

FLEXIBLE URBAN TRANSPORTATION

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FLEXIBLE URBAN TRANSPORTATION

By

Jonathan L Gifford

George Mason University, Arlington, USA



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INVESTOR IN PEOPLE

PREFACE

This book is a critique of transportation planning as it is practiced in the United States today and a proposal for a new, more flexible approach. The U.S. is now facing profound challenges to its economic competitiveness and social equity, to public safety and security, and to the integrity of its environment. The ability to create transportation systems that contribute to addressing those challenges effectively requires a planning process radically different from the process in place today. Meeting the nation's challenges effectively requires flexibility, honesty about what does and does not work, transparency, and inclusion of a broad range of stakeholders. The current process is rigid, dishonest—the process, that is, not the professionals who work in it—opaque, and exclusive.

This call for reform is in some ways both naïve and imperfect. The current transportation planning process is deeply ingrained in institutions and procedures that direct substantial funds to well-entrenched interests. It is unlikely that a new approach can displace the status quo any time soon, and any real change in practice that the proposed reform might engender will invariably raise questions that the book fails to address. Nonetheless, I offer it in the spirit of constructive criticism on a matter of great societal urgency.

The motivation for writing this book goes back two decades to my doctoral dissertation on the planning and design of the interstate highway system and its impacts on American cities. In that work I asked, how could a program as widely welcomed and well-intentioned as the Interstate program in 1956 have unleashed such a furious rejection in so many cities only a decade later? The answer lay in the nature of bureaucratic politics and the perils of implementation and unintended consequences.

This book takes the logical next step and examines the difficult and humbling question of what can and should be done to remedy the transportation planning crisis. The book describes how transportation planning has reached its troubled present state, and prescribes a way forward. Many of the ideas and proposals presented here are not wholly new. Indeed, the proposed approach builds on what is best about transportation planning today. It seeks to relax some of the procedural and societal constraints on discovering the proper balance between transportation improvements and other objectives of the society those improvements are intended to serve. Yet while promising signs of improvement are apparent here and there, much about the current practice of transportation planning reflects the best thinking of the 1950s, frozen in the amber of regulations, consent decrees, and procedural checkpoints. These frustrate attempts for reform, with the consequence that the transportation system fails to serve society as well as it could.

The book has been a labor of many years, and I owe a debt of gratitude to many. At George Mason University, Louise White helped inspire the writing. Jim Pfiffner offered valuable advice and counsel. Roger Stough and the School of Public Policy provided extremely generous encourage-

ment and financial support. Graduate students Sanjay Marwah, Danilo Pelletiere, and Odd Stalebrink have provided indispensable research assistance. For several years, Mary Clark provided essential administrative support, as well as great working companionship. Many colleagues debated and discussed ideas presented in the book. And the university itself provided an intellectual setting in which I could develop and complete the manuscript.

Outside the university, I am indebted to my editor, Chris Pringle and his able and patient staff at Elsevier Science, to Richard Rowson, who provided invaluable editorial advice, to Catherine Kreyche, who copyedited the manuscript and supervised its preparation, and to Thanigai Tiruchengodu for his assistance with computer graphics. Last but not least, my good friend Bob Vastine provided warmly appreciated support, prodding, and encouragement over the long course of its development. To all, a sincere and heartfelt thank you.

Of course, the normal disclaimers apply.

TRANSPORTATION AND THE ECONOMIC VITALITY OF COMMUNITIES

A century and a half ago, in 1847, the author's ancestors fled the poverty, harsh climate, and rocky terrain of their native Norway and settled in central Iowa, twenty miles north of Des Moines—a land, they found, “flowing with milk and honey.” A few decades later, in 1874, came a narrow-gauge railroad, which began service between Des Moines and the town of Ames, fifteen miles north. The settlers established a town next to the rail line and called it Sheldahl, after Osmund Sheldahl, the author's great grandfather, who had donated the land. Five years later the Northwestern Company purchased the line and upgraded it to standard gauge. Sheldahl prospered, so much so that at one point it even supported eleven saloons.

Another five years later the Chicago, Milwaukee, and St. Paul Company announced plans to build an east–west line that would pass only a quarter mile north of the center of Sheldahl. Competition with the Northwestern, the town hoped, would bring more favorable rates. But the planned route required two river crossings and traversed some difficult terrain. New surveys identified a more favorable route, but it passed one and one-half miles north of Sheldahl. The town sent an emissary to the railroad to advocate the original route, but all he got for his efforts was a free ticket home.

A remarkable thing happened after service began on the new line. The residents and merchants of Sheldahl literally picked up their town and moved it. They laid a trail across the prairie and moved more than fifty buildings to the new crossing. Each building was jacked onto wheeled “trucks” and pulled with the aid of circular horse-power. Immediately ahead of the building itself the trail was planked with heavy boards, which were continuously resupplied from the rear. It was slow work, often requiring a week or even ten days for one building. The horse-powered apparatus, while it required frequent stops for resetting, provided tremendous mechanical advantage, allowing many of the larger buildings, including the grain elevator, to be moved the full two miles with a single horse.

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In the end, Sheldahl lost more than half of its 347 residents. Many of those who stayed behind harbored hard feelings against those who left. But Slater, as the new town was eventually called, prospered and today has one of the largest grain elevators in the state.¹

The ten years from boom to bust in Sheldahl are a poignant example of how transportation infrastructure affects the economic vitality of communities. As in Sheldahl, transportation infrastructure is a powerful determinant of the economic and social well being of all cities, towns, and communities. Transportation infrastructure provides access for companies, factories, and farms to the work force and supplies they need to produce their products and services and distribute them to their customers. And it provides access to work, church, shopping, and recreation for families.

These impacts add up from city to city and town to town such that transportation infrastructure decisions are important determinants of social well being at a national level as well. Seldom are the economic implications of a particular decision as stark as they were for Sheldahl in 1884. But when transportation infrastructure is at cross-purposes with the needs of a community, economic and social well being can suffer.

The nature of the relationship between infrastructure and quality of life is complex, however. The demand for transportation infrastructure arises out of private and collective decisions by households, firms, and units of government whose motivations are not always well or easily understood by those who plan transportation infrastructure. Moreover, transportation infrastructure arises out of decision processes, largely in the public sector, that are influenced not only by technical and engineering considerations but also by the harsh tug of partisan, parochial politics.

It is not surprising, then, that “disconnects” occasionally arise between transportation infrastructure (the supply side) and community needs (the demand side). Indeed, what may be surprising in an era of skepticism about politics and political institutions is that the system works as well as it does.

This book is about the growing disparity between the supply and demand for transportation infrastructure, its consequences for social well being, and proposals for change that would bring facilities and demand into closer accord.

THE URBAN TRANSPORTATION DILEMMA

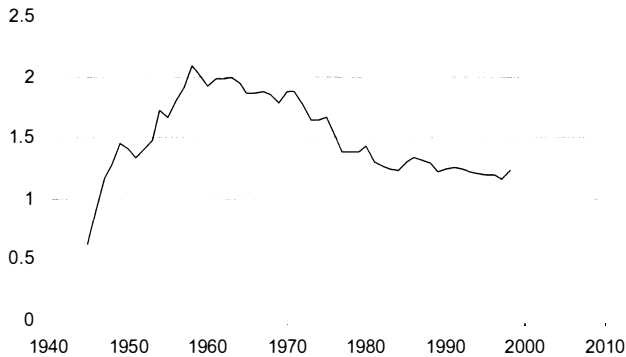
Transportation in most American cities reflects a dilemma. On the one hand, traffic demand has increased dramatically over the last quarter century due to prosperity and population growth. The supply of highways, on the other hand, has in most places grown only minimally.

¹ Don Fatka, “From Norway to Story County” (January 1970); and James A. Storing, “The Town That Moved,” *The Palimpsest* (State Historical Society of Iowa, February, 1939), cited in “A Town Is Formed.” Both items in “History Book: Sheldahl, Iowa,” ms.

The detailed reasons for the stagnation in new supply vary from place to place. But at a general level, it is fair to say that proposals to build new or expand existing highways fail the test of implementation; they somehow fail to muster sufficient support to overcome the costs and barriers to implementation.

Figure 1-1

U.S. Disbursements for Highways as a Percentage of GDP: 1945-1998



Source: GDP: U.S. Bureau of Economic Analysis <<http://www.bea.doc.gov>>;
highway disbursements: U.S. Federal Highway Administration, *Highway Statistics* (various years).

The public consensus for expanding and improving urban transportation infrastructure has eroded significantly in the last several decades. Its erosion is evident in the opposition to new and expanded urban highway projects, despite worsening congestion and seemingly inexorable increases in public demand for automobiles and road space. Its erosion is also evident in flat or declining budgets for highway construction and maintenance and in the deferred maintenance of existing facilities (Figure 1-1).

Why is this a dilemma? Increasing traffic without commensurate increases in supply almost necessarily increases the congestion and delays that travelers face. “Excess capacity” existed in some places twenty-five years ago, even at peak hours. And most highway facilities and transit services have excess capacity between 10 p.m. and 6 a.m. But transportation demand exhibits strong variation by time of day because travel is a means to participate in other social and economic activities that also ebb and flow by time of day. Most areas have long since used up any excess capacity that existed at peak hours so that increased demand is accommodated by spreading the peak to longer and longer periods.

If travel confers net benefits on the traveler (and who but the traveler is in a position to dispute that assessment?), then society is better off unless the costs not borne by travelers, such as