

October 2013 Draft

What Happened To and In Detroit?

John F. McDonald*

It's obviously been a long way down for Detroit, and it will take dedicated urban historians to provide the full story.

Jared Bernstein (2013)

Abstract

The paper describes the fiscal status of the City of Detroit, leading up to its filing for bankruptcy on July 18, 2013. Then the economic history of metropolitan Detroit and the city of Detroit from 1950 to the present is examined in an effort to answer these questions. Why did Detroit file for bankruptcy – not some other major city? And why now and not earlier? The paper concludes that, while Detroit and several other cities in the northeastern region suffered major population and employment losses and went through a long period of urban crisis between roughly 1970 and 1990, the severity of Detroit's problems compared to other cities did not emerge until the most recent decade. Population and employment losses during the 2000-2010 decade were much worse in the city of Detroit than in the other major central cities of the Northeast. These problems produced collapse in real estate markets, a high poverty rate and a drastic decline in median family income, worsening social problems, and declining tax revenues for the City. Detroit suffered a vicious circle of decline in the most recent decade that exceeded the experiences of other cities.

*Emeritus professor of economics, University of Illinois at Chicago.

1. Introduction

The City of Detroit filed for Chapter 9 bankruptcy on July 18, 2013. While (as of this writing) a bankruptcy judge must rule on whether the City can enter bankruptcy proceedings, it is clear that the City is in dire fiscal circumstances.¹ The purposes of this paper are to outline the development of Detroit's fiscal problems and to explore the underlying economic and social forces at work. In the process of examining these forces comparisons are made with the other major cities of the northeastern U.S. This study is an exercise in what might be called forensic economics (maybe economic pathology?).

As is well known, the Detroit metropolitan area has been hit by the declining fortunes of the American automobile companies, and the central city has experienced massive losses of population and tax base. However, most of the major northeastern metropolitan areas have experienced roughly similar difficulties – loss of manufacturing base and large-scale suburbanization. And yet only Detroit has declared bankruptcy, and did so in 2013 after decades of central city decline. What makes Detroit different? Or is Detroit really different from the other urban areas in its region? Why Detroit? Why now?

In this paper basic concepts in urban economics are applied to Detroit. Two major foci in urban economics are the growth (and decline) of metropolitan areas and the spatial distribution of economic activity within a metropolitan area. As Mieszkowski (1987, p. 253) states:

Urban economics addresses two central positive issues. First, it explains the internal form, or the density gradient, of a city vis-à-vis a centralized place of employment, the central business district (CBD); and second, it analyses the determinants of relative city size.

These two topics form the outline of this study. The recent economic history of the Detroit metropolitan area in the aggregate is reviewed, and the changes in the spatial distribution of population and employment are examined in detail. The trends in Detroit are compared to trends in sixteen other major metropolitan areas in the Northeast. Changes in spatial patterns – suburbanization – are of particular relevance for an understanding of Detroit's fiscal problems. Mieszkowski (1987, p. 255) provided a particularly cogent outline of the debate over suburbanization:

Two somewhat conflicting explanations have been offered for suburbanization of metropolitan areas. One, based on the monocentric model of urban areas, stresses technological change, decreasing transportation costs, the increased use of the automobile, rising real incomes, and population growth. The alternative explanation stresses lower suburban tax rates and a variety of central city social factors: high crime rates, congestion, smog, poor schools, and neighborhood

¹ The federal bankruptcy court set a hearing date of Oct. 23, 2013 for objections to the City's eligibility for Chapter 9 bankruptcy and March 1, 2014 as the deadline for the City to file a bankruptcy plan. Among legal issues to be settled is the provision in the Michigan constitution that vested pension payments cannot be impaired versus federal bankruptcy law that does envision possible reductions in pensions.

blight. According to this explanation middle income families move to the suburbs to escape these problems.

If suburbanization stems from this first set of basic economic forces, then according to Mieszkowski (1987, p. 255)

Intervention and fiscal aid to central cities need to be justified primarily on distributive grounds, to improve the level of public services and the general quality of life for poorer residents of the central city. If, on the other hand, fiscal distortions, crime and the quality of education are important causes of decentralization, the case is much stronger for a broad set of policies to stem the potentially unstable cumulative decline of central cities. Fiscal distortions decrease the overall level of national income by dissipating production and consumption economies. The case for public intervention will rest on considerations of allocative efficiency as well as redistributive objectives.

This study reaches a basic conclusion that both sets of forces have been at work in the Detroit metropolitan area. The first set of basic economic forces can explain suburbanization in the era of urban growth roughly from 1950 to 1970, but that the second set of forces has been dominant in the succeeding decades. Detroit suffered one of the largest urban “civil disturbances” in 1967, and the period of urban riots in the late 1960s ushered in a period of urban crisis that lasted two decades in most of the central cities of the Northeast. Migration from the southern U.S. to the northeastern metropolitan areas largely came to an end roughly in 1970 (but until later for Detroit), and white flight to the suburbs accelerated. The 1990s, with its comparatively robust economic growth, were a decade of rebirth for many of the northeastern central cities, including Detroit, but the first decade of the new century saw a return of cumulative decline in an extreme form, Myrdal’s (1944) vicious circle.

The first task is to examine the fiscal problems in Detroit.

2. Overview of Fiscal Trends in the City of Detroit

Kevyn D. Orr was appointed Emergency Manager of Detroit on April 14, 2013, and he provided a “Financial and Operating Plan” on May 12, 2013. The plan reviews the recent fiscal history of the City and discusses the status of public services it provides. Orr (2013) notes that the City is attempting to deliver services to a large area (139 square miles), much of which has low population density and is dominated by vacant lots and abandoned buildings. The city has approximately 60,000 vacant parcels of land and about 78,000 vacant structures (of which some 38,000 are considered to be dangerous). The Detroit Department of Transportation provides unreliable bus service, and the Fire Department has staffing and equipment constraints that prevent up to twelve of 52 installations from operating on any given day. The Public Lighting Department operates a grid that supplies power to 200 commercial customers and 88,000 street lights. Many of the street lights do not work. The grid needs major maintenance and upgrading. Up to 2010 Detroit operated at a loss power generating facilities that supplied some of the

power to this grid. The Detroit Water and Sewerage Department provides water to about 4 million people and sewer service to 3 million people in the city and suburbs and generates net revenues in excess of its debt payments. Net revenues were \$406 million and debt payments were \$357 million in 2012. However, this system has failed to comply with environmental regulations and needs to be upgraded. Some current fiscal details provided by Orr (2013) are discussed below.

A report prepared by the State of Michigan Department of the Treasury (2012) preceded the appointment of Mr. Orr as Emergency Manager. This report is harshly critical of the City. In particular, this report notes that:

- The City violated State law by not amending its appropriations acts as soon as it became apparent that deviations exist. Revenues were “knowingly overestimated.”
- The City did not file adequate or approved deficit elimination plans with the Department of Treasury.
- “The City’s deficit elimination plans and proposed budgets proved to be unrealistic.”
- The City entered into interest rate swap options that proved to have been unwise.
- The City’s bond rating fell below BBB and is considered “junk.”
- The City experienced substantial cash-flow problems and did not make required payments to its pension systems.
- A 2010 audit report of the City’s pension systems contains questionable balances.
- The City’s poor financial management impacted various federal grant programs.

Mr. Orr filed for bankruptcy on July 18, 2013 after being unable to reach agreements with creditors, unions, and pension boards. The bankruptcy filing developed by Mr. Orr cited a shrinking tax base caused by declining population, retiree pension and health care costs, borrowing to cover budget deficits, poor record keeping and outmoded computer systems, failure of property owners to pay property taxes, and government corruption.

A look at the fiscal status of the City of Detroit shall begin with the longer-term data provided by reports from the Citizens Research Council of Michigan (1991, 1996, 2010). Table 1 shows the cumulative surpluses and deficits of the Detroit General Fund from 1976 to the present. This table shows that the General Fund ran deficits during recessionary periods of the late 1970s and early 1980s and the early 1990s, but that each time those deficits subsequently were erased. The General Fund operated with a balanced budget (or with a small surplus) during the mid to late 1990s up through 2000 – a period of relatively robust national economic growth. However, beginning in 2003 the City has run deficits in every year (except 2007, when spending was cut substantially). The cumulative deficit from 2003 to 2009 reached a record level of \$280 million, so the City issued \$250 million in Fiscal Stabilization Bonds in 2010.² This bond issue brought the cumulative deficit down to \$90 million in 2010, but of course the bonds require coupon payments and must be repaid or refinanced. The bond issue simply hides the real deficit, so Orr (2013) reports the size of the cumulative deficit with and without counting

² The City had issued bonds to cover operating deficits in previous years as well, as shown in Table 2.

the bond issue. Nevertheless, the General Fund continued to run large deficits in 2011 and 2012, and ended fiscal year 2012 with a cumulative deficit of \$326.6 million, a figure that has been reported widely in the press. If 2010 bond issue is not counted, the cumulative deficit is \$576.6 million. In addition, fiscal year 2013 will add about \$60 million to the cumulative deficit. The City has issued another \$137 in Fiscal Stabilization Bonds in FY 2013. Not counting these two bond issues, the City has run deficits in ten of the past eleven years. Furthermore, as discussed below, the City has not been making sufficient payments into the pension funds and deferring maintenance on its facilities. In summary, Table 1 shows that the declaration of bankruptcy was preceded by ten years of deficits.

The Bureau of the Census reports that the full-time equivalent employment by the City declined from 18,100 in 1999 to 13,700 in 2009, a decline of 24.3% that is in line with the decline in population of 24.9% from 2000 to 2010. The payroll for these employees increased slightly from \$59.5 million per month to \$60.9 per month; the monthly pay per FTE employee increased by 35.9% from \$3301 to \$4487. The employee payroll of \$714 million was 49.7% to total general fund expenditures in 1999 (see Table 1 below), but the 2009 payroll of \$731 million was 63.2% of general fund expenditures according to the State of Michigan Department of Treasury (2012) report.

General Fund revenues are shown in Table 2 for selected years from 1970 to 2012, with annual data for 2003-2012. The table shows five major sources of revenue – property taxes, municipal income taxes, utility users’ taxes, state revenue sharing, and the wagering tax. Casinos were approved by the state for Detroit in 1996, so the wagering tax appears in Table 2 for 2000. Table 2 shows that, except for state revenue sharing, these sources of revenue grew steadily from 1970 to 2000. The maximum amount of state revenue sharing in Table 2 occurs in 1995, and declines steadily thereafter, a decline from \$417 million to \$173 million in 2012. Property tax and municipal income tax revenues started to fall in 2003 and 2005, respectively. The utility users’ tax revenues have remained stable, and the wagering tax grew up through 2007 and has remained stable since then. One can conclude that the fiscal problems of the City were delayed for several years by the introduction of casinos and the wagering tax. The “all other” category includes federal funds, Fiscal Stabilization Bond proceeds, other taxes, and miscellaneous other sources. Except for the years in which these bonds were issued, this category shows large declines beginning in 2004. A comparison of 2006 with 2012 shows that the decline in state revenue sharing of \$106.5 million accounts for 38% and the decline in other sources of revenue of \$105.3 million accounts for 37% of the decline of total revenues of \$281.8 million. The decline in property taxes and municipal income taxes of \$88.4 million accounts for 31% of the decline in total revenue. However, the total revenue picture is clouded by the fact that there are discrepancies between the figures provided by the Citizens Research Council of Michigan (2010) and the State of Michigan Department of Treasury (2012). These two sources roughly agree for 2008 and subsequent years, but there are sizable differences of 10% or more for 2003, 2005, and 2007.

Table 1
General Fund Cumulative Surpluses and Deficits: City of Detroit

Fiscal Year	Total Expenditures (\$ millions) ^a	Cumulative Surplus (\$ millions)	Cumulative Deficit (\$ millions)
1976	520		36.9
1977	557	11.6	
1978	677		8.5
1979	701		19.9
1980	777		80.9
1981	756		115.7
1982	790	3.2	
1983	795		45.7
1984	819		27.3
1985	835	47.9	
1986	937	58.3	
1987	1050	14.6	
1988	1089	24.4	
1989	1118	6.8	
1990	1276		46.5
1991	1188		105.9
1992	1152		106.1
1993	1065		26.2
1994	1431		53.4
1995	1141	20.0	
1996	1448	18.4	
1997	1323	12.4	
1998	1403	13.4	
1999	1438	1.7	
2000	1511	2.3	
2001	1489		26.4
2002	1576	1.6	
2003	1601 (1464)		69.1
2004	1578 (1578)		95.0
2005	1588 (1492)		155.4
2006	1410 (1410)		173.7
2007	1278 (1278)		155.6
2008	1446 (1181)		219.2
2009	1405 (1156)		280.0
2010	1279 (1069)		90.0
2011	1289 (1070)		195.0
2012	1233		326.6

^a Figures in parentheses provided by State of Michigan Department of Treasury (2012).
Sources: Citizens Research Council of Michigan (1996, 2010) and Orr (2013).

Table 2
City of Detroit General Fund Revenues
(\$ millions)

Year	Property Taxes	Municipal Income Tax	Utility Users' Tax	State Aid	Wagering Tax	All Other ^a	Total ^b
1970	119.3	93.3	0	48.2	0	122.8	384
1980	107.0	137.8	37.4	206.9	0	227.8	717
1989	119.9	283.7	51.2	376.6	0	237.5	1069
1995	120.6	296.3	52.5	416.7	0	328.1 ^c	1214
2000	155.0	378.3	54.5	332.7	53.4	537.8	1512
2003	166.2	310.9	55.3	319.7	111.3	567.3	1531 (1380)
2004	184.7	290.3	50.5	286.5	116.1	623.6	1552 (1375)
2005	181.5	282.5	52.9	282.9	138.0	589.3 ^c	1527 (1605)
2006	185.3	284.1	60.0	279.5	156.6	426.3 ^c	1392 (1436)
2007	183.5	278.3	53.8	271.1	179.8	329.7	1296 (1487)
2008	155	276	52	250	180	385 ^c	1393 (1378)
2009	164	241	55 ^d	267	173	382	1281 (1268)
2010	143	217	55 ^d	264	183	596 ^c	1457 (1438)
2011	183	228	55 ^d	239	177	350	1232 (1220)
2012	148	233	55 ^d	173	181	321	1111

^a Residual figure based on data from Citizens Research Council of Michigan (1991, 1996, 2010) and Orr (2013). Includes federal funds, Fiscal Stabilization Bond proceeds, other taxes, and other sources.

^b Totals based on data from Citizens Research Council of Michigan (1991, 1996, 2010) and Orr (2013). Figures in parentheses provided by State of Michigan (2012).

^c Fiscal Stabilization Bond proceeds: \$125 mil. in 1995, \$248 mil. in 2005, \$35 mil. in 2006, \$75 mil. in 2008, and \$250 mil. in 2010.

^d Estimated.

Sources: Citizens Research Council of Michigan (1991, 1996, 2010), State of Michigan (2012), and Orr (2013).

Growing liabilities on Detroit's balance sheet are other critical problems. Orr (2013) shows that as of June 30, 2012 total liabilities were \$15.67 billion, another total that has been reported in the press.³ However, \$5.45 billion of the liabilities are water and sewer bonds, the debt service of which is more than covered by the net revenues of the system. Detroit has issued \$1.09 billion in tax obligation bonds (limited and

³ The debt figures from Orr (2013) for 2012 are in rough agreement with the figures provided by the State of Michigan Department of Treasury (2012) for 2011.

unlimited) and \$0.53 billion in state revolving loans. Notes and loans payable as of June 30, 2012 were \$124 million.

Pension obligation certificates total \$1.45 billion. Interest rate swaps contracts for these certificates that protect the City if interest rates rise were executed in 2005 and 2006 that required payments of \$50 million per year to the financial institutions beginning in 2009. Unfunded actuarial accrued liabilities (UAAL) for pensions and other post-employment benefits (OPEB) total \$6.37 billion, of which \$5.73 billion are for OPEB - mainly medical benefits for retirees. In fact, medical benefits for retirees are completely unfunded. The two Detroit pension systems (one for police and fire and one for general employees) have seen the ratio of retirees to current employees increase in recent years. In 2011 the general retirement system paid benefits equal to 70% of the annual payroll of the relevant municipal departments (compared to 35% in 2004), and the police and fire retirement system paid out benefits equal to 114% of the current payrolls of the departments (compared to 79% in 2004). Payments by the City into the pension system in FY 2013 were \$31 million out of the \$134 million that should have been made.

When Mr. Orr arrived he found that (as of April 26, 2013) the City had cash on hand of \$64 million and current obligations of \$226 million.

3. Detroit in the Period of Urban Growth: 1950-1970

In McDonald (2008) I have called the period from 1950 to roughly 1970 the period of urban growth and labeled the subsequent twenty years the period of urban crisis. This section is a review of 1950-1970 for Detroit, with comparisons to the other major urban areas of the northeastern U.S. Sugrue (1996) provides a detailed history of the “origins of the urban crisis” in Detroit that concentrates on the 1940s, 50s, and 60s, and Galster (2012) is a brief history of Detroit from its founding in 1701. See the references in these two volumes to the extensive Detroit bookshelf.

Table 3
Population in Detroit (1000s)

Year	MSA Population	MSA Black Population	City of Detroit Population	City of Detroit Black Population
1950	3016*	358 (nonwhite)	1850	300 (nonwhite)
1960	3950 31.0%	564 (nonwhite)	1670 -9.7%	482 (nonwhite)
1970	4431 12.2%	757 (nonwhite)	1511 -9.5%	660 (nonwhite)
1980	4353 -1.8%	885	1203 -20.4%	754
1990	4249 -2.4%	937	1028 -14.5%	776
2000	4453 4.8%	1035	951 -7.5%	772
2010	4296 -3.5%	1012	714 -24.9%	590

* MSA in 1950 defined as Wayne, Macomb, and Oakland Counties. Monroe and St. Clair Counties are added for 1960, and Lapeer County is added for 1970 and later years. Population figures (1000s) for these counties are:

	1950	1960	1970
Monroe	76	101	119
St. Clair	92	107	120
Lapeer	36	42	52

Use of these figures permits one to hold land area constant over time for total MSA population.

Source: Census of Population.

As shown in Table 3, Detroit was a metropolitan area of 3.016 million in 1950, and 61.3% of the population (1.85 million) resided in the city of Detroit. Both the metropolitan area and the central city ranked fourth among the metro areas and cities in the Northeast (behind New York, Chicago, and Philadelphia). The black population of the metropolitan area was 358,000; 83.8% of whom lived in the central city. The black population made up 11.9% of the population of the metropolitan area and 16.2% of the central city population. The percentage of black population was typical for major northeastern urban areas. The mean percentage black population for the 17 largest metro areas in the Northeast was 10.4%, and the mean percentage for their central cities was 13.8%.⁴ Total employment in the metropolitan area in 1950 was 1.193 million, and 46.9% of those jobs (560,000) were in manufacturing. This concentration of employment

⁴ The 17 metro areas used as comparison areas in this paper are New York, Chicago, Philadelphia, Detroit, Boston, Pittsburgh, St. Louis, Cleveland, Washington DC, Baltimore, Minneapolis-St. Paul, Buffalo, Cincinnati, Milwaukee, Kansas City, Indianapolis, and Columbus. See McDonald (2008) for extensive analysis of this group.

in manufacturing was the largest among the 17 major urban areas of the Northeast. The next-highest concentration in manufacturing was 42.8% in Milwaukee (40.5% in Cleveland and 40.3% in Buffalo). The mean for the 17 metro areas was 32.5%. A majority of the manufacturing jobs were located in the city of Detroit (60.8% in 1947). In addition, another 12.8% of the manufacturing jobs (mainly jobs with Ford Motor Company) were located in Dearborn, which is adjacent to the city of Detroit. Employment in finance, insurance, and real estate (FIRE) and business services made up just 4.4% (52,000) of total employment, a figure that is below the mean for the 17 metro areas of 5.64%. New York led the way in employment in these sectors with 8.7% of employment (463,000 out of 5.314 million in total employment). Median male earnings of \$3277 per year was the highest of any of the 17 metro areas (mean of medians for the 17 was \$2966), probably because of the heavy concentration in manufacturing employment at the time. Median female earnings were \$1483 per year, a figure exceeded only in Washington DC (\$2004), New York (\$1708), and Chicago (\$1610). The mean for median female earnings for the 17 metro areas was \$1427, so female earnings in Detroit were fairly typical for northeastern metro areas.

Housing conditions in metropolitan Detroit were above average for the major northeastern metro areas. Only 13.1% of housing units in metro Detroit was rated as substandard (lacking hot running water or private toilet and bath, or in dilapidated condition). The percentage substandard ranged from a rather incredible 34.1% in metro St. Louis and 32.1% in metro Pittsburgh to 11.3% in the Cleveland metropolitan area. The mean for the 17 major urban areas was 21.0%. The vacancy rate in metro Detroit was 3.38%, compared to a mean for the 17 urban areas of 3.03%, but the rate of home ownership was 61.8% compared to a mean for the 17 of 51.9%. Only metro Philadelphia had a higher ownership rate (with 61.9%). The percentage of housing units in metro Detroit built after 1940 was 25.9%, a high percentage exceeded only by the 38.2% for Washington DC. The mean for the 17 metro areas was 17.1%. The Detroit area experienced a relative housing building boom in the 1940s because of wartime production and postwar demand for autos and other manufactured products.

The years from 1950 to 1970 brought major changes to Detroit. Data in Table 3 show that the population of the metropolitan area increased by 47.9% and that the population in the city fell by 18.3% from 1950 to 1970. This was a period of substantial population growth for urban areas in the Northeast accompanied by population decline in the central cities, and Detroit is no exception to these trends. However, was the decline in the central city population unusually large in Detroit, given the growth of the metropolitan area? This question is considered in detail below. The black population in the metro area more than doubled from 358,000 to 757,000, and the percentage of the population in the city of Detroit that was black increased from 16.2% to 43.7%. This increase in the percentage of black population in the central city of 27.5% was exceeded only by Washington DC (with 36.0%) among the 17 major urban areas of the Northeast. The increase was 22.8% in St. Louis, 22.1% in Cleveland, and 19.2% in Chicago. The mean increase for the 17 metro areas was 14.8%. The segregation index for the central city declined from 88.8 to 80.9, and McDonald (2008, p. 108) shows that these figures are typical for the 17 metro areas.

Table 4 shows employment by place of residence for 1950 and 1970 for the three-county metropolitan area of Wayne, Macomb, and Oakland Counties (1950 definition of

SMA) and for the city of Detroit. Employed residents in the three counties increased by 31.7% while the number of employed residents of the central city declined by 26.1% (compared to the decline in population of 18.3%). Employment in all industries increased in the SMA; manufacturing employment increased marginally by 5.0%. However, employment in the transportation equipment industry (mainly autos and parts) declined by 18.8%. Manufacturing employment for residents of the central city suffered a substantial decline of 42.4%. Employment increased in wholesale trade and service industries.

Table 5 shows that total employed residents located in the metro area increased by 39%, and manufacturing employment remained stable (560,000 in 1950 and 589,000 in 1970 – up 5.2%).⁵ Real median family increased by 70% in the metro area. The employment increase was typical for the 17 metro areas (mean increase of 43%), but the increase in median income was below the mean of the median increases for the 17 metro areas of 89%. Manufacturing was moving to the suburbs. Manufacturing employment in the city fell from 340,000 to 186,000 (a drop of 45%), so the suburban areas gained 183,000 manufacturing jobs (increase of 83%). However, this movement of manufacturing employment to the suburbs is not exceptional. For example, McDonald (1984) showed that manufacturing employment in metropolitan Chicago also increased slightly from 1947 to 1972 (4.7%), but manufacturing jobs in the city of Chicago fell by 36% (from 668,000 to 430,000) and increased in the suburbs by 151% (from 184,000 to 462,000).

A simple equation introduced by Norton (1979) captures the combined effects of metropolitan population growth and suburbanization; central city population percentage change is a function of the percentage change in the population of the metropolitan area (plus the effect of any change in the land area of the central city). This equation was estimated by McDonald (2008) for sixteen major urban areas on the Northeast for 1950-1970 (excluding Washington, DC). The estimated equation is:

$$CC\%POPGRO = -23.35 + 0.41 MET\%POPGRO + 5.21 LNAREA$$

(2.49) (2.17) (4.05)

Here LNAREA is the natural log of the increase in the land area of the central city (with zero coded as 0.1). The R-squared for the estimated equation is 0.60, and the unsigned t values in parentheses show that all variables are statistically significant. The constant term indicates that a central city with no increase in land area in a metropolitan area with zero population growth would have declined by 23.35%. The coefficient of 0.41 says that an increase in metropolitan area population growth of one percent was associated with greater population growth (less population decline) in the central city of 0.41%.

⁵ Employment by place of residence and by place of work differ only by a small amount at the metropolitan area level, but differ by a large amount for smaller areas within the metro area.

Table 4
Employment by Place of Residence (1000s)
(SMA is Wayne, Macomb and Oakland Counties.)

Industry	1950 SMA	1970 SMA	1950 Detroit City	1970 Detroit City
Total	1193	1571	759	561
Construction	58	68	32	20
Manufacturing	560	588	349	201
(Transp. Eq.)	335	272	212	98
TCU	78	87	39	32
Wholesale Tr.	35	66	5.5	22
Retail Trade	180	246	120	83
FIRE	39	74	27	29
Business Services	13	30	9.2	11
Health Care	32	90	20	38

Source: Census of Population.

How does Detroit compare to the result predicted by this equation? The city of Detroit had no change in land area. The equation predicts that the population of the city of Detroit would have declined by $23.35\% - 0.41(47.9\%) = 3.7\%$, compared to the actual decline of 18.3%, a difference of 14.6%. In short, population moved to the suburbs more rapidly in the Detroit metropolitan area than in major northeastern metropolitan areas in general. Other central cities had comparably large population losses during these two decades. Boston (20%), Pittsburgh (23%), St. Louis (27%), Cleveland (18%), and Buffalo (20%) had losses that were equal to or larger than Detroit, but these metropolitan areas had lower population growth rates than Detroit of 19%, 21%, 34%, 42%, and 24%, respectively. These five metropolitan areas had average population growth of 28% and average central city population loss of 22%, compared to metro Detroit with 48% growth and 18% central city decline. The above equation implies that the mean composite of these five central cities would have lost population equal to $23.35\% - 0.41(28\%) = 11.9\%$. The actual loss was 22%, a difference of 10.1%. The population growth in the Detroit metropolitan area and some other metropolitan areas did not translate into the expected central city population change. (In contrast, metropolitan Chicago had population growth of 28% and central city population loss of 7%; the figures for Philadelphia are 33% and negative 6% and 36% and negative 5% for Baltimore.)

During the two decades from 1950 to 1970 metropolitan Detroit was growing and becoming much more suburban, as were all of the other major urban areas of the Northeast. Suburbanization was abetted by the construction of the freeway system. The first real limited-access freeway was constructed in Detroit (the Davison, 5.5 miles, completed in 1942). The major radial freeways were completed between 1955 and 1970. The Edsel Ford (freeway to the Southwest) was completed in 1955; the Lodge-Ford to the Northwest was completed in 1962; the Chrysler-Fisher to the North was opened fully in 1970; and the Edsel Ford to the Northeast was completed in 1959. The circumferential

freeway was completed later; the last link in the Walter Reuther Freeway that runs east and west in the northern portion of the metropolitan area was opened in 1989. Movement of population and employment to the suburbs was, in considerable measure, an adjustment to a new transportation system – autos and freeways. All of this was happening in the other urban areas, of course. However, the city of Detroit experienced a relatively large increase in the percentage black population (to 43.7%) partly as a result of a relatively large exodus of white population to the suburbs.

In July 1967 Detroit experienced one of the largest urban riots of that era of urban rioting. The magnitude of that riot stands out. The worst riots in terms of number of lives lost were Detroit with 43, Los Angeles (1965) with 34, and Newark (1967) with 24. These three riots account for 44% of the total number of deaths that occurred in the riots that took place from 1964 and 1971. Research by Spilerman (1970) and others showed that the only variables that consistently related to severe riots are the size of the black population and region – riots were less likely to occur in the South. The black population of the city of Detroit of 660,000 in 1970 is the third-largest among the 17 major metro areas in the Northeast – behind only New York and Chicago with over 1 million each. Otherwise major riots appear to be idiosyncratic events. The Detroit riot of 1967 started with a police raid on an after-hours bar. While the causes of the riots are not very clear, the consequences were severe. Collins and Margo (2004, 2005) investigated the effects on the labor and housing markets. Black people in the central cities with severe riots had lower increases in household income and housing prices than did their counterparts in cities that did not experience a severe riot. A detailed study of census tracts where rioting took place in Cleveland, Detroit, Los Angeles, Newark and Washington DC shows that population fell by 33% from 1960 to 1980, while other census tracts changed only by small amounts.

4. Detroit in the Era of Urban Crisis: 1970-1990

The population of the Detroit metropolitan area stopped growing after 1970. The era of urban crisis had already begun and Great Migration from the South largely came to an end. The population of the metropolitan area actually declined 4.1% over the twenty years from 1970 to 1990. Among the 17 northeastern metro areas only the Cleveland, Detroit, and Pittsburgh metro areas experienced population declines in both the 1970s and 1980s. Partly as a consequence of the failure of the metropolitan area to grow, the population of the central city fell by 32.0%. Population loss was greater in the 1970s (20.4%) than in the 1980s (14.5%), but both of these declines were larger in percentage terms than the losses sustained in each of the previous two decades. How does Detroit compare to the other major northeastern urban areas? The same basic equation is estimated for the 1970-1990 period with the result that:

$$CC\%POP\text{GRO} = -21.4\% + 0.39 \text{ MET}\%POP\text{GRO}.$$

(8.66) (2.20)

The R-squared for the estimated equation is 0.26 and the unsigned t values indicate that both regression coefficients are statistically significant. The change in land area variable is not included because no central city in the sample added territory. The equation “predicts” that population loss in the city of Detroit would have been 23.0%, while the actual loss was 32.0%. However, four other central cities sustained about the same population loss; Pittsburgh (-28.8%), St. Louis (-36.5%), Cleveland (-32.6%), and Buffalo (-29.2%). The mean population loss for these four central cities was 31.7%, and the mean population change for their metropolitan areas was +7.55%. Given this metropolitan growth figure, the predicted central city population loss is 18.5% compared to the actual loss of 31.7%. In short, while the city of Detroit sustained a very large loss of population, its loss was not substantially different from the losses suffered by some other major cities.

This exploration of basic population data shows that the city of Detroit was not unique in its total population losses. Rather, Detroit falls into a category that includes Cleveland, Buffalo, Pittsburgh, and St. Louis. One prefers not to be a member of this group, but Detroit is the only one that has declared bankruptcy as of 2013. However, the story is different if race is considered.

The black population of the metropolitan area continued to increase – from 757,000 to 937,000 (23.8%) and the majority of that increase (64.4%) occurred in the central city. In 1990 the black population of the city of Detroit was 75.5% of the total population of 1.028 million. This percentage is the largest of any of the 17 major urban areas in the Northeast – exceeding even Washington DC (65.2%). The mean percentage for the 17 central cities increased from 28.8% to 37.1%, while the Detroit percentage increased from 43.7% to 75.5%. The black population of the Detroit suburbs increased only slightly from 3.3% to 5.0%. The white population of the central city moved in large numbers to the suburbs; their number dropped from 851,000 in 1970 to 252,000 in 1990. The Detroit metropolitan area became the most racially divided major area between the central city and the suburbs.

The city of Detroit suffered drastic losses in employment. Table 5 shows that residents of the city who were employed declined by 40.1%, and employment in manufacturing dwindled from 201,000 to 69,000 (a drop of 65.7%). Employed residents of the metropolitan area increased by 15.8% as more women entered the labor force, but manufacturing employment fell from 589,000 to 474,000 (down 19.5%), a figure that is not out of line with the experience of other major urban areas. Table 6 displays employment data by industry for 1970, 1980, and 1990 for the MSA and the city of Detroit. The metropolitan area recorded strong growth in employment in professional services (as did all other metro areas), and some growth in all other industries except manufacturing. The decline in the number of central city residents employed in manufacturing accounts for 58% of the decline in the number of employed residents from 1970 to 1990, but employment declined in all other industries (except for business and repair services).

As McDonald (2008) recounted, the city of Detroit also suffered a variety of economic and social ills during these decades. The poverty rate in the city was 14.7% in 1970 (equal to the mean for the 17 central cities), but shot up to 32.6% in 1990 (mean for the 17 central cities was 21.2%). Median family income in real terms fell by 11.1% in the 1970s and 21.5% in the 1980s, an overall drop of 32.2%. Murders per 100,000

population increased from an already high 33 to 57 (a murder rate among the 17 central cities exceeded only by Washington DC with 78). The mean of murder rates for the 17 central cities were 20 and 30 for 1970 and 1990. The percentage of single-parent families with children in the city increased from 23% in 1970 to 61% in 1990; the latter figure is the highest among the 17 central cities and their means were 22% and 44%. The number of people who lived in high-poverty census tracts virtually exploded from 56,000 to 120,000 in 1980 to 419,000 in 1990, which is 40.8% of the population.⁶ On the positive side, the number of city residents who had not graduated from high school fell from 58% to 38% (but increased from 36% in 1980 to 38% in 1990). McDonald (2008) developed a rough and ready index of urban crisis that is based on the following:

- change in the central city population
- change in the central city poverty rate
- change in the population living in high-poverty areas
- change in the central city murder rate
- change in the percentage of single-parent families
- change in the percentage of high-school dropouts, and
- change in the median family real income in the central city.

With the exception of high-school dropouts, all of these variables moved in the “wrong” direction in Detroit in the 1970s, and all seven moved for the worse in the 1980s. The “net” score of minus 5 for Detroit in the 1970s (6 minus plus one plus) was equaled or exceeded by New York, Chicago, Philadelphia, Cleveland, Baltimore, Buffalo, and Indianapolis among the 17 central cities. However, the “net” score for Detroit of minus 7 for the 1980s is the worst among the 17. Indeed, given the drastic drop in median family income of 21.5% and the explosion of the population in high-poverty areas, one might be tempted to award an even greater negative number. In short, the decades of the 1970s and 1980s were bad ones for all 17 central cities, and the city of Detroit suffered the most.

During the late 1970s Halloween pranks turned into what became known as “Devil’s Night,” in which hundreds of vacant buildings, cars, and rubbish piles were set on fire by arsonists. A report from the Centers for Disease Control (1997) notes that the peak year was 1984, when 810 fires were reported during the 3-day Halloween period (average for 3-day periods was 120-195 fires). Confirmed or suspected arson fires were 580 during these 3 days. An aggressive anti-arson program by the Detroit Fire Department brought the number of fires during the Halloween period down to the 3-day average of less than 200 by 1991. The “Devil’s Night” phenomenon made the urban crisis in Detroit even more notorious.

⁶ High-poverty census tracts are defined as poverty rates of 40% or more. See Jargowsky (1997).

**Table 5
Employment in Detroit (1000s)**

	1950*	1970	1980	1990	2000	2010	2012
City of Detroit - Census Total Manuf. (Place of residence)	759 349	561 201	395 113	336 69	332 65	202 20	
City of Detroit – Census Total (SEMCOG)** Manuf. (Place of work)		(735)	467 (562)	366 (412)	319 (345)	201 20	
MSA – Census Total Manuf. (Place of residence)	1193 560	1655 589	1776 559	1916 474	2058 488	1622 232	
MSA – Census Total (SEMCOG)** Manuf. (Place of work)		(1819)	1699 (1917)	1872 (2097)	2050 (2382)		
MSA – BLS Total Manuf. Trans. Equip. (Place of work)				1911 356 153	2203 391 180	1736 186 76	1827 219 92
Wayne County – BLS Total Manuf. Trans. Equip. (Place of work)				894 154 66	911 150 71	693 69 31	716 79 38

* Metropolitan area for 1950 defined as Wayne, Oakland, and Macomb Counties.

Subsequent years include Monroe, St. Clair, and Lapeer Counties.

** SEMCOG data do not include Lapeer County, population 52,000 in 1970.

Sources: HUD State of the Cities Data, Census of Population and Housing, Bureau of Labor Statistics, Southeast Michigan Council of Governments (2002).

Table 6
Employment by Place of Residence
(1000s)

Industry	MSA 1970	MSA 1980	MSA 1990	MSA 2000	City of Detroit 1970	City of Detroit 1980	City of Detroit 1990	City of Detroit 2000
Total	1655	1776	1916	2058	562	395	336	332
Construction	68	63	89	114	17	10	10	12
Manufacturing	589	558	474	488	201	113	69	65
TCU	89	111	114	113	30	30	26	26
Whsl. & Retail	313	366	418	414	98	65	62	59
FIRE	73	98	122	120	25	21	21	19
Bus. & Repair Serv.	49	74	109	149	17	16	20	29
Personal Services	69	61	73	130	28	17	15	24
Prof. Services	253	356	427	448	86	91	84	76
Public Admin.	64	75	68	68	29	29	26	20

Source: HUD State of the Cities data (Census).

5. Detroit in the 1990s

The population data in Table 3 indicate that the 1990s differ from the previous four decades. The metropolitan area gained population for the first time since the 1960s, and the population of city of Detroit declined by only 7.5%. While the metropolitan population growth was only 4.8%, this modest gain is in contrast to the previous two decades of population loss. Furthermore, the population decline in the central city was smaller than the declines in the 1950s and 1960s when the metropolitan area was growing rapidly. The black population of the central city held steady as the city continued to lose white population so that the percentage black population increased to 81.1% from 75.5% in 1990. Detroit remained, by far, the most racially separated major northeastern metro area between central city and suburbs. The next-largest percentage black population was in the city of Baltimore with 64.1% black, and the mean for the 17 central cities was 39.6%.

McDonald (2008) regards the case of Detroit in the 1990s as a leading example of the beginnings of urban rebirth and reversal of the vicious circle of decline. Employment in the metropolitan area grew by 6.7%, as did median family income in real terms (up 6.7%). The central city showed signs of progress; the poverty rate declined from 32.6% to 26.1%, the murder rate fell from 57 to 41 per 100,000 population, the population living in high-poverty areas declined dramatically from 421,000 to 108,000, the percentage of adults in the city who did not complete high school fell from 38% to 30%, and the percentage of families with children with only one parent present increased only slightly from 61.0% to 63.1%. And median family income in real terms increased by 17.1%, the largest gain in any of the major central cities of the Northeast. These changes are in sharp contrast to the negative trends in the 1970s and 1980s in all of these variables.

Note from Tables 1 and 2 that the City of Detroit was able to operate without deficits during the second half of this decade – with the help of the casinos and the wagering tax. Indeed, the downtown casinos undoubtedly played a role in the overall positive trends.

The improved performance of the city of Detroit can be seen from the estimate of the basic equation for northeastern central city population change in the 1990s:

$$\text{CC\%POPGRO} = -9.29 + 0.87 \text{ MET\%POPGRO} \\ (3.60) \quad (3.31)$$

The R-squared for the estimated equation is 0.42, and the unsigned t values indicate that both coefficients are statistically significant. The equation “predicts” that the population change in the city of Detroit would have been negative 5.1%, compared to the actual change of negative 7.5%. In other words, the actual and predicted values differ by only 2.4% (residual standard deviation is 6.2%).

Tables 5 and 6 show employment figures for 1990 and 2000. Employed residents of the metro area increased by 7.4%, and a small increase of 3.0% was recorded in manufacturing. Employment of central city residents declined by only 4,000 – barely more than 1% as the population declined by 7.5%. Employment increases in business and repair services and personal services almost offset declines in other industries. The employment decline in manufacturing was only 4,000 (5.8%).

The Case-Shiller Home Price Index based on repeat sales indicates that housing prices (nominal terms) in the Detroit metro area increased by 71.7% from 1991 to 2000 compared to 27.3% for the ten-city index. The price increase was 45.5% in the second half of the decade (1995 to 2000) compared to 30.2% for the ten-city index.

In summary, the robust economy of the 1990s brought signs of revival both to the metropolitan area and to the city of Detroit. I ended the earlier book (2008) on a hopeful note that signs of urban rebirth had occurred, and that we need to continue to foster further improvements for metropolitan areas and their beleaguered central cities.

6. The First Decade of the New Century

The first decade of the new century brought disaster. Table 3 shows that the population of the metropolitan area declined by 3.5%, which is not out of line with earlier decades. Three other major metros in the Northeast lost population during this decade – the usual suspects Pittsburgh, Cleveland, and Buffalo. The mean percentage change for the 17 metros was an increase of 5.2% over the decade. However, the city of Detroit experienced a population loss of 24.9%, a figure that is much larger than any of the earlier population losses. Furthermore, the decline in the black population from the near-record high of 772,000 in 2000 to 590,000 in 2010 accounts for 76.8% of the population loss. The black population with the ability to leave had begun abandoning the central city in large numbers – just as white people had done in earlier decades. The mean population loss for the 17 major central cities was 3.5%; seven of the 17 gained population. The next-largest losses were 16.8% in Cleveland, 10.9% in Buffalo, and 10.3% in Cincinnati.

The estimated equation for central city population change for the 17 northeastern metro areas is

$$\text{CC\%POPGRO} = -9.53 + 1.15 \text{MET\%POPGRO}.$$

(5.10) (4.93)

The R-squared for the estimated equation is 0.62, and the unsigned t values in parentheses indicate high levels of statistical significance for the estimated coefficients. Given metropolitan loss of 3.5%, the equation “predicts” central city population loss for Detroit of 13.6% compared to the actual loss of 24.9%. This prediction error of 11.3% is the largest error among the 17 observations. Recall that the prediction error for the 1950-1970 equation is 14.6%, but that is for two decades, not one. (The equation predicted a population loss for the city of Boston of 5.4%, but it actually gained 4.7% - an error of 10.1%.) In short, the city of Detroit experienced a much greater loss of population in raw percentage terms and in comparison to its metro area than any other major central city in the Northeast.

Figures on employment by place of residence from the Census in Table 5 show a disastrous decline from 2000 to 2010. The number of employed residents of the metropolitan area declined by 21.2%. The decline in manufacturing jobs was 52.5% from 488,000 to 232,000. Employment for residents of the central city fell from 332,000 to 202,000, a drop of 39.2% (compared to population loss of 24.9%). Manufacturing jobs held by city residents fell from 65,000 to 20,000. The Census of Manufacturers found that 23,000 manufacturing jobs were located in the central city in 2007. Table 7 shows employment by industry for the city of Detroit for 2000 and 2007-2011 (the latter are five-year estimates from the American Community Survey). The number of employed residents of the city fell by 32.2%, compared to the population decline of 24.9%. This table uses the newer NAICS industry codes, and shows that employment of city residents declined in every industry category. According to these data, the largest percentage declines were in manufacturing (55.1%), wholesale trade (50.6%), and information (49.5%), and the largest absolute decline was in manufacturing (34,300). The industries with the smallest declines are arts, entertainment, recreation, accommodation, and food services (6.6%) and education, health care, and social assistance (15.3%).

More detail on the time pattern of employment losses is provided by the Bureau of Labor Statistics in Table 8. However, this source does not provide data for the city of Detroit, but it does separate out Wayne County. BLS shows employment by place of work, and the figures differ somewhat from those provided by the Census. Table 8 shows employment growth in the metropolitan area from 1990 to 2000 and steady employment numbers for Wayne County through 2001. At this point employment began to decline. Total employment in the metropolitan area declined by 10.9% from 2000 to 2007, the year before the financial crisis began. Manufacturing employment fell by 34.5%, and accounted for 56% of the decline in total employment. Employment in transportation equipment (mainly the automobile industry) fell by 35.6%, and accounted for 48% of the decline in manufacturing employment. The record for Wayne County is even more extreme. Total employment dropped by 14.3% from 2000 to 2007, and manufacturing employment fell by 37.3% from 150,000 to 94,000. The decline in manufacturing accounts for 43.1% of the total decline in employment. Employment in

transportation equipment in Wayne County fell from 71,000 to 46,000. Then the financial crisis and recession hit. The bottom was reached in 2010. Total employment in the metro area fell by an additional 11.5% (for a total decline of 21.2% since 2000). Manufacturing declined by another 70,000 (27.3%), so that the metro area that began the decade with 391,000 manufacturing jobs ended the decade with just 186,000. Transportation equipment fell from 180,000 jobs in 2000 to 76,000 in 2010. Employment in Wayne County declined by another 11.3%, and manufacturing employment ended the decade at 69,000 (down 26.5% from 2007 and 54% from 2000). Jobs in transportation equipment dropped to 31,000, an overall loss from 2000 to 55.7%. However, Table 8 shows employment gains for the metro area and Wayne County in 2011 and 2012. These gains include employment increases in manufacturing in general and transportation equipment in particular. The message from the BLS data is that major job losses in the Detroit area started years before the financial crisis of 2008. The entire decade is one of job loss.

A major loss of jobs in manufacturing was not unusual for metropolitan areas in the Northeast. For example, BLS data show that manufacturing employment in the Chicago metropolitan area declined from 570,000 in 1990 to 515,000 in 2000, and then plummeted to 384,000 in 2007 and 316,000 in 2010. The decline from 2000 to 2010 was 38.7% (compared to 52.4% in metropolitan Detroit), and most of that decline took place between 2000 and 2007. However, the more diversified economy of metro Chicago suffered a smaller loss in total employment from 2000 to 2010 of 7.7% versus the 21.2% in metro Detroit. Note that the differences in job loss percentages between metro Chicago and metro Detroit are about 14% for both total employment and manufacturing employment. Metro Detroit is compared to several other older northeastern metro areas in Table 9; Buffalo, Chicago, Cleveland, Milwaukee, Pittsburgh, and St. Louis. Each of these metro areas experienced a major loss of manufacturing jobs from 2000 to 2010; the mean for the six is a loss of 37.8%, but this is not as large as the loss in metro Detroit of 52.4%. The difference in these loss percentages is 14.6%. Further, each of these metro areas lost total employment from 2000 to 2010; the mean loss for the six is 6.5% compared to the loss of total employment in metro Detroit of 21.2%. The difference in these loss percentages is 14.7%. These comparisons indicate that job losses in metro Detroit were much greater than in these neighboring metro areas. Cleveland is the metro area with the next-largest job losses from 2000 to 2010; 45.3% in manufacturing and 12.8% in total employment. Other metro areas that have suffered greatly during the decades of urban crisis survived the 2000-10 decade rather well in terms of total employment. Buffalo lost 39.8% of its manufacturing jobs, but total employment fell by only 3.8%. The numbers for metro St. Louis are very similar to those for Buffalo. Manufacturing jobs in metro Pittsburgh fell by 33.1%, but total employment was down by only 1.9% (and total employment had returned to its 2000 level by 2012).

Another comparison is provided by researchers associated with the Brookings Institution, who have used data from the U.S. Bureau of the Census Business Register File to examine the spatial distribution of employment by place of work in metropolitan areas for various years. Employment data are compiled by zip code, and the shares of jobs located within 3 miles of the central business district, 3 to 10 miles from the CBD, and 10 to 35 miles from the CBD are noted. The most recent study is Kneebone (2013); her data for the 17 major metropolitan areas on the Northeast for 2000 and 2010 are

displayed in Table 10. A major finding is that the share of jobs located beyond 10 miles from the CBD increased in 14 of the 17 metro areas, including Detroit. However, Kneebone (2013) shows that most of this shift took place between 2000 and 2007. The share of jobs located beyond 10 miles from the Detroit CBD stood at 77.4% in 2010, up from 76.1% in 2000. By this measure employment in the Detroit metro area is the most decentralized among these metro areas (indeed, among all 100 metro areas in the study). However, the increase in decentralization from 2000 to 2010 is relatively minor. By far the more important finding for purposes of this study is the change in total employment recorded by the Census in this source. The change in employment within 35 miles of the Detroit CBD from 2000 to 2010 of 1.856 million to 1.381 million is a decline of 25.6%. This decline is the largest among the 17 metro areas, and is rivaled only by the 20.1% decline in the Cleveland metro area. The mean change in employment in Table 9 for the 17 metro areas from 2000 to 2010 is -6.5%. The decline in employment located within 10 miles of the Detroit CBD was from 444,000 to 312,000 – a drop of 29.7%. If total employment had remained at its 2000 level, employment within 10 miles of the CBD in 2010 would have been 419,000 (or if the proportion of jobs located within 10 miles of the CBD had remained at its 2000 figure, employment within 10 miles of the CBD would have been 330,000). In other words, 81.1% of the decline of employment within 10 miles of the CBD was a result of the decline in total employment.

Real estate markets in the city of Detroit collapsed. The Case-Shiller Home Price Index shows that metro Detroit did not really participate in the housing market bubble that took place from 2000 to 2006. Housing prices increased by 27.0% in metro Detroit and 126.3% in the ten-city index from 2000 to 2006. From these high points housing prices dropped by 46.7% in metro Detroit (as of 2011) and 34.6% in the ten-city index (as of 2012). In short, metro Detroit did not experience a housing market bubble, but the decline in housing prices starting in 2006 was greater than that recorded in the ten-city index. Data on single-family housing prices for the city of Detroit are provided by Zillow. The median selling price was \$73,000 in 2004, and it increased to \$82,000 in 2007. The median price was \$73,000 in 2008, but the market collapsed to \$24,000 in 2009. The low point of \$16,000 was reached in May of 2011, and the current median price in 2013 is \$27,000. LoopNet reports that the asking price for multifamily property (per unit) in the city of Detroit fell from \$30,000 in 2007 to \$10,000 in 2011 (current asking price is \$12,000 as of mid-2013).

Commercial real estate markets display a mixed picture. The office market has experienced high vacancy rates, declining asking rents, and very slow recovery while the metro industrial market has recovered from the high vacancy rates of 2010 (albeit with low asking rents). Data on these markets are provided by Newmark Grubb Knight Frank (2013). The office vacancy rate was in the 21%-22% range from 2003 to 2007, and then increased steadily to 27.5% in 2011. While the increase in the vacancy rate was about 5.5%, a vacancy rate of 27.5% is at the depression level. The highest national office vacancy rate was 16.5% in 2010. As of the second quarter of 2013 the metro Detroit vacancy rate of 25.7% is the highest among the 53 office markets that are tracked by Newmark Grubb Knight Frank – higher even than Las Vegas (25.1%) and Phoenix (24.0%). The national vacancy rate as of 2Q 2013 is 15.2%. Asking rents in metro Detroit fell from \$20.50 per square foot per year to \$18.25 in 2011. Furthermore, it is well known that asking rents do not fluctuate as much as effective rents that take into

account the various incentives offered to tenants. The office vacancy rate in the Detroit CBD began the decade at 20.0% in 2001, but it jumped to 30.0% in 2003. This vacancy rate remained in the range of 28% to 31% from 2003 to 2010, and then increased to 34.0% in 2011. The vacancy rate has since declined to 27.1% as of 2Q 2013. LoopNet reports that office property asking prices in the city fell from \$65 per square foot in 2007 to \$35.00 in 2012. However, it is worth noting that the CBD office market is a relatively small 13.3 million square feet while the suburban market consists of 58.2 million square feet. The vacancy rate in the metro Detroit industrial market was 10.5% in 2005 and 14.0% in 2007. From this point it increased to 16.5% in 2010, but it has returned to 10.6% as of 2Q 2013. Asking rents fell from \$5.00 per square foot per year in 2003 to \$4.00 in 2011. Median asking rents have increased only marginally to \$4.25 in 2013, which may account for the sizable drop in the vacancy rate. However, the vacancy rate in the city of Detroit is 24.5% as of 2Q 2013 (with median asking rent of \$2.78). The industrial market in metro Detroit is one of the largest in the nation with 366 million square feet (44.6 msf in the city of Detroit), which ranks tenth out of 51 markets followed by Newmark Grubb Knight Frank. Metro Chicago has the largest industrial market with 1.06 trillion square feet.

Other economic and social indicators show that conditions in the city of Detroit worsened during the 2000-2010 decade. The murder rate increased from 41 to 43 per 100,000 population. The poverty rate increased from 26.1% in 2000 to 36.2% in 2010, and median family income fell in nominal terms by 28.9% from \$43,592 in 1999 to \$31,017 in 2009 (after the increase in the 1990s noted above). Kneebone, Nadeau, and Berube (2011) found that the number of people living in high-poverty census tracts increased by 172,000 to 265,000 from 2000 to 2005-2009 (based on the American Community Survey). The percentage of single-parent families with children increased from 63.1% to 70.8%. One positive indicator is a continued decline in the percentage of adults who had not graduated from high school – from 30% to 23%. However, only 12% of adults in the central city had graduated from college as of 2010. Several econometric studies show that the percentage of adults with college degrees is the one variable that most consistently is related to economic growth for an urban area. The national average is 26%.

The dire condition of city services in Detroit has been described in graphic journalistic detail by LeDuff (2013). He visited the scene of an arson fire and saw that the firemen were equipped with (2013, p. 48) "... melted helmets, boots with holes, and coats covered with thick layers of carbon that made them the equivalent of walking matchsticks." Also (2013, p. 52), "Even the alarm in the firehouse was broken. And since no one from headquarters had bothered to come out to fix it, one of the boys here jerry-rigged it into some Rube Goldberg mousetrap contraption. When a call comes to the station, a fax paper rolls out of the printer containing the directions to the fire. So someone had it rigged where the fax paper pushed over a door hinge with a screw mounted on it. The screw touched an electrified metal plate that was wired to the alarm, which completed the electrical circuit. The bell rang."

This section shows that the city of Detroit suffered larger losses of population and jobs than the other major central cities of the Northeast during the 2000-2010 decade, and some of the results of these losses were a jump in the poverty rate, a drastic decline in median family income, an increase in the murder rate, and an increase in the percentage

of single-parent families to an astonishing 71%. And surely all of these negative effects reinforce each other – Myrdal’s (1944) vicious circle.

Table 7
Employment by Place of Residence:
City of Detroit (1000s)

Industry	2000	2007-2011
Total	331.4	224.8
Construction	12.2	7.8
Manufacturing	62.2	27.9
Wholesale Trade	7.7	3.8
Retail Trade	31.6	22.8
Transp., Warehousing, Utilities	22.2	13.7
Information	9.5	4.8
FIRE	19.1	11.6
Prof., Sci., Mgmt., Admin. Waste Mgmt. Services	29.7	21.9
Education, Health Care, Social Assistance	69.3	58.7
Arts, Entertainment, Recreation, Accommodation, Food Services	28.8	26.9
Other Services (excl. public admin.)	18.3	11.1
Public Administration	20.2	13.4

Sources: Census of Population (2000) and American Community Survey (2011).

Table 8
Employment by Place of Work (1000s)

Year	MSA Total	MSA Manuf.	MSA Transp. Equip.	Wayne County Total	Wayne County Manuf.	Wayne County Transp. Equip.
1990	1911	356	153	894	154	66
1991	1871	344	150	863	150	67
1992	1883	344	153	852	144	66
1993	1912	347	153	852	143	65
1994	1985	368	161	867	149	69
1995	2033	376	161	876	149	68
1996	2080	373	160	886	148	68
1997	2106	372	160	886	145	67
1998	2139	377	167	892	146	68
1999	2147	382	175	889	145	70
2000	2203	391	180	911	150	71
2001	2137	359	166	886	139	64
2002	2088	332	162	853	125	63
2003	2064	312	152	837	116	60
2004	2045	298	143	826	113	60
2005	2044	287	135	818	107	56
2006	2000	270	124	801	101	52
2007	1962	256	116	781	94	46
2008	1899	233	100	757	84	38
2009	1742	182	75	698	67	29
2010	1736	186	76	693	69	31
2011	1786	205	85	705	74	35
2012	1827	219	92	716	79	38

Source: Bureau of Labor Statistics.

Table 9
Employment by Place of Work:
Selected Metro Areas
(1000s)

Metro Area	1990	2000	2007	2010	2012
Buffalo					
Total	548	559	548	538	547
Manuf.	93	83	60	50	51
Chicago					
Total	3479	3910	3873	3607	3709
Manuf.	570	515	384	316	322
Cleveland					
Total	1028	1136	1072	991	1017
Manuf.	212	196	143	116	123
Milwaukee					
Total	757	870	860	809	821
Manuf.	161	165	133	113	120
Pittsburgh					
Total	1040	1147	1146	1125	1145
Manuf.	131	130	100	87	90
St. Louis					
Total	1188	1338	1358	1287	1299
Manuf.	206	173	135	107	110
Detroit					
Total	1911	2203	1962	1736	1827
Manuf.	356	391	256	186	219

Source: Bureau of Labor Statistics.

Table 10
Spatial Patterns of Employment by Place of Work in
Northeastern Metro Areas

Metro Area	Empl. 2000 (1000s)	Share w/in 3 mi.	Share 3-10 mi.	Share 10-35 mi.	Empl. 2010 (1000s)	Share w/in 3 mi.	Share 3-10 mi.	Share 10-35 mi.
Baltimore	1017	19.3	35.3	45.5	1046 +2.9%	17.5	32.3	50.2
Boston	2173	28.3	24.0	47.7	2042 -6.0%	29.2	23.6	47.2
Buffalo	476	21.6	50.1	28.3	456 -4.2%	18.1	51.3	30.6
Chicago	3803	18.5	13.8	67.7	3374 -11.3%	19.5	13.1	67.4
Cincinnati	934	19.7	30.8	49.5	858 -8.1%	17.7	29.5	52.8
Cleveland	1041	17.5	39.6	43.0	832 -20.1%	15.4	38.1	46.5
Columbus	790	23.7	45.9	30.4	741 -6.2%	21.2	43.4	35.4
Detroit	1856	7.3	16.6	76.1	1381 -25.6%	7.3	15.3	77.4
Indianapolis	771	22.3	44.5	33.1	732 -5.1%	19.5	40.5	40.1
Kansas City	878	20.5	31.5	48.0	831 -5.4%	16.9	29.9	53.3
Milwaukee	784	22.6	42.0	35.4	731 -6.8%	24.1	38.1	37.8
Minn. – St. P.	1593	26.1	44.5	29.4	1531 -3.9%	25.1	41.5	33.4
New York	6767	31.5	21.4	47.0	6438 -4.9%	30.9	23.0	46.1
Philadelphia	2441	16.7	21.8	61.5	2310 -5.4%	15.2	20.8	64.0
Pittsburgh	1005	26.2	29.7	44.1	982 -2.3%	25.2	29.5	45.2
St. Louis	1149	14.9	27.5	57.6	1083 -5.7%	13.2	25.6	61.2
Washington	2001	21.7	32.7	45.5	2166 +8.2%	21.8	31.0	47.1

Source: Kneebone (2013).

Conclusion

This paper has reviewed the fiscal and economic history of the city of Detroit, and finds that the filing for bankruptcy by the City took place at the end of a particularly disastrous decade for the city in terms of its own history and in comparison to other major central cities in the Northeast. Yes, Detroit had been in decline for decades (although the decade of the 1990s provided some reason for hope), but prior to the current period the City had found the ways and means to avoid bankruptcy. Withdrawal of support for the City by the federal government and the State of Michigan is implicated, but so are declining incomes and tax revenues in nominal terms.

McDonald (2008) claimed that the vicious circle was at work during the years of urban crisis approximately from 1970 to 1990 – but Detroit was not unique in this regard. Yes, the urban crisis was very bad in Detroit, but the City found ways to avoid bankruptcy. The advent of casinos and the wagering tax in 1996 helped for several years, but this source of tax revenue stopped growing. In the most recent decade the City ran out of fiscal ammunition because the economic situation had become much worse. Other writers more interested in local politics place blame on local officials. For example, Malanga (2013), a senior fellow at the conservative Manhattan Institute, points the finger at Mayor Coleman Young. In his opinion (2013, p. A13),

“The truth is that Detroit was a failed city long before it became insolvent, thanks to the virtual collapse of its municipal government during Young’s 1974-1994 reign as major.”

Malanga asserts that Young governed divisively and therefore exacerbated the flight of whites to the suburbs and relied on federal aid that subsequently largely has been withdrawn. Young was followed in the mayor’s chair for two terms by State Supreme Court Justice Dennis Archer, and then by Kwame Kilpatrick. Mayor Kilpatrick was elected in 2001 and served until he was indicted for obstruction of justice in 2008. He was convicted on 24 federal counts that include mail fraud and racketeering. David Bing, the former NBA star, succeeded Kilpatrick in 2009 and found a city government near bankruptcy. Malanga allows that:

“While Young was not directly responsible for the public pension obligations that led to the city’s bankruptcy, his poor governance and hostility toward the middle class drove the tax base away.”

If that is true, Mayor Young was governing in a manner that is distinctive. I have felt that effective central city mayors wake up in the morning and ask themselves, “What can I do today that will hold the middle class in the city? And what can we do that will attract more middle class residents?” For example, for all of their faults, I think that both of the mayors of Chicago named Daley asked themselves these questions virtually every day. However, I shall eschew assigning primary blame to individual officials.

The recent book *Driving Detroit* by Galster (2012) takes a long-run view of Detroit’s problems and suggests that its history is marked by three “drivers:”

- Economy dominated by the auto industry, with its volatility, insecurities, and history of labor-capital conflict,

- Fragmented political structure that encourages housing construction on the urban fringe, which leads to decline and abandonment in the central city, and
- Two competing tensions – labor and capital and racial (white and black) that lead to a “them versus us” mentality.

In short, the racial divisions and central city decline are a tragic outcome of motivations that made sense at the individual level, but were dysfunctional for the whole. Galster (2012, pp. 290-291) argues that Detroit is the extreme version of urban problems compared to other northern urban areas because of:

- The heavy concentration in the auto industry and its “pernicious idiosyncracies,”
- Importation of vast numbers of black and white southerners (and their racial attitudes) to work in industry,
- The fragmented political structure that permits whites to escape the problems on the central city, with the resulting dominance by blacks of the central city.

The situation in Detroit is not without hope. The three major American auto companies have survived and are making profits, and Tables 7 and 8 show that employment, both in manufacturing and in total, have increased between 2010 and 2012. Emergency Manager Orr (2013) recognizes that a bail-out of the City is not coming from the State or the federal government, and is devising a plan to improve city services as part of the bankruptcy process. Furthermore, a new book by Katz and Bradley (2013, pp. 131-141) on innovative economic development policies and projects in urban areas finds “...an innovation district in the unlikeliest of places.” That unlikely place is downtown Detroit. The leader in this transformation is Dan Gilbert, the founder of Quicken Loans (and owner of the Cleveland Cavaliers of the NBA). He brought some 7,000 employees to downtown Detroit and purchased at least 15 buildings in the area. While his efforts followed the efforts of other groups such as the Kresge Foundation, Invest Detroit, the Detroit Downtown Partnership, and the Detroit Economic Growth Corporation, Gilbert seems to have induced others such as Blue Cross Blue Shield of Michigan, Compuware, and DTE Energy to follow. Also, several tech start-ups have emerged. All of this can be built around the four major downtown anchors – Henry Ford Hospital, Detroit Medical Center, Wayne State University, and the College for Creative Studies (meds and eds). As Katz and Bradley (2013) note, this sort of combination of meds, eds, finance, and tech has been successful in several other cities. Is a major transformation of Detroit underway that will save the city?

References

- Bernstein, J. (2013) What went wrong in Detroit, and the road ahead, *Economix*, July 19, 2013, online document accessed August 2013.
- Centers for Disease Control (1997) Urban community intervention to prevent Halloween arson – Detroit, Michigan, 1985-1996. Online CDC report accessed August 2013.
- Citizens Research Council of Michigan (1991) Fiscal trends in the City of Detroit, CRCM, Detroit, MI, online document accessed August 2013.
- Citizens Research Council of Michigan (1996) Detroit: At the fiscal crossroads,

- CRCM, Detroit, MI, online document accessed August 2013.
- Citizens Research Council of Michigan (2010) The fiscal condition of the City of Detroit, CRCM, Detroit, MI, online document accessed August 2013.
- Collins, W. and Margo, R. (2004) The labor market effects of the 1960s riots, Working Paper, Dept. of Economics, Vanderbilt University.
- Collins, W. and Margo, R. (2005) The economic aftermath of the 1960s riots in American cities: Evidence from property markets, Working Paper, Dept. of Economics, Vanderbilt University.
- Galster, G. (2012) *Driving Detroit: The Quest for Respect in the Motor City*. Philadelphia: University of Pennsylvania Press.
- Jargowsky, P. (1997) *Poverty and Place: Ghettos, Barrios, and the American City*. New York: Russell Sage Foundation.
- Katz, B. and Bradley, J. (2013) *The Metropolitan Revolution*. Washington DC: The Brookings Institution.
- Kneebone, E., Nadeau, C, and Berube, A. (2011) The re-emergence of concentrated poverty: Metropolitan trends in the 2000s, Washington DC: The Brookings Institution.
- Kneebone, E. (2013) Job sprawl stalls: The great recession and metropolitan employment location, Washington, DC: The Brookings Institution.
- LeDuff, C. (2013) *Detroit: An American Autopsy*. New York: Penguin Press.
- Malanga, S. (2013) The real reason the once great city of Detroit came to ruin, *Wall Street Journal*, July 27-28, p. A13.
- McDonald, J. F. (1984) *Employment Location and Industrial Land Use in Metropolitan Chicago*. Champaign, IL: Stipes Publishing Co.
- McDonald, J. F. (2008) *Urban America: Growth, Crisis and Rebirth*. Armonk, NY: ME Sharpe.
- Mieszkowski, P. (1987) Urban economics, in *The New Palgrave: Social Economics*. J. Eatwell, M. Milgate, and P. Newman, eds. London: Norton, pp. 253-268.
- Myrdal, G. (1944) *An American Dilemma: The Negro Problem and Modern Democracy*. New York: Harper & Row.
- Newmark Grubb Knight Frank (2013) Market Trends Reports, accessed from World Wide Web, September 27, 2013.
- Norton, R. D. (1979) *City Life-Cycles and American Urban Policy*. New York: Academic Press.
- Orr, K. D. (2013) Financial operating plan, Office of the Emergency Manager, City of Detroit, online document accessed August 2013.
- Southeast Michigan Council of Governments (2002) Historical population and employment by minor civil division, southeast Michigan, SEMCOG.
- Spilerman, S. (1970) The causes of racial disturbances: A comparison of alternative explanations, *American Sociological Review*, 35, 627-649.
- State of Michigan, Department of Treasury (2012) Report of the Detroit Financial Review Team, Lansing, MI: Dept. of Treasury.
- Sugrue, T. (1996) *The Origins of the Urban Crisis: Race and Inequality in Postwar Detroit*. Princeton, NJ: Princeton University Press.