Today I Learned About Everyday Travel

"Fundamentally, it needs to start with a real true assessment of what are the needs, what are the travel patterns in a city and what are the different solutions and which ones make the most sense? Really, really good transit systems work for people and people want to take them.
Dr. Joanna Moody, World Bank Transport Global Knowledge and Expertise Unit
TILclimate podcast: Today I Learned About Everyday Travel

Mobility and Transport Around the World

Transportation solutions don't look the same everywhere. Weather, street design, distances traveled, and city layout all affect which kinds of transit works best in any given area. The best designs fit a city's existing travel patterns, but make them more accessible, reliable, and safe while reducing carbon dioxide and other pollution from cars, trucks, buses, and trains.

Case studies are stories about one specific solution to a problem. Since each location's situation is different, case studies are not meant to be a blueprint for another place, but present a story about one possible way to see a challenge and meet it.

Learn, Think, Pair, Share

1. Visit https://use.metropolis.org/case-studies and click **Search for Case Studies**.
2. In the **Select topics** menu, select *Mobility and Transport* and click **Show Results**.
3. Make sure **Case studies** is selected at the top of the page.
4. Choose one case study of interest to you. You may look for a country you have a connection to, an image that leaps out to you, or some other factor to help you choose.
5. Read the case study, paying particular attention to the *Barriers and challenges* and *Lessons learned and transferability* portions.
6. In your own words, briefly describe the story – what challenge did they solve, and how was it successful?
7. Pair up with a classmate. Tell each other your stories.

Discuss:

- What transportation problem did the project seek to solve?
- What challenges or lessons learned did your case studies have in common?
- How could this solution be applied in another place?
- What most excites you about the projects you learned about?

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"Allocating our space on our streets better is a low-cost, near-term, within-our-jurisdiction way of really starting to change our different travel modes, to the most sustainable, the most socially responsible choice."
Dr. Joanna Moody, World Bank Transport Global Knowledge and Expertise Unit
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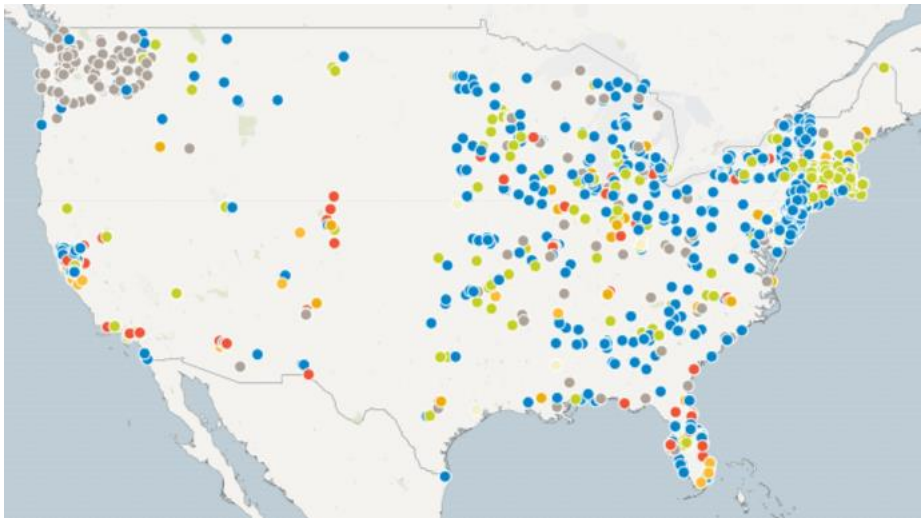

Jurisdictions with Complete Streets Policies, Laws, and Resolutions, 2022

Complete Streets

According to the US Department of Transportation, a *Complete Street* policy ensures "the safe and adequate accommodation of all users of the transportation system, including pedestrians, bicyclists, public transportation users, children, older individuals, individuals with disabilities, motorists, and freight vehicles."[1] Cities, towns, counties, and tribal lands in all US states have established Complete Street policies, including more than 1,300 cities and towns and 36 states and territories.[2] These policies define rules for how streets, intersections, and public areas are designed, adapted, and upgraded.

Many streets, especially in suburban business and downtown districts, were designed for car use, with less attention paid to pedestrians, bicyclists, buses, and other modes of transportation. This often leads to unsafe road crossings for pedestrians, dangerous or absent bicycle routes, and poor traffic flows. The Complete Streets model is a framework to help communities decide how they would like their streets to be designed – and safer for all.

Map of Complete Streets policies https://completestreets.carto.com/
1 US Department of Transportation, Federal Highway Administration, Moving to a Complete Streets Design Model: A Report to Congress on Opportunities and Challenges, March 2022 https://highways.dot.gov/
2 Complete Streets Policy Adoption, 2020 https://smartgrowthamerica.org/wp-content/uploads/2021/09/CS-policies-2000-2020.pdf

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The Complete Streets model is not a one-size-fits-all approach. Every neighborhood, intersection, and street has different needs, layouts, and uses that affect what choices make the most sense. In your group, you will consider street types and design elements to make a proposal to improve a street in your community.

Design Your Own Complete Street

Discuss with your group – is there a street or intersection in your community that could use an upgrade? Perhaps a place where cars drive too quickly and crossing the street is unsafe, or a downtown area that doesn't feel welcoming to people on foot or wheels. Look at a map and agree together on an area you would like to redesign.

1. Visit https://nacto.org/publication/urban-street-design-guide/streets/ and read through the descriptions of kinds of streets. Which kind of street is your chosen area?
2. Click on the description to read some of the recommendations for that street type.
3. As a group, choose 2-3 recommendations that most appeal to you, and assign one recommendation to each member or pair of members in your group.
4. Create a proposal to suggest your chosen design element. Your proposal could take the form of a poster, presentation, video, or other format. Who is your audience for your proposal? Make sure that your project is in a format that would make the most sense to your chosen audience.

For some design elements, such as shifting lanes, parklets, or public space, there are temporary measures that can "try out" a new design before it is made permanent. Check these strategies out by using the **Guide Navigation** dropdown menu and choosing *Interim Design Strategies.*

Discussion

Each group should present their proposals to the rest of the class. Then, discuss:

- What are the main challenges that were identified for streets in our community?
- Which solutions are the most exciting? Why?
- For your chosen design element – what problems does it solve? Most of the ideas solve more than one challenge, such as slowing traffic and creating public outdoor space.
- If you wanted to propose your solution to decision-makers in your community, who would they be? How could you find out if your city/town, county, or state already has a Complete Streets policy in place?

Today I Learned About Everyday Travel

"What really impacts travel behavior is the quality of options. And for many people, public transit just doesn't exist as an option, or is of such poor quality that it's really not a meaningful choice."
Dr. Joanna Moody, World Bank Transport Global Knowledge and Expertise Unit
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Design a Transit System

As Dr. Moody says in the podcast episode, transportation choices impact behavior. Telling people they should walk, ride a bike, or take the bus only works if the things they need are within walking distance, there are safe places to ride their bike, and the bus goes where they need to go reliably.

Transit planners look at where people live, work, play, and shop to design transportation systems that move people around most efficiently. They also consider what kinds of transit options make the most sense for the location.

Today, you are going to be transit planners for an imaginary city. Your goal is to design a transit system such that most people in the city do not need to use a car to meet their daily needs.

Design Your City

1. Visit https://inkwellideas.com/free-tools/random-city-map-generator/
2. In the box on the left side of the page, choose a population density (*low*, *medium*, or *high*) for each of three neighborhoods (**East**, **West**, and **South**). A mix of density types will create a more interesting city.
3. Under **Join**, choose whether your neighborhoods are on the same landmass or separated by a body of water. *No Join* means all three neighborhoods will be separated by a river. *East-West*, *East-South*, and *West-South* will separate two neighborhoods from the third. *All* will keep all three neighborhoods connected.
4. Click **Refresh** to see your city. Each time you click **Refresh**, a new city with the same parameters will be generated. There is no way to go back to a previous city.
5. Screenshot your city and print it or save the image to look at on a screen.
6. With your group, decide what each of the building types on the map will represent. Consider places your residents may live, get food and necessities, go to work and school, and relax and have fun. Mark these on your map.
7. Using the transportation types on the next page, design a transit plan for your city that best connects residents to the places they need to go. You do not need to use all transportation modes.

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Types of Transportation

The US Department of Transportation defines the following transit modes (number of trips in 2019):[1]

Buses can be powered by gas, diesel, or electricity. Buses may run in dedicated lanes (Rapid Bus Transit) or share the road with cars and trucks. (4.4 billion)

Heavy Rail trains are electric trains that run on dedicated rail lines that no other mode of transit crosses. Subway systems are generally heavy rail. (3.8 billion)

Commuter Rail trains may be electric, gas, or diesel and link rural and suburban communities to cities. They share space with other modes. (506 million)

Light Rail trains run short one-to-two-car electric trains on shared or dedicated spaces, often on roads. (479 million)

Demand Response includes cars or vans that do not operate on a fixed route but respond to calls from passengers, such as taxis or rideshare. (110 million)

Ferryboats are boats that operate on a fixed schedule and route along and across rivers, harbors, and ocean routes. (85.1 million)

Vanpools are vans or small buses that operate on a fixed route and schedule, using roadways. (34.5 million)

Also consider non-vehicle modes:

Walking is made safer with well-maintained sidewalks, clear street crossings, and dedicated non-vehicle routes such as rail trails and pedestrian bridges.

Accessibility for wheelchair users, walker and cane users, and kids in strollers requires safe, easy access to sidewalks, businesses, and transit options.

Biking is made safer with clearly-defined bike lanes with separate signal systems. Lanes that are not shared with cars are safest. Bikesharing programs and secure bike storage should also be considered.

1 US Department of Transportation National Transit Summaries and Trends 2019. https://www.transit.dot.gov/sites/fta.dot.gov/files/2022-01/2019-NTST-1-2_0.pdf. 2019 data used to avoid effects of the coronavirus pandemic.

Images from The Noun Project by Curve, AVAM, romzicon, Kaylen Yul Lee, The Icon Z, Moose Icons, Sakchai Ruankam, and Muzzammil