

Common Sense Initiative, Automobile Manufacturing Sector

*U.S. Automobile Assembly Plants and Their Communities:
Environmental Economic, and Demographic Profile*

**Part III: Automobile/Light Duty Truck Assembly
Plant-Community Profiles**

**44. Ford Motor Co.
Lorain, OH**

December 1997

Contents and Guidelines for Use

Users of this profile should carefully review the description of methods, data limitations, and guidelines for use and interpretation of the data presented in Part I of the report.

Contents:

Plant Locations (National and Michigan maps)
Plant Location, Database Identification Numbers, 1994 Production and Employment
1991 and 1993 RCRA Biennial Report Summary
1991-1994 TRI Releases and Transfers Summary
1994 TRI Releases and Transfers by Chemical
1991-1994 Volatile Organic Compound and Nitrogen Oxide Emissions
1994 Summary of TRI Chemical Releases and Transfers from Sources within 3 Miles of Assembly Plant
Air Quality Attainment Status for Criteria Pollutants (as of 1994)
Community Demographic and Economic Characteristics
Facility Location (map)
Area Wide 1994 TRI Emission Profile (map)
1994 TRI Releases and Transfers from Sources within 3 Miles of Assembly Plant, by Chemical
Demographic Characteristics (maps)

General Guidelines for Use

Efforts have been made to ensure that the data presented here are accurate. The Project Team could not independently verify data accuracy in all cases, however, and some errors may remain. The following is a partial list of factors that should be considered in using these profiles:

1. Current releases presented in this report represent only some of the contamination sources in a given area. Data on historical releases (prior to 1991) were not included, and releases from non-assembly plant emission sources were identified only through the Toxics Release Inventory (TRI). TRI data do not cover all sources of releases. Considering only TRI data for a given community may mis-state the relative contribution of plants and their neighboring TRI facilities to an area's total releases.
2. Care must be taken to distinguish true changes over time in environmental releases from apparent changes, due, for example, to changes in the scope of reporting requirements.
3. TRI data are often based on engineering estimates and are reported on an annual basis. Data on releases over shorter time frames are not available.
4. TRI, the Biennial Report and other databases do not include all substances and environmental releases of concern.

Notes on Comparisons Across Facilities

1. The following factors can affect an assembly plant's environmental profile, among other things: the number of vehicles produced, plant age, process equipment age, and vehicle size and configuration.
2. Some plants are highly-integrated, performing some parts and all assembly steps in-house. Others obtain parts from other manufacturing facilities, or share assembly operations with another plant.
3. States differ in how they define hazardous waste and how they treat recycled wastes and small quantity generators. Therefore, data on quantities of BRS wastes generated may not be comparable for plants located in different states.
4. Area-wide averages for economic and demographic characteristics may be better or worse measures of the plant's immediate community, depending on the specific location of a plant within the reporting area.

**Plant-Community Profile:
Ford Motor Co.
Lorain OH**

12/2/97

LOCATION	Address	5401 Baumhart Rd., Lorain OH 44053		DESCRIPTION	Plant opened 1958; Produced Ford Thunderbird, Club Wagon, Econoline Van and Mercury Cougar in 1994.	
	Lat/Long:	latitude (degrees N)	41 25' 30"		ID NUMBERS	RCRA ID
		longitude (degrees W)	82 16' 51"	AIRS ID		AFS3909300006
	County:	Lorain	MSA: Cleveland-Lorain-Elyria OH	NPDES ID		OH0001082
	Other counties within 3 miles of plant:	Erie		TRI	44053FRDMT5401B	
OPERATIONS		Production	Employment			
	Calendar Year: 1991	259,424				
	1992	338,205				
	1993	412,948				
	1994	456,442	4,056			

PLANT ENVIRONMENTAL PROFILE

RCRA BIENNIAL REPORT

<i>Waste Code(s)</i>	<i>Wastewater?</i>	<i>Physical Form</i>	<i>Source</i>	<i>Mgd. On/Off-Site</i>	<i>Management Method</i>	<i>Quantity Generated (tons)</i>	<i>Quantity Shipped (tons)</i>	<i>Quantity Mgd. On-Site (tons)</i>
<i>1991</i>								
D001 (ignitable)	?	Not rep't	Not rep't	Off	Not rep't	118.0	118.0	0.0
D001 (ignitable)	?	Not rep't	Not rep't	Off	Not rep't	49.0	49.0	0.0
D001 (ignitable)	?	Not rep't	Not rep't	Off	Not rep't	445.0	445.0	0.0
D001 (ignitable) D039 (tetrachlorethylene)	?	Not rep't	Not rep't	Off	Not rep't	0.1	0.1	0.0
D001, D005, D006, D007	?	Not rep't	Not rep't	Off	Not rep't	64.0	64.0	0.0
D001, D005, D006, D007	?	Not rep't	Not rep't	Off	Not rep't	66.0	66.0	0.0
D002 (corrosive)	?	Not rep't	Not rep't	Off	Not rep't	8.0	8.0	0.0
D002 (corrosive) F001, F002 (solvents)	?	Not rep't	Not rep't	Off	Not rep't	14.0	14.0	0.0
D002, D007, F003, F005	?	Not rep't	Not rep't	Off	Not rep't	14.0	14.0	0.0
TOTAL - 1991						778.1	778.1	0.0
<i>1993</i>								
D001 (ignitable)	?	Not rep't	Not rep't	Off	Not rep't	26.0	26.0	0.0
D001 (ignitable)	?	Not rep't	Not rep't	Off	Not rep't	117.0	117.0	0.0
D001 (ignitable)	?	Not rep't	Not rep't	Off	Not rep't	305.0	305.0	0.0
D001 (ignitable)	?	Not rep't	Not rep't	Off	Not rep't	434.0	434.0	0.0
D001, D005, D006, D007	?	Not rep't	Not rep't	Off	Not rep't	6.0	6.0	0.0
D001, D005, D006, D007	?	Not rep't	Not rep't	Off	Not rep't	46.0	46.0	0.0
D002 (corrosive)	?	Not rep't	Not rep't	Off	Not rep't	5.0	5.0	0.0
D002 (corrosive) F001, F002 (solvents)	?	Not rep't	Not rep't	Off	Not rep't	23.0	23.0	0.0
TOTAL - 1993						962.0	962.0	0.0

TOXICS RELEASE INVENTORY

	<i>Air-Fugitive Emissions</i>	<i>Air-Stack Emissions</i>	<i>Total Releases</i>	<i>Discharge to POTW</i>	<i>Off-Site Energy Recovery</i>	<i>Off-Site Recycling</i>	<i>Off-Site Treatment</i>	<i>Off-Site Disposal</i>	<i>Total Transfers</i>
Total lbs of TRI chemicals:									
1991	86,601	995,849	1,082,450	23,000	521,500	147,726	35,975	6,500	734,701
1992	57,871	805,183	863,054	15,030	337,700	358,574	21,206	8,730	741,240
1993	51,731	869,719	921,450	23,260	382,500	402,501	24,101	11,150	843,512
1994	50,211	1,380,554	1,430,765	33,150	365,800	641,801	0	44,201	1,084,952
Lbs. per vehicle produced:									
1991	0.33	3.84	4.17	0.09	2.01	0.57	0.14	0.03	2.83
1992	0.17	2.38	2.55	0.04	1.00	1.06	0.06	0.03	2.19
1993	0.13	2.11	2.23	0.06	0.93	0.97	0.06	0.03	2.04
1994	0.11	3.02	3.13	0.07	0.80	1.41	0.00	0.10	2.38

**Plant-Community Profile:
Ford Motor Co.
Lorain OH**

12/2/97

PLANT ENVIRONMENTAL PROFILE (continued)

1994 TRI Emissions/Releases by Chemical (lbs.)

<i>Chemical Name</i>	<i>Air-Fugitive Emissions</i>	<i>Air-Stack Emissions</i>	<i>Total Releases</i>	<i>Discharge to POTW</i>	<i>Off-Site Energy Recovery</i>	<i>Off-Site Recycling</i>	<i>Off-Site Treatment</i>	<i>Off-Site Disposal</i>	<i>Total Transfers</i>
METHANOL	1,900	43,000	44,900	620	0	0	0	0	620
N-BUTYL ALCOHOL	320	46,000	46,320	0	6,900	22,000	0	0	28,900
BENZENE	0	120	120	0	0	0	0	0	0
DICHLOROMETHANE	18,000	8,000	26,000	0	0	8,100	0	0	8,100
METHYL ETHYL KETONE	15,000	16,000	31,000	0	14,000	5,200	0	0	19,200
ETHYLBENZENE	750	150,000	150,750	0	10,000	57,000	0	250	67,250
ETHYLENE GLYCOL	0	0	0	7,000	0	0	0	0	7,000
METHYL ISOBUTYL KETONE	1,700	330,000	331,700	0	48,000	247,000	0	0	295,000
TOLUENE	190	36,000	36,190	0	6,900	22,500	0	0	29,400
CYCLOHEXANE	0	4	4	0	0	0	0	0	0
XYLENE (MIXED ISOMERS)	1,600	320,000	321,600	0	280,000	280,000	0	0	560,000
METHYL TERT-BUTYL ETHER	0	1,200	1,200	0	0	0	0	0	0
NITRIC ACID	1	0	1	0	0	0	0	0	0
BARIIUM COMPOUNDS	0	230	230	670	0	0	0	23,220	23,890
GLYCOL ETHERS	10,500	430,000	440,500	22,000	0	0	0	0	22,000
MANGANESE COMPOUNDS	0	0	0	1,200	0	0	0	6,600	7,800
NICKEL COMPOUNDS	0	0	0	560	0	0	0	3,130	3,690
ZINC COMPOUNDS	250	0	250	1,100	0	1	0	11,001	12,102
TOTAL	50,211	1,380,554	1,430,765	33,150	365,800	641,801	0	44,201	1,084,952

**VOC/NOx Emissions:
(lbs/year)**

	VOCs	NOx
1990	1,226,820	247,560
1991	NA	NA
1992	NA	NA
1993	NA	NA
1994	NA	NA

**Plant-Community Profile:
Ford Motor Co.
Lorain OH**

12/2/97

COMMUNITY ENVIRONMENTAL PROFILE

TRI Chemical Releases & Transfers from Sources Within 3 Miles of Auto/LDT Plant (lbs.)

<i>Facility (w. map #)</i>	<i>Air-Fugitive Emissions</i>	<i>Air-Stack Emissions</i>	<i>Total Releases</i>	<i>Discharge to POTW</i>	<i>Off-Site Transfers</i>	<i>Total Transfers</i>
[none]						

**Air Quality Attainment Status
(as of 1994)**

ozone - nonattainment (moderate)*
carbon monoxide - attainment or unclassifiable
particulates - unclassifiable
lead - unclassifiable
NO2 - cannot be classified or better than national standards
SO2 - attainment

* redesignated attainment effective 5/7/96 (FR 61 20458)

**Plant-Community Profile:
Ford Motor Co.
Lorain OH**

12/2/97

COMMUNITY DEMOGRAPHIC AND ECONOMIC CHARACTERISTICS

	<i>Census Block</i>	<i>0-1 Mile</i>	<i>0-3 Miles</i>	<i>1-3 Miles</i>	<i>3-5 Miles</i>	<i>County</i>	<i>State</i>	<i>U.S.</i>
Total Population (1994)	NA	NA	NA	NA	NA	279,408	11,102,268	260,340,990
Total Population (1990)	156	71	8,551	8,480	39,096	271,126	10,847,115	248,709,873
% Change 1990-1994	NA	NA	NA	NA	NA	3	2	5
Total Area (sq. mi.) (1990)	3.9	3.1	28.2	25.1	50.2	492.6	40,952.6	3,536,278.1
Population/sq. mi. (land area) (1990)	40	46	758	869	1,450	550	265	70
Median Household Income (1994)						NA	31,855	32,264
Median Household Income (1989)						31,098	28,706	30,056
% Change 1979-1989 (constant \$)						-9	-4	7
% Change 1989-1994 (constant \$)						NA	11	7
Per Capita Personal Income (1993)						18,200	19,696	20,800
Per Capita Personal Income (1989)						15,441	16,644	17,690
% Change 1989-1993 (current \$)						18	18	18
Minority Percentage (1990)	0	0	2	2	3	10	12	20
Pct. of Households Below Poverty Level (1989)	15	14	17	17	15	28	24	20
Pct. Not Completing High School (1990)	11	13	24	24	21	24	23	25
Total Employment (1994) (civilian nonfarm)						134,091	5,537,000	131,056,000
Unemployment Rate (1994)						6	6	6
Manufacturing Employment (1993)						29,217	1,046,039	18,183,381
Mfgr. as % Total Employment (1993)						35	25	19
Manufacturing Employment (1992)						NA	1,046,000	18,253,000
Production Workers (1992)						NA	681,000	11,654,000
% Change in Mfgr. Employment 1987-1992						NA	-5	-4
Assembly Plant as % Total Mfgr. Workers						14		

Data sources used were not always complete or current.
Attempts have been made to verify data, but errors may still exist.

Lorain, OH, Ford Plant



Microsoft Expedia
Streets98

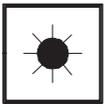
FORD MOTOR CO
5401 BAUMHART RD
LORAIN OH
Tri Number: 44053FRDMT5401B

Map #	SIC	Name	Address	City	State
0	3711	FORD MOTOR CO. LORAIN ASSEMBLY PLANT	5401 BAUMHART RD.	LORAIN	OH

AREA WIDE 1994 TRI EMISSION PROFILE

FORD MOTOR CO
LORAIN COUNTY, Ohio

Latitude: 41 25 30
Longitude: 82 16 51



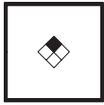
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Plant
Truck



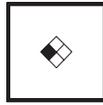
Air
Release



Land
Release

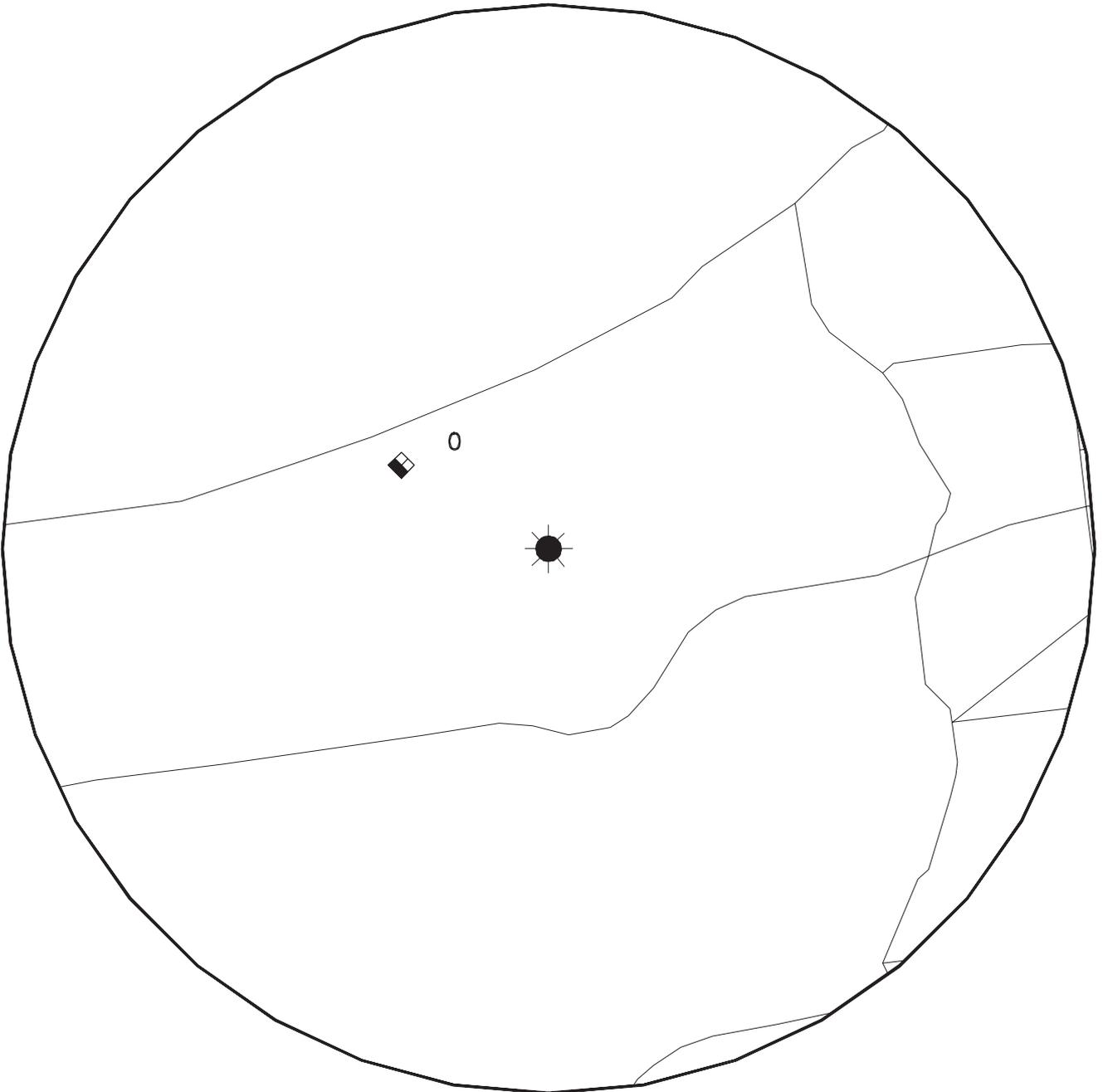


Water
Release



Transfer
location
To offsite

3 Mile Buffer



Number without a Symbol denotes no reported emissions over 0.5 pounds per year

1994 TRI EMISSIONS (LB/YEAR) AT FACILITIES WITHIN THREE MILES OF
 FORD MOTOR CO TRI NO: 44053FRDMT5401B

Chemical Name	Air Fugitive (Non-Point Source) Emissions	Air Stack (Point Source) Emissions	Discharge to Surface Water	On-Site Land Disposal	TOTAL RELEASES	Discharge to POTW	Transfer	TOTAL TRANSFERS
FORD MOTOR CO. LORAIN ASSEMBLY PLANT								
5401 BAUMHART RD. LORAIN OH 44053			SIC DESCRIPTION: MOTOR VEHICLES & CAR BODIES SIC CODE: 3711			MAP LOCATION NO: 0		
METHANOL	1,900	43,000	0	0	44,900	620	0	620
N-BUTYL ALCOHOL	320	46,000	0	0	46,320	0	28,900	28,900
BENZENE	0	120	0	0	120	0	0	0
DICHLOROMETHANE	18,000	8,000	0	0	26,000	0	8,100	8,100
METHYL ETHYL KETONE	15,000	16,000	0	0	31,000	0	19,200	19,200
ETHYLBENZENE	750	150,000	0	0	150,750	0	67,250	67,250
ETHYLENE GLYCOL	0	0	0	0	0	7,000	0	7,000
METHYL ISOBUTYL KETONE	1,700	330,000	0	0	331,700	0	295,000	295,000
TOLUENE	190	36,000	0	0	36,190	0	29,400	29,400
CYCLOHEXANE	0	4	0	0	4	0	0	0
XYLENE (MIXED ISOMERS)	1,600	320,000	0	0	321,600	0	560,000	560,000
METHYL TERT-BUTYL ETHER	0	1,200	0	0	1,200	0	0	0
NITRIC ACID	1	0	0	0	1	0	0	0
BARIUM COMPOUNDS	0	230	0	0	230	670	23,220	23,890
GLYCOL ETHERS	10,500	430,000	0	0	440,500	22,000	0	22,000
MANGANESE COMPOUNDS	0	0	0	0	0	1,200	6,600	7,800
NICKEL COMPOUNDS	0	0	0	0	0	560	3,130	3,690
ZINC COMPOUNDS	250	0	0	0	250	1,100	11,002	12,102
SUBTOTALS	50,211	1,380,554	0	0	1,430,765	33,150	1,051,802	1,084,952

Ford Motor Company

Lorain Lorain County, Ohio

Latitude: 41 25 30 N
 Longitude: 82 16 51 W

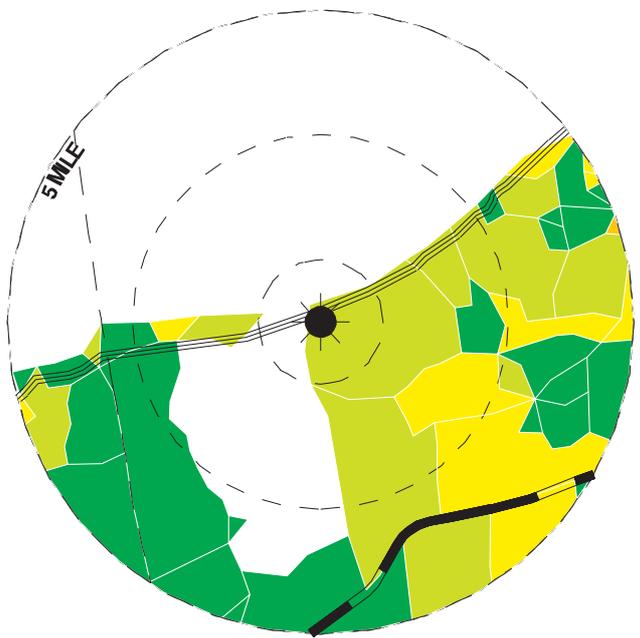
- MAP KEY:**
- County Boundaries
 - Inter State Highway
 - US Highway
 - Rail Road
 - One Mile
 - Three Miles
 - Five Miles

- POPULATION DENSITY / SQ. MILE**
- Greater than 10000
 - 1000 - 10000
 - 100 - 1000
 - 10-100
 - 1-10

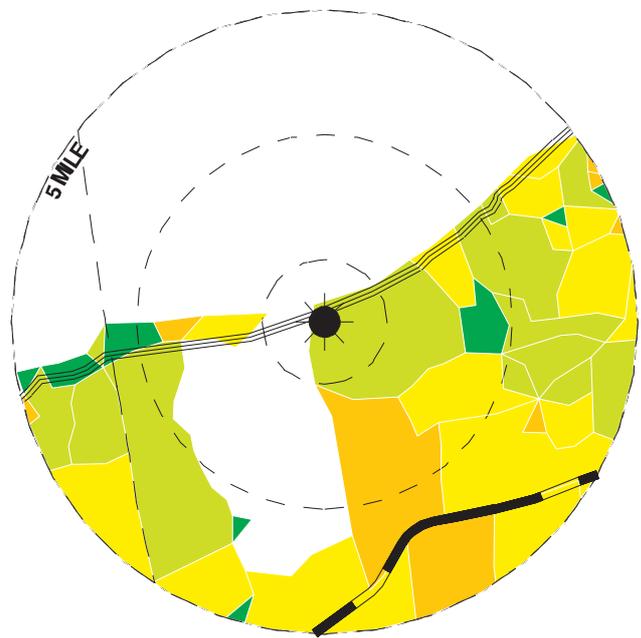
- Minority, poverty, and High School Incomplete percentages**
- Greater than 50
 - 40 - 50
 - 30 - 40
 - 20 - 30
 - 10 - 20
 - 0 - 10



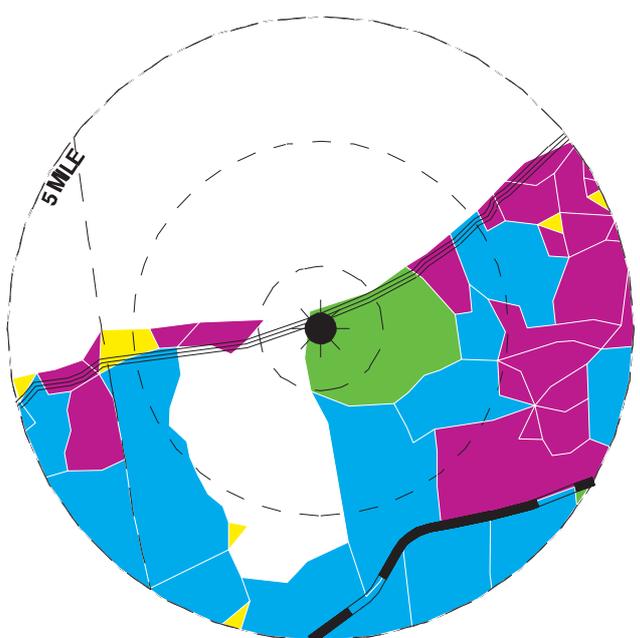
Percentage of Total Population Below Poverty Level



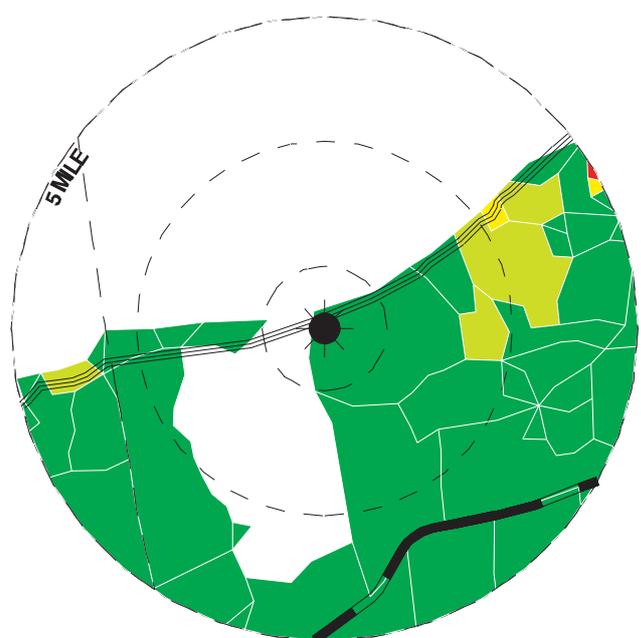
Percentage of Population not Completing High School



Population Density People Per Sq. Mile



Minority Population Percent of Total Population



Ford Motor Company Lorain Lorain County, Ohio

Latitude: 41 25 30 N
Longitude: 82 16 51 W



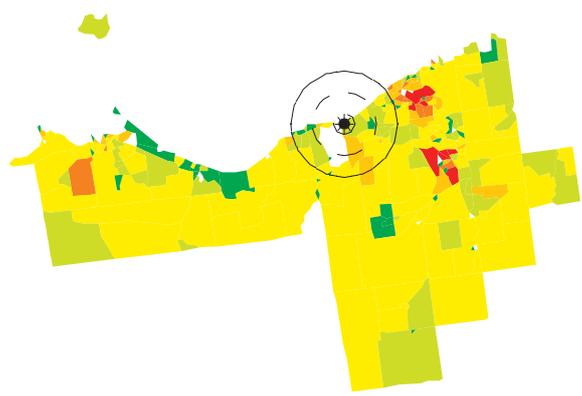
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- Minority, poverty, and High School Incomplete percentages**
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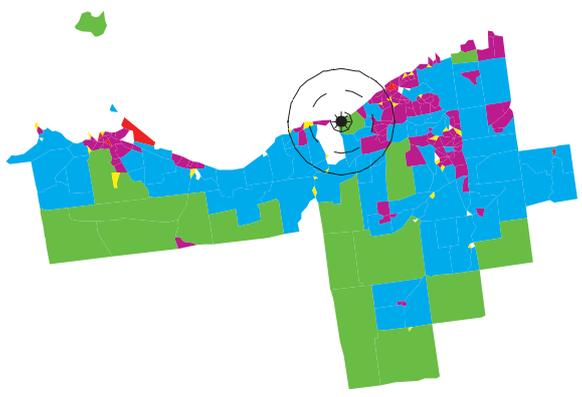
Percentage of Total Population Below Poverty Level



Percentage of Population not Completing High School



Population Density
People Per Sq. Mile



Minority Population
Percent of Total Population

