

LIGHT RAIL TRANSIT IN A SHRINKING CITY: DEFINING SUCCESS FOR
DETROIT'S WOODWARD AVENUE LIGHT RAIL

By

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To Ashley

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LIST OF ABBREVIATIONS

BART	Bay Area Rapid Transit
CBD	Central Business District
DARTA	Detroit Area Regional Transportation Authority
DDOT	Detroit Department of Transportation
DEGC	Detroit Economic Growth Corporation
DTOGS	Detroit Transit Options for Growth
FEIS	Final Environmental Impact Statement
FHA	Federal Housing Administration
FTA	Federal Transit Administration
MDOT	Michigan Department of Transportation
MSA	Metropolitan Statistical Area
SMART	Southeast Michigan Area Rapid Transit
TAZ	Transit Analysis Zone
TIGER	Transportation Investment Generating Economic Recovery
TOD	Transit Oriented Development

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Detroit, Michigan is the largest city by population in the United States without rapid transit. A combined public and private initiative has progressed through the FTA New Starts process and appears poised to bring a 9.3-mile light rail line to Woodward Avenue, Detroit's main street, within the five years. Evaluating the context within which this investment is set to occur – amid 60 years of dramatic population decline, extreme levels of racial and economic segregation, local government fragmentation, and municipal budget battles – shows that the project faces significant implementation hurdles. The report also seeks to establish criteria for measuring the success of the project, following implementation, given the wide array of metrics used to evaluate transit investments in other cities in the past. These metrics include meeting budget and ridership projections, creating transit system integration, and positively impacting the efficiency of service provision within Detroit, including but not limited to transit services. Maximizing the utility of the transit investment will positively impact the ability of Detroit to respond to its context of continued population shrinkage and make future rapid transit expansions in Detroit more politically tenable.

CHAPTER 1 INTRODUCTION

Stories about the rebirth of Detroit have been written with nearly the same frequency as its obituary. Two decades ago, the ABC News magazine *Primetime Live* (1990) ran a sensational special report entitled “Detroit’s Agony.” Anchor Diane Sawyer stated:

Our first story is not a story about a city. It is a story about some Americans who may be sending a kind warning to the rest of us. A warning about what can happen when bitter polarization takes over the place where you live. In this community, the rich are divided from the poor, the races divided from each other, and it’s all compounded by violence and drugs. We are talking about Detroit. Once a symbol of U.S. competitive vitality. And some say still a symbol, a symbol of the future: the first urban domino to fall.

The story that followed was full of imagery that still exemplifies Detroit: abandoned buildings, abundant crime, and the roaring fires of Devil’s Night¹.

Although all of these challenges remain, there have been highly visible signs of change in the city over the intervening two decades. With new stadiums and casinos, investment has come downtown, drawing money from the suburbs and beyond, while also providing dramatic images of revitalization. Businesses have followed, including high-profile firms including Compuware®, Quicken Loans®, and Ernst & Young. New hotels have opened, most notably the restoration of the historic Book Cadillac Hotel by the Westin® chain. At the same time, the population of the city has fallen to new lows, unemployment continues to exceed national and state averages, and extreme racial segregation continues. Many of the troubles *Primetime Live* highlighted in 1990 existed in 1970 and 1950 — and continue to haunt the city today.

¹ Devil’s night is October 30th, the night before Halloween. Hundreds of arsons would typically occur each year. This activity peaked in the early 1980s but continues to this day.

The City of Detroit and the downtown development community have most recently committed their energies — and in the case of development interests, substantial private funding — toward the introduction of light rail transit on Woodward Avenue, Detroit’s main street. This 9.3-mile light rail project would be the first surface rapid transit in Detroit since 1956, sending a powerful message that Detroit is more than just the “Motor City.”

Nevertheless, the context in which Detroit pursues this major infrastructure investment is one of extreme, long-term decline. The 2010 U.S. Census shows the population losses have not stabilized. In fact, the 25% decline in population since 2000 was the largest percentage drop in population since the population peaked in the 1950 census. The 713,777 residents counted in 2010 reside in a city known as well for its violent crime (second-highest per capita violent crime rate among large cities in 2010) as its automobile industry. The city struggles to provide basic services to its residents — from snow and trash removal to education and public safety. As such, the additional (and costly) infrastructure system could bear a potential burden without proper planning and thoughtful implementation.

Detroit may be the exemplar of urban decline, but it is not alone. Cities throughout the country have experienced booms and busts, attempting to regain their prominence, or at least stem the decline, with mixed success. New York City was once on the brink of bankruptcy, while the river in Cleveland famously caught fire. New York has reinvented itself by focusing on a FIRE (finance, insurance, and real estate) based economy, while Cleveland has continued to decline while pursuing many entertainment-based strategies (creating a waterfront district including the Rock and Roll Hall of

Fame). Detroit has more often than not followed the Cleveland strategy, using big and expensive projects to make a grand gesture about the future of the city. Over the last sixty years, freeways, stadiums, casinos, and office towers have been pointed to as signs that Detroit was poised for renaissance.

It is unsurprising that politicians would desire such grand gestures as symbols of their administrative success. However, no amount of optimism can — or, indeed, has — stopped, much less slowed, Detroit's decline. Only recently has a Detroit mayor, Dave Bing, indicated tentatively that Detroit cannot continue to provide services at the same level and in the same way that it did at its peak. His Detroit Works Project promises to be the first serious attempt by the city to reconfigure itself in a way that is financially sustainable.

The question investigated here is how — and if — the planned light rail for Woodward Avenue can be viable in a shrinking city. An analysis of literature related to major public investments in the post-World War II decades — which were characterized by the decline of many northern, industrial cities both in terms of regional, national, and global prominence — shows that the Woodward Avenue light rail project is consistent with a traditional, growth oriented response. A review of project planning documents and news articles also supports the growth orientation of the project, despite ample evidence that growth is unlikely. Thus, measuring success by growth is likely to leave the project rated a failure. An alternate evaluation that is indicative of success as a transit mode and supports the capacity of Detroit to provide efficient services to its citizens is proposed.

CHAPTER 2 BACKGROUND

The Decline of Detroit

The riots of 1967 were the most vivid manifestation of the agonizing collapse that has afflicted Detroit. Yet, the mayhem – five days that were the largest of several 1960s urban riots in the U.S. – was not the root cause of Detroit’s collapse. Instead, several serious, underlying conditions fueled not only those five days of rioting, but also nearly 60 years of gradual decline. Among the most important of those conditions were deindustrialization, suburbanization, and segregation. Each of these conditions is interwoven with the others, creating a downward spiral that no single person or strategy has been able to overcome to date. These issues remain important because they continue to impact Detroit and lead the city in pursuit of strategies to stop or overcome them.

Deindustrialization

Automobile manufacturing has long been the lifeblood of the Detroit economy, exemplified by its common nickname, “The Motor City.” This dependence upon the auto industry, however, has not been without its problems. Many casual observers mark the beginning of Detroit’s decline with the 1967 riots, yet Sugrue (1996) identified major changes to the structure of manufacturing that began in the 1950s as the root of the City’s decline.

Sugrue (1996) notes that the following changes to manufacturing negatively affected Detroit:

- Major investments in the Sunbelt states following World War II;
- Technological improvements that allowed for automated manufacturing systems, a technology which dictated horizontally, rather than vertically, oriented factors, most

easily built on suburban and rural sites with the prerequisite abundance of land; and

- The firm grip of unions in Detroit that increased wages and bred conflict with business leaders.

As a result, even as Detroit’s home industry and the big three automakers thrived in the post-war decade the city was rarely the beneficiary of that growth. “Between 1947 and 1958,” Sugrue (1996) found, “the Big Three [General Motors™, Ford™, and Chrysler™] built twenty five new plants in the metropolitan Detroit area, all of them in suburban communities, most more than fifteen miles from the center city” (p. 128).

The cumulative result of these changes was a sharp decline in manufacturing employment in the City of Detroit. The number of firms and the number of employees in manufacturing employment were halved between 1947 and 1977 (Table 2-1). As firms and jobs left the City, so too did many of its residents. As discussed later in this chapter, a variety of strategies have been pursued to slow or reverse these trends to little avail.

Table 2-1. Decline in manufacturing employment in Detroit, 1947-1977

	1947	1954	1958	1963	1967	1972	1977
Manufacturing firms	3272	3453	3363	3370	2947	2398	1954
Total manufacturing employment ^a	338.4	296.5	204.4	200.6	209.7	180.4	153.3
Total production employment ^a	281.5	232.3	145.1	141.4	149.6	125.8	107.5

^a In thousands.

Suburbanization

As industry moved out of the city of Detroit, so did its citizens, particularly white citizens. However, unlike other cities in the U.S., Detroiters were not fleeing due to overcrowding or substandard housing stock. As Sugrue (1996) noted, Detroit was – and remains – a city of primarily single- and two-family homes. By 1926, the city had sprawled to its current 138 square miles of area, although many of these areas did not

develop until following World War II (Figure 2-1). At its peak, Detroit experienced rapid population growth, much of it the result of rural migrants from the South lured by the promise of steady employment in the myriad factories.

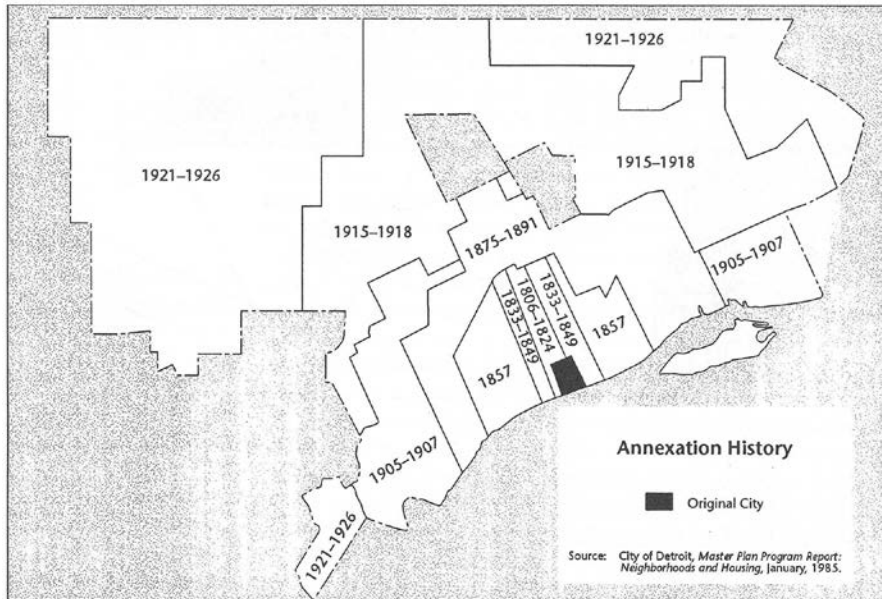


Figure 2-1. Annexation history of Detroit

For those who found employment in those factories (particularly whites), the standard of living in Detroit was among the highest in the nation. Outside the glitzy neighborhoods within the city that were home to industry titans, most of Detroit was a low-density sprawl of simple, brick and aluminum-sided bungalows. These homes were, ironically, almost identical to those found in the simultaneously developing suburban areas of Detroit. Thus, suburbanization in Detroit was less a pursuit of prototypical suburban housing stock, as this stock existed in abundance within the city. Instead, suburbanization occurred both due to the pull of jobs and a desire to flee the City of Detroit, in large part due to the pressures of racial change (Thomas, 1997).

The immensity of the population loss is staggering. According to the 2010 U.S. Census, only 713,777 people resided in the city of Detroit, which is less than one-fifth

the total population of the Detroit Metropolitan Statistical Area (MSA). Detroit's population has declined by more than 60% since 1950 (Table 2-2) while the city's spatial area has remained unchanged. The result is an oversupply of infrastructure and extremely low property values, which has fueled widespread abandonment.

Table 2-2. Population, land area, and population density of Detroit

	Population	Land area (sq miles)	Land area (acres)	Population density per acre
1920	993,078	77	49,280	20
1950	1,849,568	139	88,960	21
1970	1,511,482	138	88,320	17
1990	1,027,974	138	88,320	12
2010	713,777	138	88,320	8

Adapted from Gibson, 1998.

Segregation

Suburbanization of both housing and jobs in Detroit has been accelerated by racial issues that have been an issue in the Detroit area for decades. The Great Migration of African Americans from the South to the industrialized North during the early decades of the twentieth century was accompanied by a similarly large influx of poor Southern whites. These migrants were pulled to Detroit by the promise of high wages within its factories. From the start, however, this migration fueled intense conflict.

The conflict was born out of competition for jobs, housing, and status. This competition created coalitions based around religion, ethnicity, and – as the black population grew – race. In the job market, black Detroiters encountered persistent discrimination and instability, creating an underclass of poor, uneducated, and unemployed blacks. In addition, housing options for blacks were severely limited; housing available to blacks was typically older and substandard, and the supply was substantially insufficient, creating overcrowding and worsening already poor conditions.

This situation was self-perpetuating, as the poor conditions furthered stereotypes about blacks among whites, which in turn produced greater interest in preserving the homogeneity of white neighborhoods. Homeowners associations, deed covenants, steering by realtors, and Federal Housing Administration (FHA) loan practices all perpetuated the divide of whites and blacks in Detroit.

As witnessed in 1943 and again in 1967, these tensions boiled over into full-fledged mayhem. The resulting violence – particularly the five-day 1967 event that was ended after intervention by the National Guard – furthered the detachment of whites from the city of Detroit and the ongoing conflict between Detroit and its predominantly white suburbs. Clemens (2006) wrote in his memoir of growing up white in the increasingly black Detroit that, “from the first moment of the riots, many white Detroiters ceased, in their hearts, to be Detroiters” (p. 33). As neighborhoods that were at one time “defended” from “invasion” by black residents began to integrate, they quickly became all black to the point that once predominantly white Detroit is today more than 80% black. In turn, “fleeing whites...found protection behind the visible and governmentally defended municipal boundaries of suburbia. The metropolitan area of Detroit continued to grow while the city lost residents, businesses, and tax revenues. By 1980, metropolitan Detroit had eighty-six municipalities, forty-five townships, and eighty-nine school districts” (Sugrue, 1996, p. 266). The State of Michigan’s strong home rule tradition prevented the City from annexing suburban areas and further reinforced the city-suburb divide (Thomas, 1997). This fragmentation has complicated efforts to not only stabilize Detroit but also to forge regional cooperation on other matters.

The city that remained in the wake of this exodus was increasingly poor and unable to maintain its infrastructure or fund even basic services. The remaining black population quickly assumed power within the city, a point of pride after decades of marginalization and disenfranchisement. Riding this wave of black power was Coleman A. Young, a controversial and notoriously foul-mouthed politician who became Detroit's first black mayor in 1973, serving until 1993. Young famously stirred up this city-suburb, black-white divide in his initial inaugural address when he stated, "I issue a warning to all those pushers, to all rip-off artists, to all muggers: It's time to leave Detroit; hit Eight Mile Road" (McGraw, 2005). Eight Mile Road forms Detroit's northern boundary and is a literal and figurative dividing line between black Detroit and its white suburbs.

The net result of this ongoing racial conflict is a city and metropolitan area that are deeply segregated. The U.S. Census analyzed five indices of segregation – dissimilarity, isolation, delta, absolute centralization, and spatial proximity – and found that Detroit had the highest dissimilarity of the nation's 43 largest metropolitan areas and the second highest overall segregation when considering all five indices (2005). Racial and economic dissimilarity indexes that measure the degree of integration versus segregation on a scale of 0 to 100 also show that Detroit is among the most segregated in the nation. The result is divergent economic opportunities for blacks and whites, with black increasingly on the losing end. With relatively few whites remaining in Detroit, a more prevalent demographic issue facing the city today is the movement of middle and upper class blacks from the city. It is in this context of continued decline that the city has struggled to develop solutions. In too many cases, the pursuit of cures to the

issues facing Detroit has resulted in the embracing of quick – but nonetheless very expensive – fixes.

Urban Renewal Strategies

Mega-project based revitalization strategies have dominated revitalization efforts in Detroit for decades. Like cities throughout the nation, Detroit desperately sought to maintain its relevance in an increasingly suburban America and an increasingly global world. Urban renewal, infrastructure investment, and other large-scale projects were each heralded as indications of the rebirth of the city. Yet, these projects rarely produced the projected benefits and, in most cases, have exacted negative, unintended consequences. Detroit cleared “blighted” areas to build modernistic, high-rise housing projects, expand medical facilities, and provide room for industrial expansion (Darden, Hall, Thomas, & Thomas, 1990).

As the Motor City, it should come as no surprise that the development of roads – particularly interstates – was one of the first and largest components of Detroit’s post-war urban renewal strategy. Jackson (1985) wrote “the private car was initially regarded as the very salvation of the city” (p. 163-164). It was therefore with great vigor that cities, most especially Detroit, undertook the task of improving the built environment to facilitate travel by automobile. Detroit holds title to many such firsts in the nation: first mile of concrete highway (1909), first four-way red/yellow/green traffic light (1918), first “super highway” (1923), and first depressed urban expressway (1942) (Michigan Department of Transportation, n.d.). The first two were achieved on Woodward Avenue.

Metropolitan Detroit now contains thirteen individually designated expressways, seven of which are at least partially routed through the city. Expressways were initially

viewed as essential to the health of the city. In time, however, the numerous negative affects for the city became clear. Expressways cut through urban neighborhoods, typically those of poor and black citizens (Thomas, 1997). This further reduced the affordable housing supply in the city and devastated many of black Detroit's most important business, cultural, and social institutions. Neighborhoods in proximity to the new thoroughfares tended to decline quickly; "The FHA made it a policy not to make loans in areas where highways were to be built, or within three hundred feet of expressway rights-of-way. Hence, the construction of the Lodge [M-10, which parallels Woodward Avenue] further depressed housing values in the area" (Sugrue, 1996, p. 353).

The expressways also facilitated suburban-to-downtown commuting by car. Eventually, this was succeeded by suburb-to-suburb commuting via highways such as Interstate 696 and Interstate 275 that connected areas around Detroit. This further encouraged low-density, auto-centric development patterns; today, metropolitan Detroit is more than 2,000 square miles in size (Visit Detroit, 2010). Ultimately, this development pattern created a reliance on the automobile for mobility, reduced the viability of transit, reduced the prominence of downtown Detroit as a regional center, and encouraged the conversion of large, old, expensive-to-maintain, and increasingly underutilized downtown buildings into parking facilities (Figure 2-2). This pattern continues today. The Michigan Department of Transportation is currently pursuing the reconstruction of I-94 through the eastern part of the Detroit; the reconstruction will increase the number of lanes from 3 to 4 in each direction (Michigan DOT, 2010).



1927



Present

Figure 2-2. The interior of the Michigan Theater in Detroit. 1927 (left) and 2005 (right).

Detroit's leaders saw – and continue to see - roads and freeways as engines of economic development. In reality, though, Detroit's central business district (CBD) began to decline quickly following World War II in spite of – and in part because of — the new mobility and accessibility these new thoroughfares created. As a result, the business community began to seek a project that would send a strong signal about the preeminence of Detroit's CBD. The result was the Renaissance Center (Figure 2-3).

The purpose of the Renaissance Center is a component of its name. Proponents – major business interests that included Henry Ford II – saw the Renaissance Center as the key to reversing Detroit's fortunes. According to the Detroit News, the project was born out of the dreams of “business, industrial, and civic leaders dedicated to



Figure 2-3. Renaissance Center

stimulating an economic boom in Detroit” (2001). One of the largest private urban redevelopments of its era, the Renaissance Center was first conceived in 1970 and opened in 1976. As a collection of glass towers, the Renaissance Center is Detroit’s tallest building and one of its most distinctive landmarks.

Unfortunately, the Renaissance Center is a creature of its time in history. Like the freeways, the Renaissance Center was built around the automobile, and its impact on

the CBD was negative in many respects. Primary among the failures is the relationship – or lack thereof – of the complex to the City around it. At street level, the complex's tall granite fortifications left the surrounding streets devoid of both bodies and eyes, important elements of a successful urban place (a problem only somewhat remedied by major renovations made when General Motors purchased the Renaissance Center in 1996). That problem is further compounded by the center's city-within-a-city style, which by design seeks to provide tenants and visitors with everything they could need within its heated and cooled atriums. Instead of bustling streets, the Renaissance Center was surrounded by wide boulevards and acres of surface parking lots.

Second, the sheer immensity of the Renaissance Center – more than 5 million total square feet of office, retail, and hotel space – exacerbated oversupply issues in an already declining downtown real estate market. In 2009, the central business district had 48 empty buildings higher than five stories and/or with more than 10,000 square feet and an office vacancy rate of 27.8% (Oosting, 2009). The Renaissance Center itself has struggled to maintain tenants throughout its history, a problem only partially resolved when General Motors consolidated operations in the complex after purchasing the building in 1996.

While private companies spent over \$300 million constructing the Renaissance Center in the 1970s, the public contributed hundreds of millions of dollars to the construction of new stadiums in downtown Detroit during the 1990s and 2000s. Like earlier redevelopment projects, a small cadre of powerful business and government figures pushed these investments forward as a tool for economic growth. Bachelor (1998) noted that stadium investments were largely seen as a means of “enhancement

of the image of a city and the reputation of its mayor” along with other “intangible” benefits (p. 89). While stadiums offer the promise of increased tourism and spending by out-of-towners (including suburbanites), they are not major job creators, and the jobs they do create are imperfect substitutes for the manufacturing jobs they must replace (Rappaport & Wilkerson, 2001; Baade, 1996; Eisinger, 2000).

In 2000, Comerica™ Park – the new home of baseball’s Detroit Tigers™ – opened on the edge of downtown. It was followed by its neighbor and new home for football’s Detroit Lions™ – Ford Field – in 2002. At the time of its opening, Mayor Dennis Archer commented that “Comerica Park will help restore the excitement of urban living that has been missing far too long from downtown Detroit” (Christian, 2000). Despite the fact that Detroit’s decline has continued in the decade since their opening, rumors continue to abound about additional stadium development downtown. One rumored stadium would replace downtown’s existing Joe Louis Arena as the home of hockey’s Detroit Red Wings™ and possibly also host basketball’s Detroit Pistons™, who currently play in suburban Auburn Hills. As in the past, city leaders – including current Mayor Dave Bing, himself a former Detroit Pistons player – enthusiastically embrace the idea. “The news is early, but promising,” Karen Dumas, chief communications officer for Detroit Mayor Dave Bing, told the *Detroit Free Press*. “The City of Detroit is excited about the opportunity of welcoming the Pistons back home” (Gallagher, 2010). This is despite little evidence to show that the cost of new stadiums is justified by the realized benefits.

Like the stadiums, casinos came to fruition in Detroit after years of advocacy by many powerful people – including Mayor Young – who felt that casinos would bring much needed jobs and tax revenue to a city lacking both. In the 1990s and 2000s,

three casinos opened – first in temporary facilities and then permanent locations scattered throughout the downtown region. The casinos are credited with the creation of 8,000 jobs (less than the 11,000 initially projected) and, according to former Mayor Dennis Archer, provided tax revenue that saved Detroit from bankruptcy (Pulley, 1998; Coolidge, 2010). Unfortunately, as with the Renaissance Center and Stadiums, spill over affects have been limited. In particular, the dispersed, highway-adjacent locations of two of the casinos greatly reduce the potential for impact outside casino doors.

Transit in Detroit Today

Although the automobile has dominated Detroit's economy for over a century, it did not always dominate the way that Detroiters traversed the community. In fact, before 1956, Detroit had an abundance of transportation options, including streetcars and commuter rail. Numerous plans have been proposed for new public transportation systems, but only one proposal was actually built: the Detroit People Mover. For nearly fifty years, public transportation in Detroit and its suburbs has been limited and unquestionably substandard.

The city of Detroit and Woodward Avenue in particular, have a long history with public transportation. On Woodward, a horse-drawn rail system began in 1863, which was converted to electric rail in 1892 (Detroit DOT, 2011, p. 4-13). In 1922, when the City of Detroit assumed ownership of the public streetcar lines, it became the largest such municipal system in the country (Transportation Riders United, n.d.). Ridership peaked in 1945 with nearly 500 million streetcar rides that year (Transportation Riders United). Only eleven years later, in 1956, the last streetcars ran along Detroit's streets, replaced by bus transit. This conversion, which occurred throughout the nation, has long been the subject of conspiracy theories, most centered on Detroit's own General

Motors, who supplied many of the buses that replaced fleets of streetcars. This conspiracy is imbedded in the culture, epitomized by its key role in the plot of 1988's feature film *Who Framed Roger Rabbit*. Regardless of the role of General Motors or any conspiracy in the conversion, today, no local surface rail transit exists in Detroit. The only non-bus transit option is the Detroit People Mover, which is an elevated, fixed guideway monorail (Figure 2-4).

The Detroit People Mover opened to the public on 1987. On the day of the People Mover's opening, *The New York Times* remarked that:

The 2.9-mile monorail, once considered a possible savior of the city's dying center, is now being greeted with both the excitement of a child trying out a new toy and the dread of a parent wondering what will go wrong first. (Wilkerson, 1987)

Envisioned as the hub of a regional rapid transit system that never came to be, the Detroit People Mover is a train without a destination; the one-way loop is at most 1 mile in diameter; it is often faster (and cheaper) to walk between the destinations the Detroit People Mover serves. Initially projected to have 55,000 riders per day, officials cut that projection by nearly 70% by opening day in 1987. In 2005, it carried only 6,000 passengers per day, barely 10% of original projections (Wilkerson, 1987; Dutta & Tadi, 2005). It has also suffered from ongoing operation issues, including lengthy closures due to damage from the implosion of the Hudson's Department Store building in 1998 and again in 2011 after bricks fell from adjacent buildings during severe weather.

Metropolitan Detroit continues to lack regional rapid transit, as well as any regional transportation authority. As a byproduct of the region's fragmentation and inherent city-suburb divide, Detroit and its suburbs have two separate transportation systems: Detroit



Figure 2-4. Detroit People Mover

Department of Transportation (DDOT) and Southeast Michigan Area Rapid Transit (SMART). In addition, the Detroit People Mover is operated by a separate public authority, the Detroit Transportation Corporation, which is overseen by the City of Detroit.

Transit advocates have long sought a regional transportation authority to oversee mass transportation throughout metropolitan Detroit. In 2002, an authority interlocal government agreement created the Detroit Area Regional Transportation Authority (DARTA). Ultimately, however, that agreement was suspended by the Michigan Supreme Court in 2006 (Michigan House of Representatives, 2009). A unified regional

transportation authority that includes Detroit and its suburbs has since remained elusive.

Woodward Avenue Light Rail

The City of Detroit is now undertaking the most serious pursuit of fixed-guideway mass transit since the People Mover. Supporters hope that this project will be a step toward the regional rapid transit system that never came to be in the previous century. The proposed alignment is along Woodward Avenue, a roadway steeped in history in the Detroit area and the nation.

Woodward Avenue is the primary surface roadway in the City of Detroit as well as the Detroit Metropolitan Area (Figure 2-5). This has been the case since Judge Augustus Woodward laid out a new radial roadway network for Detroit—inspired by L’Enfant’s plan for Washington, D.C. — following a fire in 1805. The primary street that today bears his name has been home to many notable firsts: the first mile of concrete roadway and the first three-color traffic light among them (Woodward Avenue Action Agency, n.d.).

The road stretches for 27 miles northwest from the Detroit River in downtown Detroit to the City of Pontiac in Oakland County. The cross-section varies throughout the length of the road, but it is a large and heavily trafficked roadway throughout. From its southern terminus at Jefferson Avenue in downtown, the roadway has 6 to 8 divided lanes north to Campus Martius. Between Campus Martius and Grand Circus, the roadway is its narrowest – 4 undivided lanes. From Grand Circus to McNichols (7 Mile) Road, Woodward is primarily a 6 lane roadway with on-street parking and center turn lane. For the remainder of its length, Woodward has 8 to 10 divided lanes with large



Figure 2-5. Woodward Avenue. View northwest in Downtown Detroit

center medians and some on-street parking; near the proposed terminus of the light rail, just south of 8 Mile Road, Woodward Avenue exceeds 170 feet curb-to-curb.

In 2009, average traffic counts ranged from 18,300 in the New Center Area to 61,000 at the extreme northern end near Pontiac in suburban Bloomfield Hills (Michigan Department of Transportation, 2009a). In Detroit, two freeways provide a convenient alternate to Woodward Avenue for both local and through traffic. With 8 total travel lanes each, the John C. Lodge Freeway [M-10], colloquially known as “The Lodge, is to its east, running from downtown to the northwest suburb of Southfield. To the west, the Chrysler Freeway [I-75] continues its route through the City as it runs from Fort Lauderdale, Florida to Sault Ste. Marie, Michigan. Within the city of Detroit, these

freeways carry up to 143,300 and 152,100 average daily trips, respectively (Michigan Department of Transportation, 2009a).

Woodward Avenue light rail was selected as the locally preferred alternative through the Detroit Transit Options for Growth Study (DTOGS), which began in 2006 to coordinate local planning efforts and lay the foundation for receipt of federal funds for additional transit service. Figure 2-6 shows an artist rendering of the future rail line. Other options considered were a no-build scenario, the use of bus rapid transit, or alignment along one of Detroit's other radial avenues, Gratiot or Michigan.





Figure 2-6. Artist rendering of Woodward Avenue light rail

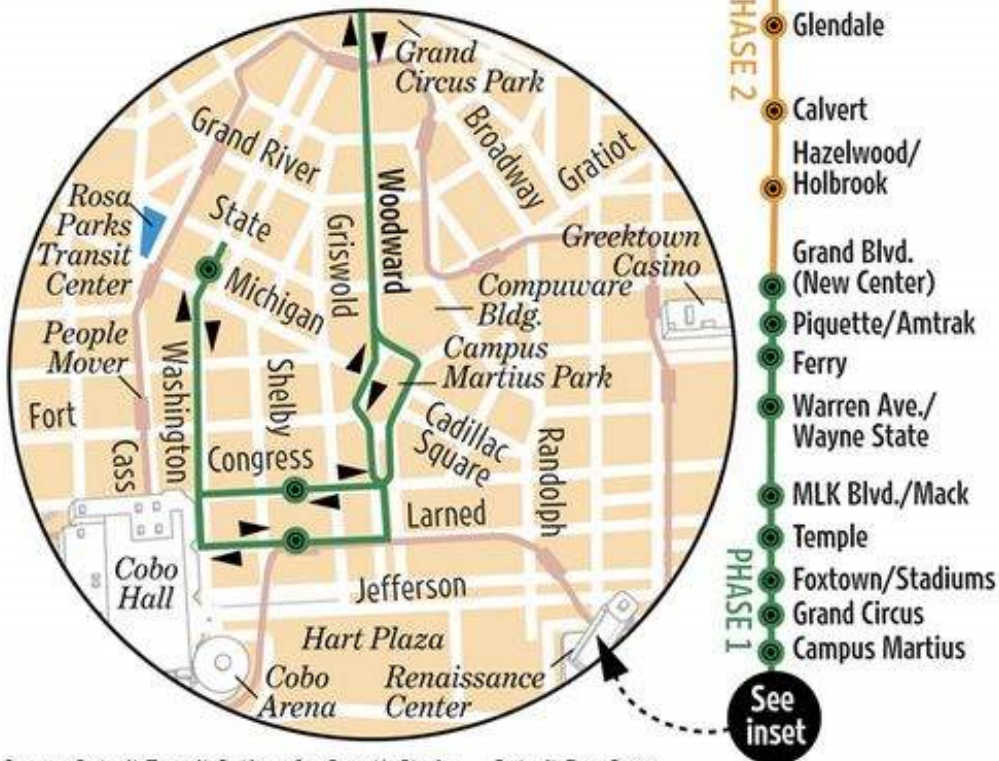
At the same time that the City was completing DTOGS, a coalition of downtown business interests formed “M-1 Rail” to plan a privately-funded light rail streetcar [Woodward Avenue is designated as M-1 as part of the state highway system]. Wayne County's 2008 *Comprehensive Economic Development Strategy* stated that “the current lack of effective mass transit has been identified as a major liability in its economic development efforts (p. 16). Members of the coalition include Dan Gilbert of Quicken Loans; the quasi-public Downtown Development Authority; Henry Ford Health System®;

Mike Ilitch, owner of the Detroit Tigers, Detroit Red Wings, and Little Caesars®; Peter Karmanos, Jr. of the Compuware Corporation; The Kresge Foundation (a private foundation established by the owners of the company that became Kmart); Roger Penske of the Penske Foundation, and Wayne State University. The availability

Woodward Light Rail route

Light-rail trains will run along the center of Woodward from Adams Street downtown to 8 Mile, but along the sides of the avenue downtown. The route will turn west from Woodward to connect with the Rosa Parks Transit Center at Michigan and Cass.

-  Phase one stops
-  Phase two stops



Source: Detroit Transit Options for Growth Study Detroit Free Press

Figure 2-7. Woodward Avenue light rail route

of private funds from M-1 Rail was crucial to secure \$25 million in federal funding through a Transportation Investment Generating Economic Recovery (TIGER) grant.

Since 2009, the project has been unified under the direction of the DDOT. The unified proposal calls for a 9.3 mile light rail line (Figure 2-7) with two phases: the first from downtown to West Grand Boulevard (approximately 3.4 miles), and the second from West Grand Boulevard to the State Fairgrounds just south of 8 Mile Road near Detroit's northern border (U.S. Department of Transportation). The entire project estimated to cost \$450-500 million with \$125 million coming from M-1 Rail contributors and the rest coming from the TIGER grant and a 60% expected contribution from the Federal Transportation Administration's New Starts Program. Table 2-3 provides a complete breakdown of the expected sources of construction and operations funding for the project. Construction of the first phase could begin as soon as late 2011, with the entire line complete by 2016 (U.S. Department of Transportation).

Assuming these and many other challenges can be overcome and the project is completed, the resulting light rail line will connect many of the metropolitan area's major institutions. Detroit City Hall, Fox Theater, Comerica Park, Ford Field, Detroit Medical Center, Wayne State University, The College for Creative Studies, Veteran's Hospital, Detroit Institute of Art, Detroit Public Library, and Palmer Park are among the major activity generators along the corridor. All except for Palmer Park are located along the Phase I section of the light rail project, which encompasses the Downtown, Midtown, and New Center areas. According to the Detroit Economic Growth Corporation (DEGC), a non-profit economic development organization – there have been 79 projects

– residential, commercial, institutional, or mixed use – in these areas valued at more than \$6 billion since 1997 (DEGC, 2011).

Table 2-3. Capital and operating revenues by source in millions

Capital revenues		
Source		Amount
Sale of \$125 million in capital grant receipts revenue bonds by the Detroit Department of Transportation. The estimated annual \$10 million interest payments on the bonds will be paid from other annual federal grants received by DDOT.		73
Previously received federal transportation grants to DDOT		12
Transportation Investment Generating Economic Recovery (TIGER) grant		25
M-1 Rail cash donation and assembled tax breaks (such as New Markets Tax Credit)		100
FTA New Starts funding (pending)		318
TOTAL		528
Operating Revenues		
Source		Amount
Fares		2.8
Federal congestion mitigation and air quality grants		5
State funding		7
Federal Section 5309 Fixed Guideway Modernization funds		1
City of Detroit General Fund		2
TOTAL		17.8

The Phase II area – from Grand Boulevard north– has seen significantly less revitalization. Along the 5.9 miles of Phase II you will see a variety of land uses, including many auto-oriented retail strips, historic churches, vacant lots, parks, and residential neighborhoods. Phase II will also pass through another municipality, Highland Park, a city that (along with the City of Hamtramck to its east) is wholly contained within the City of Detroit. Approximately 2 miles of the proposed alignment

and 2 proposed stations are within Highland Park (a third station, at McNichols Road, is adjacent to Highland Park's northern border). Highland Park, although significantly smaller than Detroit in both population and area, has experienced comparable decline; once a prosperous town riding the boom of the auto industry, its population has plummeted to a fifth its high in the 1930 census, and by 30% between 2000 and 2010, to a 2010 census population of 11,776.

Summary

The context within which the city of Detroit seeks to build its first true light rail line is one of both physical and emotional abandonment. In large part, Detroit is a victim of its own success. The industries that once undergirded its stupendous growth in turn set the stage for its stupendous decline. Economic restructuring on a regional, national, and global level has left Detroit with tremendous problems. The influx of new residents in the boom times created housing pressures. Racial discrimination and animosity and local, state, and federal policies fueled suburbanization.

Falling population and growing levels of racial isolation lead Detroit, like many other urban areas, to vigorously utilize urban renewal strategies to stem the losses. In Detroit, these strategies were largely insufficient to reverse the larger trends impacting the city. Nevertheless, the city has continually pursued project-based solutions to stop or reverse the ongoing decline.

The latest is the Woodward Avenue light rail project. Although Detroit once had an extensive transit system, the city currently has only a bus system and a small elevated streetcar – the Detroit People Mover – that encircles the CBD. Woodward Avenue is Detroit's central corridor and connects many of the city's major institutions and

destinations. The 9.3-mile-long project, if completed, will connect these institutions and potentially provide a foundation for more extensive regional light rail transit.

CHAPTER 3 LITERATURE REVIEW

Prior to World War II, Detroit had multiple private transportation companies that offered a variety of services (Transportation Riders United, n.d.). These services often supported land speculation because convenient transportation was a major selling point to the growing middle classes who sought the space and amenities of a home located further from the city center. However, transit companies began to struggle after World War II, no longer able to sustain themselves through land development revenues. In order to maintain services, municipal governments were also slowly absorbing these companies, as they were unable to raise fares due to restrictive municipal contracts.

Throughout those early years of public ownership, transit investment steeply declined. In particular, rail expansion came to a halt. Throughout the nation rail systems were replaced by bus service or closed entirely. In the last forty years, however, rail has experienced somewhat of a revival. During this period, several light rail transit projects have been implemented in the United States with many more proposed.

The rebirth of rail can be seen as a result of shifting norms in the design and implementation of “mega-projects.” New alliances developed around mass transit investment between “growth machine” members and traditional adversaries have also contributed to resurrecting rail (Logan & Molotch, 2007). This new coalition shares a desire for expanded transit but for drastically different reasons. Consisting of downtown landowners, civic leaders, and the media, among others, the growth machine sees light rail as a tool for economic development; this was also how their predecessor transit companies viewed it. Their once and sometimes still adversaries – such as environmental groups and inner-city residents – see transit investment as a means to

increase mobility and decrease automobile use (Logan & Molotch, 2007). Today, this diverse coalition remains intact despite little evidence that light rail achieves any of the benefits to degree projected and frequent costs that far exceed initial estimates.

“The City as a Growth Machine” is a helpful lens through which to examine the political dynamics that drive urban development decision making. Often, the growth machine is project focused, and prior research has illustrated the shift in these projects from those that had major, inequitable impacts on local residents to lower-impact projects, including transit. This shift to transit projects has raised the question of what impact light rail has on growth and economic development as well as the factors that are positively or negatively correlated with light rail success. In particular, those issues must be understood within the context of a shrinking city.

The Growth Machine

Logan and Molotch (2007) propose the concept of “The City as a Growth Machine.” They write that: “Elites use their growth consensus to eliminate any alternative vision of the purpose of local government or the meaning of community” (p. 51). The growth machine is a term used to describe the coalition of local elites that including business leaders, politicians, the media, and utility companies. A typical growth machine approach to city shrinkage would focus on what Logan and Molotch (2007) term “unused capacities” (p. 86), of which cities like Detroit have no shortage. Yet, the growth machine combined with major infrastructure investment can create a “vicious cycle of crisis-oriented growth addiction,” (p. 87) undergirded by “extravagant claims that growth solves problems” (p. 85).

Too often, cities addicted to growth struggle to provide even basic services to their residents. The Growth Machine typically espouses strategies of renewal intended

to increase spending of tourist dollars – often by suburban residents – through the construction of entertainment venues such as stadiums, casinos, and the like. Elsinger (2000) highlights the issues associated with the shift of municipal priorities from basic service provision – which typically benefitted people of all classes – to entertainment:

Today, however, the city as a place to play is manifestly built for the middle classes, who can afford to attend professional sporting events, eat in the new outdoor cafés, attend trade and professional conventions, shop in the festival malls, and patronize the high- and middlebrow arts. Many, if not most, of these are visitors to the city, and in the view of local leaders, they must be shielded from the city's residents. The city is no longer regarded as the great melting pot, the meeting place of diverse classes and races. (p. 317)

Teaford (1990) concludes that the emphasis on physical strategies for urban improvement at the expense of more equitable solutions was unsurprising.

Though the residents of decaying neighborhoods may have favored action to curb decline, the loudest crying about the signs of impending doom came from downtown real estate interests threatened by falling property values and harried mayors facing fiscal crisis because of the drop in assessed valuations. In their minds blight was a physical phenomenon, and the best means to combat it was increased investment in the construction of private and public facilities under their control. Physical rejuvenations would bolster their positions; social change would undermine them. Thus physical solutions seemed most desirable. (Teaford, 1990, p. 12)

The allure of entertainment-based redevelopment strategies is strong. Cities like Detroit, in particular, view it as an essential means to rehabilitate tarnished images. McCarthy (2002) studies Detroit's embrace of these strategies and finds that most major projects developed in recent years – such as new stadiums for the Detroit Lions and Detroit Tigers – are “primarily about image building.” Although McCarthy (2002) finds some limited evidence of impact from these projects on employment and redevelopment, these results were tempered by his observation that these benefits

were “fundamentally flawed as a mechanism of bringing about broadly-based regeneration” and further “may increase problems of social injustice and exclusion” (p. 110).

Rail is often part of the overall entertainment-based redevelopment strategy. In part, this is because of the poor image of bus transit, particularly among “choice” riders who might otherwise use a private vehicle to travel to inner-city destinations. Elsinger (2000) notes that the few annual riders the Detroit People Mover attracts are primarily tourists and suburban residents circulating between downtown restaurants and entertainment venues. Mackett and Edwards (1998) attempt to uncover the reasons why rail was viewed as an economic development tool and find that “image” and “confidence” among the few positive outcomes rail boosters could identify (p. 236). They (1998) conclude that, “the evidence...suggests that, in general, such impacts are very limited in scale” (p. 234).

Nevertheless, the growth machine continues to be a significant advocate for development and, in particular, project-based rejuvenation of urban areas. Particularly benefiting from the political strength of the growth machine are large scale projects, which Altshuler and Luberoff (2003) call “mega-projects.” These projects are “mega” in the sense that their potential for impact – both positive and negative – is significant.

Mega-projects

Altshuler and Luberoff (2003) analyze the underlying political and social structures that both enable and restrain “mega-projects.” They define mega-projects as “large-scale government investments in physical capital facilities...to revitalize cities and stimulate their economic growth” (Altshuler & Luberoff, 2003, p. 1-2). The Woodward Avenue light rail fits within this definition. Beginning after World War II, the mega-

project era began at a time when tremendous optimism and faith in the capacity of government joined with mounting concern about central city decline. Mega-projects were a means of shocking the urban system and stopping or reversing the cumulative causation that was pulling financial and cultural capital from the cities to the suburbs. Cities also found themselves at risk of obsolescence in the midst of growing automobile usage and dependency. Combined with the availability of federal funds for renewal, this precipitated an unprecedented period of public infrastructure investment.

The early mega-project era was defined by two major characteristics: (1) projects that had substantial (negative) impacts on the local neighborhoods, which were, more often than not, poor and black, and (2) these neighborhoods lacked the ability to participate in the planning of these projects and were also unable to mount serious or successful resistance to them. An example of a mega-project is the construction of urban freeways. These projects often displaced thousands of residents and businesses throughout the country, particularly impacting communities that were poor and minority-based. These disparate impacts were also prevalent in the federal government's Urban Renewal programs. In the same era, these programs became known as "negro removal" among affected communities. In Detroit, the Paradise Valley area — a cultural incubator for the city's black population in the early 20th century, comparable to Harlem in New York City — fell to the bulldozer to accommodate the construction of Interstate-75 and a mixed-income housing project designed by famed Modernist architect, Mies van der Rohe. The subsequent redevelopment was unable to recreate the vibrant social fabric that had preceded it.

The dominance of the mega-project paradigm began to wane in the 1970s, replaced by what Altshuler and Luberoff (2003) call the era of “do no harm” (p. 220-221). There were a number of contributing factors: growing environmental concern, increasing organization of resistance movements, and the completion of most of the interstate highway system among them. Mega-projects could not be built without devoting unprecedented time and money to mitigate the impact to local citizens. Opposition groups became better organized, succeeding in stopping many projects; most famously the Embarcadero Expressway in San Francisco. In Detroit, these new dynamics lead to significant delay in the construction of the Walter Reuther Expressway (I-696), first proposed in the 1950s and not completed until 1989. Upon its eventual completion, the final cost was substantially greater than the initial projection, having included major alterations to provide mitigation demanded by citizens who were directly affected (Schmidt, 1989).

The Revival of Transit in the Era of “Do No Harm”

The 1970s slowed but did not end the mega-project paradigm. This in part reflects the fact that, as Altshuler and Luberoff (2003) note, “local politics [have] always been an aspect of business – a way of bringing government power to bear in support of private investment opportunities” (p. 1). While the scale of projects remained worthy of the “mega” prefix, the type of project changed. Huge public housing complexes and freeways were out; mass transit was “in”.

As recounted earlier, mass transit investment slowed dramatically following World War II. While other, more intrusive mega-projects were largely unbuildable, mass transit received renewed attention. Mass transit projects fit the “do no harm” ethos of the era perfectly. New and somewhat unlikely coalitions formed around the idea that

mass transit could achieve their goals. Mass transit aims to align business interests, advocates for disadvantaged populations, and environmental advocates, among others, in a common cause (Altshuler & Luberoﬀ, 2003, p. 187). Mass transit further benefitted from the growing perception that urban freeways – previously seen as essential to urban vitality – had failed to live up to expectations (Teaford, 1990, p. 167). Transit projects also benefit from their status as an urban amenity; for cities seeking to attract what Florida (2002) terms the “creative class,” such amenities are often deemed essential. From 1970 to 2000, sixteen major rail-transit systems were built or expanded, including Portland’s renowned MAX light rail and streetcar and Washington D.C.’s acclaimed Metro (Baum-Snow, Kahn, & Voith, 2005). This trend shows no signs of abatement; Altshuler and Luberoﬀ (2003) note, “the political if not the behavioral resurgence of mass transit appears highly robust” (p. 218). Powerful political forces produced and maintain a renaissance in urban rail construction.

Yet, Pickrell’s (1992) examination of major rail investments finds inconsistencies between the projected costs and benefits of urban rail and actual outcomes. In most cases, Pickrell (1992) concludes that costs were underestimated while ridership and other positive outcomes were overestimated. The cost to build and operate light rail transit was typically substantially more than bus transit but attracted few new riders; in fact, most ridership was drawn simply from existing bus ridership. These findings were indicative of what Pickrell (1992) calls the “desire named streetcar” that had, in his view, clouded the judgment of planners and other light rail proponents. This predisposition to light rail is suggested by some to have even caused deliberate manipulation of cost and ridership projections in order to drive projects forward (Kain, 1990; Li & Wachs, 2004;

Moore, 1993; Taylor, Kim, & Gahbauer, 2009; Winston & Maheshri, 2007). Others dispute this point (Lane, 1998; Litman, 2010) including Black (1993), who tempers his criticism of planners by emphasizing the inherent politics of public investment.

Flyvbjerg, Holm, and Buhl (2002), however, remain critical:

The policy implications of our findings are clear. First, the findings show that a major planning and policy problem—namely misinformation—exists for this highly expensive field of public policy. Second, the size and perseverance over time of the problem of misinformation indicate that it will not go away by merely pointing out its existence and appealing to the good will of project promoters and planners to make more accurate forecasts. The problem of misinformation is an issue of power and profit and must be dealt with as such, using the mechanisms of transparency and accountability we commonly use in liberal democracies to mitigate rent-seeking behavior and the misuse of power. To the extent that planners partake in rent-seeking behavior and misuse of power, this may be seen as a violation of their code of ethics—that is, malpractice.

Whether these miscalculations are deliberate or something less sinister, they reinforce other political dynamics. Richmond (1998) writes:

The rail project becomes a symbol for the solution of deeper problems and one around which political action can be successfully built, but it leaves the deeper problems untouched: the city remains polluted, the freeways congested, the poor uneducated and unemployed, despite any slight extra mobility which might be provided to reach opportunities from which they cannot benefit. Political power remains concentrated among those who have created symbolic solutions which to all everyday appearances represent progress.

Transit planners and growth advocates have been slow to learn the lessons of light rail failure. Hall (1980) examines the planning and implementation of the Bay Area Rapid Transit (BART) system in California and concludes, “[...] there can be no doubt that [...] BART is a Great Planning Disaster. It is manifestly criticized for its failings and it has conspicuously failed to fulfill the predictions made for it” (p. 110). Although Hall (1980) feels that the lessons from BART were highly relevant to the planners of other

new systems, it appears that thirty years since his book those lessons remain unlearned.

In fact, the social benefits of most systems fail to justify the costs (Winston & Maheshri, 2007). Even when social benefits do accrue – such as reduced travel times – they tend to benefit only the very small segment of the population that patronizes the rail system, themselves typically former bus riders (Baum-Snow et al., 2005). Other metrics, such as job creation and new construction, have equally unclear outcomes.

A more recent review of the projects analyzed by Pickrell, as well as 21 light rail projects completed since, by the Federal Transit Administration (2008) finds some improvement in planner's projections. Although capital costs continue to be underestimated and ridership continues to be overestimated in most cases, the discrepancies between predicted and observed totals for each are much less dramatic than Pickrell had found earlier (Federal Transit Administration, 2008). This suggests that, although projections remain politicized and prone to error, the chance for dramatic miscalculation may be significantly less than it once was.

Light Rail and Economic Development

In spite of the mixed outcomes, mass transit remains a mega-project of choice. As a strategy, light rail transit seems to meet many economic development aims. For instance, light rail transit could be seen as an amenity and thus improvement to the local quality of life. This amenity may attract people and capital into the city that would not otherwise seek to live or invest there.

In reality, many researchers have found that light rail has had no substantial impact on population growth, property values, or job creation, all indicators of economic development. Further, some research finds that transit improvements act as a magnet

for poor households. Glaeser, Kahn, and Rappaport's (2007) review of the 2001 National Household Travel Survey finds that the availability of public transportation was a major factor in the residential location decisions of low-income households and was a key explanatory variable of the concentration of poverty in central cities. There is also evidence that the impacts of rail on property value are highly sensitive to context. Hess and Almeida (2007) look at assessed property values within one-half mile of 14 rail transit stations in Buffalo, New York and find that proximity is positively correlated with property values in areas that had been high-income prior to rail construction but negatively correlated with areas that were low-income prior to rail construction.

These outcomes are further encouraged by other environmental factors in action in a city experiencing population decline. Glaeser and Gyourko (2005) examine population trends, housing values, and housing replacement costs in the nation's largest cities and find that the degree of persistence in population change among declining cities is double that for growing cities. This is reaffirmed by Beauregard (2009), who examines population data from a sample of medium-to-large US cities from 1950 to 2000 using spatial analysis and finds that urban population decline in many cities is both prevalent and persistent.

The persistence of decline, when combined with the durability of housing stock, leads to an agonizingly slow downward spiral that is characterized by plummeting home prices due in large part to a vast oversupply of housing. Low home prices explain why some cities struggle to lure the "creative class"; low-cost housing is a magnet for low-income households (Glaeser & Gyourko, 2005, p. 348, p. 370). Other economic development outcomes were similarly unsuccessful. For example, Taylor and Samples

(2002) examine transit capital investments in five California regions and find that rail lines were “a relatively ineffective way to stimulate local employment” (p. 261).

Guerra and Cervero (2010) attempt to answer a question that is at the heart of any proposed transit project: how much density is needed to ensure success? Using data from over 50 heavy rail, light rail, and bus rapid transit projects built since 1970, they find that “an average light rail system in an average city requires approximately 56 jobs and persons per gross acre in order to achieve a strong cost-per-rider performance with an average capital cost of \$50 million per mile” (p. 19) (Table 3-1). Those findings echo Balaker and Kim (2006), who write that “the success of rail transit will, to a large degree, be determined by trends, demographics, policies, and other factors that vary greatly from one community to another” (p. 595). Yet, they still suggest that these figures could be a starting point for communities seeking to build transit, especially to guide development in and around transit stations.

Table 3-1. LRT station area densities related to capital cost per mile

Millions/guideway mile	\$5	\$10	\$25	\$50	\$75	\$100	\$150
Std dev below	-	7	35	125	-	-	-
Average system	-	3	16	56	116	-	-
Std dev above	-	1	5	17	35	59	122

Cervero and Landis (1997) looked back at the development outcomes from the 72-mile long BART system after 20 years of existence. The findings show that BART’s largest impact was on the form of development rather than the amount of development. For example, the Richmond station area saw little development which the authors attribute to “a depressed local economy, urban blight, and increased crime” (p. 328). In contrast, three other stations with more favorable market conditions saw development and that development was largely dense and diverse, two transit-supportive

characteristics. The authors conclude that “BART is clearly not a sufficient condition to significant land development around stations, however under the right circumstances, it has proven to be an important contributor” (p. 332).

Loukaitou-Sideris and Banerjee (1996) also stress the importance of context on development outcomes in their review of Los Angeles’ Blue Line. They identify five neighborhood conditions that inhibited station-area development: (1) a lack of density; (2) a lack of amenities; (3) physical evidence of economic decline; (4) high crime rates and negative perceptions; and (5) relatively high property values (p. 5). They conclude that “a transit system cannot by its mere presence catalyze miracles in the inner city” (p. 6).

In Detroit, the context and circumstances are largely defined by dramatic population loss. Existing densities are likely to decrease without some sort of policy intervention by the city. Only recently have civic leaders in Detroit begun to acknowledge that Detroit may continue to decline in population and develop a strategy to address that potential.

Factors Impacting the Success of Light Rail Transit

Brown and Thompson (2009) synthesize the current knowledge on the factors associated with rail transit success or failure. Those major factors are divided into two categories: external factors, over which transit operators have little control, and internal factors, over which transit operators exert more control. The external factors include the urban structure of the metropolitan area, in particular the degree of decentralization in the region and the centrality of the CBD, and land use patterns, especially the proportion of transit oriented development (TOD) around transit stops. Internal factors

identified in the study include fare structures and policies, service frequencies and coverage, and service orientation.

Their own research uses data on eleven metropolitan area transit systems from the National Transit Database from 1984 to 2004, supported by key informant interviews. Each metropolitan area had a population between 1 and 5 million and had rail transit. Their findings indicate that the major factors influencing transit performance are:

- transit system orientation;
- the role of rail transit as a regional transit system's backbone;
- the importance of tapping non-CBD markets;
- the important role placed by transfers in extending the reach of the regional transit system; and
- the importance of serving regional destinations. (p. 35)

The authors also offer cautionary tales regarding the ability of rail to create a successful transit system. First, in Miami they find that rail transit has not stimulated the expected economic development because areas with large potential ridership were excluded while areas with low potential ridership were constructed (p. 72-73). They also find in San Jose that a lack of coordination between rail and bus service and slow travel times hinder that system's outcomes (p. 74).

The factors impacting the success of light rail transit in Detroit can only be extrapolated from other contexts at this time. Given Detroit's substantial population and employment declines, decentralized urban structure, and proliferation of transit agencies, there are likely to be many challenges in adapting light rail transit successfully in a shrinking Detroit.

Shrinking Cities

City shrinkage policies were pioneered in Youngstown, Ohio, an industrial town that – although smaller both at its peak now and then Detroit today – nevertheless experienced a similar magnitude of economic decline. Rather than pursue traditional strategies to promote city rebirth, leaders in Youngstown composed a vision based upon right-sizing the city, the Youngstown 2010 Plan. The plan calls for targeted investment in stable, populated neighborhoods. This would enable Youngstown to save money on infrastructure maintenance and other service provision (City of Youngstown, 2010).

Youngstown's response to its economic realities remains novel in the United States, where the typical response is to vigorously chase growth and investment. This is a return to an earlier kind of local government where the primary role of local government was basic service provision rather than economic development (Altshuler & Luberoff, 2003). Planned shrinkage is particularly relevant in cities like Detroit and Youngstown, which Beauregard (2009) identifies as “chronic losers” of population.

Detroit does not appear likely to reverse, or even stop, its population decline in the near- or long-term. As Hollander (2011) notes, local government is ill-equipped to change the endogenous and exogenous factors that produce growth or decline (p. 11). Detroit has unquestionably failed throughout its long decline to halt larger economic trends that doomed much of its public redevelopment agenda to failure. With 138 square miles of space and infrastructure built for a population more than double its current level, the city's fiscal solvency and any improvements in quality of life likely depends on its ability to “right-size” itself and reduce the service and maintenance burdens that currently exist.

The Woodward Avenue light rail project indicates that Detroit may be attempting to reduce its footprint by investing in infrastructure and new building along its central corridor. Balancing the competing visions of Detroit suggested by growth machine and shrinking cities ideologies is a major challenge. The Woodward Avenue light rail transit project is Detroit's largest transit project since the Detroit People Mover, which has fallen far short of expectations. This new project will create more infrastructure – in opposition of the basic argument for smart decline – for which the city must allocate funds for operation and maintenance.

To satisfy both visions, the project needs a sustainable source of long-term funding and the alignment of city policies to support redevelopment around the Woodward corridor (and limit redevelopment elsewhere). This major investment will likely, by itself, send a strong signal to the development community that the Woodward corridor is the place to invest. The city must insure, however, that these investments are transit-oriented, with appropriate density, diversity, and design. Transit-oriented development may not only support light rail ridership (a key indicator of project success) but also allow the city to serve its population in a more cost-effective manner and improve the quality of life for current and future residents of the city.

Summary

Woodward Avenue light rail is indicative of a traditional, growth oriented mega-project. Many mega-projects have fallen fall short of their anticipated positive outcomes. They continue to persist, however, due to the dominance of the growth machine in urban politics and the public relations potential of ribbon cutting ceremonies. Light rail transit has been a preferred project of the growth machine for nearly four decades due to the limited negative impacts to existing residents. Now, Detroit is

attempting to plan for future population decline while also pursuing a mega-project. It remains to be seen if Detroit can balance growth interests with shrinkage realities through its latest mega-project, the Woodward Avenue light rail.

CHAPTER 4 METHODOLOGY

This report is a case study of the proposed Woodward Avenue light rail in Detroit, Michigan. The purpose of this research is to determine if and how the Woodward Avenue light rail project can be successful in the context of Detroit's ongoing population decline. The results are reflections on the place this project takes in Detroit's history of urban redevelopment initiative and recommendations for improving the outcomes of the project from a shrinking-cities lens.

In order to properly analyze the project's potential for success the term success must itself be defined. Success may be highly subjective and relates heavily to individual perspective. Success as defined by the M1 Rail coalition may differ dramatically from success as defined by DDOT, transit users, or transportation academics. Rather than speculate on the measures of success that will be employed by these groups, this report seeks to define success by the project meeting budget and ridership projections, creating transit system integration, and positively impacting the efficiency of service provision within Detroit, including but not limited to transit services. The evaluation examines existing conditions to determine the current feasibility of the project, and offers recommendations to maximize favorable outcomes once the project is fully operation. This report also addresses other short- and long-term challenges and opportunities that will impact the ability to get the project through design and construction to operation as well as its long-term viability as a transportation mode and economic development stimulator.

The primary source materials were planning documents relating to the development of the Woodward Avenue light rail project. All relevant and publically

available planning documents were reviewed. These documents included Detroit Department of Transportation (DDOT) planning documents from the Detroit Transit Options for Growth Study (DTOGS) and for the current project. They also included reports and information on land use and zoning from the City of Detroit Planning and Development Department. These reports were analyzed to understand: the dynamics of the separate and combined public and private project planning efforts; methods of service allocation, with particular emphasis on the consideration of neighborhood condition in those decisions; existing zoning, land use, and transportation infrastructure and plans for the future; and trends in population and employment that will impact a completed project.

Additional context to the policy document analysis came from local news articles from two major daily newspapers – *The Detroit News* and *Detroit Free Press* – and national media including *The New York Times*. Articles were primarily obtained online through •Google Web Search™. Additional articles were identified via recommendations from sites including Planetizen and the New Urban Network and through a listserv provided by the Detroit area’s Transportation Riders United. These articles helped to identify specific issues and areas of concern and largely reflected a local perspective.

Additional information and documentation was obtained through contact with the city of Detroit and, when possible, interviews with city policymakers. Interviews were semi-structured and conducted by phone; questions were prepared in advance but the interviewer permitted and welcomed diversion from the prepared questions when

warranted. Handwritten notes were taken during the interview and later transcribed. The interviews were used to confirm and clarify data collected from print sources.

Finally, this report benefits from the on-site observations of the author throughout various trips to Detroit from the 1990s to 2011. The observations made during these visits provided greater context to the other elements of this report.

CHAPTER 5 FINDINGS

The Woodward Avenue light rail project has many obstacles to overcome to be considered a successful rail transit line. An evaluation of factors influencing the success of light rail transit finds that the Metropolitan Detroit area faces challenges due to its existing urban and political structures, particularly as related to planning and policy development for transportation and land use. There are also findings that suggest that there is movement in transit planning, land use and zoning, and citywide policies to address population decline. In particular, the DDOT has implemented policies, which will allocate its increasingly thin resources more efficiently, promoting the vitality of already vital neighborhoods. In contrast, similar efficiencies in other policy areas are just, as of the summer of 2011, coming to fruition through the Detroit Works Project. As such, while recent policy announcements are encouraging, it remains to be determined whether the policies will produce the desired outcomes and gain support from citizens and officials needed to ensure their long-term viability. In particular, these new policies must be supportive of the light rail investment in order to maximize ridership.

Meeting Budget and Ridership Projections

One of the first and most significant measures of success for Woodward Avenue light rail is whether or not it is built. This is essentially a short-term objective, as the planning process has moved the project to a record of decision by the Federal Transit Administration as of August 2011. More important are the decisions that will be made during this design and construction phase will invariably impact the capital cost of the project and the eventual ridership, two key ways that success can be measured. As the project moves forward, maintaining the fragile balance between the public and private

projects is among the most critical elements in getting the project built. The two groups must find common ground that does not imperil the success of project as defined by its budgetary constraints and ridership goals.

The public and private Woodward Avenue light rail proposals were largely unviable without each other, the public reliant on the private for local matching funds, and the private reliant upon the public for expertise in moving through federal, state, and local planning and funding processes. Given the public sector's expertise, the projects have been consolidated under city (DDOT) control. This relationship has not been without conflict. In large part, the conflict has been centered on ideology. For DDOT, light rail primarily is an improvement to in transportation for the city and its citizens. For the M-1 Rail group and other growth-machine interests, light rail is a tool for economic growth. One issue resulting from this clash of ideologies is the question of alignment: will the trains will run along the curb in mixed traffic or in the center median. Transportation advocates, including the non-profit group Transportation Riders United, support the DDOT-preferred center alignment, which they say will allow for faster travel times and create fewer vehicular and pedestrian conflicts. M-1 Rail, however, is strongly in favor of curb-running trains, particularly because they see center-running trains as inconvenient to potential users.

The FEIS submitted to the FTA showed that DDOT intended to build a median-running light rail system for 16 of the 19 stations along the 9.3 mile alignment (Detroit DOT, 2011, p. 5-2). The three exceptions are within the CBD in areas where right-of-way constraints necessitate curb-running cars.

The selected alignment with median-running trains will have lower travel times due to their separation from general traffic than any other alternative. DDOT anticipates 10-minute peak-hour headways and 15-minute off-peak headways, which when combined with concurrent bus service on DDOT's Route 53, would result in increased transit frequency and decreased transit travel times for LRT (34–36 minutes) versus the no-build alternative (48–50 minutes) (Detroit DOT, 2011, p. 3-3).

As a result of the FEIS recommendation, some members of the M-1 coalition threatened to pull funding from the project because they did not feel DDOT's proposal "[was] the best use of the funding, [was] financially sustainable or [was] the best layout and alignment" and further "fail[ed] to tie [...] into any future regional mass transit systems" (Shea, 2011). In reality, the faster travel times of a median-running system may make future extensions along Woodward Avenue (beyond 8 Mile Road) more feasible, particularly because potential riders would be very sensitive to travel times when selecting a travel mode (Frank, Bradley, Kavage, Chapman, & Lawton, 2008). It also increases the viability of the project as more than just a local shuttle between various downtown attractions.

Although these disputes are certainly a challenge, the melding of public and private interests in the project also presents opportunity. First, the coalition of private interests may serve to push the project forward, through pressure both behind closed doors and in the public arena. Second, the coalition could serve as a watchdog of the process, helping to ensure that issues like those experienced with the Detroit People Mover – completed far behind schedule and far beyond budget – are avoided in this effort. Third, this endeavor, if successful, could provide a framework for future public /

private partnerships in Detroit. Such partnerships are likely to grow ever more important as the city continues to contract. Finally, given their direct and indirect stake in the project's success, the private partners are likely to also be involved in many land development projects along the corridor and – more than the typical land speculator – be supportive of development that is supportive in its design of transit. Such development may help to support DDOT's expected 22,000 boardings on the light rail per day, almost double the 12,000 that currently board Route 53 (the primary bus route currently serving Woodward Avenue). Tellingly, this projection is nearly one-quarter the ridership initially predicted for the DPM nearly three decades ago.

Light rail on Woodward Avenue may also result in changes to bus services. The FEIS indicates that minor service adjustments may occur following completion of the light rail, to coordinate bus stops and allow for easy transfer between rail and bus transit. Route 53 is expected to remain in service at reduced headways to provide local service¹. Facilitation of transfers – from bus service or park and ride locations – will be essential components of ridership development.

Unfortunately, present conditions – in terms of population and employment densities and existing land uses – and future forecasts for population, employment, and market health indicate several challenges to the establishment of viable light rail. Figure 5-1 shows population densities as of the 2000 U.S. Census while Figure 5-2 shows projected population densities in the year 2030 along Woodward Avenue. Figure 5-3 shows employment densities as of the 2000 U.S. Census while Figure 5-4 shows

¹ In public transportation, a headway is the time between the arrival of two transit vehicles on the same route. For instance, ten-minute headway would indicate that transit vehicles on a particular route were scheduled to arrive in ten-minute intervals.

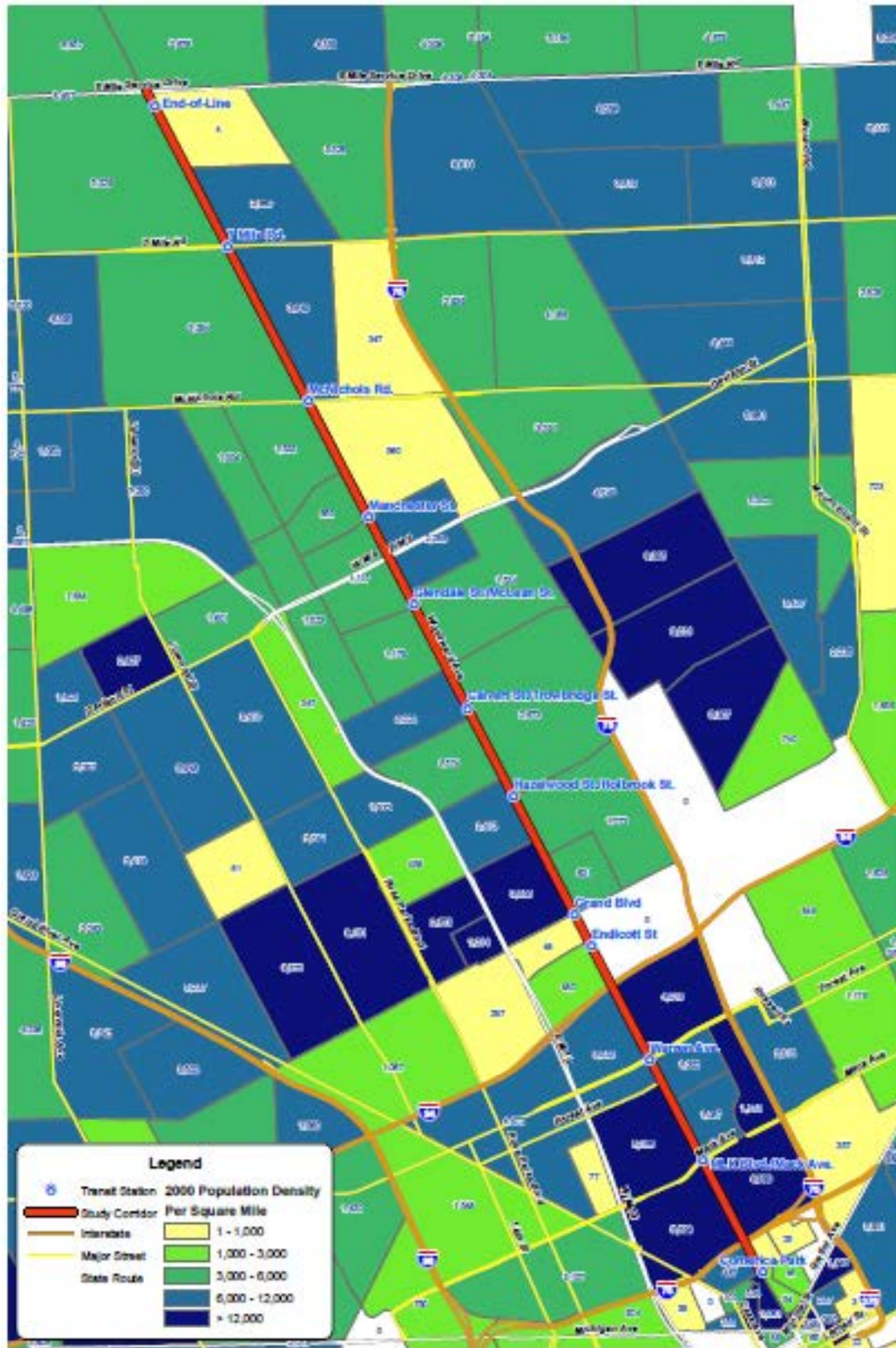


Figure 5-1. Population density by transportation analysis zone (TAZ), 2000 [actual]

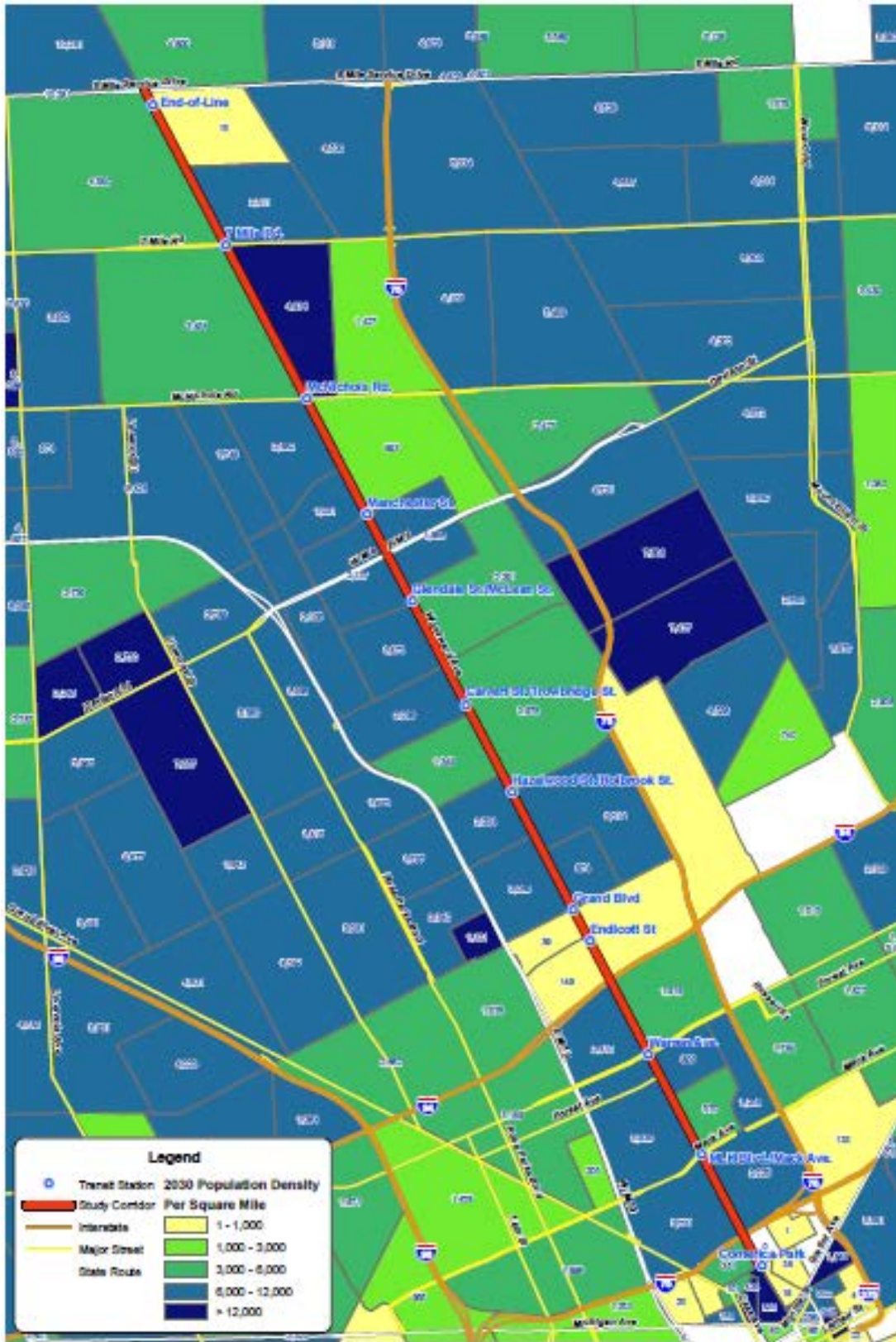


Figure 5-2. Population density by transportation analysis zone (TAZ), 2030 [estimated]

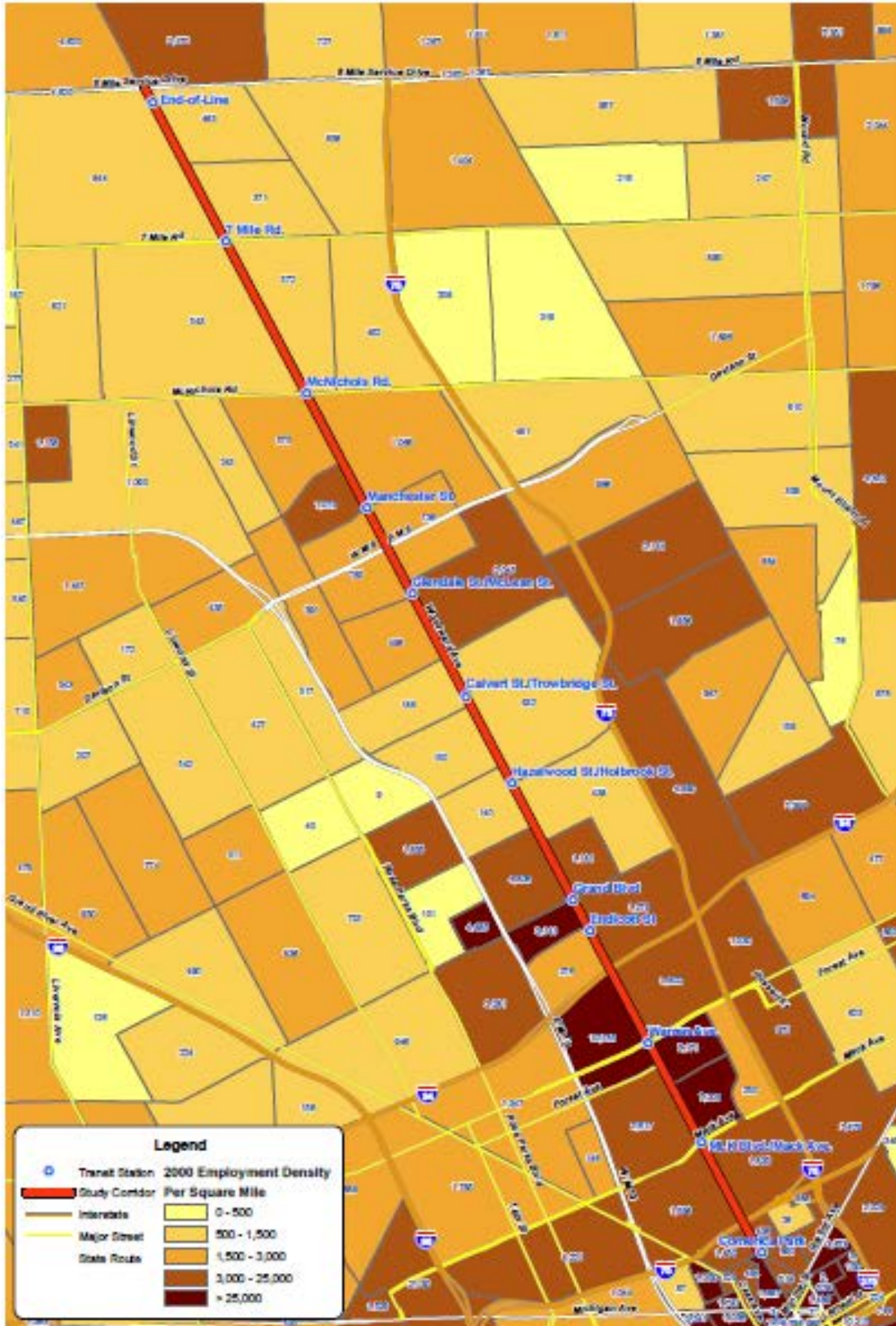


Figure 5-3. Employment density by transportation analysis zone (TAZ), 2000 [actual]

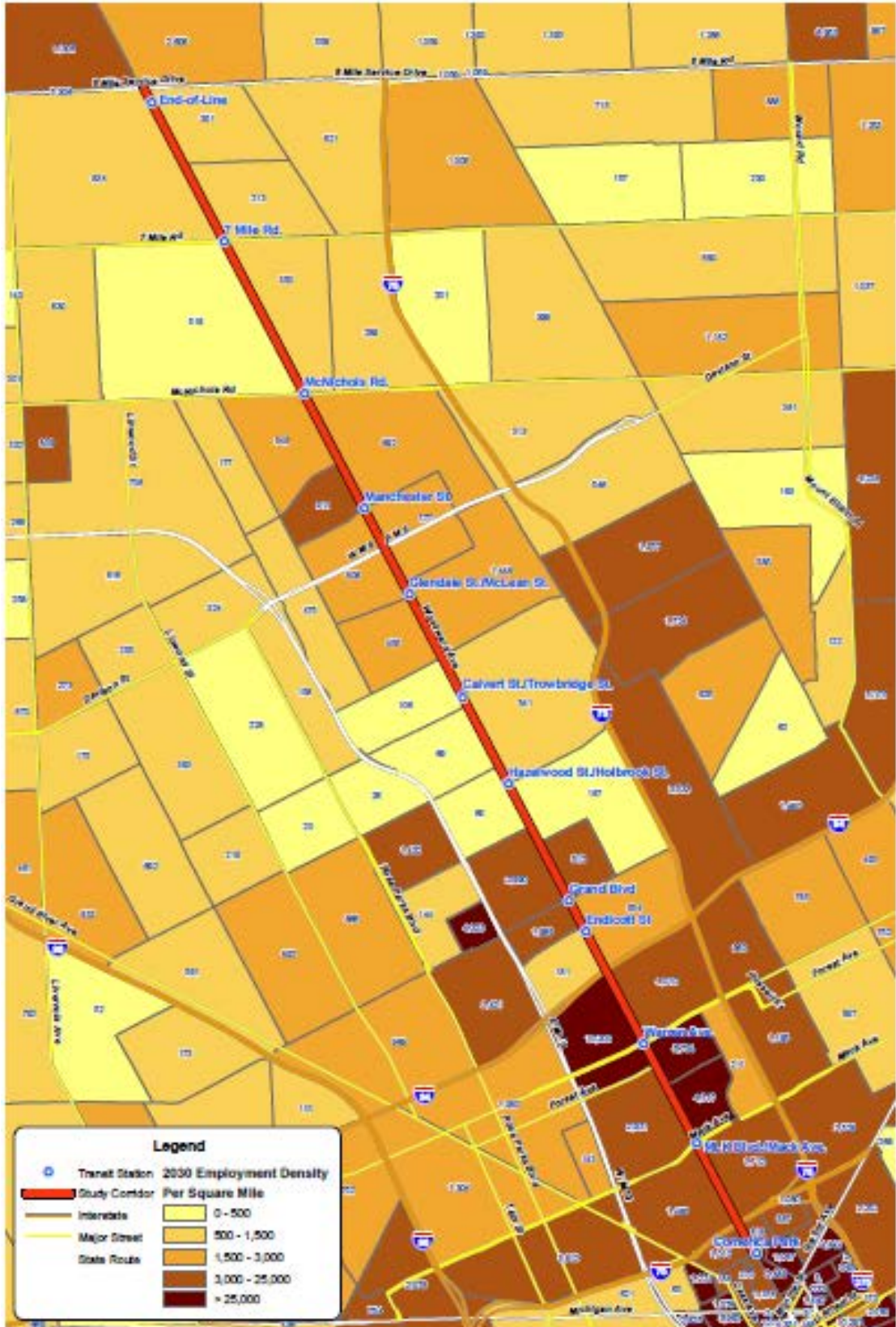


Figure 5-4. Employment density by transportation analysis zone (TAZ), 2030 [estimated]

projected employment densities in the year 2030 along Woodward Avenue. In both cases, there are several areas along the proposed alignment that have very low densities of population and/or employment. Future projections indicate that densities, as well as net numbers, of population and employment in many TAZs will decrease. This is supported by data prepared by DDOT for half-mile station area. [The station areas examined do not exactly correspond with the stations selected in the FEIS; however, due to station spacing, the data remains useful as it encompasses much of the same spatial area]. DDOT's projections show continued diminishment of the CBD's regional importance, with declining net employment and employment density (Appendix A). The corridor is also projected to lose both population and employment, declining 5.5% and 10.4%, respectively. The station analyses indicate that employment is expected to decline at most locations, rising only slightly at the remainder, while 6 of the 15 station areas are projected to see significant population growth of between 10% at the Michigan State Fair Grounds station to 44% at Warren Avenue, adjacent to Wayne State University, the Detroit Medical Center, and several cultural destinations. In contrast, the already low-density McNichols Road station area is projected to see the largest population declines, more than 25%.

Applying the density thresholds identified by Guerra and Cervero (2010), the net combined density of population and employment at each station-level analysis area fall well short of that densities that would result in cost effective transit service (Table 5-1). At a projected cost of \$450-500 million dollars, the 9.3-mile Woodward Avenue light rail would cost approximately \$50 million per mile. This capital cost corresponds with an optimal combined population and employment density of 56 per square mile, as shown

Table 5-1. Station-area population and employment densities within half-mile radius

Station area	Population (2000)	Jobs (2000)	Net density (2000)	Population (2030)	Jobs (2030)	Net density (2030)	Trend (2000-2030)
State Fairgrounds	1,897	614	5	2,086	550	5	Stable
7 Mile Road	4,166	360	9	4,073	353	9	Stable
McNichols Road	4,062	712	10	3,036	622	7	Decreasing
Manchester Street	3,211	1,737	10	2,647	1,549	8	Decreasing
Glendale Street	3,400	1,403	10	2,910	1,252	8	Decreasing
Calvert Street	3,928	514	9	3,193	349	7	Decreasing
Hazelwood Street	5,386	936	13	4,662	634	11	Decreasing
Grand Blvd / New Center	3,358	4,998	17	3,018	3,445	13	Decreasing
Piquette St / Amtrak	1,428	2,975	9	1,760	2,361	8	Decreasing
Warren Ave / Wayne State	5,474	15,299	42	7,884	12,977	42	Stable
MLK Blvd / Mack Ave	7,109	6,958	28	9,478	5,401	30	Increasing
Foxtown / stadiums	3,052	6,080	18	4,013	6,323	21	Increasing
Transit Center	1,486	14,755	32	1,752	13,172	30	Decreasing
Cobo Hall	448	12,017	25	520	8,817	19	Decreasing
Millender Center	2,330	28,151	61	2,310	29,392	63	Increasing

in Table 3-1 in the literature review. Only one station-area analysis exceeded that threshold in 2000 and is projected to do so in 2030. This station happens to be closest to the Renaissance Center. In contrast, the remaining station areas have net densities

between 5 and 42 net population and jobs per square mile today and in 2030, with many projected to decline in density over the next 20 years.

Creating an Integrated Transit System

If and when Woodward Avenue light rail is built, the project still faces many challenges. First, the project needs a viable way to fund operations and maintenance that will not adversely impact other services, including bus transit. In order to support ridership, the bus transit system and DPM should be calibrated to provide quick, easy transfers to and from light rail. System redundancies could then be eliminated with reduced impact on current transit users.

The existing duplicity of transit agencies in the Detroit metropolitan area, as well as the historic lack of cooperation and trust between governmental units – particularly between the City of Detroit and suburban governments – bode poorly for such integration. In order to maximize the potential for regional access improvements provided by the light rail investment, however, the multiple agencies must forge common ground. The best way to accomplish this would be through consolidation of transit oversight and the creation of a regional authority to oversee DDOT, SMART, and the DPM. However, the history of failure in this regard is foreboding.

One reason why regional transit has not been realized in Detroit is the struggle over funding, in part a view that a regional structure will inevitably lead to some municipalities subsidizing transit for others. Yet, a long-term and secure source of funding for transit is essential to the success of Woodward Avenue light rail. This reality was illustrated during the 2011 Detroit City Council budget discussions, during which funding for transit services was at risk. Given the ongoing financial turbulence experienced by Detroit, secure funding for light rail is as important as construction

funding to the viability of this project. SMART and DPM also routinely face challenges to ongoing funding, with many suburban municipalities opting out of SMART and thus creating transit-free islands within the region.

Transit funding in Michigan is significantly different than in many other states. Many municipalities, including Dallas, Texas and Denver, Colorado, fund transit projects and operations through sales tax revenues. However, Proposal A, a 1994 Michigan ballot initiative, funded public education through the state sales tax. This leaves local governments much more dependent upon local property tax revenues for service provision, including public transportation. In addition, DDOT's costs are higher than most public transit agencies, in part because the City Council acts as the transit board and the City negotiates all contracts on its behalf. These costs must be covered through property tax revenues, which have been falling due to declining property values (Detroit Charter Revision Committee, 2009). Michigan also struggles from declining gas tax and automobile registration revenues, which further reduces the funding available for transit (Michigan Department of Transportation, 2009b).

Developing a structure for regional transportation that is agreeable to the diversity of interests in the metropolitan area is a huge, and to date, insurmountable, challenge. The long-term viability of transit integration in Detroit, and the success of the Woodward Avenue light rail, is thusly imperiled.

Promoting Service Efficiency

Efficiency – doing the same or more with less – has become a paradigm in the provision of government services, particularly in the current recession. In Detroit, as the tax base has collapsed, the need to provide services has not reduced. In fact, in many respects providing services in Detroit is ever more expensive, as an increasingly poor

and isolated population places more demands upon the local government. The city's population decline has not been coupled with an equivalent decline in space. Instead, the roads, schools, and other infrastructure that once served more than 2 million residents over 128 square miles remains, now serving only around 700,000 in the same space. Detroit's overabundance of housing and infrastructure creates demands for services that the government is ill-prepared and ill-funded to address.

DDOT has addressed challenges with funding in the past through smart transit planning. Efficiency has been essential, as DDOT has the dueling challenges of high costs and low funding levels. As such, DDOT has had to find service efficiencies. The *City of Detroit Department of Transportation Service Standards*, updated in 2010, govern service planning and delivery. This set of guidelines also outlines a standard methodology for the evaluation of existing and proposed service routes, including service headways and stop spacing. These evaluations occur annually and as needed to determine the feasibility of continuing current services and the need to add new services.

Ridership is the primary variable used to evaluate route efficiency. Ridership is a useful, less political and less objective, metric as a proxy for other variables related to population decline, including vacancy rates, housing and neighborhood condition, and demolition data. As a result, transit services are less likely to be provided in areas of low population (net or density).

Light rail transit will present a new challenge. Unlike bus transit, light rail service is not easily reallocated from one area to another. Service frequency can respond to changes in density and stability, but ultimately, once the infrastructure is in place the

light rail transit is more or less permanent and funding must likewise be more or less permanent. In addition, unlike bus transit, DDOT and the city as a whole has a much greater stake in the Woodward corridor's development after constructing light rail than they would necessarily have otherwise.

Beyond transit planning, land use and zoning is another integral component of a comprehensive approach to light rail implementation. Land use and zoning within the City of Detroit is controlled by the Planning and Development Department. Land use policies and goals are formalized in the City's *Master Plan of Policies*, which was last updated in 2006. The *Master Plan of Policies* sets goals and policies for the City as a whole, as well as for 10 sectors and 50 subsectors. Zoning is established by ordinance.

Along Woodward Avenue, the existing zoning and land uses reflect the diverse nature of the corridor, from the traditional central business district at the southern end of Woodward, to the institutional uses in the New Center area, to more suburban uses at the northern end of the corridor. Future land use maps (City of Detroit, 2006) for the subsectors that overlap with the proposed light rail alignment show major concentrations of the following land uses: major commercial [office/retail] and special residential-commercial [residential with ground floor retail] in the CBD and special residential-commercial and institutional land uses in the Lower Woodward and Middle Woodward subsectors. From the northern end of the Middle Woodward area to 8 Mile Road, future land uses are more varied, but are predominantly low-density and single use in nature, including large areas of park space and other recreational uses.

Detroit DOT (2009) notes that much of the existing zoning categories along the southern half of the alignment "would translate well to support TOD" (p. 48). These

categories allow for multi-story, mixed-use development. The potential for transit-oriented development (TOD) is bolstered by overlays that govern the form of development in key areas along the corridor, including the area between I-75 and the southern boundary of the City of Highland Park (Detroit DOT, 2009).

Zoning along the northern portion of the proposed alignment is currently less supportive of TOD. Dominant zoning categories include low-density residential and the general business district, which is defined as having a “thoroughfare-oriented nature” (Detroit DOT, 2009, p. 43-44). This change in zoning mirrors the shift in cross section of Woodward Avenue as it grows in width, number of lanes, and gains a large central median as it approaches the city limits at 8 Mile Road. The area around Woodward Avenue near 8 Mile Road also contains several large tracts of land that do not have transit-supportive densities and may not redevelop due to their current uses: Palmer Park Golf Club and Evergreen and Woodlawn Cemeteries. It is also the prospective home to the Shoppes at Detroit’s Gateway Park development, the building of which has been delayed due to the slow economy. It is the rumored home to what could be Detroit’s first major chain grocery outlet (Martinez, 2011). The development is expected to be a traditional, auto-based strip development that will include a 400-space park-and-ride facility for the light rail line (Detroit DOT, 2011).

At this time, no changes have been made to land use or zoning specifically related to the light rail project. However, the project team noted it “will examine station-area zoning and parking policies, including the potential for a transit overlay district, as part of broader efforts at conceptual station-area planning as the project moves into the

engineering and design phases” (Detroit DOT, 2009, p. 48). These phases are expected to begin sometime in late 2011.

While detailed station-area planning is still forthcoming, Mayor Dave Bing’s central policy initiative is one of the first direct attempts to address shrinkage in Detroit.

Dubbed “The Detroit Works Project,” it aims to unite all aspects of city governance within one comprehensive strategy. Unlike past efforts, this one is explicitly intended to help right-size Detroit to its current population. Like past efforts, this one has also struggled to get off the ground.

The project identifies nine specific planning areas that will be included in the final report: land use, zoning, and land development; economic recovery; neighborhood, housing amenities; landscape and ecology; environmental sustainability; historic and cultural resources; services, operations & fiscal reform; transportation/transit; and green and gray infrastructure (The Detroit Works Project, 2011). These areas are supplemented by a series of questions that the project is designed to answer. These questions are targeted to current and future city residents and business owners, and include: Who will live here? Where will people live? Where will people work? How will people (and goods) move? What services will people need? How will the city invest? How will Detroit look? How will we decide? The project website, which is the most expansive source of information currently available, indicates that Detroit’s leaders are willing to recognize the dire situation before them:

Decades of depopulation have resulted in a lack of density that has crippled neighborhoods. The national credit freeze is exacerbated by uncertainty about the valuation of real estate and other assets as loan collateral. The city’s financial resources are strained and school enrollment continues to decline.

This statement is unprecedented coming from a Detroit mayoral administration, although it is still not clear what the administration – through this project – will be able to achieve.

The Bing administration has been plagued by turnover among senior staffers. Although this has not yet impacted The Detroit Works Project leadership directly, it may certainly have had indirect impacts given the project's mission of unifying planning and investment efforts throughout the city. As of June 2011, more than 25 appointees of the mayor have left since his term began in 2009 (Hackney & Neavling, 2011). At the same time, the scope and timelines for the project have continued to change, reports have been delayed, and to date little substantive policy has emerged.

While the project is intended to develop a long-term strategy, the most significant product of it to date is a short-term initiative aimed at neighborhood stability. Mayor Bing's office announced a plan in July 2011 to begin citywide implementation of targeted city services based upon neighborhood market conditions (Appendix B). Strategies in "stable" neighborhoods will be targeted at maintaining that stability – such as blight enforcement and infrastructure improvement – while demolition will take priority in "transitional" and "distressed" neighborhoods (Kaffer, 2011). The city has identified three areas, which will be monitored during the initial six-months of implementation to determine what outcomes are achieved; each area includes a mix of stable, transitional, and distressed neighborhoods (The Detroit Works Project, 2011). Two of the monitoring areas border or include significant portions of Woodward Avenue. While the proposed strategies reflect best practices for shrinking cities, the associated market analysis indicates major challenges for the Woodward Avenue light rail. The

analysis indicates that a substantial portion of the land along Woodward Avenue is classified as “long term decline & no market” (Figure 5-5). This includes most of the area between the New Center area and Downtown, and also many properties north of New Center to the light rail’s proposed terminus at 8 Mile Road.

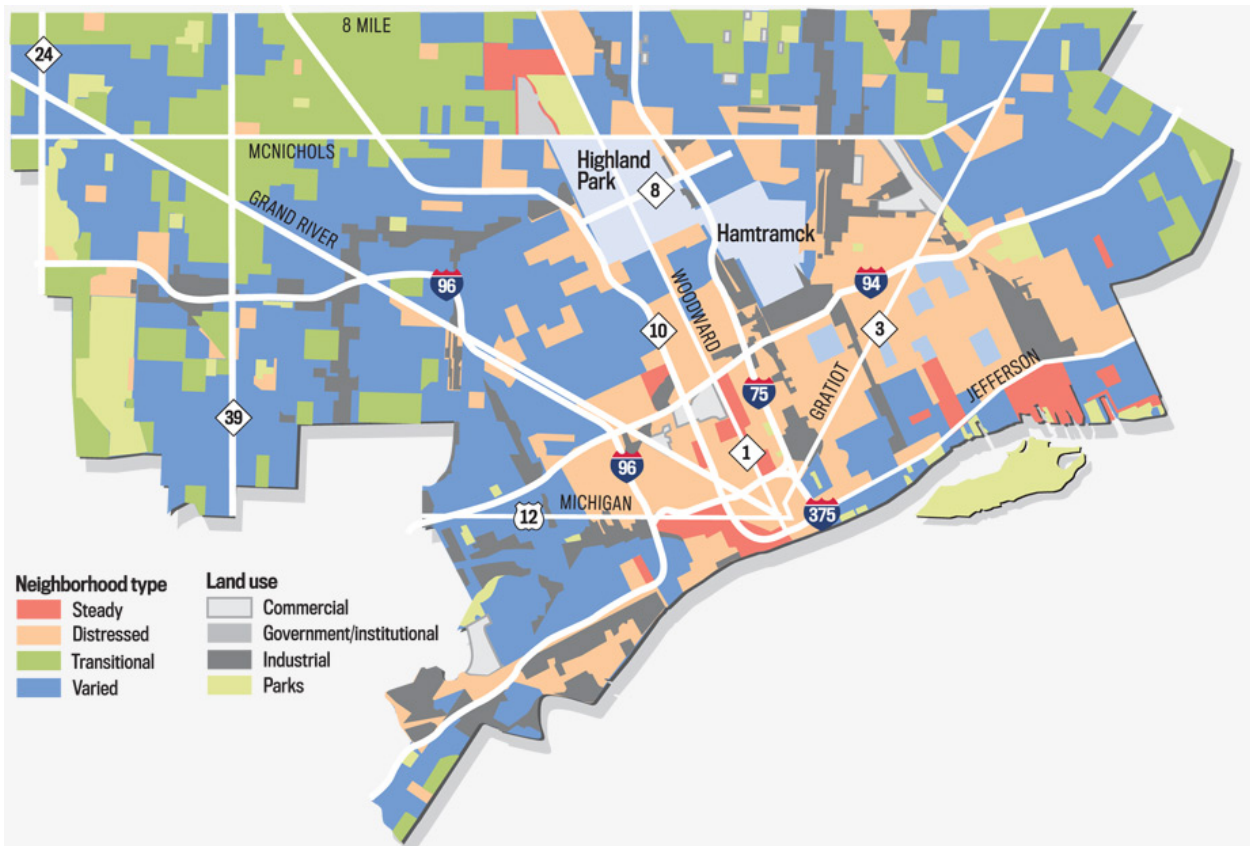


Figure 5-5. Geographic distribution of Detroit Works Project neighborhood types

The market-oriented strategy is an innovative step for the city, but also indicates the challenges that await the light rail. The existence of “distressed” neighborhoods along significant portions of the rail alignment calls into question the synergy between the light rail investment and the new policy direction. For instance, a high level of demolitions may aid in land assembly for long-term development but could bode poorly for short-term ridership. The two projects – arguably two of the biggest projects in

Detroit this decade, must act in concert with each other or risk undermining the viability of each.

Summary

Recent shifts toward proactive policies to address population decline indicate that a new day may indeed be at hand in Detroit. Rather than chase growth with money and mega-projects, a new approach that focuses on basic services may help to ease the negative impacts of population decline on the residents who remain. A light rail proposal on its own is counterintuitive given the focus on adjusting services to a smaller population. However, if matched with appropriate changes in land use and more cooperation between local governments, the light rail may help to support the goals of servicing the population in a more efficient way. The most immediate challenge will be to build a system on time and on budget and obtain the ridership necessary to demonstrate that the investment was worthwhile.

CHAPTER 6 DISCUSSION

Despite the best efforts of DDOT, Woodward Avenue light rail remains a classic growth-machine strategy. The ideological clash that arose over the design of the light rail is unlikely to disappear. M-1 Rail holds tremendous power in the project, not only because of the individual member's influence as prominent business owners, but because their funding contribution is essential to meeting the financial requirements of the federal government. Although it is unlikely that the consortium would actually pull this contribution – which would essentially terminate the project – for fear of bearing the blame, they will no doubt hold tremendous sway over the engineering and design phases that will soon commence. Project managers will continue to face pressure from outside and inside the government to orient the project to benefit growth interests. It is rather remarkable in light of M-1 Rail's veritable veto power that the City preceded with its recommendation for median-running light rail. It was a risky move that suggests project managers are unwilling to acquiesce to pressure from a powerful minority at the expense of their professional judgment.

That said, this conviction demands that the project as built must keep its promises and meet its goals; M-1 consortium members have made it clear in the debate over median-versus-curb-running that they will not accept blame if the light rail is not successful. Project managers must keep to their budget and schedule (unusual for such projects) or Woodward Avenue light rail is likely to be considered like the Detroit People Mover a train to nowhere. The potential that the project will reaffirm cynicism about the ability of transit to get choice riders is much greater than the potential that the

project will improve City and suburban relations and generate widespread demands for future expansion.

Another challenge is that, unlike bus service, DDOT will not be able to adjust the light rail alignment in response to ground conditions. Therefore, if population or ridership falls, the likely outcome is either reduced service on the line or inefficient service on the line will be provided at the expense of services elsewhere. Given Woodward Avenue's historic significance in the Detroit area, it is likely that this alignment will require some level of transit service well into the future, whether or not population decline continues or densities justify light rail service. However, it is essential that the corridor's land uses reflect its significance and provide for transit-supportive density, diversity, and design.

It is also essential that DDOT find a long-term source of operational funding for the light rail. A regional transportation authority might provide some benefit, assuming funding formulas did not reflect suburban reluctance to fund services in Detroit — which those citizens and municipalities may not see a direct benefit. It would also potentially leave Detroit transit at the mercy of suburban interests, depending upon the power structure of the board. Yet, the ability to tax regionally to support transit may be one key component of long-term fiscal health for Detroit transit. A regional transit authority would also allow for more integrated planning of transit services to ensure the light rail complements, and is complemented by, bus service and the DPM to the maximum extent possible.

If a regional authority were not created, another beneficial change would be to create a dedicated DDOT board of directors. This board would be empowered to

negotiate its contracts, including those with its employees. At the current time, the Detroit City Council is the DDOT board of directors and negotiates contracts on its behalf, which may help to explain the DDOT's high costs compared with its peer agencies.

Regardless of the light rail project, the lower Woodward area will almost certainly continue to see new development. This is in large part due to the clustering of institutional uses in that area. Any development will provide fodder for both rail advocates (who will cite it as evidence of the rail's success) and detractors (who will question why the rail did not promote more development). If history is any indication, there will also be a continuing call for traditional, growth-machine solutions to urban renewal, such as a stadium project. Recently, in fact, the president of the Detroit City Council suggested that the Temple Street station – which is surrounded by vacant buildings and cleared land – might be an ideal location for a new hockey or basketball arena (Kalokhe, 2011). These habits are die-hard, as demonstrated by Woodward Avenue light rail.

Upper Woodward Avenue is a much different story. Limited market demand, dwindling population, and an existing auto-centric development pattern create huge hurdles. These issues may be overcome if suburbanites abandon their cars and normal Woodward, Lodge, or I-75 travel patterns, shifting to park-and-ride facilities and the light rail. If rail is to be more than an amusement, this will need to be a change in daily travel patterns, not simply a new way to travel to a Tigers game. This will largely depend upon three key outcomes. The light rail must be competitive in terms of travel times, when compared to vehicular travel along Woodward and its parallel routes. It must also

be competitive in terms of cost; adjustments to parking supply and pricing along the corridor may help to shift drivers from their cars to the rail. Finally, and perhaps most importantly, DDOT must maintain frequent, reliable, and safe service. To a degree unlike most other urban areas, suburban Detroiters are skeptical, and to some extent scared, of their central city. A successful light rail line may help to physically and emotionally reconnect Detroit and Detroiters with the suburbs and suburbanites. An integrated system, built at (or under) budget and meeting (or exceeding) ridership projections would surely do much to change opinions about transit. A regional system would also give suburbanites more ownership in the light rail line – both literally and figuratively – and the same can be said of city residents and suburban transit. There is already some evidence that suburban communities want to join in a larger light rail system. Six Oakland County municipalities along Woodward Avenue are pursuing federal funding to conduct an alternatives analysis for transit, which would be a necessary step to any federally-funded extension of light rail beyond 8 Mile Road (Helms, 2011). Certainly, a regional authority with recent experience implementing rail transit would be in a most beneficial position to plan, build, and operate such an extension.

Most will likely consider any new development along the light rail to be an indication of success. However, such development may further exacerbate existing patterns of disinvestment or lead to new disinvestment in other areas of the city.

Glaeser (2010) warned:

The whole idea of saving declining cities by building more is a mistake, since the hallmark of declining cities is that they have plenty of infrastructure relative to people. Detroit's houses sell for a fraction of the costs of building anything new. The monorail glides over essentially empty

streets. Indeed, there is surely more wisdom in Mayor Bing's plan to shrink the city's footprint than in the light rail system simultaneously being planned for Detroit.

It is also possible, however, that some new development along Woodward Avenue would help to advance the goals of shrinking the city spatially. Previous studies by Glaeser and others (Glaeser, Kahn, & Rappaport, 2007; Glaeser & Gyourko, 2005) found that transit accessibility and transit improvements are strong incentives to the residential locations of low-income residents. If the light rail encourages folks to relocate from neighborhoods that are currently declining, the investment may prove to be smart. Mallach (2010) noted that "the point of making transportation investments in these [distressed] cities is not to respond to existing economic activity, but to serve as a catalyst for potential economic development and neighborhood revitalization opportunities" (p. 36). Where this strategy will fail is if residents relocate from neighborhoods that were already stable, which would do nothing to reduce the City's service provision burdens. However, if the city can facilitate redevelopment along the corridor in a transit-oriented fashion, rehabilitate existing structures, and encourage the shift of population and employment to the light rail service area, there could be a definite positive impact to the city's budget.

While the outcomes for light rail remain unknown, one thing is certain: shrinkage is political dynamite. Mayor Bing has shown the most willingness of any politician in Detroit's history to proactively address the issues associated with Detroit's falling population. According to Wayland (2011), Bing stated "when people look at Detroit, they compare us to what we were. We can't really live in the past. We have to talk about now, and the future." The delays in the Detroit Works Project may simply be a reflection of the inherent challenges of implementing shrinking cities. It may also reflect

the inherent challenges of governance for a political novice (Bing has no prior political experience). Regardless, unless the short-term strategies released by the Bing administration in July 2011 eventually transition into long-term policies, the city is likely to continue to struggle financially.

Until recently, Youngstown, Ohio was the most prominent example of so-called “shrinking cities” policies in the United States. Although Detroit’s shrinkage plans are in their infancy, and the city has not yet begun widespread removal of streets or down zoning of lands, it has the potential to legitimately claim the mantel of “model city” that it once held fraudulently, as the 1967 riots dramatically illustrated. Detroit has opportunities and challenges on a much larger scale than Youngstown, but also a much higher profile in the national psyche. Given Detroit’s epic fall from grace, it will not take much success to propel its policies into a new paradigm for shrinking cities.

Success for Woodward Avenue light rail must be redefined. Growth oriented indicators promise to disappoint, as past projects have shown. Objectives more conducive in a shrinking city context, such as meeting projections for cost and ridership, promoting transit system integration, and promoting service efficiencies, are no less challenging to achieve but will likely provide much more widespread benefit.

CHAPTER 7 CONCLUSION

Detroit has had a long and dangerous addiction to mega-project based revitalization and an obsessive and deluded quest to regain a glorious past that has long since disappeared. Detroit has pursued multiple mega-projects and, more often than not, the costs have outweighed the benefits. While this strategy has exceptional monetary costs, perhaps more costly is the impact these repeated, spectacular failures have on the psyches of Detroiters.

Take for example the response of one resident to the excitement surrounding the opening of Comerica Park in 2000, as quoted in *The New York Times*: "This city is fixated on shortcuts to revitalization that do nothing but deliver false promises" (Christian, 2000). Detroit is already a city with an abundance of despair and a serious lack of hope; it is a perennial contender for the statistically dubious title of "Most unhappy city in America" routinely assigned by a variety of news magazines. What little hope remains among Detroiters should not be squandered frivolously.

Even if the premise is accepted that economic development is a reasonable goal for the proposed light rail line, it is not clear that any meaningful economic development will result. Certainly, prior studies of the impacts of light rail on economic development are at best tepid in their findings in support of the thesis. In addition, most positive findings result from cities that are otherwise relatively healthy economically in comparison to Detroit. Even the documents produced in support of the light rail project show that population, employment, and market conditions are mixed, at best.

It is quite likely that, like the mega-projects before it, the Woodward Avenue light rail exceed its projected costs while falling short of its projected benefits. Light rail is unfortunately, regrettably, but very likely, not going to return Detroit to its former heights.

Light rail is happily, thankfully, and very likely not going to kill Detroit, either.

Daniel Burnham, one of history's great city planners, famous said:

Make no little plans. They have no magic to stir men's blood and probably themselves will not be realized. Make big plans; aim high in hope and work, remembering that a noble, logical diagram once recorded will never die, but long after we are gone will be a living thing, asserting itself with ever-growing insistency. Remember that our sons and grandsons are going to do things that would stagger us. Let your watchword be order and your beacon beauty. Think big.

The Woodward Avenue light rail project is big. It may not live up to every expectation, good or bad, and it may become a victim to circumstances known or unknown. It certainly will not please everyone. In spite of that, it is without doubt an unapologetic effort by a City to reclaim itself and forge a new, and perhaps better, future.

This report is necessarily constrained by time, distance, and data availability. Future research into the motivations of the M1 Rail coalition might focus on the land development interests of the investors; such interests are characteristic of a prototypical growth machine. This research also supports further understanding of origin-destination and travel patterns in the study area. This data was not available for the Detroit area at the time of this study.

APPENDIX A
WOODWARD AVENUE LAND USE QUANTITATIVE DATA

LAND USE (QUANTITATIVE) TEMPLATE			
PROJECT NAME:	Woodward Light Rail		
Population and Employment – Metropolitan Area, CBD, and Corridor			
Item	Base Year	Forecast Year 2030	Growth (%)
Metropolitan Area			
Total Population	5,099,772	5,551,490	8.9%
Total Employment	2,318,113	2,560,325	10.4%
Central Business District (see footnote 1)			
Total Employment	52,472	59,997	-4.0%
Employment – Percent of Metropolitan Area	0.026949506	0.023429447	—
CBD Land Area (sq. mi.)	1.185	1.2	—
Employment Density (e.g., jobs per sq. mi.)	52,719	50,622	—
Corridor			
Total Population	274,406	259,285	-5.5%
Total Employment	174,228	156,122	-10.4%
Population – Percent of Metropolitan Area	5%	5%	—
Employment – Percent of Metropolitan Area	8%	6%	—
Corridor Land Area (sq. mi.)	43.4	43.4	—
Population Density (persons per sq. mi.)	6322.7	5974.3	—
Employment Density (jobs per sq. mi.)	4014.5	3597.3	—
Total All Station Areas (1/2-mile radius) (See footnote 2)			
Housing Units	21,572	21,321	-1.2%
Population	50,735	53,342	5.1%
Employment	97,509	87,197	-10.6%
Land Area (square miles)	8.5	8.5	—
Housing Unit Density (units per sq. mi.)	2545.0	2516.3	—
Population Density (persons per sq. mi.)	5987.8	6295.5	—
Employment Density (persons per sq. mi.)	11508.2	10291.2	—
Station Area 1 (See footnote 3)			
Station Name:	Michigan State Fair Grounds		
Housing Units	714	689	-3.5%
Population	1,897	2,085	10.0%
Employment	614	550	-10.4%
Land Area (square miles)	0.7	0.7	—
Housing Unit Density (units per sq. mi.)	1,038	1,001	—
Population Density (persons per sq. mi.)	2,757	3,032	—
Employment Density (persons per sq. mi.)	892	799	—
Station Area 2			
Station Name:	Seven Mile Road		
Housing Units	1,531	1,404	-8.3%
Population	4,166	4,073	-2.2%
Employment	360	353	-1.9%
Land Area (square miles)	0.7	0.7	—
Housing Unit Density (units per sq. mi.)	2,212	2,029	—
Population Density (persons per sq. mi.)	6,020	5,886	—
Employment Density (persons per sq. mi.)	520	510	—
Station Area 3			
Station Name:	Monihole (8 Mile) Road		
Housing Units	1,435	1,168	-18.6%
Population	4,062	3,036	-25.3%
Employment	712	622	-12.6%
Land Area (square miles)	0.8	0.8	—
Housing Unit Density (units per sq. mi.)	1,794	1,460	—
Population Density (persons per sq. mi.)	5,078	3,795	—
Employment Density (persons per sq. mi.)	890	778	—
Station Area 4			
Station Name:	Manchester Road		
Housing Units	1,381	1,283	-7.1%
Population	3,211	2,647	-17.6%
Employment	1,737	1,549	-10.8%
Land Area (square miles)	0.7	0.7	—
Housing Unit Density (units per sq. mi.)	2,064	1,918	—
Population Density (persons per sq. mi.)	4,800	3,957	—
Employment Density (persons per sq. mi.)	2,596	2,315	—
Station Area 5			
Station Name:	Glendale Street		
Housing Units	1,122	942	-16.0%
Population	3,400	2,910	-14.4%
Employment	1,403	1,252	-10.8%
Land Area (square miles)	0.6	0.6	—
Housing Unit Density (units per sq. mi.)	1,761	1,479	—
Population Density (persons per sq. mi.)	5,338	4,568	—
Employment Density (persons per sq. mi.)	2,203	1,965	—

Station Area 6	Station Name:	Calvert Street	
Housing Units	1,375	992	-27.9%
Population	3,928	3,193	-18.7%
Employment	514	349	-32.1%
Land Area (square miles)	0.6	0.6	—
Housing Unit Density (units per sq. mi.)	2,214	1,597	—
Population Density (persons per sq. mi.)	6,325	5,142	—
Employment Density (persons per sq. mi.)	828	562	—
Station Area 7	Station Name:	Hazelwood Street/Holbrook Street	
Housing Units	2,022	1,605	-20.6%
Population	5,385	4,662	-13.4%
Employment	935	634	-32.3%
Land Area (square miles)	0.7	0.7	—
Housing Unit Density (units per sq. mi.)	3,018	2,395	—
Population Density (persons per sq. mi.)	8,039	6,958	—
Employment Density (persons per sq. mi.)	1,397	945	—
Station Area 8	Station Name:	Grand Boulevard	
Housing Units	1,577	1,394	-11.6%
Population	3,358	3,018	-10.1%
Employment	4,998	3,445	-31.1%
Land Area (square miles)	0.5	0.5	—
Housing Unit Density (units per sq. mi.)	3,173	2,805	—
Population Density (persons per sq. mi.)	6,757	6,072	—
Employment Density (persons per sq. mi.)	10,056	6,932	—
Station Area 9	Station Name:	Piquette Street (Amtrak Station)	
Housing Units	833	875	5.0%
Population	1,428	1,760	23.2%
Employment	2,975	2,361	-20.6%
Land Area (square miles)	0.5	0.5	—
Housing Unit Density (units per sq. mi.)	1,827	1,919	—
Population Density (persons per sq. mi.)	3,132	3,860	—
Employment Density (persons per sq. mi.)	6,524	5,178	—
Station Area 10	Station Name:	Warren Avenue	
Housing Units	2,967	3,464	16.8%
Population	5,474	7,884	44.0%
Employment	15,299	12,977	-15.2%
Land Area (square miles)	0.7	0.7	—
Housing Unit Density (units per sq. mi.)	4,489	5,241	—
Population Density (persons per sq. mi.)	8,281	11,927	—
Employment Density (persons per sq. mi.)	23,145	19,632	—
Station Area 11	Station Name:	Maak Avenue/MLK Boulevard	
Housing Units	3,355	3,807	13.5%
Population	7,109	9,478	33.3%
Employment	6,958	5,401	-22.4%
Land Area (square miles)	0.7	0.7	—
Housing Unit Density (units per sq. mi.)	5,107	5,795	—
Population Density (persons per sq. mi.)	10,820	14,426	—
Employment Density (persons per sq. mi.)	10,591	8,221	—
Station Area 12	Station Name:	Columbia Street/Elizabeth Street (Foxtown/Stadium)	
Housing Units	1,294	1,538	18.9%
Population	3,052	4,013	31.5%
Employment	6,080	6,323	4.0%
Land Area (square miles)	0.5	0.5	—
Housing Unit Density (units per sq. mi.)	2,668	3,171	—
Population Density (persons per sq. mi.)	6,293	8,274	—
Employment Density (persons per sq. mi.)	12,536	13,037	—
Station Area 13	Station Name:	Washington Blvd./Grand River (Rosa Parks Transit Center)	
Housing Units	948	1,056	11.4%
Population	1,486	1,752	17.9%
Employment	14,755	13,172	-10.7%
Land Area (square miles)	0.3	0.3	—
Housing Unit Density (units per sq. mi.)	3,374	3,758	—
Population Density (persons per sq. mi.)	5,288	6,235	—
Employment Density (persons per sq. mi.)	52,509	46,875	—

Station Area 14	Station Name:	Washington Blvd. & Larned/Congress (Cobo Hall)		
Housing Units		211	266	26.1%
Population		448	520	16.1%
Employment		12,017	8,817	-26.6%
Land Area (square miles)		0.3	0.3	—
Housing Unit Density (units per sq. mi.)		776	978	—
Population Density (persons per sq. mi.)		1,647	1,912	—
Employment Density (persons per sq. mi.)		44,180	32,415	—
Station Area 15	Station Name:	Randolph & Larned/Congress (CAYMC/Millender Center)		
Housing Units		807	838	3.8%
Population		2,330	2,310	-0.9%
Employment		28,151	29,392	4.4%
Land Area (square miles)		0.4	0.4	—
Housing Unit Density (units per sq. mi.)		2,085	2,165	—
Population Density (persons per sq. mi.)		6,021	5,969	—
Employment Density (persons per sq. mi.)		72,742	75,948	—

APPENDIX B
DETROIT WORKS PROJECT PROPOSED CITY SERVICE ALLOCATION BY
NEIGHBORHOOD

Serving neighborhoods

The new way Mayor Dave Bing wants to deliver city services:

Neighborhood type:	Steady	Transitional	Distressed
CONCENTRATIONS			
Blight elimination			
Demolish dangerous structures	Some	High	High
Board-up of open structures	Some	High	Medium
Code enforcement	High	High	Some
Debris/illegal dumping clean-up/prevention	High	High	Medium
Infrastructure improvements			
Public lighting	High	Medium	Low
Road improvements	Low	High	Low
Recreation services	Medium	Medium	High
Water & sewerage treatments	Some	High	Some
Transportation improvements	Some	Low	Medium
Land use			
Acquire foreclosed property	Some	High	Low
Assemble land for redevelopment and reuse	Low	Some	High
Business attraction/retention	High	Medium	Some
Beautification			
Tree maintenance	High	Medium	Low
Enhancement of vacant lots	Some	High	High
Economic development			
Improved commercial corridors	High	Medium	Low
Rehabilitation of residential structures	Some	High	Low
Public safety			
Police	High	High	High
Fire	High	High	High
EMS	High	High	High

Note: The degree of city services goes from high to medium to some to low
Source: City of Detroit

The Detroit News

LIST OF REFERENCES

- Altshuler, A. A., & Luberoff, D. (2003). *Mega-projects: The changing politics of urban public investment*. Washington, D.C.: The Brookings Institution.
- Baade, R. A. (1996). Professional sports as catalysts for metropolitan economic development. *Journal of Urban Affairs*, 18(1), 1-17.
- Bachelor, L. W. (1998). Stadiums as solution sets: Baseball, football, and the revival of downtown Detroit. *Review of Policy Research*, 15(1), 89-102.
- Balaker, T., & Kim, C. J. (2006). Do economists reach a conclusion on rail transit? *Economic Journal Watch*, 3(3), 551-602.
- Baum-Snow, N., Kahn, M. E., & Voith, R. (2005). Effects of urban rail transit expansions: Evidence from sixteen cities, 1970-2000 [with comment]. *Brookings-Wharton Papers on Urban Affairs*, 147-206.
- Beauregard, R. A. (2009). Urban population loss in historical perspective, 1820-2000. *Environment and Planning A*, 41, 514-528.
- Black, A. (1993). The recent popularity of light rail transit in North America. *Journal of Planning Education and Research*, 12(2), 150-159.
- Blakely, E. J., & Bradshaw, T. K. (2002). *Planning local economic development: Theory and practice – Third Edition*. Thousand Oaks, CA: Sage Publications, Inc.
- Brown, J. R., & Thompson, G. L. (2009). The influence of service planning decision on rail transit success or failure. San Jose: Mineta Transportation Institute.
- Cervero, R., & Landis, J. (1997). Twenty years of the Bay Area Rapid Transit System: Land use and development impacts. *Transportation Research A*, 31(4): 309-333.
- Christian, N. M. (2000, April 11). Detroit sees park as star player in redevelopment. *The New York Times*.
- City of Detroit. (2006). Master Plan of Policies.
- City of Youngstown. (2010). Youngstown 2010 Plan. Accessed from http://www.cityofyoungstownoh.com/about_youngstown/youngstown_2010/
- Clemens, P. (2006). *Made in Detroit: A south of 8 Mile memoir*. New York: Doubleday.
- Coolidge, A. (2010, November 17). Casino can't revive city on its own. *The Cincinnati Enquirer*.

- Darden, J. T., Hill, R. C., Thomas, J., & Thomas, R. (1990). *Detroit: Race and uneven development*. Philadelphia: Temple University Press.
- Davey, M. (2011, April 5). The odd challenge for Detroit planners. *The New York Times*.
- Detroit Charter Revision Committee. (2009). City taxes, the charter, and neighborhood and economic development. Accessed from <http://2009dcrc.org/default.aspx>
- Detroit DOT. (2011). Final environmental impact statement, Woodward Avenue light rail transit project.
- Detroit DOT. (2009). Template 11: Supplemental land use information & supporting documentation template.
- The Detroit Works Project. (2011). Accessed from <http://www.detroitworksproject.com>
- Dutta, U., & Tadi, R. R. Detroit People Mover: Past, present, and uncertain future. Presented at the Tenth International Conference on Automated People Movers, May 2005, Orlando, FL.
- Elsinger, P. (2000). The politics of bread and circuses: Building the city for the visitor class. *Urban Affairs Review*, 35(3), 316-333.
- Federal Transit Administration. (2008). The predicted and actual impacts of new starts projects – 2007: Capital cost and ridership. Washington, D.C.: US Department of Transportation.
- Florida, R. (2002). *The rise of the creative class and how it's transforming work, leisure, community, and everyday life*. New York: Basic Books.
- Flyvbjerg, B., Holm, M. S., & Buhl, S. (2002). Underestimating costs in public works projects: Error or lie? *Journal of the American Planning Association*, 68(3), 279-295.
- Frank, L.; Bradley, M.; Kavage, S.; Chapman, J.; & Lawton, T. K. (2008). Urban form, travel time, and cost relationships with tour complexity and mode choice. *Transportation*, 35(1), 37-54.
- Gallagher, J. (2010, August 9). Red Wings owner Ilitch wants to buy Pistons, build area in Detroit. *Detroit Free Press*.
- Gibson, C. (1998). Population of the 100 largest cities and other urban places in the United States: 1790 to 1990. U.S. Bureau of the Census, Population Division Working Paper No. 27. Accessed from <http://www.census.gov/population/www/documentation/twps0027/twps0027.html>

- Glaeser, E. (2011). *Triumph of the city: How our greatest invention makes us richer, smarter, greener, healthier, and happier*. New York: The Penguin Press.
- Glaeser, E. L. (2010, March 16). Shrinking Detroit back to greatness. *Economix* [blog]. *The New York Times*. Accessed from <http://economix.blogs.nytimes.com/2010/03/16/shrinking-detroit-back-to-greatness/?scp=9&sq=detroit%20people%20mover&st=cse>
- Glaeser, E. & Gyourko, J. (2005). Urban decline and durable housing. *Journal of Political Economy*, 113(2), 345-375.
- Glaeser, E., Kahn, M. E., & Rappaport, J. (2007). Why do the poor living in cities? The role of public transportation. *Journal of Urban Economics*, 63(1), 1-24.
- Guerra, E. & Cervero, R. (2010). Cost of a ride: The effects of densities on fixed-guideway transit ridership and capital costs. University of California Transportation Center.
- Hackney, S. & Neavling, S. (2011, June 18). With top aide's resignation, Detroit Mayor Dave Bing tries to get back on track. *The Detroit Free Press*.
- Hall, P. (1980). *Great planning disasters*. London: Weidenfeld and Nicolson.
- Helms, M. (2011, August 8). Study examines extending Woodward light rail from Detroit to suburbs like Ferndale, Birmingham. *The Detroit Free Press*.
- Helms, M. & Gallagher, J. (2011, September 15). Detroit could turn over management of light-rail project to group of experts. *The Detroit Free Press*.
- Hess, D. B., & Almeida, T. M. (2007). Impact of proximity to light rail rapid transit on station-area property values in Buffalo, New York. *Urban Studies*, 44(5/6), 1041-1068.
- Hollander, J. (2011). *Sunburnt cities: The great recession, depopulation, and urban planning in the American sunbelt*. New York: Routledge.
- Jackson, K. T. (1985). *Crabgrass frontier: The suburbanization of the United States*. Oxford: Oxford University Press.
- Kaffer, N. (2011, July 27). More details of Detroit Works plan come into focus. *Crain's Detroit Business*.
- Kain, J. F. (1990). Deception in Dallas. *Journal of the American Planning Association*, 56(2), 184-197.

- Kalokhe, S. (2011, August 8). Stops on M1 rail line prompt speculation over future development. Accessed from www.wxyz.com
- Lane, B. W. (2008). Significant characteristics of the urban rail renaissance in the United States: A discriminant analysis. *Transportation Research Part A*, 42, 279-295.
- Li, J., & Wachs, M. (2004). The effects of federal transit subsidy policy on investment decisions: The case of San Francisco's Geary Corridor. *Transportation*, 31, 43-67.
- Litman, T. (2010). Evaluating rail transit criticism. Victoria, BC: Victoria Transport Policy Institute.
- Logan, J. R., & Molotch, H. L. (2007). *Urban fortunes: The political economy of place* (20th Anniversary Edition). Berkeley, CA: University of California Press.
- Loukaitou-Sideris, A., & Banerjee, T. (1996). There's no there there: Or why neighborhoods don't readily develop near light-rail transit stations. *Access*, 9, 2-6.
- MacDonald, C. (2011, July 27). Bing: Neighborhood health to determine city services. *The Detroit News*.
- Mackett, R. L., & Edwards, M. (1998). The impact of new urban transport systems: Will the expectations be met? *Transportation Research A*, 32(4), 231-245.
- Mallach, A. (2010). Facing the urban challenge: The federal government and America's older distressed cities. Metropolitan Policy Program at Brookings and WhatWorks Collaborative.
- Martinez, S. (2011, June 28). Meijer on report of building Detroit store: 'Many details still to be finalized'. *The Grand Rapids Press*. Accessed from http://www.mlive.com/business/detroit/index.ssf/2011/06/meijer_on_report_of_ope ning_de.html
- McCarthy, J. (2002). Entertainment-led regeneration: the case of Detroit. *Cities*, 19(2), 105-111.
- McGraw, B. (Ed.). (2005). *The quotations of Mayor Coleman A. Young*. Detroit: Wayne State University Press.
- Michigan Department of Transportation. (2009a). Average daily traffic (ADT) maps. Accessed from http://www.michigan.gov/mdot/0,1607,7-151-9622_11033_11149---,00.html

- Michigan Department of Transportation. (2009b). Transportation funding crisis: What you don't know will cost you. Accessed from http://www.michigan.gov/documents/mdot/MDOT_Crisis_PPT_GR_02-06-09-long_266474_7.ppt
- Michigan Department of Transportation. (n.d.) National firsts. Accessed from http://www.michigan.gov/mdot/0,1607,7-151-9620_11154-129682--,00.html
- Michigan DOT. (2010). I-94: Roadway to Detroit's Future. Accessed from <http://www.youtube.com/watch?v=lrfv-9zm7zY>
- Michigan House of Representatives. (2009). Transit history of the Detroit region. Accessed from <http://www.house.mi.gov/SessionDocs/2009-2010/Testimony/Committee13-3-31-2009.pdf>
- Moore, J. E. II. (1993). Commentary on "The recent popularity of light rail transit in North America." *Journal of Planning Education and Research*, 13(1), 50-53.
- Oosting, J. (2009, August 17). Report: 48 vacant buildings in downtown Detroit. *Detroit News*.
- Pickrell, D. H. (1992). A desire named streetcar: Fantasy and fact in rail transit planning. *Journal of the American Planning Association*, 58(2), 158-176.
- Primetime Live. (1990, November 8). Detroit's Agony [Television Program].
- Pulley, B. (1998, April 11). Casinos bring Detroit hope and division. *The New York Times*.
- Rappaport, J., & Wilkerson, C. (2001). *What are the benefits of hosting a major league sports franchise?* Kansas City: Federal Reserve Bank.
- Richmond, J. E. D. (1998). The mythical conception of rail transit in Los Angeles. *Journal of Architectural and Planning Research*, 15(4), 294-320.
- Schmidt, W. E. (1989, December 15). Pleasant Ridge Journal; The freeway it took a generation to build. *New York Times*.
- Shea, B. (2011, July 10). An unhappy M1 Rail puts project funds on the line: Group \ sees DDOT's plan as unsustainable. *Crain's Detroit Business*.
- Sugrue, T. J. (1996). *The origins of the urban crisis: Race and inequality in postwar Detroit* (First Princeton Classic Edition). Princeton, New Jersey: Princeton University Press.

- Taylor, B. D, Kim, E. J., & Gahbauer, J. E. (2009). The thin red line: A case study of political influence on transportation planning practice. *Journal of Planning Education and Research*, 29, 173-193.
- Taylor, B. D., & Samples, K. (2002). Jobs, jobs, jobs: Political perceptions, economic reality, and capital bias in U.S. transit subsidy policy. *Public Works Management Policy*, 6, 250-263.
- Teaford, J. C. (1990). *The rough road to renaissance: Urban revitalization in America, 1940-1985*. Baltimore: The Johns Hopkins University Press.
- Thomas, J. M. (1997). *Redevelopment and race: Planning a finer city in postwar Detroit*. Baltimore: The Johns Hopkins University Press.
- Transportation Riders United. (n.d.). 1863-present timeline. Accessed from <http://www.detroittransit.org/streetcar/timeline.html>
- U.S. Census Bureau. (2005). Housing patterns: Racial and ethnic residential segregation in the United States: 1980-2000. Accessed from http://www.census.gov/hhes/www/housing/housing_patterns/papertoc.html
- U.S. Department of Transportation. (n.d.). Woodward Light Rail. Accessed from <http://www.woodwardlightrail.com/HomeNew.html>
- Visit Detroit. (2010). Statistics about Detroit. Accessed from <http://www.visitdetroit.com/statistics-detroit>
- Wayland, M. (2011, May 3). Renaissance Center nears capacity for 1st time in history with Blue Cross Blue Shield move. Accessed from www.mlive.com
- Wayne County. (2008). Comprehensive economic development strategy.
- Wilkerson, I. (1987, August 1). Years late, Detroit's monorail opens. *The New York Times*.
- Winston, C., & Maheshri, V. (2007). On the social desirability of urban rail transit systems. *Journal of Urban Economics*, 62, 362-382.
- Woodward Avenue Action Association. (n.d.). Woodward history. Accessed from <http://www.woodwardavenue.org/Tour/Woodward+History-23.html>

BIOGRAPHICAL SKETCH

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