



Anatomy of the Suburban Metropolis

Large Scale Commuting, Income Dynamics, and Social Discontent

Anatomie de la métropole périurbaine
*navettes domicile-travail, dynamiques des revenus
et mouvements sociaux*

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Comment la localisation des individus influence leur fortune ?

Motivation

- La concentration de l'activité dans les espaces métropolitains
- Un étalement urbain amplifié par la voiture individuelle
- L'émergence de mouvements sociaux en dehors des centres urbains

Principaux résultats

- Les réformes du marché du travail ont participé au **rattrapage des revenus les plus faibles** et des zones les moins denses
- L'amélioration des transports (voiture, RER) a causé la **concentration des emplois à la frange urbaine** et l'intégration des résidents au delà
- Si les individus substituent train et voiture selon leur temps de trajet ; **rails et routes sont complémentaires** dans l'organisation de la métropole
- De **nouvelles formes de protestation** sociale (GJ) sont davantage corrélées aux contraintes de transports, qu'avec les dynamiques de revenus
- Les réseaux sociaux ont favorisé l'organisation des blocages, ayant eux même **causé l'adhésion au mouvement en-ligne**.

Chapter 1: Inequality and Labor Earnings in France

with Francis KRAMARZ and Elio NIMIER-DAVID

Chapter 1: *Inequality and Labor Earnings in France*

How has labor income evolved over the past decades in France?

Motivation

- Major **labor market reforms**: *35 hours* and *minimum wage*
- Debates about the **redistribution** of economic outcome
- Disparities by **gender** and **places**

Method

- Matched Employer-Employee Data (DADS): individual level data 1991-2016
- Decomposition between hours worked and hourly wage
- Statistical approach: description of the earning distribution

Results

- **Part-time (women) employees** have benefited from 35h (higher h-wage)
- **Labor earnings inequality in France is low** and has been decreasing
 - .. mostly due to women earnings growth, in particular at the bottom
- There are strong differences across cities, and between urban and rural areas
 - .. however, we observe a **decline in spatial labor inequality** over time

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Chapter 2: Railway, Highway, and the Suburban Metropolis

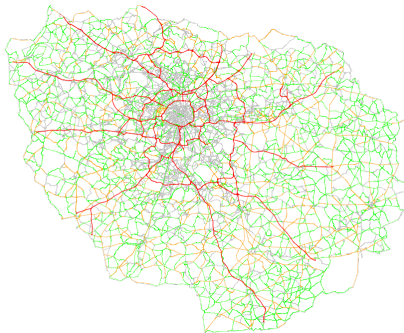
with Corentin TREVIEN

Paris' region transportation networks

Commuter-rail Network



Road Network



Left: Commuter-rail network, *RER* lines in colors; Suburban train (*Transilien*) lines in gray.

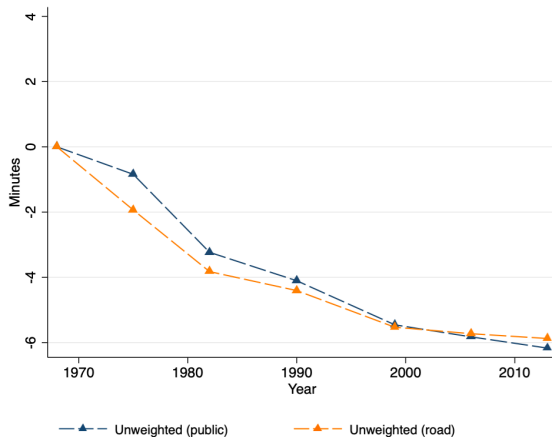
Right: Roads network, green:municipal, orange:department, red:national.

- ⇒ The *Regional Express Rail RER* runs over **587km** (365mi) of track,
- ⇒ The network of **Highway** runs over **605km** (376mi) with a.300 access ramps (nodes)

Motivating Fact

Evolution of travel time with car (orange) and public transport (blue)

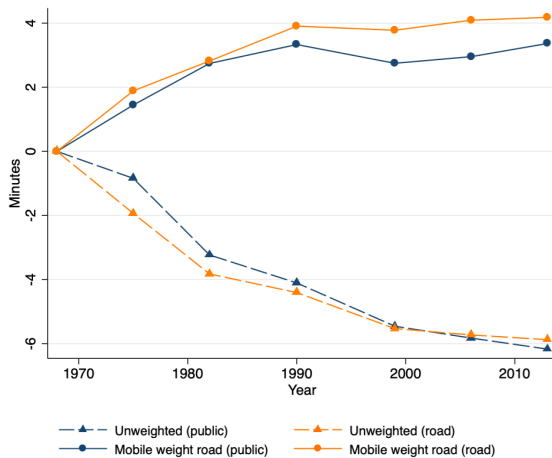
Any travel (*unweighted*)



Source: Census INSEE, Own calculation (IGN, STIF-IAU).

Motivating Fact

Evolution of travel time with car (orange) and public transport (blue)
Commuting (*weighted by commuters*)



→ *Paradox*: faster infrastructure, longer commute!

Chapter 2: Railway, Highway, and the Suburban Metropolis

How has the metropolis been suburbanized?

Methodology

- From individuals to cities: structural urban gravity
- Data collection: travel time and commuting flows
- Estimation: PPML with three-way fixed-effects

Results

- **Individuals substitute** between transportation modes to minimize commuting time
- **Rail and road are complement**, the first allows rapid access to the urban core, the second flexibility (e.g. suburbs-to-suburbs)
- **Peripheral urban nodes** (Massy, Cergy, ...) attract more jobs; when infrastructure length fosters the remoteness of residents

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Chapter 3: The Origins of the *Gilets jaunes*

Chapter 4: Mobilization without Consolidation

with Pierre BOYER, Germain GAUTHIER, Vincent ROLLET and Benoit SCHMUTZ

Online and Offline Mobilization

Timeline

May, 2018: Online petition against increasing gasoline prices

November 17th, 2018: Gilets jaunes protests in France

Slow decline of the movement over months

Specifics

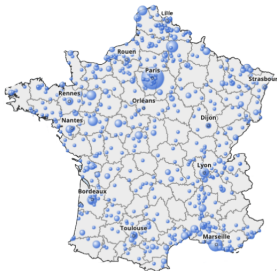
Decentralized, absent traditional intermediaries

Organized through social media, in particular Facebook

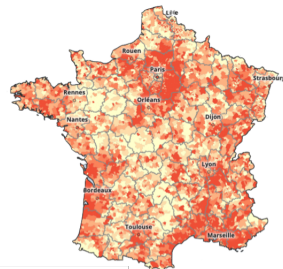
Blockades



Facebook groups

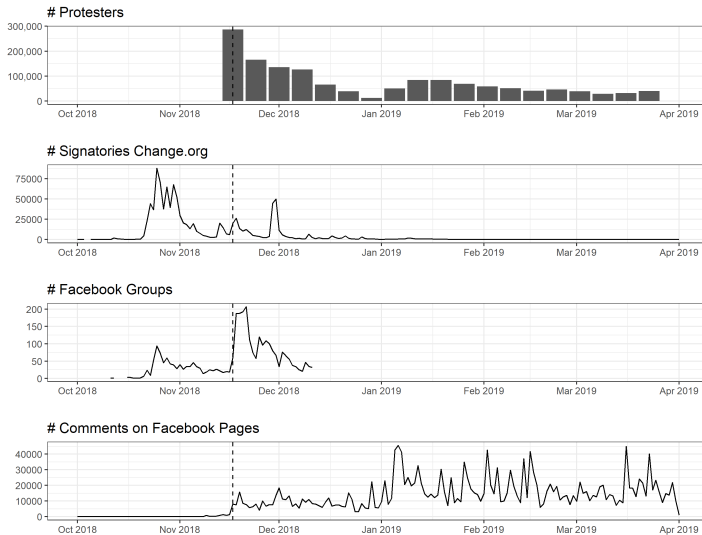


Signatures



Mobilizations dynamics

Figure: Evolution of the online and offline mobilization over time



Chapters 3 & 4: *Gilets jaunes* – Yellow Vests

How do social media affect the way protest movements unfold?

Motivation

- Growing online social movements: #metoo, #blacklivesmatter
- Large set of actions: online petition, windshield, blockades, Facebook
- Original territories of protests (roundabouts, *change.org*, Fb groups)

Results

- The location of protests correlates more with commuting-related variables than with labor-related ones
- Blockades were planned online, and then reinforced online activism
- Online discussions progressively shifted from practical demands toward more critical content .. with the attrition of the moderates and the radicalization of the others

PhD Thesis: *Anatomy of the Suburban Metropolis*

Academic Research

- *Inequality and Earnings Dynamics in France*
Accepted, *Quantitative Economics*
with Francis Kramarz and Elio Nimier-David
 - *Railway, Highway, and the Suburban Metropolis*
with Corentin Trevien
 - *The Determinants of the Yellow Vests*
Published, *Revue Economique*
with Pierre Boyer, Germain Gauthier, Vincent Rollet and Benoit Schmutz
- Mobilization without Consolidation*
R&R, *Journal of Politics*
with Pierre Boyer, Germain Gauthier, Vincent Rollet and Benoit Schmutz

Book

- *L'Emploi et le Territoire* (book)
Published, *Presses de Sciences Po*
with Francis Kramarz and Benoit Schmutz



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Appendix