

Missed Connection?

A Critical Evaluation of the Woodward Avenue Light Rail Project

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Introduction

In the past decade, light-rail transit has experienced a considerable rise in popularity as cities across the U.S. have entered into various stages of proposing, planning, and developing light-rail systems. Entirely new systems have recently opened in Charlotte and Phoenix, other new and existing systems are currently under construction in more than a dozen cities, and cities including Detroit are currently planning for new light-rail development. The momentum for these projects has in large part been fueled by the prospect of new development near rail stations, which would in turn increase municipal revenue through property- and sales-taxes, as well as by the desire to project the image of a world-class city in order to attract and retain talented residents (Patton 2008; Sutherland 2010). In cities with historically underserved residents, such as Detroit and Washington, light rail is also seen as a means for connecting transit-dependent residents to jobs, shopping, and other critical destinations.

In light of these claims, this article evaluates the proposed Woodward Light Rail Project and its potential impact on commercial and residential property values, including the possibility of gentrification, as well as the ability of the project to improve mobility for low-income, inner-city residents. This article considers the rail line in the context of recent discussions concerning appropriate planning interventions for so-called “shrinking cities,” of which Detroit is a paradigmatic instance, as well as the literature of urban entrepreneurialism and the urban growth machine (Harvey 1989; Logan and Molotch 2007). Taken in tandem, these theories contend that costly, large-scale, downtown development projects may not be the most effective means for serving the remaining residents of cities experiencing population loss and worsening neighborhood conditions, and may even serve to exacerbate existing inequalities. This article will base its evaluation of the Woodward Light Rail Project on a review of the literature examining the causes and consequences of light rail development in other U.S. cities. This article urges caution in the development and execution of rail transit in Detroit, as previous rail development projects have had mixed results. In particular, the plan needs to be realistic in its expectations and ensure that benefits are extended to

lower-income neighborhoods along the corridor, not just private interests.

With the promise of private investment and federal funds in the initial planning and construction periods, light rail is an appealing option for metropolitan regions experiencing decline. Furthermore, promises of increased transit ridership, neighborhood revitalization, and bustling commercial corridors entice cities to invest in such large-scale projects, no matter the long-term costs (Black 2003; Flyvbjerg, Bruzelius, and Rothengatter 2003). This article seeks to determine whether the benefits of rail transit projects are realized in other cities, and to compare the variables affecting these outcomes to the potential results of rail development in Detroit. In particular, we consider property values, neighborhood effects, and mobility changes for the transit-dependent as key factors conditioning the success of the Detroit light rail project.

Background

Pending the favorable outcome of a federally-required Environmental Impact Statement (EIS) and the determination of a final path alignment, construction is anticipated to begin next year on Detroit’s Woodward Avenue light rail project. If completed according to plan, the rail line would run 9.3 miles from downtown Detroit to the city’s boundary at 8 Mile Road (see figure 1). The first phase of the light rail project, a 3.4-mile curbside loop from Hart Plaza in downtown Detroit to Grand Boulevard, would be principally financed by a consortium of private investors representing downtown business interests, collectively known as M1 Rail. This section of the rail line would run past major businesses, educational and medical facilities, and cultural and sporting destinations. Subsequent to the completion of the first phase, the City of Detroit plans to extend the rail line along Woodward Avenue to the Michigan State Fairgrounds at 8 Mile Road. The city began planning for a rapid transit system independently in 2006, when the Detroit Department of Transportation (DDOT) undertook an alternatives analysis required to compete for federal funding authorized under the Federal Transit Authority’s (FTA) New Starts Program. This analysis, known as the Detroit Transit Options for Growth Study

(DTOGS), recommended the development of a light rail line along the Woodward corridor in order to both meet the transportation needs of area residents and stimulate economic development. This proposal was subsequently incorporated into the Southeast Michigan Council of Governments' (SEMCOG) regional transportation improvement plan, as it demonstrated potential for serving as part of a regional transportation system capable of improving the mobility of persons with special needs and those without automobiles. The cooperation of M1 Rail and the city of Detroit has been critical to the financing of this project, as the federal government is allowing the city to use the capital raised by M1 (\$125 million) to count as the local match money necessary to leverage federal funding under the New Starts Program, which is expected to cover up to 60 percent of the capital cost of the project. The project has also received a \$25 million grant under the federal Transportation Investment Generating Economic Recovery (TIGER). The cost of the entire project is currently estimated to be between \$450 and 500 million, but this could change based on the final alignment, number of stations, and the fluctuating cost of materials. Critics of the Woodward light rail project charge that the current plan to stop construction at 8 Mile Road in the hopes that neighboring counties will buy into the project is not only inadequate but fails to conform to the initially proposed regional plan, which calls for extending the line to 11 Mile Road (Shea 2010).

Growth Politics in Shrinking Cities

In order to contend with population loss and economic decline resulting from suburbanization, deindustrialization, and global economic restructuring, shrinking cities in the U.S. have typically adopted growth-oriented strategies (Hollander et al. 2009). Famous instances include the redevelopment of Baltimore's Inner Harbor, the failed AutoWorld theme park in Flint, and the heavily-subsidized People Mover in Detroit. Though U.S. cities historically have had a favorable orientation toward growth (Logan and Molotch 2007), the role of government in its production has been significantly altered in the wake of deindustrialization and decline. This shift in urban politics has been theorized as a change from a managerial to an entrepreneurial approach to governance (Hall and Hubbard 1998; Harvey 1989). According to Hall and Hubbard (1998), "this reorientation of urban government is characterized by a shift from the local provision of welfare and services to more outward-orientated policies designed

to foster and encourage local growth and economic development" (p. 2). Lending support to this change in urban governance, some scholars have maintained that urban policy should only be evaluated in terms of its success in attracting capital investment. Most notably, Peterson (1981) argues that "policies and programs can be said to be in the best interest of the cities whenever the policies maintain or enhance the economic position, social prestige, or political power of the city, taken as a whole" (p. 22). Within this framework, "developmental policies" take precedence over "redistributive policies," which are directed toward the amelioration of the conditions of low-income residents (Peterson 1981, 132).

Many have taken exception to Peterson's argument, finding that growth-oriented policies do not necessarily promote the public good. Indeed, "for many places and times, growth is at best a mixed blessing" (Logan and Molotch 1987, 85). Even in cases when these approaches are capable of stimulating economic development, in

such instances it may be highly uneven in its distribution (Smith 2008). Similarly, Logan and Molotch (2007) argue that "for those who count, the city is a growth machine, one that can increase

aggregate rents and trap related wealth for those in the right position to benefit" (p. 50). The inequitable character of growth-oriented strategies is well illustrated by the redevelopment of Baltimore's Inner Harbor which has been widely touted as a template for urban revitalization. In an analysis of the degree and distribution of activity produced by this development, Levine (1987) finds that this type of heavily-underwritten downtown development serves to exacerbate income inequality, creating, in effect, a dual city. Similarly, in their examination of attempts to restructure Flint, Michigan through costly tourism development, Lord and Price (1992) conclude that "deindustrialization encourages local decision-makers to pursue growth solutions that are irrational and inappropriate, thus serving to exacerbate the problems faced by urban areas" (p. 155). While increasing the economic standing of a city and its residents is a worthwhile objective, this paper is concerned with the distribution of such benefits, if they are indeed realized.

Transportation and Economic Development

Transportation long has been appropriated by pro-growth coalitions for the enhancement of property values, whether through the extension of canals, railroads, or the interstate highway system (Logan and Molotch 2007). Since the late 1970s, transit, and light rail in particular, has

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emerged as a popular strategy for economic development and place promotion (Black 1993; Cervero 1984). While transit development must be able to defend itself in terms of its ability to meet the transportation needs of transit-dependent residents, in order to achieve political viability it must also be able to appeal across the political spectrum (Altschuler and Luberoff 2003). Influential members of the pro-growth coalition, which includes both private and public actors, are most likely to support transit when it promises to increase revenue from business activity, property values, and retail traffic. Among these objectives, scholars pay most attention to changes in property values precipitated by transit development. This section seeks to find whether economic benefits are realized, and if so, for whom.

Conventional urban economic theory maintains that property values are influenced by proximity to needed or desired destinations, especially employment (Alonso 1965). This is expressed in the familiar monocentric model of urban spatial structure, developed by Alonso, Mills, and Muth, which hypothesizes that utility-maximizing individuals are willing to pay to live closer to the Central Business District, as this is where employment is concentrated (Mieszkowski and Mills 1993). These theories maintain that transportation systems function to overcome the “friction of spaces” by increasing the accessibility of land to employment, increasing property values in areas served by transportation systems such as rail (Alonso 1965, 6). Thus, according to the logic of urban economics the accessibility benefits of transportation should be capitalized into the land value of transit-adjacent properties, particularly those near rail stations.

Research has found that rail transit generally has had a positive impact on commercial and retail properties along transit corridors and near stations. Using a hedonic model, Weinberger (2001) found that properties within 0.5 miles of transit stations command a premium relative to other properties in fast-growing Santa Clara County, CA. In their analysis of Santa Clara County, Cervero and Duncan (2002) found that proximity to transit stations increased the sales price of a typical commercial parcel within 0.5 miles of a transit station by 23 percent. Commercial properties realized even greater capitalization benefits; the sales price for a typical parcel within 0.25 miles of a commuter rail station were found to be 120 percent greater than non-proximal parcels. In an analysis of the joint development of transit stations and office buildings in Atlanta and Washington, DC, Cervero (1994) found that office buildings realized a premium of

three dollars per square foot. In California, the Bay Area Rapid Transit (BART) system has also been shown to have realized gains for commercial properties as the system has matured (Cervero & Landis 1997).

In terms of residential property values, the results show a significant association between property values and proximity to transit, but they also find a number of factors that greatly affect the strength of this relationship.

Debrezion, Pels, and Rietveld (2007) found that while residential property does not realize the same degree of capitalization from proximity to transit stations as commercial

land, it is indeed positive. Their analysis did, however, show that proximity to commuter rail stations had a significantly higher impact on property values than did proximity to light rail. On the other hand, Gatzlaff and Smith (1993) found no significant impact on residential property values from transit development in low-income neighborhoods, but slight gains in high-income areas. As Hess and Almeida (2007) observe, this suggests that “studies are highly context-specific, with effects on land values realized unevenly across various neighborhood types” (p. 1047). In their analysis of the shrinking city of Buffalo, NY, Hess and Almeida (2007) found little capitalization of the light rail system into nearby properties, leading them to question the efficacy of rail transit systems as a means of economic revitalization.

Light Rail and Neighborhood Resident Outcomes

Not only may neighborhood residents fail to benefit from the economic development potential of light rail, but they may also fail to benefit from the rail system in terms of increased mobility. The politics of regional transportation development are incredibly contentious, and the likelihood of extending the Woodward corridor beyond the city limits is anything but assured. Buffalo’s light rail project illustrates the difficulties in realizing a cohesive regional transit system. The city’s 6.4-mile rail line was meant to link the downtown with the suburban state university and to revive its declining central business district (Teaford 1990). However, after protests from community activists and a complete redesign of the line, the Niagara Frontier Transportation Authority (NFTA) was able to construct only half of the intended 12.5-mile line at twice the anticipated cost of the entire project (Teaford 1990). The transit corridor currently experiences neither the enhanced mobility nor the economic development that local officials had expected.

As in the case of Buffalo, the Woodward Light

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Rail Project may fail to reach its goal of connecting transit-dependent populations to suburban employment, which is desperately needed given the spatial separation between employment and low-wage earners (URS 2008). The spatial mismatch hypothesis (SMH) is one of the most extensively researched dimensions of the problematic relationship between geography and opportunity in metropolitan America. First advanced by John Kain in the 1960s, the SMH maintains that post-war patterns of employment decentralization and residential segregation have conspired to constrain the employment opportunities of lower-skilled inner-city minorities (Kain 1968). This spatial mismatch between the supply of low-skilled labor in the central city and the demand for low-skilled labor at the metropolitan level certainly plays a role in Detroit. As Grengs (2010) discusses, Detroit is a “classic case” of SMH, with “unusually high job sprawl accompanied by extreme residential segregation,” exacerbated by an inadequate regional transit system (p. 47). In Detroit, low-wage employment in the metro region is largely located at the periphery of the city limits and beyond (Grengs 2010). Though jobs are located outside of the city, federal funds support the project only up to 8 Mile, the northern boundary of Detroit (Shea 2010). Furthermore, there are larger obstacles that will inhibit light rail from reaching northward, including the need for a regional rapid transit authority and additional interest from private investors, as well as political will from county executives within

the metropolitan area (Shea 2010). All of these factors reveal the difficulty of meeting the needs of the transit-dependent population in the short term.

A spatial mismatch also exists between the city and suburbs in terms of transit funding. As pointed out by Teaford (1990), per-trip subsidies are typically larger for suburban riders than those in the urban core. Webber (1976), commenting on the effects of the rail system in the San Francisco Bay Area found that by “being heavily subsidized and charging fares well under its actual costs, BART has appreciably reduced monetary commuting expenses for outlying suburbanites who work in the central cities. Thus, rather than deterring suburban sprawl, BART may instead be encouraging it” (p. 90). Additionally, Webber (1976) showed in his analysis of BART that the cost of the rail line disproportionately affects lower-income households, who pay a higher share of their income than upper-class residents throughout the region.

Not only may light rail projects fail to realize promised benefits of increased mobility, they may also have unintended negative consequences. The development of amenity-rich, transit-oriented developments along the rail corridor increases the potential for gentrification. Because this term has several different meanings, this paper adopts Kenney and Leonard’s (2001) definition of gentrification as “the process by which higher income households displace lower income residents of a neighborhood, changing its essential character and flavor”



Chinatown, Toronto, Canada. Photo: Cameron Hollingshead

(p. 5). This is perhaps the most comprehensive and useful formulation of gentrification as it takes both the social and economic dimensions of the process into consideration. Kahn (2007) specifically speaks of gentrification in transit-oriented developments as it occurred in 14 major US cities that invested in rail. In those cities that did experience gentrification, the “new urbanist lifestyle” attracted both high-income college graduates and improved retail (p. 170). This increase in average income and education does not necessarily correspond with an improvement in the quality of life of existing residents. Rather, significant increases in these indicators of neighborhood conditions point to the most significant adverse impact of gentrification – the displacement of lower-income residents through higher property values.

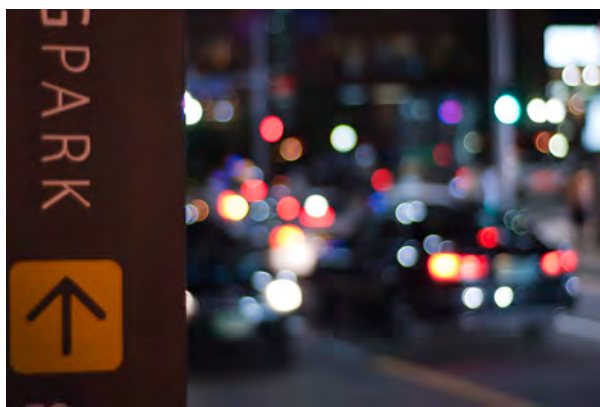
Pollack, Bluestone, and Billingham (2010) obtained similar results in their analysis of 42 newly transit-served neighborhoods in 12 metropolitan areas (those neighborhoods first served between 1990 and 2000). While they found that specific patterns of neighborhood change varied across study areas, their results show that a majority of newly transit-served neighborhoods experienced rising housing costs and incomes. In order to address the equity concerns of rail development, Pollack et al. (2010) focused their analysis on changes in neighborhood shares of people of color, low-income households, and renters, who together comprise the majority of “core transit riders” (p. 2). This group is not only heavily transit-dependent, but also necessary for the financial viability of light rail. For transit projects to be both equitable and financially viable, neighborhoods in which transit stops are located need to be both racially and economically diverse. The authors found that neighborhoods with a higher share of renters and low-income households prior to rail development experienced the most rapid rates of gentrification. In terms of changes in racial composition, the results were mixed; most neighborhoods showed consistent shares of minority households. Taken together, research in this area has demonstrated a proven need to be cognizant of equity



Photo: Kristin Baja, 2010

concerns when developing rail in areas with disadvantaged, transit-dependent residents.

While it is difficult to perfectly predict neighborhood outcomes based on existing conditions, an examination of the spatial distribution of residential population, employment, and transit-dependent households is useful in finding the implications of existing literature in the context of Detroit. Figure 2 shows the distribution of Detroit’s residential population. As may be readily perceived, census tracts with the greatest population density reside at the periphery, suggesting that branch lines or bus service explicitly linked to the rail corridor would be needed to serve the city’s existing population. According to the American Community Survey, average population density is 13 percent lower in tracts within a quarter mile of the rail corridor than in the city taken as a whole (U.S. Census Bureau 2009). Given the lower density in proximity to the proposed rail corridor, gentrification may be less of an immediate concern given that the housing market may be more relaxed. In terms of transit-dependent households, however, the numbers are different. Citywide, the average share of households without access to private vehicles is 23 percent, but in census tracts within a quarter mile of the rail corridor the average share is 30 percent (see figure 3). While the numbers may be low in absolute terms, these statistics certainly show that a number of households stand to benefit from the placement of the corridor. As carless households also tend to be lower-income, care should be taken to ensure their ability to retain residency in their neighborhoods once they become transit-served. A final map (figure 4) shows the location of jobs in Detroit. As previously discussed, the majority of low-wage jobs exist beyond the city limits; however, the



Seoul, South Korea. Photo: Mikhail Kim, 2009

enormous concentration of all jobs in downtown Detroit clearly shows that the rail line constitutes a direct path to downtown employment, a great deal of which is office and managerial. Taken together, these maps show that the rail line would unambiguously serve downtown interests, but the degree to which neighborhood interests would also benefit is uncertain.

Implications and Recommendations

This review of previous cases in which rail transit has been used as a means to promote economic development and enhance mobility for transit-dependent, inner-city residents has revealed several important factors that need to be taken into consideration for the successful development of the Woodward Light Rail Project. In terms of economic development, case studies have shown significant promise for the capitalization of commercial and retail property near transit. However, the results are mixed for residential properties. As research has indicated, lower-income neighborhoods are less likely to benefit from the economic gains of rail transit than higher-income neighborhoods. This differential outcome suggests expectations of economic development need to be tempered for disadvantaged areas, and that other policies, in tandem with rail development, need to be implemented to provide urban neighborhoods with tangible benefits. This could take the form of targeting these areas with neighborhood development subsidies, such as Community Development Block Grant (CDBG) funds. While Detroit's housing market is quite weak, the potential for gentrification remains in some of the neighborhoods currently experiencing transition along the Woodward corridor, such as Midtown and the New Center area.

The Woodward Light Rail Project and DDOT would benefit from re-evaluating their current goals to serve the transit-dependent population and to reduce auto dependency. Because of existing research around these topics, it is unlikely that a light rail project simply spanning Woodward Avenue would address such serious social issues. Taking into consideration the stated goals, along with potential operating and construction costs absorbed by the city, the project may not best serve the public interest. Furthermore, an inefficient rail line may siphon necessary city funds from more appropriate uses, such as expanding the current DDOT bus system, which spans the entire city, rather than targeting one commercial district. Flybjerg, Bruzelius and Rothengatter's (2003) concept of the "performance paradox" is especially important in this context: "Cost overruns and lower-than-predicted revenues frequently place project viability at risk and redefine projects that were initially promoted as effective vehicles to economic growth as possible obstacles to such growth" (p. 3). Thus, the city needs to be realistic about the

long-term financial obligations of light rail. While federal funding is likely to contribute the majority of capital expenses for the project, operating expenses could place the city in a precarious financial situation if ridership is below and construction costs are above projections. This was the case in Buffalo, Portland, and Sacramento, among other cities. In Buffalo, the actual ridership was 68 percent below the forecast, while capital expenses were 59 percent greater than expected (Black 1993).

In sum, the current proposal for the light rail project needs to be evaluated in terms of the degree to which it would benefit private interests over neighborhoods and transit-dependent city residents. The literature suggests that the benefits of such megaprojects are often exaggerated and may even further existing inequalities. In the context of a shrinking city, development needs to be targeted to best serve existing residents, and not pinned to the hopes of attracting an enormous influx of new residents. This has been attempted in the past, as in the case of Buffalo, and has failed. On the other hand, the city has the potential to entice residents to relocate to amenity-rich, transit-oriented developments. This would not only relieve the fiscal burdens of a city with an outsized infrastructure system, but it would also allow for the creation of vibrant urban neighborhoods capable of serving a range of incomes. Furthermore, this could also be the first step toward creating a positive relationship between politicians and community leaders, which is sorely needed in Detroit after decades of distrust.

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