



The Journalists' Guide to the **American Dream**

American Dream Coalition
americandreamcoalition.org

Introduction

The term *American dream* conveys many different images: raising a family, owning your own home, traveling to new adventures on the open road, starting a successful business. All of these images depend on the personal and economic freedom that Americans take for granted.

When government interferes with our freedom, it makes the American dream less attainable for some or all Americans. "The American government is excellent," wrote Henry David Thoreau, "yet this government never of itself furthered any enterprise, but by the alacrity with which it got out of its way."

To protect everyone's American dream, the American Dream Coalition supports giving people freedom of choice in how they use their land and what forms of transportation they use, provided only that people pay the full costs of their choices. We do not advocate that people drive everywhere or live in low-density suburbs, but we believe

these are legitimate choices. We do not oppose high-density housing or public transit, but we do oppose planning efforts that attempt to force high-density housing on people or to build wildly expensive rail transit lines that few people will ride.

This *Journalists' Guide to the American Dream* examines seven important topics: automobility, congestion, transit, housing, air pollution, land use, and open space. As appropriate for each topic, the guide will:

- Present our positions;
- Demystify popular myths;
- Analyze the best available data; and
- Show how journalists (or anyone) can get more information about their local areas.

The guide concludes with a list of important references and experts who can provide more information on each topic. We hope that you find it useful.

Contents

Automobiles & the American Dream	3
Automobile Myths	4
Congestion & the American Dream	6
Smart Growth's Real Goal: More Congestion	7
Congestion Myths	8
Evaluating Congestion in Your Region	8
Transit & the American Dream	10
Transit Myths	11
Rail vs. Bus Transit	13
Transit Data	14
Evaluating Your Local Transit Agency	14
Evaluating Rail Transit Proposals	15
Land Use & the American Dream	16
The Land-Use Transportation Connection Myth	17
Housing and the American Dream	18
Air Quality & the American Dream	20
Open Space & the American Dream	21
Open Space Data	22
Smart-Growth Planning Disasters	24
Portland Planning Disaster	24
San Jose Planning Disaster	25
Cincinnati Light-Rail Plans	26
References and Experts	27

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Automobiles & the American Dream

Automobiles provide huge benefits for Americans and other societies wealthy enough to afford them. Indeed, automobility is a major reason why the United States is the wealthiest nation on earth.

The automotive revolution of the early twentieth century was arguably more important than the computer revolution of the late twentieth century. Among its benefits is the fact that autos enable workers to find better paying jobs and jobs better suited for their skills. Conversely, autos give employers access to a larger pool of better skilled workers. Thus, autos contributed hugely to both personal wealth and the broader distribution of wealth.

Automobiles further helped consumers by providing access to low-cost goods and services. Retailing concepts such as supermarkets and big-box stores could not exist without automobiles, and they have dramatically reduced consumer costs and provided people with a wider variety of goods and services. When Wal-Mart opens its supercenters—variety plus grocery stores—in a community, average grocery prices in that community fall by 13 percent. Even people who don't shop at Wal-Mart benefit from its presence.

Automobiles also give people access to rapid-response emergency care, saving and prolonging many lives. Autos make it possible for us to visit family and friends who live at distances that, a mere century ago, would have prevented regular or even occasional visits.

Autos allow people to recreate in many otherwise inaccessible areas. In 1904, for example, Yellowstone National Park hosted fewer than 14,000 visitors, or less than one visit for every 6,000 Americans. By 1970, 2.3 million people visited Yellowstone each year, or more than one visit for every 100 Americans.

It is hard to imagine what life was like before automobiles. Despite passenger trains and streetcars, many people spent their entire lives without traveling more than a few miles from where they were born. Pioneers who did move more than a few hundred miles away from



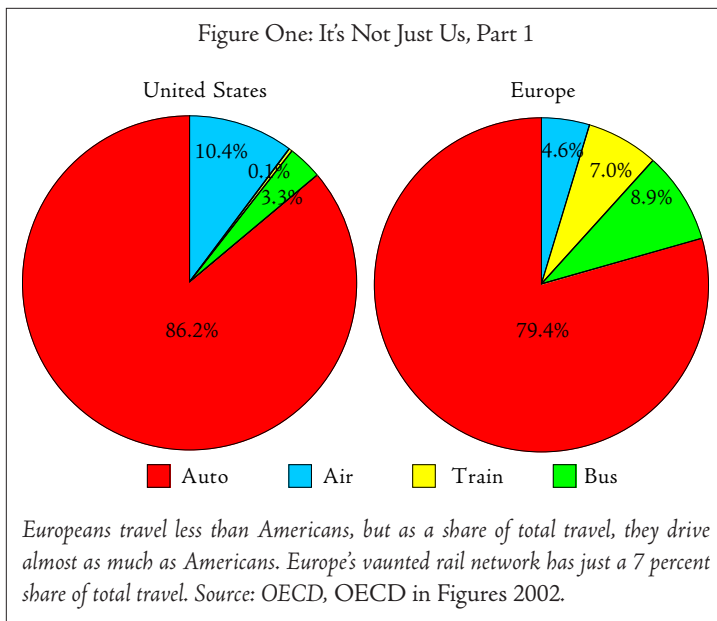
home might never see their parents or other family members again. Only the wealthiest people could afford to travel frequently by train. Farm families, particularly women, led lonely lives, rarely seeing anyone except their direct families.

Far from making us “auto dependent,” as auto opponents claim, the automobile has liberated Americans, making us far more mobile than any society has ever been. In 1920, with the world's most extensive network of urban streetcar systems and intercity passenger trains, the average American traveled barely a thousand miles per year by transit or trains. Today, the average American travels fourteen times that many miles by auto. This mobility has given Americans access to far more opportunities. Moreover, it is far more evenly distributed, as 92 percent of American families today own at least one auto, while eighty years ago most people only rarely traveled by train.

In recent years, the biggest increases in driving have occurred as women and minorities have entered the work force and obtained cars. Women are more likely than men to do trip chaining, in which several errands are run on a single trip. While some auto opponents claim that people are “enslaved” to their cars, University of Arizona researcher Sandra Rosenbloom responds, “You wouldn't believe how owning their first car frees women.” Social scientists say that one of the best ways to help someone out of poverty is to give them a used car; even in the most transit-intensive urban areas, free transit passes don't provide access to anywhere near as many potential jobs as an automobile.

In short, the automotive revolution played a critical role in reducing poverty, improving health care, and otherwise greatly improving the lives and lifestyles of Americans. Compared to these benefits, the costs of automobiles have been very low. With safety improvements and improved air pollution equipment, those costs are declining even though the amount we drive is increasing.

The American Dream Coalition supports automobility and all the benefits it provides. But that doesn't mean we think automobiles are perfect. We support an end to any subsidies to the automobile and new systems of user fees that reduce congestion and allow people to pay the full cost of road use. In areas that still have significant air pollution problems, we support experimentation with incentive-based systems of reducing automotive pollution.



Automobile Myths

The Subsidy Myth

Myth: Autos are popular only because they receive huge government subsidies

Reality: More than 90 percent of highway costs have been paid by highway user fees.

Auto opponents tend to ignore the many benefits provided by automobiles while they charge huge costs against them. Yet they usually distort or exaggerate these costs.

The federal and state governments have spent hundreds of billions of dollars on highways in the last fifty to eighty years. Auto opponents often label this spending "subsidies" and claim that it justifies spending more billions on public transit. But the vast majority of spending on highways has come out of gasoline taxes and other taxes and fees that are explicitly collected as highway user fees.

During the 1990s, highway user fees equaled or exceeded highway spending by both the federal and state governments. Local governments did spend more on roads than they collected in user fees. When everything is totaled, however, user fees account for more than 90 percent of highway expenditures.

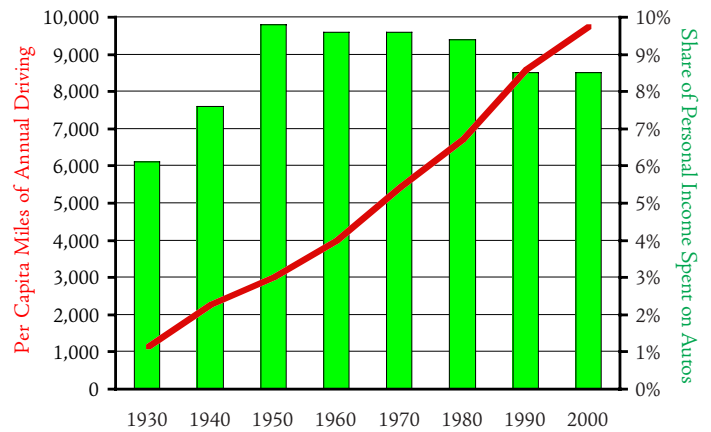
Moreover, American roads are so heavily used that the remaining subsidy is tiny when measured per vehicle mile or passenger mile. In 2001, American highways carried more than 4 trillion passenger miles and nearly 1 trillion ton miles of freight. Total government spending on highways in 2001 was around 3.2 cents per passenger mile, of which less than 0.4 cents was paid out of property taxes or other non-user fee taxes. By comparison, in 2001 transit subsidies averaged 53 cents per passenger mile, roughly 130 times as much as highway subsidies.

For the past thirty years, U.S. subsidies to transit have far exceeded subsidies to auto driving, especially when it is remembered that, unlike transit, highways also carry hundreds of billions of ton-miles of freight each year. If there are any imbalances in transportation funding, then they are tilted in the direction of transit, not roads.



Taxes on gasoline and other highway user fees pay roughly 90 percent of the costs of highway construction and maintenance.

Figure Two: A Phenomenal Bargain



Though per capita driving has more than tripled in the last fifty years, the total cost of auto ownership, as a share of personal income, has declined by 13 percent. Source: US Department of Transportation, Department of Commerce.

The Cost of Driving Myth

Myth: Auto ownership is costly and getting more expensive each year.

Reality: As a share of personal income, the amount Americans spend on autos has declined since at least 1960.

Auto opponents often cite data showing that the cost of auto ownership is too high. Many Americans own autos, they claim, only because they are forced to do so by poor urban design and inadequate transit systems. In reality, the cost of auto ownership is low and has been declining for decades.

Opponents typically assume that someone buys a new car, pays the maximum finance charges, drives it just 10,000 miles a year, and replaces it as soon as they have paid for it. This produces costs as high as 40 to 50 cents per mile.

Such costs are greatly exaggerated. Anyone can significantly reduce the cost of auto ownership by buying a used car, paying cash, continuing to own it after they have paid for it, or driving it more miles each year. After paying fixed costs such as depreciation and insurance, the average cost of driving a new or used vehicle is typically about 12 cents a mile. Including fixed costs, the average in 2001 was 27 cents a mile.

At an average occupancy of 1.6 people per car, that's only 17 cents a passenger mile. Compare that with 2001 transit costs that averaged 71 cents a passenger mile, of which 18 cents was paid by fares and the rest subsidized.

Though we drive more each year, the total cost of autos has declined as a share of personal income. According to the Department of Commerce, Americans spent 9.8 percent of their personal incomes on autos in 1980. In 2001 they spent only 8.5 percent. Since the average American drives more than three times as many miles today as fifty years ago, this is a phenomenal bargain. On the plus side, thanks in part to increased mobility, inflation-adjusted personal incomes today are two-and-one-half times greater than in 1960.

The Social Cost of Autos Myth

Myth: Autos impose huge costs on society that aren't paid by auto users.

Reality: Auto opponents' estimates of social costs are usually exaggerated or fabricated; most costs are small and declining.

Auto opponents often wildly exaggerate the social costs of automobiles. University of California economist Mark Delucchi observes that most calculations of the social costs of autos "rely on outdated, superficial, nongeneralizable, or otherwise inappropriate studies."

Writing in the University of California's *Access* magazine, Delucchi estimated that subsidies and social costs of autos together averaged less than 7 cents per vehicle mile in the 1990s. He calculated the comparable figure for transit to be at least 40 cents a passenger mile for buses and more for rails. Since automotive air pollution has been steadily declining but subsidies for transit have been increasing, the discrepancy is even greater today.

Below we review the safety, air pollution, land use, and other social ills that autos are alleged to impose on society.

Safety: Motor vehicle accidents killed 42,000 people in 2001. While every premature death is tragic, when compared with the huge amount of highway travel autos are relatively safe and getting safer.

Annual highway fatalities peaked at 55,600 in 1973. Since then, they have declined by nearly 25 percent even though Americans drive more than twice as many miles a year. Fatality rates peaked at about 450 per billion vehicle miles way back in 1910 and have declined steadily ever since to about 17 today.

Urban roads are considerably safer than rural ones, and urban freeways are the safest of all. In 2001, fewer than 6 fatalities per billion passenger miles were reported for urban interstates, compared with 11 for rural interstates and 10 for other urban roads.

Urban interstates are much safer than light rail and commuter rail, each of which caused about 25 to 30 annual fatalities per billion pas-



Freeways may seem land intensive, but in fact they are one of the most efficient forms of urban transport available. Though freeways comprise less than 1.5 percent of the lane miles of highways and streets in American urban areas, they produce more than a third of all passenger travel and close to half of all freight travel.



Hybrid-electric cars such as the Toyota Prius (top) and Honda Insight use about half the fuel and emit less than 10 percent of the pollution of comparable gasoline-engined cars. Hybrid cars may replace conventional autos within a decade.

senger miles over the last decade. Buses and heavy rail are approximately as safe as urban interstates.

Air Pollution: Automotive air pollution is disappearing due to improved technology. Controlling pollution at the tailpipe has always worked better than trying to convince Americans to drive less. For more information, see the section on air pollution.

Land Uses: Auto opponents claim that autos have led to "cookie-cutter" suburban residential areas and "placeless" strip-mall developments that look the same everywhere. In fact, suburbs vary tremendously from one part of the country to another. The old story of commuters not being able to find their homes because they all look alike is humorous, but untrue. Even in early post-WWII suburbs in which all the houses were identical, owners quickly gave each home its own identity through painting and landscaping.

Strip malls may not be especially beautiful, but they are extremely serviceable for local users. The kind of "boutique" shopping areas that are so attractive to tourists are usually avoided by locals due to traffic congestion, not to mention the fact that such shopping areas focus on serving niche markets, not the day-to-day needs of local residents. Proposals to restrict auto-oriented retail developments would limit competition and drive up consumer costs.

Other Social Costs: Other social costs claimed by auto opponents are often exaggerated or fabricated. Some writers count road tolls, insurance, and traffic congestion as social costs when in fact they are costs paid by road users. The notion that America's military presence in the Middle East is a social cost of the auto is belied by America's military actions in many other parts of the world, such as Yugoslavia, that have no oil.

Congestion & the American Dream

Congestion is the biggest problem facing America's urban areas. Polls consistently report that urban residents complain more about congestion than any other urban problem. According to the Texas Transportation Institute's annual survey of urban congestion, the costs of congestion have more than quadrupled in less than twenty years. Today, congestion wastes nearly 6 billion gallons of fuel and costs American travelers more than \$60 billion each year.

Smart-growth advocates consistently blame congestion on "sprawl," their pejorative term for the low-density suburbs inhabited by half of all Americans. They also claim that their prescriptions of higher densities, investments in rail transit instead of highways, and traffic calming will reduce congestion. Yet the real goal of smart growth is to further increase congestion in order to convince people to stop driving.

Density is no more a solution to congestion than rain is a solution to flooding. The real solution to congestion comes from an understanding of its causes, which are centered around highway pricing.

Highways are much like telephone networks in that they are more heavily used during some periods of the day than others. As long as telephone networks relied on copper wire, peak period demand threatened to congest the networks, giving people signals that circuits weren't available. Phone companies resolved this by charging more for phone service during peak periods. But the recent installation of fiber-optic networks has created a huge surplus in capacity, so many phone services no longer charge more for peak-period use.

Highway history has gone in the opposite direction. Up until the 1950s, most regions had sufficient road capacity to meet demand. Charging for roads using a flat fee in the form of gasoline taxes made sense. Now that most cities have at least some rush-hour congestion, gas taxes work no better than if supermarkets charged for groceries by simply renting their shopping carts.

To make matters worse, gas taxes, which are based on cents per gallon, haven't kept up with either inflation or today's fuel-efficient



Electronic tolls that vary by the amount of traffic can help reduce congestion while they provide funding to remove highway bottlenecks.

cars. When you fill your gas tank today, you only pay half as much for every mile you drive as your parents paid in 1960.

Thus, increasing congestion in the last two or three decades is in large part due to inadequate highway funding. This problem is exacerbated by increasing diversions of highway user fees to mass transit and other purposes. These diversions, in turn, make voters suspicious of proposals to increase gas taxes. The Taxpayers League of Minnesota pointed out that a proposed gas tax increase in that state would raise \$1.8 billion in revenues over the next decade, but that diversions to mass transit were expected to cost \$4.5 billion.

Clearly, we need a new system of highway funding that both provides adequate revenue and more accurately prices roads. That means some form of tolling. While tolling was once undesirable because of congestion at the tollbooth, today's electronic tolling resolves that problem and makes it easily possible to charge more for the most expensive roads or the busiest times of the day.

This doesn't mean that every mile people drive has to be tolled. Gas taxes, perhaps at reduced rates, can still be used to pay for local streets (which rarely have peak-period congestion) and maintenance of at least some existing roads. But tolls should be used to pay for most if not all new highway construction, including the addition of new lanes onto existing freeways and other arterials.

Robert Poole of the Reason Foundation and Kenneth Orski of the Urban Mobility Corporation recently published an intriguing proposal that promises to allow anyone to travel in major urban areas without having to deal with congestion. Their proposal calls for turning existing carpool or high-occupancy vehicle (HOV) lanes, many of which are underutilized, into high-occupancy/toll (HOT) lanes. Such HOT lanes would be free for "super-high-occupancy vehicles," generally meaning three or four people per car depending on local conditions, and tolled for everyone else. The tolls would vary depending on demand and would be set high enough to keep traffic flowing at highway speeds.

Innovative ideas such as these, which are based on incentives rather than penalties for driving, will do far more to reduce congestion than land-use policies such as density and mixed-use developments.



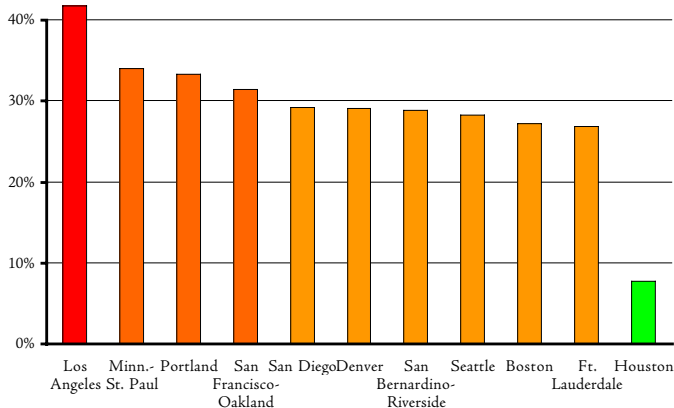
The bane of urban living.

Smart Growth's Real Goal: More Congestion

Smart-growth advocates often refer to the costs of congestion. Yet the effects of their policies will be to increase congestion. Numerous plans and documents reveal that smart-growth planners actually think congestion is a good thing because it might convince a few people to stop driving.

Traffic engineers historically rank congestion using a letter grade, A meaning nearly no traffic and F meaning stop-and-go traffic. This rating system was developed to prioritize transportation investments. Engineers would generally set a target grade, usually C or D. New construction funds would be directed to any road whose traffic levels threatened to exceed that grade.

Figure Three: Where Would You Rather Live?
Increase in Congestion from 1982 to 2000



Nine of the ten urban areas with the fastest rising congestion, as measured by the change in travel time index between 1982 and 2000, have built or are building rail transit. The exception is San Bernardino-Riverside. Most of the top ten are also promoting transit-oriented developments, high-density housing, and other smart-growth ideas. By comparison, Houston, which has a tollroads authority that is rapidly expanding the region's highway network, has the sixtieth-fastest growing rate of congestion out of seventy-five cities rated by the Texas Transportation Institute.

Today, smart-growth planners often downgrade these targets to E or even F. In Portland, planners have set a target for most freeways and other major roads of F during rush hour and E the rest of the day. As a practical matter, this means planners can divert transportation funds to rail transit even if means highway congestion falls to level F. But more than that, planners seem to want congestion to increase.

Congestion "signals positive urban development" in residential and commercial areas, says Metro, Portland's regional planning agency. "Transportation solutions aimed solely at relieving congestion are inappropriate" in these areas. When asked why planners were willing to let congestion deteriorate to level F, Metro's director of transportation planning answered that efforts to relieve congestion "would eliminate transit ridership."

The notion that congestion is a good thing is echoed by other transit and transportation planning agencies around the country. Reducing congestion "would produce negative impacts on transit usage," says the



So-called traffic calming is really a euphemism for congestion building. Putting barriers in roads to slow traffic makes roads more dangerous for cyclists, cuts down on available parking, and doesn't really protect pedestrians.

Minneapolis-St. Paul Metropolitan Council, while under increasing congestion "alternative travel modes will become more attractive."

Deliberately increasing highway congestion to promote transit is the kind of bad idea that could only come from a monopoly. Telephone companies wouldn't dare give people busy signals in order to sell more cell phones because they face so many competitors. But the government has near-monopoly control over transit and highways.

In some cases, such as the Twin Cities, there is a clear conflict of interest since the agency that does all transportation planning for the region also runs the region's transit system. Naturally, the agency would want to spend 70 percent of transportation funds on transit rather than let more be spent by another agency on roads. But even where no such conflict exists, smart-growth planners often promote congestion because they regard transit as somehow superior to autos.

One way they are doing so is through activities euphemistically described as *traffic calming*. Traffic calming really means congestion building, as it consists of putting barriers in roads to slow traffic and reduce traffic flow capacities. Traffic calming is often sold as a form of pedestrian safety, but studies show that for every pedestrian's life saved by traffic calming, more than thirty people will die due to delays to emergency service vehicles.



Congestion Myths

The Incurable-Congestion Myth

Myth: We Can't Build Our Way out of Congestion

Reality: Cities that have built more roads in the past two decades have had less congestion growth.

Highway opponents repeat this claim so often that many people believe it without question. Yet it is absurd to think that *not* building more roads will help to reduce congestion more than building more roads.

As Anthony Downs points out in his book, *Stuck in Traffic*, people often respond to congestion by changing their travel habits by traveling at different times of the day, different routes, or in a few cases by transit or another mode. Building new roads will lead many of these people to go back to their previous habits. This means that a four-lane road that is congested at 8 am and 6 pm might still be congested at those times after it is expanded to six lanes. But it doesn't mean that the expansion was not worthwhile, as it gives people the opportunity to travel on routes and at times that are convenient to them.

The Texas Transportation Institute's annual mobility report shows that many urban areas have kept congestion in check by aggressively building new roads. Houston, for example, has nearly doubled its freeway and arterial system in the last eighteen years. As a result, Houston congestion has increased by less than 8 percent, compared with more than 25 percent in the other nine of the nation's ten largest urban areas.

We can theoretically eliminate congestion by building enough roads. But this would be very expensive and wasteful if much of the new road capacity were used only a few hours a day. *Value pricing*, meaning road tolls that are higher during congested periods than other times of the day, can smooth out traffic peaks and dips by encouraging people to drive at less-congested times of the day. According to commuting expert Alan Pisarski, commuters make up less than half of morning rush-hour and less than a third of afternoon rush-hour driving, so value pricing could greatly reduce peak-period demand even if few commuters have flexible hours.

The Induced-Driving Myth

Myth: Building New Roads Simply Induces More Driving

Reality: Adding road capacity in congested areas provides important benefits for nearly everyone in the area.

This argument is related to, but even more absurd than the "we can't build our way out of congestion" myth. What private business wouldn't love to provide a good or service in which more supply simply creates more demand? Coca-Cola is painfully aware that simply making "new Coke" doesn't mean people will buy it, and the phone companies have learned to their sorrow that building more fiber-optic cables won't lead people to talk more on the phone or send more data over phone lines.

In the same way, it is absurd to think that building more roads simply leads to more travel. As explained in the "can't build our way out of congestion" myth, the observation that new roads are quickly congested is explained by people changing their travel habits to take advantage of new road capacity. This is not induced demand, it is a release of suppressed demand.

Even if there were induced demand, the idea that this could be a problem is based on the notion that driving produces costs without benefits. One gets a picture of Americans as mindless robots, brainwashed by auto manufacturers and oil companies to drive around and spew pollution aimlessly. In fact, every trip people make has a purpose that is worthwhile to the people making the trip.

This doesn't mean that every highway proposal makes sense. Road plans should be subjected to the same benefit-cost analyses as rail plans. But by any measure, highways in general are one of the most successful government programs in America. They are heavily used for very valuable purposes and they pretty much pay for themselves, as most subsidies go to local streets, not highways. Yet highway opponents somehow turn that very success into a seeming failure. Building rail lines that few people ride instead of highways that millions of people use makes as much sense as telling Ford to stop selling Mustangs and go back to making Edsels.

Evaluating Congestion in Your Region

The Texas Transportation Institute (TTI) publishes an annual congestion report on seventy-five of the nation's largest urban areas. The report's calculations are based on data published by the U.S. Department of Transportation on the number of miles of driving and the number of lane-miles of roads to drive on in each urban area.

If you live in one of the seventy-five regions reported by the Institute, you can use its data as a guide to local congestion. Some of the Institute's various measures of congestion include:

- The *travel time index*, which measures the amount of time it takes to make a trip during rush hour compared to the amount of time required with no congestion. An index of 1.2 means that a 10-minute trip without congestion takes 12 minutes at rush hour.
- Per capita (or per driver) *hours of annual delay*. People's time is

valuable and time wasted is one of the most important costs of congestion.

- Gallons of fuel wasted. Cars consume far more gas (and emit far more air pollution) in congested traffic.
- The annual cost of congestion, which is the cost of the wasted fuel, based on local prices, plus the cost of wasted time based on local wage rates.

TTI's congestion data are not based on actual measurements of congestion in every city. The Institute calculates the travel time index and other congestion costs using formulae that assume that freeways, arterials, and other roads have certain flow capacities. When reported uses approach or exceed those capacities, the Institute's formula projects that traffic will slow and travelers will be delayed.

This system isn't perfect. Freeways, for example, are not all built alike. The newest roads, such as the Los Angeles Century Freeway, which opened in 1993, can have much higher flow capacities than older roads, such as Connecticut's Wilbur Cross Parkway, which opened in 1949. TTI's formulae do not take these differences into account.

This means that TTI's congestion measures are more reliable as a time series for any given urban area than as a comparison across urban areas. While the publicity accompanying each annual update to the mobility report usually focuses on the rankings of urban areas, this ranking is not very reliable.

In the report for 2000, Los Angeles has a travel time index of 1.9, which is significantly higher than San Francisco's index of 1.59. Los Angeles' freeways are so much more heavily used than freeways in most other regions that it is probably reasonable to conclude that Los Angeles has the nation's most congested roads. The next ten urban areas, however, all have indices between 1.40 and 1.47. There is no reason to think that the ranking among these areas is particularly accurate or even that San Francisco's score of 1.59 proves that its congestion is worse than, say, Seattle's (1.45) or New York's (1.41).

TTI's data are more useful for comparing the changes in congestion over time. In most regions, the road network that existed in 1982 (the first year reported by TTI) is still pretty much in place today, so the problem with differences in capacities among roads is less important. This means that the best way to compare regions is to compare the change in congestion over time. For example, Los Angeles not only has the highest travel time index, it has the greatest percentage increase in this index since 1982.

This measure is also superior because increases in congestion are more stressful than congestion itself. If congestion were constant, people would adjust their travel habits, job locations, or other things to compensate. But if congestion is continually increasing, people have to continually adjust or lose more of their time each year.

If you live in a region that isn't included in TTI's annual report, you can still get a rough idea of local congestion using the same federal highway data that form the basis of TTI's reports. These data are published in tables HM-71 and HM-72 of Highway Statistics, an annual report published by the Federal Highway Administration. The federal government, in turn, relies on state transportation departments for raw data, so you may be able to get even more information from the states.

Table HM-71 classifies roads as interstates, freeways, other major arterials, minor arterials, collectors, and local. The table gives the number of miles and miles driven on each type of road. Table HM-72 provides population, land area, and freeway lane miles for each urban area. Unfortunately, the tables do not give the lane miles of other major arterials (most of which are probably four or more lanes wide), but you can probably get these data (which are in the TTI reports for the 75 urban areas reported by TTI) from the state.

Once you get these data, you can divide the miles of travel on each type of road by the number of lane miles of that road type. As shown

in table one below, the most heavily used freeways are in Los Angeles, where each lane mile of freeway supports more than 23,000 vehicle miles of travel a day. The most heavily used arterials are in Washington, DC, where each lane mile supports 8,324 miles of travel a day.

These numbers are considerably higher than the average of the nation's twenty or forty largest urban areas and more than twice as high as the twelve least congested areas in TTI's survey. These twelve areas, including Oklahoma City, Spokane, and Anchorage, all have travel time indices less than 1.1.

Table one suggests that urban areas with around 17,000 miles of driving per freeway lane mile and 7,000 miles of driving per arterial lane mile are very congested, while 10,000 miles of driving per freeway lane mile and 5,000 miles of driving per arterial lane mile produces very little congestion. The table also suggests that the differences in traffic levels are found mainly on freeways, as the arterials in most regions have about the same amount of traffic.

Table One		
Daily Vehicle Miles of Travel Per Lane Mile		
	Freeways	Other Major Arterials
Most heavily used	23,425	8,324
Region	Los Angeles	Washington
Los Angeles (TTI=1.9)	23,425	6,621
San Francisco (TTI=1.59)	20,548	7,047
TTI=1.40 to 1.49 (9 areas)	16,987	7,378
TTI=1.30 to 1.39 (10 areas)	17,043	6,249
TTI=1.20 to 1.29 (21 areas)	14,750	6,386
TTI=1.10 to 1.19 (20 areas)	12,294	6,013
TTI=1.00 to 1.09 (12 areas)	10,360	4,941

It is also interesting to note that freeways can produce far more than twice as many miles of travel per lane mile than other arterials. Yet freeways tend to cost only about twice as much per lane mile as arterials, most of the difference being due to the cost of over- and underpasses. Freeways may be the best investment most regions can make in transportation improvements.

The 2001 Nationwide Personal Transportation Survey suggests that an average of 1.6 people occupy private passenger vehicles. So the above numbers can be multiplied by 1.6 to get daily passenger miles of travel per lane mile.

Passenger miles of travel per dollar of investment might be a worthy criterion for comparing highway and transit projects. But it can be misleading because it doesn't necessarily measure real improvements in transportation productivity.

A better measure is the cost per hour of reduced delay. Most regional transportation planning agencies use computer models that allow them to calculate the effects of various road and transit projects on the total daily or annual hours of delay experienced by local travelers. Proposed highway projects in the San Francisco Bay Area are expected to cost anywhere from \$5 to \$313 per hour of reduced delay. Bus transit projects were expected to cost an average of \$11 per hour saved, while rail transit projects cost an average \$52 per hour saved.

Transit & the American Dream

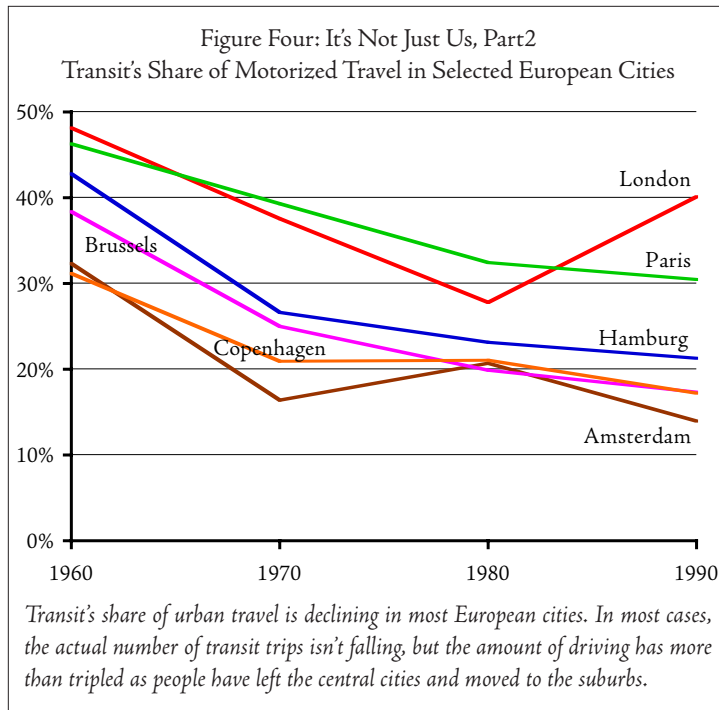
The automobile has provided an incredible level of mobility to more than 90 percent of American families. But not everyone can drive. The first job of America's transit systems should be to provide effective, efficient mobility to transit-dependent people.

Unfortunately, this priority has been almost forgotten as numerous transit agencies have adopted another goal: that of attracting people who *can* drive out of their automobiles, supposedly because transit is more "sustainable" than automotive travel. Like selling air conditioners to Eskimos and heat lamps to North Africans, the cost of achieving this goal is much higher, per transit passenger, than the cost of improving service to transit-dependent people.

Worse, the two goals are not always complementary. Rail-transit supporters such as Paul Weyrich argue that transit-dependent people will ride a bus, but people who can drive will only be attracted to rail transit. Rail transit costs far more than bus service, and to pay for the



The prospect of federal funding encourages transit agencies to develop grandiose rail plans that will cost lots of money but carry few, if any, more passengers than improved bus service.



rails, many transit agencies end up having to cut back on their bus services.

The real problem with transit agencies is that they face the wrong incentives. Passenger fares cover little more than a third of transit operating costs, and only a quarter of operating plus capital costs. Transit agencies thus are more beholden to federal, state, and local appropriators than to their customers. It is easier for agencies to build their empires by convincing Congress to give them "free" federal dollars for rail transit than to do the hard work of figuring out how to better meet the needs of transit riders.

This problem is compounded by perverse incentives in transit budgeting and operations. First, the federal government dedicates most of

its funds to capital improvements, not operations. Transit agencies come to ignore the high capital costs of certain kinds of transit, favoring large buses over smaller ones and rail over buses.

Second, most states have granted transit agencies legal monopolies in their markets. Though private entrepreneurs could often provide better transit services, they are forbidden from doing so except for airport travelers. The lack of competition means that transit agencies can neglect transit-dependent people with impunity.

Thus, reforming transit means more than just rerouting transit lines or emphasizing buses or other low-cost transit instead of rails. True reforms would introduce competition into transit markets. One way of doing so would be to give subsidies, in the form of vouchers, to transit riders instead of transit agencies. Riders could spend their vouchers with any transit provider, and the providers would turn the vouchers in for cash.



Airporter-like services could easily cover entire urban areas, but in most cases they are forbidden to do so by the regional transit monopoly. Rather than invest in rail transit or buy giant buses, airport services tend to purchase moderate-sized buses.

Transit Myths

The Myth that Transit Can Reduce Congestion

Myth: Transit can reduce congestion

Reality: Outside of a few inner-city ares, transit carries too few riders to make any difference to urban congestion.

Transit, particularly rail transit, is often touted as the solution to the increasing congestion that besets American cities. Yet, outside of major downtown areas, transit carries far too few people for it to play any role in reducing congestion.

Transit carries more than 10 percent of passenger travel in just one U.S. urban area—New York—and more than 3 percent of travel in only five other areas: Boston, San Francisco, Washington, Chicago, and Philadelphia. Transit’s share of travel depends on the concentration of jobs. New York has a high share because it has 2.5 million jobs in Manhattan. The other five urban areas with high transit shares also have lots of downtown jobs.

Transit can capture very little market share in urban areas in which jobs are spread out, such as San Jose and Los Angeles, even though both have population densities greater than New York. Residential densities just aren’t as important to transit as job concentrations.

With transit carrying less than 2 percent of travel in most areas, and 2 percent being about the limit in areas that don’t already have major job concentrations, transit is not likely to reduce congestion. The huge amount of money that would have to be spent to increase transit’s share from, say, 1 percent to 2 percent would better be spent removing highway bottlenecks in congested corridors.

Where transit does play a significant role in bringing commuters into some downtown areas, it is really little more than a subsidy to downtown landowners. Government should not play the role of picking winners and losers by enriching downtown property owners while neglecting transportation elsewhere.

The Underfunded Transit Myth

Myth: Balanced transportation means more money for transit.

Reality: For more than thirty years, transit funding has been far greater, per passenger mile, than funding to autos & highways.

Transit supporters frequently point to the billions spent on highways and claim that transit deserves additional funding to make up for this supposed bias. Yet they neglect to point out that nearly all of the funds spent on highways are paid out of highway user fees, while only a small share of transit funds are paid out of transit fares.

Highways are much more productive than transit. In 2001, highways carried 83 times as many passenger miles as transit, yet total highway spending was less than four times as much as transit spending. Highways cost about 3.2 cents a passenger mile, mostly paid by highway users, while transit cost 71 cents a passenger mile, only 18 cents of which was paid by transit riders. Highways also carried billions of ton-miles of freight, while transit carried little to no freight.

On a per passenger mile basis, transit spending has exceeded highway spending since at least 1975, the earliest year for which comprehensive data are available. If transit suffered any disadvantages from

Table Two		
2001 Highway and Transit Spending and Productivity		
	Highways	Transit
Spending, billions	\$129.9	\$34.9
Passenger miles, billions	4,091.6	49.1
Cost, cents per passenger mile	3.2	71.2
Subsidy, cents per passenger mile	0.4	53.1
Source: U.S. Department of Transportation, APTA		

underfunding relative to highways in the 1950s and 1960s, it has more than made up for it since then. Yet excessive spending on transit has not led to significant increases in transit ridership. While per capita driving increased by 80 percent in the last thirty years, per capita passenger miles of transit travel have increased by only 15 percent.

The High-Capacity Transit Myth

Myth: One rail line can move as many people as a twelve-lane freeway.

Reality: Except for New York City subways, no transit line in the country carries as many people as even one freeway lane.

Rail transit advocates often brag about the high capacity of rails to carry people. But capacity is less important than actual use. A review of rail transit systems in the U.S. reveals that, outside of New York, none carry as many people as a single freeway lane, much less an eight- or twelve-lane freeway.

Table three shows that, outside of New York, the most productive rail line is little more than two-thirds as productive as the average freeway lane in the nation’s fifty largest urban areas. The most productive commuter and light-rail lines only carry 40 percent as many passenger miles as the average freeway lane.

Table Three			
Daily Passenger Miles Per Directional Route Mile or Lane Mile			
	Average	Maximum	Maximum City
Commuter rail	3,844	10,972	New York
Light rail	4,280	9,942	Boston
Heavy rail	24,710	45,905	New York
Heavy rail minus NY	14,479	18,212	San Francisco
Freeway*	26,730	36,997	Los Angeles
* Passenger miles per lane mile, average of top 50 U.S. urban areas			
Source: U.S. Department of Transportation			

A few individual transit lines do carry many people. San Diego’s Tijuana Trolley carries lots of people, but other San Diego lines are poor performers. Some heavy rail lines in Boston and Washington carry more people than a freeway lane during rush hour, but far fewer people during other hours of the day. No line carries as many people as a four-lane freeway, much less an eight- or twelve-lane freeway.

Rail would still be worth building if it cost significantly less than freeways. But it doesn’t. Typical light-rail construction costs average nearly \$25 million a mile, compared with less than half that for a freeway lane mile. Heavy rail generally costs at least twice as much as light rail. Commuter rail costs less, but it carries even fewer people.

The Development Myth

Myth: Rail transit promotes local investment and redevelopment.
Reality: Development on rail lines usually requires more subsidies.

Light rail “is not worth the cost if you’re just looking at transit,” admits Portland planner John Fregonese. “It’s a way to develop your community at higher densities.” Faced with rail transit’s high costs and poor ridership, advocates sometimes admit that they don’t expect light rail or commuter rail to carry many people. Instead, they say, its real purpose is to promote neighborhood redevelopment.

Yet rail transit has a very poor record of promoting such development. At best, “Urban rail transit investments rarely ‘create’ new growth,” says a report sponsored by the Federal Transit Administration, “but more typically redistribute growth that would have taken place without the investment.” The report adds that “The greatest land-use changes have occurred downtown.” Thus, rail transit is mainly a subsidy to downtown property owners.

Neighborhood redevelopment often requires major subsidies on top of the cost of rail transit. When Portland opened its first light-rail line in 1986, the city rezoned areas near all light-rail station for high-density, mixed-use developments. Ten years later, not a single such development had been built. So the city began giving developers huge subsidies, including ten-year property tax waivers, infrastructure subsidies, and direct grants to stimulate development. The Cascade Policy Institute has documented subsidies and the failure of Orenco and other transit-oriented developments in Portland.

Planners studying the San Francisco BART system found that “housing growth in the San Francisco Bay Area has been much stronger outside BART corridors than near the stations.” Similar results have been found in Los Angeles and other cities that built rail lines. As a result, many planners now routinely build the cost of subsidized developments into their estimates of the cost of building rail lines.

Reports that rail transit has spurred development in such areas as Walnut Creek, California or Ballston, Virginia should be examined closely. What role did freeway access play in such development? What subsidies were used to stimulate development? A close look often reveals that freeways or subsidies, not rail transit, were the major factors promoting redevelopment.



Almost all of the transit-oriented developments near Portland’s light-rail lines received large subsidies in the form of tax waivers and direct grants. This one received tax waivers of \$327,000 and a \$100,000 grant.

The Roger Rabbit Myth

Myth: The auto industry conspired to destroy American transit systems.

Reality: Buses are so superior to rail transit that almost every transit company in the U.S. converted streetcars to buses as fast as they could.

In the 1930s and 1940s, streetcar companies all over the nation recognized that buses were less expensive to purchase and more flexible to operate than streetcars. Rather than build streetcar lines to new suburbs, they purchased buses. As bus operating costs declined, transit companies also began replacing worn-out streetcar lines with buses.

General Motors, Firestone Tire, and Chevron Oil saw a market opportunity, so they purchased the National City Lines, a company that owned several streetcar lines, to make sure that when National City purchased buses, tires, and fuel, it would do so from GM, Firestone, and Chevron. This is called *vertical integration* and is not much different from supermarket chains that operate their own dairies.

Vertical integration, however, can be a problem when it runs afoul of antitrust laws. General Motors had a near monopoly in the market for buses. The federal government brought an antitrust lawsuit against the company for trying to maintain this monopoly by not letting other manufacturers sell buses to National City Lines. While the courts concluded that it was legal for General Motors to own transit companies, it was convicted and fined \$5,000 for not letting those companies accept bids from other bus manufacturers.

Years later a congressional staff member named Bradford Snell resurrected the General Motors antitrust case and claimed that General Motors’ true goal was to drive transit companies out of business so that transit riders would be forced to buy automobiles. “The noisy, foul-smelling buses turned earlier patrons of the high-speed rail systems away from public transit, and, in effect, sold millions of private automobiles,” claimed Snell.

In fact, says Sy Adler, an associate professor of urban studies at Portland State University, “everything Bradford Snell wrote. . . about transit in Los Angeles was wrong.” “Buses were clearly a better way to go and would have taken over with or without GM,” says University of Arizona transportation researcher Sandra Rosenbloom.

In a detailed analysis of Snell’s claims, Hawaiian transportation expert Cliff Slater observes that, far from driving people away from transit, buses were welcomed by transit riders because buses were faster, safer, more comfortable, and could go places the rails didn’t go. No wonder that, of the hundreds of transit lines that were *not* owned by National City Lines, all but four or five also converted their streetcars to buses.

It is possible to go even further and argue that, without the investments provided by National City Lines, many of America’s urban transit systems would have been far worse off. In any case, it is clear that the “GM conspiracy” was a conspiracy to sell buses, fuel, and tires, not a conspiracy to harm transit systems.

Rail vs. Bus Transit

Los Angeles

The Los Angeles Metropolitan Transit Authority (MTA) started building an ambitious network of rail transit lines in the 1980s. Cost overruns forced the agency to cut back bus service and defer buying new buses. Since the rail lines served many white middle-class neighborhoods and the buses served many minority neighborhoods, the NAACP Legal Defense Fund sued on behalf of a bus riders' union, charging discrimination.



A consent decree directed the transit agency to restore bus service and add 150 buses to peak service. To pay for this, the agency cut back on its rail plans. But the bus riders' union charges that the high cost of operating the existing rail lines has left the agency short of the funds needed to restore bus service.

In 2000, funding shortfalls led the agency to try to reduce its operating costs by seeking wage concessions from its bus drivers. This led to a month-long strike which, said the *Los Angeles Times*, "is the direct result of the MTA's past decisions to build the nation's most expensive subway system."

The agency's rail lines tend to have lower than average ridership and higher than average operating costs for similar types of rail lines nationwide. While only 16 percent of MTA's unlinked trips are on the rail lines, the agency spends half of its funds on the rail lines. As a result, even traditional smart-growth advocate Environmental Defense has charged that the agency is discriminating against the poor.

San Francisco

The Bay Area Rapid Transit (BART) system exists primarily to funnel suburban workers into downtown San Francisco and Oakland. But the high cost of extending BART lines further into the suburbs, where transit usage is low, has limited the funds available to San Francisco Muni and other transit agencies in the inner cities, where transit usage is high. The problems this has created have been well covered by the *San Francisco Bay Guardian*.

San Jose

San Jose's light-rail lines are among the worst performing in the nation. Federal transit data report that other light-rail lines carry an average of 27 passengers per car, while San Jose's carries just 15. Whereas other light-rail lines average well over 4,000 passenger miles per route mile, San Jose's carries less than 2,000. Since San Jose's transit agency pays for most of its operating costs out of a local sales tax, the current recession is forcing it to make huge cutbacks in bus services and to raise transit fares (which will reduce ridership). Yet it continues to spend millions of dollars a year extending light-rail lines into suburbs that make little use of transit services.

Similar stories can be told in many other cities that have recklessly built rail lines despite their high cost. Cities that are considering building rail lines should temper their desire to be a "world-class city" with a realistic appraisal of rail's high costs and trivial benefits.

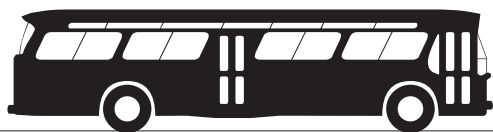
Transit Data

The standard source for most transit data is the *National Transit Data Base*, compiled each year by the Federal Transit Administration. Data prior to 1992 are available only in hard copy format. Data for 1993 through 2000 and 2001 can be downloaded.

These data are available in two forms. *Transit profiles* include data for each agency, while *data tables* include data for all agencies. Since the data tables are difficult to interpret, the americandreamcoalition.org web site has a single Excel file summarizing the most important 2001 data—annual rides, annual passenger miles, vehicle revenue miles, and operating costs—for all agencies and modes such as bus or light rail.

Table four shows transit's share of motorized travel and commuter travel in the nation's largest urban areas. The urban areas that stand out with high rates of transit ridership have high concentrations of downtown jobs, not ones that have invested in rail transit or have particularly high population densities.

The middle two columns in table four are transit's and rail transit's share of all motorized passenger miles. Transit passenger miles are from the 2001 National Transit Data Base; highway passenger miles are from the 2001 Highway Statistics, table HM-72, with vehicle miles multiplied by 1.6 to account for average auto occupancy. The last column is transit's share of commuters, based on the 2000 Census journey-to-work data for urbanized areas. Taxis are included in transit.



	Transit's Share	Rail's Share	Transit's Commute Share
New York	10.8	8.2	29.8
Los Angeles	1.6	0.4	6.1
Chicago	3.8	2.8	12.9
Philadelphia	3.0	2.0	10.2
Miami	1.6	0.4	3.4
Dallas-Ft. Worth	0.7	0.1	2.3
Boston	5.0	4.0	12.7
Washington	4.0	2.8	13.9
Detroit	0.5	0.0	2.1
Houston	1.1	0.0	3.9
Atlanta	1.5	1.0	4.3
San Francisco-Oakland	4.7	3.0	13.5
Phoenix-Mesa	0.5	0.0	2.3
Seattle-Everett	2.6	0.0	7.9
San Diego	1.4	0.6	3.7
Minneapolis-St. Paul	1.0	0.0	5.6
St. Louis	0.7	0.3	3.0
Baltimore	2.2	1.0	7.8
Tampa-St. Petersburg	0.3	0.0	1.6
Denver	1.4	0.2	5.0
Cleveland	1.3	0.4	5.1
Pittsburgh	1.8	0.2	8.2
Portland-Vancouver	2.1	0.8	7.8
San Jose	1.2	0.4	3.6

Evaluating Your Local Transit Agency

The National Transit Database provides the basic information anyone needs to find out how efficient and effective their local transit systems are. This database is published by the U.S. Department of Transportation each year based on data submitted to the federal government by the transit agencies. All transit agencies that receive federal funding—which means practically all of them—are in the database.

One way to use the database is through transit profiles prepared for every transit agency. Each profile is a one-page document that provides basic financial information and operating statistics. From these you can calculate the cost per trip, cost per passenger mile, passenger miles per vehicle mile (which translates to the average number of passengers on board), and other indicators of transit productivity. Most of the data (but not fares) are broken down by modes such as bus, light rail, and ferries.

The complete database for all transit agencies is found in sixteen tables or spreadsheets. Unfortunately, these are not as easy to use as the transit profiles. Users of these tables must constantly refer to a data dictionary to help them understand such terms as “cPCREVMLS” and “b_OC_501.”

To simplify matters, we have gathered some of the most important data in the database into a single downloadable Excel file. These include vehicle revenue miles, unlinked trips, passenger miles, operating costs, and directional route miles by mode for every transit agency. Capital costs are not included because they can vary tremendously from year to year and a single year's snapshot is not a good indicator of comparative transit productivities.

The file also includes the official federal identification number of the urbanized area in which each agency operates so data can be summarized for individual urban areas, many of which are served by multiple agencies. Finally, the spreadsheet calculates the operating cost per trip, operating cost per passenger mile, passenger miles per directional route mile, and passenger miles per vehicle revenue mile for all agencies and modes as well as the averages for bus, trolley bus, commuter rail, light rail, and heavy rail.

These are some of the best indicators of transit productivity. This spreadsheet allows you to compare your transit agency with others in similar-sized cities so you can get an indication of how well yours is doing. You can find other comparisons of transit between cities at publicpurpose.com.

Evaluating Rail Transit Proposals

Before any rail lines are constructed using federal funds, the federal government requires transit agencies to prepare detailed analyses of the benefits and costs of those lines. While transit agencies and other rail supporters do their best to promote the benefits while downplaying the costs, a careful review of these reports will usually reveal that the benefits are tiny or non-existent.

Most evaluations of rail projects consider several alternatives. At minimum, these include a *do-nothing* alternative, a *bus improvements* alternative (sometimes called *transportation demand management* or TDM), and the rail proposal. In most rail proposals, the rail alternative will cost far more than the bus or TDM alternative, yet carry few additional passengers.

The best measure of any transit project’s effectiveness is its *cost per new rider*. As directed by the Federal Transit Administration, this is calculated as follows:

- Annualize the capital costs by amortizing it over 20 to 30 years (depending on type of investment) at a standard interest rate, currently about 7 percent. This can be done using a mortgage interest calculator.
- Add the annualized capital cost to the annual operating cost for the rail project and doing the same for the bus improvements alternative. The difference is the *new cost*, that is, the additional cost of the rail project.
- Subtract the total annual riders carried under the improved bus alternative from the total annual riders carried under the rail alternative. This is the number of *new riders*.
- Divide new riders into new cost to get the cost per new rider.

Use the same process to compare the improved bus alternative with the no-action alternative. The results typically show that the cost per new rider of making bus improvements is around \$2 to \$5, while the cost per new rider of building rail lines is \$10 to \$20 or more. The Federal Transit Administration once had a policy of providing discretionary funding only to projects whose cost per new rider was less than \$6.

Madison, Wisconsin is considering a proposal to build and operate commuter rail lines. The city hired Parsons Brinckerhoff, a well-known transportation consultant, to evaluate the proposal.

Parsons Brinckerhoff found that bus service throughout the region could be improved for about \$60 million, leading to a 50-percent

increase in riders. Building the commuter rail lines, which would only serve a small portion of the region, would cost around \$180 million. To serve the rest of the region, planners assumed the rail proposal would be accompanied by bus improvements for a total cost of \$240 million.

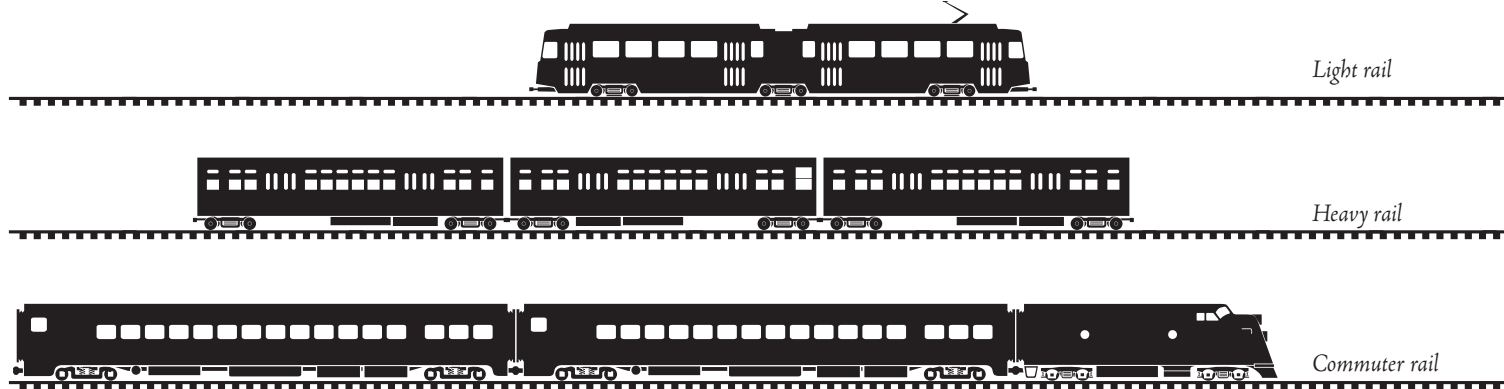
Parsons Brinckerhoff’s original analysis found that the bus improvements alone would actually carry more riders than the bus improvements with two new commuter rail lines. An alternative with four commuter rail lines carried a few more passenger than the bus alternative at a cost of more than \$140 per new ride. So it modified the bus alternative by deleting supposedly “unproductive” bus routes. The result was that the rail alternative was predicted to carry 1.6 percent more riders than the improved bus alternative.

The cost per new ride of bus improvements was just \$1.28, around

Table Five Cost Per New Ride of Madison Commuter Rail All numbers in millions (except cost per ride)			
Alternative	No Build	Enhanced Bus	Commuter Rail
Annual trips	12.4	18.5	18.8
Capital cost	\$20.0	\$60.3	\$242.0
Annualized capital cost *	1.6	4.9	19.5
Operating cost	31.7	36.2	39.5
Total annual cost	33.3	41.1	59.0
New annual cost		7.8	17.9
New rides		6.1	0.3
Cost per new ride		1.28	59.67
* Capital costs amortized at 7 percent over thirty years.			
Source: Parsons Brinckerhoff, Transportation Alternatives for Dane County/ Greater Madison, 2002, table 10-7.			

half of which would probably be covered by transit fares. But the cost per new ride for the rail lines would be nearly \$60. This would vary slightly depending on the interest rate and amortization period, but it would be outrageously high no matter what the assumptions.

In publicity for the rail line, rail proponents simply failed to mention the enhanced bus alternative. This made it appear that rails were crucial to getting a 50-percent ridership increase. Yet virtually all of the new riders could be gained by low-cost bus improvements, not expensive rail lines.



Land Use & the American Dream

Most people agree that property owners should be allowed to use their land as they choose provided they don't harm other people or their land. The problem comes when trying to define what harms others and how to prevent such harms.

At the end of the nineteenth century, people realized that the value of their property depended in part on what their neighbors did with their property. A tiny house would be worth more in a neighborhood of mansions, while a mansion would be worth less in a neighborhood of slums.

People developed two different ways to protect neighborhood property values. First was the covenanted neighborhood. Purchasers of a home on such a neighborhood would accept certain limits on the use of their property in the form of deed restrictions. Usually this meant that they couldn't subdivide their land or use their homes for commercial or industrial purposes.



Many planners today want to discourage big-box stores and large parking lots. . .

The other response was zoning. First used in the late 1910s, zoning was approved by the Supreme Court in 1926 as an appropriate use of the police power of the state to protect people from unwanted nuisances. The Supreme Court specifically mentioned that an apartment dwelling could be a nuisance in a neighborhood of single-family homes.

Originally, zoning was applied to neighborhoods that had been developed before the idea of covenants was devised. Covenants remained popular in cities that didn't have zoning. But in cities with zoning, people relied on the zoning to protect their property values and the use of covenants declined.

Both covenants and zoning have, at various times, been associated with racist policies. Many deed-restricted neighborhoods in the early twentieth century forbade selling homes to non-whites. People have also charged that zoning has been used as a way of increasing housing costs to a level prohibitive to low-income people and minorities. Today, of course, racist deed restrictions are illegal, but that doesn't mean that deed restrictions can't be used to protect property values.

If the Supreme Court originally approved of zoning as a way of

enhancing property values, a 1965 Supreme Court decision opened the way to using zoning to reduce property values. When New York City passed a historic preservation ordinance to protect Grand Central Station, its owners argued that they deserved compensation for lost economic value. The Court ruled that no compensation was required so long as the owners could get some economic return from the property.

This opened the door to zoning of property in ways that could significantly reduce its value. Whereas neighborhood zoning that restricts homeowners from turning their houses into apartments or taverns would boost neighborhood property values, rural zoning that limits what farmers can do with their land can reduce property values.

Land inside of one of Oregon's urban-growth boundaries can be a hundred times more valuable than otherwise identical land outside the boundary. While landowners inside the boundary may appreciate the enhanced value of their property caused by the artificial land shortage, landowners outside the boundary can be impoverished by planners' decisions. Naturally, this also makes any decisions to expand the boundary extremely controversial.

On top of that, planners inspired by smart-growth visions of high-density living are sometimes imposing their ideals on single-family neighborhoods that would rather not be densified. High-density zoning in some areas is so strict that if someone's house burns down they are required to replace it with an apartment. Thus, zoning has turned 180-degrees from a tool used to protect neighborhoods from unwanted intrusions to a tool used to force unwanted intrusions on reluctant neighborhoods.



. . . and instead promote "pedestrian-friendly" stores that front on the street. But smaller stores tend to have less variety and higher prices.

The American Dream Coalition opposes zoning that reduces people's property values without compensation and zoning that imposes planners' ideals on unwilling neighborhoods. When used for its original purpose, zoning can continue. But to best protect neighborhoods, we favor returning to the idea of protective covenants.

The Land-Use Transportation Connection Myth

Myth: There is a connection between land use and transportation, so land-use planning can reduce driving and congestion.

Reality: Transportation technology influences land uses, but not, for the most part, the other way around.

An article of faith among smart-growth adherents is that there is a connection between transportation and land use that allows planners to reduce the driving people do by regulating land uses. Higher densities, mixed-use developments, and pedestrian-friendly designs are supposed to combine with improved transit services to reducing driving, air pollution, and congestion. In fact, there is a connection, but it is a one-way street: Transportation technology strongly influences land use, but land use does not significantly affect transportation choices.

Until about 1890, the principle method of urban travel was by foot. Employees and their families crowded in apartments close to the factories or offices they worked in. Only the wealthiest people could afford horses or live in single-family homes in early-day suburbs.

Electric streetcar technology was fully developed in 1890 and streetcar lines were built by real-estate developers as an incentive to get people to buy homes. Streetcars allowed more people to escape crowded cities, but because they still had to walk from streetcar stations to their homes, streetcar suburbs still tended to be fairly dense.

The beginning of the end of the streetcar era began in 1909 when Henry Ford started building his low-cost Model Ts. Within two decades, most American families owned an automobile and many streetcar companies were beginning to convert to buses. Automobiles untied people from factories and rail lines and allowed them to live in any density they desired.

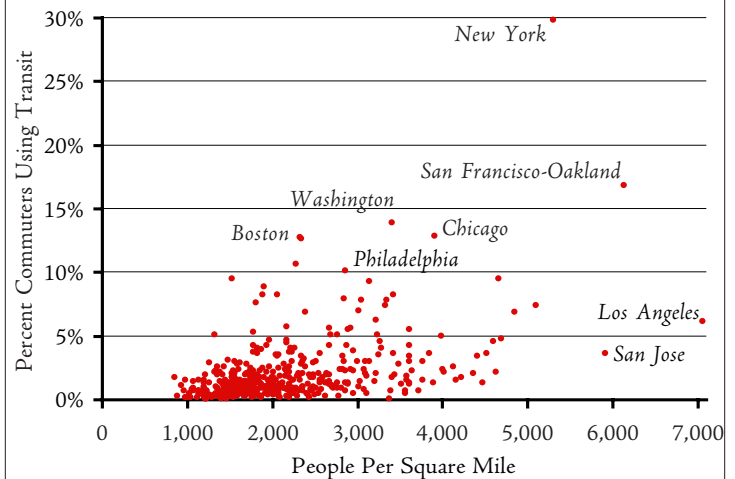
After the Depression and World War II, increasing numbers of people chose to live in suburban densities. Suburban growth not only absorbed the nation's population growth, it also depopulated some of the dense inner cities. Manhattan lost nearly 40 percent of its population between 1910 and 1980, while St. Louis lost nearly 60 percent of its population between 1950 and 2000.

Most developments today are oriented around the automobile, but older cities still have remnants of pedestrian or streetcar densities. San Francisco and Manhattan are still much like pedestrian cities. Los Angeles is the classic streetcar city. But Houston, Phoenix, and other sunbelt cities that grew mainly after air conditioning was developed are almost exclusively auto cities.

Transportation technology influences urban design. But does urban design influence transportation choices? The Federal Transit Administration claims that doubling population density can reduce per capita driving by as much as 30 percent. The Land-Use Transportation Air Quality (LUTRAQ) study prepared for 1000 Friends of Oregon claims that pedestrian-oriented design can reduce driving still further. Yet census data do not support such claims. Comparisons of per capita driving with population density in America's urban areas reveal there is no correlation between the two.

Studies that claim to find a relationship between land uses and transportation choices usually focus on the neighborhood level. One

Figure Five: Does Density Make a Difference?
Transit Commuting and Population Density



High levels of transit usage are achieved in urban areas with high concentrations of centrally located jobs, such as New York, San Francisco, Boston, and Chicago. Population density does not have a significant influence on transit ridership. Source: 2000 census.

recent study claiming to prove that smart growth works was written by John Holtzclaw of the Sierra Club, Hank Dittmar of the Surface Transportation Policy Project, and two other authors. The study examined individual neighborhoods in several cities to see if design influences auto use.

The problem with such studies is that they confuse cause and effect. People who can't drive or prefer not to drive will tend to choose neighborhoods that support walking and transit. But that doesn't mean that people who want to drive who are forced to live in dense, auto-hostile neighborhoods will suddenly give up their cars.

The best evidence of this can be found in Holtzclaw & Dittmar's own study (table six). In comparing the San Francisco, Los Angeles, and Chicago urban areas, they found that San Francisco has the densest population, the most pedestrian-friendly design, the most intensive transit service. Yet their data also showed that San Francisco has the most cars and most miles driven per capita.

Urban area	San Francisco	Los Angeles	Chicago
Population/acre	12.38	10.11	5.20
Transit density	22.66	6.13	18.29
Pedestrian friendly	.50	.23	.21
Vehicles/capita	0.71	0.62	0.53
Miles driven/capita	6,291	6,248	5,829

Source: "Location Efficiency: Neighborhood And Socioeconomic Characteristics Determine Auto Ownership And Use – Studies In Chicago, Los Angeles And San Francisco," By John Holtzclaw, Robert Clear, Hank Dittmar, David Goldstein and Peter Haas, Transportation Planning and Technol., 2002, Vol. 25, p. 14.

Housing and the American Dream

Housing represents more than just shelter against the elements. In America, it represents an important lifestyle choice and source of wealth. Do you prefer to live in a high-density urban core? A moderate density inner-city neighborhood? A low-density suburb? An ultra-low-density portion of the urban fringe? Or in practically zero-density rural areas?

Density, of course, represents more than just people per square mile. Higher density areas tend to have a wider variety of goods and services available, which is why their residents consider them more exciting. Lower density areas tend to be less regulated, which gives their residents a feeling of greater freedom, albeit with the risk that a next-door neighbor may build something you don't like.

Naturally, density is not the only or even the first criteria people use when choosing housing. School quality, crime rates, proximity to jobs, and access to recreation facilities or open space all influence housing values. Yet all of these things can be influenced to some degree by density.

Despite the stereotypes embraced in such terms as ticky tacky or cookie-cutter development, what is amazing about America is the extremely wide variety of housing and lifestyle choices that are available. Yet it is exactly this choice that is under fire from so-called smart-growth advocates, who seem to believe that the only legitimate choices are urban and rural—and rural is only legitimate for people with rural occupations.

For example, the Congress for the New Urbanism insists that “all development should be in the form of compact, walkable neighborhoods.” This demand is not just limited to new developments; the group also supports “the reconfiguration of sprawling suburbs into communities of real neighborhoods.” *Real*, to the Congress for the New Urbanism, means *compact*, while *walkable* usually means *auto-hostile*. Moreover, says the group, “development patterns should not blur or eradicate the edges of the metropolis.” In other words, five-acre lots on the urban fringe are illegitimate because they “blur” the distinction between urban and rural.

In addition to providing lifestyle choices, American housing plays



an important role in building wealth. This is because homes can be used as collateral to obtain loans that can then be used to finance educations, start businesses, and do other things that boost the homeowners' income.

According to economist Hernando DeSoto, “The single most important source of funds for new businesses in the United States is a mortgage on the entrepreneur's house.” More than two out of three American families own their own homes, and DeSoto says this high rate of homeownership helps explain why the U.S. is the world's wealthiest nation. Anything that increases the cost of homeownership therefore limits people's ability to generate wealth and poses a particularly severe hardship on low-income people who do not yet own their own homes.

Zoning and other regulations designed to limit urban expansion or impose lifestyle choices on other people all serve to drive up the cost of housing, especially those forms of housing not favored by the planning czars. Urban-growth or urban-service boundaries create artificial shortages of land that drive up land prices. Other regulations, including design codes, tree ordinances, and extensive review processes, all increase the costs of home construction.

Coldwell Banker annually estimates the cost of a typical, 2,200-square-foot, four-bedroom house in more than 300 different communities. The cost ranged from \$101,000 in Yankton, South Dakota to \$1.26 million in Palo Alto, California. While there is obviously some status involved in living in, say, Beverly Hills (the second most expensive community), in general the cities with the highest costs were ones with the most housing regulation. The most expensive areas tended to be in California, while the least expensive tended to be in the Midwest.

This is supported by the National Association of Home Builders' housing opportunity index, which estimates the percentage of housing in various markets is affordable to a median-income family in those markets. Again, the least affordable markets are in California, Oregon, and other highly regulated places. As indicated in table seven, population growth tends to have little influence on housing costs and affordability. In even the fastest-growing communities, builders can



Table Seven

Housing Affordability and Population Growth for Selected Regions

City	Affordability	House	Growth
Cincinnati	84	218,133	24
Atlanta	82	269,780	62
Columbia, SC	82	143,075	28
Nashville	79	181,700	31
Boise	78	173,500	62
Tampa	77	180,605	21
Minn-St. Paul	77	301,556	15
Gainesville, FL	76	228,800	26
Raleigh	76	203,166	77
Phoenix	75	209,283	45
Reno	71	239,205	42
Dallas	71	223,750	30
Tucson	70	214,600	24
Las Vegas	70	181,800	89
Salt Lake City	68	234,725	12
Austin	68	228,000	60
Houston	68	162,480	32
Seattle	63	335,317	56
Denver	60	251,600	31
Boston	48	628,333	45
Portland	47	275,725	35
Sacramento	44	368,000	27
Eugene	39	212,362	18
Medford	29	250,000	92
Oakland, CA	24	649,333	6
San Diego	22	379,761	14
San Jose	20	628,737	7
San Francisco	9	891,000	6

"Affordability" is the percentage of homes in a metropolitan area affordable to a median-income family in that area. "House" is the average cost of a standard, 2,200-square-foot home in the selected city. "Growth" is the population growth of the urbanized area during the 1990s, showing that home costs and affordability are not closely related to growth. Sources: National Association of Home Builders, Coldwell Banker, Census Bureau.

keep up with housing demand provided regulation does not get in the way.

A recent study published by the Harvard Institute of Economic Research concludes that "government regulation is responsible for high housing costs where they exist." In particular, "difficult zoning seems to be ubiquitous in high-cost areas," says the study.

For example, the study found that "15 percent more of the housing stock becomes quite expensive" when the time it takes to get a permit to build a subdivision of less than fifty homes doubles. This happens for two reasons. First, increasing the permit time adds to the developer's costs. But cities that require more time probably also impose more requirements on homebuilders, such as design codes, impact fees, and other things that increase housing prices.

While smart-growth advocates give lip service to affordable housing, what they mean is subsidized housing for low-income people. Their policies drive up home prices for everyone, and the housing sub-

sidies help only a few people.

For example, housing prices in San Jose are three to four times as great as in less-regulated cities such as Phoenix and Las Vegas, even though the latter communities are growing much faster than San Jose. The total current value of San Jose housing is about \$150 billion, suggesting that roughly \$100 billion of that value is the result of zoning and regulation. By comparison, San Jose has provided \$180 million worth of housing subsidies to low- and moderate-income people in the last decade, which makes up less than 0.2 percent of the cost of regulation. These subsidies benefit just 2 percent of the households in San Jose and provide virtually no help to anyone else.

"If policy advocates are interested in reducing housing costs," say the authors of the Harvard study, "they would do well to start with zoning reform. Building small numbers of subsidized housing units is likely to have a trivial impact on average housing prices."

Inclusionary zoning, meaning a requirement that builders include below-cost housing for low-income families in all developments, is another self-defeating policy. To pay for the below-cost housing, developers must charge more for the remaining housing. This brings up the cost of all housing in the region. A tiny percentage of low-income families benefit, while everyone else—including most low-income families—pays the cost in the form of higher housing prices.

As noted in the land-use portion of this guide, zoning was originally conceived as a way of maintaining the property values in a given neighborhood, not a way of increasing overall housing costs throughout a region. The alternative to zoning, protective covenants, can maintain neighborhood values without having any impact on regional housing costs.

How do areas that already have zoning convert to covenants? A paper by Dr. Robert Nelson, of the University of Maryland, suggests that state legislatures allow neighborhoods to petition to take over zoning from cities and counties. Provided they meet certain criteria, such as boundaries of a regular shape and majority (or supermajority) support from people in the neighborhood, the neighborhoods would then be allowed to determine their own fates using whatever democratic processes they choose.



Many U.S. businesses got their start with the help of a second mortgage on the business-owners' homes.

Air Quality & the American Dream

Thirty years ago, air pollution was a serious concern in many U.S. cities, leading to major problems with health and visibility. Automobiles were particularly responsible for emitting carbon monoxide, hydrocarbons, nitrogen oxides, particulates, and lead.

The Clean Air Act of 1970 required auto manufacturers to produce successively cleaner cars. This has had amazing results. Although Americans drive two-and-one-half times as many miles as they did in 1970, total auto emissions of hydrocarbons have been reduced by 70 percent, nitrogen oxides by 33 percent, carbon monoxide by nearly 60 percent, and particulates by 75 percent (figure three). Lead emissions are now close to zero. All of these trends are continuing and the air in most cities is expected to be cleaner in the future than it is today even with projected growth in population and driving.

Despite the success of controlling pollution at the tailpipe, some people want to reduce pollution by discouraging people from driving. In 1996, the Environmental Protection Agency started a *transportation partners* program that gave millions of dollars to anti-automobile groups to try to reduce the amount of driving Americans do.

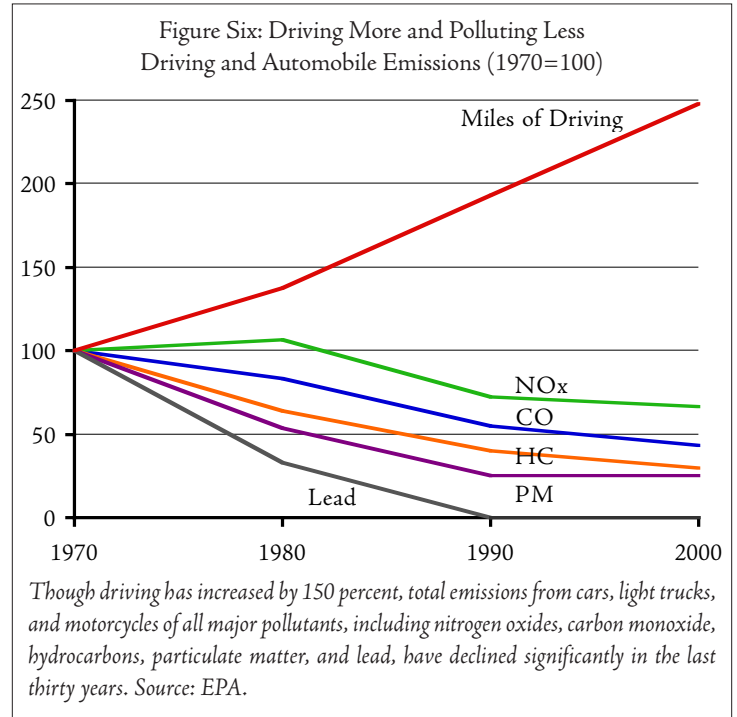
There is little evidence that such programs will succeed in reducing driving. Instead, they are more likely to increase air pollution because many anti-auto programs focus on increasing congestion. Cars pollute more in congested traffic for three reasons.

First, the catalytic converter in your car is designed to be most effective at speeds of 50 to 60 miles per hour. Actions that reduce speeds below this level will lead to more pollution.

Second, any engine must work more, consume more fuel, and emit more pollution when it accelerates than when it operates at steady speeds. Stop-and-go traffic thus leads to even more pollution.

To make matters worse, catalytic converters are likely to cool off in stop-and-go traffic. When their temperatures fall below around 400 degrees, they are much less effective. Thus, in stop-and-go traffic you might as well not have pollution control equipment in your car.

Programs that attempt to discourage driving by increasing urban



densities, installing so-called traffic calming devices, or diverting highway funds to other uses will all lead to more congestion and therefore more air pollution. Even if a few people drive a little less, the total amount of pollution is likely to be significantly increased.

On the other hand, building new freeway capacity can be one of the most important pollution-reducing investments a region can make. Unfortunately, the EPA discourages regions with serious air pollution problems from adding roadway capacity.

Where air pollution remains serious, we don't have to wait for new, cleaner cars or added freeway capacity to get cleaner air. Air quality can be improved much faster by relying on incentives instead of regulations. Such incentives could come in the form of a pollution emissions fee or by giving people tradable permits for the amount of pollution they currently produce. People could save money (or sell part of their pollution permit) if they bought a cleaner car or installed pollution-reducing equipment.

Hybrid gas-electric cars such as the Toyota Prius and Honda Insight are twice as fuel efficient as other cars, but they produce just 10 percent as much pollution. Much of the pollution reduction comes from a simple device designed to insure that the catalytic converter runs at its optimal temperature at all times. If incentives created a market for pollution-reducing equipment, it would be easy for someone to design and sell a catalytic converter heater for existing cars.

Engine emission controls, not human behavior modifications, are the keys to cleaning up the air. Existing technologies have already done much to reduce pollution. Even faster results can be obtained by giving people incentives to keep their cars clean and further reduce the amount of pollution they generate.

Open Space & the American Dream

Urban open spaces are important for recreation, scenery, wildlife, and watershed values. Smart-growth advocates rely on public worries about disappearing open space to build support for their policies. But smart growth doesn't protect urban open space. At best, it trades off certain valuable forms of open space for less valuable ones. At worst, smart growth's demand for infill actively eliminates valuable open spaces.

Despite popular fears that urban growth is paving over America, the cities and suburbs in the nation's 450 urbanized areas of 50,000 people or more cover just 2.4 percent of the contiguous 48 states. When all smaller towns and unincorporated concentrations of people are included, the total is still well below 4 percent. Urbanization does not threaten rural open space.



Nor does it threaten the nation's farms or forests. The U.S. Department of Agriculture says that we have over a billion acres of agricultural lands, but we use only about 375 million acres to grow crops. The number of acres in crop production has recently declined because per-acre yields have grown faster than our population.

Thanks to the automobile, we have more acres of forestlands today than a hundred years ago. Millions of acres of horse pastures returned to forests once autos and tractors replaced horses as a major source of travel and farm power. Today, Americans use less wood than they did a hundred years ago, mainly because we burn so little for fuel. As a result, America's forests are growing faster than they are being cut.

While rural open spaces are plentiful, urban open spaces are not. The principle threat to urban open space turns out to be smart growth. While Americans consider their backyards to be an important form of open space, smart-growth planners think they are a waste and would like to see many of them turned into homesites or apartments.

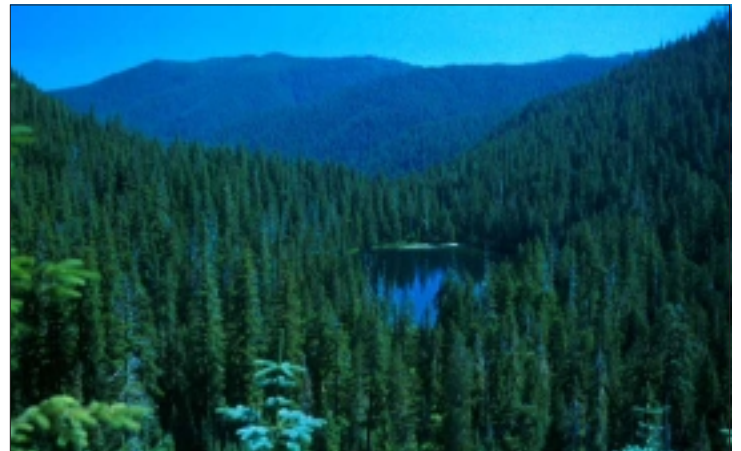
So-called infill programs threaten other urban open spaces, such as urban farms, golf courses, and even city parks. Planners rezoned a Portland-area golf course for 1,100 housing units and 200,000 square feet of office space. Ten thousand acres of prime farmlands mingled among Portland suburbs have been rezoned for high-density developments. The City of Portland has even sold some of its parklands to developers at below-market prices in an effort to promote high-den-

sity developments. A similar infill program also reduced urban open spaces in San Diego.

These infill programs do not protect open space. They only transfer valuable open spaces, such as people's backyards and urban play areas, to lower-valued open spaces, such as rural pastures that are closed to public use.

Smart-growth planners seem to accept only two legitimate lifestyles: urban and rural. Moreover, the rural lifestyle is only open to people with rural occupations such as farming. In 1993, Oregon planners issued a rule making it illegal for any rural farmland owner to build a house on their own land unless they actually earned \$40,000 to \$80,000 a year farming it (depending on farm productivity). They said this rule was needed to stop "lawyers, doctors, and others not really farming [from] building houses in farm zones."

When smart-growth advocates say that voters approved hundreds of smart-growth ballot measures in recent elections, they really mean that voters approved ballot measures to purchase open spaces. Voters want more open spaces in their cities and towns in order to keep densities and the traffic congestion that comes with high densities low. Planners see such ballot measures as a way to purchase greenbelts that will hem in urban growth and force higher suburban densities. If voters realized that was the goal, many would oppose such measures.



The American Dream Coalition supports private efforts to protect critical wildlife habitat and rural open spaces using private funds. Because most rural open spaces are not in short supply, we do not believe that public protection of rural open space, either through zoning or purchases of conservation easements with public funds, is a sound use of our resources.

The Coalition supports relaxing zoning codes in undeveloped areas so that developers can try innovative design concepts such as walkable communities and communities with large amounts of public open space. However, we oppose efforts to impose high-density zoning on neighborhoods. Rather than protecting rural open space, such zoning merely trades away valuable open spaces, such as people's back yards, for open spaces that are less valuable.

Open Space Data

Two federal agencies provide useful data on urbanization and rural open space. The Natural Resources Conservation Service does a natural resource inventory every five years, and this inventory estimates the amount of urban and rural development. The decennial census measures the land area of every census tract and classifies census tracts in such categories as *urban area*, *urban cluster*, and *place*. Both of these data sources agree that more than 95 percent of the United States remains rural open space.

The census and the Natural Resources Inventory measure different things, so naturally the numbers are a little different. The census measures the number of square miles in *urbanized areas* of 50,000 people or more, *urban clusters* of 2,500 people or more, and *places*, which include all incorporated towns of any size as well as any unincorporated concentration of people recognized by the Census Bureau.

Many small towns in the census have so few people that they may as well be open space. Forty-five towns occupying nearly 700 square miles have a population of zero. Another sixty towns covering 2,100 square miles each have less than ten people. Nearly 1,600 towns with populations of 10 to 99 together cover well over 25,000 square miles. This means the average density of towns smaller than a hundred people is less than four people per square mile. The average density of all non-urban places is less than 200 people per square mile. Since the average density of urban areas is 2,600 per square mile, and urban clusters is nearly 1,500 per square mile, the Census Bureau has obviously included large areas of open space in its non-urban places.

The problem is that the Census Bureau counts all the land in a town's legal boundaries, and that sometimes includes a lot of land.

Table Eight		
Census and NRI Estimates of Developed Land		
	Land Area Square Miles	Percent of Total
2000 Census		
Urban areas	71,961	2.0
Urban areas & clusters	92,508	2.6
Urban areas, clusters, & places	189,374	5.4
1997 Natural Resources Inventory		
Large urban	109,326	3.1
Large & small built up	118,875	3.4
All developed	152,726	4.3
Total U.S. Land	3,537,438	100.0

Urban areas include regions with 50,000 people or more; urban clusters include regions with 2,500 to 50,000 people; places include all incorporated towns and other concentrations of people identified by the Census Bureau. Large urban includes developments of 10 acres or more; small built up includes developments of a quarter acre or more; all developed includes large urban, small built up, and roads and railroads. Source: 2000 Census, 1997 Natural Resources Inventory.

Many towns or boroughs in Alaska occupy hundreds of square miles yet contain only a handful of residents. Thus, the Census Bureau's definition of *places* exaggerates the area of developed land, and the true extent of urbanized land is somewhere between the area of urbanized areas/urban clusters and the area for places.

The Natural Resources Inventory (NRI) was designed to measure the extent of farms and forests, and its measurement of developed areas is only an afterthought. Unlike the census, which is an exact measurement, the NRI is a sample, so its accuracy is not as high. The NRI also does not include Alaska, but such a tiny portion of Alaska has been developed that this is not a serious problem.

For each state, the NRI estimates the amount of land in *large urban* developments, meaning larger than 10 acres. Parks and other open spaces smaller than 10 acres are counted in large urban developments if they are completely surrounded by other developed land. The NRI also estimates the extent of *small built-up areas*, meaning between a quarter acre and 10 acres. Such small built-up areas probably includes such rural developments as grain elevators or agricultural processing facilities. The NRI also estimates the amount of rural land used for transportation, including roads and railroads.

Table eight shows the results of the two measurements for the U.S. as a whole. The NRI says 3.1 percent of the U.S. is urbanized and 1.2 percent is in rural developments and transportation. The census says that 2.6 percent is in urban areas of 2,500 people or more and another 2.8 percent is in small towns and places. Considering the exaggerated extent of small towns in the census, it is clear that well under 5 percent of the U.S. has been developed.

Table nine (p. 23) has a state-by-state breakdown of the percent of urbanized land (urban areas plus urban clusters) and places, and the NRI urban land (both large and small) and developed land (both urban and rural). The only states that are more than 20 percent devel-

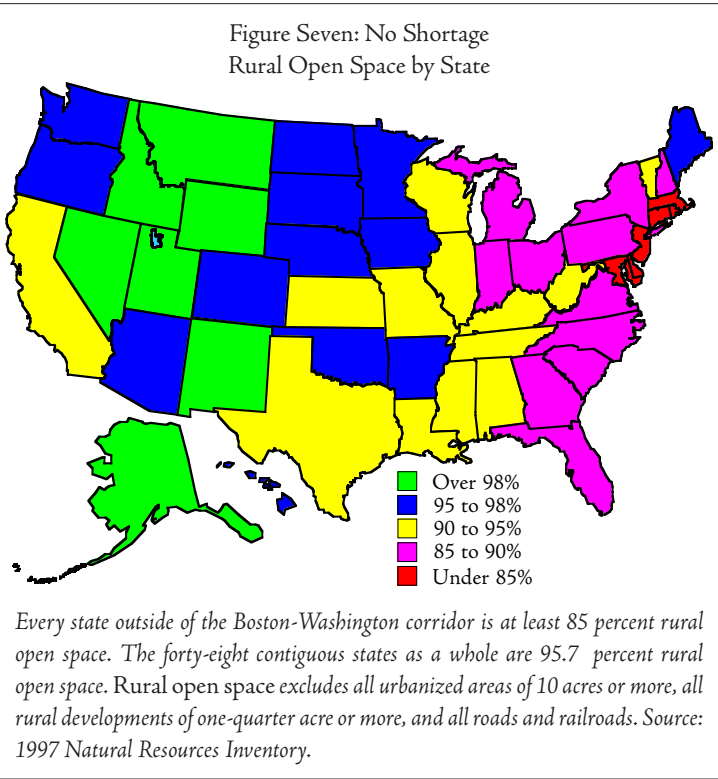


Table Nine
Measurements of Urban and Developed Lands
in the Census and Natural Resource Inventory

	2000 Census			1997 Nat. Res. Inv.			2000 Census			1997 Nat. Res. Inv.	
	Land Area Square Miles	Percent Urban	Percent Places	Percent Urban	Percent Developed		Land Area Square Miles	Percent Urban	Percent Places	Percent Urban	Percent Developed
Alabama	50,744	3.5	9.7	5.5	7.2	Montana	145,552	0.2	2.0	0.4	0.9
Alaska	571,951	0.0	4.7	0.0	0.0	Nebraska	76,872	0.6	1.0	1.1	2.6
Arizona	113,635	1.5	5.4	1.7	2.3	Nevada	109,826	0.5	2.8	0.5	0.6
Arkansas	52,068	1.7	4.6	2.9	4.4	New Hampshire	8,968	6.2	10.3	9.2	10.8
California	155,959	5.1	8.6	4.9	5.6	New Jersey	7,417	37.6	44.1	34.6	35.4
Colorado	103,718	1.2	2.6	1.8	2.6	New Mexico	121,356	0.6	1.7	1.0	1.7
Connecticut	4,845	36.3	39.8	25.8	28.1	New York	47,214	8.3	10.8	9.3	10.8
Delaware	1,954	15.5	17.8	13.9	15.5	North Carolina	48,711	7.3	10.3	10.5	12.4
District of Columbia	61	99.8	100.0	100.0	100.0	North Dakota	68,976	0.2	0.9	0.6	2.5
Florida	53,927	11.4	16.2	13.0	14.5	Ohio	40,948	9.8	12.6	13.0	14.4
Georgia	57,906	6.4	9.6	9.4	11.2	Oklahoma	68,667	1.7	6.8	2.9	4.5
Hawaii	6,423	5.5	17.5	3.8	4.5	Oregon	95,997	1.1	1.5	1.4	2.1
Idaho	82,747	0.5	0.8	0.8	1.5	Pennsylvania	44,817	9.5	12.4	13.5	15.0
Illinois	55,584	6.4	8.7	7.1	9.0	Rhode Island	1,045	37.2	39.6	23.0	25.2
Indiana	35,867	6.2	8.2	8.0	10.2	South Carolina	30,109	6.2	9.2	9.4	11.7
Iowa	55,869	1.5	3.7	2.3	5.0	South Dakota	75,885	0.2	0.9	0.7	2.1
Kansas	81,815	1.1	1.8	2.0	5.5	Tennessee	41,217	5.9	10.6	8.1	9.7
Kentucky	39,728	3.1	5.2	5.5	7.6	Texas	261,797	2.7	5.0	4.2	5.3
Louisiana	43,562	3.8	6.9	4.3	5.4	Utah	82,144	0.8	2.8	0.9	1.4
Maine	30,862	1.2	4.2	2.8	3.6	Vermont	9,250	1.6	2.9	3.9	5.6
Maryland	9,774	18.4	23.3	15.1	16.4	Virginia	39,594	6.0	9.8	8.5	10.4
Massachusetts	7,840	35.8	40.5	27.4	29.0	Washington	66,544	3.2	5.2	3.8	5.0
Michigan	56,804	5.9	7.3	9.0	10.1	West Virginia	24,078	2.3	4.1	4.8	6.4
Minnesota	79,610	1.9	5.2	2.8	4.4	Wisconsin	54,310	3.0	5.6	5.1	7.1
Mississippi	46,907	2.0	4.7	3.6	5.4	Wyoming	97,100	0.2	1.9	0.4	1.1
Missouri	68,886	2.6	4.7	3.9	5.9	Total	3,537,438	2.6	5.4	3.5	4.5

Census "urban" includes land in urbanized areas of 2,500 people or more.
Census "places" includes urban plus smaller towns and concentrations of people.

NRI "urban" includes urban developments of 10 acres or more.
NRI "developed" includes roads & rural developments of a quarter acre or more.

oped are the tiny states, such as Massachusetts and Maryland, on the east coast. With the exception of Ohio, other states that are more than 10 percent developed are also on the Atlantic seaboard.

More detailed files of census and Natural Resources Inventory data are available on the americandreamcoalition.org web site. To access even more detailed census data, go to the Census Bureau's American Factfinder web page and click on "2000 Summary File 1." Then click on "Enter a table number" and enter GCT-PH1. Choose a geographic area such as nation, state, or county and select "Urban/Rural and Inside/Outside Metropolitan Area." Click "Show table" to get population, number of households, total area, land area, and water area by urban area, urban cluster, and places of various sizes.

You can download the Natural Resources Inventory report from the Natural Resources Conservation Service. However, that report does not have detailed information on urban and developed lands. The information contained in the file on the americandreamcoalition.org web site was prepared by the NRCS by special request.



Smart-Growth Planning Disasters

Smart growth—which we define as coercive land-use planning that attempts to increase urban densities and discourage auto driving—has been applied, in some variation or another, by several cities and regional planning agencies. These plans have been given numerous awards from the American Planning Association and other planning advocates and have generated lots of publicity for those cities.

Portland: A Desire to Replicate Los Angeles

From all over the world, people visit Portland, Oregon, to learn the wonders of “smart-growth” planning. City officials ooh and ah over Portland’s light rail; reporters photograph the region’s urban-growth boundary; while planners exclaim over the city’s high-density, transit-oriented developments.

Smart growth is less exciting to local residents. They have discovered that smart growth’s promises to reduce congestion, provide affordable housing, and protect open spaces are phoney. Many now realize that smart growth’s true goals are to increase congestion, drive housing prices up, and develop as much urban open space as possible.

In 1992, planning advocates argued that only regional planning could save Portland from becoming like Los Angeles, the most congested, most polluted urban area in America. So Portland-area voters agreed to create Metro, a regional planning authority with near-dictatorial powers over land use and transportation planning in three counties and twenty-four cities.

Although Metro estimates that Portland’s population will grow by 80 percent in the next few decades, it decided not to expand the region’s urban-growth boundary by more than 6 percent. To accommodate everyone else, Metro gave population targets to each local city and mandated the construction of scores of high-density, mixed-use developments. To handle growing transportation demands, Metro proposed a 125-mile rail transit network, while it reduced roadway capacities through so-called “traffic calming.”

To meet their targets, local governments rezoned neighborhoods to much higher densities and promoted the development of farms, golf courses, and other open spaces. When voters turned down the

Yet the publicity and awards seem to be more for the plans’ intentions than for their effects. For the effects have been mostly, if not entirely, negative: higher housing prices, more congestion, higher taxes (or lower urban services), higher consumer costs, and less urban open space. This section of the *Journalists’ Guide* documents the serious problems with plans in Portland, San Jose, and other cities.

construction of new light-rail lines, Metro decided to build them anyway, using various tax districts to fund the lines without a public vote.

Planners soon learned that developers wouldn’t build high-density housing along transit corridors because there was little market for such housing. So Metro, Portland, and other local governments now offer tens of millions of dollars in subsidies to such developments.

The results are spectacular and nearly all negative. The tightness of the urban-growth boundary has sent land prices skyrocketing, and Portland went from being one of the nation’s most affordable housing



Though momentarily stuck in traffic, the people on this freeway know they will probably reach their destinations sooner than people on the light rail, because Portland’s light-rail cars go an average of just 20 miles per hour.



This neighborhood of single-family homes was rezoned for high densities, so now apartments are popping up in people’s backyards.

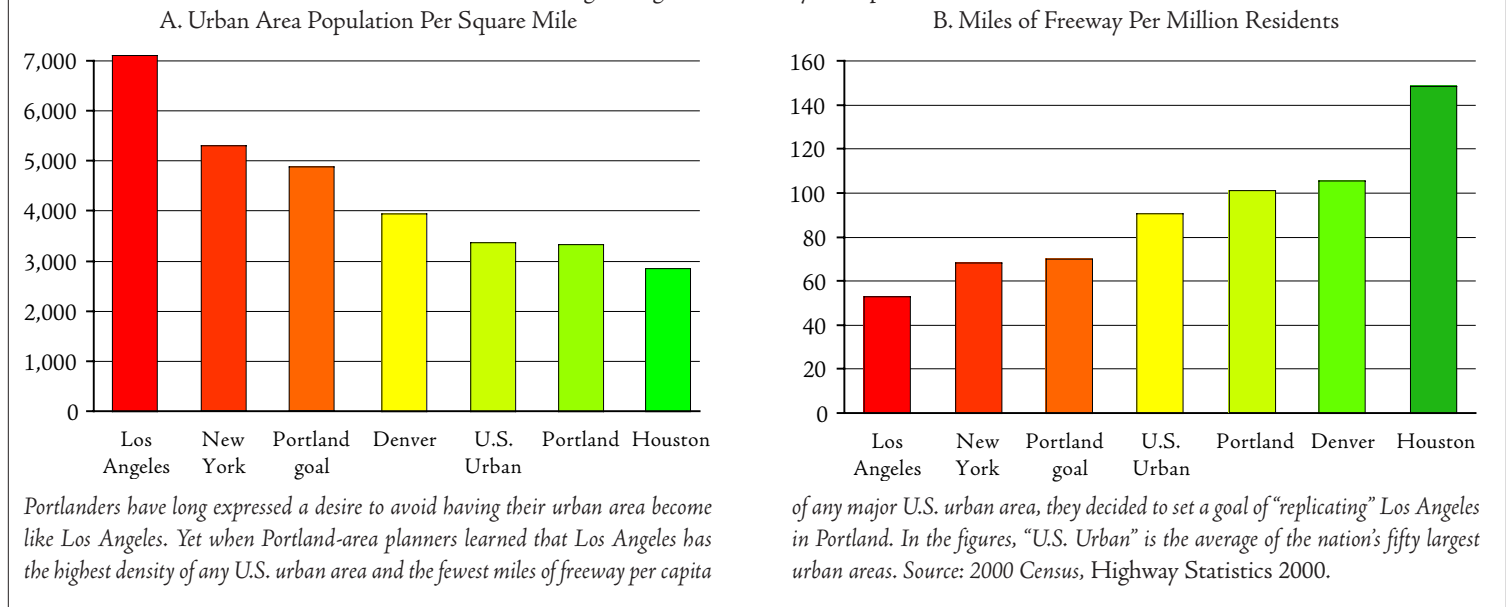
markets before 1990 to one of the five least affordable by 1996. The city’s largest homebuilder recently announced it was reducing operations by one-half because the region was nearly out of buildable land.

At the same time, the construction of heavily subsidized high-density housing has soured the rental market. So many apartments are on the market that vacancy rates are at near-record levels and one development along the light-rail line that received \$9 million in subsidies has already gone bankrupt.

Congestion is rapidly increasing, which turns out to be a part of Metro’s plan. “Congestion,” says Metro, “signals positive urban development.” Metro wants congestion in most areas to reach near-gridlock levels because relieving congestion “would eliminate transit ridership.”

Metro spends more than half the region’s surface transportation dollars on rail transit even though rails will carry only 1 percent of travel. In 1990, 92 percent of all passenger travel in the region was by auto. After its plans are all put into effect, Metro predicts that autos

Figure Eight: Which City to Replicate?



will still carry 88 percent of travel. With more people and more driving than ever, Metro says, the time people waste sitting in traffic will more than quadruple by 2020. Since cars pollute more in stop-and-go traffic, Metro says its plan will increase smog by 10 percent.

Urban open spaces are rapidly disappearing as cities rezone thousands of acres of farmlands, golf courses, and even city parks for high-density development. But when voters agreed to give Metro \$135 million to buy parks and open spaces, more than 80 percent of the land it purchased was outside the urban-growth boundary.

In 1994, Metro looked at other U.S. urban areas to see which one was closest to its plan for Portland: a high-density region with few roads and lots of rail transit. It turned out that the highest density urban area in America also has the fewest miles of freeway per capita

and is building one of the most expensive rail transit networks. What city is that? Believe it or not, it is Los Angeles, which turns out to be the epitome of smart growth. Metro concluded that Los Angeles "displays an investment pattern we desire to replicate" in Portland.

Oregonians are revolting against this form of social engineering. In 1996 and 1998, they denied further funding for light rail. In 2000, Oregon voted to require compensation for landowners when zoning rules reduce property values. And in May, 2002, nearly two out of three Portland-area voters passed a measure to limit densification.

If you want to replicate Los Angeles in your community, then by all means follow Portland's example. If your idea of a livable city is something other than Los Angeles, then you had better find another region to follow.

San Jose: Unaffordable Housing and Empty Light-Rail Cars

San Jose embodies smart-growth's twin goals of densification and rail transit. Population densities in the city and region around it have nearly doubled in the past twenty-five years, and the region has built an extensive network of light-rail lines. Yet these policies have resulted in enormous costs and produced few measurable benefits.

In 1950, San Jose was a sleepy town of less than 100,000 people. The city's pro-growth and aggressive annexation policies led to a quintupling of the population in the next two decades. During that time, the city's population density declined from more than 5,600 people per square mile to less than 3,300.

In 1974, a less growth-friendly city council drew an urban-growth boundary around the city. With the support of Santa Clara County, the boundary effectively prohibited subdivisions to the east and south of the city. West of the boundary were other cities, which were either surrounded by other cities or had boundaries of their own. To the north was San Francisco Bay.

When the boundary was drawn, planners hoped for a moderate

rate of growth over the next fifteen years. But no one in 1974 anticipated the booming microprocessor industry. Yet when growth proved to be much faster than anticipated, the city made no attempt to expand the boundary. The result was a sharp increase in land prices and housing costs.

San Jose housing prices nearly doubled between 1985 and 1990. After leveling off due to a recession, they doubled again from 1996 to 2001. Today, a home that costs \$100,000 to \$220,000 in most other cities costs more than \$630,000 in San Jose and even more in some nearby cities. Land suitable for residential development sells for well over \$1 million an acre; the same land in many other parts of the country sells for less than \$20,000 an acre. Despite having 75 percent higher per capita income than the rest of the country, San Jose had one of the least affordable housing markets in the nation.

Naturally, higher land prices mean that most people have to live with smaller (or no) yards. So San Jose's density has increased to more than 5,000 people per square mile. The density of the San Jose urban



San Jose's downtown has only a small percentage of the region's jobs. . .
area is nearly 6,000 people per square mile, which makes it the third densest urban area in America after Los Angeles and San Francisco.

As densities increased, San Jose followed the smart-growth prescription of investing in rail transit instead of roads. San Jose's privately operated bus system was taken over by Santa Clara County in 1976, and significant improvements in bus service led to a doubling of transit riders in just three years. But in 1981, the Santa Clara Valley Transportation Authority decided to build its first light-rail line.

In response, bus ridership stagnated, probably because the agency was focusing on rail instead of bus service. The opening of the region's first light-rail line in 1989 led to a brief surge in ridership, but after that ridership stagnated again. The agency was able to gain new riders only by opening more expensive light-rail lines.

San Jose's light-rail lines cost as much to build as a four- to six-lane freeway. Yet ridership has been anemic, even by light-rail standards: In 2001, each mile of San Jose's light-rail lines carried less than 7 percent as many passenger miles as a lane-mile of San Jose freeways. Where the average light-rail vehicle in the U.S. typically carries 27 passengers, San Jose's carry on 15. Even San Francisco cable cars outperform San Jose light rail.

As noted in the section on rail vs. bus, the current recession has led to a financial crisis for San Jose's transit agency. While the agency is making major cut-backs in bus service, it continues to spend tens of millions of dollars each year building rail lines.

Density and rail have not reduced auto driving. From 1982, when light-rail construction began, to 2001, miles driven in the San Jose region increased by 77 percent and per capita driving increased by nearly 40 percent. As a result, says the Texas Transportation Institute, the cost of congestion to San Jose drivers has quintupled.

Increasing congestion, expensive but little-used rail lines, and unaffordable housing with tiny yards are only the most obvious results of San Jose planning. Congestion and high land prices also probably contribute to higher consumer costs. San Jose food prices are 13 percent higher than the national average, while health care costs are more than 40 percent higher.

Despite all of these problems, planning advocates call any proposals to expand San Jose's urban-growth boundary "the Los Angelization of San Jose." In fact, it is their densification and congestification that is turning San Jose into Los Angeles, the densest and most congested urban area in America.



. . . so its light-rail lines are some of the poorest-performing rail lines in the nation.

Cincinnati: An Environmentally Unjust Transportation Plan

Strictly speaking, this is not a story of a smart-growth disaster, but the prevention of one. The Ohio-Kentucky-Indiana Regional Council of Governments (OKI) proposed to build light-rail lines in the Cincinnati area. Despite the fact that proponents outspent opponents by more than seventy-to-one, voters turned down funding for rail in November, 2002.

One of the reasons why voters rejected light rail was an analysis by OKI itself on the environmental justice of its regional transportation plan, which called for spending 54 percent of the region's transportation improvement funds on a transit system that carries less than 1 percent of regional travel. The analysis showed that the plan would dramatically reduce the accessibility of minorities and low-income people to jobs, while the already high accessibility of middle-class whites to jobs would be nearly unchanged.

At a fraction of the cost of light rail, OKI could have planned to greatly increase everyone's mobility by investing in buses and remov-

ing highway bottlenecks. Voters decisively defeated light rail at the polls in 2002, but OKI persists in promoting light rail over projects that could improve accessibility and reduce congestion.

Table Nine Access to Jobs			
	1995	2030 Plan	Change
<i>Percent of region's jobs within 40 minutes by transit</i>			
Low-income	21.3	17.6	-17
Minorities	20.0	15.8	-21
Middle-class whites	42.2	40.6	-4
<i>Percent of region's jobs within 20 minutes by auto</i>			
Low-income	99.1	83.1	-16
Minorities	82.2	53.4	-35
Middle-class whites	99.8	99.8	0
<i>Source: OKI 2030 Regional Transportation Plan (Cincinnati, OH: OKI, 2001), page 16-10.</i>			

References and Experts

Automobility

Highway Statistics

Author: Federal Highway Administration

Citation: Washington, DC: US DOT, various

Summary: Annual reports provide detailed data about America's automobiles, highways, fuel consumption, driving, and highway finances. Summary edition of 1995 has data extending back for decades.

Download: <http://www.fhwa.dot.gov/ohim/ohimstat.htm>

Cars, Women, and Minorities: The Democratization of Mobility in America

Author: Alan Pisarski (<mailto:pisarski@ix.netcom.com>)

Citation: Washington, DC: Competitive Enterprise Institute, 1999, 18 pp.

Summary: Women and minorities are driving more and more, but proposed restrictions on the automobile are likely to hit them the hardest.

Quote: "Induced travel, the notion that improvements in transportation facilities merely induce people to travel more, may be reviled by some, but in fact it is a highly desirable phenomenon. Future increases in induced travel will come largely from getting personal vehicles into the hands of minority populations. This is a fact to be celebrated, not condemned."

Download: <http://www.cei.org/PDFs/pisarski.pdf>

Driving Forces: The Automobile, Its Enemies, and the Politics of Mobility

Author: James Dunn (<mailto:jadunn@crab.rutgers.edu>)

Citation: Washington, DC: Brookings Institution, 1998

Summary: Describes the history of automobility in the U.S. with emphasis on the benefits of autos and campaigns against them.

Quote: "Ownership of an automobile empowers an individual to make a vastly wider range of choices relating to personal mobility than he or she would have without a car."

Download: <http://brookings.nap.edu/books/0815719639/html/R1.html>

Commuting in America II

Author: Alan Pisarski (<mailto:pisarski@ix.netcom.com>)

Citation: Washington, DC: Eno Transportation Foundation, 1996

Summary: Provides a statistical look at commuting based on the 1990 census. Pisarski is updating this book using 2000 census data.

Quote: "The fact that 70 percent of commuting households have two or more workers suggests that living near work is no longer a simple option, and the work trip chain—taking care of household needs—daycare, food, laundry—on the way to and from work is central in contemporary lifestyles."

Download: Can be ordered from http://www.enotrans.com/Publications_Order_Form/publications_order_form.htm

Additional References

The University of California Transportation Center has hundreds of reports on autos, transit, and land-use planning plus its excellent semi-annual *Access* magazine at <http://www.uctc.net/>.

For an article by Mark Delucchi comparing social costs and subsidies to autos with transit, download *Access* magazine number 16 from <http://www.uctc.net/access/access16lite.pdf> and read pages numbered 14–18.

Many more useful reports published by the Reason Foundation may be found at <http://www.rppi.org/surtrans.html>.

Density and Congestion, <http://www.tdanet.com/>

[Density and Congestion Reduction Oct 2002.pdf](#).

Traffic Calming Politics, http://www.users.qwest.net/~erinard/traffic_calming_politics.htm.

The cost of automobile ownership as a share of personal income can be found in tables at <http://www.bea.gov/bea/dn/nipaweb/TableViewFixed.asp?SelectedTable=27&FirstYear=1929&LastYear=2003&Freq=Year> (line 1 is personal income) and <http://www.bea.gov/bea/dn/nipaweb/TableViewFixed.asp?SelectedTable=30&FirstYear=1929&LastYear=2001&Freq=Year> (line 69 is auto ownership cost)

Data on auto, bus, and rail share of travel in various nations is available from OECD in *Figures 2002*, <http://www1.oecd.org/publications/e-book/0102071E.PDF>.

Congestion

Urban Mobility Study

Author: David Schrank (<mailto:d-schrank@tamu.edu>) and Tim Lomax (<mailto:t-lomax@tamu.edu>)

Citation: College Station, TX: Texas Transportation Institute, 2002

Summary: Provides congestion estimates for seventy-five urban areas for the years 1982 to 2000.

Download: <http://mobility.tamu.edu/ums/>

HOT Networks: A New Plan for Congestion Relief and Better Transit

Authors: Robert Poole (<mailto:bobp@reason.org>) and Kenneth Orski (<mailto:korski@erols.com>)

Citation: Los Angeles, CA: Reason Foundation, 2003, 57 pp.

Summary: Predicts that turning HOV lanes into HOT lanes, and in some areas building new HOT lanes, would both improve transit and allow anyone to travel in major urban areas without having to deal with congestion.

Quote: "HOV lanes, we believe, could be transformed into a more effective component of the urban transportation system by turning them into premium lanes that would serve as high-speed guideways for express buses, while providing a faster and more reliable travel option to individual motorists traveling in personal automobiles. Buses and vanpools would use the premium lanes free of charge, while other motorists would pay a variable toll."



Download: <http://www.rppi.org/ps305.pdf>

Putting the Customer in the Driver's Seat: The Case for Tolls

Authors: Peter Samuel (<mailto:tollroads@aol.com>) and Robert Poole (<mailto:bobbp@reason.org>)

Citation: Los Angeles, CA: Reason Foundation, 2000, 66 pp.

Summary: Because cars have doubled their fuel efficiency, gas taxes can't keep up with highway needs. Tolls should be the payment mode of choice in the twenty-first century.

Quote: "Double taxation' can be eliminated by giving rebates to toll road users for the amount of gas taxes they have paid for all miles driven on toll roads. Such programs already exist on toll roads in New York and Massachusetts."

Download: <http://www.rppi.org/ps274.html>

End Gridlock Now

Author: Dr. William Eager (<mailto:beager@tdanet.com>)

Citation: Seattle, WA: TDA Inc., 2002, 25 pp.

Summary: Seattle is one of the worst congested urban areas in the nation, but this analysis finds that adding just 6 percent more lane-miles to the region's highway system can both relieve congestion and provide for the next thirty years of traffic growth.

Quote: "The roadway network will have to carry 26% more trips in 2020 than in 2002. Even with this growth in demand the [proposed] network reduces delay per trip by 30%."

Download: http://www.tdanet.com/End_Gridlock_Now_Nov_2002.pdf.

Problems Associated with Traffic Calming Devices

Author: Kathleen Calongne (<mailto:CalongneK@aol.com>)

Citation: Unpublished, updated to 2003

Summary: Speed bumps and other traffic calming techniques delay emergency service vehicles, leading to far more risks than any safety to pedestrians provided by the traffic calming.

Quote: "An increase in accidents has occurred after some installations. Experimental speed humps placed on a street at a school in Portland, Maine registered an increase in accidents of 35%. Accidents increased 100% after the installation of an experimental traffic circle in Boulder, Colorado. However, the circle in Boulder and the humps in Portland remain on the street today."

Download: http://www.users.qwest.net/~erinard/problems_associated_with_traffic.htm.

Transit

National Transit Data Base

Author: Federal Transit Administration

Citation: Washington, DC: US DOT, various

Summary: Provides profiles of individual transit agencies as well as cost, ridership, and other data on all bus, light-rail, heavy-rail, commuter-rail, and other transit lines in the country.

Download: <http://www.ntdprogram.com/>.

See also: Summary data of costs, ridership, and miles for all agencies and modes at <http://americandreamcoalition.org/modeuza.xls>. For a table showing just light rail, heavy rail, and commuter rail lines, download <http://americandreamcoalition.org/rail2001.xls>.

The Future of Mass Transit

Author: Thomas Rubin (<mailto:tarubin@earthlink.net>)

Citation: Veritas, Summer 2000, pp. 14-25.

Summary: Transit can provide mobility for people who cannot drive, but it

can't reduce traffic congestion, reduce air pollution, shape cities, or stimulate the local economy.

Quote: "In almost all cases, improved bus transit services can be, at a minimum, extremely competitive with rail transit alternatives and bus is frequently a clear and convincing winner in any fair competition. The key word is 'fair' because many such modal competitions are stacked against all but the preselected winner, which is virtually always rail transit."

Download: http://www.tppf.org/veritas/vol1_issue2/future.pdf

The Illusion of Transit Choice

Author: Wendell Cox (<mailto:wcox@publicpurpose.com>)

Citation: Veritas, March, 2002, pp. 34-42.

Summary: Building a transit system that is competitive with the automobile—that is, that can deliver people from any point in an urban area to any other point in no more than 150 percent of the time it takes to drive—would be prohibitively expensive.

Quote: "The annual capital and operating costs for a comprehensive system providing transit choice to the entire community would be more than the total personal income of the metropolitan area."

Download: http://www.cascadepolicy.org/..pdf/env/I_108.pdf

Kennedy, 60 Minutes, and Roger Rabbit: Understanding Conspiracy-Theory Explanations of The Decline of Urban Mass Transit

Author: Dr. Martha J. Bianco (<mailto:biancom@pdx.edu>)

Citation: Portland, OR: Center for Urban & Public Affairs, Portland State University, 1998, 21 pp.

Summary: Though untrue or, at best, exaggerated, the myth that General Motors destroyed transit systems is popular among rail advocates because it makes their rail proposals seem more attractive.

Quote: "If we cannot cast GM, the producer and supplier of automobiles, as the ultimate enemy, then we end up with a shocking and nearly unfathomable alternative: What if the enemy is not the supplier, but rather the consumer? What if, to paraphrase Oliver Perry, we have met the enemy, and the enemy is us?"

Download: <http://www.upa.pdx.edu/CUS/publications/docs/DP98-11.pdf>

The Mythical Conception of Rail Transit in Los Angeles

Author: Dr. Jonathan E. D. Richmond (<mailto:richmond@alum.mit.edu>)

Citation: Journal of Architectural and Planning Research 15(4):294-320

Summary: The popularity of rail among Los Angeles government officials is due to a series of myths, including the myth that trains are faster and more efficient than buses. As one LA transit commissioner is quoted as saying, "Trains are sexy, buses are not."

Quote: "The train—concrete, sexy, transport of intimate memories and pow-





erful ideas—provides a solid basis for political support. Technologies with negative symbolic connotations cannot do that.”

Download: <http://the-tech.mit.edu/~richmond/professional/myth.pdf>

Underestimating Costs in Public Works Projects Error or Lie?

Authors: Bent Flyvbjerg, Mette Skamris Holm, and Soren Buhl

Citation: *Journal of the American Planning Association* 68(3) Summer 2002: 279-295

Summary: Reviews of 258 transportation projects worth \$90 billion reveal that the cost estimates for those projects were highly misleading. U.S. rail projects ended up costing an average of 41 percent more than estimated while U.S. road projects ended up costing an average of 8 percent more than estimated.

Quote: “Underestimation cannot be explained by error and is best explained by strategic misrepresentation, that is, lying.”

Download: <http://www.planning.org/japa/pdf/JAPAFlyvbjerg.pdf>

Trolley Folly: A Critical Analysis of the Austin Light-Rail Proposal

Authors: Thomas Rubin (<mailto:tarubin@earthlink.net>) and Wendell Cox (<mailto:wcox@publicpurpose.com>)

Citation: Austin, TX: Texas Public Policy Foundation, 2000, 31 pp.

Summary: A proposed light-rail line would cost at least a third of Austin's transportation funds yet carry less than a half percent of regional travel.

Quote: “The Dallas DART light rail system has been declared a success by Capital Metro. In fact, DART's original projections that were used to promote their ballot initiative have been missed by a substantial margin. Ridership has fallen nearly 90 percent short and capital costs have escalated 60 percent.”

Download: <http://www.texaspolicy.com/pdf/2000-09-27-transportation-austintrail.pdf>

Transportation in the Balance: A Comparative Analysis of Costs, User Revenues, and Subsidies for Highway, Air, and High-Speed Rail Systems

Authors: Evelyn Chan, Adib Kanafani, and Thomas Canetti

Citation: Berkeley, CA: University of California Transportation Center, 1997, 69 pp.

Summary: Compares prospects for high-speed rail between Los Angeles and the San Francisco Bay Area with highways and airlines. Concludes that the social costs (subsidies plus externalities) of rail would be eighty times as much as for roads.

Quote: “Even under extremely conservative assumptions regarding the estimation of the external costs of noise and air pollution, high-speed rail will continue to require many times the subsidies needed by the other modes.”

Download: <http://www.uctc.net/papers/363.pdf>

Additional References

Urban Transit Myths by Randal O'Toole at <http://www.rppi.org/ps245.html>

Myths of Light-Rail Transit by James DeLong at <http://www.rppi.org/ps244.html>

Busway vs. Rail Capacity: Separating Myth from Fact by Peter Samuel at <http://www.rppi.org/pu16.pdf>

Does Transit Really Work? Thoughts on the Weyrich/Lind “Conservative Reappraisal” by Peter Gordon at <http://www.rppi.org/transportation/febbrief101.html>

More of Wendell Cox's analyses of rail transit are at <http://www.publicpurpose.com/>.

More analyses of Portland's light-rail lines are at <http://www.cascadepolicy.org/>.

The Los Angeles Bus Riders Union is at <http://busridersunion.org/>.

A San Francisco Bay Guardian article on BART bias can be read at <http://www.sfbg.com/News/33/46/46transbart.html>. For more, go to <http://www.sfbg.com/searchit.html> and search for BART.

Air Quality

AirData: Access to Air Pollution Data

Author: Environmental Protection Agency

Citation: Washington, DC: EPA, 2003

Summary: Provides local, regional, and national data about all major pollutants.

Download: <http://www.epa.gov/air/data/index.html>

Clean Air through Transportation: Challenges in Meeting National Air Quality Standards

Author: Environmental Protection Agency and U.S. Department of Transportation

Citation: Washington, DC: EPA/USDOT, 1993.

Summary: Compares the effectiveness of such actions as traffic signal synchronization, rail transit, congestion road pricing, and land-use planning in reducing air pollution.

Quote: “The market-based mechanisms (smog fees, congestion pricing, gas taxes and increased parking charges) showed the greatest air quality, reducing mobile source emissions from about 4.5 to 7.6 percent. In comparison, the capital-intensive TCMs were much less effective. For example, an expansion of the regional rail system, including an extension of the Bay Area Rapid Transit (five stations) and the Tasman light rail (12 miles), would reduce HC and CO by only 0.86 percent each.”

Download: <http://americandreamcoalition.org/cleanairtrans.doc>

No Way Back: Why Air Pollution Will Continue to Decline

Author: Joel Schwartz (<mailto:jschwartz@pacbell.net>)

Citation: Washington, DC: American Enterprise Institute, 2003.

Summary: Air quality is steadily improving throughout the United States and will continue to improve under existing rules.

Quote: “With each new model year, motor vehicles start out and stay cleaner than previous models. This means that we will be reaping the benefits of progressively cleaner vehicles for decades to come.”

Download: http://www.aei.org/docLib/20030804_4.pdf

Land Use

Is Sprawl Inevitable? Lessons from Abroad

Authors: Dr. Peter Gordon (<mailto:pgordon@almaak.usc.edu>) and Dr. Harry Richardson (<mailto:hrichard@usc.edu>)

Citation: Paper presented at the ACSPP Conference, Chicago, 1999, 30 pp.

Summary: Far from being uniquely American, low-density development and increased auto driving is a world-wide trend, even in places that long ago adopted policies that U.S. smart-growth advocates promote here.

Quote: "Widespread auto ownership with suburban land-use patterns are evolving in countries such as those of Western Europe and Canada where policies are very different, most of them strongly favoring compact development and blatantly pro-transit."

Download: http://www-rcf.usc.edu/~pgordon/pdf/LESSON_A.pdf

The Sprawl Debate: Let Markets Plan

Authors: Dr. Peter Gordon (<mailto:pgordon@almaac.usc.edu>) and Dr. Harry Richardson (<mailto:hrichard@usc.edu>)

Citation: Publius

Summary: Federal involvement in the sprawl debate is "undesirable, unattainable, and probably unconstitutional."

Quote: "The sprawl debate, at its most fundamental level, hinges on whether one believes that people have the right to choose where they want to live, what they want to drive, where they want to shop, and soon—if they are willing to pay the full costs involved."

Download: http://www-rcf.usc.edu/~pgordon/pdf/PUBL_FINL_10_5_01.pdf

Mandated Density: The Blunt Instrument of Smart Growth

Author: by Kenneth Dueker (<mailto:duekerk@pdx.edu>)

Citation: Draft, 2002, 13 pp.

Summary: Minimum-density zoning won't accomplish the objectives of smart growth, such as getting people to drive less or providing more housing choices.

Quote: "Use of minimum density requirements in commercial areas is having the effect of under-building and diverting development from those areas.... Preliminary results indicate that small lots (less than 5000 sq. ft.) have a depreciating effect on the price of new, detached single-family houses, controlling for other influences."

Download: <http://www.upa.pdx.edu/CUS/publications/docs/DP02-2.pdf>

Sprawl and Urban Growth

Author: Dr. Edward Glaeser (<mailto:eglaeser@kuznets.fas.harvard.edu>) and Dr. Matthew Kahn (<mailto:matt.kahn@tufts.edu>)

Citation: Written as a chapter for volume IV of *The Handbook of Urban and Regional Economics* (Elsevier, 2004)

Summary: "Sprawl is not the result of explicit government policies or bad urban planning, but rather the inexorable product of car-based living."

Quote: Perhaps the most interesting finding is that "car-based edge cities have much more racial integration than the older public transportation cities than they replaced."

Download: <http://post.economics.harvard.edu/hier/2003papers/HIER2004.pdf>

Cities, regions, and the decline of transport costs

Author: Dr. Edward Glaeser (<mailto:eglaeser@kuznets.fas.harvard.edu>) and Janet E. Kohlhase (<mailto:jkohlhasse@uh.edu>)

Citation: Cambridge, MA: Harvard Institute of Economic Research, 2003, 55 pp.

Summary: Over the past century, the cost of transporting manufactured goods has declined by 90 percent. This has reduced the need for high-density cities, but low- to medium-density cities still exist because people still need or prefer face-to-face contact.

Quote: "There is little reason for cities to be near natural resources or natural transport hubs. Instead, cities should locate where it is pleasant to live or where governments are friendly. We think that the movement away from the hinterland should best be understood as a flight from natural resources towards consumer preferences."

Download: <http://post.economics.harvard.edu/hier/2003papers/HIER2014.pdf>

Collective Private Ownership of American Housing: A Social Revolution in Local Governance

Author: Dr. Robert Nelson (<mailto:rn29@umail.umd.edu>)

Citation: Adopted from a forthcoming book, *Privatizing the Neighborhood*

Summary: Protective covenants monitored by homeowner associations are an attractive alternative to zoning, bringing governance to a very local level and providing homeowners with security about the future of their neighborhoods. Dr. Nelson proposes a method of transitioning from zoning to such covenants.

Quote: "In the long run municipal zoning in the United States perhaps is best abolished. The existing functions of zoning perhaps instead should be served through private neighborhood associations."

Download: <http://www.puaf.umd.edu/faculty/papers/nelson/Privateneighborhoods.pdf>

Additional References

Additional papers on land-use and transportation by Peter Gordon, Harry Richardson, and associates at USC are at <http://www-rcf.usc.edu/~pgordon/>

Additional papers by Harvard economist Edward Glaeser and associates are at <http://post.economics.harvard.edu/faculty/glaeser/papers.html>

The Reason Foundation has papers on housing and land use at <http://www.rppi.org/housland.html>.

The 1997 Natural Resources Inventory data are available at http://www.nrcs.usda.gov/technical/NRI/1997/national_results.html.

A summary of 1997 NRI data can be downloaded from <http://americandreamcoalition.org/nridata.xls>.

Census data on the land devoted to urban areas, urban clusters, and places can be downloaded from <http://americandreamcoalition.org/censusurbanareas.xls>. More detailed data are available at <http://www.census.gov/>.

Housing

Does Sprawl Reduce the Black/White Housing Consumption Gap?

Author: Dr. Matthew Kahn (<mailto:matt.kahn@tufts.edu>)

Citation: *Housing Policy Debate* 12(1): 77-86

Summary: Census data show that low-density ("sprawled") regions are more affordable and have less of a homeownership gap between blacks and



whites.

Quote: "In sprawled areas, black households consume larger units and are more likely to own their homes than black households living in less sprawled areas."

Download: <http://www.mi.vt.edu/Research/PDFs/kahn.pdf>

The Impact of Zoning on Housing Affordability

Authors: Dr. Edward Glaeser (<mailto:eglaeser@kuznets.fas.harvard.edu>) and Dr. Joseph Gyourko (<mailto:gyourko@wharton.upenn.edu>)

Citation: Cambridge, MA: Harvard Institute of Economic Research, 2002, 37 pp.

Summary: The U.S. is not suffering from a nationwide housing affordability crisis, but unaffordable housing in some regions is strongly associated with the level of land-use regulation in those regions.

Quote: "If policy advocates are interested in reducing housing costs, they would do well to start with zoning reform."

Download: <http://post.economics.harvard.edu/hier/2002papers/HIER1948.pdf>

Smart Growth and Its Effects on Housing Markets: The New Segregation

Author: Dr. Randall Pozdena (<mailto:pozdena@portland.econw.com>)

Citation: Portland, OR: QuantEcon, 2002, 34 pp.

Summary: If Portland's growth policies had been applied nationwide for the last ten years, more than a quarter-million minority families who now own their own homes would not have been able to afford to buy those homes.

Quote: "It is apparent both from theory and the available data that restricting the supply of development sites is bound to raise home prices, everything else being equal. Insidiously, the burden of site-supply restrictions will fall disproportionately on poor and minority families."

Download: <http://www.nationalcenter.org/NewSegregation.pdf.pdf>

Smart Growth and Housing Affordability: Evidence from Statewide Planning Laws

Authors: Dr. Sam Staley (<mailto:Samuelrstaley@aol.com>) and Leonard C. Gilroy (<mailto:leonard.gilroy@reason.org>)

Citation: Los Angeles, CA: Reason Foundation, 2001, 59 pp.

Summary: Assesses the effects of statewide planning on housing prices in Florida, Oregon, and Washington.

Quote: Housing affordability "eroded in all three states after 1993 while affordability improved for the nation throughout the 1990s."

Download: <http://www.rppi.org/ps287.pdf>

Issues Associated with the Imposition of Inclusionary Zoning in the Portland Metropolitan Area

Author: Jerald W. Johnson (<mailto:jwj@johnson-gardner.com>)

Citation: Portland, OR: Hobson Johnson & Associates, 1997, 13 pp.

Summary: Inclusionary zoning would reduce housing costs for a few low-income people at the expense of raising housing costs for everyone else.

Quote: "The primary intent of inclusionary zoning is to increase the inventory of affordable housing. The more likely scenario is a reduction in overall housing opportunities for low-income residents."

Download: <http://americandreamcoalition.org/inc zoning.pdf>

The Dynamics of Metropolitan Housing Prices

Authors: Dr. G. Donald Jud (<mailto:juddon@uncg.edu>) and Dr. Daniel T. Winkler (<mailto:winkler@uncg.edu>)

Citation: *Journal of Real Estate Research*, vol. 23, nos. 1/2 (2002): pp. 29-45

Summary: Analyzed the factors that influence housing price changes in 130 metropolitan areas and found that variations between metro areas were

correlated with restrictive growth management policies and limitations on land availability.

Quote: "Local regulatory restrictions impede housing growth, causing a larger appreciation in local housing prices."

Download: <http://business.fullerton.edu/journal/papers/abstract/past/av23n0102/v23n0102a02.htm>

Government Regulation and Changes in the Affordable Housing Stock

Authors: Dr. C. Tsurriel Somerville (<mailto:tsur.somerville@commerce.ubc.ca>) and Dr. Christopher J. Mayer (<mailto:mayerc@wharton.upenn.edu>)

Citation: Vancouver, BC: Centre for Urban Economics and Real Estate, University of British Columbia, 2002, 32 pp.

Summary: Finds that housing regulation leads to shortages in affordable rental housing for low-income families.

Quote: "The effects of land use regulation are not limited to raising the price of owner-occupied housing and reducing access to homeownership. It also has a clear negative impact on the most vulnerable."

Download: <http://business.fullerton.edu/journal/papers/abstract/past/av23n0102/v23n0102a02.htm>

Additional References

The National Association of Home Builders maintains a large amount of data at <http://www.nahb.org/category.aspx?sectionID=113>.

Coldwell Banker has its 2002 report on the cost of a standard, 2,200-square-foot home in hundreds of housing markets at <http://www.coldwellbanker.com/request/CBDocument?QMLclass=HPCI&mode=full>.

The Reason Foundation has papers on housing and land use at <http://www.rppi.org/housland.html>.

Smart Growth, Housing Costs, and Homeownership, by Wendell Cox and Ron Utt, <http://www.heritage.org/Research/SmartGrowth/BG1426.cfm>

An Overview of Research on the Costs of Housing Regulation, by Steven Hayward (<mailto:Hayward487@aol.com>), <http://americandreamcoalition.org/housingregulation.doc>

Open Space

The "Vanishing Farmland" Myth and the Smart-Growth Agenda

Author: Sam Staley (<mailto:Samuelrstaley@aol.com>)

Citation: Los Angeles, CA: Reason Foundation, 2000, 20 pp.

Summary: Contrary to popular belief, urban sprawl does not threaten farm productivity. In fact, the amount of land used to grow crops has re-



mained stable while agricultural productivity continues to increase.

Quote: "While urbanization does not significantly threaten the nation's agricultural industry, current public policies tend to encourage the inefficient conversion of land to non-agricultural uses. Several market-oriented policy reforms can address land development issues and promote farmland preservation."

Download: <http://www.rppi.org/urban/pb12.pdf>

Flawed Federal Land-Use Report Encourages Unnecessary Federal Spending

Authors: Wendell Cox (<mailto:wcox@publicpurpose.com>) and Ronald Utt (<mailto:ron.utt@heritage.org>)

Citation: Washington, DC: Heritage Foundation, 2000, 6 pp.

Summary: The USDA's Census of Agriculture revealed that USDA's 1997 Natural Resources Inventory overestimated the rate of development of farms and open space. The inventory was withdrawn and later revisions reduced the estimated rate of development.

Quote: "Whereas the NRI survey found that Texas had lost 2,105,400 acres of farmland between 1992 and 1997, the *Census of Agriculture* reported that Texas had *gained* 421,600 acres of farmland during the same period.

Download: <http://www.heritage.org/Research/EnergyandEnvironment/bg1368.cfm>

Preparing for the Storm: Preserving Water Resources with Stormwater Utilities

Author: Barrett Walker

Citation: Los Angeles, CA: Reason Foundation, 2001, 57 pp.

Summary: Shows how cities can use user fees to protect open space while reducing the costs of dealing with stormwater runoff.

Quote: "Rather than adopting growth boundaries or other regulatory approaches that put broad areas of private land off-limits to development, this study recommends that a market-based approach integrating economic and ecosystem needs could be implemented."

Download: <http://www.rppi.org/ps275.html>

Smart-Growth Disasters

Portland

The Vanishing Automobile and Other Urban Myths: How Smart Growth Will Harm American Cities



A book available from the Thoreau Institute for \$14.95 (plus \$4 shipping), examines the Portland story in detail. Portions of an earlier version of this book can be read on line.

Author: Randal O'Toole (<mailto:rot@ti.org>)

Citation: Bandon, OR: Thoreau Institute, 2001, 540 pp.

Summary: Examines the Portland story in detail, critiques smart growth and urban planning in general, and proposes an American dream alternative.

Quote: "When smart-growth planners say they want to give people choices, they mean they want to take choices away. When they say they want to relieve congestion, they mean they want to increase congestion so people will be forced to ride transit."

Download: Portions of an earlier version of the book can be downloaded from <http://ti.org/MetroTofC.html>. The book can be ordered from <http://ti.org/form.html>.

The Mythical World of Transit-Oriented Development: Light Rail and the Orenco Neighborhood

Authors: John A. Charles (<mailto:john@cascadepolicy.org>) and Michael Barton

Citation: Portland, OR: Cascade Policy Institute, 2003, 42 pp.

Summary: Orenco is the Portland area's most famous transit-oriented development. Yet it required many subsidies and the nearby light-rail line is little used by its residents.

Quote: "In terms of transit use, Orenco Station has largely proven to be a disappointment. Most people who take the train from the Orenco stop arrive their by car and take advantage of the free Park-n-Ride lot."

Download: http://www.cascadepolicy.org/pdf/env/I_124.pdf

Additional References

Numerous additional critiques of Portland's planning can be found at <http://www.cascadepolicy.org/publications.asp>, <http://www.publicpurpose.com/>, and <http://www.demographia.com/>.

San Jose

San Jose Demonstrates the Limits of Urban-Growth Boundaries and Urban Rail

Author: Randal O'Toole (<mailto:rot@ti.org>)

Citation: Los Angeles, CA: Reason Foundation, 2003, 23 pp.

Summary: San Jose's 1974 urban-growth boundary has more than tripled the cost of housing, while its light-rail cars carry fewer people than San Francisco cable cars.

Quote: "Light rail is an obsolete technology that doesn't really work anywhere. But it is especially unsuitable in postautomobile urban areas such as San José, where jobs are spread throughout the area rather than concentrated in a downtown."

Download: <http://www.rppi.org/ps309.pdf>

Cincinnati

OKI 2030 Regional Transportation Plan

Author: Ohio Kentucky Indiana Regional Council of Governments

Citation: Cincinnati, OH: OKI, 2001.

Summary: Page 16-10 of chapter 16, the community impact assessment, includes the environmental justice analysis that showed that building light rail would reduce low-income and minority accessibility to the region's jobs.

Quote: "Accessibility declines for all Environmental Justice groups, particularly the minority target zones, over the planning period."

Download: <http://www.oki.org/transportation/2030transplan.html>