



Public Transport Mobility and Covid-19 Health crisis: What changes in Students' Mobility Behaviors

*Sophie HASIAK, MATRiS
Cerema, France*

Context



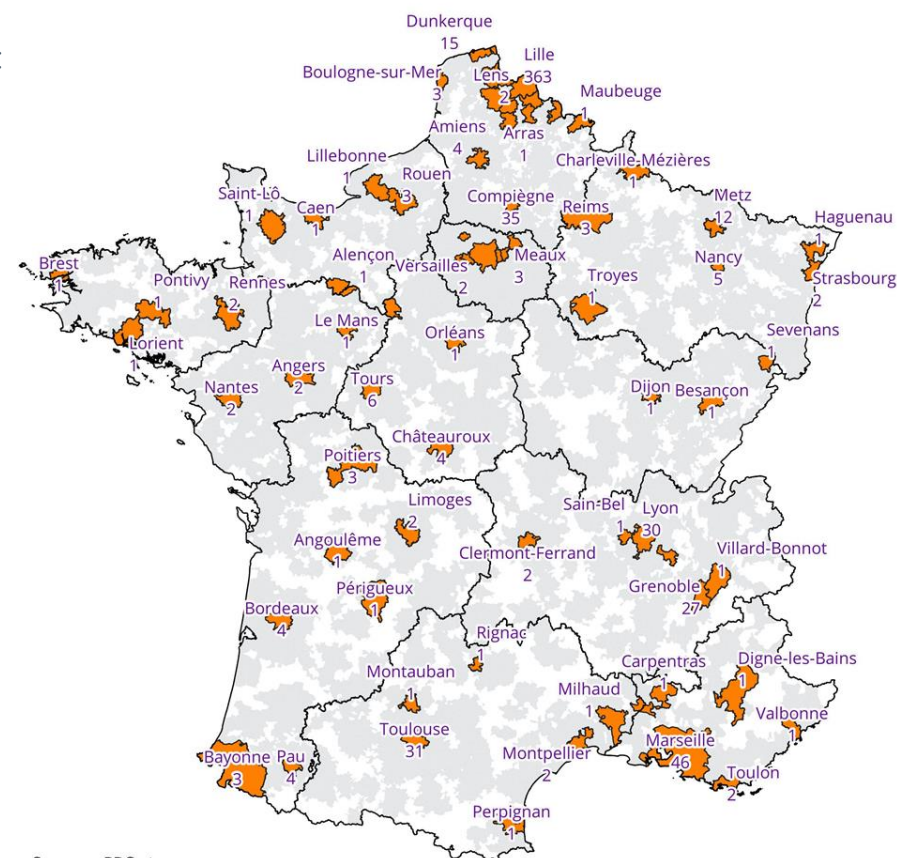
- Students, at the heart of a pivotal period in their life: a transitional stage, "a new age of life" (Galland 1990), changes in their daily mobility behavior?
- The health crisis linked to the Covid 19 epidemic
 - Impacts on mobility
less travel, changes in behavior, modal shift... Especially during periods of epidemic waves (lockdown, curfew...)
Public transport (PT) particularly affected, a "disaffection with PT".
 - Students: strongly affected
students in greater precariousness, budget under greater constraint, loss of student job, psychological distress,....

Can the health crisis have a lasting effect on students' PT mobility behavior? Can it boost a trend break in students' mobility behavior?

Methodology



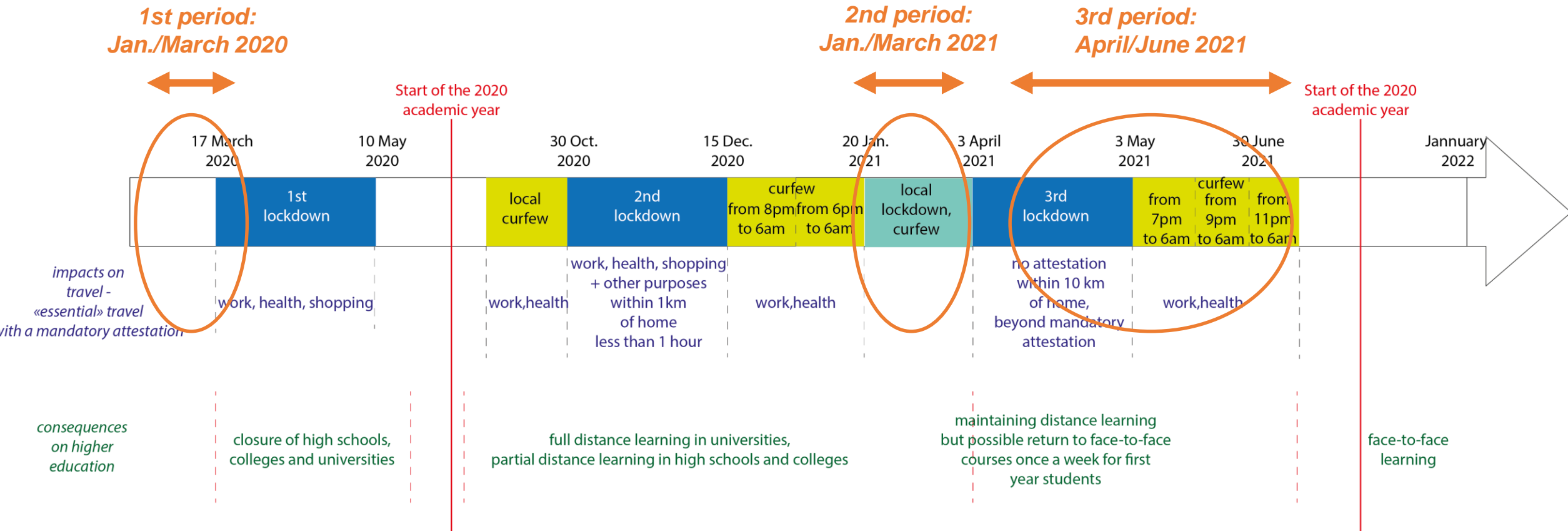
- Scope: students living and studying in France, student status during the 2 academic years 2019/2020 and 2020/2021
- On-line survey from September 2021 to February 2022
- Questionnaire on PT use over 3 periods
Jan./March 2020
Jan./March 2021
April/June 2021
- Sample
2,517 access to the questionnaire
1,123 complete returns
774 students meeting the criterion “status”





Methodology

- Health crisis: travel constraints and specific measures taken for higher education in France



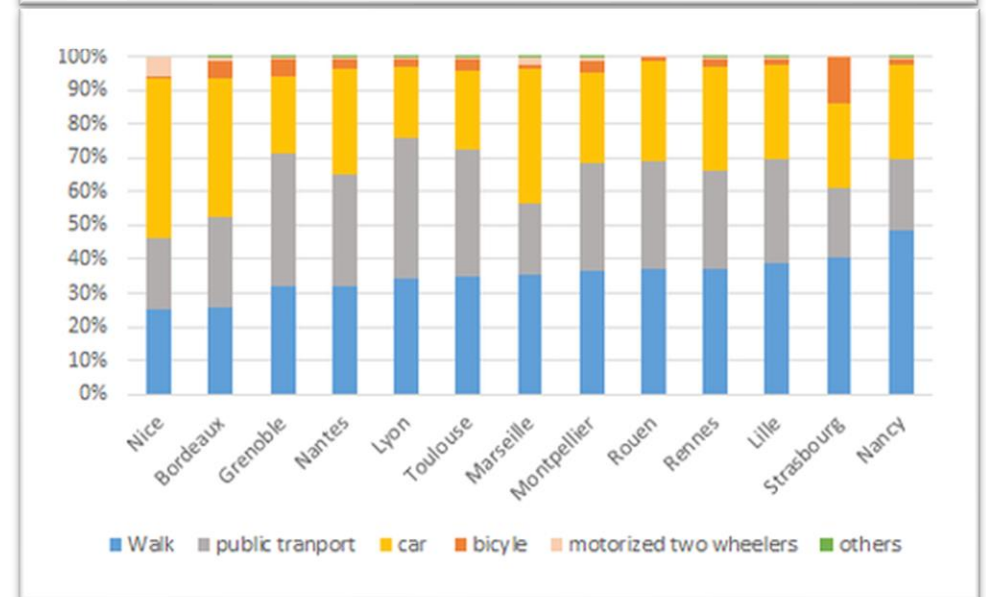
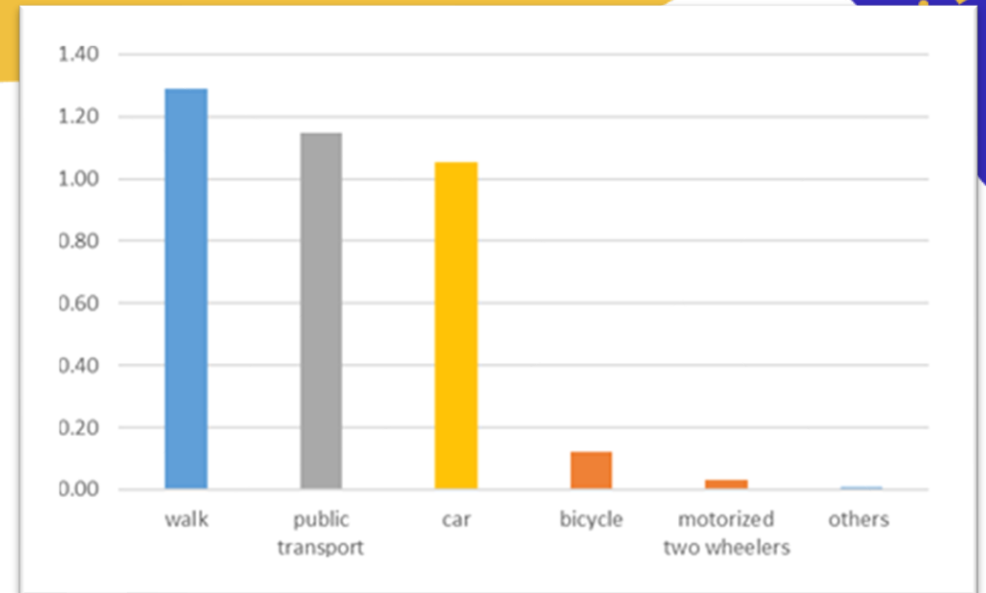
Main results : PT mobility of French students



Before the onset of the Covid-19 pandemic in 2020

Data source : results of 13 household travel surveys carried out in the main urban areas, sample: 10,300 students)

- 12% of students never travel by PT
- PT Mobility: 1.15 trips/day (global mobility: 3.65 trips/day on average)
- the 2nd most popular mode of transport of students, after walking and before car use
- A main purpose: to reach the place of study
- A frequent use by 2/3 of students
- Some geographical disparities linked to the location of higher education establishments and the quality of their PT services



Main results : PT mobility of French students since the health crisis



Can we talk about a disaffection of PT by French students?

Data source : results of our online survey – 774 students

- Less Students use PT at the beginning of 2021 (lockdown, curfew): a decrease of 4 points
- However, a proportion in June 2021 almost equivalent to the situation before the crisis (67%)
- Fewer students using PT to get to their place of study but more students using them for other patterns in June 2021 !
- However, these average percentages hide disparities in students' behavior

N=774	January/March 2020	January/March 2021	April/June 2021
Public transport users	67.7%	63.0%	67.0%
Home-study pattern	51.4%	43.0%	47.1%
Other patterns	51.3%	45.1%	53.6%

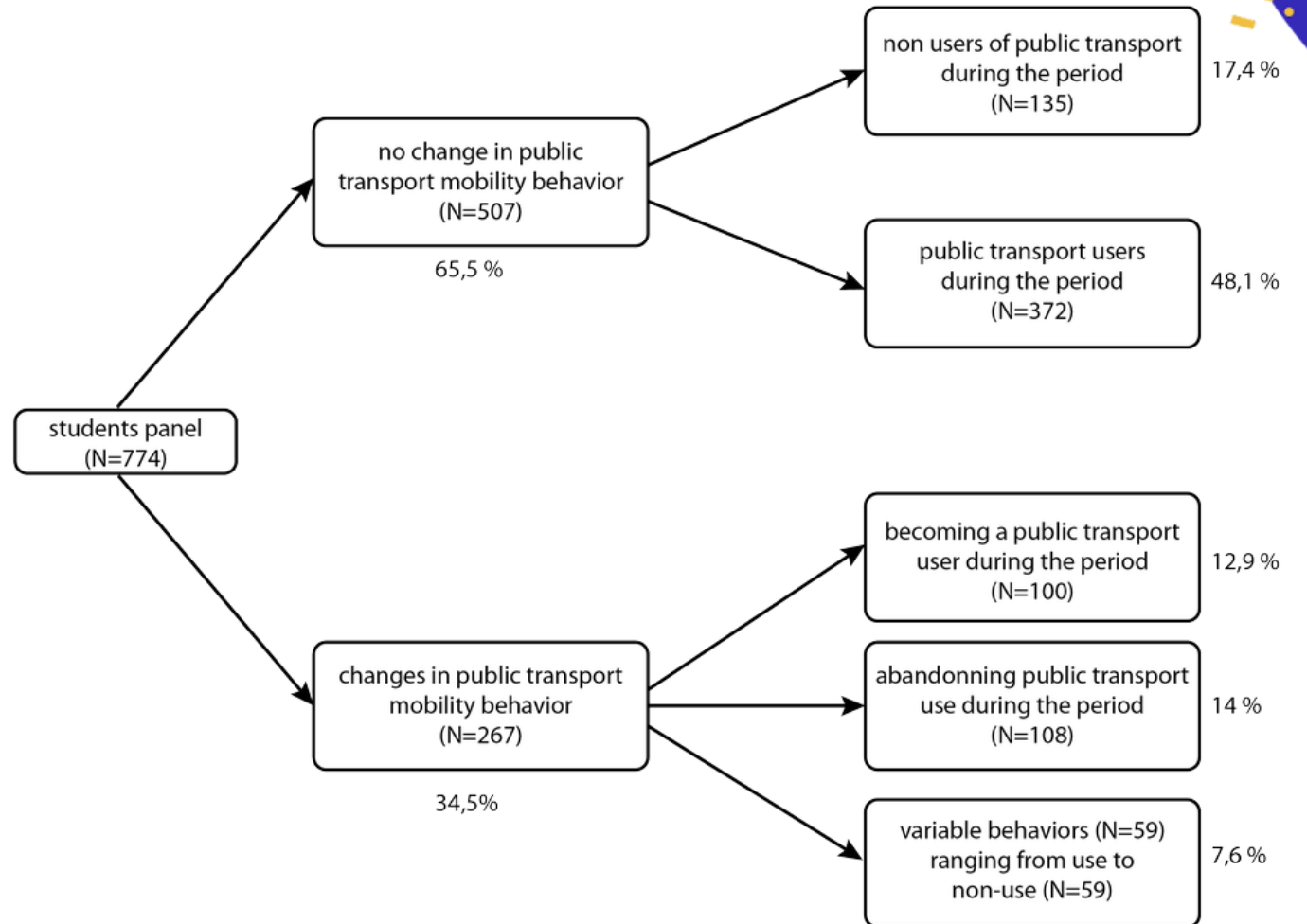
Main results : PT mobility of French students since the health crisis



Different mobility behaviors among French students

Since the outbreak of the health crisis in March 2020

- No change in the use of PT for 65% of students. In particular, 1 in 2 students have continued to use PT
- More than 1 in 3 students have changed their behavior:
 - 40% of them have given up the use of PT
 - 37% have become PT users



Main results : PT mobility of French students since the health crisis



- Students who have continued to use PT: **lower frequency** of use to be linked with **less travel** (travel restrictions, impact of full distance learning)
 - ➔ from a regular use to an occasional use of PT in 2021

N=774	January/March 2020	January/March 2021	April/June 2021
Regular use	46.3%	27.0%	33.3%
Occasional use	27.9%	40.3%	38.8%
No-use	25.8%	32.7%	27.9%

Main results : PT mobility of French students since the health crisis



How can we explain this typology of behaviors?

Main explanatory factors for the decrease of use of French PT



Disrupted travel conditions by PT

Adaptation of PT provision during the different waves of the pandemic
Travel restrictions, curfew, contamination of PT staff

The fear of contamination

Loss of trust in PT

Decline in PT use following the Covid19 pandemic in France

Less travel

- Closure of shops, sport gyms, bars and restaurants → notion of « essential » travel
- Decrease in work activity: short-time unemployment
- Closure/reopening of universities and educational establishments in degraded mode
- Implementation of telework: between compulsory and recommended telework

Change in habits

Modal shift (walking, cycling, car)

Main results : PT mobility of French students since the health crisis



Explaining the students' behaviors...

- For all students : main reasons declared to explain their PT use or no-use – Number of occurrences

N=774	Less travel to study place	No fear of contamination risk	Priority to walking	No alternative to PT use	PT price expensive	Fear of the health crisis	Modal change (personal choice)	Preference for cycling	Others
occurrences	52.8%	36.8%	36.7%	34.9%	26.1%	24.3%	18.0%	16.5%	17.2%

Less travel of French students to reach their place of study

- Closely linked to teaching measures: 88% of students concerned by distance learning courses



Main results : PT mobility of French students since the health crisis

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Change in travel habits of French students?

- Only 18% of occurrences but...
- Modal preferences expressed (walking, cycling) for this period: 53% of occurrences
- 36% of students have no alternative to using PT

Main results : PT mobility of French students since the health crisis



Explaining the students' behaviors...

- For all students : main reasons declared to explain their PT use or no-use – Number of occurrences (several possible answers per student)

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Fear of contamination ?

- The fear of contamination concerns 1 in 4 students VS 4 students in 10 are not afraid by the virus
- Overall, 39% of students did not include the "fear" or "non-fear" factor related to the health crisis in their arguments
- More than 1 in 2 students haven't avoided a mode of transport since the crisis

Main results : PT mobility of French students since the health crisis



When French students expressed their perspective on PT use for 2022...

- 55% of students intended to use PT in the 2021/2022 academic year = a declining proportion (68% in March 2020, 67% in June 2021)
- Main reasons to use PT: no modal alternative (58% of occurrences), level of PT services (speed, cheaper): 54% of occurrences and the health crisis? Only 5% of occurrences!
- Change in mobility behavior? Or change in population status?

31% of students would change their mobility behavior: between returning to PT use, becoming a PT user or abandoning PT :

- PT users in June 2021: 31% of them no longer intend to use PT
- Non users of PT in June 2021: 35% of them intend to use PT in 2022

And

Or

No more students in 2022 : looking for a job, entering working life,

- 29% of the students have reached the level of higher education corresponding to the French baccalaureate + 5 years of study

Conclusion



- Disruptions in PT mobility due to the pandemic among French students?
*A preponderant proportion of students have not changed their PT mobility behavior:
48% have continued to use them
17% have continued not to use them*
- Like other user profiles, impact of the French Government measures on the number of daily trips and on the decline in frequency of PT use
- The fear of contamination: not the main factor that explains the French students' behaviors
- Intention of using PT, even though the health crisis is still with us because of no alternative to PT service for most of French students
- Interest in continuing this research
 - Comparing these results with other profiles of people (active people, gender, seniors,...) and other places and countries
 - Assessing the longer-term effects of the health crisis: sustainable behavioral changes?



Thank you!

For more information

<https://www.cerema.fr/fr/innovation-recherche/recherche/equipes/umr-matris-mobilites-amenagement-transports-risques-societe>

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