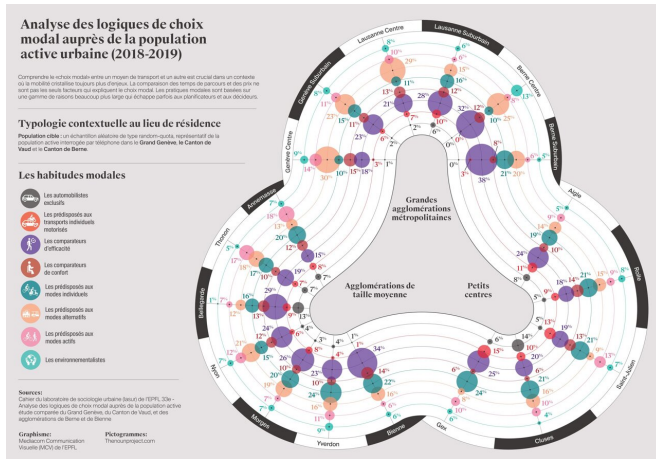


Which type of transportation user are you?

27 May 2021, by Anne-Muriel Brouet



Infographic (in French). Credit: ©MCV/ERPFL

Sociologists at EPFL conducted a survey of the factors that prompt people to select one form of transportation over another, and then compared the results from cities across Switzerland.

Why is it that Bern residents don't commute to work in the same way as those in Geneva, or Lausanne residents as those in Yverdon? How have transportation modes changed in Geneva, Vaud and the greater Bern area over the past ten years? Are cleaner forms of transportation becoming as popular as we'd like to believe? Those are just some of the questions that researchers at EPFL's Urban Sociology Laboratory (LASUR) set out to answer in the latest edition of their transportation survey. They looked at how people move around in three large Swiss cities—Geneva, Lausanne and Bern—as well several smaller ones in French-speaking Switzerland and neighboring France, using an established method that allows for comparisons across regions and over time.

More specifically, they conducted telephone surveys of a representative sample of nearly 5,000 employed people in Greater Geneva and the

Cantons of Vaud and Bern. The survey area consisted of Geneva, Lausanne and Bern—whose respondents were grouped into urban and suburban areas—and a number of smaller cities: Annemasse, Thonon, Nyon, Morges, Yverdon, Biel/Bienne, Bellegarde, Saint-Julien-en-Genevois, Cluses, Gex, Aigle and Rolle. The survey was carried out before the COVID-19 pandemic.

The findings paint a complete picture of the various forms of transportation the respondents use—private cars, motorized and non-motorized two-wheeled vehicles, and public [transport](#)—crossed with the kind of residential area they live in and whether they are commuting to work or going out for other purposes. Unsurprisingly, the further people live away from a large city center, the more likely they are to use their car on a daily basis. And while people generally stick to the same form of transportation for getting to and from work, when they travel for other reasons they tend to use a wider variety of modes, take more trips, cover larger distances and stay away for longer periods. Private cars are three times more likely, and bicycles twice as likely, to be used for these non-work trips. Walking is becoming increasingly popular, often as a leisure activity in and of itself.

Another key finding is that in large cities, commuters using private cars (25% of respondents in both Geneva and Bern) are the ones who create the most traffic (67% and 70%, respectively). The relative effect is lower in smaller cities but the trend is the same. In Morges for example, 47% of people surveyed use their car on a daily basis and generate 83% of traffic; in Aigle the figures are 58% and 90%, respectively. The survey also indicated that most daily car users are open to other forms of transportation.

Eight types of transportation users

This ties in to what makes LASUR's sociological study unique: It doesn't look only at how people get from point A to point B, but why they choose that particular mode and, perhaps more importantly,

how willing they are to adopt new modes of travel. The researchers identified two main categories of transportation users, which they divided up into eight subgroups, or "transportation types." The first main category consists of people who make their choice based on the transportation mode, and contains five subgroups: private-car users only (who are decreasing in number and already gone from the Bern area); people who prefer private motorized vehicles; people who prefer private vehicles of any kind (e.g., both cars and bicycles); people who prefer clean transportation modes (e.g., public transport, cycling and walking); and people who prefer physically active transportation modes (e.g., cycling and walking). The second main category, which consists of people who make their choice based on the transportation experience, contains three subgroups: people who prioritize efficiency, people who seek personal comfort and people who are concerned about the environment.

Knowing about these categories and preferences can help city officials shape transportation systems that are better aligned to residents' needs. For example, of the group that is concerned about the environment, many people end up using their private car anyway (except for commuting to work) because no other options are easily available. And many of those who prefer private vehicles of any kind often end up using their cars—completely disregarding their bicycles. And those who prioritize efficiency often find that public transport systems in the smaller cities don't compare with the convenience of a private car, and that cycling isn't very efficient, except perhaps in Biel/Bienne and Yverdon. All this suggests there's potential for encouraging these users to change their habits.

Bern sets the example

LASUR conducted similar surveys in 1994 and 2011, and then—as now—Bern proved to be a model city. Bern residents, unlike those of Geneva and Lausanne, often forgo the use of their cars, including for non-work activities. Is that because Switzerland's capital offers other convenient transportation options, or because its residents tend to be more environmentally aware? The survey points to the former, taking into account the differences between Geneva, Lausanne and Bern.

If you transported Geneva residents to Bern, for instance, they would make the same choices as the Bernese—except for private-car users only, who still exist in Geneva but have vanished from Bern. In other words, the displaced Geneva residents would eventually align their transportation use with that of the Bernese. This indicates that with the right combination of transportation systems and policies, city officials could realistically prompt users away from their cars and towards other modes.

The study goes on to give recommendations for policies which can help drive that shift by targeting different types of transportation users. The suggestions include: stepping up efforts to catch parking violations; building more continuous, safe bike lanes; introducing new policies for company parking; making public transport more comfortable; offering lower rates for occasional public-transport users; and adopting specific policies to encourage cycling.

Interview with Vincent Kaufmann, professor at LASUR:

Did your 2018 survey reveal anything counterintuitive?

We were surprised to find a group of people who are so attached to private transportation of any kind, regardless of whether it's motorized. That means it's possible to introduce measures encouraging private-car users to switch to electric bikes or even regular bicycles for their daily commutes.

Did the pandemic change any of the trends identified in your survey?

No. We carried out another survey in May 2020, in association with Mobil'Homme, and the findings were generally the same. So once the [public transport](#) situation gets back to normal, even if it takes a few years, the potential for encouraging people to use it will still be there.

Did the pandemic give rise to new types of transportation users?

I don't think so. But if this situation persists, we

could see a change in the breakdown among different types of users. The percentage of people who prioritize efficiency could decrease, since they would be travelling shorter distances, and that of people who prefer physically active transportation modes could increase, for example.

Do you think the pandemic will have a long-term effect on the shifts you've seen over the past two decades?

It will certainly have a lasting effect on longer trips, whether for daily commutes, business travel or travel for leisure activities.

Provided by Ecole Polytechnique Federale de Lausanne

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