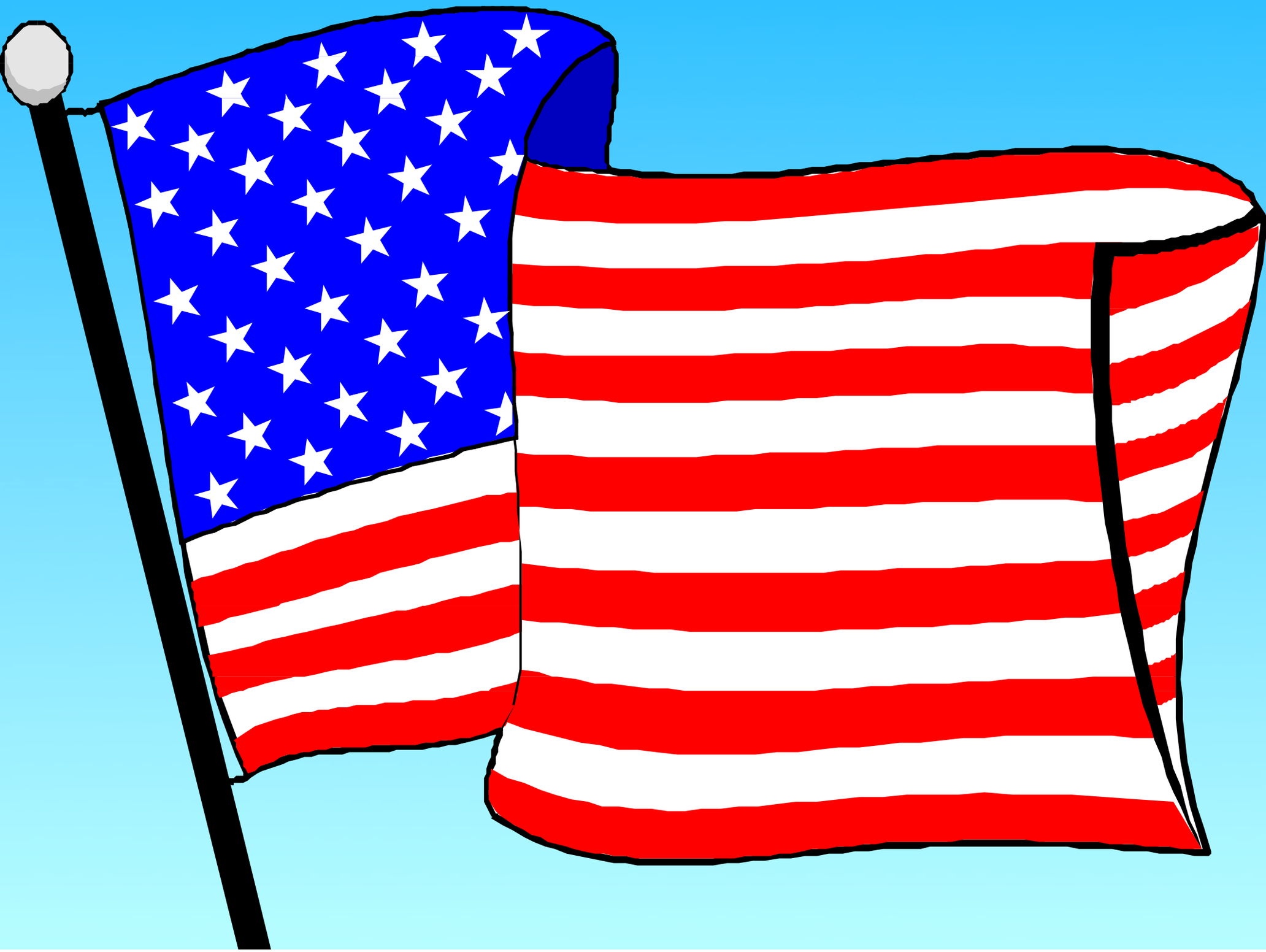


What do you think of when you hear the term, “American Dream”?

Perhaps you think of getting in a car. . .

and going some place exciting.

Perhaps you think of owning your own home.

Or perhaps you think of starting a small business.

Whatever you think of, it probably has something to do with mobility and property rights.

Yet there are some people who think we have too much mobility.

Secretary of Transportation Ray LaHood, for example, says that the Obama administration's goal is to "coerce people out of their cars."

LaHood wants to lure people on to transit.

He also thinks that the large lots many Americans live on are a waste of land. . .

that leads to urban sprawl . . .

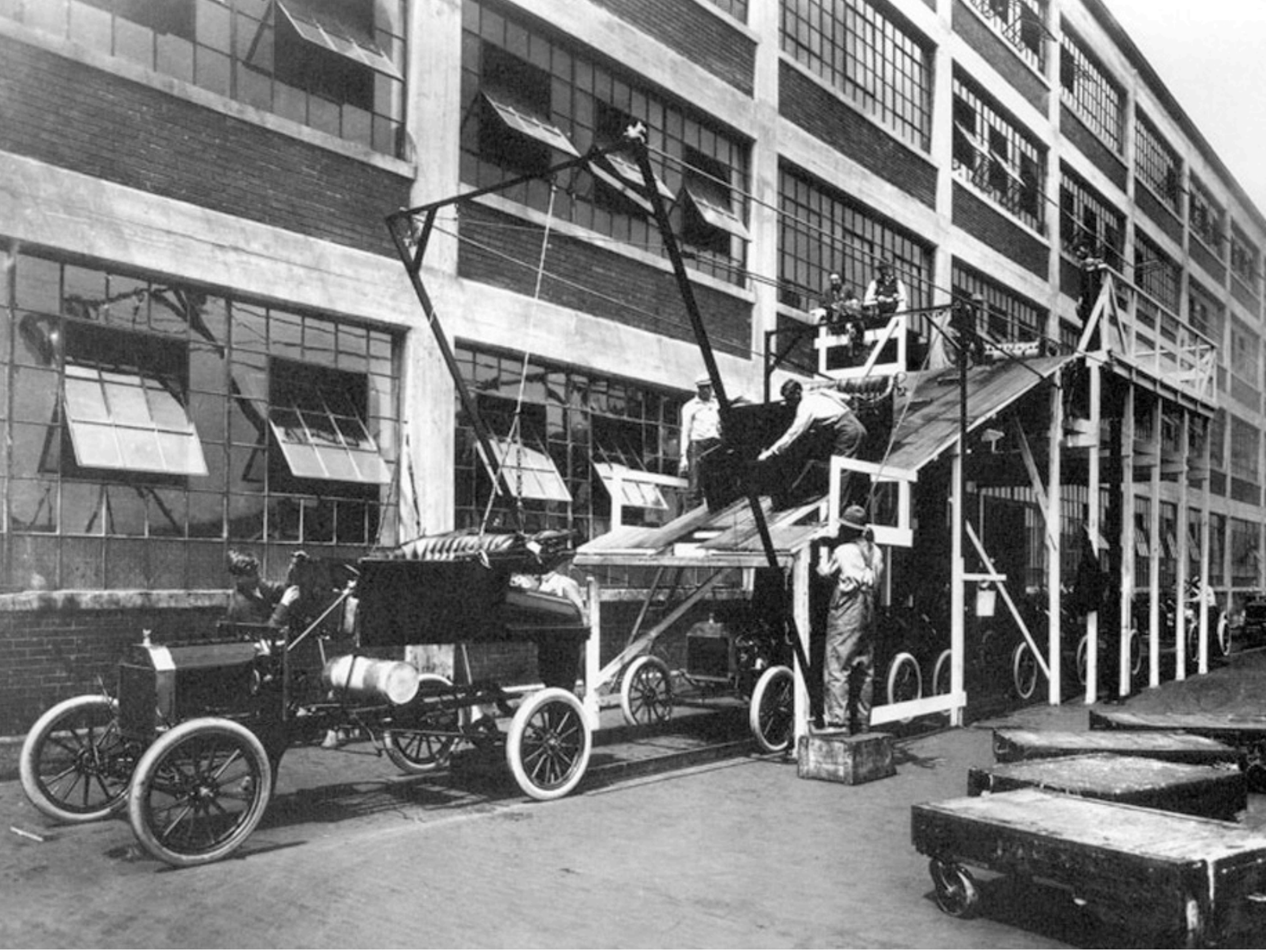
and that a higher percentage of Americans should live in multi-family housing, especially mixed-use developments so they won't drive so much.

It seems like I could be sympathetic to this viewpoint. For one thing, I am an ardent railfan who has traveled hundreds of thousands of miles by train and helped restore the nation's second-most-powerful operating steam locomotive.

I am also an active cyclist, and I ride thousands of miles per year.

Plus I spent 15 years helping environmentalists preserve wilderness and open space and often hike in wilderness areas such as Oregon's Mt. Jefferson Wilderness.

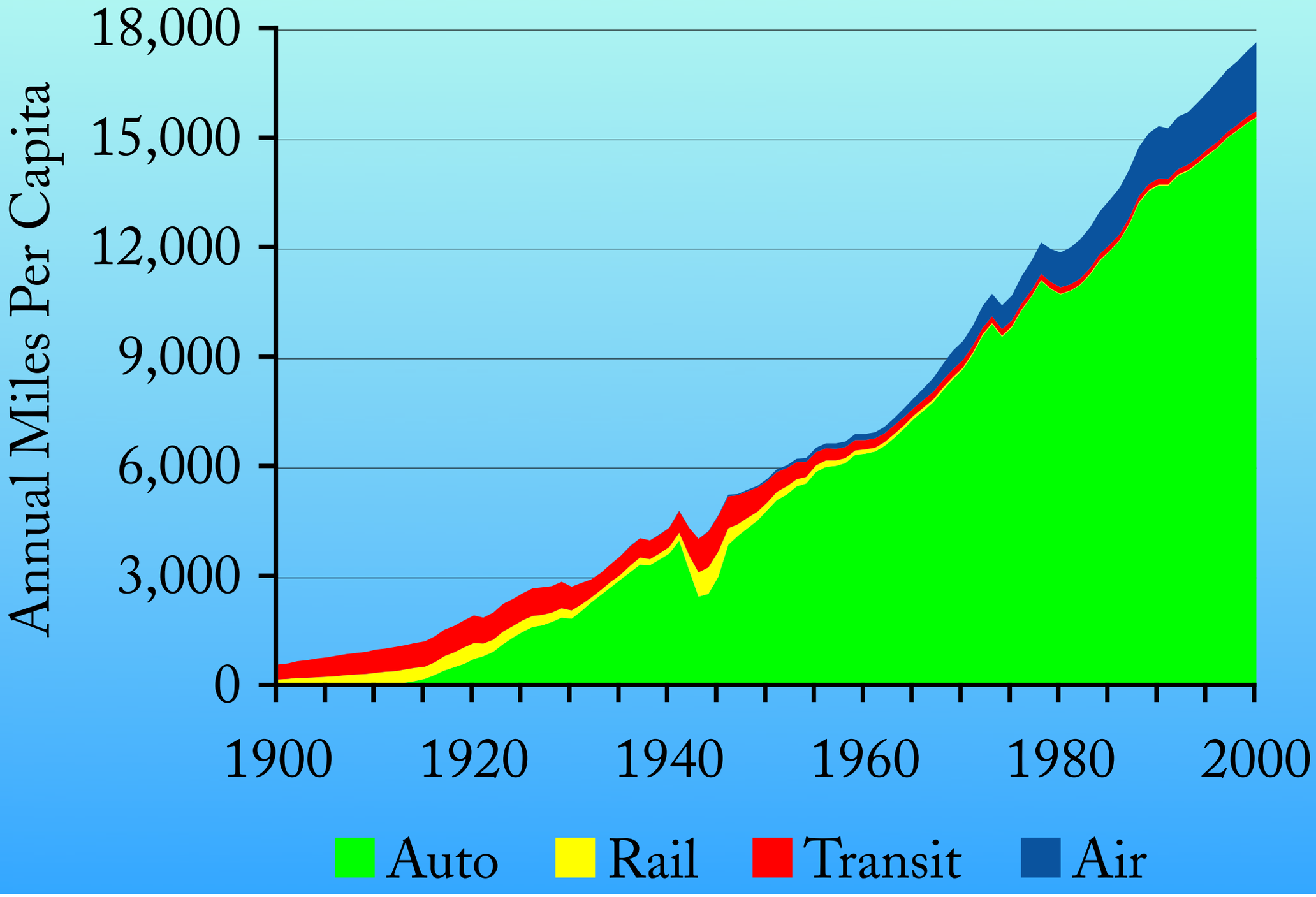
Even though I don't personally like driving, however, when I look at the data I have to admit that the automobile is probably the greatest invention of the past two centuries.



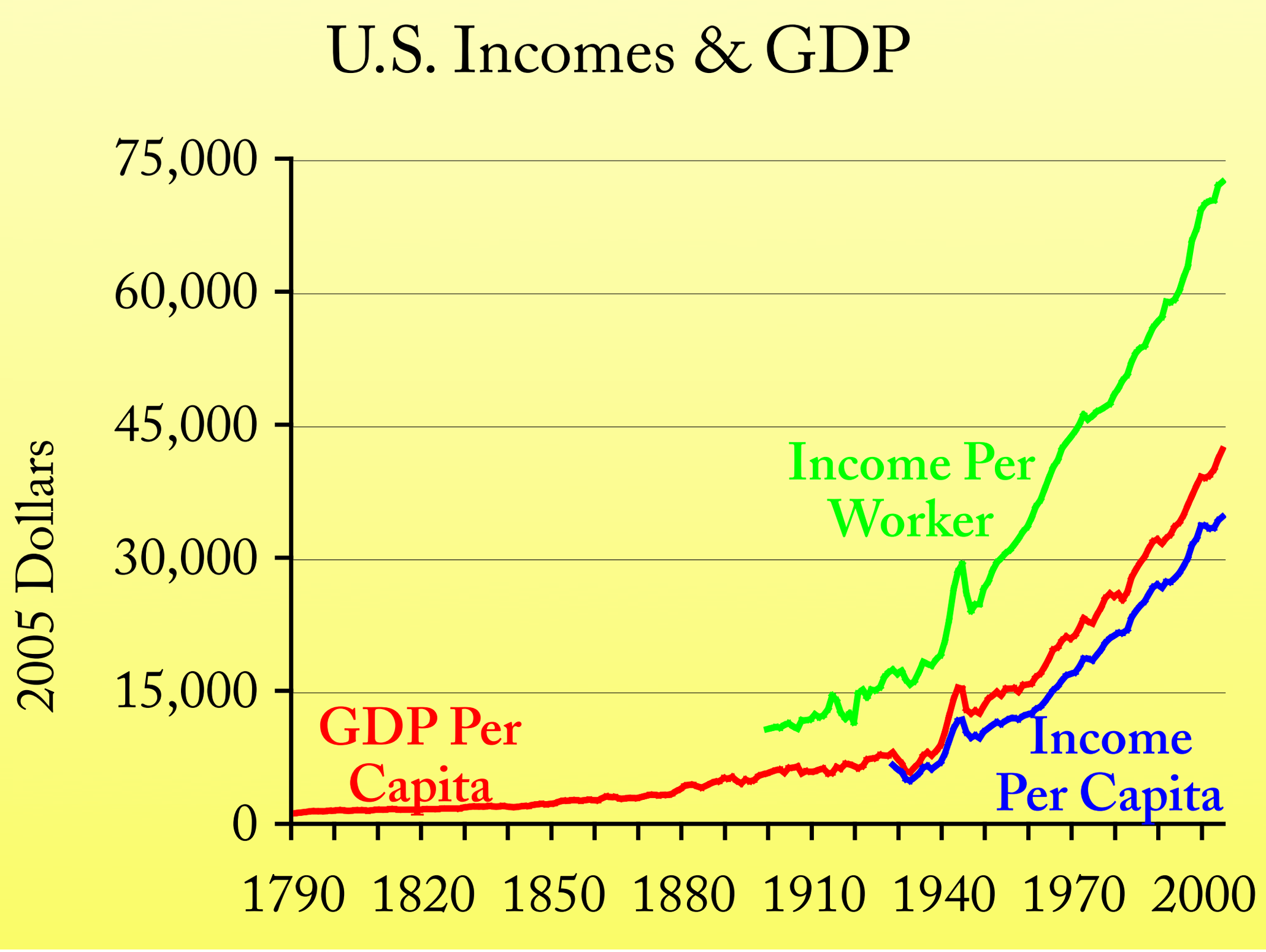
In particular, Henry Ford's moving-assembly-line-built Model Ts brought mobility to the masses.

Ford cut the prices of cars in half and doubled worker pay, making it possible for the workers themselves to buy the cars they made.

U.S. Mode Share of Passenger Travel



This led to a huge increase in personal mobility. As this chart shows, by 1926, automobiles moved people more than all other forms of mechanical travel combined, and today the average American travels nearly 20,000 miles per year, 85 percent of which is by automobile.



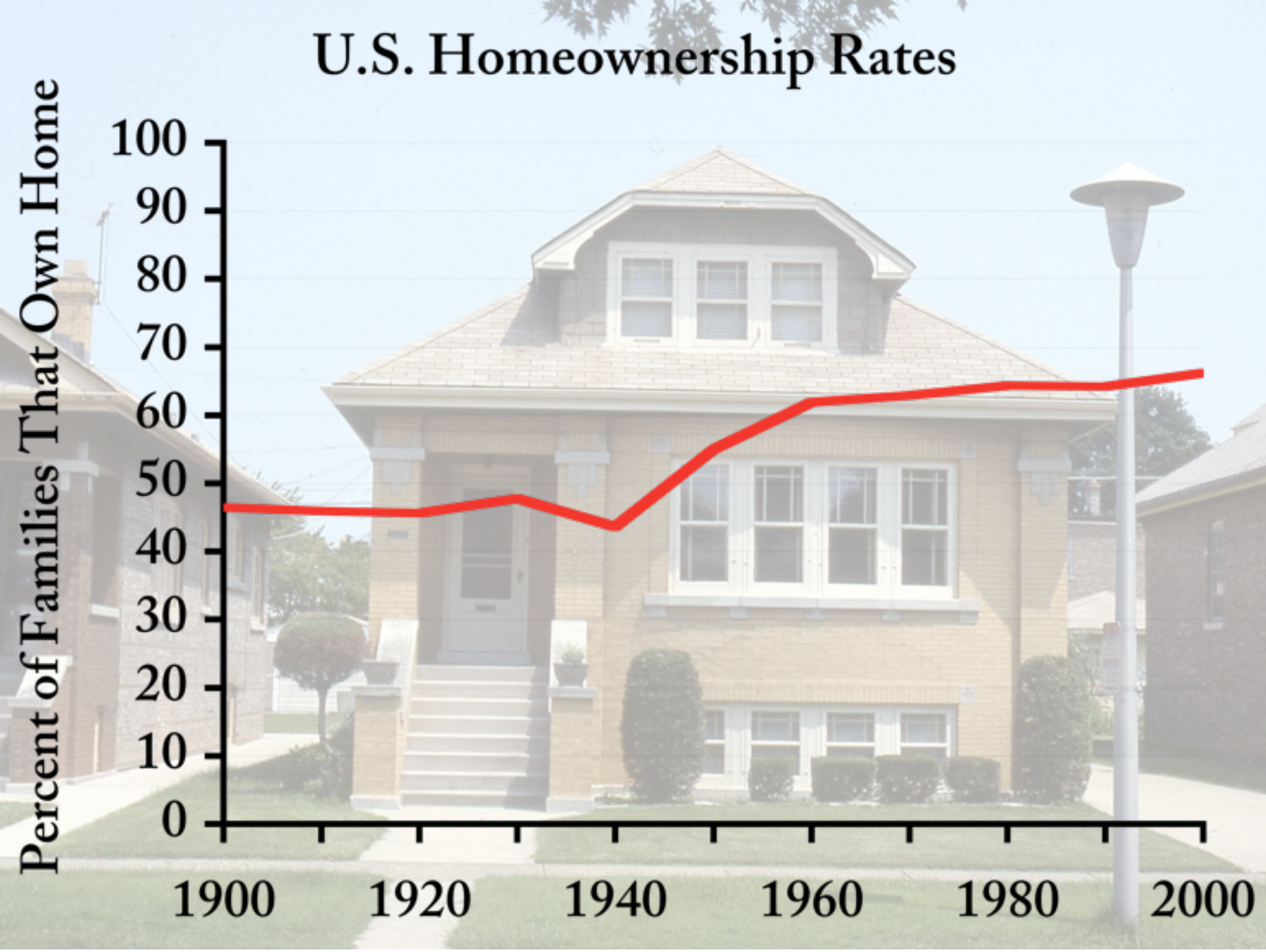
This had enormous benefits, including a huge increase in incomes as people could reach more jobs and markets.

Automobiles also made low-cost consumer goods accessible to most Americans, Including a huge array of foods once available only to the rich.

In 1910, the average grocery store had 300 items on its shelves. Today, the average store has 30,000 items and many have more than 100,000.

Automobiles also brought social and recreational opportunities to average people

And perhaps most important, automobiles made it possible for working-class families to reach low-cost land and buy their own single-family homes for the first time.



This led to a 50 percent increase in homeownership rates.

Homeownership, like mobility, has several important values.

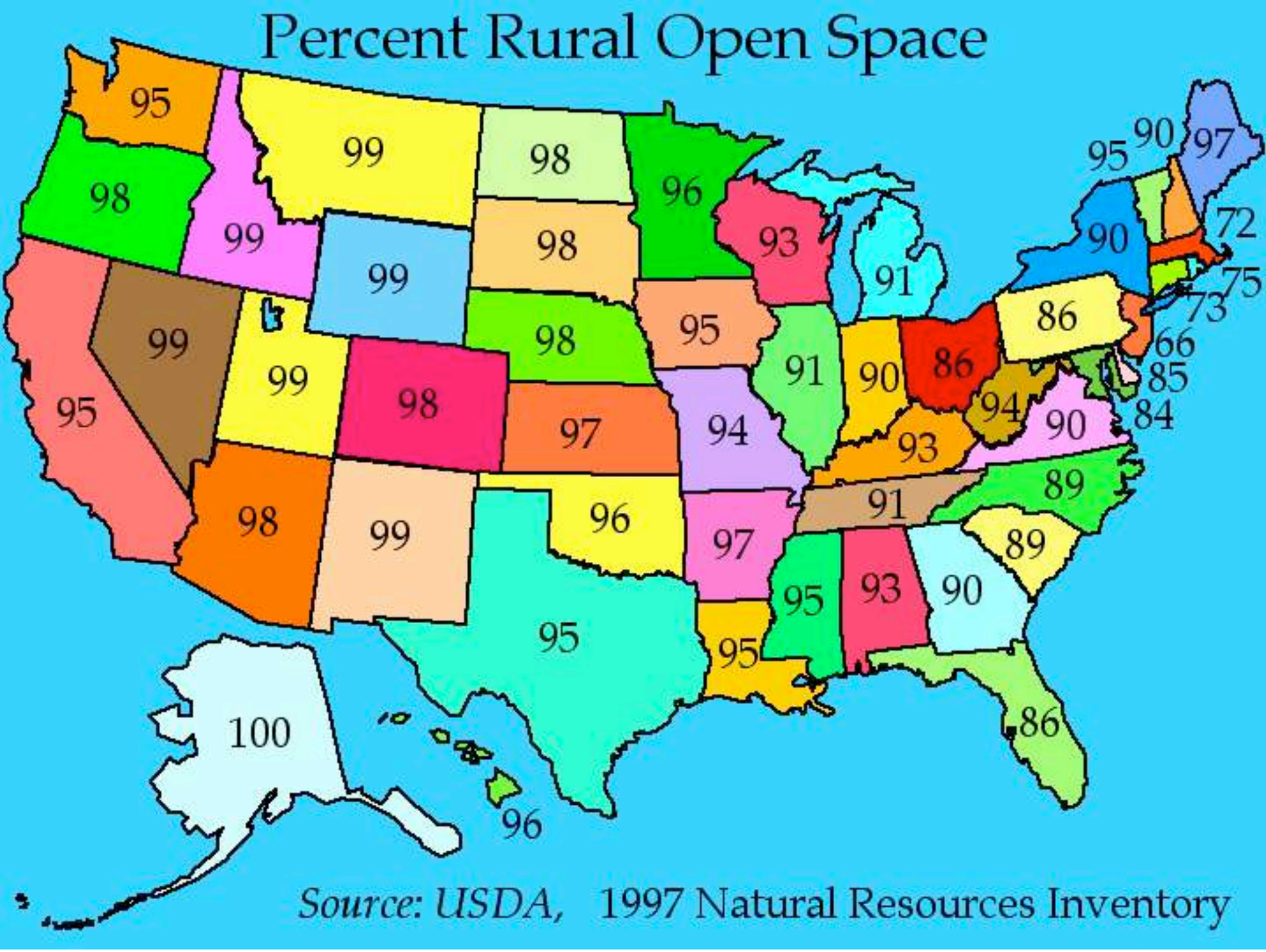
Children in families who own their own homes do significantly better in school than children in families who rent, an effect that is most pronounced in low-income families.

Most small businesses in American receive part of their initial financing from loans against the business-owners' homes, so reducing homeownership rates can reduce our ability to build wealth.

By several other measures, families who own their own homes have a higher quality of life than families who rent, partly because they have an incentive to take better care of their housing.

And yet there are people who think we should reduce single-family homes.

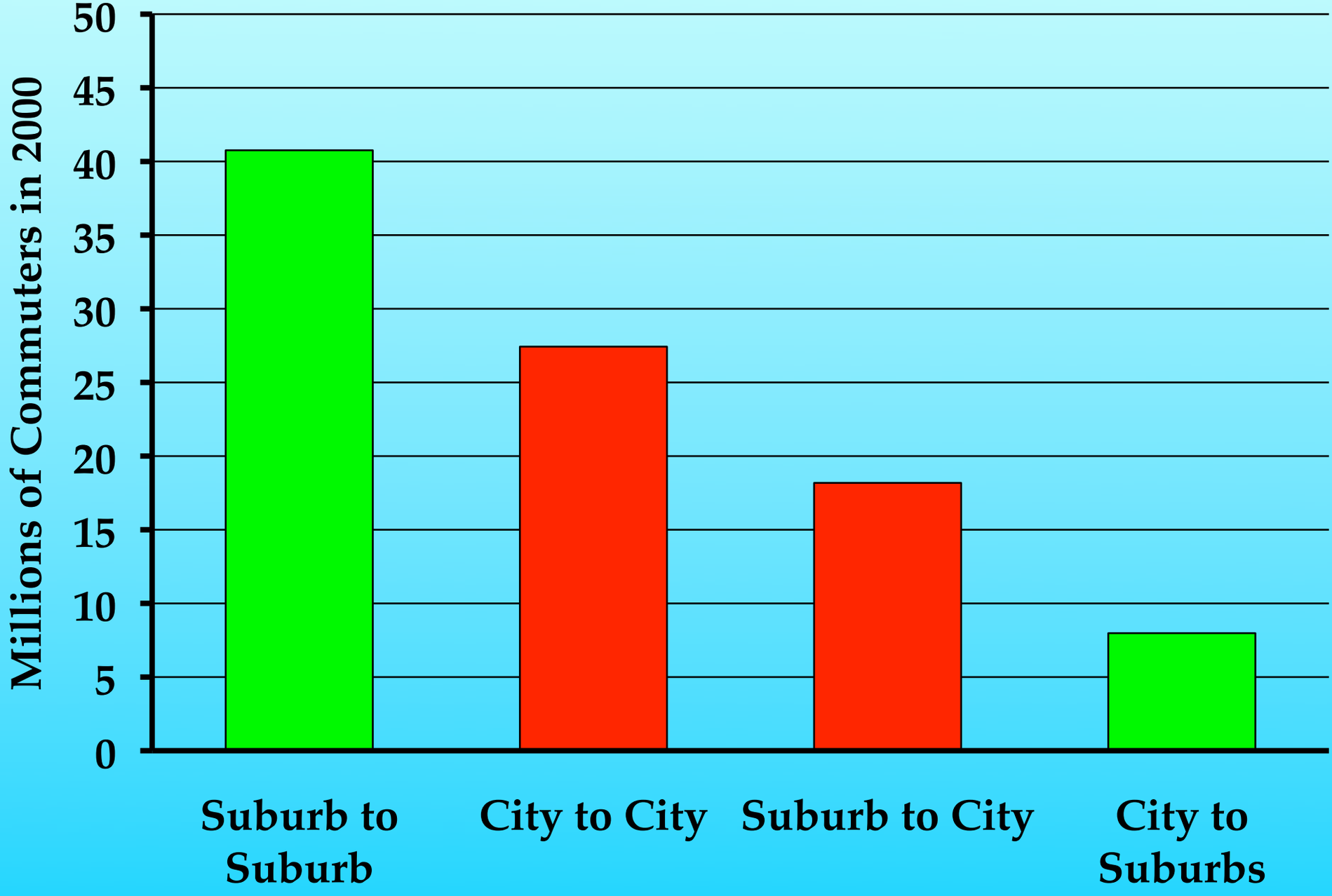
They argue that if we don’t restrict sprawl we will end up paving over all of our farms and open spaces.



But this is a big country, and all the urban areas in the nation occupy less than 3 percent of the land.

Sprawl opponents argue that low-density development increases congestion. In fact, sprawl is a solution to congestion, as most congestion takes place in high-density areas.

Major Commute Origin/Destinations



Source: Pisarski, Commuting in America III

In response to congestion in dense cities, jobs have followed people to the suburbs, and today there are more suburb-to-suburb commutes than commutes from suburbs to the central city.

Transit Cooperative Research Program

TCRP REPORT 74

Sponsored by the Federal Transit Administration



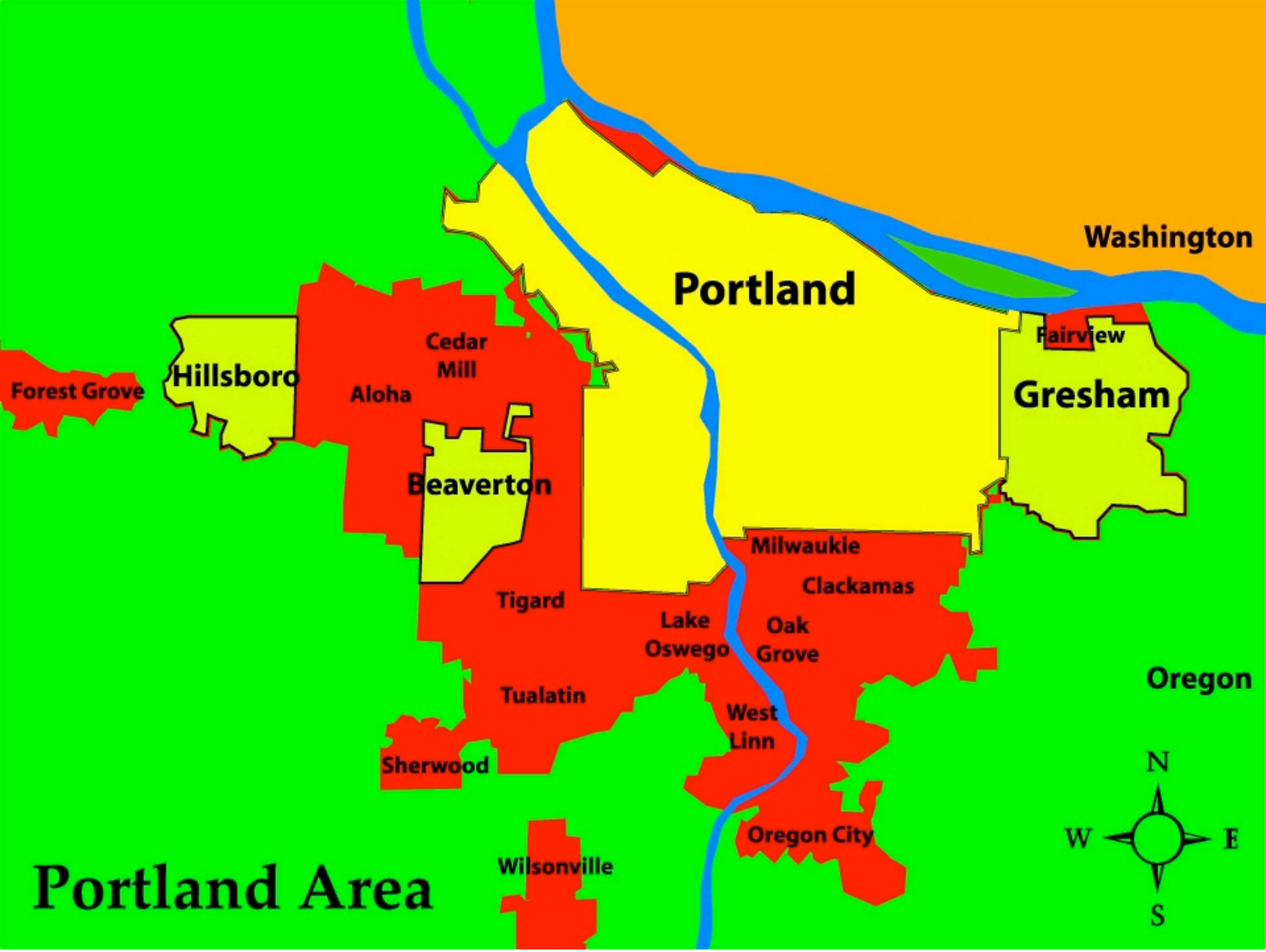
Costs of Sprawl—2000

Sprawl opponents also argue that low-density development imposes higher urban-service costs. This report, for example, says urban services to low-density housing costs $11,000 more per home than high-density housing.

But this report is based on a comparison of low-density greenfield development vs. high-density greenfield development.

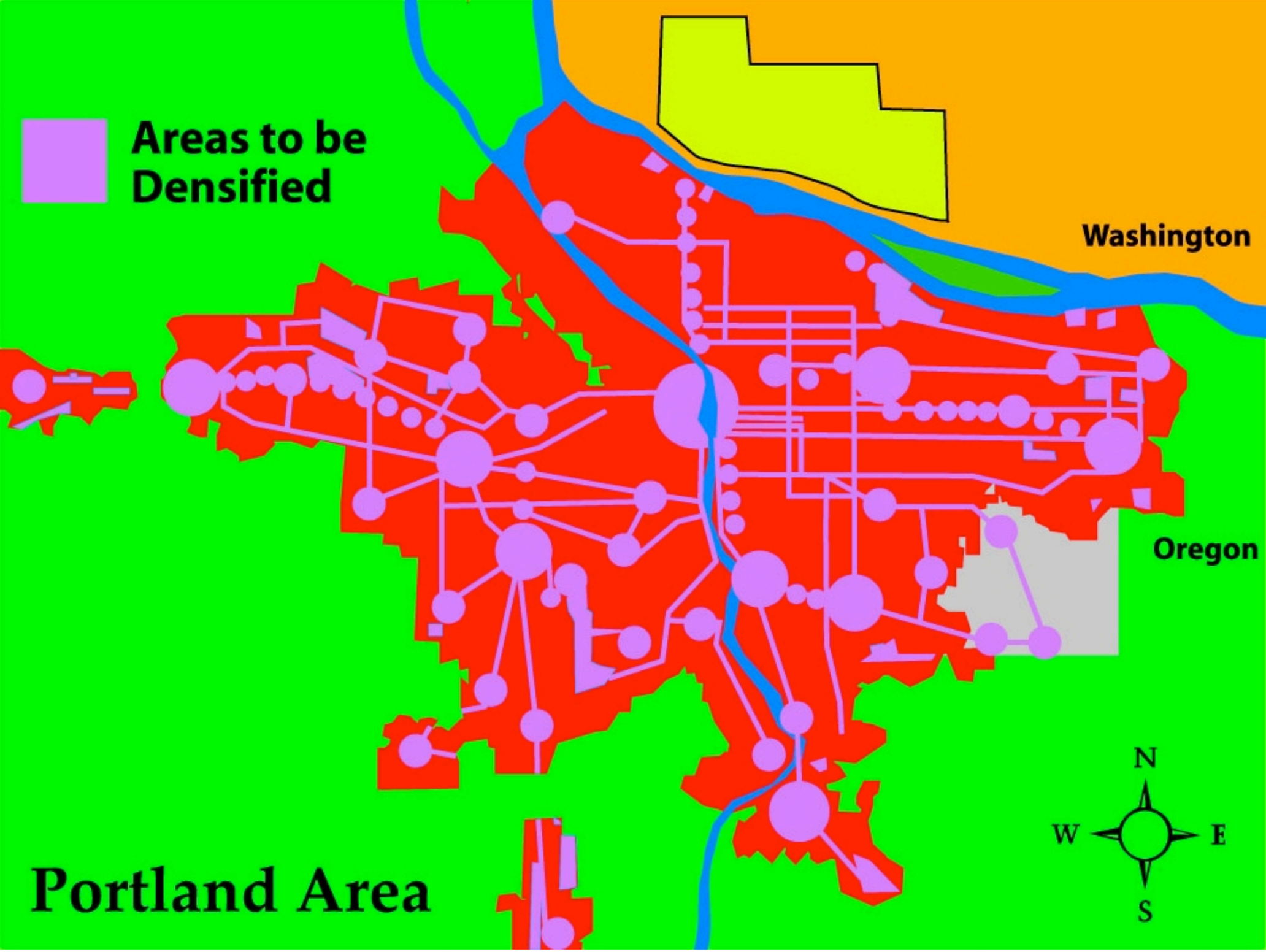
What urban planners today propose is to increase the density of existing neighborhoods, which often requires replacement of sewer, water, and infrastructure, which is much more costly than $11,000 per home.

My former hometown of Portland, Oregon has become the classic example of smart-growth and is a mecca for urban planners.



Portland started by drawing an urban-growth boundary around the city and 23 other cities in the area.

Outside of the boundary, on 97 percent of the state, it is illegal to build a house on your own land unless you own 80 acres, actually farm it, and -- depending on soil productivity -- earn $40,000 to $80,000 a year farming it.



In order to minimize expansions of the boundary, planners targeted dozens of neighborhoods of single-family homes for densification.

In some places, the zoning is so strict that, if your house burns down, you are required to replace it with an apartment.

The resulting artificial shortage of single-family homes has made housing increasingly expensive. This 4-bedroom, 2-1/2 bath home recently sold in Houston for $150,000. That same home in Portland would be $320,000; in Boulder, it would be $600,000; in San Jose, more than $1 million.

Meanwhile as a part of their campaign to coerce people out of their cars, Portland planners have decided to deal with congestion by creating more congestion.

“Congestion signals positive urban development”

Metro, Regional Transportation Plan Update, 1996

They’ve actually set a target that all major highways and streets in the Portland area be at “level of service F,” an engineering term meaning bumper-to-bumper traffic, during rush hours.

To promote this goal, they have done what they euphemistically call “traffic calming,” meaning congestion building, by--for example--putting rotaries in the middle of intersections.

They've also narrowed streets; this is supposed to be a major bike route, but they have made it more dangerous for cyclists because it is too narrow to accommodate both a car and a bicycle side-by-side.

They have also diverted as much federal highway money as possible to building light rail. Excuse me, this light rail isn't in Portland; it's in Moscow.

Whenever I see a light-rail train in front of an ugly apartment building, I think it is Portland.

But this difference is obvious; in Moscow it is sunny. . .

while in Portland it is raining. I don't want to say no one rides Portland's light rail, but one day a train left the airport with only one passenger on board.

Coyotes like to go where they can find solitude from people, so this coyote felt comfortable boarding a light-rail car.

Portland also has a commuter-rail train that cost $160 million to start up and loses $5.5 million a year in operations, but carries only 575 roundtrip riders per day.

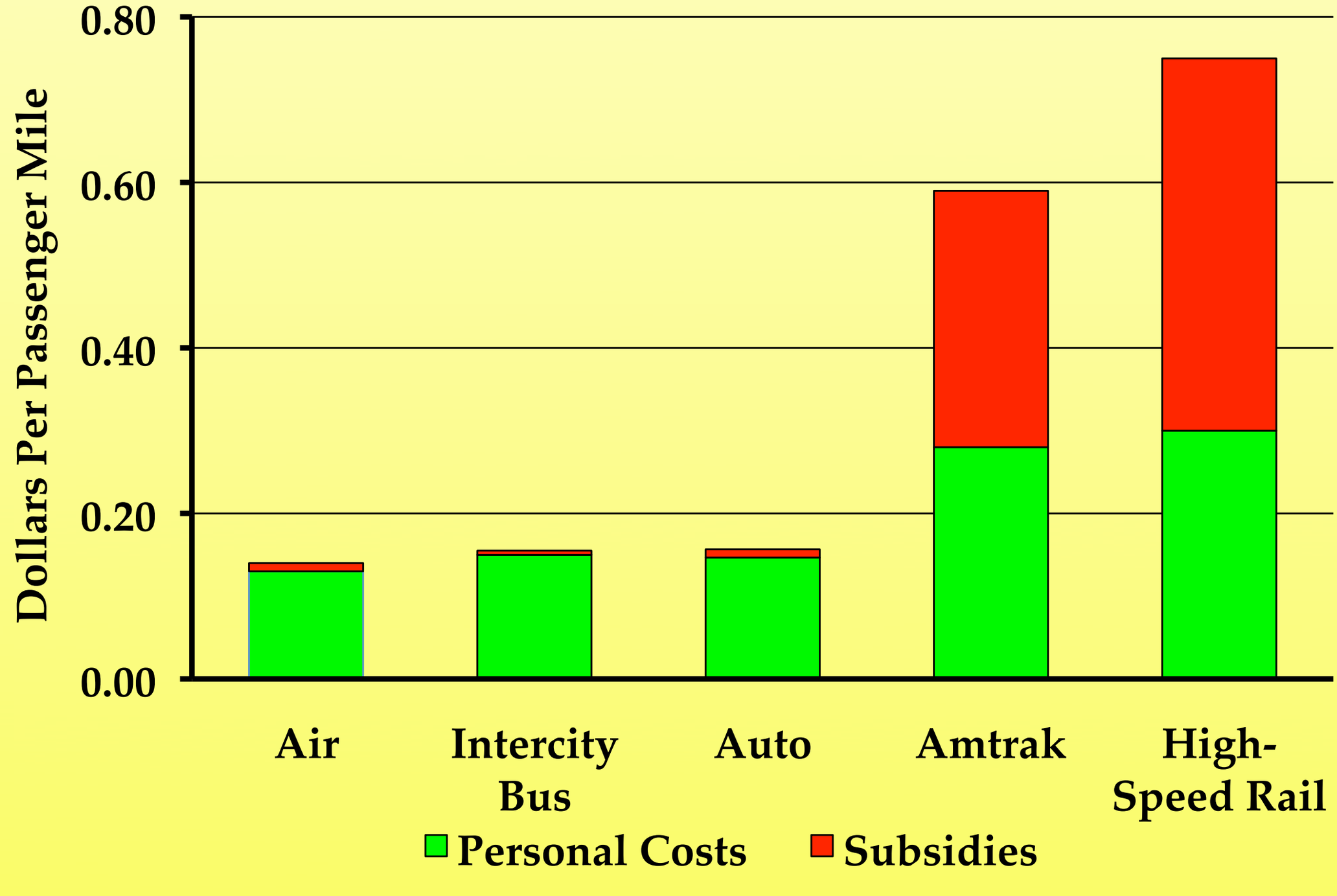
It would have cost less to give every one of those round-trip riders a new Toyota Prius every year for the next 30 years than to run this commuter train.

2008 Transportation Costs & Subsidies

That's a major problem with efforts to try to get people out of their cars and onto transit: transit costs 4 to 5 times as much, per passenger mile, than driving, so huge subsidies are needed to make it competitive at all.

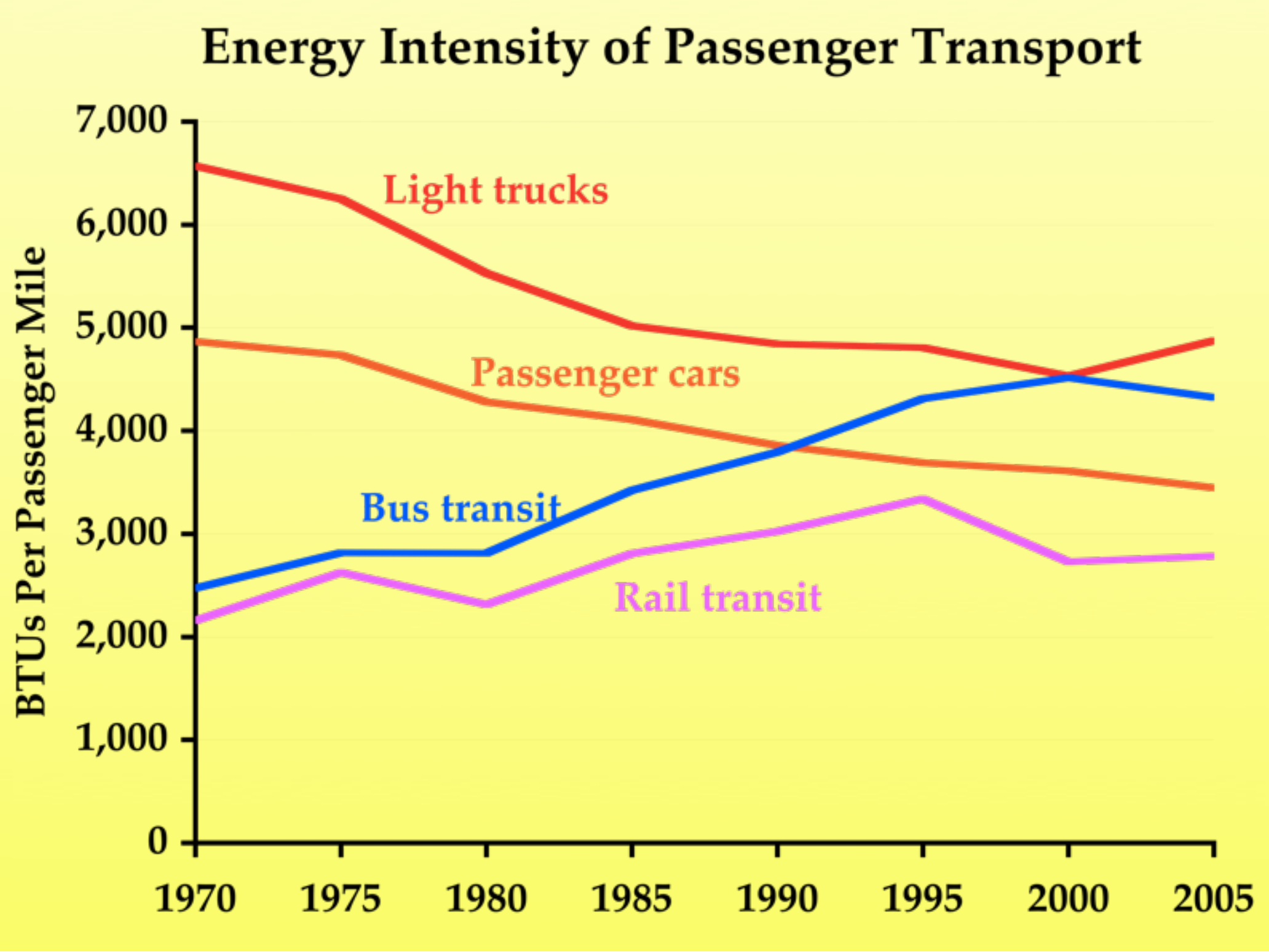
The same thing is true with high-speed rail.

Transportation Costs & Subsidies

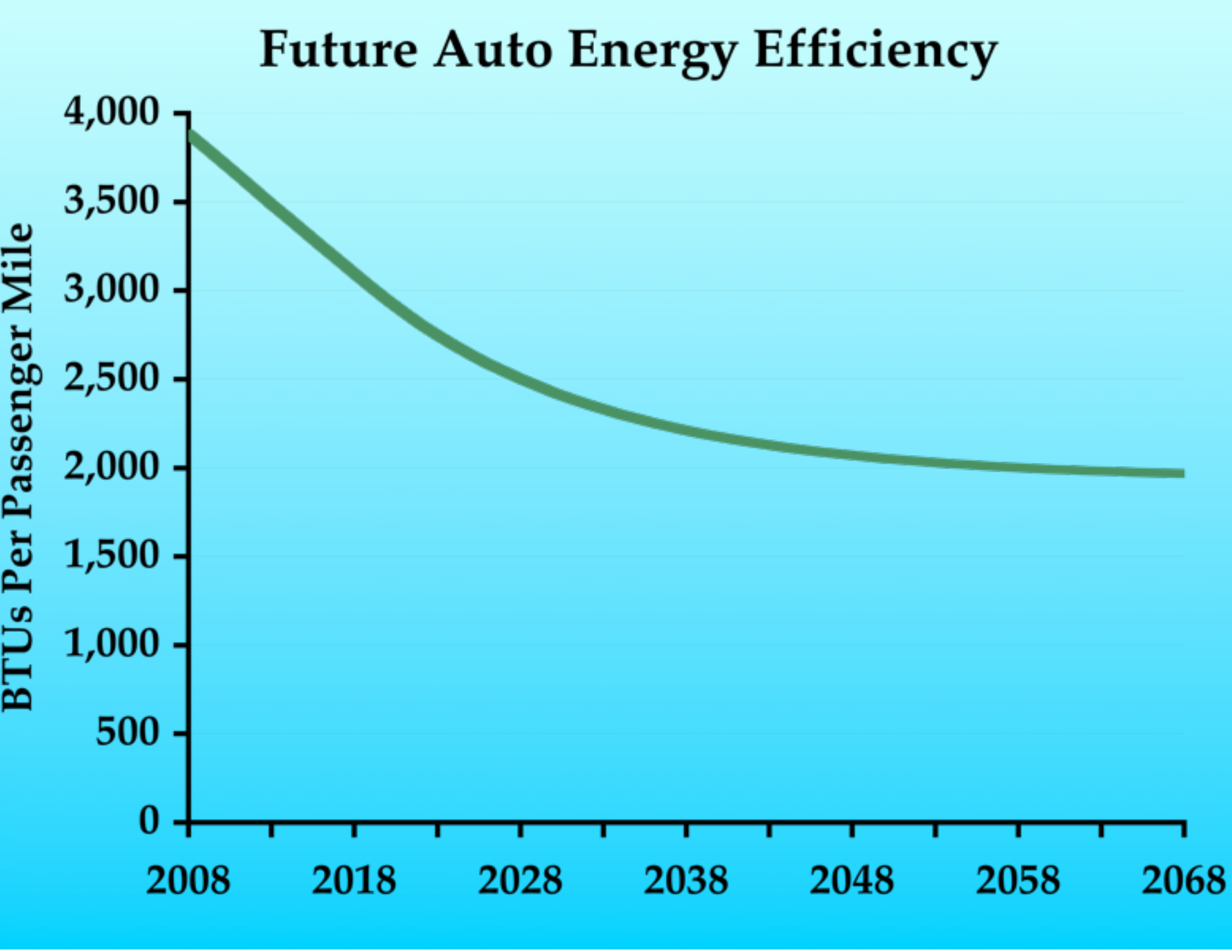


Americans spend about 14 cents a passenger mile flying and about 15 cents a passenger mile on intercity buses and intercity driving, and subsidies to those modes are less than a penny per passenger mile. But Amtrak costs 60 cents a passenger mile, about half of which is subsidized, and high-speed rail will cost even more.

For example, the fare for Amtrak's subsidized high-speed Acela from New York to Washington is about $130 to $200, while the fare for unsubsidized Megabus is $15.50 -- and the bus takes only 90 minutes longer than the train.

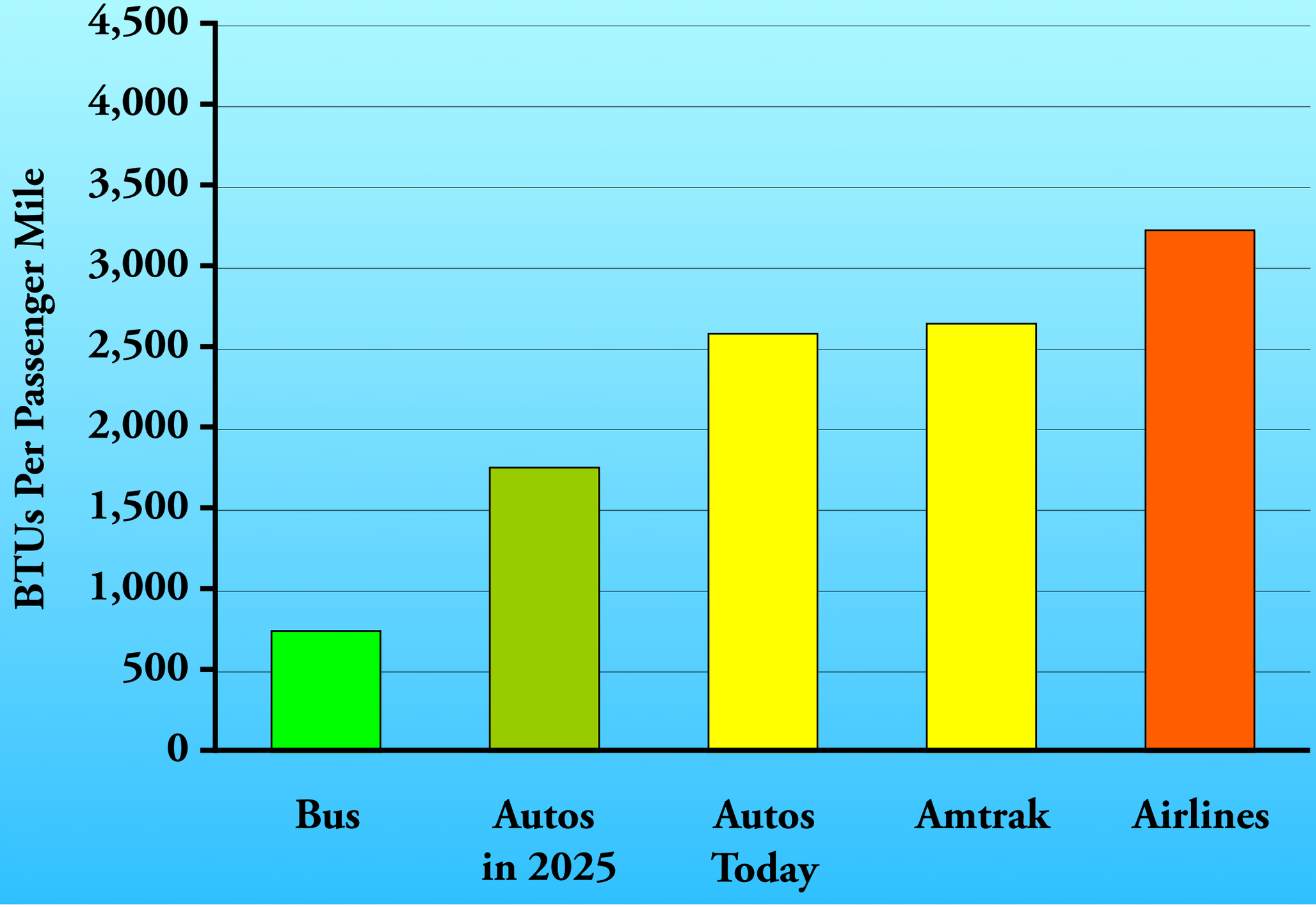


Nor is transit significantly more energy efficient than driving, as cars have become far more energy-efficient than they were 40 years ago, while transit is less efficient because we send buses and trains to neighborhoods where few people use them.



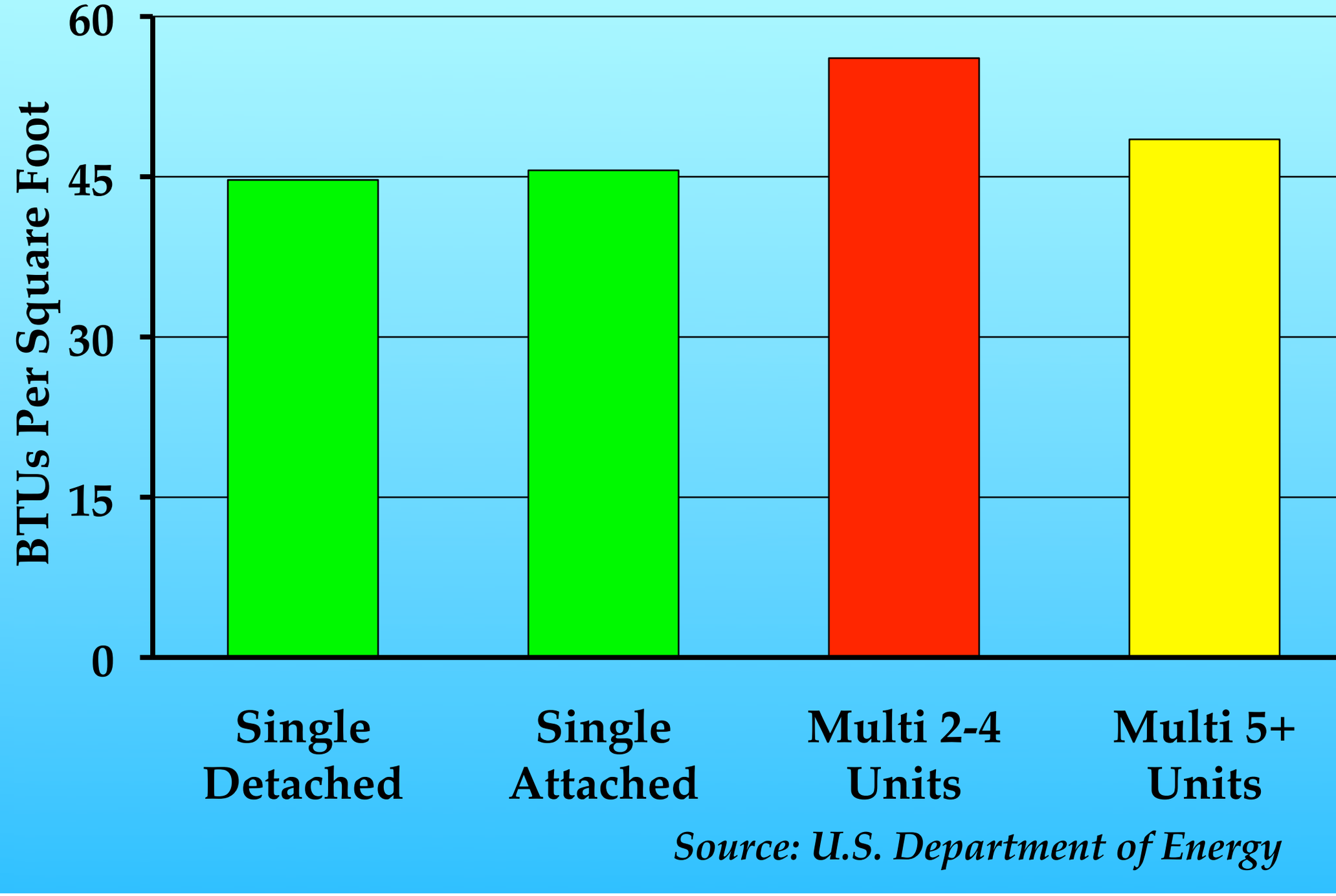
By 2025, the average car on the road will be more energy-efficient than any transit system or intercity rail network in America.

Energy Consumption by Intercity Transportation



In intercity transport, buses are by far the most energy efficient, but cars are just as energy-efficient as Amtrak even today (because cars tend to have higher occupancies in intercity travel than urban travel).

Housing Energy Consumption



And those who say that we will save energy by moving more people into multi-family housing ignore data from the Department of Energy showing that single-family homes are the most energy-efficient housing per square foot. The only way multi-family housing will save energy is by forcing people to accept much smaller homes.

Smart-growth advocates also argue that rail transit leads to urban development, particularly so-called transit-oriented developments that mix housing with other uses.

But ten years after Portland opened its first light-rail line, planners sadly reported to the city council that not a single transit-oriented development had been built along the line, and much of the land remained vacant.

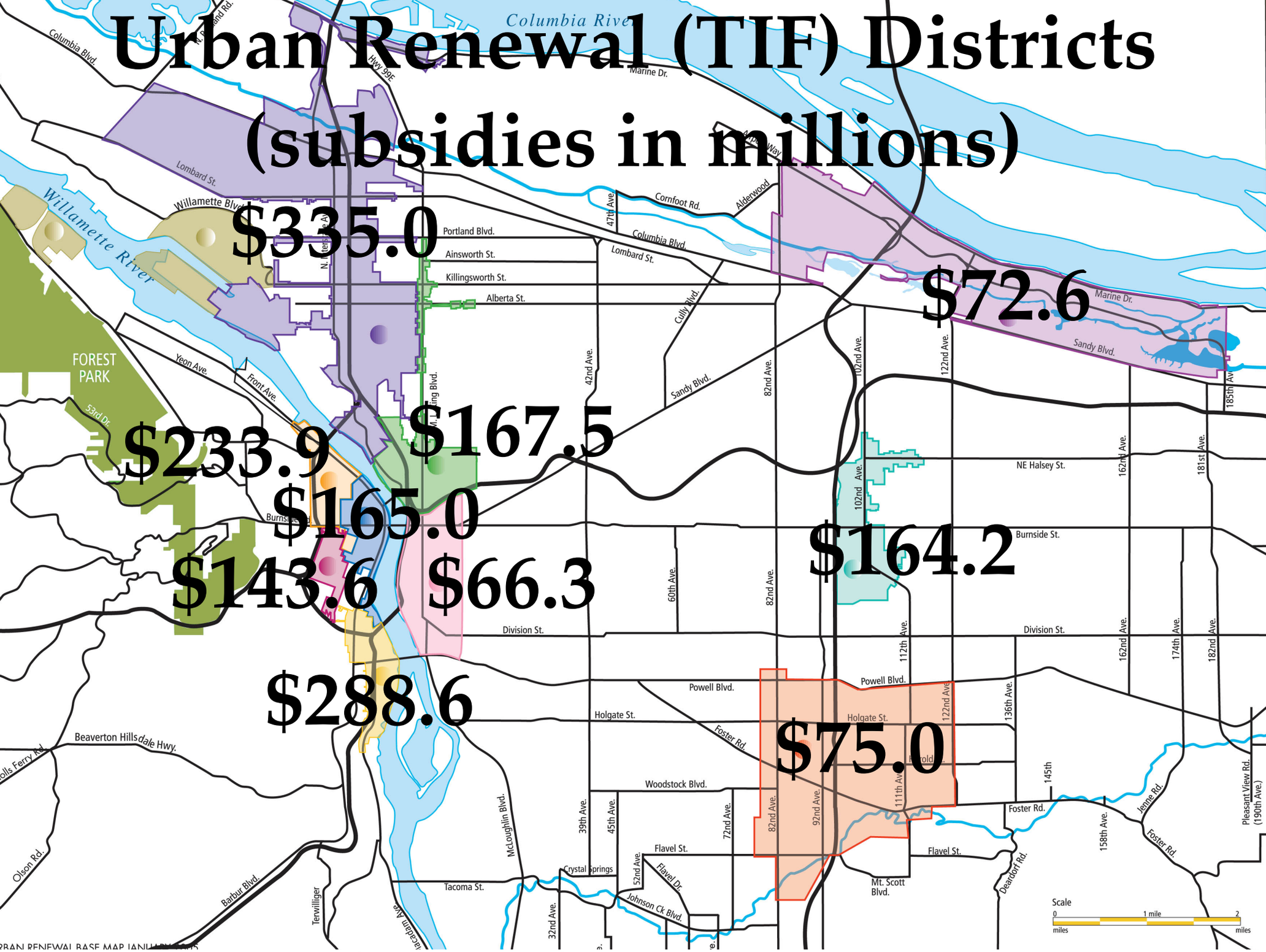
10 year property tax exemption

“The primary reason for underbuilding in urban areas is the lack of financial feasibility. There is little evidence to support the conclusion that the high densities required in Urban Centers,in the absence of public assistance,are profitable under current market conditions,and that developers and property owners are either unaware that they could make more money by building denser,or prohibited from doing so by physical or policy constraints.”
from:*Metro Urban Centers: An Evaluation of the Density of Development.*

From Portland City Council Agenda:
1620 Grant a ten-year property tax exemption to Hoyt Street Properties, LLC for new multiple-unit housing on the block bounded by NW 11th, 12th, Lovejoy, and Marshall Streets (Second Reading Agenda 1587) Disposition: Ordinance No. 175047.

To get such developments, Portland started subsidizing them, first by giving developers property tax waivers

Urban Renewal (TIF) Districts (subsidies in millions)



and then through the use of tax-increment financing, which takes property taxes that would ordinarily go to schools, fire, and other urban services and uses them to subsidize developers.

Here is one of the high-density developments in Portland. Excuse me, this isn't in Portland, it is in the former East Germany.

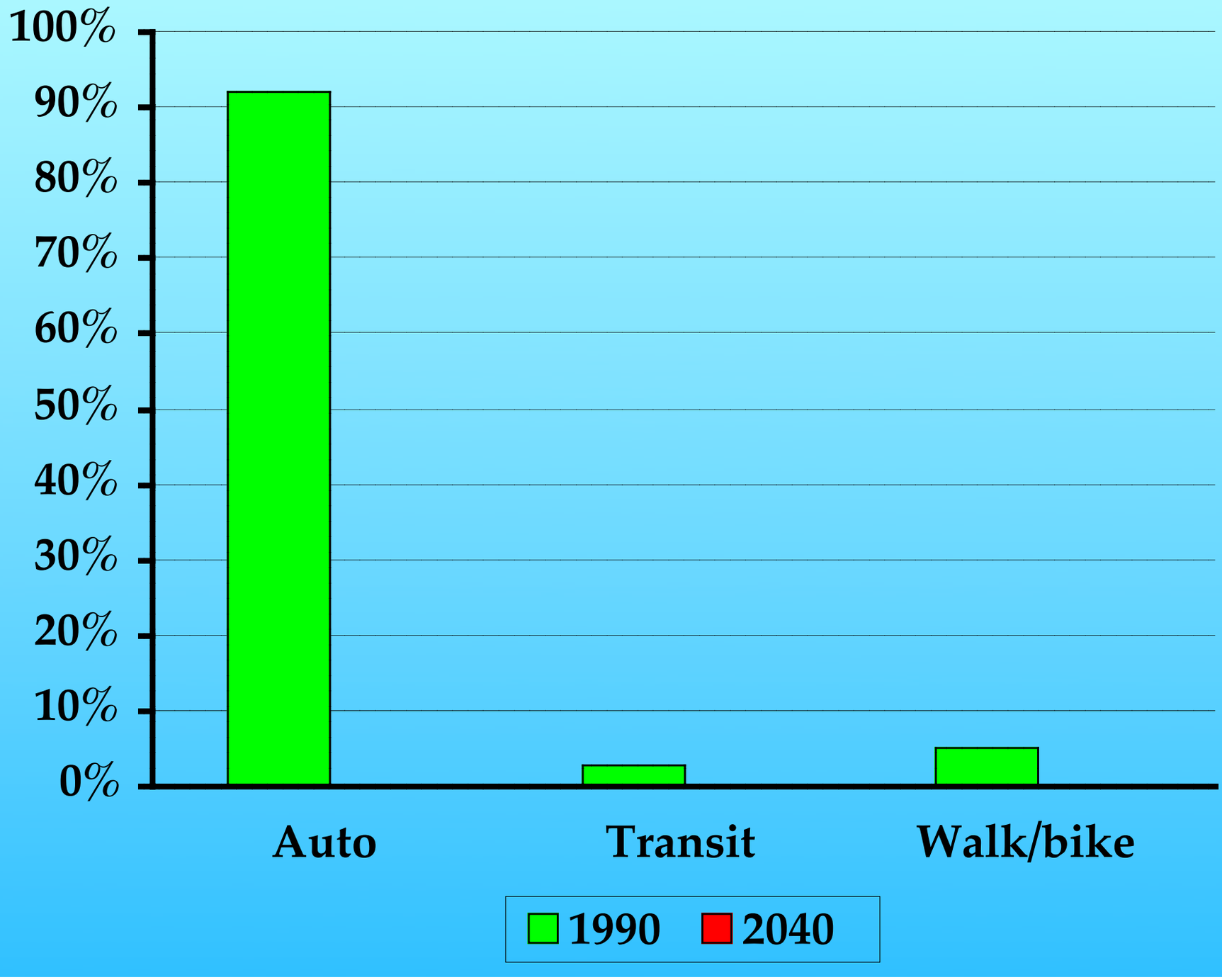
Here is the one in Portland which received $13 million in subsidies.

The difference between them is that, when East Germans got their freedom, they moved out of these apartments, which are now slated for demolition, and into

single-family homes in suburbs such as this one.

While Portlanders who lost their freedom to find affordable single-family homes had to move into developments like this one.

Portland-Area Travel Mix in 1990

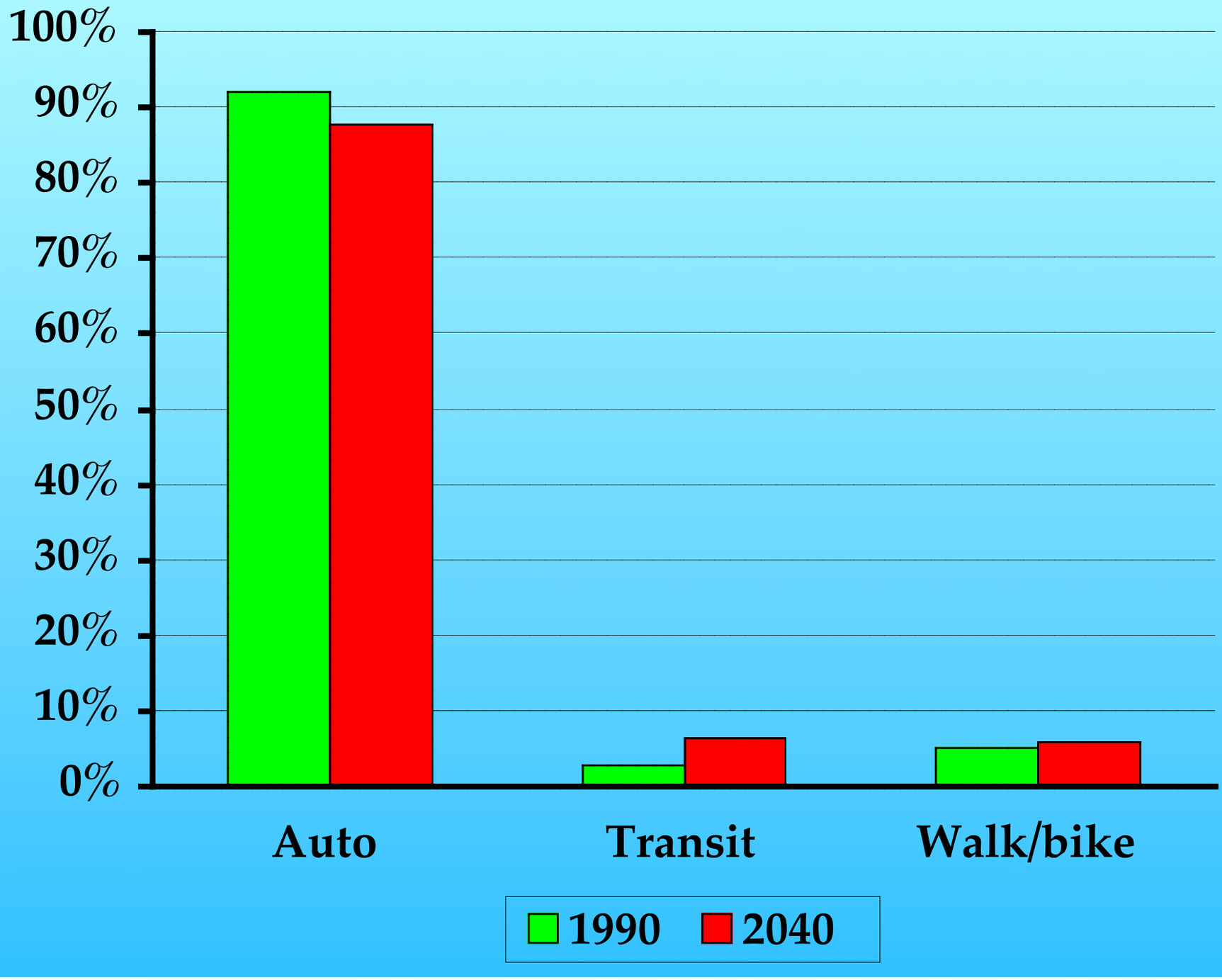


Despite all these efforts, Portland planners predict there will be little change in people's travel habits. In 1990, for example, 92 percent of all travel in the Portland area was by car, 2.5 percent was by transit, and about 5 percent was by walking and cycling.

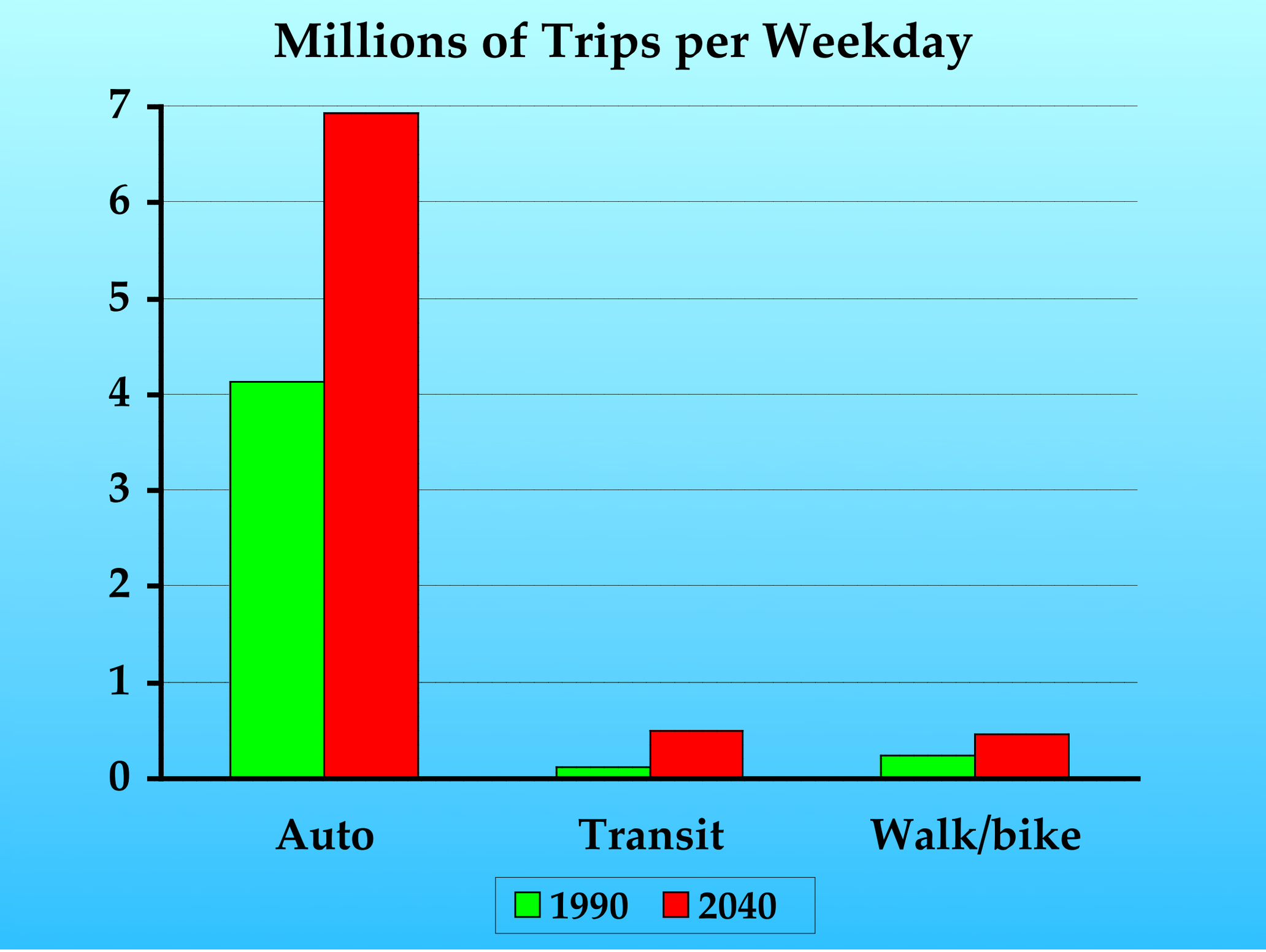
Planners want to build around 120 miles of light rail lines

and scores of Stalinesque high-density developments, and after they do, they predict that

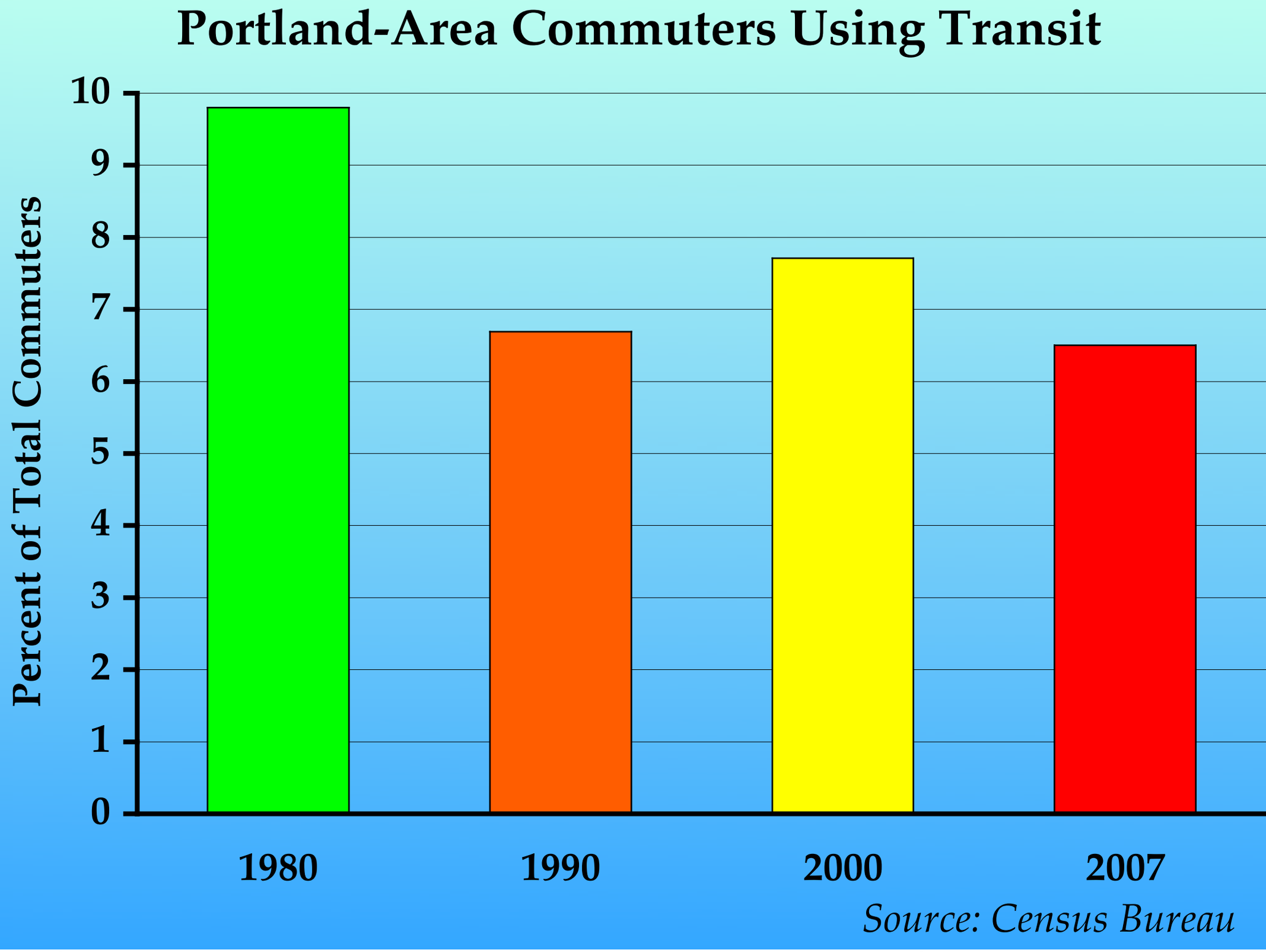
Portland-Area Travel Mix in 1990 and 2040



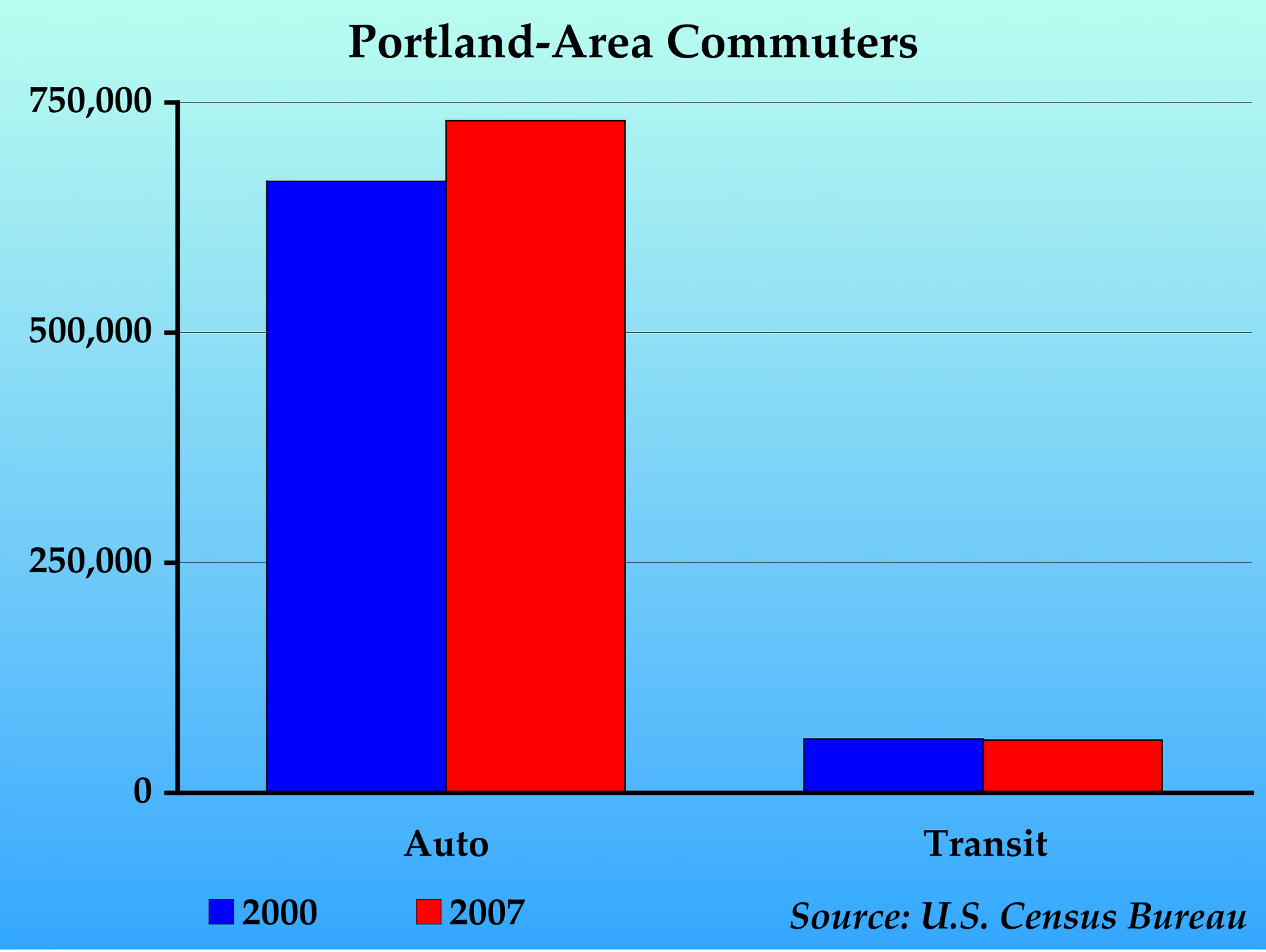
transit's share of travel will double to about 5 percent; walking and cycling will increase to about 6 percent; which means driving will fall all the way from 92 to 88 percent.



But since they also predict an 80 percent increase in population, this will translate to a 70-percent increase in driving, resulting in far more energy wasted in congestion.

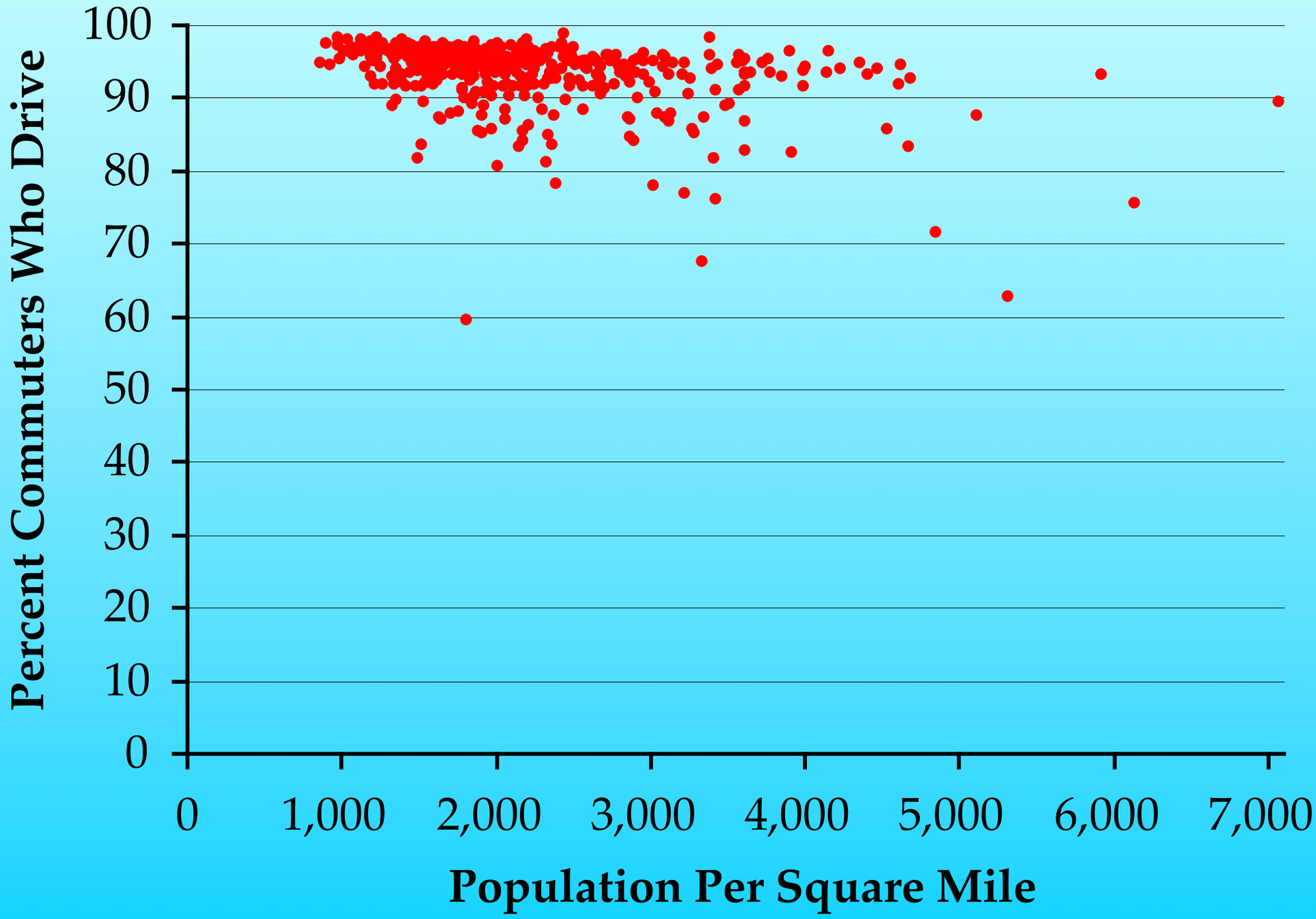


So far, it appears that planners' projections are optimistic, as the share of people taking transit to work has actually been declining.



In fact, between 2000 and 2007 -- during which time Portland opened two new light-rail lines and a streetcar line -- the number of people taking transit to work actually declined while the number driving grew by more than the total number of people using transit.

Density and Commuting



Source: 2000 Census

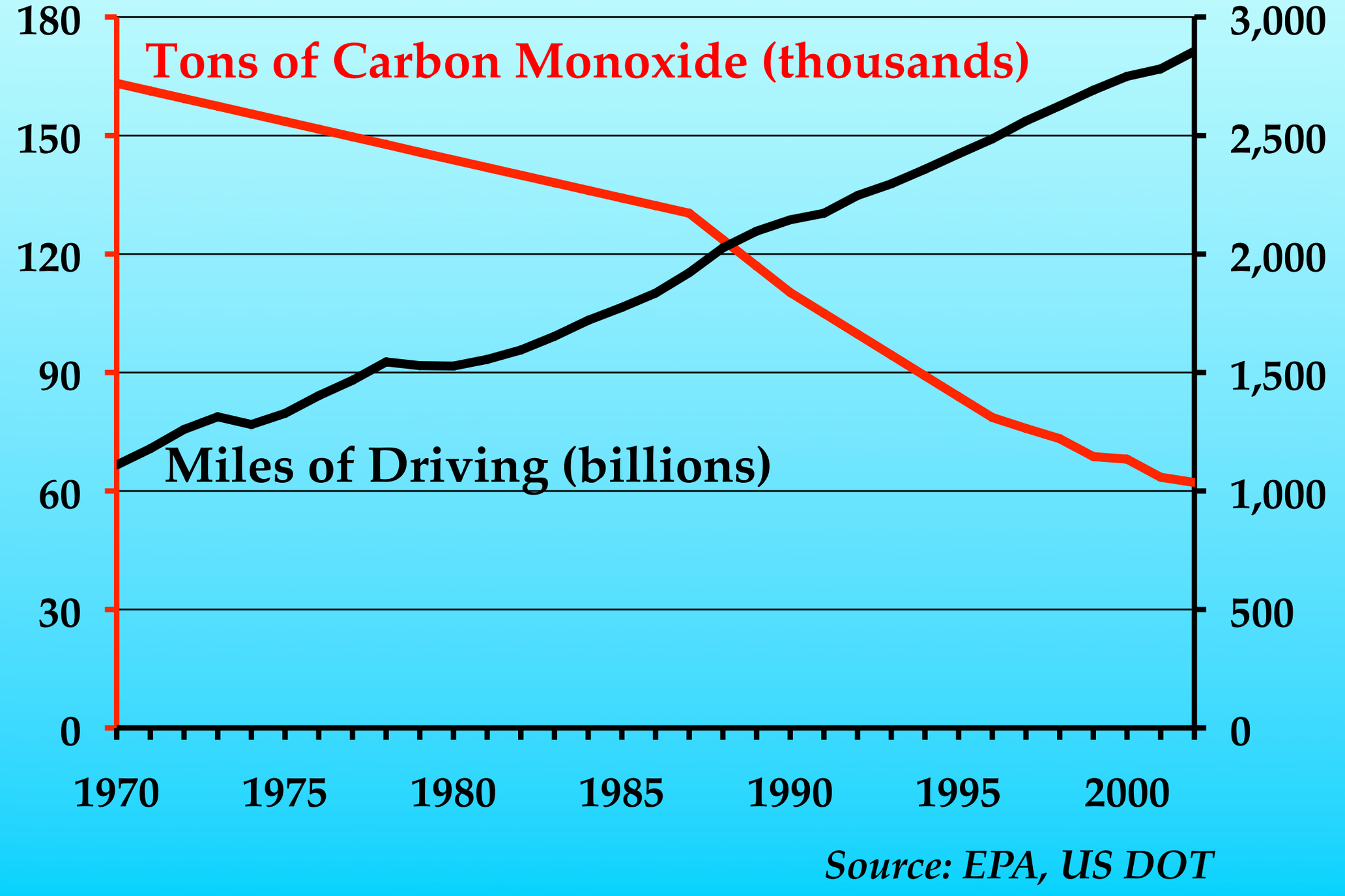
Census data comparing urban-area densities with the share of commuters driving to work offer little hope that huge increases in densities will lead to any more than tiny reductions in driving. Some communities do have low percentages of people driving to work, but this is independent of population density. (They are all either college towns or cities with higher percentages of downtown jobs.)

The Effects of Smart Growth

- Unaffordable housing
- More congestion = pollution & wasted energy
- Higher taxes/lower urban services
- Minimal effects on driving

In short, smart growth makes housing less affordable, increases congestion and the resulting pollution, requires higher taxes or reduced urban services to pay for rail transit and transit-oriented developments, and has minimal effects on the amount of driving people do.

U.S. Driving and Air Pollution



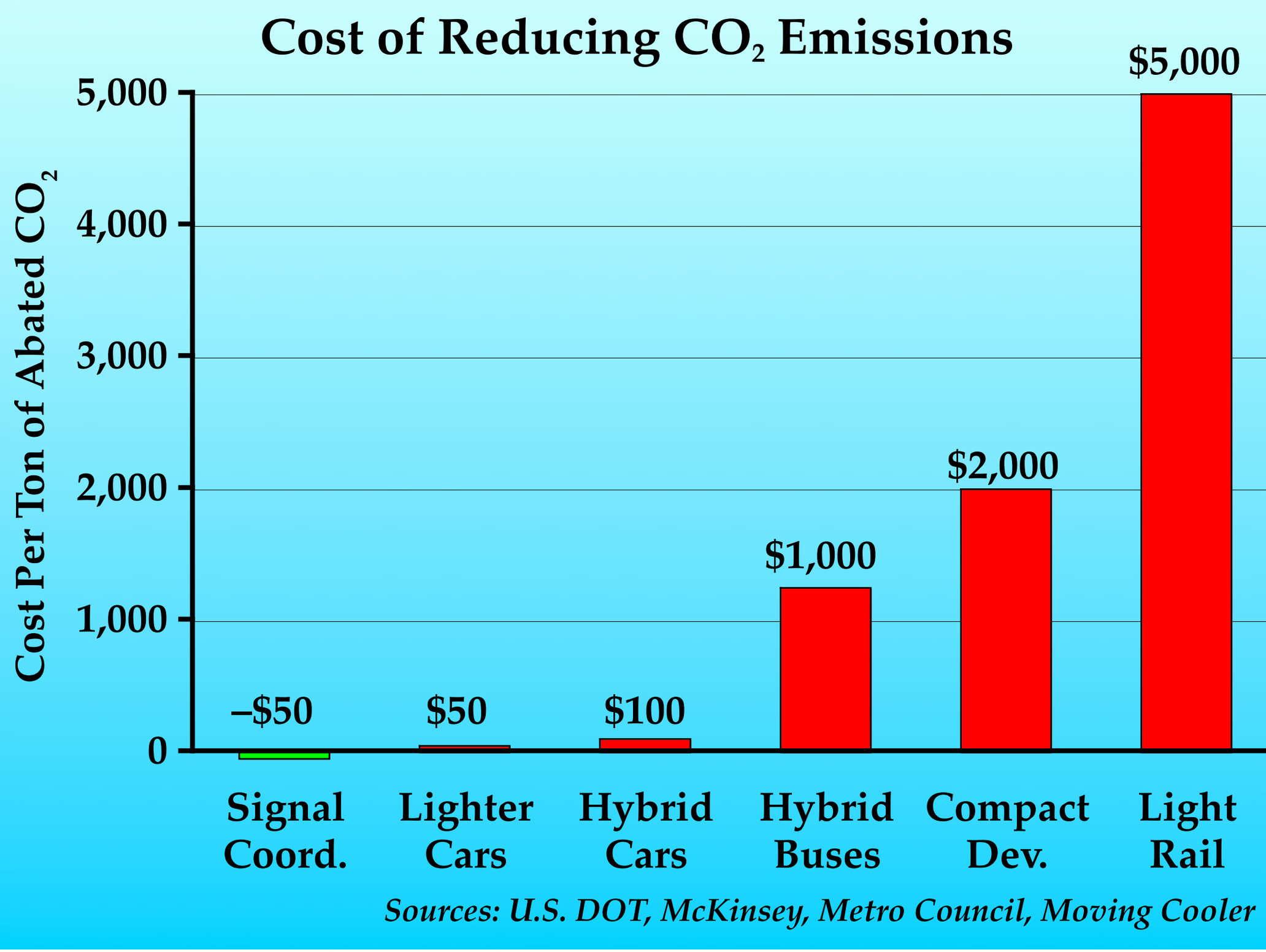
Source: EPA, US DOT

We had this same debate 40 years ago, when some argued we should reduce air pollution by reducing the amount of driving people do and others said we should use technical solutions to pollution. The technical solutions won: today we drive nearly three times as much as 40 years ago yet produce only a third as much total pollution.

Personally, I don’t urge you or anyone else to live in low-density or high-density development.

Nor do I encourage anyone to drive, walk, bicycle, or ride transit. Instead, I argue that we can solve our problems only if we act efficiently, and the best way to do that is to give people freedom to make their own choices but make sure they pay the full cost of those choices.

For example, one of the most cost-effective ways to relieve congestion, save energy, and reduce pollution is traffic signal coordination.



It is also the most cost-effective way of reducing greenhouse gas emissions. But transportation systems that are driven by politics will focus on big-ticket items such as light rail; only when we start funding transportation exclusively out of user fees will transportation agencies focus again on moving people efficient.

Another solution to congestion is to turn HOV lanes into toll lanes, giving people a choice between paying a toll or driving in the slow lanes.

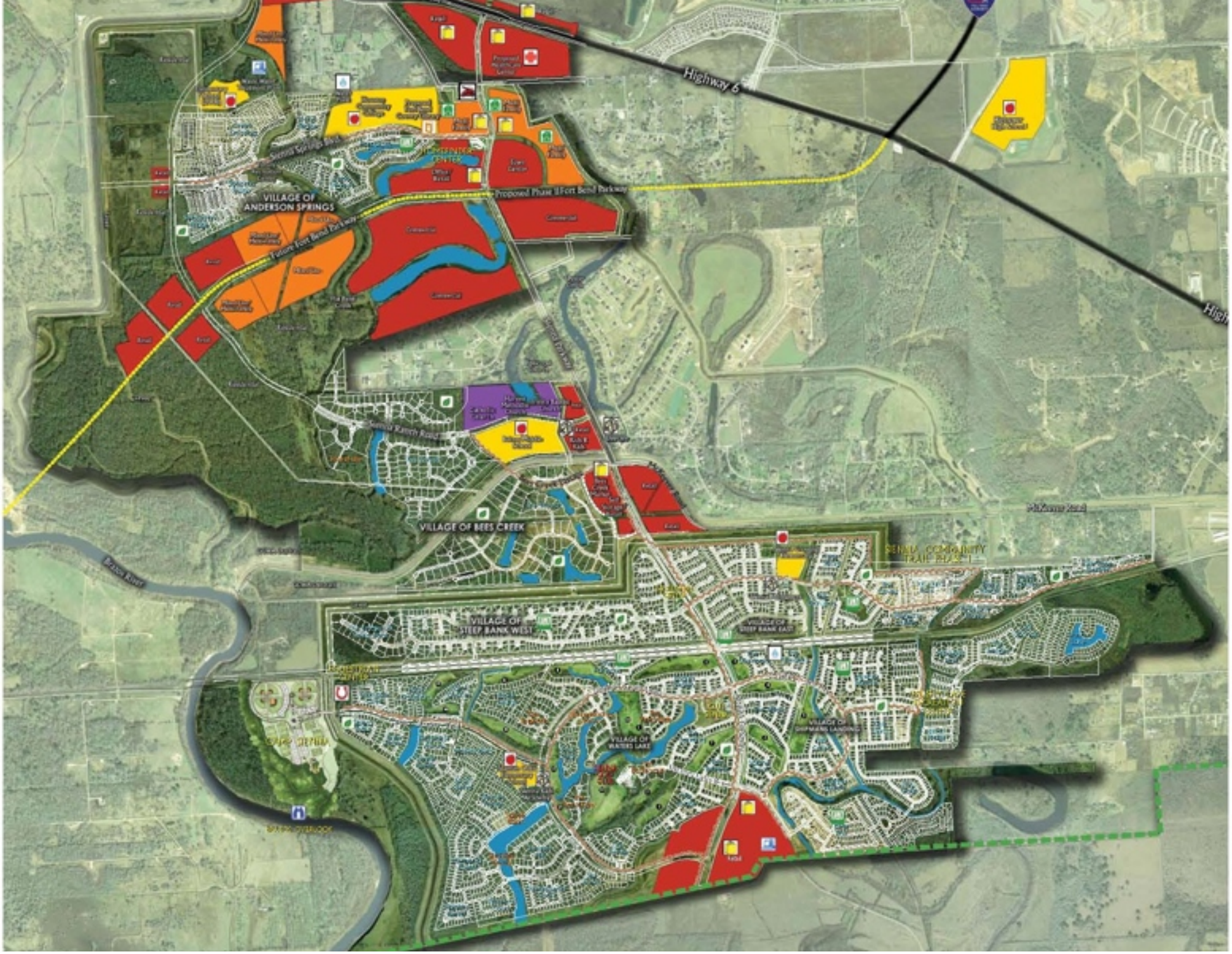
When tolls vary by the amount of traffic, we can make sure that the lanes never get congested. Some people argued that these lanes were “Lexus lanes” used only by the wealthy, but everyone has to get to places on time. For example, some day care centers charge $5 per child per minute if you are late picking them up, so people will gladly pay a few dollars to avoid congestion.

When we need to build new roads, we can now built elevated roads on piers in the median strips of existing roads, and the cost is only a little more than ground-level roads.

Europe is actually ahead of us in using public-private partnerships in which private companies finance the roads, charge tolls, and after 40 years or so turn the roads over to the public.

France's Millau Viaduct, for example, is a mile-and-a-half long and taller than the Eiffel Tower; it cost billions of euros to build but was built entirely with private money. People gladly pay the 6-euro toll because it saves hours of time. Unfortunately, some members of Congress want to put obstacles in the way of such public-private partnerships here because they oppose any new roads.

The best way to efficiently improve transit is to promote competition among transit providers. This will result in service that is better customized to individual needs.



A good example of sound land-use policies can be found in Texas, where counties aren't even allowed to zone. All planning is done by private developers. This development, for example, has multi-family (red), retail (orange), schools (yellow), parks (green), and single-family homes.

Developers typically build all the infrastructure and create a “municipal utility district” that charges homebuyers an annual fee for 30 years to repay the costs.

This particular development was also built with a huge water park.

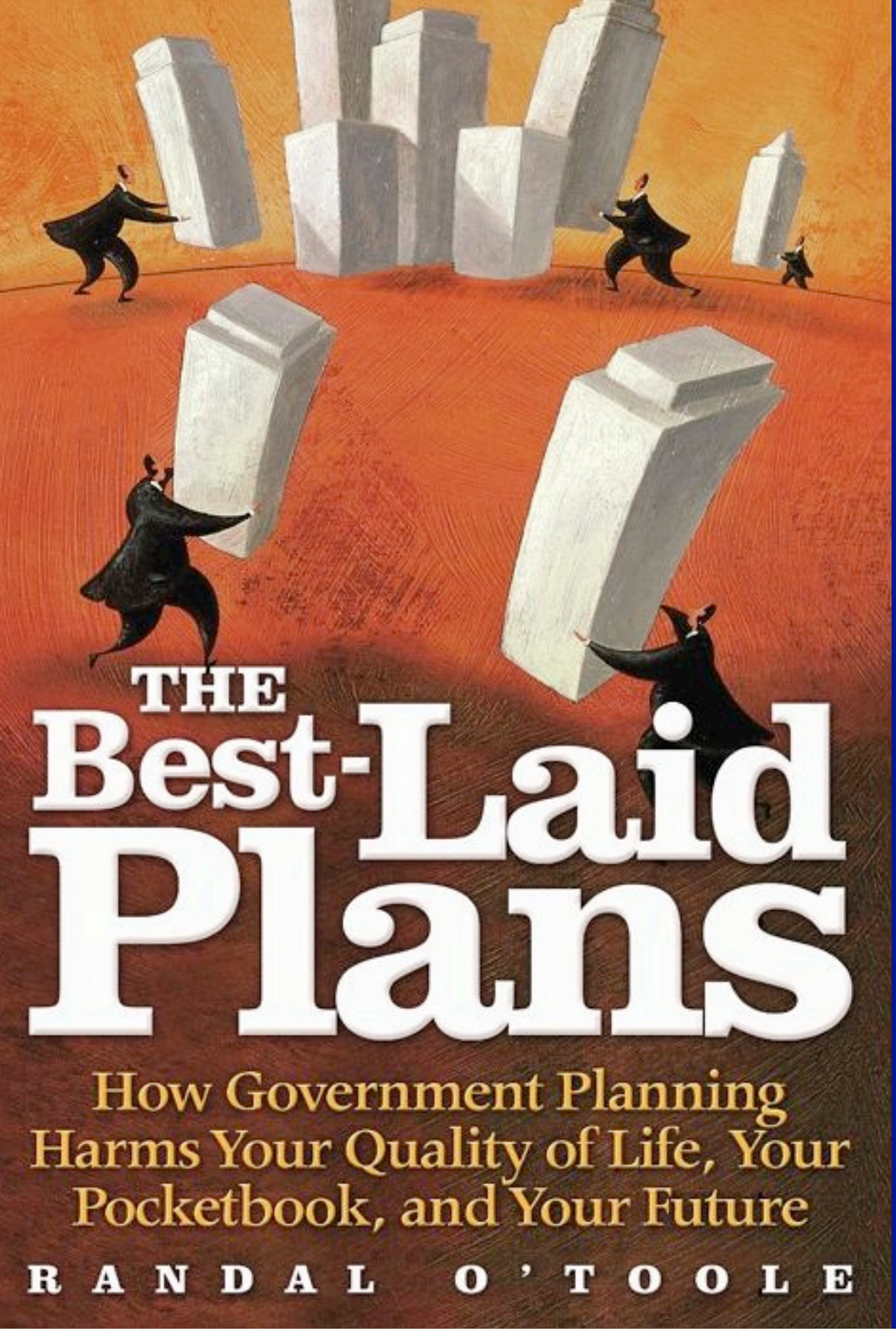
Developers admitted that they didn't make much profit from the multi-family housing, but they needed it to attract retailers, which in turn helped attract single-family homebuyers.

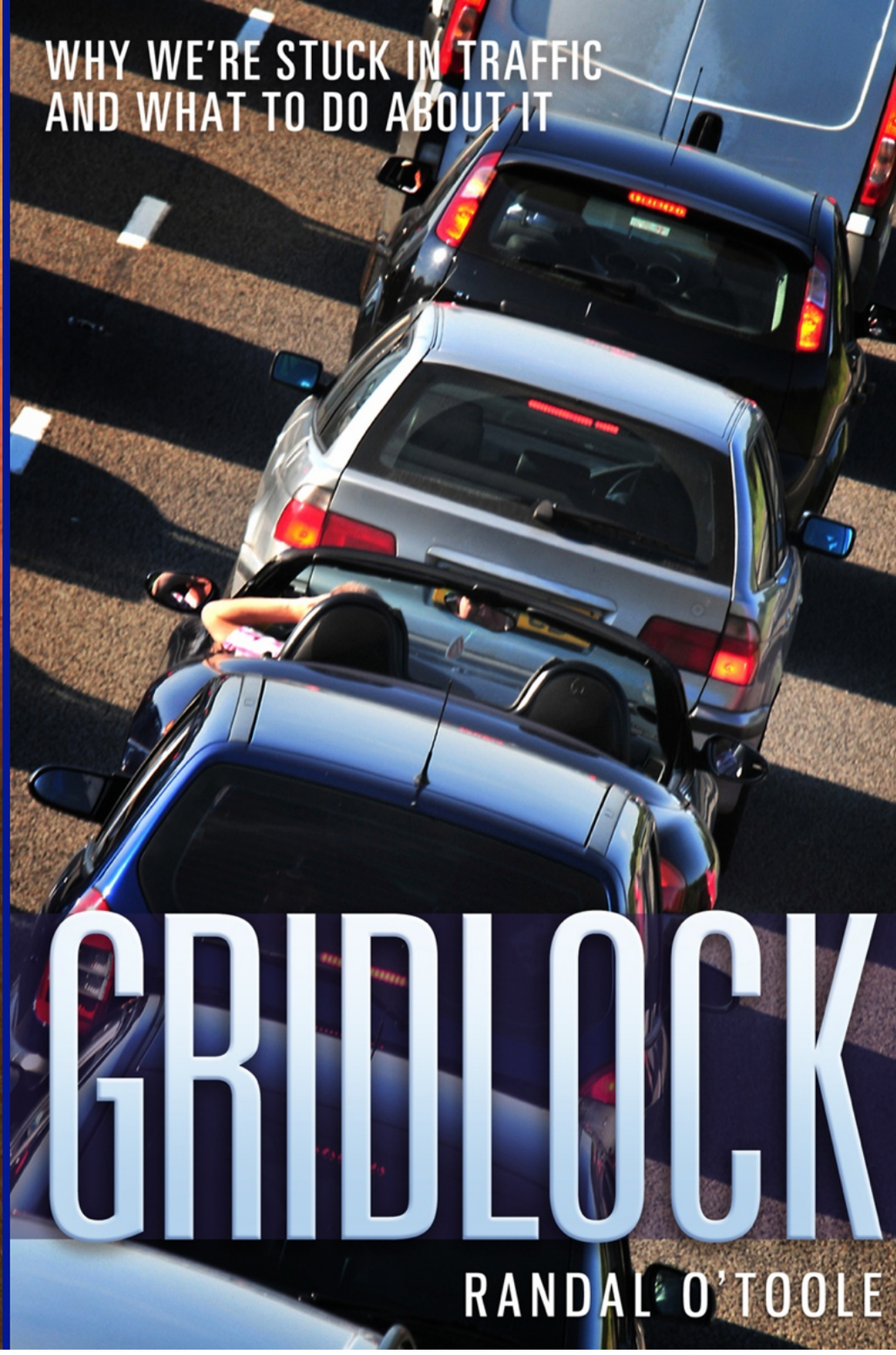
The homeowners association fees helped pay for playgrounds

ballfields, an outdoor theater, and all sorts of other facilities.

New homes in these master-planned communties tend to be very affordable, starting in the 110s in some developments. When demand for housing increases because, for example, interest rates decline, builders simply build more homes to meet the demand. Dallas-Ft. Worth and Houston are growing faster than 125,000 people per year and yet did not experience significant price increases in the 2000s.

To further insure that existing residents don't have to subsidize growth, many new roads in the region are toll roads. This four-lane highway was built for $2.5 million a lane mile. By comparison, most light-rail lines cost $50 million a mile or more and carry far fewer people.





All of these ideas and more are discussed in detail in my books, The Best-Laid Plans and Gridlock.

Policy Analysis

No. 663 March 24, 2010

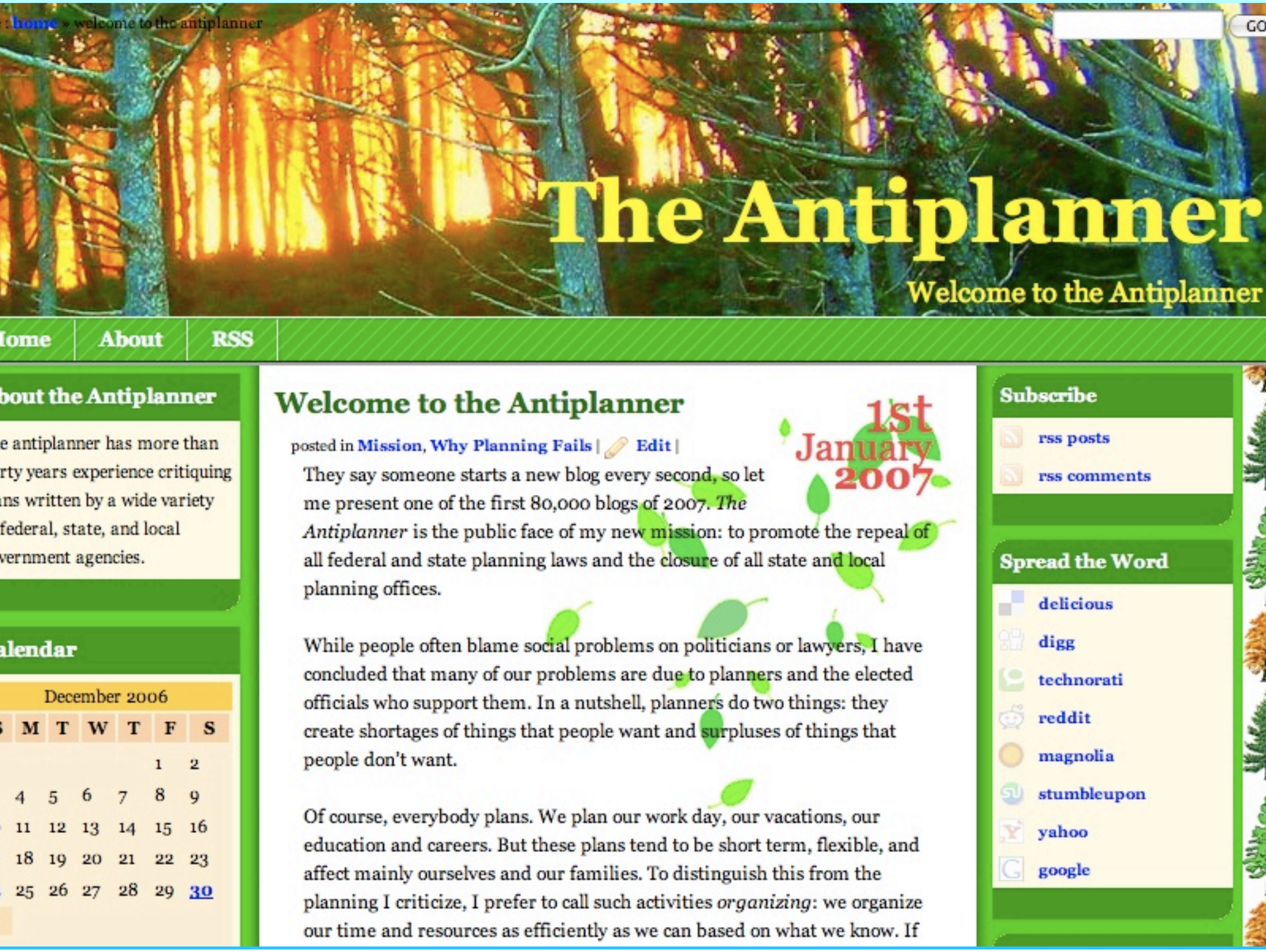
Defining Success
The Case against Rail Transit

by Randal O'Toole

Executive Summary

Over the past four decades, American cities have spent close to $100 billion constructing rail transit systems, and many billions more operating those systems. The agencies that spend taxpayer dollars building these lines almost invariably call them successful even when they go an average of 40 percent over budget and, in many cases, carry an insignificant number of riders. The people who rarely or never ride these lines but still have to pay

- Ridership: Do new rail lines significantly increase transit ridership?
- Cost-Effectiveness: Are new rail lines less expensive to operate than buses providing service at similar frequencies and speeds?
- The "Cable Car" Test: Do rail lines perform as well as or better than cable cars, the oldest and most expensive form of mechanized land-based transportation?



My daily blog also frequently comments on Portland and rail transit. Go to http://ti.org/antiplanner or just Google "antiplanner" and I'll be the first thing on the list.

For more information:

Web sites:

ti.org **cato.org**

americandreamcoalition.org

e-mail: rot@ti.org

For e-mail updates, give me your e-mail address

You can get more information from these web sites. Email me if you have any questions or, if you are interested in receiving free email updates, send me your email address.

Addendum: Many visitors to Europe think that Europeans all live in high-density housing and get around on transit and high-speed rail.

In fact, Europe is becoming more like the U.S. every year.

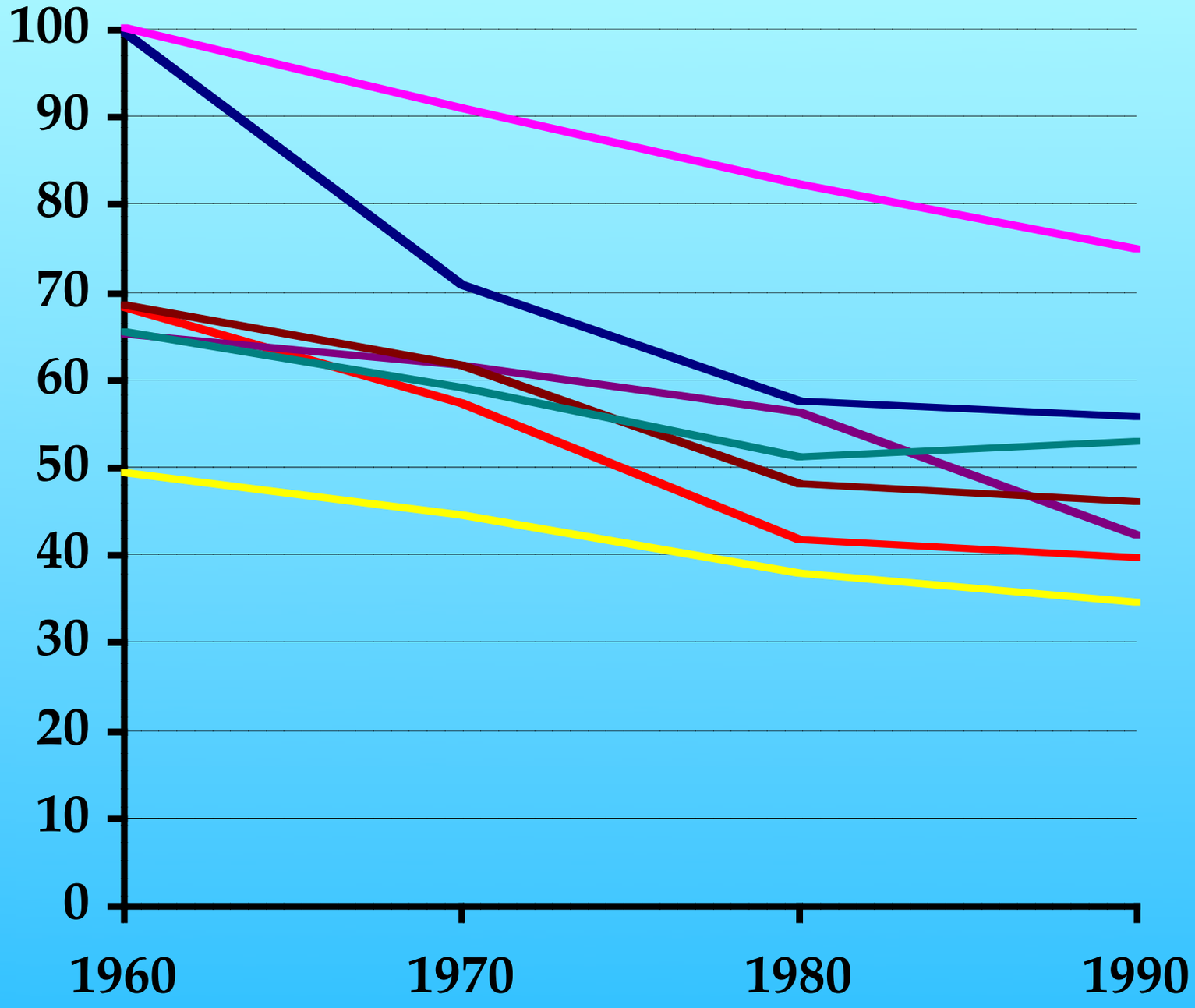
Inner Paris, for example, has lost more than two-thirds of its population in recent decades. Where did the people go?

They bought cars

got on the highways

and moved to single-family suburban neighborhoods that are very similar to those found in the U.S.

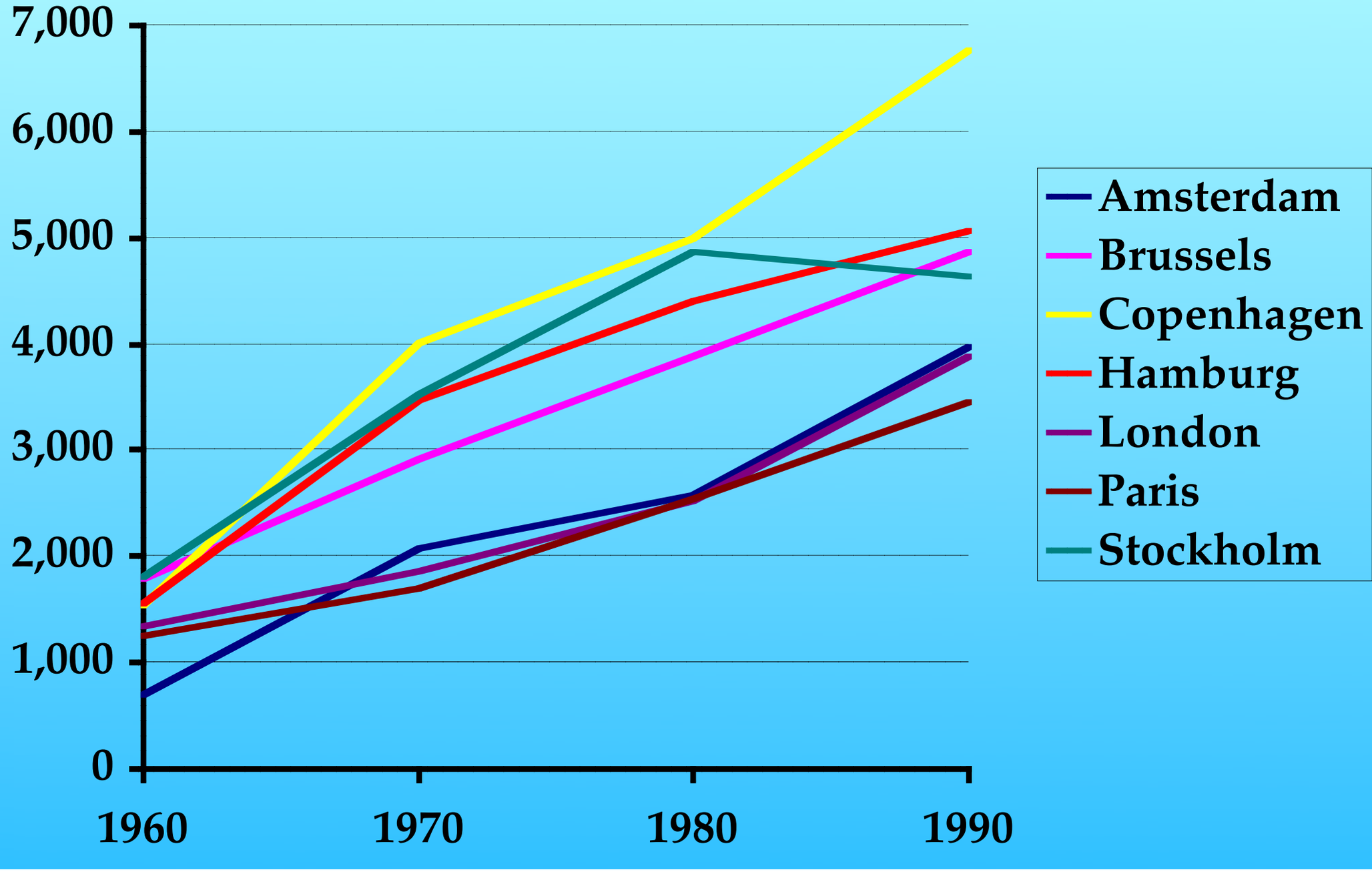
People Per Hectare



The population densities of all major urban areas have dramatically declined.

Per Capita Driving

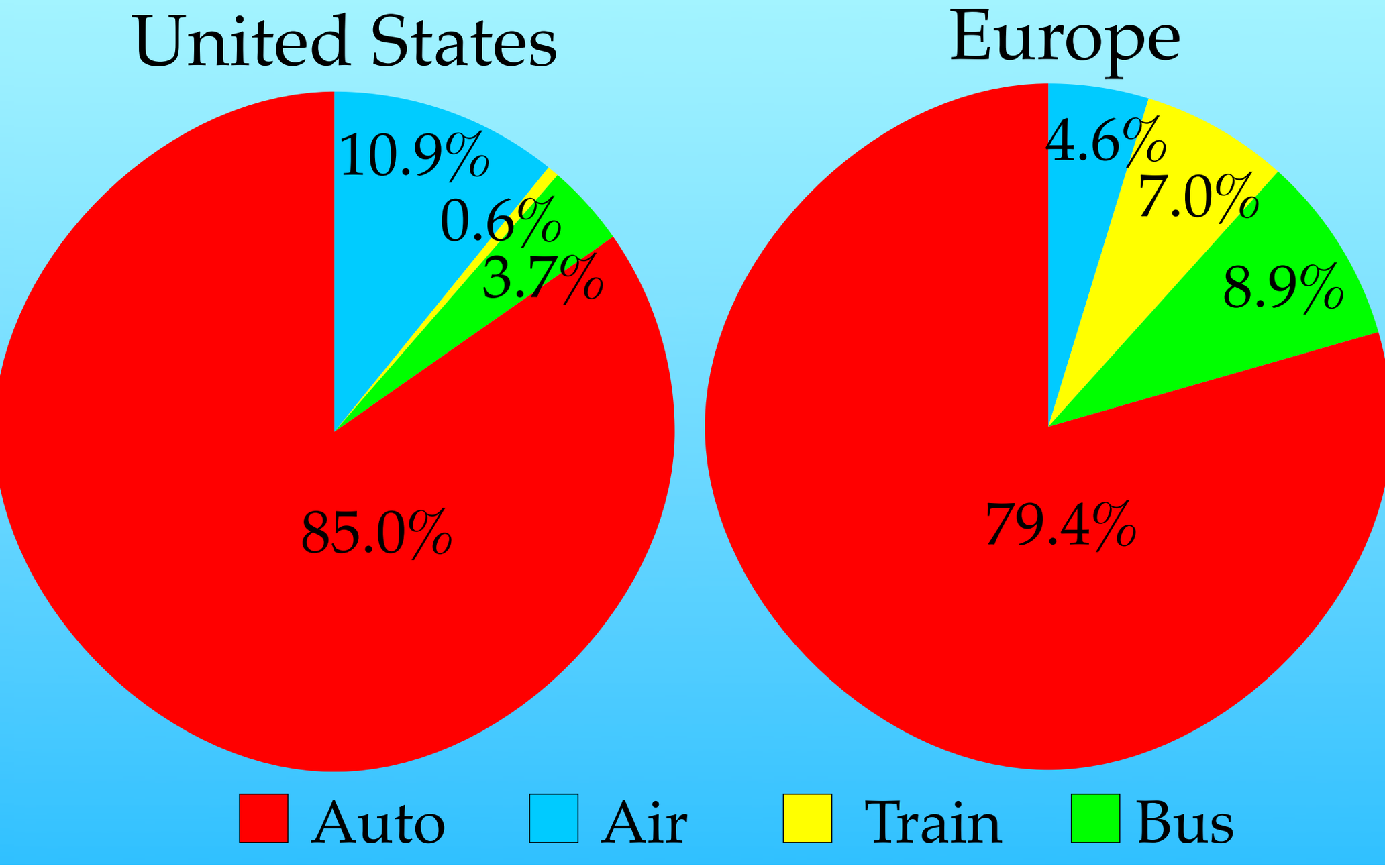
(kilometers per year)



Per-capita driving has sharply increased, while transit usage has been stagnant.

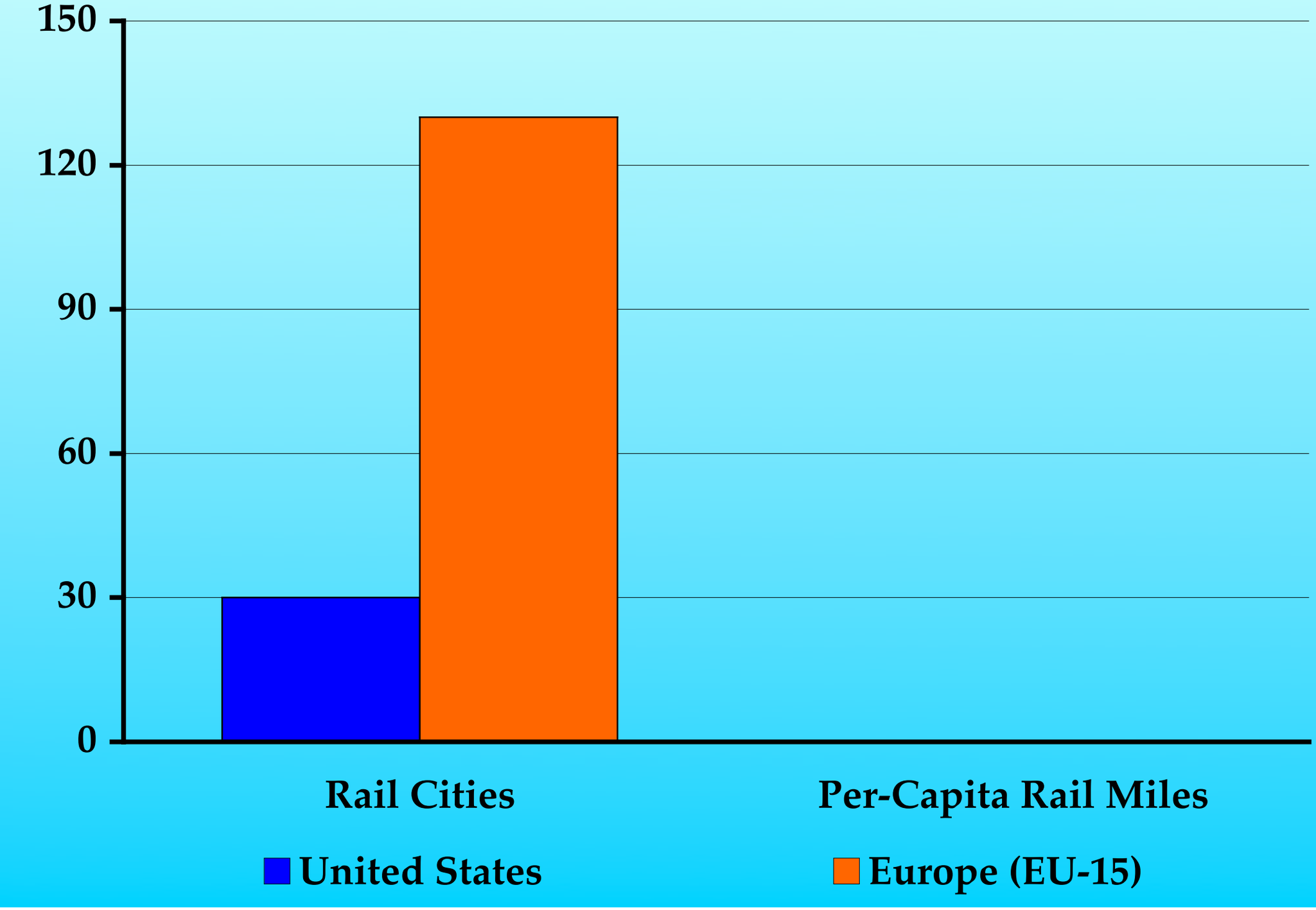
Share of Passenger Travel

(total of urban and intercity)

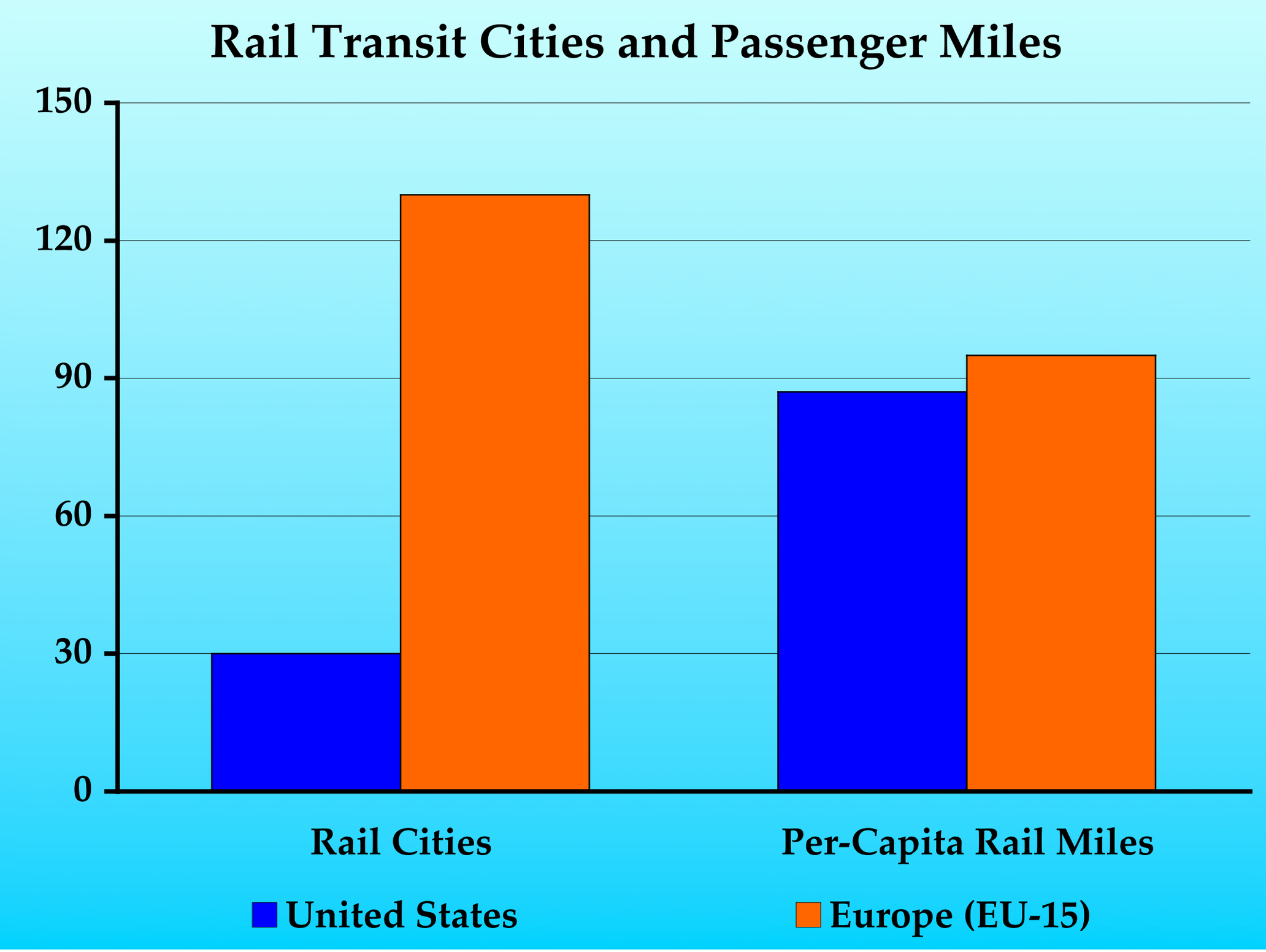


While “auto-addicted” Americans drive for 85 percent of our travel, supposedly “green” Europeans drive for 79 percent of their travel, which is not a huge difference.

Rail Transit Cities and Passenger Miles

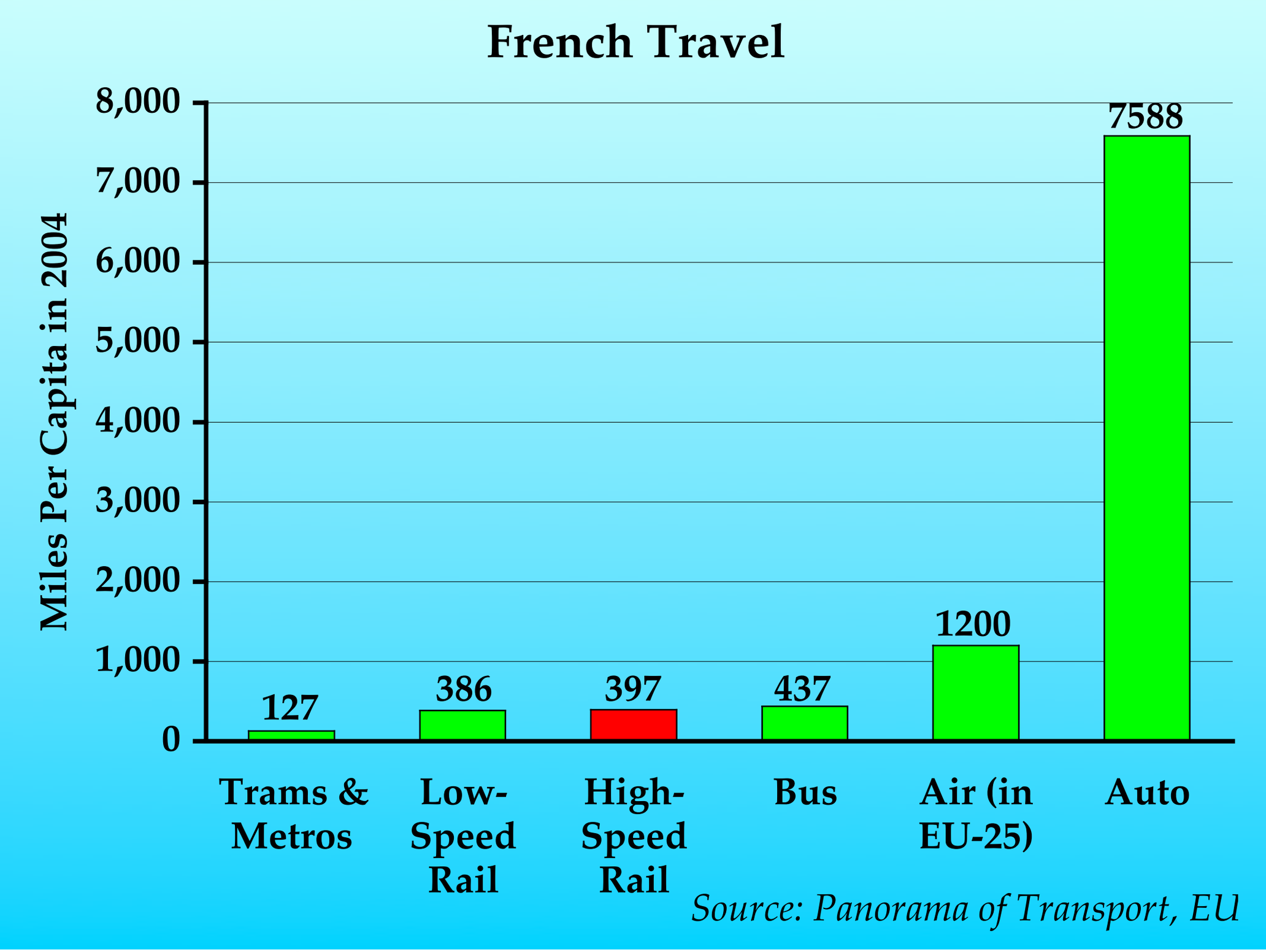


For example, Europe has four times as many urban areas with rail transit as the U.S.

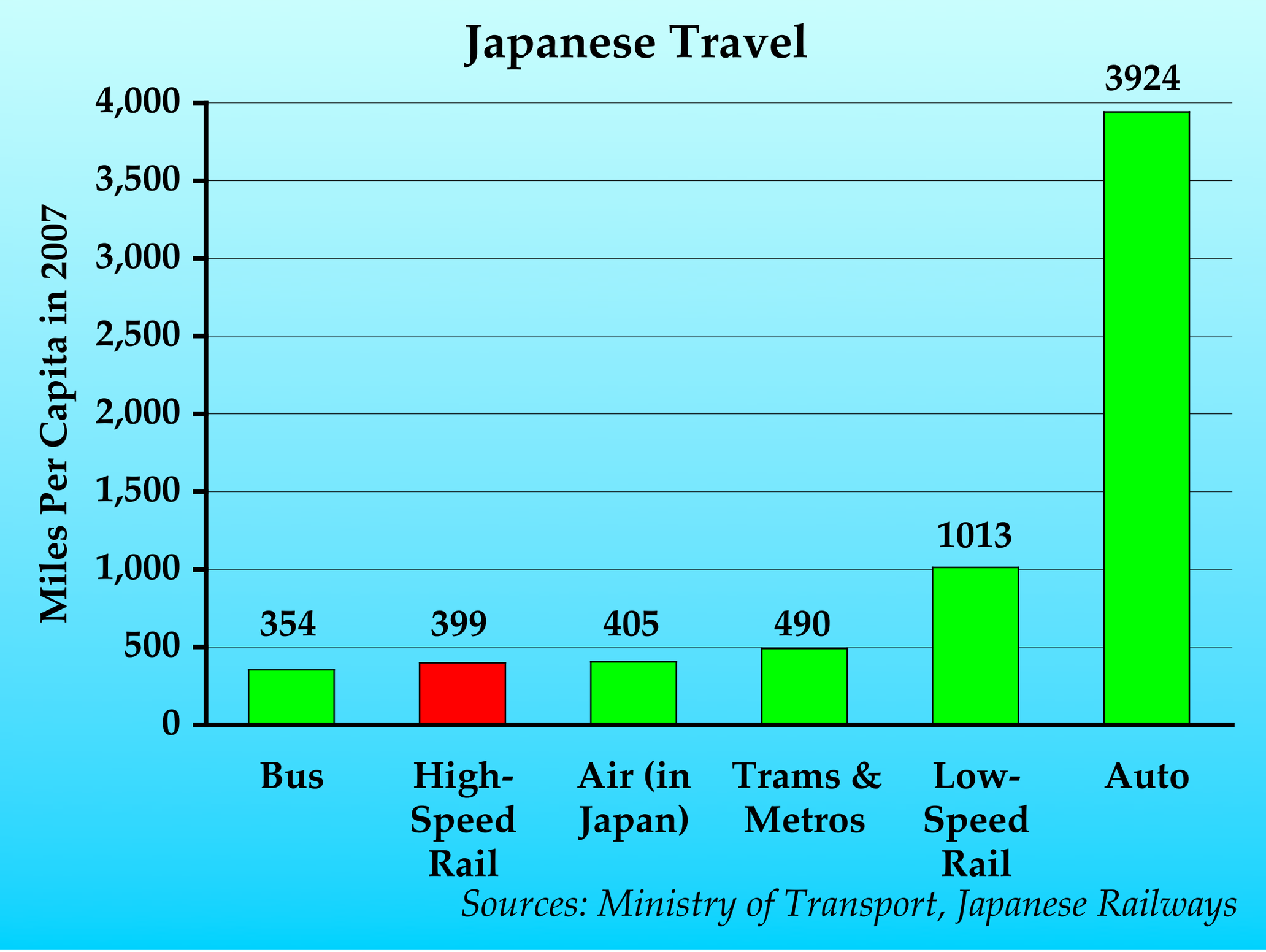


But the average European rides rail transit only about 96 miles a year, just a little more than the 88 miles a year usage by Americans.

Although France has spent about as much per-capita subsidizing its high-speed trains as we spent out of user fees building the Interstate Highway System



the average resident of France travels less than 400 miles a year on high-speed rail. The average resident of France travels by bus more than high-speed rail, by air three times as much, and by car almost 20 times as much. Meanwhile, the average American travels 4,000 miles a year on interstate highways.



Japan is not significantly different, as the average resident of Japan also travels less than 400 miles a year by high-speed rail, and travels by air more than high-speed rail, by low-speed rail nearly three times as much, and by car 10 times as much.