LOW-LEVEL
ENVIRONMENTAL SOURCES OF LEAD
Geographic Information System
Appendix**

BY

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1. INTRODUCTION

The effects of lead toxicity on human health has been extensively researched and recognized for decades. The insidious effects that lead causes on the health of children has received increased attention in recent years. Due to mouthing behavior, increased uptake of lead compared to adults, nutrition and other factors, children under seven years of age present a sub-population at increased risk to the adverse effects of lead exposure.

This study considers the known environmental sources of lead in 83 cities, estimates the probability distribution of lead in children under seven years of age in each of the cities, and compares the numbers at risk. The ultimate objective of the study is to estimate the probability distribution of blood-lead in childhood populations, and then to compare geographic areas to ascertain severity of the problem. This appendix describes the support that the Geographic Information Management Systems Office (GISMO) provided to Project LEAP (Lead Education and Abatement Program). This appendix also presents maps for the communities in the ten cities with the highest number of children with expected high blood-lead concentrations, and the ten cities expected to have the highest percentages of children with high blood concentrations. For all cities, tables are provided to relate community areas - derived for the study - to U.S. Bureau of Census tract areas.

This project required multiple steps of computer analysis in varying computer architecture environments. One of the objectives of the study was to demonstrate that many of the processes could be automated and the varying computer architectures could loosely interact. Section 2 describes the steps necessary to move a library of data from one PC to another and produce a second library of summary files for input to a dispersion model. It also describes the process of using a Geographic Information System (GIS) to compare the modeled results with monitored data.

Sections 3 and 4 describe transferring data from a GIS to a PC environment, using the data for input to a Uptake Biokinetic Model and joining the results of the modelling to the GIS.

Section 5 describes mapping the results of the UBK model.

2. INDUSTRIAL SOURCE LONG TERM MODEL SUPPORT

Every significant point source of lead did not have an associated ambient air monitoring station, consequently, the ISCLT model was used to estimate ground level concentrations from stack emissions and meteorological data.

Geographic Information System Management Office (GISMO) support to Project LEAP consisted of obtaining a library of meteorological data for input to the model, producing GIS ARC/Info coverages of the results, and utilizing GIS to compare modelled surrogate concentrations with ambient air concentrations.

2.1. Meteorological Data Support (Obtaining Data)

The Region 5 GISMO office developed a procedure to interface the National Weather Service (NWS) data to the EPA ISCLT model. The ISCLT model requires as input surface and upper air meteorological data. For each of the seventeen facilities modeled, the meteorological data from the closest surface and upper air station were obtained. The data were available through the Technology Transfer Network (TTN) of The Office of Air Quality Planning and Standards (OAQPS). OAQPS obtained the data from the NWS National Climatic Data Center (NCDC).

A library of raw observations were obtained from Region 5 NWS monitoring stations by transferring the archived files from the TNN. The IBM-PC environment was subsequently used to process the data to the format required by the ISCLT model. A second library was produced of all the processed meteorological data.

2.2. Meteorological Data Support (Processing data)

Three arrays of meteorological data are necessary to execute the ISCLT model. They are:

1. Joint frequency of occurrence of wind-speed and wind-direction categories classified according to the Pasquill stability categories. The arrays were created using the STAR

(stability array) program provided by TNN.

2. Array of average ambient air temperatures was classified according to season and stability category. The array was generated using a procedure written using the Statistical Analysis System (SAS). SAS Proc Means procedure was used to output the averages to a second SAS file, which a SAS procedure was used to generate a formatted file required by the ISCLT model.

3. The same procedure was used to generate an array of median mixing heights classified according to wind speed, stability and season, except using Proc Univariate instead of means.

2.3. Create GIS Coverages from ISCLT Modelling Results

The output from the ISCLT model consists of cartesian coordinates and ground level concentrations of lead. For convenience, we chose Universe Transverse Mercator (UTM) coordinates as output from the model and input to the Geographic Information System (GIS) software. UTM coordinates were the most convenient to use because the facilities are located using UTM coordinates, the ISCLT model uses meters, and the GIS accepts UTM projection data.

The Statistical Analysis System (SAS) was used to pre-process the output from the ISCLT model prior to input to GIS. SAS also produced contour plots for reviewing the model results.

The GISMO office utilized Dbase III Plus to automate many of the steps necessary to produce a GIS coverage. From the SAS output, Dbase III files were generated for each of the seventeen modelled facilities. A Dbase procedure was written to group the data into the three UTM zones in Region 5, and to produce formatted files for input to ARC/INFO. The Dbase procedure also wrote Arc Macro Language programs (AMLs) that produced the GIS coverages.

2.4. Comparing Modelled and Monitored Data

Ambient air quality data were obtained from the Aerometric Information Retrieval System Air Quality Subsystem (AIRS) and produced into GIS point coverages. The procedure consisted of generating formatted files from AIRS, transferring the data to the PC environment, creating Dbase files, and executing a Dbase procedure that wrote an AML that would produce a GIS ARC/INFO point coverage. The Dbase procedure standardizes the format of latitude and longitude, and verifies the cartesian coordinates are within Region 5.

The monitored and modelled data were compared by finding the closest modelled location to the air monitoring locations. An ARC/INFO file was produced that included the AIRS identification number, the distance to the nearest modelled point, the name of the facility, the monitored yearly mean and the modelled yearly mean for 1988. The contours of the modelled results as well as the location of the monitored site is shown as figure 1.

3. DEMOGRAPHIC DATA SUPPORT

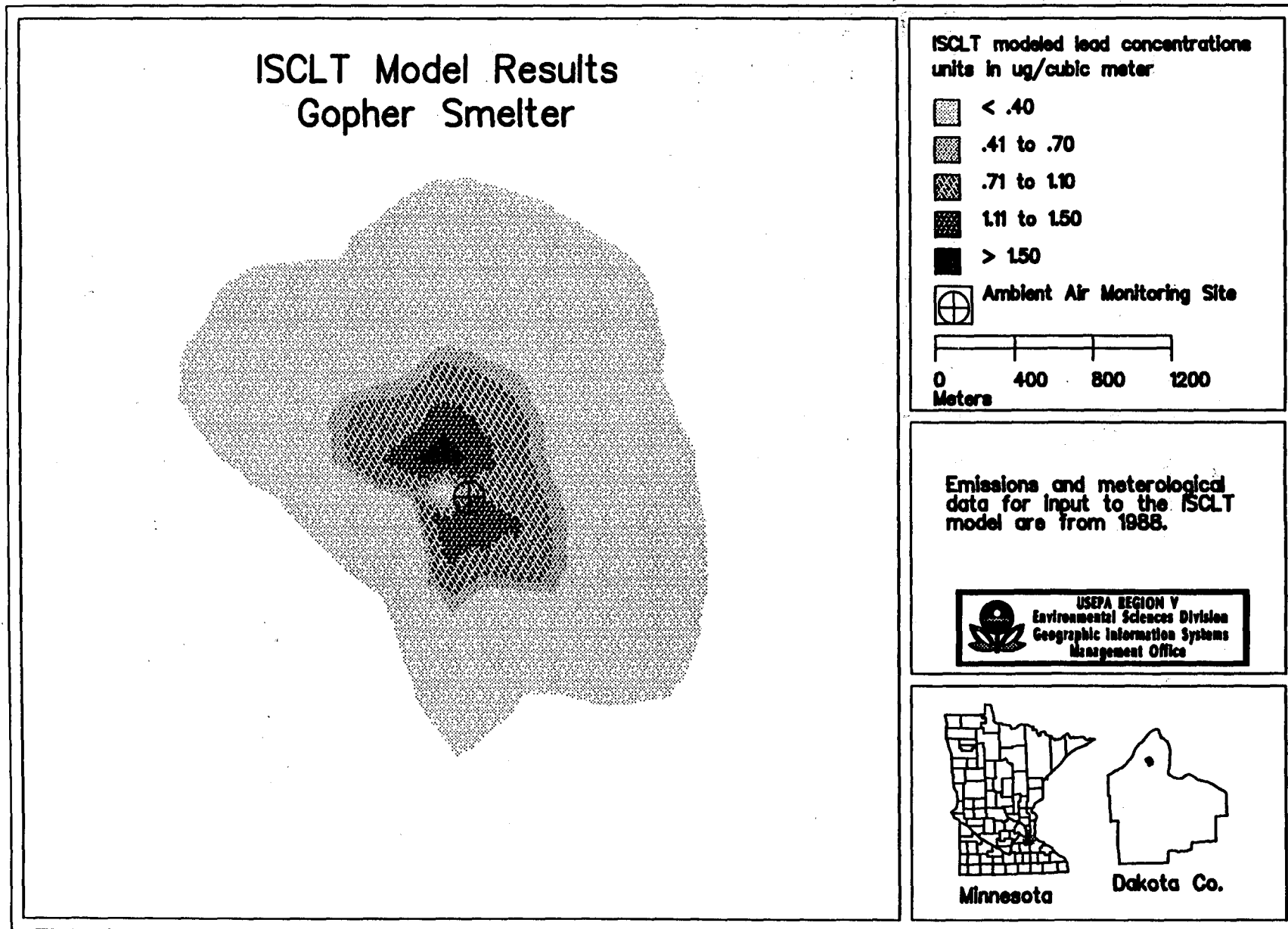
Because children are at elevated risk, project LEAP used a targeted population of children under seven years of age, and [women of child bearing age as a surrogate for] the fetus. Within this population group, African-American and Hispanic children were particularly targeted in recognition of increased body burden susceptibility and thus vulnerability to the uptake and effects of lead exposure. Project LEAP required demographic data that could provide information concerning ethnicity, age, income, housing age and location.

3.1. Choices in Demographic Data

EPA has acquired demographic data to support the program offices across the Agency in their risk-based decision making processes. Most of EPA's demographic data was obtained from the U.S. Census Bureau; however, some data was obtained from private vendors.

The Census Bureau collects demographic information during a decennial census derived either

FIGURE 1



from the Short-Form or Long-Form questionnaire. Short-Form data is referred to as 100 percent data, because it is asked of the entire population. Long-Form is referred to as sampled data because it is collected from approximately 1 out of 6 households.

Private vendors provide data not available from the Census Bureau, such as projections of population counts beyond the current available census. This is estimated data derived from Census Bureau data and growth indicators.

The National Census structure for urban areas consists of blocks, block groups, tracts, counties, states, census divisions, census regions and the total United States.

Access to EPA demographic related data products is provided through the Geographic Resources Information and Data System (GRIDS). During the initial analysis phase of Project LEAP, the demographic data available through GRIDS consisted of 1980 Bureau of Census data and Donnelley Marketing Population Data (1970, 1980, 1990 estimated, 1995 estimated).

3.2. Choosing Donnelley Data

Because Project LEAP used 1988 environmental data, it was necessary to use Donnelley Marketing Population Data estimated for 1990 as the demographic data most representative of the exposure period.

Donnelley Marketing Population data contains information on sex, age, race, housing and income. The geographic data available for the Donnelley data consists of the centroid of the block group.

3.3. Creating Polygon Coverages from Point Data

From the centroid of the block group it was necessary for Project LEAP to produce polygons at the community level. The first step was to create a point coverage from the centroid of the block groups. From the block group point coverages thiessen polygons were produced. Thiessen polygons are created by joining every point to its neighbors, bisecting the resulting lines, drawing perpendicular lines at the

bisected points and creating polygons from the intersected lines. Figure 2 is an example of the generation of thiesen polygons from block group point data.

3.4. Creating LEAP Communities

The Bureau of Census defines areas by block, block group, tract and place. In general a census tract has a population of about 4,000 people and a place would be an entire city population. Because Project LEAP analysis is at the community level, it was necessary to subdivide cities in larger areas than census tracts. Groups or aggregates of tracts were created to form the LEAP communities.

The procedure developed to define LEAP communities was performed in the PC architecture environment using DBase III plus. The first step in developing communities was to create Dbase files of the Donnelley data at the block group level. ARC/INFO files of the Donnelley data were used to generate formatted files that were subsequently transferred to a PC and appended to a Dbase structure. The block group data were sorted by county and tract and a simple procedure written to count the tracts and replace the integer to a new field. Groups of ten census tracts became LEAP communities.

Figure 2 illustrates the entire process of creating the census tract point coverage, the thiesen polygons of block groups and the dissolving to LEAP communities.

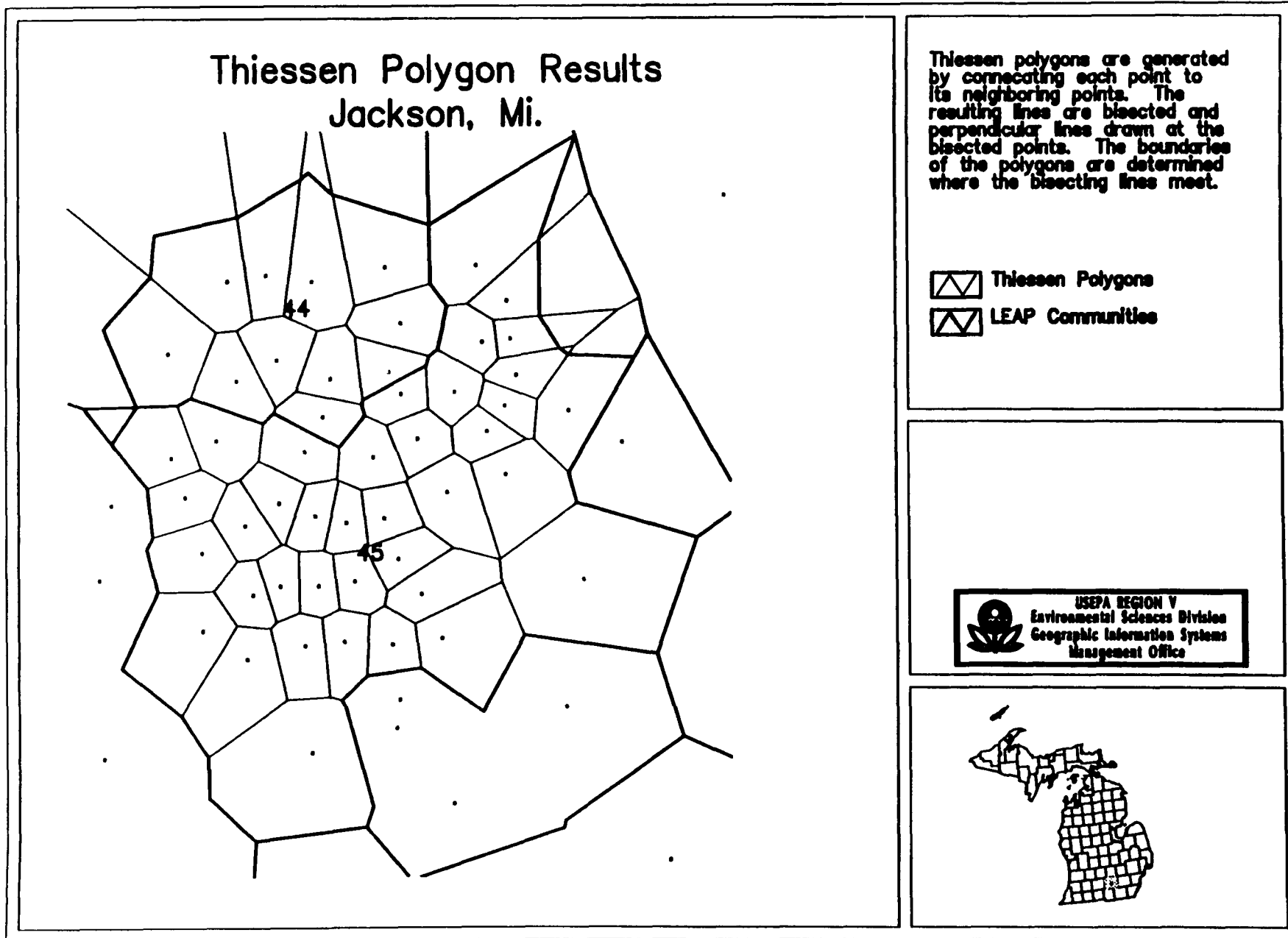
4. UPTAKE BIOKINETIC MODEL RESULTS

The UBK model used environmental concentrations and demographic information to determine the percentage of exceedance of expected blood-lead for each community. The percentage, applied against the population data for the community, provided an estimate of children at risk.

4.1. Summarizing the Demographic Data for the UBK Analysis

Dbase III was used to total the demographic data from the block group level to the community level and write the results to a second Dbase file. Subsequently the Dbase demographic file was imported into Lotus and used in obtaining input parameters for the UBK model and in determining the number of children at risk.

FIGURE 2



4.2. Creating ARC/INFO GIS Coverages from the UBK Model Results

The analysis to determine the percentage and number of children at risk was calculated using Lotus and the results exported to a Dbase III file. Based on the expected percentages of children to have blood-lead levels greater than 10 µg/dL Pb-B, the LEAP communities were assigned one of five group numbers. The group numbers were associated with a shade symbol used to create the maps of the cities. A Dbase III procedure was used to write an AML that created an INFO file of the UBK results. Using the LEAP community identification number as a relational field, the INFO polygon attribute file was joined to the file of results of the UBK model.

5. Producing Maps of the UBK Model Results

Maps were produced for the 10 top ranked cities by percentile of children exceeding 10µg/dL Pb-B and for the 10 top ranked cities for number of expected children exceeding 10 µg/dL PB-B.

5.1. Choosing UBK Map Features

The features in the map displays included the LEAP community borders, county borders, state borders and shading the communities based on the percentage of children with modeled blood-lead concentrations exceeding 10µg/dL Pb-B.

5.2. Choosing the UBK Categories

The range and distribution of UBK results were used to determine the number of categories and the break points for the categories. It was decided to have five categories. The highest category was defined at greater than 21, since few communities had percentages greater than 21. There are two categories less than the 10µg/dL Pb-B and three categories greater than the 10µg/dL Pb-B.

5.3 Designing the Color Shades for the Communities

The color shades for the communities with greater than 10µg/dL Pb-B were done using three progressively darker shades of red. The two shades less than 10µg/dL Pb-B were done in green and yellow.

6. Maps of LEAP Communities

Figures 3 through 16 consist of maps of Region 5 cities with the highest modelled blood lead concentrations. The integer within each community indicates its assigned identification number. A table follows each map listing the census tracts within every community. Following the maps are tables for the remaining central cities for which the UBK model was run.

FIGURE 3

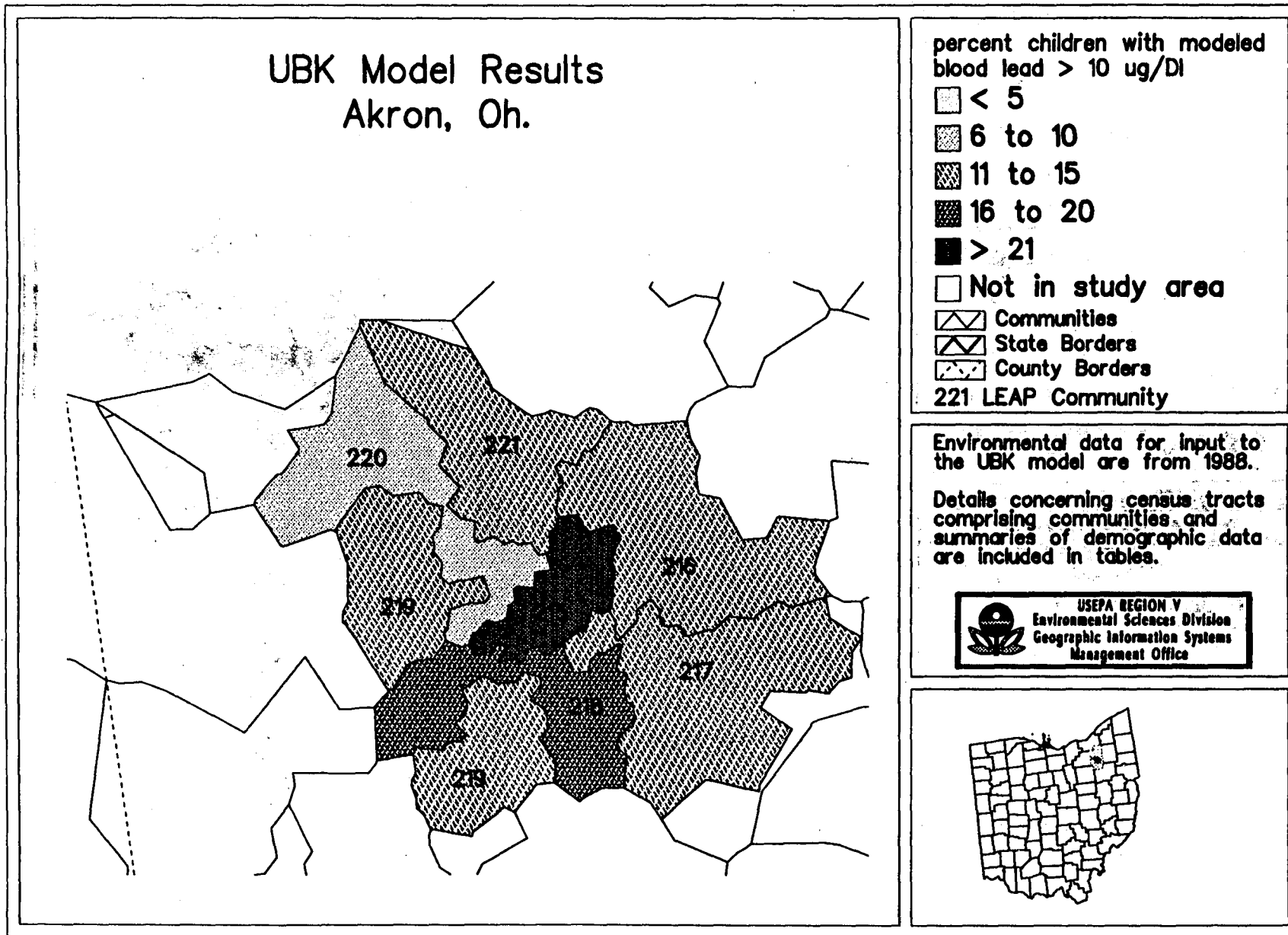


FIGURE 4

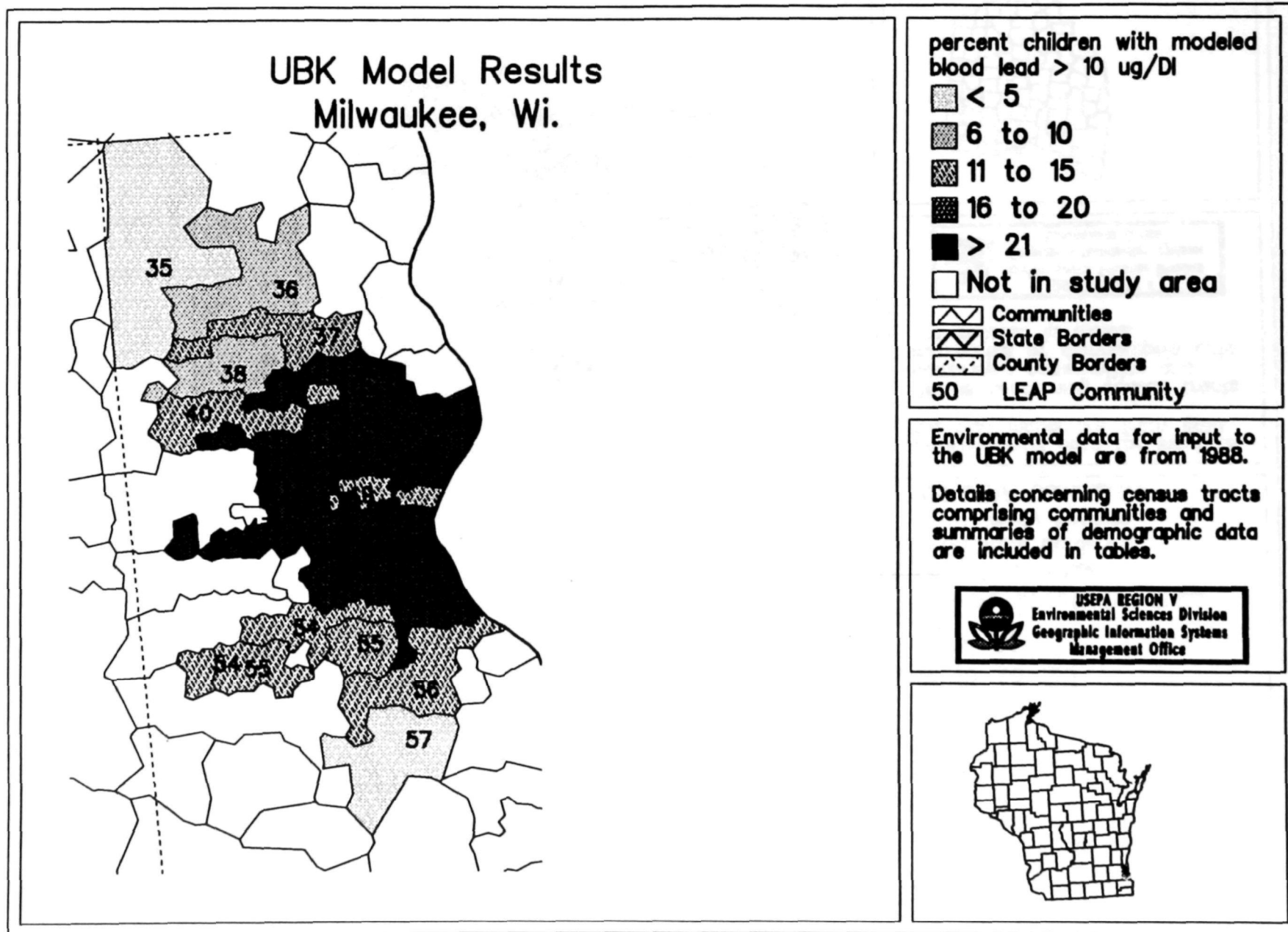


FIGURE 5

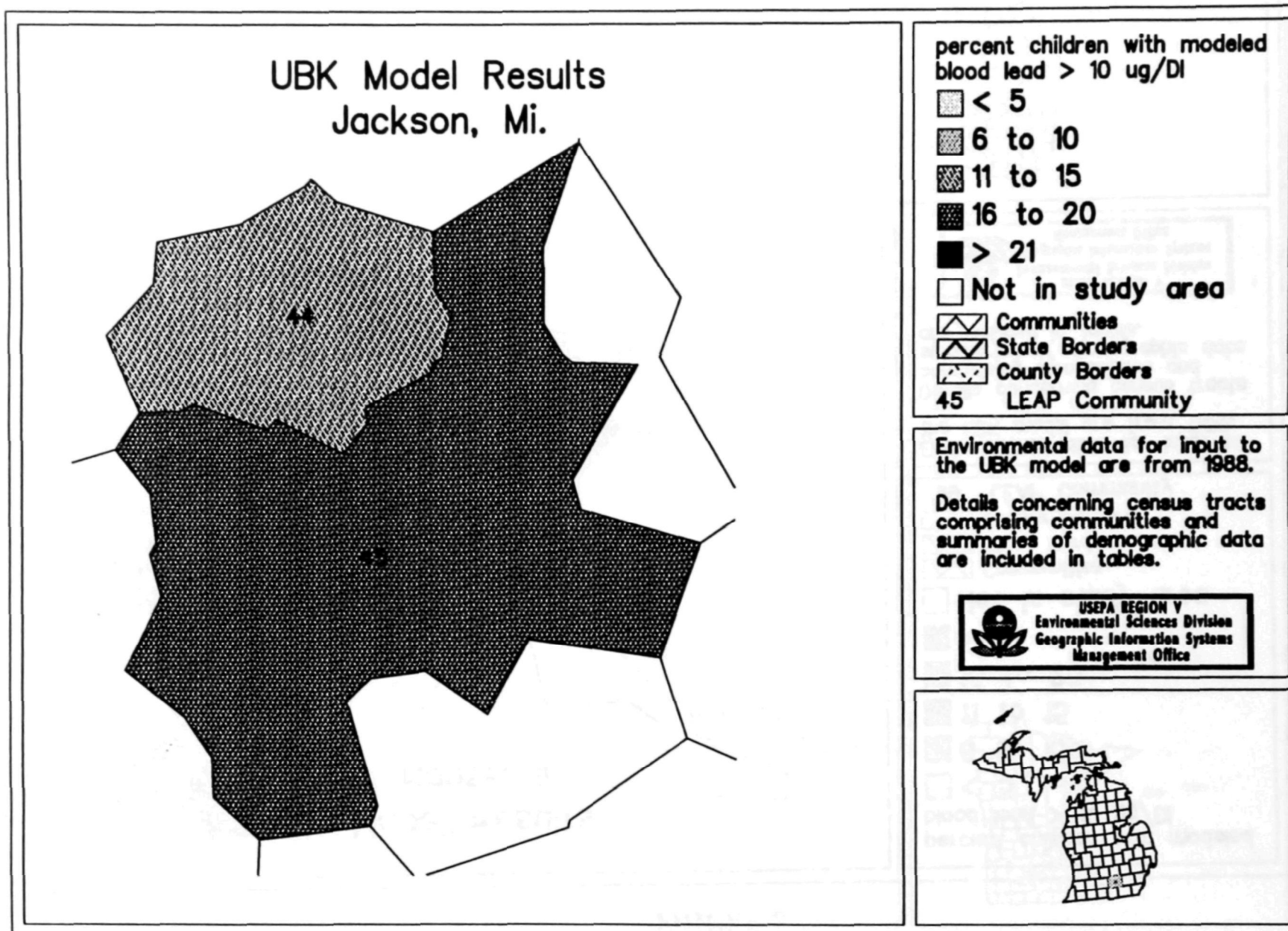


FIGURE 6

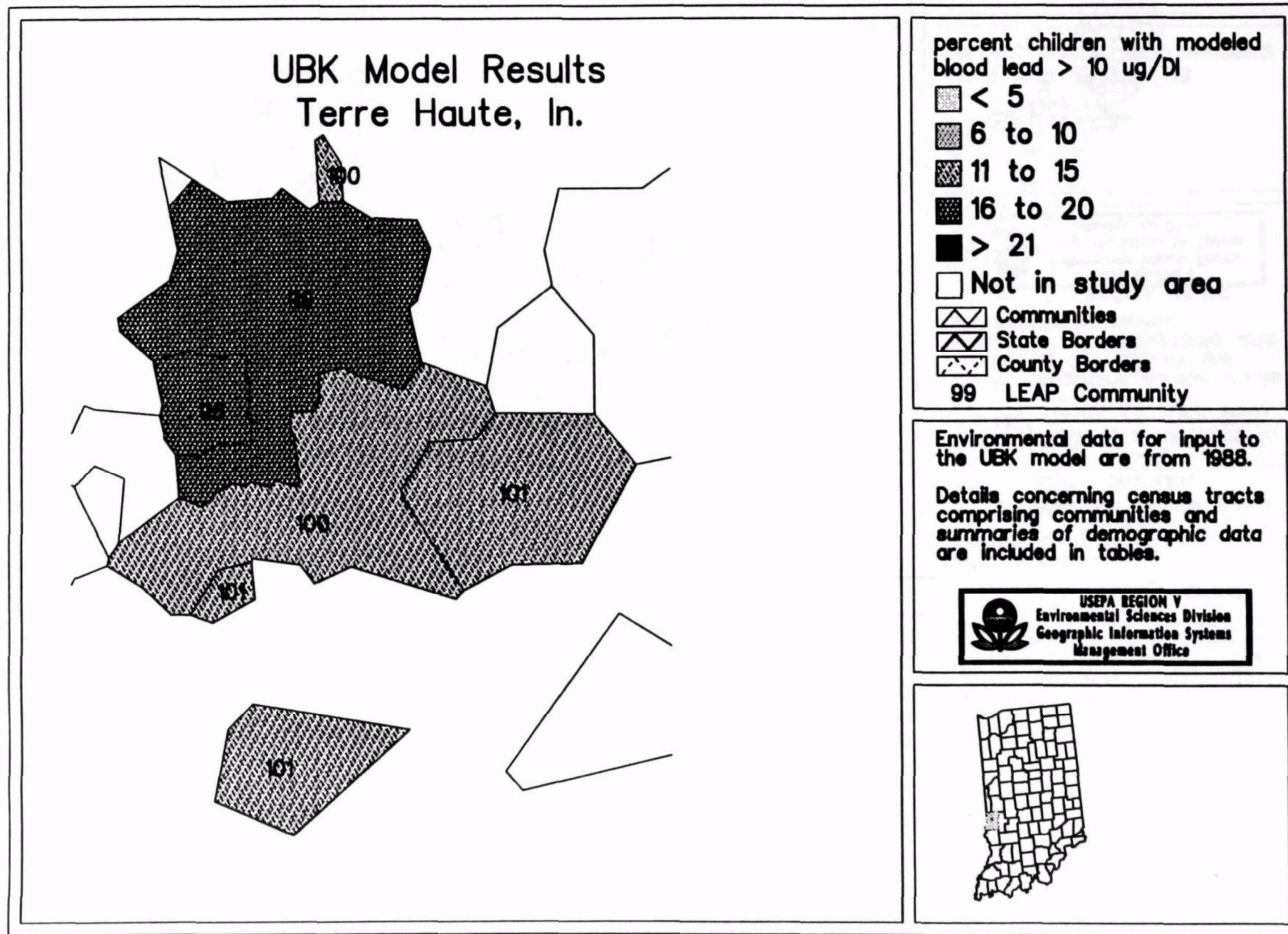


FIGURE 7

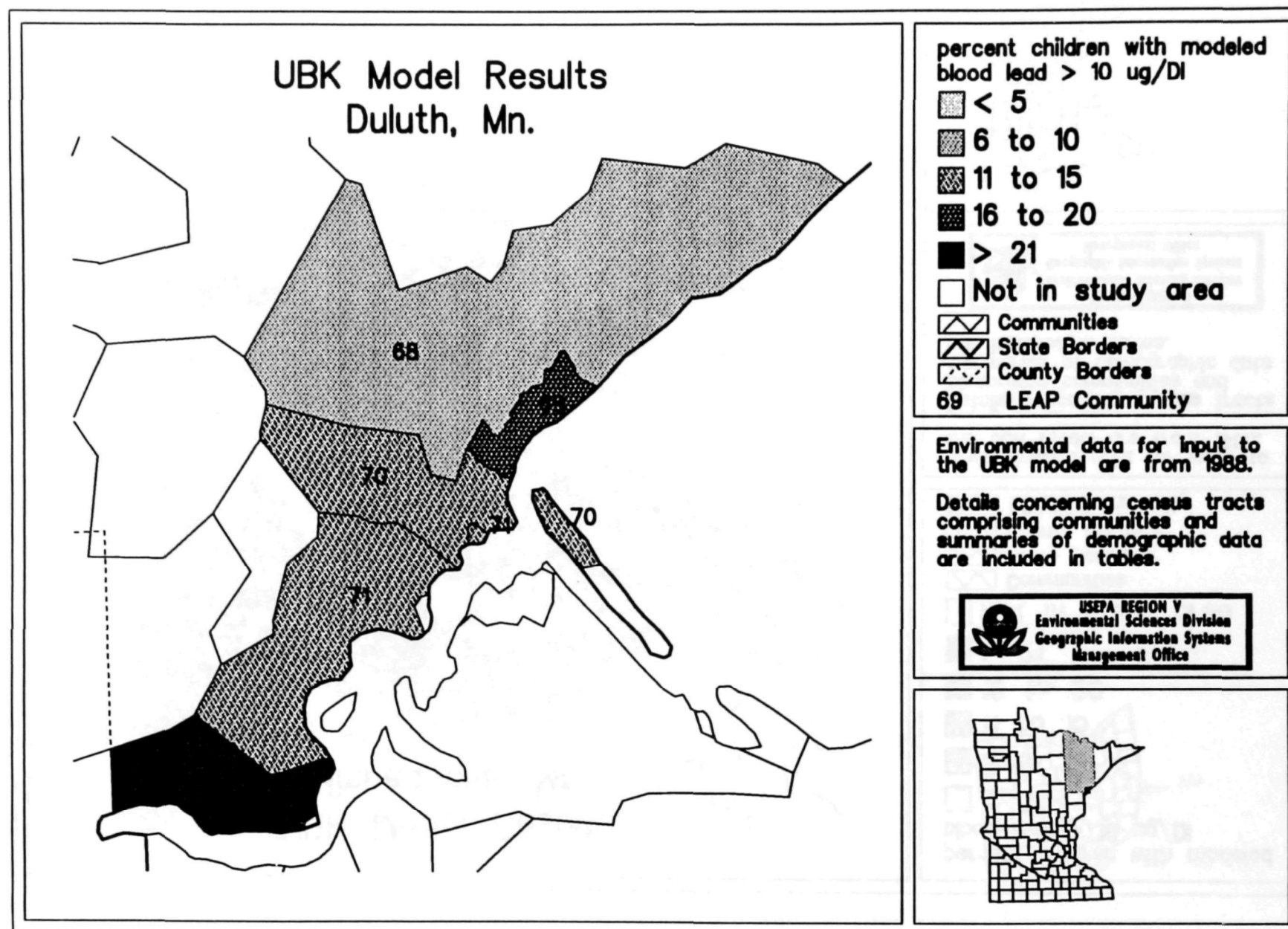


FIGURE 8

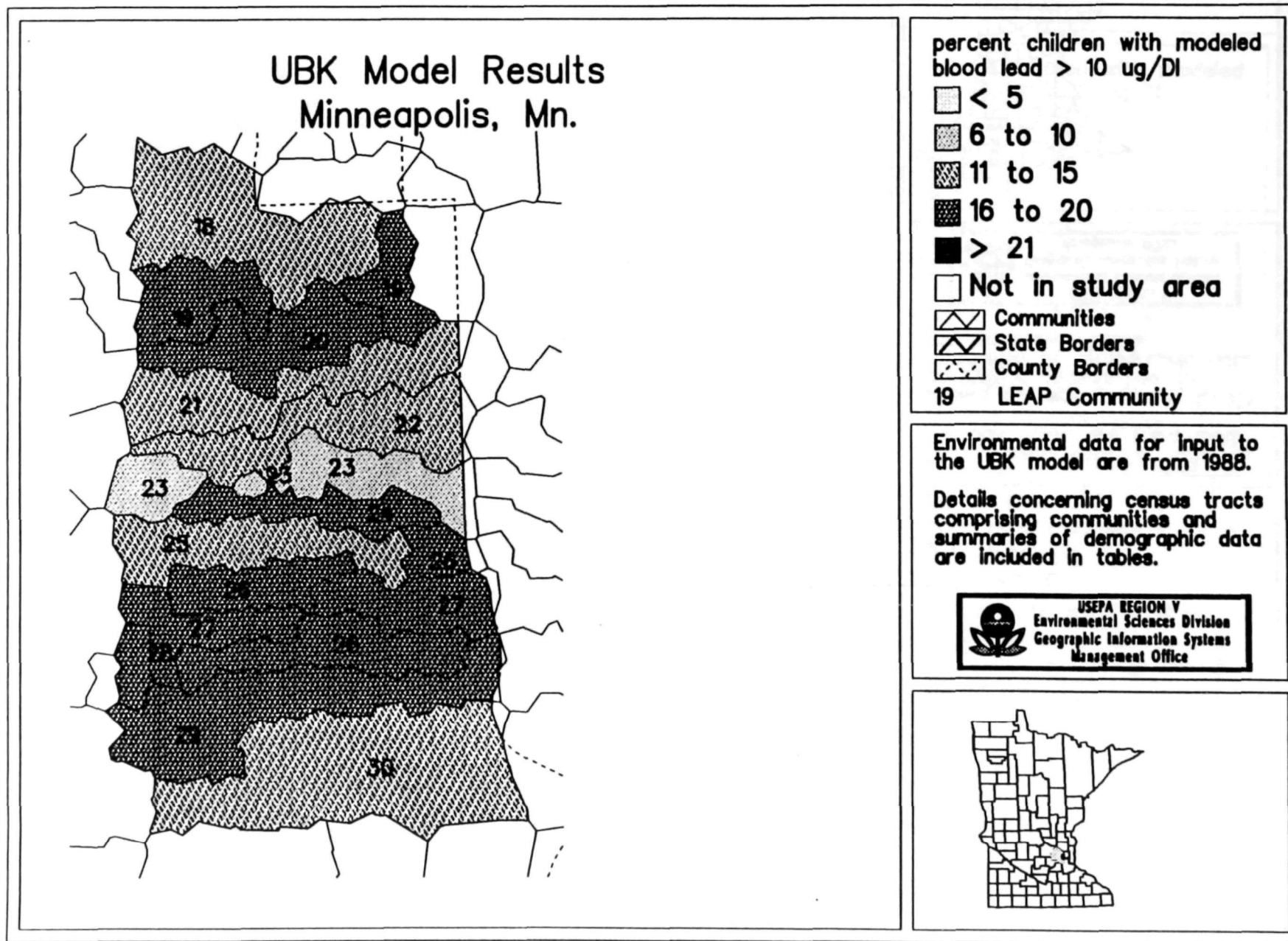


FIGURE 9

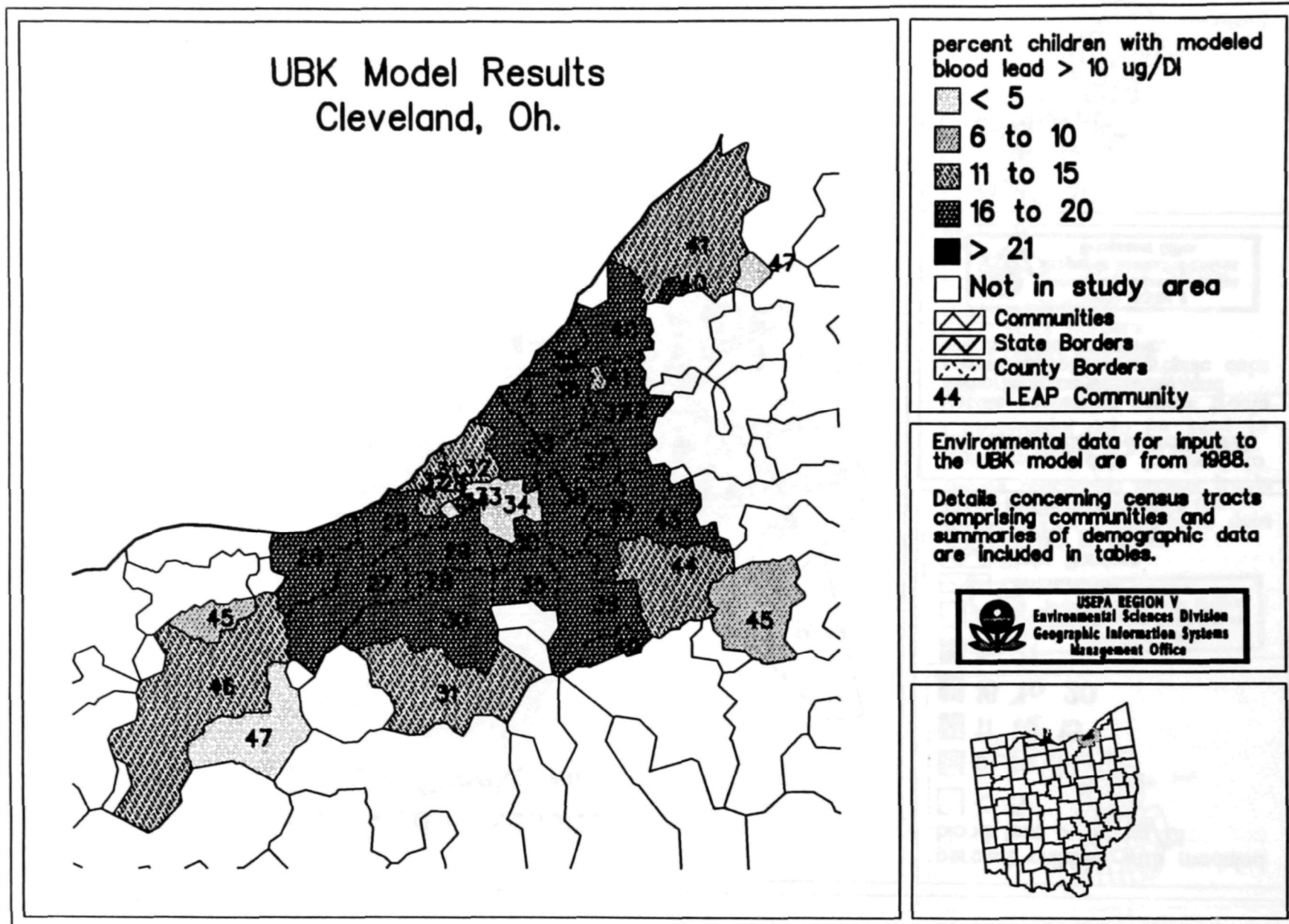


FIGURE 10

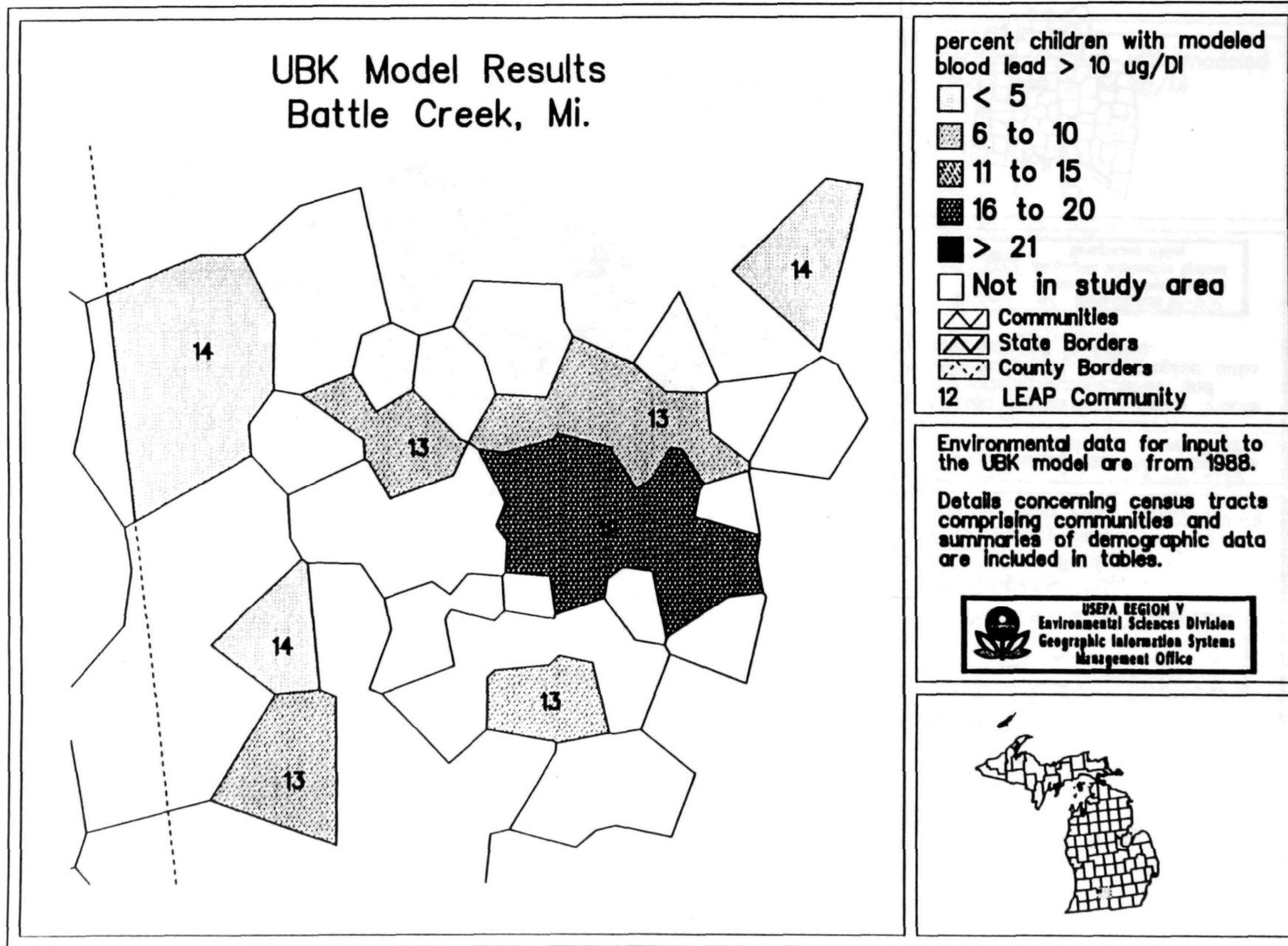


FIGURE 11

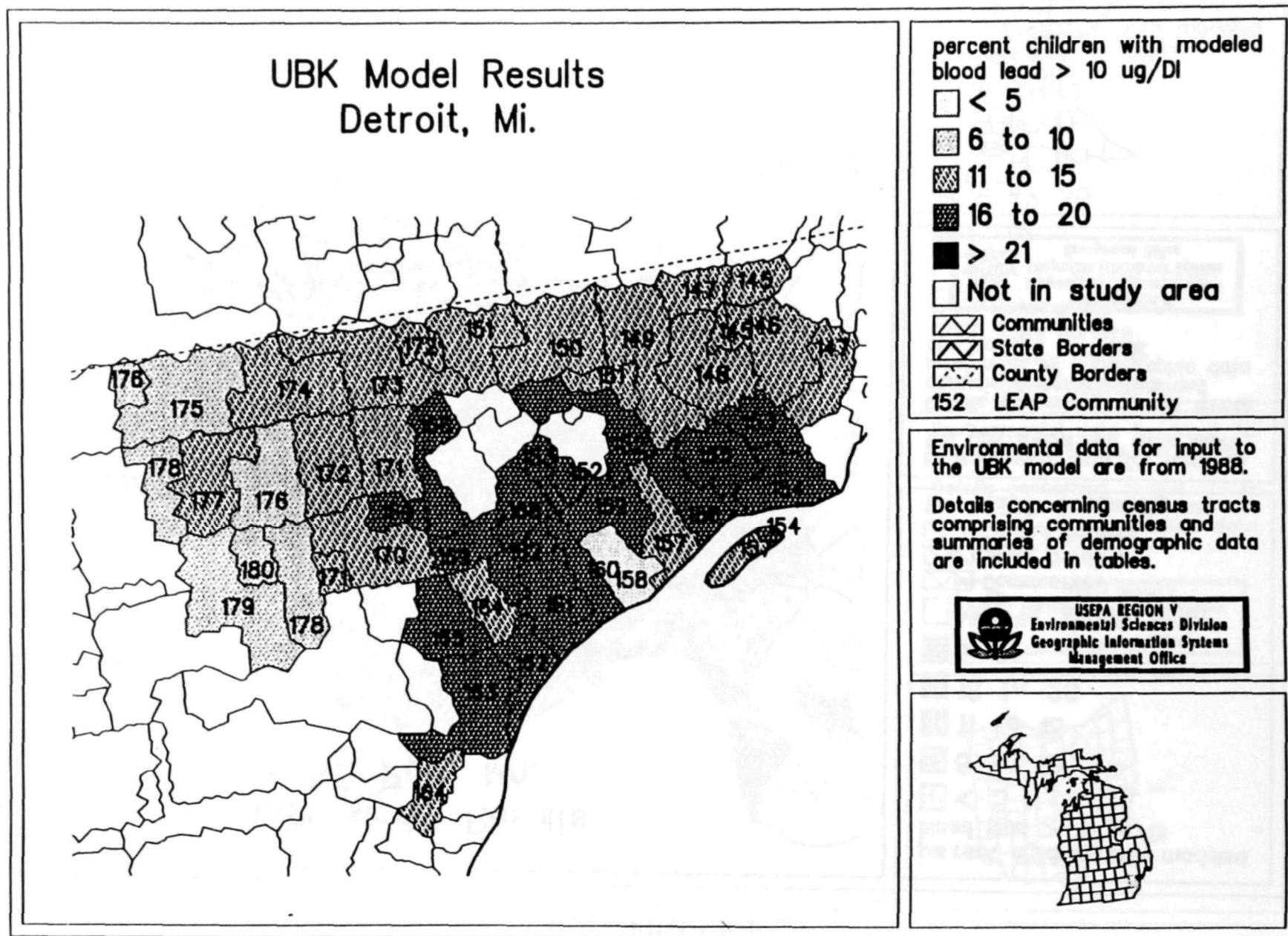


FIGURE 12

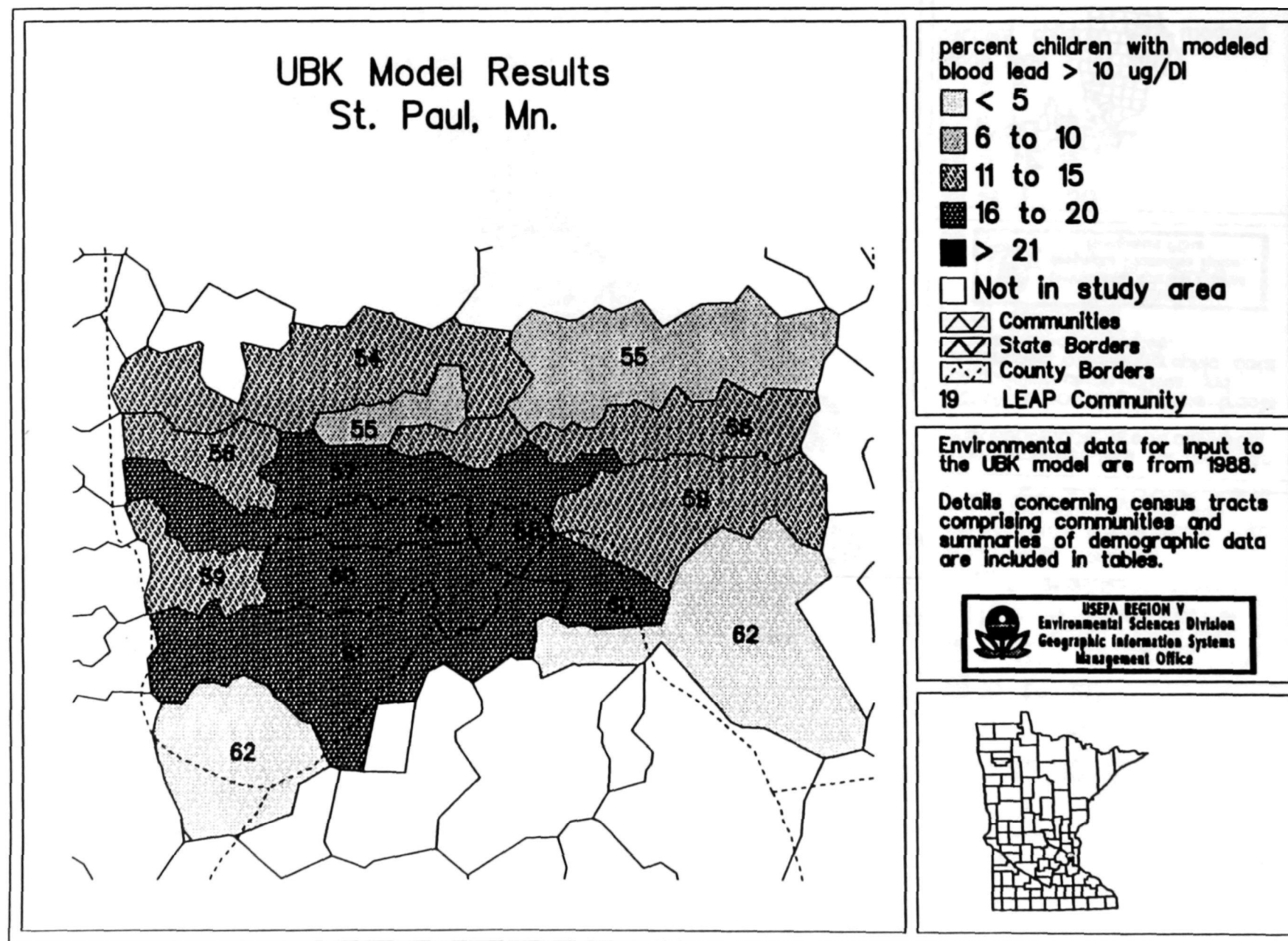


FIGURE 13

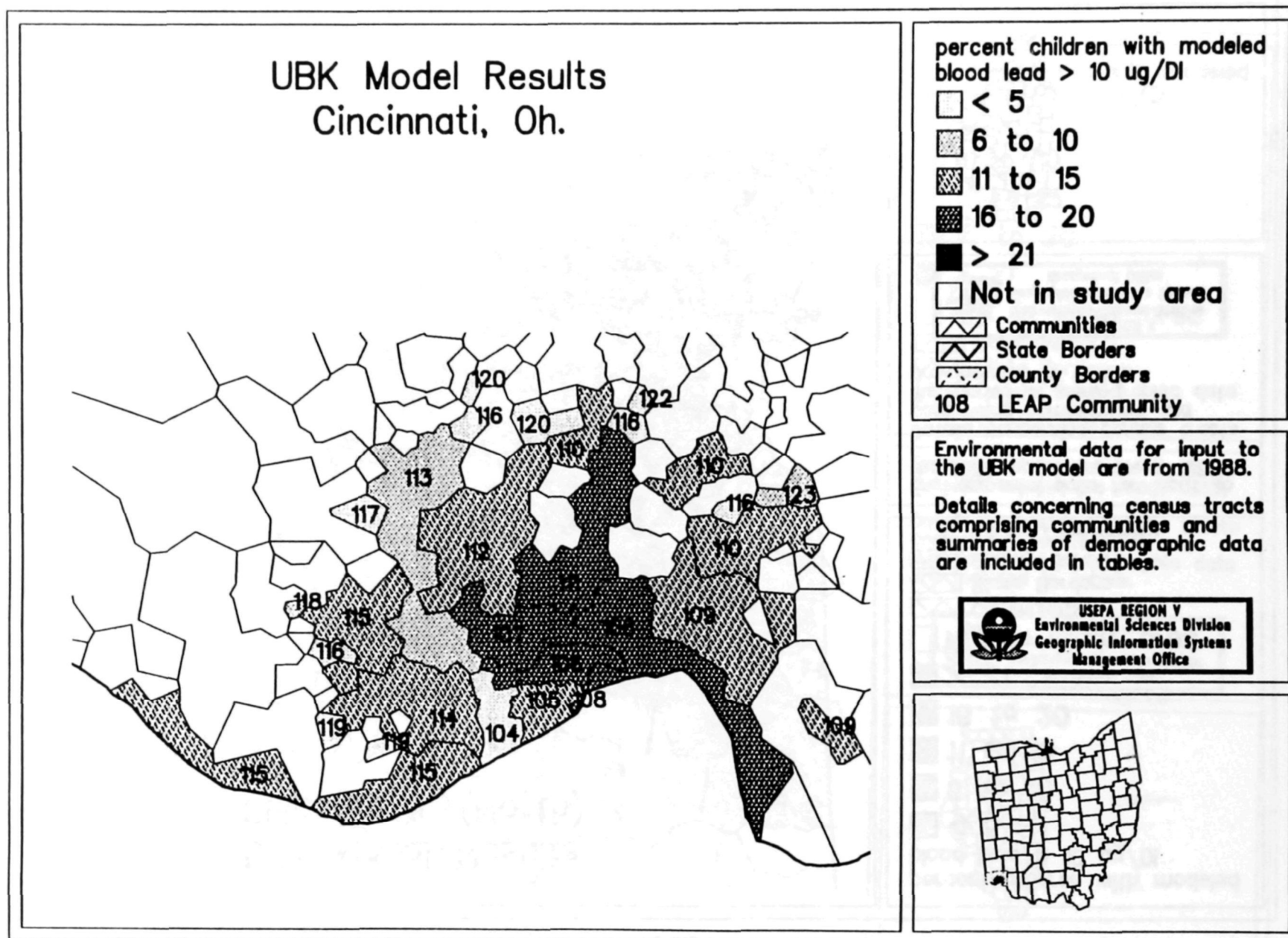


FIGURE 14

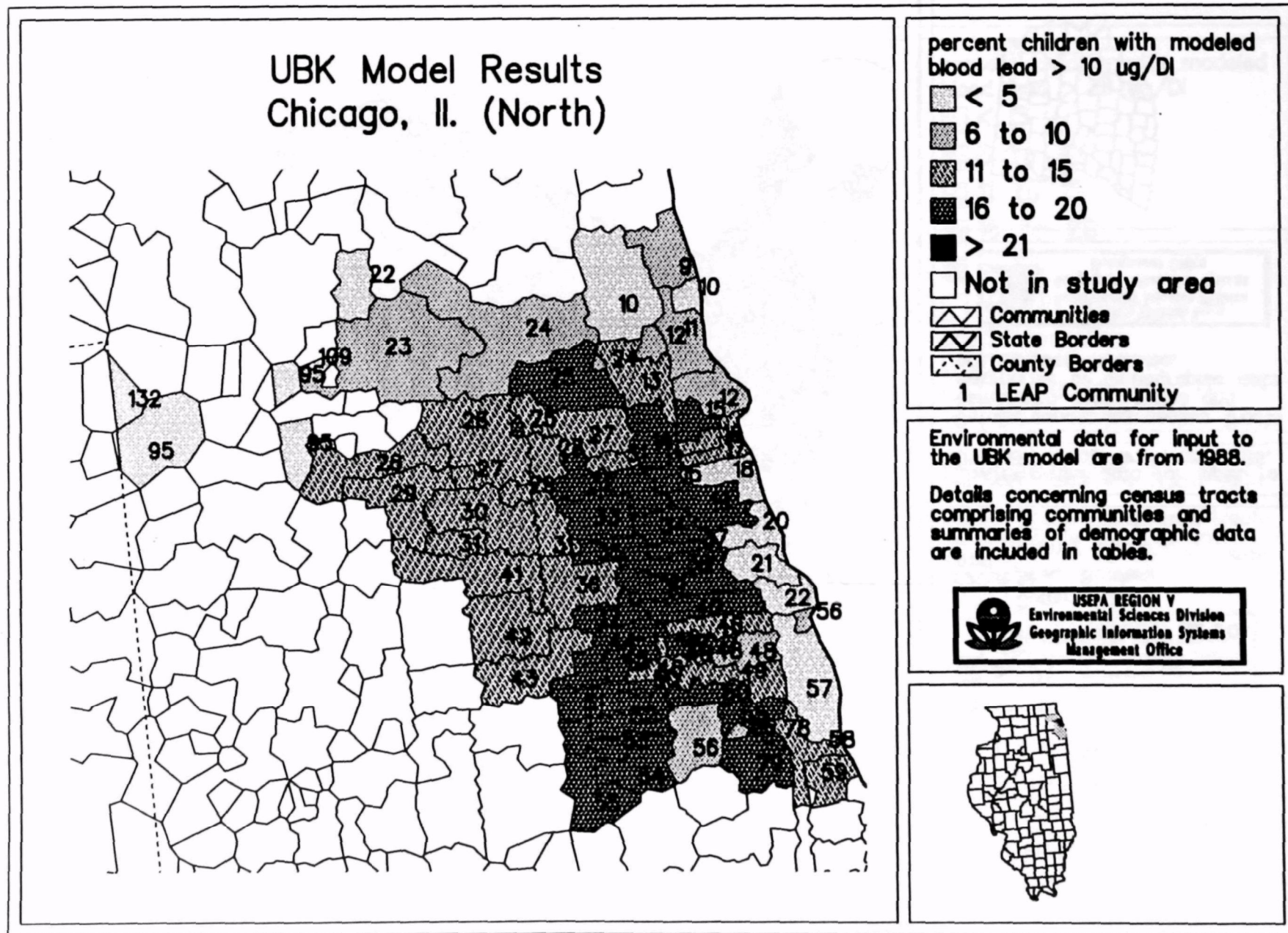


FIGURE 15

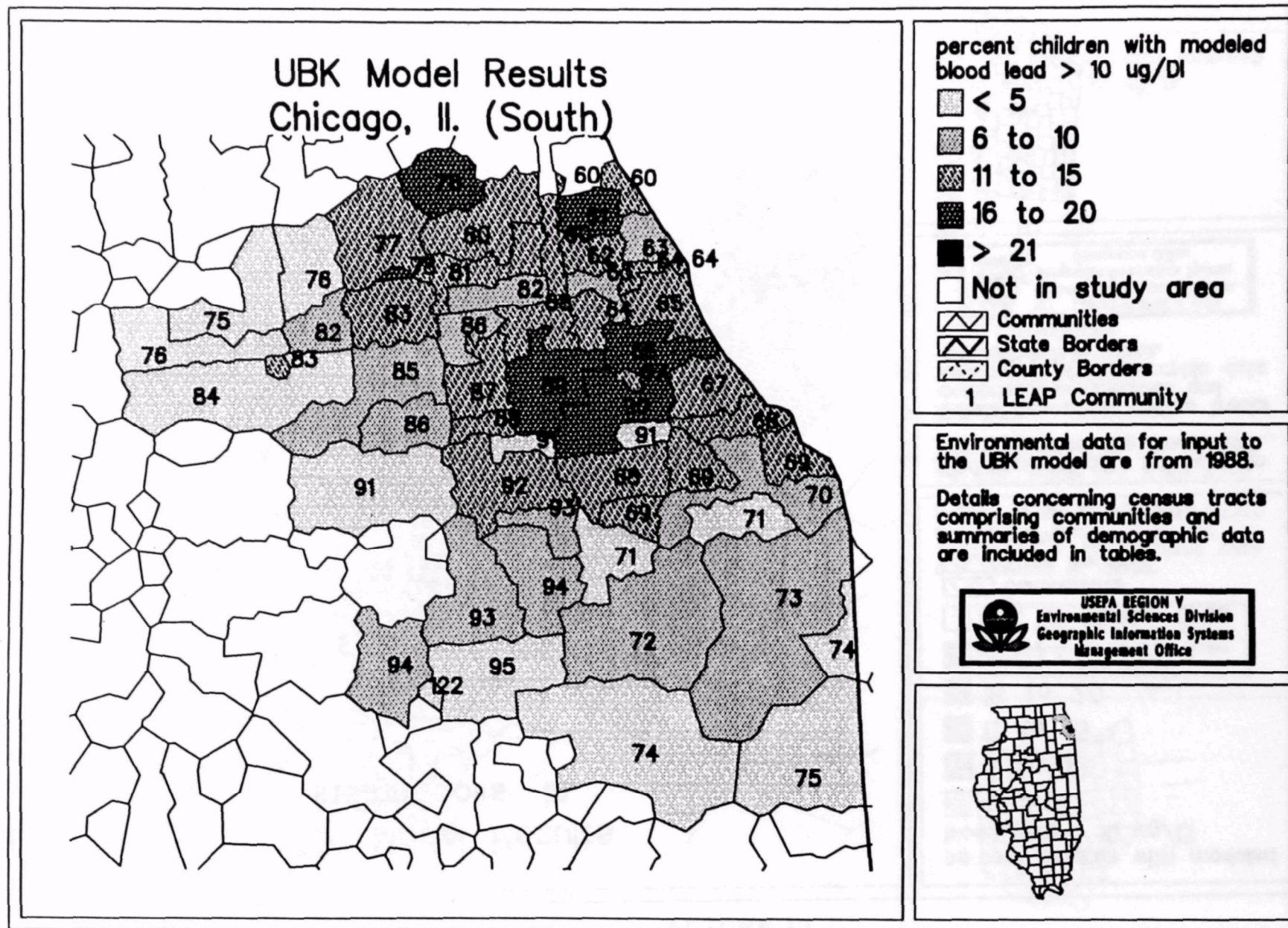


FIGURE 16

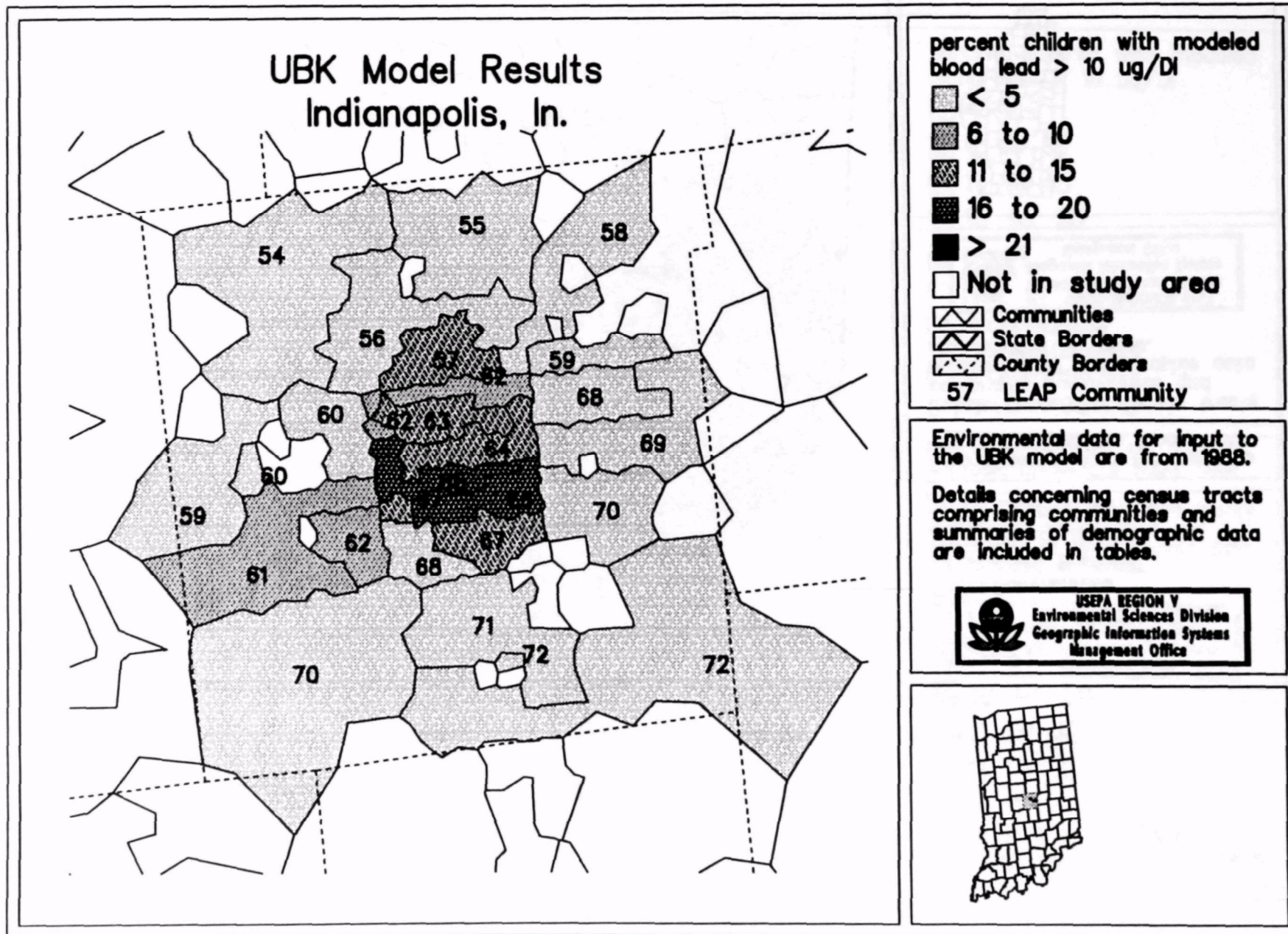


FIGURE 17

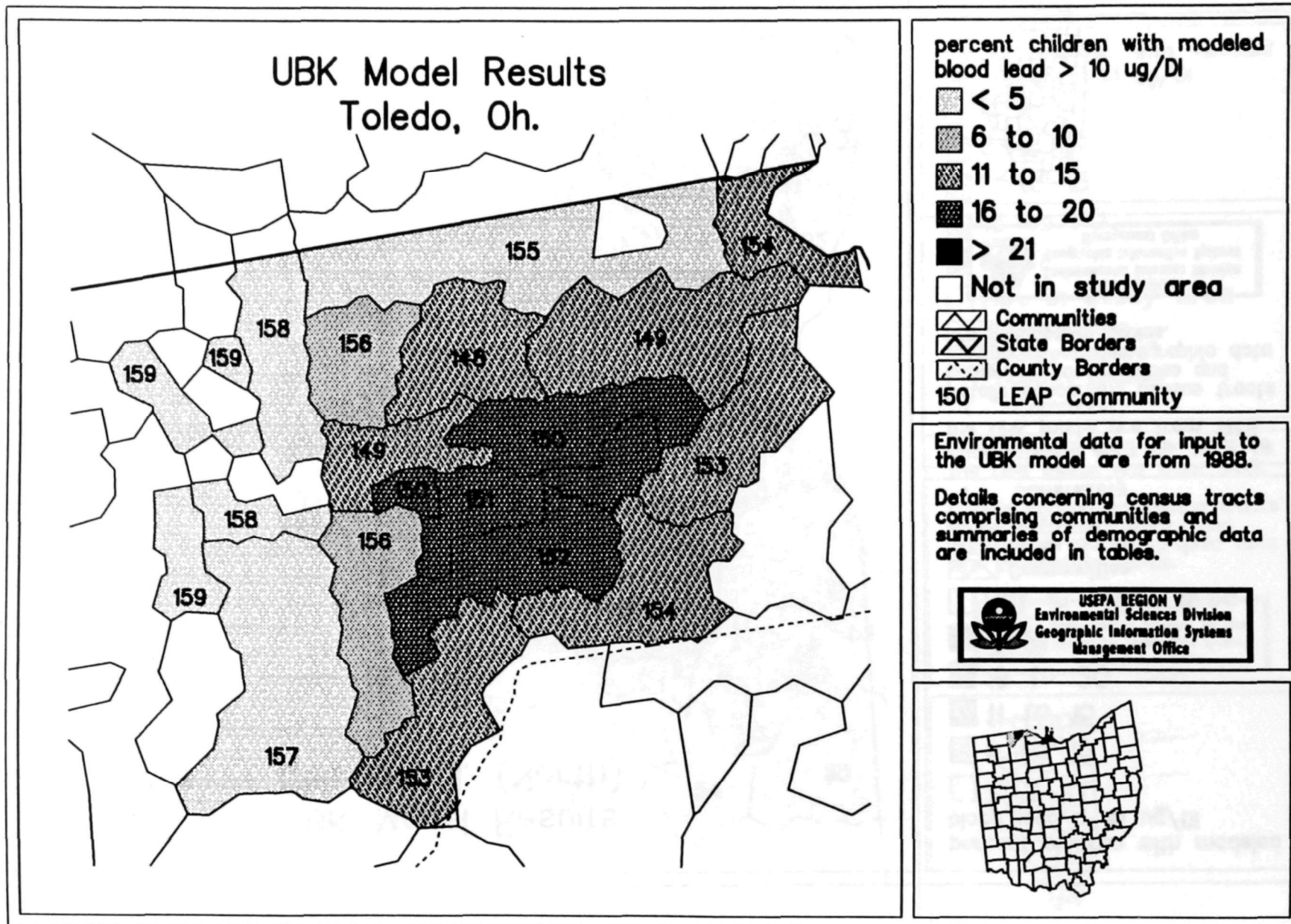


FIGURE 18

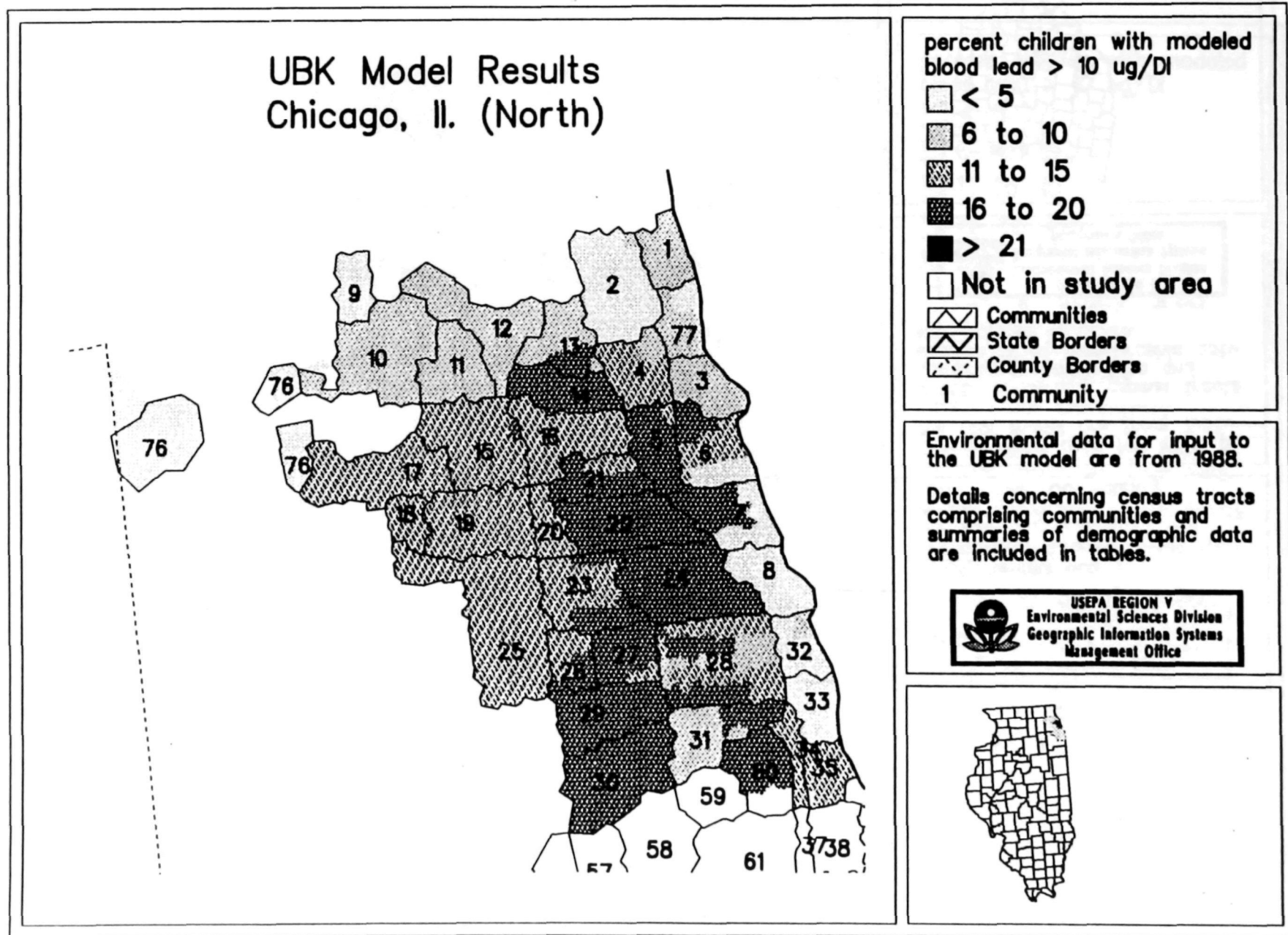


FIGURE 19

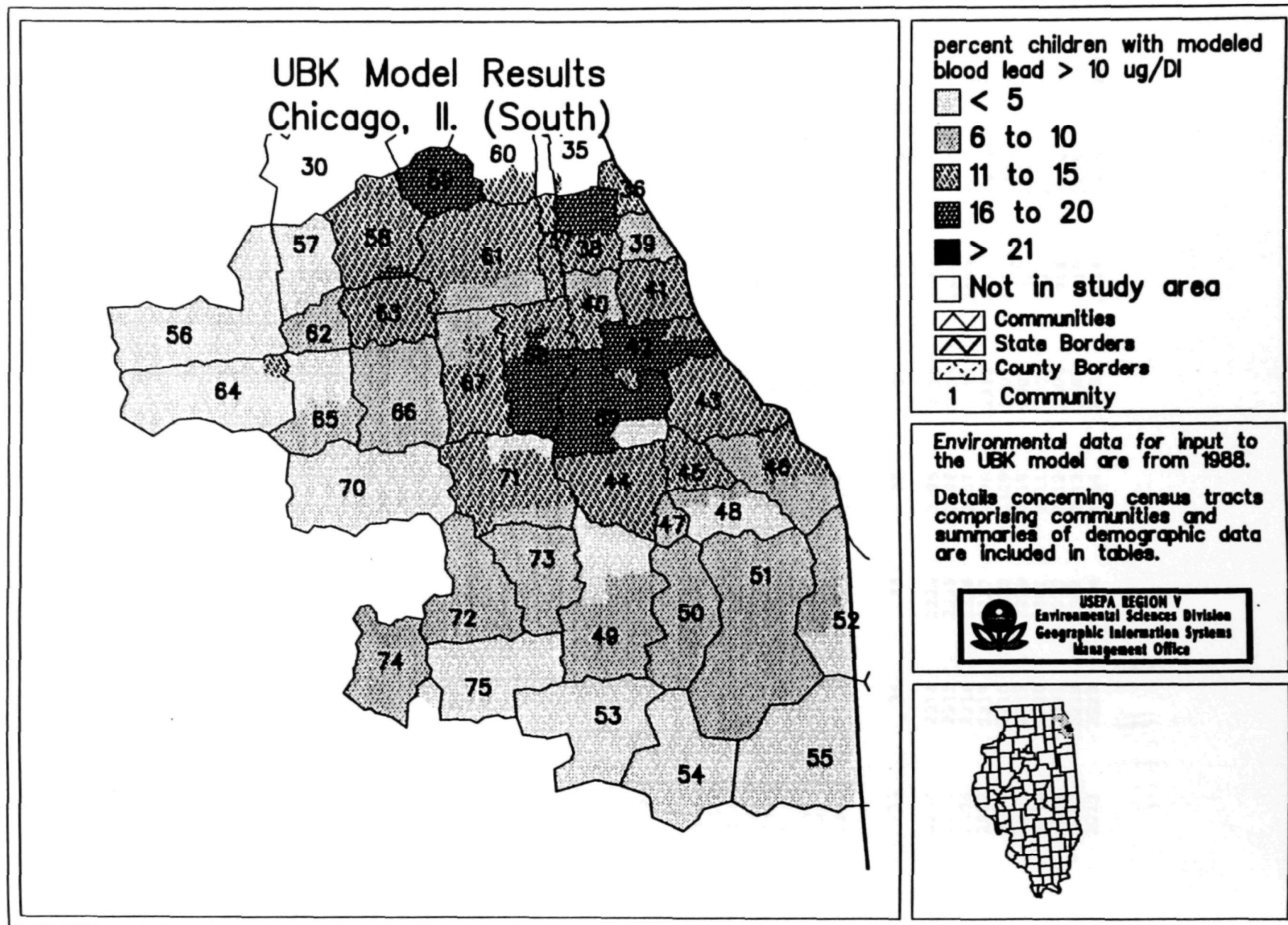


TABLE I

Rock Island, Illinois
1980 Census Tracts comprising
LEAP Communities

193	194	195
22600	23300	24400
22800	23400	
22900	23500	
23200	23600	
	23700	

TABLE II

Moline, Illinois
1980 Census Tracts comprising
LEAP Communities

191	192	193
21100	21300	22300
	21400	22400
	21500	22500
	21600	
	21700	
	21800	
	21900	
	22000	
	22100	
	22200	

TABLE III
Chicago, Illinois
1980 Census Tracts Comprising
LEAP Communities

9	10	11	12	13	14	15	16
101	202	303	313	402	502	512	607
102	203	304	314	403	503	513	608
103	204	305	315	404	504	514	609
104	205	306	316	405	505	515	610
105	206	307	317	406	506	601	611
106	207	308	318	407	507	602	612
107	208	309	319	408	508	603	613
108	209	310	320	409	509	604	614
109	301	311	321	410	510	605	615
201	302	312	401	501	511	606	616
17	18	19	20	21	22	23	24
617	627	703	713	803	813	1001	1104
618	628	704	714	804	814	1002	1105
619	629	705	715	805	815	1003	1201
620	630	706	716	806	816	1004	1202
621	631	707	717	807	817	1005	1203
622	632	708	718	808	818	1006	1204
623	633	709	719	809	819	1007	1301
624	634	710	720	810	901	1101	1302
625	701	711	801	811	902	1102	1303
626	702	712	802	812	903	1103	1304
25	26	27	28	29	30	31	32
1305	1502	1512	1610	1707	1903	1913	2103
1401	1503	1601	1611	1708	1904	1914	2104
1402	1504	1602	1612	1709	1905	2001	2105
1403	1505	1603	1613	1710	1906	2002	2106
1404	1506	1604	1701	1711	1907	2003	2107
1405	1507	1605	1702	1801	1908	2004	2108
1406	1508	1606	1703	1802	1909	2005	2109
1407	1509	1607	1704	1803	1910	2006	2201
1408	1510	1608	1705	1901	1911	2101	2202
1501	1511	1609	1706	1902	1912	2102	2203
33	34	35	36	37	38	39	40
2204	2214	2224	2305	2315	2407	2417	2427
2205	2215	2225	2306	2316	2408	2418	2428
2206	2216	2226	2307	2317	2409	2419	2429
2207	2217	2227	2308	2318	2410	2420	2430
2208	2218	2228	2309	2401	2411	2421	2431
2209	2219	2229	2310	2402	2412	2422	2432
2210	2220	2301	2311	2403	2413	2423	2433
2211	2221	2302	2312	2404	2414	2424	2434
2212	2222	2303	2313	2405	2415	2425	2435
2213	2223	2304	2314	2406	2416	2426	2436

Chicago, Illinois
1980 Census Tracts Comprising
LEAP Communities

41	42	43	44	45	46	47	48
2501	2511	2521	2607	2707	2717	2808	2818
2502	2512	2522	2608	2708	2718	2809	2819
2503	2513	2523	2609	2709	2719	2810	2820
2504	2514	2524	2610	2710	2801	2811	2821
2505	2515	2601	2701	2711	2802	2812	2822
2506	2516	2602	2702	2712	2803	2813	2823
2507	2517	2603	2703	2713	2804	2814	2824
2508	2518	2604	2704	2714	2805	2815	2825
2509	2519	2605	2705	2715	2806	2816	2826
2510	2520	2606	2706	2716	2807	2817	2827
49	50	51	52	53	54	55	56
2828	2838	2905	2915	2925	3008	3018	3108
2829	2839	2906	2916	2926	3009	3019	3109
2830	2840	2907	2917	2927	3010	3020	3110
2831	2841	2908	2918	3001	3011	3101	3111
2832	2842	2909	2919	3002	3012	3102	3112
2833	2843	2910	2920	3003	3013	3103	3113
2834	2901	2911	2921	3004	3014	3104	3114
2835	2902	2912	2922	3005	3015	3105	3115
2836	2903	2913	2923	3006	3016	3106	3201
2837	2904	2914	2924	3007	3017	3107	3202
57	58	59	60	61	62	63	64
3202	3401	3505	3515	3801	3811	3901	4004
3203	3402	3506	3601	3802	3812	3902	4005
3204	3403	3507	3602	3803	3813	3903	4006
3205	3404	3508	3603	3804	3814	3904	4007
3206	3405	3509	3604	3805	3815	3905	4008
3301	3406	3510	3605	3806	3816	3906	4101
3302	3501	3511	3701	3807	3817	3907	4102
3303	3502	3512	3702	3808	3818	4001	4103
3304	3503	3513	3703	3809	3819	4002	4104
3305	3504	3514	3704	3810	3820	4003	4105
65	66	67	68	69	70	71	72
4106	4202	4212	4310	4406	4604	4803	4908
4107	4203	4301	4311	4407	4605	4804	4909
4108	4204	4302	4312	4408	4606	4805	4910
4109	4205	4303	4313	4409	4607	4901	4911
4110	4206	4304	4314	4501	4608	4902	4912
4111	4207	4305	4401	4502	4609	4903	4913
4112	4208	4306	4402	4503	4610	4904	4914
4113	4209	4307	4403	4601	4701	4905	5001
4114	4210	4308	4404	4602	4801	4906	5002
4201	4211	4309	4405	4603	4802	4907	5003
73	74	75	76	77	78	79	80
5101	5204	5501	5609	5801	5811	6003	6013
5102	5205	5502	5610	5802	5901	6004	6014
5103	5206	5601	5611	5803	5902	6005	6015
5104	5301	5602	5612	5804	5903	6006	6016
5105	5302	5603	5613	5805	5904	6007	6101
5105	5303	5604	5701	5806	5905	6008	6102
5201	5304	5605	5702	5807	5906	6009	6103
5202	5305	5606	5703	5808	5907	6010	6104
5203	5306	5607	5704	5809	6001	6011	6105
5203	5401	5608	5705	5810	6002	6012	6106

Chicago, Illinois
1980 Census Tracts Comprising
LEAP Communities

81	82	83	84	85	86	87	88
6107	6117	6301	6402	6504	6609	6708	6718
6108	6118	6302	6403	6505	6610	6709	6719
6109	6119	6303	6404	6601	6611	6710	6720
6110	6120	6304	6405	6602	6701	6711	6801
6111	6121	6305	6406	6603	6702	6712	6802
6112	6122	6306	6407	6604	6703	6713	6803
6113	6201	6307	6408	6605	6704	6714	6804
6114	6202	6308	6501	6606	6705	6715	6805
6115	6203	6309	6502	6607	6706	6716	6806
6116	6204	6401	6503	6608	6707	6717	6807
89	90	91	92	93	94	95	133
6808	6904	6914	7104	7114	7302	7501	8408
6809	6905	6915	7105	7115	7303	7502	
6810	6906	7001	7106	7201	7304	7503	
6811	6907	7002	7107	7202	7305	7504	
6812	6908	7003	7108	7203	7306	7505	
6813	6909	7004	7109	7204	7307	7506	
6814	6910	7005	7110	7205	7401	7608	
6901	6911	7101	7111	7206	7402		
6902	6912	7102	7112	7207	7403		
6903	6913	7103	7113	7301	7404		

TABLE IV

Kankakee, Illinois
1980 Census Tracts Comprising
LEAP Communities

155	156
11500	12200
11600	12300
11700	12400
11800	12500

TABLE V

Peoria, Illinois
1980 Census Tracts Comprising
LEAP Communities

185	186	187	188	190
100	600	1600	2600	4400
200	700	1700	2700	
300	800	1800	2800	
400	900	1900	2900	
500	1000	2000	3000	
	1100	2100	3200	
	1200	2200	3300	
	1300	2300		
	1400	2400		
	1500	2500		

TABLE VI

Bloomington, Illinois
1980 Census Tracts comprising
LEAP Communities

171	172
1101	1301
1102	1302
1200	1303
	1400
	1500
	1600
	1700
	1800
	1900
	2000

TABLE VII

Normal, Illinois
1980 Census Tracts Comprising
LEAP Communities

170	171
101	200
102	301
103	302
	400
	501
	502
	503

TABLE VIII

Champaign, Illinois
1980 Census Tracts Comprising
LEAP Communities

2	3	4
100	300	1400
200	400	
	500	
	600	
	1000	
	1100	
	1201	

TABLE IX

Urbana, Illinois
1980 Census Tracts Comprising
LEAP Communities

4	5
5100	5800
5200	5900
5600	6000
5700	

TABLE X

Springfield, Illinois
1980 Census Tracts Comprising
LEAP Communities

201	202	203	204
300	500	1500	2500
400	800	1600	2600
	900	1700	2800
	1000	1800	2900
	1100	1900	3000
	1200	2100	3100
	1300	2200	
	1400	2300	

TABLE XI

E. St. Louis, Illinois
1980 Census Tracts Comprising
LEAP Communities

195	196	200
500400	501300	504201
500500	501400	504202
500600		
500800		
500900		
501000		
501100		
501200		

TABLE XII

Granite City, Illinois
1980 Census Tracts Comprising
LEAP Communities

177	178
400101	400500
400102	400802
400300	
400400	

TABLE XIII

Rockford, Illinois
1980 Census Tracts Comprising
LEAP Communities

218	219	220	221	222	223
401	502	1100	2100	3000	3703
403	504	1200	2301	3100	
501	506	1300	2400	3200	
	507	1400	2500	3300	
	600	1500	2600	3400	
	700	1600	2700	3500	
	800	1700	2800	3601	
	1000	1800	2900	3603	
		1900		3604	

TABLE XIV

Gary, Indiana
1980 Census Tracts Comprising
LEAP Communities

36	37	38	39	40	44
10100	10300	11300	12300	13300	41100
10200	10400	11400	12400	13400	41200
10299	10500	11500	12500		41301
	10600	11600	12600		
	10700	11700	12700		
	10800	11800	12800		
	10900	11900	12900		
	11000	12000	13000		
	11100	12100	13100		
	11200	12200	13200		

TABLE XV

Hammond, Indiana
1980 Census Tracts Comprising
LEAP Communities

40	41
20100	20900
20200	21000
20300	21100
20400	21200
20500	21300
20600	21400
20700	21500
20800	21600
	21700
	21800

TABLE XVI

E. Chicago, Indiana
1980 Census Tracts Comprising
LEAP Communities

42	43
30100	30900
30200	31000
30300	
30399	
30400	
30499	
30500	
30600	
30700	
30800	

TABLE XVII

South Bend, Indiana
1980 Census Tracts Comprising
LEAP Communities

81	82	83	84	85	87
100	900	1900	2900	11100	11900
200	1000	2000	3000		
301	1100	2100	3100		
302	1200	2200	3200		
400	1300	2300	3300		
500	1400	2400	3400		
600	1500	2500	3500		
700	1600	2600			
800	1700	2700			
	1800	2800			

TABLE XVIII

Mishawaka, Indiana
1980 Census Tracts Comprising
LEAP Communities

84	85	86
10100	10400	11501
10200	10500	11502
10300	10600	11503
	10700	11701

TABLE XIX

Elkhart, Indiana
1980 Census Tracts Comprising
LEAP Communities

20	21	22
1500	1600	2600
	1800	2700
	2200	2800
	2300	
	2400	
	2500	

TABLE XX

Ft. Wayne, Indiana
1980 Census Tracts Comprising
LEAP Communities

0	1	2	3	4	5	6	7
100	400	1300	2300	3301	4000	10701	11302
300	500	1400	2400	3302	4101	10702	11303
	600	1500	2500	3303	4102	10805	11304
	701	1600	2600	3400	4200		
	702	1700	2700	3500			
	800	1800	2800	3600			
	900	1900	3000	3700			
	1000	2000	3100	3800			
	1100	2100	3200	3901			
	1200	2200		3902			

TABLE XXI

LaFayette, Indiana
1980 Census Tracts Comprising
LEAP Communities

89	90	91
100	800	1900
200	900	
300	1000	
400	1100	
600	1200	
700	1400	
	1500	
	1600	

TABLE XXII

Kokomo, Indiana
1980 Census Tracts Comprising
LEAP Communities

31	32
100	900
200	1000
300	1100
500	1200
700	
800	

TABLE XXIII

Anderson, Indiana
1980 Census Tracts Comprising
LEAP Communities

50	51	52
100	700	1700
200	800	1800
300	900	1900
400	1000	2000
500	1100	
600	1200	
	1500	
	1600	

TABLE XXIV

Muncie, Indiana
1989 Census Tracts Comprising
LEAP Communities

16	17	18
100	902	1902
200	1000	2000
300	1100	
400	1200	
500	1300	
600	1400	
700	1500	
800	1600	
901	1700	
	1901	

TABLE XXV

**Indianapolis, Indiana
1980 Census Tracts Comprising
LEAP Communities**

54	55	56	57	58	59	60	61
310101	320104	320901	321700	322700	330801	340300	341400
310102	320201	320902	321800	330101	330802	340400	341500
310200	320202	320903	321900	330102	330900	340500	341600
310301	320301	321001	322000	330402	331000	340600	341700
310302	320302	321002	322100	330500	340101	340700	341901
320101	320400	321100	322200		340102	341100	341902
320102	320500	321200	322300		340104	341200	342000
320103	320600	321300	322400		340200		342100
	320700	321400	322500				342200
	320800	321600	322600				342300
62	63	64	65	66	67	68	69
342400	350800	352300	353600	355000	356400	357900	360402
342500	350900	352400	353800	355100	356900	358000	360403
342600	351000	352500	353900	355300	357000	358100	360502
350100	351100	352600	354100	355400	357100	360101	360601
350200	351200	352700	354200	355500	357200	360102	360602
350300	351500	352800	354400	355600	357300	360201	360800
350400	351600	353100	354500	355700	357400	360202	360900
350500	351700	353200	354700	355900	357600	360301	361000
350600	351900	353300	354800	356200	357800	360302	
350700	352100	353500	354900	356300		360401	
70	71	72					
361100	380200	381001					
361200	380300	381002					
361300	380501	381101					
361400	380502	381102					
370100	380600	381201					
370201	380700	381202					
370202	380800	390100					
370300	380900	390200					
380100		390300					
		390400					

TABLE XXVI

**Terre Haute, Indiana
1980 Census Tracts Comprising
LEAP Communities**

98	99	100
100	400	1400
200	500	1500
300	600	1600
	700	1700
	800	1800
	900	1900
	1000	
	1100	
	1200	
	1300	

TABLE XXVII

Bloomington, Indiana
1980 Census Tracts Comprising
LEAP Communities

74	75
100	302
201	400
202	500
301	600
	901
	902

TABLE XXVIII

Evansville, Indiana
1980 Census Tracts Comprising
LEAP Communities

93	94	95	96	97
100	900	1900	2900	3900
202	1000	2000	3000	10202
300	1100	2100	3100	
400	1200	2200	3200	
500	1300	2300	3300	
600	1400	2400	3400	
800	1500	2500	3500	
	1600	2600	3600	
	1700	2700	3701	
	1800	2800	3702	

TABLE XXIX

New Albany, Indiana
1980 Census Tracts Comprising
LEAP Communities

22	23
70200	70302
70301	70400
	70500
	70600
	70700
	70801
	70802
	70900

TABLE XXX

Saginaw, Michigan
1980 Census Tracts Comprising
LEAP Communities

124	125	126
100	300	1300
200	400	1400
	500	1500
	600	1600
	700	1700
	800	1800
	900	1900
	1000	2000
	1100	2100
	1200	

TABLE XXXI

Bay City, Michigan
Census Tracts Comprising
LEAP Communities

3	4	5
100	300	1300
200	400	
	500	
	600	
	700	
	800	
	900	
	1000	
	1100	
	1200	

TABLE XXXII

Midland, Michigan
1980 Census Tracts Comprising
LEAP Communities

88
100
200
300
400
700

TABLE XXXIII

Muskegon, Michigan
1980 Census Tracts Comprising
LEAP Communities

93	94	96
200	400	2100
300	500	
	601	
	602	
	700	
	800	
	900	
	1000	
	1099	

TABLE XXXIV

Grand Rapids, Michigan
1980 Census Tracts Comprising
LEAP Communities

54	55	56	57	58
100	1000	2000	3000	4000
200	1200	2100	3100	4100
300	1300	2200	3200	4200
400	1400	2300	3300	4300
500	1500	2400	3400	4400
600	1600	2500	3500	4500
700	1700	2600	3600	4600
800	1800	2700	3700	
900	1900	2800	3800	
		2900	3900	

TABLE XXXV

Lansing, Michigan
1980 Census Tracts Comprising
LEAP Communities

35	36	37	38	39	41
100	1000	2000	2902	3602	5100
200	1100	2100	3000	3700	5200
300	1200	2200	3102		5303
400	1300	2300	3200		
500	1400	2400	3301		
600	1500	2500	3302		
700	1600	2600	3400		
800	1701	2700	3601		
900	1702	2800			
	1900				

TABLE XXXVI

East Lansing, Michigan
1980 Census Tracts Comprising
LEAP Communities

37	39	40
2901	3801	4302
	3802	4401
	3901	4402
	3902	4403
	4000	4500
	4100	
	4200	

TABLE XXXVII
Flint, Michigan
1980 Census Tracts Comprising
LEAP Communities

22	23	24	25	26	27
100	300	1300	2300	3300	4200
200	400	1400	2400	3401	4300
	500	1500	2500	3402	4400
	600	1600	2600	3500	4500
	700	1700	2700	3600	4600
	800	1800	2800	3700	4700
	900	1900	2900	3800	
	1000	2000	3000	3900	
	1100	2100	3100	4000	
	1200	2200	3200	4100	

TABLE XXXVIII
Detroit, Michigan
1980 Census Tracts Comprising
LEAP Communities

145	146	147	148	149	150	151	152
500100	500500	501500	503500	504500	506400	507400	510400
500200	500600	501600	503600	504600	506500	507500	510500
500300	500700	501700	503700	504700	506600	507600	510600
500400	500800	501800	503800	504800	506700	507700	510700
	500900	501900	503900	504900	506800	507800	510800
	501000	502000	504000	505000	506900	507900	510900
	501100	503100	504100	505100	507000	508000	511000
	501200	503200	504200	506100	507100	510100	511100
	501300	503300	504300	506200	507200	510200	511200
	501400	503400	504400	506300	507300	510300	511300
153	154	155	156	157	158	159	160
511400	512700	513700	514700	515700	516900	517900	520100
511500	512800	513800	514800	516100	517000	518000	520200
511600	512900	513900	514900	516200	517100	518100	520300
511700	513000	514000	515000	516300	517200	518200	520400
512100	513100	514100	515100	516400	517300	518300	520500
512200	513200	514200	515200	516500	517400	518400	520600
512300	513300	514300	515300	516599	517500	518500	520700
512400	513400	514400	515400	516600	517600	518600	520800
512500	513500	514500	515500	516700	517700	518700	520900
512600	513600	514600	515600	516800	517800	518800	521000
161	162	163	164	165	166	167	168
521100	522100	523700	524600	525700	530100	531100	532100
521200	522200	523800	524699	525800	530200	531200	532200
521300	522300	523900	524700	525900	530300	531300	532300
521400	522400	524000	524800	526000	530400	531400	532400
521500	523100	524100	525100	526100	530500	531500	532500
521600	523200	524200	525200	526200	530600	531600	532600
521700	523300	524300	525300	526300	530700	531700	532700
521800	523400	524400	525400	526400	530800	531800	532800
521900	523500	524500	525500	526500	530900	531900	532900
522000	523600	524599	525600	526600	531000	532000	533000
169	170	171	172	173	174	175	176
533100	534400	535400	536900	538300	539300	540600	541600
533200	534500	535500	537000	538400	539400	540700	542100
533300	534600	536100	537100	538500	539500	540800	542200
533400	534700	536200	537200	538600	539600	540900	542300
533500	534800	536300	537300	538700	539700	541000	542400
533600	534900	536400	537400	538800	540100	541100	542500
533700	535000	536500	537500	538900	540200	541200	542600
534100	535100	536600	537600	539000	540300	541300	542700
534200	535200	536700	538100	539100	540400	541400	542800
534300	535300	536800	538200	539200	540500	541500	542900

**Detroit, Michigan
1980 Census Tracts Comprising
LEAP Communities**

177	178	179	180
543000	544000	545700	546700
543100	544100	545800	546800
543200	544200	545900	546900
543300	544300	546000	
543400	545100	546100	
543500	545200	546200	
543600	545300	546300	
543700	545400	546400	
543800	545500	546500	
543900	545600	546600	

TABLE XXXIX

**Ann Arbor, Michigan
1980 Census Tracts Comprising
LEAP Communities**

137	138	139	140
100	600	1200	1502
200	700	1305	1600
300	800	1401	1701
400	901	1402	1801
500	1101		1802
	1104		1903

TABLE XL

**Battle Creek, Michigan
1980 Census Tracts Comprising
LEAP Communities**

12	13	14
100	900	2600
200	1300	
300		
400		
500		
600		

TABLE XLI

**Jackson, Michigan
1980 Census Tracts Comprising
LEAP Communities**

44	45
100	400
200	500
300	600
	700
	800
	900
	1000
	1100
	1200
	1300

TABLE XLII

Kalamazoo, Michigan
1980 Census Tracts Comprising
LEAP Communities

47	48	49	50
100	201	900	1504
	202	1000	1506
	300	1100	1507
	401	1200	1601
	402	1401	1603
	500		1604
	600		1701
	700		1702
	801		1801
	802		1802

TABLE XLIII

Benton Harbor, Michigan
1980 Census Tracts Comprising
LEAP Communities

6	7
300	400
	500
	600

TABLE XLIV

Moorhead, Minnesota
1980 Census Tracts Comprising
LEAP Communities

9	10
20100	20201
	20202
	20300
	20400
	20500
	20600

TABLE XLV

Duluth, Minnesota
1980 Census Tracts Comprising
LEAP Communities

68	69	70	71	72
100	1000	2000	2899	3800
200	1100	2200	2900	
300	1200	2299	3000	
400	1300	2300	3100	
500	1400	2400	3200	
600	1600	2500	3299	
700	1700	2599	3300	
800	1800	2600	3400	
900	1900	2700	3600	
	1999	2800	3700	

TABLE XLVI

St. Cloud, Minnesota
1980 Census Tracts Comprising
LEAP Communities

6	77	78
21200	31400	200
	100	300
		400
		600
		700
		800
		1000

TABLE XLVII

Minneapolis, Minnesota
1980 Census Tracts Comprising
LEAP Communities

18	19	20	21	22	23	24	25
101	602	1600	2600	3600	4601	5500	6500
102	700	1700	2700	3700	4602	5600	6600
200	800	1800	2800	3800	4700	5700	6700
300	900	1900	2900	3900	4800	5800	6800
400	1000	2000	3000	4000	4900	5900	6900
500	1100	2100	3100	4100	5000	6000	7000
601	1200	2200	3200	4200	5100	6100	7100
	1300	2300	3300	4300	5200	6200	7200
	1400	2400	3400	4400	5300	6300	7300
	1500	2500	3500	4500	5400	6400	7400
26	27	28	29	30			
7500	8500	9500	10500	11500			
7600	8600	9600	10600	11600			
7700	8700	9700	10700	11701			
7800	8800	9800	10800	11702			
7900	8900	9900	10900	11800			
8000	9000	10000	11000	11900			
8100	9100	10100	11100	12001			
8200	9200	10200	11200	12002			
8300	9300	10300	11300	12101			
8400	9400	10400	11400	12102			

TABLE XLVIII

St. Paul, Minnesota
1980 Census Tracts Comprising
LEAP Communities

54	55	56	57	58	59	60	61
30100	30601	31300	32200	33200	34400	35200	36200
30200	30602	31400	32300	33300	34500	35300	36300
30300	30702	31500	32400	33400	34601	35400	36400
30400	30703	31600	32500	33500	34602	35500	36500
30500	30704	31700	32600	33600	34701	35600	36600
	30800	31801	32700	33700	34702	35700	36700
	30900	31802	32800	33800	34800	35800	36800
	31000	31900	32900	33900	34900	35900	36900
	31100	32000	33000	34000	35000	36000	37000
	31200	32100	33100	34200	35100	36100	37100

St. Paul, Minnesota
1980 Census Tracts Comprising
LEAP Communities

62

37200
37401
37402
37500
37601
37602

TABLE XLIX

Rochester, Minnesota
1980 Census Tracts Comprising
LEAP Communities

50

51

100	800
200	1000
300	1100
400	
500	
600	

TABLE L

Toledo, Ohio
1980 Census Tracts Comprising
LEAP Communities

148	149	150	151	152	153	154	155
200	900	1500	2402	3400	4302	4800	5503
300	1000	1600	2500	3500	4400	4899	5599
400	1100	1700	2600	3600	4501	4900	5600
600	1201	1800	2700	3700	4503	5000	5701
700	1202	1900	2800	3800	4504	5100	5702
800	1301	2000	2900	3900	4600	5200	5703
	1302	2100	3000	4000	4699	5300	5801
	1303	2200	3100	4100	4701	5400	5802
	1304	2300	3200	4200	4702	5501	5901
	1400	2401	3300	4301	4799	5502	5902
156	157	158	159				
6000	7202	7500	8301				
6100	7203	7700	8500				
6200	7205	7800	8600				
6300	7300	7901					
6400	7400	7902					
6500							
6600							
6700							
6800							
6900							

TABLE LI

**Cleveland, Ohio
1980 Census Tracts Comprising
LEAP Communities**

26	27	28	29	30	31	32	33
101100	101800	102900	103800	104799	105800	107199	108100
101200	101900	103100	103900	104800	105900	107200	108200
101300	102100	103200	104100	104900	106100	107300	108300
101400	102200	103299	104200	105100	106200	107400	108400
101500	102300	103300	104299	105200	106300	107500	108500
101600	102400	103399	104300	105300	106400	107600	108600
101700	102500	103400	104400	105400	106500	107699	108700
	102600	103500	104500	105500	106600	107700	108800
	102700	103600	104600	105600	106700	107800	108900
	102800	103700	104700	105700	107100	107900	109100
34	35	36	37	38	39	40	41
109199	110400	111500	112600	113700	114800	115900	117100
109200	110500	111600	112700	113800	114900	116100	117200
109300	110600	111700	112800	113900	115100	116200	117300
109600	110700	111800	112900	114100	115200	116300	117400
109700	110800	111900	113100	114200	115300	116400	117500
109800	110900	112100	113200	114300	115400	116500	117600
109900	111100	112200	113300	114400	115500	116600	117700
110100	111200	112300	113400	114500	115600	116700	117800
110200	111300	112400	113500	114600	115700	116800	117900
110300	111400	112500	113600	114700	115800	116900	118100
42	43	44	45	46	47		
118200	119300	120400	121500	123300	124400		
118300	119400	120500	121600	123400	124500		
118400	119500	120600	121700	123500	124600		
118500	119600	120700	121800	123600	126100		
118600	119700	120800	121900	123700			
118700	119800	120900	122100	123800			
118800	119900	121100	122200	123900			
118900	120100	121200	122300	124100			
119100	120200	121300	123100	124200			
119200	120300	121400	123200	124300			

TABLE LII

**Akron, Ohio
1980 Census Tracts Comprising
LEAP Communities**

215	216	217	218	219	220	221
501100	502101	503200	504300	505500	506400	507203
501200	502102	503300	504400	505600	506500	507300
501301	502200	503400	504500	505700	506600	507400
501302	502300	503500	504600	505800	506700	507500
501400	502400	503600	504700	505900	506800	507600
501500	502500	503701	504800	506100	506900	
501600	502600	503702	505100	506200	507101	
501700	502700	503800	505200	506302	507102	
501800	502800	504100	505300	506303	507201	
501900	503100	504200	505400	506304	507202	

TABLE LIII

Lorain, Ohio
1980 Census Tracts Comprising
LEAP Communities

141	142	143	144
22100	22300	23099	23000
22200	22399	23100	24000
22299	22400	23199	24100
	22500	23200	24200
	22601	23300	
	22800	23400	
	22900	23500	
	23000	23600	
		23700	
		23800	

TABLE LIV

Canton, Ohio
1980 Census Tracts Comprising
LEAP Communities

206	207	208	209
700100	700500	701500	702500
700200	700600	701600	702600
700300	700700	701700	
700400	700800	701800	
	701000	701900	
	701100	702000	
	701200	702100	
	701300	702400	
	701400		

TABLE LV

Steubenville, Ohio
1980 Census Tracts Comprising
LEAP Communities

127	128
100	900
200	1000
300	
400	
500	
600	
700	
800	

TABLE LVI

Youngstown, Ohio
1980 Census Tracts Comprising
LEAP Communities

162	163	164	165	166	167	230
800100	800400	801400	802400	803300	804300	931800
800200	800500	801500	802500	803400		
800300	800600	801600	802600	803500		
	800700	801700	802701	803600		
	800800	801800	802702	803700		
	800900	801900	802800	803800		
	801000	802000	802900	803900		
	801100	802100	803000	804000		
	801200	802200	803100	804100		
	801300	802300	803200	804200		

TABLE LVII

Warren, Ohio
1980 Census Tracts Comprising
LEAP Communities

226	227	228	231
920100	920400	921600	932900
920200	920600		933100
	920800		
	920900		
	921000		
	921100		

TABLE LVIII

Mansfield, Ohio
1980 Census Tracts Comprising
LEAP Communities

200	201
100	600
200	700
300	800
400	900
500	1000
	1100
	1200
	1300
	1400

TABLE LIX

Lima, Ohio
1980 Census Tracts Comprising
LEAP Communities

1	2	3
10900	12200	12900
11800	12300	13100
	12500	13200
	12600	13300
	12700	13400
	12800	13500
		13600
		13700
		13800

TABLE LX

Dayton, Ohio
1980 Census Tracts Comprising
LEAP Communities

177	178	179	180	181	182	183	184
100	300	1300	2300	3300	4300	5401	6400
200	400	1402	2400	3400	4400	5402	6500
	500	1500	2500	3500	4600	5500	6600
	600	1600	2600	3600	4700	5600	
	700	1700	2700	3700	4800	5700	
	800	1900	2800	3800	4900	5900	
	900	2000	2900	3900	5000	6000	
	1000	2200	3000	4000	5100	6100	
	1100		3100	4100	5200	6300	
	1200		3200	4200	5300		
190	191	192					
60100	70202	80700					
60300	70300	90300					
		90400					
		90600					

TABLE LXI

Springfield, Ohio
1980 Census Tracts Comprising
LEAP Communities

18	19	20
100	1000	2100
200	1101	
300	1102	
400	1200	
500	1400	
600	1500	
700	1600	
800	1800	
901		
902		

TABLE LXII
COLUMBUS, OHIO
1980 Census Tracts Comprising
LEAP Communities

72	73	74	75	76	77	78	79
110	330	910	1700	2520	2800	3800	4700
120	410	920	1810	2710	2900	3900	4810
210	420	1000	1820	2720	3000	4000	4820
220	500	1110	1900	2730	3100	4100	4900
320	600	1120	2000	2740	3200	4200	5000
	710	1200	2100	2750	3300	4300	5100
	720	1300	2200	2760	3400	4400	5200
	730	1400	2300	2770	3500	4610	5300
	810	1500	2400	2780	3600	4620	5410
	820	1600			3700		5420
80	81	82	83	84	85	86	87
5500	6321	6370	6821	6924	7130	7410	7520
5610	6352	6392	6822	6931		7490	7533
5620	6353		6823	6932		7511	7710
5700	6360		6830	6933		7512	7721
5810			6921	6941			
5820			6923	6942			
5900				6943			
6000							
6100							
88	89	90	91	92	93	94	95
7722	8130	8291	8391	8813	9311	9326	9371
7730		8312	8710	8814	9312	9331	9372
7820		8321	8720	8821	9321	9332	9373
		8322	8730	8824	9322	9333	9381
		8340	8740	8825	9323	9334	
		8350	8811	9210	9325	9336	
		8360	8812			9337	
						9361	
88	89	90	91	92	93	94	95
7722	8130	8291	8391	8813	9311	9326	9371
7730		8312	8710	8814	9312	9331	9372
7820		8321	8720	8821	9321	9332	9373
		8322	8730	8824	9322	9333	9381
		8340	8740	8825	9323	9334	
		8350	8811	9210	9325	9336	
		8360	8812			9337	
						9361	
96	97						
9386	9750						
9410							
9430							

TABLE LXIII

Hamilton, Ohio
1980 Census Tracts Comprising
LEAP Communities

9	10	11
100	200	1002
	300	1100
	400	1200
	500	1300
	600	1400
	701	
	702	
	800	
	900	
	1001	

TABLE LXIV

Middletown, Ohio
1980 Census Tracts Comprising
LEAP Communities

14	15	16
11300	12500	13500
12200	12600	13800
12300	12700	
12400	12800	
	12900	
	13000	
	13100	
	13200	
	13300	
	13400	

TABLE LXV

Cincinnati, Ohio
1980 Census Tracts Comprising
LEAP Communities

104	105	106	107	108	109	110	111
100	302	1400	2500	3600	4603	5300	6201
200	400	1500	2600	3700	4701	5400	6202
301	600	1600	2700	3800	4702	5500	6300
	700	1700	2800	3900	4800	5600	6400
	800	1800	2900	4000	4900	5701	6500
	900	1900	3000	4100	5000	5800	6600
	1000	2000	3200	4200	5100	5900	6700
	1100	2100	3300	4300	5200	6000	6800
	1200	2200	3400	4400		6100	6900
	1300	2300	3500	4500			7000
112	113	114	115	116	119	120	
7100	8201	9100	10001	10800	21401	22200	
7200	8202	9200	10002	10900			
7300	8300	9300	10201	11000			
7400	8400	9400	10202	11100			
7500	8501	9500	10300				
7700	8502	9600	10400				
7800	8601	9700	10500				
7900	8700	9800	10600				
8000	8800	9901	10700				
	8900	9902					

TABLE LXVI

Eau Claire, Wisconsin
1980 Census Tracts Comprising
LEAP Communities

6	19	20
10100	500	1400
	700	1500
	800	
	1000	
	1100	
	1200	
	1300	

TABLE LXVII

Wausaw, Wisconsin
1980 Census Tracts Comprising
LEAP Communities

32	33
100	700
200	800
500	

TABLE LXVIII

Greenbay, Wisconsin
1980 Census Tracts Comprising
LEAP Communities

	1	2	3
100	200	900	1900
	301	1000	2000
	302	1100	
	303	1200	
	401	1300	
	402	1400	
	500	1500	
	600	1600	
	700	1700	
	800	1801	

TABLE LXIX

Oshkosh, Wisconsin
1980 Census Tracts Comprising
LEAP Communities

91	92
100	1000
200	1100
300	1200
400	1300
500	1400
600	1500
700	
800	
900	

TABLE LXX

**Milwaukee, Wisconsin
1980 Census Tracts Comprising
LEAP Communities**

35	36	37	38	39	40	41	42
100	700	1700	2700	3700	4700	5700	6700
200	800	1800	2800	3800	4800	5800	6800
300	900	1900	2900	3900	4900	5900	6900
400	1000	2000	3000	4000	5000	6000	7000
500	1100	2100	3100	4100	5100	6100	7100
600	1200	2200	3200	4200	5200	6200	7200
	1300	2300	3300	4300	5300	6300	7300
	1400	2400	3400	4400	5400	6400	7400
	1500	2500	3500	4500	5500	6500	7500
	1600	2600	3600	4600	5600	6600	7600
43	44	45	46	47	48	49	50
7700	8700	9700	10700	11700	12700	13700	14700
7800	8800	9800	10800	11800	12800	13800	14800
7900	8900	9900	10900	11900	12900	13900	14900
8000	9000	10000	11000	12000	13000	14000	15000
8100	9100	10100	11100	12100	13100	14100	15100
8200	9200	10200	11200	12200	13200	14200	15200
8300	9300	10300	11300	12300	13300	14300	15300
8400	9400	10400	11400	12400	13400	14400	15400
8500	9500	10500	11500	12500	13500	14500	15499
8600	9600	10600	11600	12600	13600	14600	15500
51	52	53	54	55	56	57	
15600	16600	17600	18600	19600	20600	21600	
15700	16700	17700	18700	19700	20700	21700	
15800	16800	17800	18800	19800	20800	21800	
15900	16900	17900	18900	19900	20900		
16000	17000	18000	19000	20000	21000		
16100	17100	18100	19100	20100	21100		
16200	17200	18200	19200	20200	21200		
16300	17300	18300	19300	20300	21300		
16400	17400	18400	19400	20400	21400		
16500	17500	18500	19500	20500	21500		

TABLE LXXI

**Racine, Wisconsin
1980 Census Tracts Comprising
LEAP Communities**

71	72	73
100	300	1300
200	400	
	500	
	600	
	700	
	901	
	902	
	1000	

TABLE LXXII

Kenosha, Wisconsin
1980 Census Tracts Comprising
LEAP Communities

24	25	26
200	700	1600
400	800	1700
	900	1800
	1000	1900
	1100	2000
	1200	2100
	1300	2200
	1400	2300
	1500	

TABLE LXXIII

Madison, Wisconsin
1980 Census Tracts Comprising
LEAP Communities

8	9	10	11	12
100	600	1501	2301	3000
201	700	1502	2302	3100
202	800	1601	2401	3200
300	900	1602	2402	10200
401	1000	1700	2500	
402	1100	1900	2601	
403	1200	2000	2700	
501	1300	2100	2800	
	1401	2200	2900	

TABLE LXXIV

Janesville, Wisconsin
1980 Census Tracts Comprising
LEAP Communities

75	76
100	1000
200	1100
300	
400	
500	
600	
700	
800	
900	

TABLE LXXV

Beloit, Wisconsin
1980 Census Tracts Comprising
LEAP Communities

76	77
1500	2500
1600	
1700	
1800	
1900	

TABLE LXXVI

LaCrosse, Wisconsin
1980 Census Tracts comprising
LEAP Communities

27	28
100	500
200	600
300	700
400	800
	900
	1000
	1100
	1200

TABLE LXXVII

Sheboygan, Wisconsin
1980 Census Tracts comprising
LEAP Communities

80	81
200	1000
300	1100
400	10700
500	
600	
700	
800	
900	

TABLE LXXVIII

Appletown, Wisconsin
1980 Census Tracts comprising
LEAP Communities

5	65	66	67	93
20301	10100	10400	11400	2500
	10200	10500	11501	
	10300	10600	11502	
		10700		
		10800		
		10900		
		11000		
		11100		
		11200		
		11300		

LXXVIII

1980 Census Tracts Comprising
City of Chicago Communities

1	2	3	4	5	6	7	8
Rogers Park	West Ridge	Uptown	Lincoln Square	North Center	Lake View	Lincoln Park	Near North Side
101	201	310	401	501	601	701	801
102	202	311	402	502	602	702	802
103	203	312	403	503	603	703	803
104	204	313	404	504	604	704	804
105	205	314	405	505	605	705	805
106	206	315	406	506	606	706	806
107	207	316	407	507	607	707	807
108	208	317	408	508	608	708	808
109	209	318	409	509	609	709	809
		319	410	510	610	710	810
		320		511	611	711	811
		321		512	612	712	812
				513	613	713	813
				514	614	714	814
				515	615	715	815
					616	716	816
					617	717	817
					618	718	818
					619	719	819
					620	720	
					621		
					622		
					623		
					624		
					625		
					626		
					627		
					628		
					629		
					630		
					631		
					632		
					633		
					634		
9	10	11	12	13	14	15	16
Edison Park	Norwood Park	Jefferson Park	Forest Glen	North Park	Albany Park	Portage Park	Irving Park
901	1001	1101	1201	1301	1401	1501	1601
902	1002	1102	1202	1302	1402	1502	1602
903	1003	1103	1203	1303	1403	1503	1603
	1004	1104	1204	1304	1404	1504	1604
	1005	1105		1305	1405	1505	1605
	1006				1406	1506	1606
	1007				1407	1507	1607
					1408	1508	1608
						1509	1609
						1510	1610
						1511	1611
						1512	1612
							1613

1980 Census Tracts Comprising
City of Chicago Communities

17 Dunning	18 Montclare	19 Belmont Cragin	20 Hermosa	21 Avondale	22 Logan Square	23 Humbolt Park	24 West Town
1701	1801	1901	2001	2101	2201	2301	2401
1702	1802	1902	2002	2102	2202	2302	2402
1703	1803	1903	2003	2103	2203	2303	2403
1704		1904	2004	2104	2204	2304	2404
1705		1905	2005	2105	2205	2305	2405
1706		1906	2006	2106	2206	2306	2406
1707		1907		2107	2207	2307	2407
1708		1908		2108	2208	2308	2408
1709		1909		2109	2209	2309	2409
1710		1910			2210	2310	2410
1711		1911			2211	2311	2411
		1912			2212	2312	2412
		1913			2213	2313	2413
		1914			2214	2314	2414
					2215	2315	2415
					2216	2316	2416
					2217	2317	2417
					2218	2318	2418
					2219		2419
					2220		2420
					2221		2421
					2222		2422
					2223		2423
					2224		2424
					2225		2425
					2226		2426
					2227		2427
					2228		2428
					2229		2429
							2430
							2431
							2432
							2433
							2434
							2435
							2436

1980 Census Tracts Comprising
City of Chicago Communities

25 Austin	26 West Garfield	27 East Garfield Near West	28 Garfield West Side	29 North Lawndale South Lawndale	30 Lower Lawndale	31 West Side	32 Loop
2501	2601	2701	2801	2901	3001	3101	3201
2502	2602	2702	2802	2902	3002	3102	3201
2503	2603	2703	2803	2903	3003	3103	3202
2504	2604	2704	2804	2904	3004	3104	3203
2505	2605	2705	2805	2905	3005	3105	3204
2506	2606	2706	2806	2906	3006	3106	3205
2507	2607	2707	2807	2907	3007	3107	3206
2508	2608	2708	2808	2908	3008	3108	
2509	2609	2709	2809	2909	3009	3109	
2510	2610	2710	2810	2910	3010	3110	
2511		2711	2811	2911	3011	3111	
2512		2712	2812	2912	3012	3112	
2513		2713	2813	2913	3013	3113	
2514		2714	2814	2914	3014	3114	
2515		2715	2815	2915	3015	3115	
2516		2716	2816	2916	3016		
2517		2717	2817	2917	3017		
2518		2718	2818	2918	3018		
2519		2719	2819	2919	3019		
2520			2820	2920	3020		
2521			2821	2921			
2522			2822	2922			
2523			2823	2923			
2524			2824	2924			
			2825	2925			
			2826	2926			
			2827	2927			
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			2840				
			2841				
			2842				
			2843				

1980 Census Tracts Comprising
City of Chicago Communities

33	34	35	36	37	38	39	40
Near South Side	Armour Square	Douglas	Oakland	Fuller Park	Grand Boulevard	Kenwood	Washington Park
3301	3401	3501	3601	3701	3801	3901	4001
3302	3402	3502	3602	3702	3802	3902	4002
3303	3403	3503	3603	3703	3803	3903	4003
3304	3404	3504	3604	3704	3804	3904	4004
3305	3405	3505	3605		3805	3905	4005
	3406	3506			3806	3906	4006
		3507			3807	3907	4007
		3508			3808		4008
		3509			3809		
		3510			3810		
		3511			3811		
		3512			3812		
		3513			3813		
		3514			3814		
		3515			3815		
					3816		
					3817		
					3818		
					3819		
					3820		
41	42	43	44	45	46	47	48
Hyde Park	Woodlawn	South Shore	Chatham	Avalon Park	South Chicago	Burnside	Calumet Heights
4101	4201	4301	4401	4501	4601	4701	4801
4102	4202	4302	4402	4502	4602		4802
4103	4203	4303	4403	4503	4603		4803
4104	4204	4304	4404		4604		4804
4105	4205	4305	4405		4605		4805
4106	4206	4306	4406		4606		
4107	4207	4307	4407		4607		
4108	4208	4308	4408		4608		
4109	4209	4309	4409		4609		
4110	4210	4310			4610		
4111	4211	4311					
4112	4212	4312					
4113		4313					
4114		4314					
49	50	51	52	53	54	55	56
Roseland	Pullman	South Deering	East Side	West Pullman	Riverdale	Hedwisch	Garfield Ridge
4901	5001	5101	5201	5301	5401	5501	5601
4902	5002	5102	5202	5302		5502	5602
4903	5003	5103	5202	5303			5603
4904		5104	5203	5304			5604
4905		5104	5204	5305			5605
4906		5105	5205	5306			5606
4907			5206				5607
4908							5608
4909							5609
4910							5610
4911							5611
4912							5612
4913							5613
4914							

1980 Census Tracts Comprising
City of Chicago Communities

57	58	59	60	61	62	63	64
Archer Heights	Brighton Park	Mckinley Park	Bridgeport	New City	West Elsdon	Gage Park	Clearing

5701	5801	5901	6001	6101	6201	6301	6401
5702	5802	5902	6002	6102	6202	6302	6402
5703	5803	5903	6003	6103	6203	6303	6403
5704	5804	5904	6004	6104	6204	6304	6404
5705	5805	5905	6005	6105		6305	6405
	5806	5906	6006	6106		6306	6406
	5807	5907	6007	6107		6307	6407
	5808		6008	6108		6308	6408
	5809		6009	6109		6309	
	5810		6010	6110			
	5811		6011	6111			
			6012	6112			
			6013	6113			
			6014	6114			
			6015	6115			
			6016	6116			
				6117			
				6118			
				6119			
				6120			
				6121			
				6122			

65	66	67	68	69	70	71	72
West Lawn	Chicago Lawn	West Englewood	Greater Englewood	Grand Crossing	Ashburn	Auburn Gresham	Beverly

6501	6601	6701	6801	6901	7001	7101	7201
6502	6602	6702	6802	6902	7002	7102	7202
6503	6603	6703	6803	6903	7003	7103	7203
6504	6604	6704	6804	6904	7004	7104	7204
6505	6605	6705	6805	6905	7005	7105	7205
	6606	6706	6806	6906		7106	7206
	6607	6707	6807	6907		7107	7207
	6608	6708	6808	6908		7108	
	6609	6709	6809	6909		7109	
	6610	6710	6810	6910		7110	
	6611	6711	6811	6911		7111	
		6712	6812	6912		7112	
		6713	6813	6913		7113	
		6714	6814	6914		7114	
		6715		6915		7115	
		6716					
		6717					
		6718					
		6719					
		6720					

1980 Census Tracts Comprising
City of Chicago Communities

73	74	75	76	77
Washington Heights	Mount Greenwood	Morgan Park	O'hare	Edgewater
7301	7401	7501	7608	301
7302	7402	7502		302
7303	7403	7503		303
7304	7404	7504		304
7305		7505		305
7306		7506		306
7307				307
				308
				309