

Where  
the past  
is present

# DETROIT HISTORICAL SOCIETY

## TEACHER RESOURCE LESSON PLAN

### AUTO INDUSTRY ECONOMY



**Workers at the Russell Motor Axel Co.**

*Courtesy of the Walter P. Reuther Library, Wayne State University*

#### INTRODUCTION

This lesson was originally published in *Telling Detroit's Story: Historic Past, Proud People, Shining Future* curriculum unit developed by the Detroit 300 Commission in 2001.

This lesson provides students in grades nine through twelve with an in-depth study of economic functions both within and outside of a community. Through primary sources, students will gain a historical view of economic functions.

#### LEARNING OBJECTIVES

Students will:

- Distinguish between internal and external functions and understand the importance

of external functions to the survival of the community.

- Analyze data to determine primary external functions of Detroit and the metropolitan region between 1847 and 1920.

#### MATERIALS USED

- Reading: "A Day in the Economic Life of a Detroit Family"
- Reading: "Auto Industry Economy"
- Charts: "Occupations of Detroit, 1880, 1930, 1970; U.S. Census"
- Chart: "Data Analysis Chart"
- Questionnaire: "Employment Questionnaire"

#### LESSON SEQUENCE

##### Opening the Activity:

1. Distribute "Auto Industry Economy" to help students understand internal and external functions and the four main phases Detroit's economy has experienced.
2. Distribute "A Day in the Economic Life of a Detroit Family." This story provides examples of internal and external functions performed during the course of a normal day.
3. Read the story and determine if each function is internal or external.

##### Developing the Activity

1. On the board, write a definition of an internal and an external economic function.
  - An external economic function for a region is a service or product that brings money into the region where the function is performed.
  - An internal economic function is a service

# LESSON PLAN: AUTO INDUSTRY ECONOMY

or product that is produced and consumed within the same region. It does not bring additional revenue into the region.

2. Have students identify businesses in their city and classify those businesses as performing (primarily) internal or external functions.
3. Distribute: “Occupations of Detroit, 1880, 1930, 1970: U.S. Census” and “Data Analysis Chart.” Have students review the materials.

## Concluding the Activity

1. Discuss the primary external functions during the three time periods.
2. Discuss the primary internal functions during the three time periods.
3. Discuss the new historical questions that students generated from the data.

## EXTENSION ACTIVITIES

1. Have the students prepare a graph using the available data. Require that the graph demonstrate a specific idea that is expressed in a graph title.
2. Using the “Employment Questionnaire”, have each student interview five adults who are

employed full time. The data collected should be summarized and presented in such a way as to address the following questions:

- Are most people performing internal or external functions?
- To what extent are those surveyed associated with the automobile industry?

## ASSESSING THE LEARNING

- Using the graphs created by the students, have them work in pairs interpreting information displayed on the graphs.
- Have the students write an essay: “Southeast Michigan is less dependent today on the automobile industry than in 1920.”

For more information about the **Detroit Historical Society**, or to schedule a field trip to the **Detroit Historical Museum** or **Dossin Great Lakes Museum**, visit [detroithistorical.org](http://detroithistorical.org)



**Workers Staging a Sit-Down Strike, Plymouth Assembly Plant, Detroit, 1937**  
*Courtesy of the Archives of Labor and Urban Affairs, Wayne State University*

## READING: A DAY IN THE ECONOMIC LIFE OF A DETROIT FAMILY

1. Mr. and Mrs. Garcia live in Detroit. They have two children – Robert, 16 and Anne, 13. Mr. Garcia works at Ford Motor Company in Dearborn. Mrs. Garcia works part time at a convenience store/gas station near an exit ramp off I-75. Robert is a junior in high school and works part-time at a rare bookstore in Detroit. Anne occasionally babysits for the neighbors.
2. One Saturday, Mr. Garcia stopped for gas on his way to work. The gas he purchases was refined in Louisiana from oil drilled in Venezuela. He also bought a copy of the *Detroit Free Press*. The *Free Press* was written and printed in Detroit on paper produced in Maine. Mr. Garcia also stopped at a drive-thru restaurant to get a cup of coffee.
3. Mrs. Garcia had to take Anne to Henry Ford Hospital that morning for medical tests. There were three other people waiting for the same test. Because the procedure was unusual, it was only available at a few hospitals in the Midwest. As a result, all three of the other patients were from Ohio. Dr. Sullivan conducted the tests.
4. After the test, Mrs. Garcia went to work. Anne babysat for the next door neighbor, Mrs. Dombrowski, while she went to her job as a U.S. Customs Inspector at the Ambassador Bridge. Anne also had to keep her eyes open for a delivery truck that was bringing a new dishwasher to the Garcia's.
5. Since the convenience store/gas station at which Mrs. Garcia works is so near the freeway, many of her customers are from outside of the local area. They include truck drivers from plants in Ohio bringing auto parts to Detroit.
6. On the way home, Mrs. Garcia did grocery shopping for the week. The check-out clerk was Mrs. Dombrowski's daughter, Wendy.
7. Robert was up early to get to his job at the bookstore. Most of the customers are from the nearby area. Robert, however, does not wait on the walk-in customers. He usually spends his time processing orders for rare books that have come in during the week by mail or the Internet.
8. As is often the case on Saturday nights, the Garcia's went out for dinner at their favorite restaurant – a wonderful little Chinese restaurant across the Detroit River in Windsor.

### Answer the following:

- Identify two people whose jobs are performing external functions.
- Identify two people who are performing internal functions.
- Identify two people whose jobs result in them performing both internal and external functions.
- Paragraphs 2, 4, 6 and 8 provide examples of why external functions are so essential for a community. Explain.

## READING: AUTO INDUSTRY ECONOMY

In any community – a family, a city, a state, or a country – tasks are performed which allow that community to survive. Some of those tasks are internal to that group. That is, they are performed and used by the people of that community. These tasks are called internal functions. Other tasks are performed that are for the benefit of people outside of the community. Typically, these tasks result in a product or service that is sold to people outside of the local community. Such tasks are called external functions.

Simply put, external functions result in new money coming into a community. Internal functions move that money around within the community. All communities must have some external functions they perform in order to acquire goods and services not found in the community.

A dentist, for example, typically performs an internal function for the community. The dentist, a member of the community, typically performs a service for a patient who is also a member of the community. The dentist charges a fee for the service provided, but the money the patient pays was already in the community. This does not result in an increase in revenue to the community as a whole.

An external function is a service performed or item produced within a community that is sold or traded to someone outside of that immediate community. The result of an external function is that new revenue or perhaps a new product comes into the community. Southeastern Michigan, for example, produces automobiles. Most of those automobiles are sold and exported outside of the Southeastern Michigan area. The result is that “new” money comes into the region.

It is essential for every community to perform external functions in order to purchase goods or services that cannot be produced locally. In Southeastern Michigan, for example, we make cars. With the revenue from cars, workers are paid. They buy food, clothes, television sets, and other items that are not produced in Southeastern Michigan. If the community did not produce something, cars for example, that produces revenue from the outside, they would not have the ability to purchase from the outside.

Detroit has passed through four main phases. Detroit was established primarily as a fur trading post. The fur trade was the primary external function of the area. It also brought in revenue as a result of French, British or American government expenditures to maintain a military base.

The second phase was that of a commercial center. It was the entry point to Michigan for immigrants and products. It was also the primary point of export for many Michigan agricultural products and natural resources. As the largest city in the region, individuals who prospered in industries such as mining and lumbering often lived in Detroit.

The transition to the third phase began during the Civil War. In this period, diverse manufacturing began to replace commercial enterprises as the primary external function of the city. Shipbuilding, the manufacture of railroad cars, pharmaceuticals, tobacco products, and various other manufacturing businesses began to dominate the city's economy.

The fourth phase began very abruptly. In 1898, Ransom Olds began manufacturing automobiles in Detroit. Soon, Detroit could lay claim to being the Automobile Capital of the World. Since that time, Detroit has been committed to a single, primary external function.



**Workers at the Russell Motor Axle Co.**

*Courtesy of the Walter P. Reuther Library, Wayne State University*

## CHART: DATA ANALYSIS CHART

1. Based on the data provided, indicate the primary external functions from Detroit and Southeastern Michigan during the periods indicated below.
  - 1880
  - 1930
  - 1970
2. Based on the data provided, indicate the significant internal functions for Detroit.
  - 1880
  - 1930
  - 1970
3. The data provided helps address some questions but raises new ones. Review any one of the data elements and identify two new historical questions that arise from the data. These questions can address broad historical issues or challenge specific facts presented on the data element.

# CHART: OCCUPATIONS OF METROPOLITAN DETROIT, 1880

## Occupations of Detroit, 1880; U.S. Census

	ALL OCCUPATIONS			AGE AND SEX			
	Total	All Ages		10 to 15		16 to 50	
			Male	Female	Male	Female	Male
<b>AGRICULTURE</b>	39,245	31,220	8,025	661	492	29,435	7,478
Agricultural laborers	394	378	16	8	.....	317	15
Farmers and planters	35	32	3	5	.....	26	3
Gardeners, nurserymen, and vine-growers	112	110	2	.....	.....	97	2
Stock raisers, drovers and herders	177	168	9	3	.....	132	8
	32	32	.....	.....	.....	31	.....
<b>PROFESSIONAL AND PERSONAL SERVICES</b>	12,518	7,872	4,646	151	216	7,308	4,392
Barbers and hairdressers	220	192	28	4	2	186	26
Boarding and lodging house keepers	111	32	79	.....	.....	25	79
Clergymen	113	113	.....	.....	.....	94	.....
Clerks and copyists (not specified)	199	186	13	7	.....	176	13
Dentists	39	38	1	.....	7	37	1
Domestic Servants	3,762	348	3,414	15	205	318	3,187
Hotel and restaurant keepers and employers	753	464	280	7	3	440	286
Journalists	82	82	.....	.....	.....	81	.....
Laborers	4,506	4,487	19	82	4	4,132	12
Laundresses and laundresses	361	39	322	2	2	37	312
Lawyers	286	286	.....	.....	.....	277	.....
Livery-stable keepers and hostlers	158	158	.....	.....	.....	158	.....
Musicians and teachers of music	174	121	53	.....	.....	117	52
Officials and employees (civil) of government	468	440	22	.....	.....	433	22
Physicians and surgeons	248	234	14	.....	.....	211	14
Teachers	403	77	326	.....	.....	71	325
<b>TRADE AND TRANSPORTATION</b>	9,588	9,065	523	149	24	8,720	497
<b>Trade</b>							
Clerks, salesmen, and accountants in stores	2,996	2,678	318	101	22	2,563	206
Commercial travelers, hucksters, and peddlers	816	795	21	6	.....	775	21
In banking and brokerage of money and stocks	126	126	.....	.....	.....	119	.....
In insurance	128	127	1	.....	.....	119	1
Saloon keepers and bartenders	476	449	27	2	.....	437	27
Traders and dealers	2,993	1,965	98	.....	.....	1,877	97
<b>Transportation</b>							
Draymen, hackmen, teamsters, etc.	669	669	.....	7	.....	649	.....
Officials and employees of express companies	85	85	.....	.....	.....	84	.....
Officials and employees of railroad companies	1,053	1,040	13	3	.....	1,020	13
Officials and employees of street railroad companies	83	83	.....	.....	.....	83	.....
Officials and employees of telegraph companies	134	106	28	9	1	97	27
Sailors, steamboatmen, stewardesses, canalmen, pilots, and watermen	548	541	7	4	1	533	5
<b>MANUFACTURING, MECHANICAL AND MINING INDUSTRIES</b>	16,743	13,905	2,840	353	252	13,090	2,574
Apprentices to trades	257	246	11	65	8	179	2
Bakers	270	265	5	6	.....	250	5
Blacksmiths	541	541	.....	3	.....	519	.....
Bookbinders and finishers	83	59	24	2	1	53	23
Boot and shoe makers	820	762	58	9	2	703	56
Brewers and maltsters	155	155	.....	.....	.....	152	.....
Brick and stone masons, marble and stone cutters	415	415	.....	1	.....	393	.....
Brick and tile makers	3	3	.....	.....	.....	1	.....
Butchers	465	465	.....	4	.....	445	.....
Cabinet makers and upholsters	403	395	8	4	1	374	7
Capenters and joiners	1,980	1,980	.....	4	.....	1,879	.....
Carriage, car, and wagon makers	350	350	.....	3	.....	335	.....
Cigar makers and tobacco workers	858	727	131	42	51	684	80
Clerks and bookkeepers in manufacturing establishments	63	63	.....	2	.....	59	.....
Coopers	217	217	.....	7	.....	190	.....
Cotton, woolen, and silk mill operatives	112	24	88	3	6	19	82
Employees in manufacturing establishments (not specified)	194	157	37	18	9	135	28
Engineers and firemen	472	472	.....	1	.....	465	.....
Fishermen and oystermen	5	5	.....	.....	.....	5	.....
Gold and silver workers- jewelers	77	75	2	1	.....	67	2
Harness, saddle, and trunk makers	162	161	1	2	.....	149	1
Iron and steel workers	687	687	.....	20	.....	654	.....
Leather curriers, dressers, finishers, and tanners	107	107	.....	1	.....	103	.....
Lumbermen, raftsmen, and woodchoppers	52	52	.....	1	.....	49	.....
Machinists	588	588	.....	4	.....	572	.....
Manufacturers and officials of manufacturing companies	351	349	2	.....	.....	342	2
Mill and factory operatives (not specified)	88	57	31	16	6	40	25
Millers	44	44	.....	.....	.....	41	.....
Miners	12	12	.....	.....	.....	10	.....
Painters and varnishers	876	875	1	7	.....	854	1
Papermill operatives	.....	.....	.....	.....	.....	.....	.....
Plumbers and gasfitters	148	148	.....	.....	.....	146	.....
Printers	540	518	22	10	1	505	21
Sawmill operatives	69	69	.....	3	.....	65	.....
Ship carpenters, calkers, riggers and smiths	193	193	.....	1	.....	182	.....
Tailors, dressmakers, and milliners	2,859	700	2,150	17	120	641	2,025
Tinners	218	214	4	3	.....	211	4
Wheelwrights	2	2	.....	.....	.....	2	.....



# CHART: OCCUPATIONS OF METROPOLITAN DETROIT, 1930

## Occupations of Metropolitan Detroit, 1930; U.S. Census

INDUSTRY GROUP	BATTLE CREEK		BAY CITY		DEARBORN		DETROIT
	Male	Female	Male	Female	Male	Female	Male
All industries	14,252	5,372	18,780	4,371	17,553	2,763	548,281
Agriculture	157	6	163	6	129	2	1,747
Farmers (owners and tenants)	45	1	32*		28	2	403
Farm managers and foremen	6	1*	*		4*		25
Farm Laborers	105	4	129	5	91*		1,275
Wage workers	105	4	127	5	90*		1,262
Unpaid family workers	*		2*		1*		13
Forestry and fishing	1*		67	2	4*		77
Extraction of minerals	11*		356	1	19	7	546
Building industry	1,076	17	937	21	1,117	15	45,298
Chemical and allied industries	149	33	117	6	117	14	6,233
Clothing industries	41	124	36	37	30	25	3,198
Food and allied industries	1,418	731	413	63	187	49	10,300
Automobile factories	100	5	1,564	189	9,841	211	193,818
Automobile repair shops	60	2	68*		38	1	2,232
Blast furnaces and steel rolling mills	105	24	187	6	175	6	4,351
Other iron and steel industries	2,261*		1,615	54	636	48	29,852
Metal industries, except iron and steel	196	54	31	2	90	20	6,207
Saw and planing mills	9*		448	31	9*		678
Other woodworking and furniture industries	38	5	317	33	46	2	2,001
Printing, publishing and engraving	322	82	125	29	132	40	6,842
Paper and allied industries	232	41*		3	16	5	863
Electrical machinery and supply factories	67	11	165	28	56	14	3,456
Independent hand trades	49	81	48	87	37	13	1,762
Other manufacturing industries	1,394	209	949	900	399	57	21,750
Construction and maintenance of steels, etc.	77*		108	2	131	2	4,592
Garages, greasing stations, etc.	196	14	187	8	124	1	6,059
Postal service	101	4	98	3	62	8	2,594
Steam and street railroads	1,203	53	767	23	410	33	15,222
Telegraph and telephone	94	116	111	84	69	134	3,588
Other transportation and communication	182	11	448	10	299	7	12,877
Banking and brokerage	134	61	131	40	147	56	7,056
Insurance and real estate	270	70	178	47	243	55	10,782
Automobile agencies and filling stations	284	18	233	18	230	10	7,946
Wholesale and retail trade, except automobiles	1,503	505	1,944	642	1,003	441	60,393
Other trade industries	70	22	47	11	61	15	3,354
Public service (not elsewhere classified)	387	31	312	30	482	52	17,322
Recreation and amusement	124	66	110	69	75	30	4,689
Other professional and semi-professional service	770	1,106	397	726	529	505	15,750
Hotels, restaurants, boarding houses, etc.	290	452	144	244	245	300	12,298
Laundries and cleaning and pressing shops	127	145	53	39	58	43	3,889
Other domestic and personal service	272	883	185	752	168	401	10,081
Industry not specified	422	153	721	125	139	57	7,968

# CHART: OCCUPATIONS OF METROPOLITAN DETROIT, 1930

DETROIT	FLINT		GRAND RAPIDS		HAMTRAMCK		HIGHLAND PARK	
	Male	Female	Male	Female	Male	Female	Male	Female
141,286	52,560	12,303	51,771	18,088	17,215	3,660	19,490	5,860
43	306	3	486	21	33*		69	2
11	94	1	148	7	9*		13	2
1	6	1	11*	*	*		1*	
18	204	1	317	5	24*		54*	
16	200	1	214	5	23*		54*	
2	4*		3*		1*	*	*	
6	12*		33*	*	*		3*	
36	43	1	172	5	14*		10	1
653	3,215	58	4,289	91	741	7	1,028	28
1,717	358	34	547	106	99	24	125	48
2,188	81	77	247	335	56	37	89	62
2,175	532	61	1,124	301	275	58	188	62
11,834	30,634	3,051	1,848	117	10,946	900	8,476	453
77	130	10	293	11	60*		62	1
434	71	1	235	35	185	25	79	17
3,101	763	58	2,827	309	951	207	648	141
753	46	9	1,064	353	181	44	72	9
39	52	1	89	14	8*		27	1
272	81	3	10,495	933	31	6	59	2
1,986	301	86	1,116	288	47	11	196	65
275	10	5	329	123	14	24	11	7
790	86	30	222	31	32	18	89	25
1,994	133	121	220	314	63	24	60	82
5,201	969	225	3,057	1,068	348	395	1,164	153
25	191	1	401	4	137*		57	1
93	527	7	777	22	89	1	154	2
236	183	7	382	6	18	1	76	13
1,378	618	34	2,448	60	143	3	489	42
6,026	245	213	619	607	38	68	129	270
404	682	17	855	32	112*		270	14
3,122	376	215	804	316	47	28	333	208
3,791	757	217	1,063	376	103	15	511	203
542	925	91	1,008	111	62	2	368	38
20,825	4,773	1,663	7,694	2,879	960	513	1,992	831
1,411	151	54	406	161	18	8	140	79
1,610	1,040	141	1,156	139	474	23	371	79
1,803	368	145	418	254	108	25	143	72
19,097	1,174	1,976	1,982	3,116	165	179	998	1,200
12,718	709	1,074	867	1,416	214	330	327	374
3,748	230	208	391	504	69	100	119	59
26,983	640	2,098	939	3,105	173	501	360	884
3,807	1,139	308	868	535	201	85	288	242

# CHART: OCCUPATIONS OF METROPOLITAN DETROIT, 1970

## Occupations of Detroit, 1970; U.S. Census

*Employed Persons by Industry Group: 1970*

*Detroit Metropolitan Area*

Source: United States Census, 1970

INDUSTRY GROUP	NUMBER EMPLOYED
Agriculture, forestry and fisheries	7,593
Mining	1,819
Construction	67,810
<b>MANUFACTURING</b>	<b>MANUFACTURING</b>
Furniture, lumber and wood products	4,651
Stone, clay and glass products	9,052
Primary metal industries	32,644
Fabricated metal industries	43,698
Machinery, except electrical	89,813
Electrical machinery, equipment and supplies	12,383
Motor Vehicles and motor vehicle equipment	266,369
Aircraft and parts	2,995
Other durable goods	41,558
Food and kindred products	15,182
Textile mill products	969
Apparel and other fabricated textile products	5,383
Paper and allied products	4,457
Printing, publishing and allied industries	19,415
Chemicals and allied industries	16,943
Rubber and misc. plastic products	10,539
Other non durable goods	9,497
<b>TRANSPORTATION, COMMUNICATION, UTILITIES</b>	<b>TRANSPORTATION, COMMUNICATION, UTILITIES</b>
Railroads and railway express service	8,770
Trucking services and warehousing	21,290
Other transportation	14,739
Communications	20,523
Utilities and sanitary services	22,076
<b>RETAIL</b>	<b>RETAIL</b>
General merchandise retailing	48,655
Food stores	38,813
Automotive dealers and gas stations	30,178
Eating and drinking places	50,263
Other retail	78,118
Finance, Insurance and real estate	73,552
Other Services	
<b>TOTAL</b>	<b>1,137,878</b>
Other Services includes:	
Hotels, business services, repair services, health, recreation, education, professional services, social services	

# QUESTIONNAIRE: EMPLOYMENT QUESTIONNAIRE

Name: \_\_\_\_\_

Employer: \_\_\_\_\_

Product or service performed:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Is the product or service provided (50% or more) to the automobile industry?

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

If not, who are the primary purchasers of the goods or services provided?

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

The individual interviewed is performing an (check one)

Internal function \_\_\_\_\_

External function \_\_\_\_\_