

location of transit lines and stations, as well as scheduling, provides an essential guide to research problems for all scholars. Although the reader may not agree with each of his problem formulations, Vuchic's consistent and expert expression of problems at various geographic scales, and his review of the current status of their solution in research and practice, provides an essential starting point for serious research. Third, the support of the preparation of expert syntheses by academics and professionals, of which this book is an outstanding example, is necessary for the advancement of our general field. Creation of such works is essentially a "labor of love," for which the author should be amply rewarded by proper recognition and acclaim.

Through his dedication and example, Vukan Vuchic has set a high standard for the rest of us.

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Transport of Delight: The Mythical Conception of Rail Transit in Los Angeles,

by Jonathan Richmond. 2005. Akron, Ohio: University of Akron Press. 498 + xx. ISBN 1-884836-94-1, cloth, \$49.95; ISBN 1-884836-95-X, paper, \$39.95.

It is a truth almost universally acknowledged that a large city with money to spend on mass transit is in need of light rail. Except for most academic experts in transportation, everyone seems to prefer rail to buses. Rail is seen as clean, fast, quiet, and comfortable, while buses are seen as dirty, slow, noisy, and crowded with the wrong sort of people. Are the academics wrong in thinking that improved bus service is usually a better way to spend scarce money for public transportation? And if the academics are right, what explains the popular and political appeal of new rail systems? In *Transport of Delight*, Jonathan Richmond provides new and convincing answers to these questions.

Rail projects often fail to work the way their proponents predict. Actual ridership is usually lower than forecast, and actual costs higher. Several prominent planners and economists (Bent Flyvbjerg, John Kain, Don Pickrell, Martin Wachs) have speculated on why rail forecasts are often so rosy. Pickrell (1992) found that seven of the eight rail projects he examined had actual ridership less than half the levels forecast. Similarly, costs exceeded forecasts on seven of the projects, overruns ranging from 17 to more than 150 percent. Pickrell concluded that the source of these miscalculations was not the difficulty of forecasting ridership and costs; the errors were not random because almost every error steered the planning choice toward building rail.

When planners work for clients who favor particular policies, their forecasts are not simply analytical studies. Martin Wachs (1989) explained that planners have divided loyalties when they forecast the results of proposed projects because they are trapped between two competing models of their role. Planners may see themselves as "scientists"

who analyze data to discover the truth, but they are also “advocates” who use data and models to support the client’s preferred course of action. These two roles inherently conflict with one another, and that conflict has plagued decision making about urban rail investments.

Transport of Delight is an enlightening contribution to the debates about urban rail and about the contradictions between planners’ roles as scientists and advocates. After presenting a history of rail transit in Southern California, Richmond undertakes an exhaustive investigation of the Blue Line, a 22-mile light-rail route between Los Angeles and Long Beach. Initially forecast to cost \$194 million, it ended up costing \$890 million—an overrun of 360 percent. As one who was born in Long Beach and lives in Los Angeles, I confess a special fascination with the topic of Richmond’s case study, but I suspect that research on rail projects in other cities would expose similar problems.

Richmond provides a skilled postmortem of the transportation modeling used to justify the Blue Line. Before undertaking a rail investment, planners typically conduct an “alternatives analysis” that compares the rail project with the alternative of investing in improved bus service. To compare the results of spending money in two alternative ways, one would want to see what the same expenditure could achieve in each case. But planners in Los Angeles compared the Blue Line with a poorly designed bus alternative that would have cost far less. For example, the bus option did not include such obvious improvements as shorter headways for local lines or express service for longer trips.

While the Blue Line was forecast to carry more than twice as many passengers as the alternative bus line, the total home-to-work transit trips in the Los Angeles–Long Beach corridor were estimated to be only 3 percent more with the rail than with the bus alternative, a statistically and practically insignificant difference given the uncertainty of the forecast and the much higher cost of the rail line. So was the modeling useless? No. Richmond concludes that the elaborate but faulty modeling served a political purpose. It seemed to show rationality at work but contributed little to actual decisions.

The Blue Line experience suggests that transit agencies may be able to increase ridership far more by reducing bus fares than by building light rail. As a condition of the voter-approved proposition that authorized a half-cent sales tax to finance the Blue Line, the Los Angeles Metropolitan Transportation Authority (MTA) used the tax revenue to reduce bus fares from 85¢ to 50¢ for three years before the rail construction began in 1985; MTA then raised fares back to 85¢ when it started to use the tax revenue to fund rail projects. MTA had 360 million passenger boardings in 1982 before the fare subsidies began, 497 million during the third and last year of fare subsidies in 1985, and 443 million in 2005. Total MTA ridership thus increased by 38 percent in the three years with the lower 50¢ bus fare, but the subsequent fare increases needed to fund rail projects have reduced transit ridership by more than the new rail service has increased it. Between 1985 and 2005, the MTA spent \$7 billion to build 73 miles of rail transit, but total transit ridership fell by 11 percent.

Richmond’s findings about the cost and ridership of urban rail are in line with much previous research. Where he breaks new ground is in his explanation for the political success of rail. Others have emphasized the federal incentive of matching grants for rail investments, and lobbying by contractors and labor unions that will benefit from the construction. Beyond misguided federal incentives and the influence of special interests, Richmond adds a new explanation for the flowering of rail projects: the power of myth.

The book is expanded from his Ph.D. thesis in transportation planning at MIT. In examining the mythical power of rail, he departs from the role of a transport planner/economist and carves a new analytic niche that only he seems to occupy: transport

anthropologist. Rather than spend all his time analyzing data at his desk, he conducted extensive fieldwork and interviewed 209 elected officials, planning staff, and other actors in the transportation arena. In these interviews, he found that most politicians and citizens favor rail projects because they firmly believe these projects will go a long way toward solving the urban transportation problem.

Richmond argues that both politicians and their constituents desire rail transit for many reasons: nostalgia for an idealized past when trolleys were the dominant form of public transit; confusion of rail capacity with passenger demand; confusion between rail ridership and how a rail project increases total transit ridership (not recognizing that many rail passengers formerly rode the bus, so total transit ridership increases by less than the number of new rail passengers); the failure to consider how the money spent on rail could improve bus service and reduce fares; a focus on the high speed of the train rather than the much lower speed for the full door-to-door transit trip; visible pollution from smoking buses; the reality of horrendous traffic congestion; the chimera of dense development around every rail station; and adults' fond memories of their toy trains.

Richmond's extended discussion of the mythical power of rail transit is enjoyable reading and quite convincing. Consider two elements of the rail myth: rail's high speed and rail's ability to reorganize the urban pattern.

In his interviews, Richmond found that most people greatly overestimated the speed of rail transit because they considered only the rail part of a trip. Other necessary parts of the trip—getting to and from the train stations and waiting for the train—were given little attention. People thus imagine hopping onto a train and, *whoosh*, alighting a few minutes later right at their destination, although the reality is quite different. This delusion of high speed leads many people to think light rail will be an attractive alternative to cars and buses stuck in traffic.

He also found many people assumed the Blue Line would lead to dense development around the rail stations. He compares this belief to the New Guinean cargo cult in which docks and runways were constructed to receive the cargo that people imagined would arrive when such facilities were put in place. The Blue Line runs through an economically depressed part of Los Angeles, and light rail was promoted as an effective development tool. In reality, the Blue Line has had almost no positive impact on station areas in the poor parts of town, and the large park-and-ride lots at these stations may even have deterred development that would have taken place without the Blue Line.

Richmond does not say that light rail is always a bad investment. Instead, he focuses on how the power of myth helps to create the popular desire for urban rail, regardless of its actual performance. The political support for the Blue Line had little to do with cost-effectiveness or transportation efficiency, and criticizing light rail on those grounds has had little effect. Even where improved bus service is a far better transport investment, *Transport of Delight* explains why so many people vote for rail.

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