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Transportation Costs and the American Dream

by Randal O'Toole

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Policy Brief

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Introduction

The Surface Transportation Policy Project's (STPP) report, *Transportation Costs and the American Dream*, claims increasing transportation costs are threatening the American dream of homeownership.[1] The solution, STPP suggests, is more public transit. The report is based on the Consumer Expenditures Survey, which is regularly published by the Bureau of Labor Statistics. STPP puts its spin on these data to support the group's agenda to increase spending for public transportation. In fact, a review of the Consumer Expenditures Survey, along with other available data, reveals that the truth is the exact opposite of STPP's claims.

STPP notes that transportation expenses make up 19 percent of household budgets today. The group implies that this is too much money and suggests it would be less if people used public transit more.

STPP says that transportation expenses made up only 10 percent of family budgets in 1935, 14 percent in 1960, and 19 percent from 1972 through today. Since more urbanites rode public transit and lived in compact cities in 1935, STPP suggests that automobiles and suburban development are responsible for the increase in expenses.

There are several problems with STPP's analysis. Briefly:

- STPP fails to account for the benefits of automobiles in terms of boosting personal incomes;
- STPP ignores other, more reliable sources of data that refute the survey data it cites;
- STPP's presumption that public transit costs less than automobiles is dead wrong. The cost of transit per passenger mile is many times greater than autos;
- STPP fails to recognize that auto ownership is voluntary. In contrast, most public transit costs are paid out of taxes collected from people who rarely, if ever, use transit.

Because transit is so much more expensive than autos, STPP's prescription of spending more on public transit and less on highways is a far greater threat to the American dream of mobility and homeownership than any nominal changes in the price of automobiles or fuel.

Automobiles Help Increase Personal Income by Over 350 Percent

While claiming that transport consumes a larger percentage of personal incomes today than in 1935, STPP fails to observe the other tremendous changes in our economy and lifestyles since that year. A few of those changes are recorded in Table 1.

Table 1: Changes in Economy and Lifestyles, 1935-2000

	1935	1960	2000	% Change 1935-2000
Average household size	3.8	3.4	2.7	-29%
Workers per household	0.84	1.04	1.25	+48%
Vehicle occupancy	2.2	2.0	1.6	-26%
Miles of auto driving per capita	1,960	4,000	9,770	+399%
Miles of driving per household	7,500	13,600	26,300	+249%
Auto passenger miles per capita	4,290	7,940	15,830	+269%
Miles of transit riding per capita	380	210	170	-56%
Personal income per capita (in 2000 $)	5,800	11,600	29,900	+414%
Income minus transport costs	5,200	10,000	24,200	+362%

Data sources listed at end of report

First, household sizes have declined, which paralleled a decline in vehicle occupancies. The decline in carpooling has little to do with suburban development and everything to do with smaller families.

Second, workers per household have increased by nearly 50 percent as more women have entered the workplace. Increased automobility means place of employment is no longer the most important criterion for locating one's residence. But even if it were, households with more than one worker have a hard time locating their residence in a place convenient for both workers to walk or ride transit to work.

Third, we drive a lot more than we used to. Driving per household has increased by nearly 250 percent and passenger miles per capita have increased by nearly 270 percent.

Fourth, transit wasn't very important in 1935 and it is even less important today. Transit provided just 8 percent of motorized passenger miles of surface travel in 1935, which—contrary to STPP's claims—wasn't enough to significantly reduce the cost of transportation. It provides just 1 percent of motorized surface travel today.

Finally, the huge increase in mobility provided by the automobile likely accounts for a large share of the terrific growth in personal income in this century. The mobility provided by automobiles expands our options for education, training, employment, and housing. Recall that one of the key remaining barriers to getting people off of welfare and to work is getting them an automobile. A car substantially expands your job

opportunities. Without autos we could not get to the best jobs, employers could not find the best employees, and many modern manufacturing and distribution methods that require increased worker mobility would not be feasible.

So one answer to STPP, even if you accept rising transportation costs (but you shouldn't, see below) is to ask: What would you rather have after deducting transportation costs: 90 percent of a $5,800 income or 81 percent of a $29,900 income? Thanks in part to the proliferation of personal automobiles, personal incomes net of transport costs were 362 percent more in 2000 than in 1935.

1. Transportation Costs Aren't Really Increasing

The Consumer Expenditures Survey on which STPP relies is based on a survey of a limited number of people. In contrast, the National Economic Accounts kept by the Bureau of Economic Affairs are based on data collected for the entire economy. These data extend back to 1929, and include personal incomes and expenditures on such things as automobiles, mass transit, airlines, and railroads.[2]

The data show that American spending on automobiles (listed as "user-operated transportation") has fluctuated from a low of 1.8 percent of personal income during World War II to a high of 10.1 percent in 1977. Since World War II at least, percentages appear to be highest during recessions and lowest during boom periods, indicating that auto transportation is regarded as more of a necessity than a luxury.

As of 2001, all auto costs represented 8.5 percent of personal income, up from a recent low of 7.7 percent in 1991 but down from a recent high of 9.8 percent in 1985. As Table 2 shows, the average for the 1990s and first two years of the 2000s were lower than any decade since the 1940s.

Auto expenses were lower in the 1930s because not everyone had an auto. In 1935, the United States had only two cars for every three households, while today it has five cars for every four households. So it is inappropriate for STPP to compare 1935 costs with today's costs.

Table 2: Average Auto Costs as Percent of Personal Income by Decade

Year	Cost	Miles/Capita
1930s	6.7%	1,850
1940s	5.3%	2,200
1950s	9.1%	3,520
1960s	9.4%	4,560
1970s	9.5%	6,240
1980s	9.3%	7,450
1990s	8.5%	9,050
2000s	8.5%	9,830

Since the 1950s, the data clearly show that the cost of driving has fallen. Table 2 shows that the number of miles driven per capita has nearly tripled since the 1950s, when auto costs as a share of income were 7 percent greater than they are today. We spend more on transportation, but we get even more travel for our money.

2. Transit is Far More Expensive than Driving

STPP cites a Bureau of Transportation Statistics report indicating that commuters who drive to work spend an average of $1,280 per year commuting while commuters who use public transit spend just $765 per year. "Add in all the non-work trips," enthuses STPP, "and public transportation can save families thousands of dollars every year."

First, this ignores the fact that auto commuters tend to go at least twice as far to get to work as transit commuters. If we compared the costs of auto vs. transit commuting over the same distance, the cost would be about the same.

More important, public transport is heavily subsidized while autos and highways are not. Total government expenditures on highways average about 3.2 cents per passenger mile, of which almost 3 cents is paid out of highway user fees. By comparison, government expenditures on transit averaged 71 cents per mile in 2001, of which fares covered only 18 cents. This means taxpayers had to cover most of the remaining 53 cents per passenger mile.

The true cost of transit, then, is more than four times the fare. So when STPP says that transit commuters paid just $765 per year, it neglects the taxpayer contribution of at least another $2,500 annually per commuter. This makes transit two-and-one-half times as expensive as auto driving.

Despite STPP's enthusiasm, transit is simply not competitive with the automobile for most purposes, nor can it ever be. It comes closest, but not very close, for commuter trips, especially for jobs located downtown. For non-commuting purposes, transit is vastly inferior to the automobile.

In "The Illusion of Transit Choice" Wendell Cox estimates the cost of providing a transit system that is competitive with the automobile. That is defined as a transit system able to get a person between any two points in no more than half-again as long as it would take to drive between the same two points.[3] Such a transit system using rail would demand a whopping 108 percent of a region's per capita income. Even a bus-based system would require nearly 22 percent of a region's per capita income, compared with the 8.5 percent now spent on cars. We can't afford to spend more than twice as much of our personal income on transit as we now spend on automobiles.

3. Buying Autos is Voluntary; Paying for Transit is Not

Despite the claims of STPP and other critics of automobile travel and suburban development, no one twisted the arms of Americans and forced them to buy cars and drive. The advantages of auto driving are so great that most American families purchased one as soon as they could afford to do so. Half of all American families owned one by 1929, and more than 92 percent own one today.

The main people left out are the chronically poor, mainly African-American families, less than three out of four of whom have a car. The best way to help them, as University of California researchers point out, is to provide them with automobiles, not public transit.[4]

One way to see the advantage of automobility is to compare transit mobility in 1920, at the peak of America's urban transit network, with automobility at almost any time since then. In 1920, the average

American traveled less than 450 miles a year by streetcars and other public transit. Even counting only urban Americans, the average was less than 1,500 miles a year. This is just 10 percent of the travel the average American does by auto today and was already greatly exceeded by auto driving by the late 1920s.

Transit doesn't do a whole lot better in European or Asian cities today. As shown in Table 3, the average resident of Stockholm or Tokyo rides transit about 3,500 miles per year, while residents of London, Munich, and Hong Kong go about 2,400 miles per year. But most other cities, including Paris, Copenhagen, and Amsterdam, are no more mobile than were U.S. cities in 1920.

Table 3 shows miles of auto driving, not auto passenger miles. If vehicle occupancies in these cities are the same as in the United States, then the average resident of these cities travels four times as much by auto as by transit. Auto driving also includes only urban driving; intercity driving in the United States adds about 60 percent more miles to the total.

Even in Europe's most transit-friendly and auto-hostile urban areas, transit does not compete against the automobile for most trips. In Asia, Hong Kong and Tokyo (but not Singapore) have more transit usage than auto driving, but when vehicle occupancies are considered, transit and auto use are probably about equal in Tokyo. And in the Asian cities auto travel is a bigger share of travel than is transit in U.S. and European cities.

Table 3: Miles Per Capita by Mode in 1990

Urban Area	Transit Miles	Auto Driving Miles
Amsterdam	663	3,977
Brussels	892	4,864
Copenhagen	1,490	6,764
Frankfurt	1,948	5,893
Hamburg	1,284	5,061
Hong Kong	2,365	493
London	2,361	3,892
Munich	2,371	4,202
New York	834	8,317
Paris	1,325	3,459
Singapore	1,734	1,864
Stockholm	3,577	4,638
Tokyo	3,438	2,103
Vienna	1,519	8,361
Zurich	2,025	5,197

Source: Kenworthy & Laube, International Sourcebook of Autodependency in Cities, UC Press, 1999.

Although few people had to have their arms twisted for them to see the benefits of automobiles, there is some arm-twisting going on, and that is to pay for public transit. According to the American Public Transportation Association, capital expenditures on transit more than doubled over the last decade, yet transit ridership grew by just 13 percent.

Much of those capital costs went for rail transit, which, Cox's data suggests, is only a fifth as cost-effective as bus transit. Almost all of that money was paid by taxpayers who get few, if any, benefits from transit other than the possible psychological benefit of erroneously believing that spending money on transit will relieve congestion and clean the air.

Conclusions: Transit is Not the Answer to an Imaginary Problem

Contrary to STPP's report, the cost of auto driving is not increasing; indeed, it has been lower in the last decade than in any of the previous four decades even though we drive more. The cost of autos isn't preventing people from homeownership; indeed, the additional income made possible through automobility has made homeownership possible for more Americans than ever.

STPP's dream of families saving thousands of dollars a year if they used transit is completely unrealistic. A greater emphasis on transit will increase transportation costs even as it reduces American mobility and, with it, American incomes. Only when transit riders are willing to pay the full costs of the system, then increased transit investments will make sense.

Given a choice between automobiles and heavily subsidized transit systems, the vast majority of people recognize that autos are faster, less expensive, more convenient, and more productive than transit. STPP's prescriptions are a far greater threat to the American dream of mobility and homeownership than any nominal changes in the price of automobiles or fuel.

Data Sources Used in this Report

1. Personal income: Bureau of Economic Analysis, National Economic Accounts, http://www.bea.gov/bea/dn/nipaweb/TableViewFixed.asp#Mid
2. Vehicle occupancy 1969, 2001: U.S. Department of Transportation, National Household Travel Survey, http://www.fhwa.dot.gov/policy/ohpi/nhts/index.htm
3. VMT 1936, 1960: Federal Highway Administration, *Highway Statistics Summary to 1995*, http://www.fhwa.dot.gov/ohim/summary95/vm201.xlw
4. VMT 2000: Federal Highway Administration, *Highway Statistics 2000,* http://www.fhwa.dot.gov/ohim/hs00/xls/vm1.xls
5. Transit use 2000: American Public Transit Association, Public Transportation Ridership Statistics, http://www.apta.com/research/stats/ridershp/passmile.cfm
6. Transit use 1935, 1960: APTA publications; assumed transit trip = 4 miles
7. Other transit data: American Public Transit Association, Transit Statistics, http://apta.com/research/stats/
8. Households: U.S. Bureau of the Census, http://www.census.gov/population/socdemo/hh-fam/tabHH-1.xls
9. Transport expenses and personal income: Bureau of Economic Analysis, National Income and Products Accounts, Tables 2.1 and 2.4, http://www.bea.doc.gov/bea/dn/nipaweb/SelectTable.asp?Selected=N
10. For a few numbers, I had to extrapolate or interpolate data. In particular, I interpolated 1935 data using 1930 and 1940 data and I extrapolated vehicle occupancies using 1969 and 2001 data.

About the Author

Randal O'Toole has worked as an economist for the Thoreau Institute for more than twenty years. His work has focused on understanding how environmental agencies, such as the U.S. Forest Service or Portland's Metro, work and how they can be made to work better.

During the 1980s, O'Toole reviewed forest plans for more than half the national forests. His 1988 book, Reforming the Forest Service (Island Press), is based on his findings from those reviews. The book shows that nearly all national forest controversies stem from budgetary processes that reward forest managers for losing money on environmentally harmful activities. O'Toole recommended that the Forest Service be reformed through more user fees and funding of the forests out of its own receipts rather than tax dollars.

O'Toole has particularly scrutinized the Forest Service's use of the Knutson-Vandenberg fund. In 1992, O'Toole coauthored *Good Intentions: The Case for Repealing the Knutson-Vandenberg Act* with Thoreau Institute researcher Karen Knudson. The report documented the many perverse incentives created by this law. In 1997, O'Toole updated an analysis of the K-V fund for the Forest Service Employees for Environmental Ethics.

Since 1990, O'Toole has looked at a wide variety of other agencies, including the Park Service, Bureau of Land Management, animal damage control, 150 state resource agencies, and Portland's Metro. In 1996, he wrote *The Vanishing Automobile and Other Urban Myths*, a critique of Metro and the New Urbanism. In 1997, he wrote *ISTEA: A Poisonous Brew for American Cities*, analyzing the federal transportation funding system, for the Cato Institute. He has also written numerous op-ed pieces and other articles on environmental issues for a variety of publications.

Yale University has named O'Toole its McCluskey Conservation Fellow for 1998. Beginning in September, O'Toole will spend four to nine months at Yale doing research and teaching a class in incentive-based conservation. O'Toole is also an adjunct scholar with the Cato Institute.

Endnotes

1 http://www.transact.org/library/decoder/american_dream.pdf

2 These data are extracted and available in a 96-kilobyte Excel file at http://americandreamcoalition.org/transportcosts.xls.

3 http://www.publicpurpose.com/ut-trchoice.htm

4 http://www.uctc.net/papers/544.pdf









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3415 S. Sepulveda Blvd., Suite 400
Los Angeles, CA 90034
310/391-2245
310/391-4395 (fax)
www.rppi.org