Commentary on "The Recent Popularity of Light Rail Transit in North America"


Games of federal grantsmanship should be minimized, and local governments should bear more of the financial responsibility. But if a majority of citizens prefer rail to bus and are willing to pay for it—as sometimes indicated in elections—then who can say that they are wrong?

Indeed, these voters are not wrong. They are being told what they want to hear while simultaneously being asked to pay themselves to support the hidden agendas of transit authorities. In the flow of day-to-day life this is called "being lied to." In the transit game it is called "politics." I infer from Prof. Black's comments that he draws some distinction between these processes. I do not.

Public choice economists recognize public agencies' direct interest in administered allocations, but scholars also account for simultaneous public sector growth and public service decline by explaining interest group success, hidden-cost policies, and declining public interest in politics (Barzel and Silberberg 1973; Wolfe 1979; Kelman 1987; Browning 1989; Gordon and Richardson 1991). Political activism is a difficult process. As Professor Black's analysis indicates, the politics of transit present a particularly dense thicket. Access to attractive market prospects quickly makes politics and voting irrelevant activities for most households. Voters remain rationally ignorant because they can afford to.

If the electorate is demonstrating rational ignorance, it is a fairly simple matter to convince voters that new rail transit facilities will alleviate road congestion by absorbing demand. This is an appealing message. The electorate's endorsement of the sales taxes typically proposed by local transit authoritie is, first and foremost, a vote for open roads. In this case the outcome is a variant of Reich's ('New York Times 20 Jan. 1991) "secession of the successful." But instead of opting for private transportation services, the electorate is buying into the objective of providing a second-class transportation alternative intenced to siphon off ever larger proportions of the population least able to pay for it. The merits of this objective aside, the rail strategy is not a cost effective means of providing attractive transit services, and it is certainly no decongestant. Even if rail transit systems were inexpensive to build and attracted so many riders that the level of service on the road network improved each time a new rail line was introduced, reducing the cost of road travel merely increases the value and accessibility of sites. This intensifies land use, the demand for transport, and, ultimately, traffic volumes.

Gordon and Willson (1985) published a log-linear multiple regression model of rail transit demand based on a cross section of international data. Reviewing data from the major cities of the world, they identified a small set of variables that served as reliable predictors of urban train ridership. Logically, two of these variables are population density and average income. Urban population densities tend to be low in North America relative to rest of the world. Average income tends to be relatively high in North America, and the price of gasoline relative to income tends to be very low in the U. S. One of Gordon and Willson's conclusions is that North American cities are likely to provide a poor market for rail transit.

Still, North American taxpayers have spent billions of dollars on rail transit, and are scheduled to spend billions more. The result is and will continue to be a net reduction in total transit use. It is a simple, painful story. Consider the case of Los Angeles, where the Los Angeles Metropolitan Transportation Authority (LAMTA) is in the process of building a 400-mile, $78.2 billion rail transit system as part of the largest public works program in the nation’s history. Prof. Black is very clear that he does not consider Los Angeles a good candidate for rail transit, and I do not mean to imply that he has taken any other position with respect to Los Angeles. I refer to the Los Angeles system because I know it well, and because it represents the sort of outcome we should be most interested in avoiding.

Los Angeles County Proposition A (LACTC 1980) and C (LACTC 1990) provide an annual estimated contribution of $800 million in sales tax revenues to LAMTA, expressly


Motor Coach Age. 1979. 31:11.


to enable the authority to fulfill its fixed-rail mission. The sales tax revenues provided by Propositions A and C are also used to subsidize bus fares, but effective January 1, 1985, LACTC began setting aside 35% of Proposition A sales tax revenues for rail transit projects. The first two phases of the authority’s planned rail system is already in place. The 22-mile Long Beach–Los Angeles Blue Line light rail train opened to the public on July 15, 1990. The Blue Line was joined with a four-mile segment of the Red Line subway on January 30, 1993.

The Southern California Rapid Transit District (SCRTD) lost 96 million annual bus boardings between 1985 and 1990. Estimated 1993 ridership boosts this loss to 118 million boardings, or almost 24% of 1985 patronage. Loses began the day bus fares were raised above the three-year, $0.50 cap imposed by Proposition A in 1983. Other operating decisions may also have contributed to the ridership loss, but bus patrons are often marginal consumers, and thus especially sensitive to price.

LAMTA’s most recent estimate of ridership on the Blue Line is over 11 million boardings per year. If Los Angeles County transportation officials are as concerned as they profess to be about public welfare, mobility, and accessibility; then why are they so disinterested in the 107 million annual boardings that have disappeared from LAMTA buses, but have not reappeared on the rail system? The outcome seems to have escaped serious scrutiny, just as it did in Miami. Instead, public transit plans in Los Angeles and the rest of North America remain focused on rail’s specious potential as an alternative to the private automobile.

Black’s assertion (158) that “solid evidence is hard to come by” is a bit of a mystery. We are swimming in the clearest sort of evidence that the transportation markets in North American cities are not efficiently served by rail transit (Meyer et al. 1965; Hilton 1967, 1974; Gomez-Ibanez 1985; Wachs 1986; Pisarski 1987; Kain 1988; Gordon and Richardson 1989; Pickrell 1989; Wachs 1989; Kain 1990; Richmond 1991; Pisarski 1992; Pickrell 1992). Much of this evidence is summarized nicely by Prof. Black, but he seems to have trouble believing it. He should believe it. His findings are correct, relevant, and useful.

Analyses touting the efficacy of rail transit in North America are rife with optimistic assumptions and uneconomic arguments that crumble at the touch.

“Nevertheless,” argues Prof. Black (158), “light rail should be considered an option in medium-sized cities.” Absolutely. Light rail should be costed out and evaluated in light of the world of empirical evidence describing its dismal performance and dismissed along with heavy rail, monorail, duorail, maglev, personal rapid transit, and jet packs. Black reports that, “The strongest case can be made for a high-density corridor with a linear demand pattern and right-of-way available at low cost.” Right again. Rail transit works best when large numbers of travelers want to get from the immediate neighborhood of point A to the immediate neighborhood of point B. Kowloon and Hong Kong Island provide an excellent example. Where density, congestion, and low incomes beget demand, rail may well be the answer.

But in North America Black’s strongest case is weak. High-density corridors with linear demand patterns are in short supply. To fill a train in Austin (or Charlotte, Columbus, Denver, Detroit, Kansas City, Memphis, Milwaukee, Minneapolis, Norfolk, Orlando, Salt Lake City, Seattle, Tampa, or any of the other cities Prof. Black contends [152] are pining for “entrée into the elite circles of cities with rail transit”), something has to happen that does not happen in Buffalo (or Los Angeles, Portland, San José, Sacramento, or any of the other members of the rail club).

Many people have to be willing to get on a bus, travel to point A and switch to a train, ride to point B and then switch to another bus to reach their final destinations. Even the poor, who are a lot like the rest of us, would opt for two rides on the bus before undertaking a bus-train-bus odyssey. Prof. Black’s statement of the strongest case is equivalent to declaring that if light rail was inexpensive and convenient, it would be a good deal. It is neither, and it is not.

This is the amazing aspect of Prof. Black’s article. Having successfully unscrambled the eggs, he is reluctant to eat them. Conventional transit in the United States has been a declining industry for 70 years. Large and growing subsidies have done no more than maintain local transit at a ridership plateau. Between 1978 and 1988 transit use grew by only 1.1% nationally, while the transit industry’s expenses grew by 13.7% per year. To cover costs, passenger fares and total operating assistance increased by 9.3% and 15% per annum, respectively. During the same period, federal assistance grew by 3.3% per year (three times the rate of ridership increase), while state and local subsidies rose at an average annual rate of 18.1% (Kelly 1990). Black explains the mechanisms behind much of this, but his most eloquent contribution is peripheral to the main thrust of his article.

The voice of the electorate is a key element in the fiscal plans of local transportation agencies. Given the disproportionate increase in nonfederal subsidies, local transportation authorities must be approaching the electorate with a powerful message. Once voters have responded at the ballot box, the responsibility of carrying out this mandate of the people shields the public authorities whose lies generated the mandate.

There is no reason to expect these trends to reverse themselves. These funding shifts reflect the obvious difficulty of serving ever decentralizing urban systems with 19th century technology. Ongoing adjustments in the spatial structure of cities can only further dilute any residual demand for rail transit services. Economic activities have followed the labor force into the suburbs. As a result, most commutation is now suburb to suburb (Gordon et al. 1986;
Gordon and Richardson 1989). Only a small fraction of North America’s commuters still work downtown. The result is an empirically verifiable improvement in North American trip speeds. Gordon and Richardson (1993) classified trip speeds reported in the 1983-84 and 1990 National Personal Transportation Survey (NPTS) based on trip time of day (AM peak, PM peak, other), trip purpose (work vs. other), place of residence (inside central cities vs. outside central cities), and five categories of city size. They report that average 1990 trip speeds are significantly higher than average 1983 speeds for 58 of the 60 cells defined by their classification scheme. This pervasive improvement comes without systematic changes in trip durations or trip lengths across place of residence, place of employment, time of travel, or city size. It comes despite a staggering boom in nonwork travel and despite population increases in the nation’s largest cities. The population of the Los Angeles Consolidated Metropolitan Statistical Area (CMSA) increased by more than 3 million between 1980 and 1990. This is growth of more than 26%. The Dallas CMSA grew by more than 33% during the same period. Even the New York CMSA added more than half a million souls. In contrast, many members of the class of medium sized, monocentric cities that Prof. Black puts forth as the best candidates for light rail transit systems tended to either lose population or grow very slowly between 1980 and 1990. Buffalo, Detroit, Cleveland, and Pittsburgh all shrank. Suburbanization, it seems, is not the problem. It is the solution. To quote Gordon and Richardson (1993, 7),

...modern cities avoid congestion by spreading out; they remain competitive, avoiding high land costs (and high export prices) by taking advantage of agglomeration economies that are apparently available at comparatively low densities and throughout each metropolitan area. Spatial structure adjustments stave off most of the traffic calamities that many predict for the largest U. S. cities.

Faced with the absence of an enemy, rail transit advocates have found it necessary to invent one. Congestion is the boogie man. For example, LA CTA’s 30-year plan (LACTC 1992) predicts that, without intervention, average peak period speeds on Los Angeles freeways will fall from 29 mph to 17 mph by the year 2010. If the authority’s 30-year plan is implemented, under a scenario LA CTA chillingly refers to as the “Unconstrained Plan,” (capital U, capital P), then residents can hope to enjoy rush hour freeway speeds of 35 mph. They can also hope to enjoy higher federal gasoline taxes, higher parking fees and taxes, higher state gasoline taxes, new value capture taxes on real estate, and new development fees.

Urban congestion is real, but there are few serious policy discussions of the real solutions available to Los Angeles and other North American cities. Transportation economists have hammered away for 30 years on the point that the only systemic solution worthy of attention is congestion tolls. The bundle of hype called “intelligent vehicle highway systems” (IVHS) includes new automatic vehicle identification (AVI) technologies that may ultimately make it as simple to pay a congestion toll as it is pay for a long distance telephone call. An optimal toll would ensure that the social costs imposed by road travel never exceed the private benefits accruing from the trip. Unfortunately, even an optimal toll makes for bad politics. Low technology improvements are similarly ignored. We shackle the supply side with municipal bus franchises. Removing the barriers that constrict the markets for bus, taxi, and jitney services would produce a burst of new demand-responsive alternatives and a very real dent in the attractiveness of the private automobile.

Messages like LA CTA’s are meant to deflect attention from the real solutions, and ensure that the prospect of evacuating freeways by building rail lines remains attractive to the electorate. The messages work. Transit agency budgets and influence continue to grow, fed most regularly by local revenues. Meanwhile, the electorate remains rationally ignorant of the facts, having better things to do than investigate the opportunistic assumptions underlying agency forecasts or undertake the calculations necessary to annualize the opportunity and replacement costs of the capital tied up by existing or proposed rail systems. The Los Angeles rail plan is a $78.2 billion mistake that is likely to be made and likely to be replicated at various scales across the country. These mistakes will be made regardless of how many transit trips are eliminated in the process and despite the fact that, as Prof. Black (158) notes, “money spent on transit cannot be used for other worthwhile public activities.” Local transportation authorities understand the political mechanisms available to them very well, and they continue to apply their misinformation tools with the utmost cognizance and effect. Still, there is nothing quite so valuable to these players as an academic finding that supports their spending agenda. Even a finding as carefully qualified as Prof. Black’s can be leveraged in very expensive ways. I suggest to Prof. Black that these opportunists do not deserve his help.

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Notes

1. On April 1, 1993, the Los Angeles County Transportation Commission (LACTC) was combined with the Southern California Rapid Transit District (SCRTD) to form the Los Angeles Metropolitan Transportation Authority.

2. I do not know the annual budget of LAMTA. Agency fact sheets report that the annual budget of LACTC was about $2 billion. A 1991 budget sheet for SCRTD lists budgeted expenditures at over $600 million.

References


Author's Response

The idea of building more rail transit systems in the United States evokes strong reactions, both positive and negative, from many people. Two anonymous reviewers of my original manuscript criticized me for being biased against light rail transit. Professor Moore, on the other hand, belongs in the group that is strongly opposed to rail transit. His arguments are fairly typical.

Moore and I agree on many things. I believe bus service can be greatly improved, and it deserves more money. I think rail transit has a specious glamour that bedazzles many people. I hate to see money that would lower bus fares diverted to expensive rail lines that are sparsely used.

Moore's principal objection to my article is that I did not go far enough and issue a blanket condemnation of light rail transit. This I am not willing to do. He claims that objective evaluation of light rail proposals made in North America will show them to be unjustified 100% of the time. That's not what I'd call open-minded.

I have little to add to my article, where my views on many of Moore's points are stated. However, I was provoked by a few of his remarks, to wit:

Moore says that transit agencies manipulate the political process and by deception and lies persuade "rationally ignorant" voters to approve funds for rail transit projects. I'm sure this happens, and I understand the motives. Such behavior is not unique to transit agencies. But I resent the implication that anyone favoring rail transit is dishonest. I practiced planning for ten years, and sometimes I helped make forecasts of transit ridership. I didn't cheat, nor did my coworkers. Many knowledgeable people in transportation planning consider light rail a good option in certain circumstances. I know some of these people personally, and I do not think they are liars.

Moore's opinion of the intellectual capacity of voters strikes me as elitist: Better leave decisions to college professors and other experts. I have more faith in voters; I doubt
that they are so easily fooled by campaign promises. There are various reasons why people vote for transit proposals, and there has been some research on the subject. In my opinion, many people don’t want “more of the same” in urban transportation, and they see rail transit as a different approach.

Moore also contends that “suburbanization is the solution.” This is a variation of the idea that most Americans are better off than ever before, despite media hype about supposed problems. The basic issue is whether Los Angeles is the road to paradise or hell. I leave it to readers to decide for themselves. Note that Moore never mentions such things as air pollution, dependence on petroleum, or the highway accident toll.

Finally, Moore says urban congestion could be greatly reduced by opening transit to the private market. I have given my views on privatization of transit elsewhere (Black, A. 1991. Privatization of Urban Transit. Transportation Research Record 1297:69-75). I am generally skeptical; it can bring some improvements, but it is not a panacea.


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Commentary on “Our Relationship with the Earth: Environmental Ethics in Planning Education”

I read with interest and enthusiasm the article by Martin and Beatley (1993) on environmental ethics in planning education. Their paper is important, for it challenges those of us who teach environmental planning to consider both whether and how we address the problem of environmental ethics. The authors make no pretense: they believe that we “must begin to foster in future planning professionals... a more respectful earth ethic” (125). While I am sympathetic, I do not agree that planning programs ought to place more emphasis on teaching environmental ethics, and I am troubled by their apparent willingness to imbue their students with moral imperatives. By what authority do we teach students that Aldo Leopold (1974) is right and, for example, that Alan Kneese and William Schulze (1985), who believe that neoclassical microeconomics might assist with resolution of ethical dilemmas, are wrong? Sets of ethics other than ones espoused by deep ecologists may be valid. That aside, a problem with inculcating in students a generalized, normative approach to environmental planning is that it is just that: a generalized, normative approach. We learn from environmental ethics that when we plan, we must “do right” by the environment. Frankly, in many situations we do not know how to determine what right is, let alone how to implement programs to achieve it.

I am heartened to know that the pedagogical emphasis in planning schools is on analytics and technical training (i.e., those topics listed in environmental planning and management), not on environmental ethics. Planning is a practical activity that is done in places to solve particular problems. When we exhort environmental ethics (see Friedmann [1989] for a call to embrace Green ideology), we run the risk of turning out planners who may be willing to make ethical pronouncements about particular problems, but who may be unable to provide practical advice about means for solving them. That we should avoid this, it seems to me, is a lesson we should have learned long ago. Planners suffer enough from the perception that they are elitists and moralists who believe they know what is best for everyone.

As I read “Our Relationship with the Earth,” I was reminded of two criticisms leveled at the professional class by Wendell Berry, the iconoclastic writer/farmer from Kentucky. Martin and Beatley report that among the sustainability topics, sustainable development and local self-reliance are taught most frequently. In a recent essay Berry (1991, 61) condemns the idea of thinking globally, concluding that global thinkers “have been, and will be, dangerous people.” He (Berry 1991, 63) argues that

Abstraction is the enemy wherever it is found. The abstractions of sustainability can ruin the world just as surely as the abstractions of industrial economics. Local life may be as much endangered by “saving the planet” as by “conquering the world.”

In “Higher Education and Home Defense” Berry (1987, 50) savages academe for training “a powerful class of itinerant professional vandals [who are] pillaging the country and laying it waste.” He attributes this to a professional, careerist perspective that is pervasive in publicly funded institutions. Berry is nothing if not an articulate advocate of an ethical, loving approach to human use of the land. He believes that local allegiances and local perspectives are essential to solving the environmental and social problems of rural America, and I would venture that he believes, as Martin and Beatley apparently do, that a significant failing of the university is its failure to instruct