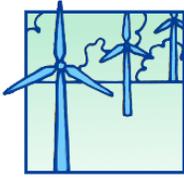


6. Getting around

TRANSITION



STREETS



Our decisions about how we get from A to B can have far-reaching effects. Planes, trains, and cars all contribute to the growing concentration of greenhouse gases and pollution. But how do they compare and which is the worst?

The majority of the world's vehicles are powered by oil. Even those trains and cars powered by electricity usually rely on fossil fuels being burned in power stations.

Cars get us around in comfort and at our convenience, and the average car trip is under 10 miles.^[1] Fuel prices are generally increasing (due to issues with oil supply and demand among other things), and cars are expensive to run.

Congestion, fumes, and parking add to our daily stress. Our cars pollute the air right where we live. Massachusetts Institute of Technology estimates that in the US around 53,000 people a year die prematurely due to air pollution, most of it related to road vehicles.^[2]

Let's look at the variation in CO2 per mile between different methods of transport:^[3]

Transport	Pounds of CO2 per Passenger Mile
Private Auto	0.96
Bus Transit	0.65
Heavy Rail	0.24
Light Rail	0.41
Commuter Rail	0.35
Van Pool	0.22

Transition Streets

6.2 GETTING AROUND

By reducing our private car use, we can save money. Our communities, both local and global, will also benefit enormously.

Fewer cars on the road means cleaner, less-polluted air to breathe, leading to fewer asthma and breathing problems. Less cars also means more peace and quiet and sense of space. Globally reducing our CO2 emissions will leave many of our fellow humans in their homes, rather than on flooded plains.

Each of the actions below can significantly reduce the cost of running your own car, as well as improve your local and global environment—while still getting you from A to B.

It can be very useful to complete a travel diary to help you understand your own travel needs, especially your regular trips (see page 6.19), and to identify which of the following actions are most appropriate for you.

Some of the following actions will cost you little or nothing, and those costs you do incur should be offset by your savings. In your group, talk about each item and then decide which ones you want to tackle and when. Record your own action plan at the end of this section.

- **Walk this way** (6.3)
- **Get on your bike** (6.4)
- **Take buses and trains** (6.6)
- **Try car sharing** (6.8)
- **Try carpooling** (6.9)
- **Fuel efficient driving** (6.11)
- **To fly or not to fly?**(6.13)
- **Vacation local** (6.15)



Transition Streets

6.3 WALK THIS WAY

The Practical
Action Plan

Cost: none

\$ Savings: varied

Effort: varied

CO2 saved: varied

Challenge

Walking is the greenest and one of the healthiest forms of transportation there is, but Americans don't do nearly enough of it! In 1969, 89% of children walked to school; by 2009 the figure was 35%.^[4] Meanwhile, the obesity rate among adults in the U.S. aged 20 and older is 35.3%.^[5]

Your savings & other benefits

- Walking is free! You'll save money on gas and other transport costs.
- Walking releases endorphins, the body's happiness hormone.
- You'll feel good and sleep better.
- Unlike catching the bus or train, you can set your own schedule.
- Fit walkers are less likely to fall and suffer injuries such as hip fractures, because the bones are strengthened.
- Walking keeps your weight down, your heart strong, reduces blood pressure, and increases bone density.
- You can get to know your neighborhood and enjoy your local environment.

Next steps, hints & tips

- As so many car trips take place within a short distance of home, walking is the first place to start when cutting back on car use.
- If you travel to work or to take your children to school, try walking part of the trip either there or back.
- Join a group. Healthy walking programs are often organized by employers and cities.
- Join or organize a "walking school bus" for your children's school.
- Comfortable walking shoes and rain gear are essential. Wheeled shopping carts help with the shopping load.

Yes, but ... I don't have time. If you live within about a mile of your local town, by the time you've gotten in the car, started it up, and found a parking place, you often could have completed the trip on foot.

It's raining and cold. There's no such thing as bad weather—just the wrong clothing! All you need is a good rain gear, waterproof shoes, or boots, and you can walk for hours staying snug and warm. You can always take a backpack and change when you get there.



Transition Streets

6.4 GET ON YOUR BIKE

The Practical
Action Plan

Cost: low-med

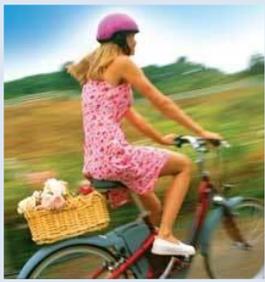
\$ Savings: varied

Effort: varied

CO2 saved: varied

Solution

Cycling keeps you fit. It's fast, cheap, reliable and good for the environment. The transportation choice for the healthy and the climate conscious, bicycles are almost greenhouse-gas-free, good for the heart, and inexpensive—yet they account for only 1% of trips in the U.S.^[6] The emphasis is often put on cycling as a leisure pursuit, or something to do on weekends. However, it's amazing how much you can do with your bike rather than the car, especially with a good set of panniers.



Your savings & other benefits

- Just bicycling for one hour burns well over 500 calories, and it's an excellent way to increase your heart rate, which can help slow the decline of cardiovascular health in older people.^[7]
- A good set of panniers on your bike can mean no more lugging all those heavy bags across town. Pack them up in the store and put them on your bike.
- It's inexpensive. A good bike costs around \$100/yr or less to maintain. You save on gas as well as wear and tear costs on a car.
- The exhilaration! Whizz down hills with the wind in your hair...

Yes, but ... what about safety? It's true you're safer in a car than on a bike: The stats suggest that cyclists are more likely to be killed on the road than car drivers and more likely to be injured.^[8] That said, you're actually more likely to have an accident just walking on the street than cycling in the US.^[6]

Transition Streets

6.5 GET ON YOUR BIKE

The Practical
Action Plan

Cost: low-med

\$ Savings: varied

Effort: varied

CO2 saved: varied

Tips for safe, enjoyable cycling

- Buy a bike from your bike local shop, your local thrift store, or Craigslist. You can even get folding bikes.
- Get your bike ready for riding. Keep it well maintained, and somewhere handy and accessible, along with a lock, lights, helmet, and rain gear.
- Transform your bike into a commuting option, not only a recreational bike. Get some panniers, baskets, and a rack so your bike can accommodate shopping trips.
- Get used to cutting out the car. Work out your regular short trips and try them on your bike, especially ones that are within a five mile radius of where you live.
- Plan ahead. Leave enough time to get there in a leisurely fashion. Cycling can be both exhilarating and peaceful, and sometimes the journey is more fun than arriving.
- Find a safe bike route to school for your children. Cycling to school, either on a tandem or independently of your child, or with them in a trailer or bike seat, is another great way for kids to learn road safety and get some exercise.
- Join your local cycling group and gain confidence through cycling in a group. Or “buddy up” with someone who does the same route as you and get used to it together.
- People with limited ability to bike can consider riding a trike or electric bicycle.

Notes:

Cost: varied

\$ Savings: varied

Effort: varied

CO2 saved: varied

Solution

Over 85% of people in the U.S. travel to work by car.^[9]

Buses, motor coaches, and trains consume a lot of energy. But divide that by the number of passengers on a busy route and they're usually a far more climate-friendly option than cars or planes. From a carbon perspective, motor coaches and trains are among the lowest emission options, especially on shorter (less than 500-mile) trips.

Rail is a relatively carbon-friendly way of getting from place to place. As a single passenger, driving between major cities can cost more than a ticket on the train, especially if you consider parking costs.

Your savings & other benefits

- If you can get by using only public transportation, then you could consider selling your car—a cash boost plus ongoing savings.
- Taking the local bus to town can give you the chance to meet other people, or much-craved time alone with your iPod or book!
- Transit can certainly be a good option for getting into busy downtown areas where parking is limited.
- On trains and buses you can work, relax, doze off, and avoid the stress of driving.



Transition Streets

6.7 TAKE BUSES & TRAINS

Cost: varied

\$ Savings: varied

Effort: varied

CO2 saved: varied

Next steps, hints, & tips

- Get hold of all the local bus timetables and keep them handy.
- Buy Amtrak Multi-Ride Tickets and become a Guest Rewards member (<http://www.amtrak.com/home>).
- Try Megabus (<http://usmegabus.com/>) and Greyhound.
- Use Google maps to find out how to get to your destination by any transportation option you chose.

Local Resources

- Complete this section with local resources (helpful websites, recommended train and bus routes, public transit incentive programs, etc.)

Notes:

Transition Streets

6.8 TRY CAR SHARING

The Practical
Action Plan

Cost: medium

\$ Savings: med-
high

Effort: low

CO2 saved: med-
high

Challenge

Are you hostage to the costs of a car you hardly use? The purchase price, depreciation, insurance, servicing, and repairs all add up. (Compare how much your car costs you a month using the calculator at www.zipcar.com.)

But can you really get rid of it? What would you use instead when a car is the only real option? A “pay-as-you-go” car sharing service could save you money and cut your mileage even further.

Solution

Car sharing lets you book a car online then pick it up from a central parking place. You just pay for the time you use the car and the miles you drive or a nominal fee. Infrequent drivers save money and generally cut their mileage by about two-thirds.

A popular option for car sharing is Zipcar, available in 57 cities in the US (<http://www.zipcar.com> or 1-866-494-7227). At the time of writing, Zipcar membership starts from \$6/mo. and driving rates are from \$8–10/hr.

Your savings & other benefits

Car sharing members save an average of \$500 each month compared to folks who own and operate their own cars in the city—and you won't have had all the hassle of cleaning, insuring, and maintaining it.

In addition, car share members tend to combine trips to avoid multiple short ones, leading to significant carbon savings. They also tend to replace short trips with a combination of walking, cycling, and public transportation. Each car sharing vehicle replaces 6–10 vehicles on the road and in parking lots.



Yes, but ... will I really save money as I need to use a car a lot? Car sharing is less valuable for frequent drivers. As a guide, if you drive five or more times a week, it's probably not for you.

Notes:

Transition Streets

6.9 TRY CARPOOLING

The Practical Action Plan

Cost: low

\$ Savings: med-high

Effort: low-med

CO2 saved: med-high

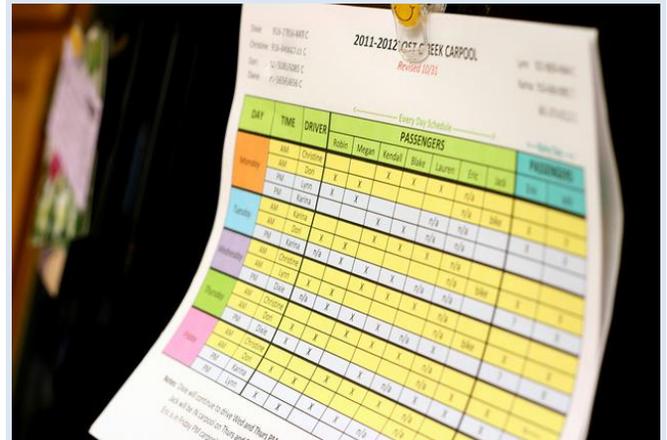
Challenge

Currently 78% of Americans drive to work alone, resulting in traffic congestion, stressful commutes, and high levels of carbon emissions.^[10]

Meanwhile, just 10% of Americans carpool, and 77% of carpoolers travel with just one other person.^[10] Think of all those unused car seats!

Currently, carpools in the US save \$1.1 billion and 85 million gallons, while eliminating 56,000 miles of traffic each year.^[10]

If everyone carpooled once a week, traffic congestion would decrease by an additional 20%.^[10]



Solution

Give carpooling a try! There are a couple of online carpooling websites where you can offer up spare seats in your car—usually for regular trips—or find others that go your way.

If you don't like the idea of joining an official group, you could always set up your own mini system of carpooling with friends, work-colleagues, or neighbors! Ask around and see who might want to share your trip.

Transition Streets

6.10 TRY CARPOOLING

The Practical
Action Plan

Cost: low

\$ Savings: med-
high

Effort: low-med

CO2 saved: med-
high

Your savings & other benefits

- Save money on parking and gas compared to driving alone.
- You can use the carpool lane and avoid rush hour traffic.
- You can also look into whether your employer provides commuter benefits for carpooling and other alternative transportation.
- Reduce your stress from being behind the wheel by sharing the responsibility of driving.
- You might make new friends you wouldn't have met otherwise.

Next steps, hints & tips

- Use social media such as Facebook and on-line community boards such as Craigslist to ride share.
- Check to see whether your local public transit authority offers a webpage for ridesharing.
- See if there is a online platform or app for organizing carpools in your area (<https://carmacarpool.com/> is one example).
- Try Uber (www.uber.com) or Lyft (www.lyft.com) for on-demand rideshare services.

Advice on personal safety (which applies to anyone who shares a car with a stranger):
Everybody is responsible for his or her own safety. Avoid exchanging home addresses with your traveling companion before you meet them, or arrange to meet in a public place. You are under no obligation to go ahead with any carpooling arrangement. If you have any doubts about your traveling companion, for any reason, you should avoid traveling with them.

Notes:

Cost: none

\$ Savings: med

Effort: low

CO2 saved: med

Solution

Changing *how* you drive could save more energy than changing *what* you drive. Fuel-efficient driving has a huge impact on our fuel use and, therefore, our emissions.

It's easy to do, in fact it's lots of little actions that add up. Everything from checking your tire pressure and turning off the air conditioner to taking a few miles an hour off your freeway speed.

Your savings & benefits

Aggressive driving can lower gas mileage by 33% at highway speeds and by 5% around town. Sensible driving is also safer for you and others, so you can save more than just money.^[11]

While each vehicle reaches its optimal fuel economy at a different speed, gas mileage usually decreases rapidly at speeds above 50 mph. Each 5 mph driven over 50 mph is similar to paying an additional \$0.22 per gallon.^[11]



Yes, but ... If I close the windows and switch off the air conditioning in July, I'll cook. If you're overheating on the freeway, it's more fuel efficient to use A/C than opening the window or sunroof. At lower speeds, opening windows is more efficient.

Cost: none

\$ Savings: med

Effort: low

CO2 saved: med

Tips for better fuel efficiency

- Get your car serviced regularly for more efficient driving.
- Stay at or within the speed limit.
- Keep your tires inflated to the correct pressures. Under-inflated tires create more resistance when your car is moving, so your engine has to work harder.
- Improve aerodynamics and reduce drag by leaving the roof rack at home and closing the windows and sunroof.
- Be gentle with your right foot—rapid acceleration takes a heavy toll on your fuel tank.
- Anticipate road conditions and drive smoothly, avoiding sharp acceleration and heavy braking.
- Don't idle—this uses more fuel in ten seconds than turning the engine off and on. Drive away immediately when starting from cold.
- Check your revs. Move up a gear before 2,500 rpm in a gas-fueled car and 2,000 rpm in a diesel.
- Don't carry around unnecessary weight—empty your trunk.
- Use air conditioning sparingly as it significantly increases fuel consumption.
- Plan your trips to avoid congestion, road work, and getting lost by using an app such as Waze.
- Try combining your trips.
- Avoid short trips—a cold engine gets through fuel almost twice as quickly as a hot one (conveniently, these journeys are the easiest to walk or cycle).
- If you're stuck in a traffic jam, switch the engine off if you expect to be there for more than a minute or two.

Notes:

Cost: varied

\$ Savings: varied

Effort: varied

CO2 saved: high

Challenge

Who flies? And who pays the true price? Only about 5% of the world's population has ever flown.^[12] This minority, flying more and more often, lives mostly in industrialized countries. Climate change consequences, however, mainly affect those who have contributed little to it, i.e., people in developing countries.

Just one long-haul flight could produce more emissions than the rest of the carbon footprint from everything else you do in a year. Furthermore, international air travel in and out of the US has doubled over the past two decades.^[13]

US vacationers find it very hard to compromise when it comes to flying. By 2015, the number of passengers carried by US commercial airlines will likely hit the 1 billion mark. This rise in air travel will continue to drive up US carbon emissions, because planes leave a large carbon footprint owing to their enormous weight and the long distances they fly.^[14]

It is really the huge distances covered when we fly that is the problem, and by 2050, plane travel looks set to undo all the carbon savings we make elsewhere.^[15]

Solution

It's almost impossible to keep our carbon footprint at a sustainable level if we fly, especially for longer trips. Unlike heating or washing, flying is, after all, a luxury. So what's the alternative?

Taking the train, ferry, or coach cross-country, or vacationing in the US, can substitute for a long-haul vacation. Otherwise, taking the time to travel overland can be a good solution. See www.seat61.com for accurate info about how to get to any world destination without flying.

The debate about offsetting flights is ongoing. Friends of the Earth and Greenpeace have expressed "strong concerns over [offsetting schemes'] environmental credibility."^[16]

Transition Streets

6.14 TO FLY OR NOT TO FLY

The Practical
Action Plan

Cost: varied

\$ Savings: varied

Effort: varied

CO2 saved: high

Your savings & other benefits

- The journey becomes a greater part of the experience. You go slower and watch the scenery and culture change.
- No airport lines, delays, tiny seats, eating bad food, jet lag, and less noise pollution for the millions living under the flight paths.
- Explore the many wonderful places in the US.
- Enjoy the adventure of the idiosyncrasies of long-distance travel across other countries and cultures.
- Personal satisfaction and massive carbon savings.



Yes, but... don't developing countries depend on money from tourism? While it's true that tourism is a major source of income for developing countries, this wealth will not often trickle down to local people. Most of it goes to the owners of the hotels, the safari parks, etc. Meanwhile, the impact of the flight contributes to worsening famine in parts of Africa, for example. Furthermore, wide-body jets can emit 100 pounds of CO2 for every mile they travel; a single cross-country flight can create 150 tons of climate change pollution.^[16]

Plane effects? A study shows that the reading ability of 12-14 year olds whose schools lie under flight paths is impaired by 23%, while children of all ages are more likely to develop anxiety disorders when routinely exposed to aircraft noise.^[17]

Notes:

Transition Streets

6.15 VACATION LOCAL

The Practical
Action Plan

Cost: varied

\$ Savings: varied

Effort: low

CO2 saved: med-
high

Challenge

The US can't be such a bad place for a vacation. In 2012, 67 million international visitors came to the US. But is it a tempting enough proposition to make us give up foreign travel?

Overseas travel, as consumer surveys routinely report, ranks alongside such pleasures as moving, changing bank account and passing a kidney stone as a source of stress and anxiety. Yet despite the stress, the environmental impact of flying and the fact that many of us think the US is becoming a better place to spend vacations, millions of us still plan our vacations abroad.



Solution

Plan your next vacation in the US. Here are a few ideas to get you started:

1. Visit a National Park (www.nps.gov).
2. Visit the US's iconic cities such as New York, Los Angeles, and Chicago.
3. Go camping.
4. Stay on a farm in the US with Farm Stays US at www.farmstayus.com.
5. Stay on a houseboat.
6. Volunteer, learn new skills, and have a very inexpensive vacation with an organization that allows you to volunteer in exchange for reduced costs.
7. Plan a bike touring trip with friends to a local destination area.
8. Visit a local monastery, hot springs, or spa for a retreat.

Yes, but...it's sometimes cheaper to go abroad than vacation in the US. This can be true, but it depends on what you do and when you do it. Renting homes with friends, getting a houseboat, or camping are generally more affordable options.

Transition Streets

6.16 VACATION LOCAL

The Practical
Action Plan

Cost: varied

\$ Savings: varied

Effort: low

CO2 saved: med-high

Local Resources

Use this section to list ideas and resources for vacationing in your part of the country.



Notes:

Reminder

Possible actions:

- Walk this way (6.3)
- Get on your bike (6.4)
- Take buses & trains (6.6)
- Try car sharing (6.8)
- Try car pooling (6.9)
- Fuel-efficient driving (6.11)
- To fly or not to fly? (6.13)
- Vacation local (6.15)

**What other ideas does your group have that aren't covered above?
Add them below if you think they are relevant for you.**

My actions	Already done	When I'll do this	Notes

Group actions

How can you help each other out in your group? List team actions here (with named person and due date).



Transition Streets

6.18 TRANSPORT: THE BIGGER PICTURE

Questions for discussion

It seems that giving up our cars is one of the hardest things to do. Obviously, this is influenced by the cost and availability of suitable public transport options. Given that this may take some time to change,

- What sort of changes would you need to make in your life to significantly cut your dependence on your car?
- What would your friends and family think?
- How do you feel about the 'to fly or not to fly' question?

Notes:

Transition Streets

6.20 REFERENCE INFO

References

- [1] U.S. Department of Transportation, "Summary of Travel Trends: 2009 Household Travel Survey," <http://nhts.ornl.gov/2009/pub/stt.pdf>
- [2] Massachusetts Institute of Technology, "Study: Air pollution causes 200,000 early deaths each year in the U.S.," 08/29/13 <http://newsoffice.mit.edu/2013/study-air-pollution-causes-200000-early-deaths-each-year-in-the-us-0829>
- [3] U.S. Department of Transportation "Public Transportation's Role in Responding to Climate Change," <http://www.fta.dot.gov/documents/PublicTransportationsRoleInRespondingToClimateChange.pdf>
- [4] Saferoutesinfo.org, "The Decline of Walking and Bicycling," http://guide.saferoutesinfo.org/introduction/the_decline_of_walking_and_bicycling.cfm
- [5] U.S. Department of Health and Human Services, "Healthy People 2020 Leading Health Indicators: Nutrition, Physical Activity, and Obesity," 05/14, https://www.healthypeople.gov/sites/default/files/HP2020_LHI_Nut_PhysActiv.pdf
- [6] Angie Schmitt, "5 Things You Should Know About the State of Walking and Biking in the U.S.," StreetsBlog USA, 04/16/14, <http://usa.streetsblog.org/2014/04/16/5-things-you-should-know-about-the-state-of-walking-and-biking-in-the-u-s/>
- [7] Abigail Wise, "Why Riding Your Bike Makes You A Better Person (According to Science)," Huffington Post, 07/06/2014, http://www.huffingtonpost.com/2014/07/06/benefits-of-cycling_n_5530635.html
- [8] Centers for Disease Control and Prevention, "Bicycle-Related Injuries," <http://www.cdc.gov/HomeandRecreationalSafety/Bicycle/>
- [9] Elizabeth Barber, "More Americans bike to work, but cars still rule the commute," Christian Science Monitor, 05/09/14, <http://www.csmonitor.com/USA/USA-Update/2014/0509/More-Americans-bike-to-work-but-cars-still-rule-the-commute>
- [10] Commuter Solutions, "Carpool Statistics," 1/02/2014, <http://www.statisticbrain.com/carpool-statistics/>
- [11] U.S. Department of Energy, "Driving More Efficiently," <http://www.fueleconomy.gov/feg/driveHabits.jsp>
- [12] Worldwatch Institute, "Vital Facts: Selected facts and story ideas from Vital Signs 2006-2007," <http://www.worldwatch.org/node/4346>
- [13] Adie Tomer, Robert Puentes and Zachary Neal, Brookings Institute, "Global Gateways: International Aviation in Metropolitan America," 10/25/12, <http://www.brookings.edu/research/reports/2012/10/25-global-aviation>
- [14] "CO2 Emissions & climate change: Trains versus Planes," http://www.seat61.com/CO2flights.htm#_VJDL23sXdTk
- [15] Union of Concerned Scientists, "Getting There Greener: The Guide to Your Lower-Carbon Vacation," 12/08, http://www.ucsusa.org/sites/default/files/legacy/assets/documents/clean_vehicles/greentravel_report.pdf
- [16] Friends of the Earth, "Carbon Off-setting: A smokescreen against action to cut emissions," 01/18/07, http://www.foe.co.uk/resource/press_releases/carbon_offsetting_18012007
- [17] George Monbiot, "Go Home," 05/23/1998, <http://www.monbiot.com/1998/05/23/go-home/>
- [18] Mark Johanson, "US Received Record Number of Visitors in 2012 Thanks to These 15 Countries," 06/11/13, <http://www.ibtimes.com/us-received-record-number-visitors-2012-thanks-these-15-countries-1300347>