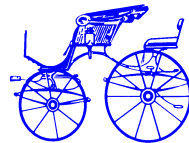




International Conference on Public Transport and Urban Citizenship, Dublin, sept., 21st

Social inequalities in access to cars and daily mobility: the French experience

Dr. Pascal Pochet, Dr. Jean-Pierre Nicolas
Transport Economics Laboratory

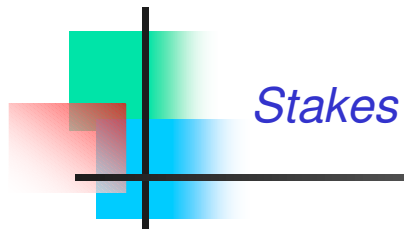


Ecole Nationale des Travaux Publics de l'Etat - Université Lyon 2 - CNRS



Presentation outline

- ✓ **Stakes**
- ✓ **Background of urban transport in France**
- ✓ **Which inequalities in daily mobility?**
- ✓ **Car dependency, motorisation and access to car**
- ✓ **What are the financial consequences for low income households?**
- ✓ **Conclusion**



Academic stakes

A **lack in knowledge** on mobility inequalities:

- The social dimension, 'poor relation' to sustainable mobility studies
- Various specific studies: social exclusion, deprived areas
- But few studies on inequalities relative to the whole population

Social stakes

To assure a **better equity** between citizens for the access to urban facilities:

- Job opportunities
- Services and shops of all nature
- Social relations & social inclusion

**→ What measurement of social inequalities
in urban daily mobility?**



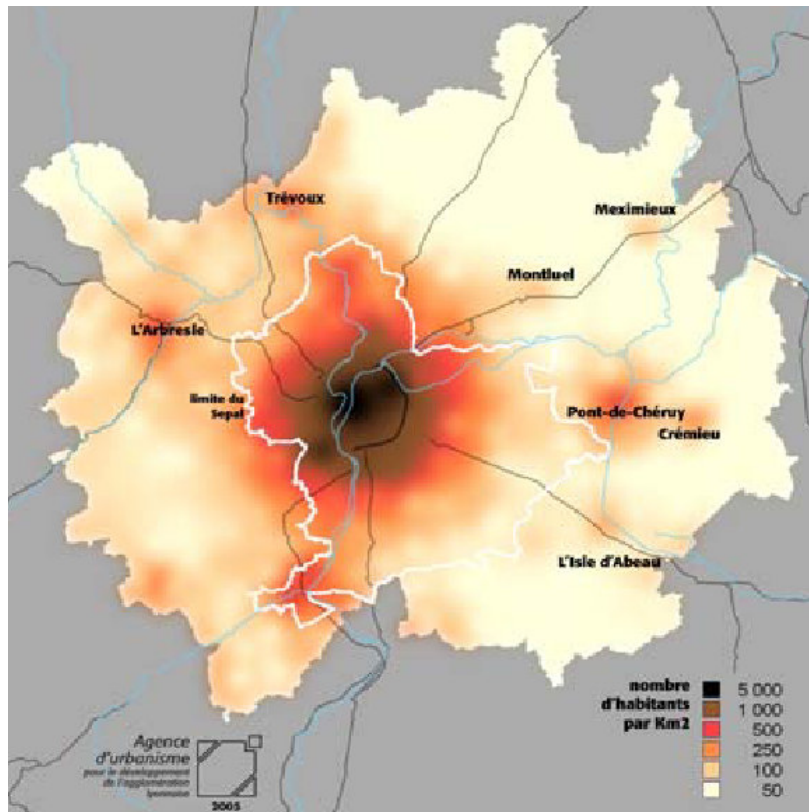
Background

✓ **Global trends for urban daily mobility in France**

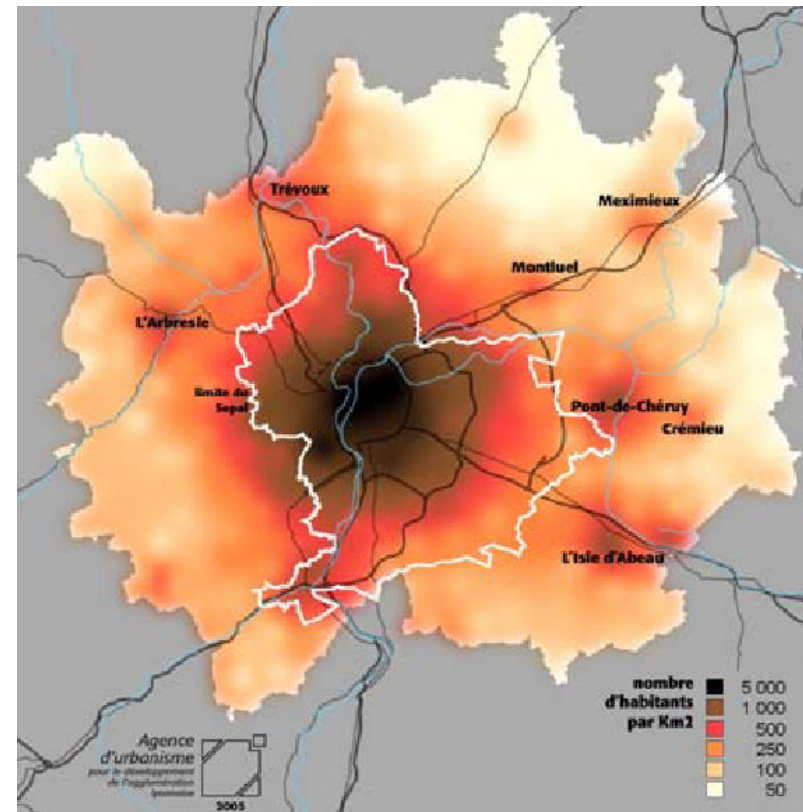
- in the 50's - 60's: all for the car, decline of PT urban networks
- in the mid 70's, the **renewal of public transport**:
 - payroll tax (*'versement transport'*) - public subsidies
 - ➔ new investments, increase in PT use
- 1982: 'right to transport' (*'droit au transport'*) written in the law
Reassertion of the social role of the public transport
- Also, in the last decades, **less positive change**
 - Continuation of unplanned, diffuse urban sprawl
 - Growing multi-motorisation of households
 - Continuation of investment in road capacity
 - Rise in real estate prices

Background: Lyon's urban area

✓ **Lyon: a diffuse urban sprawl**



1954: 930 000 inhabitants

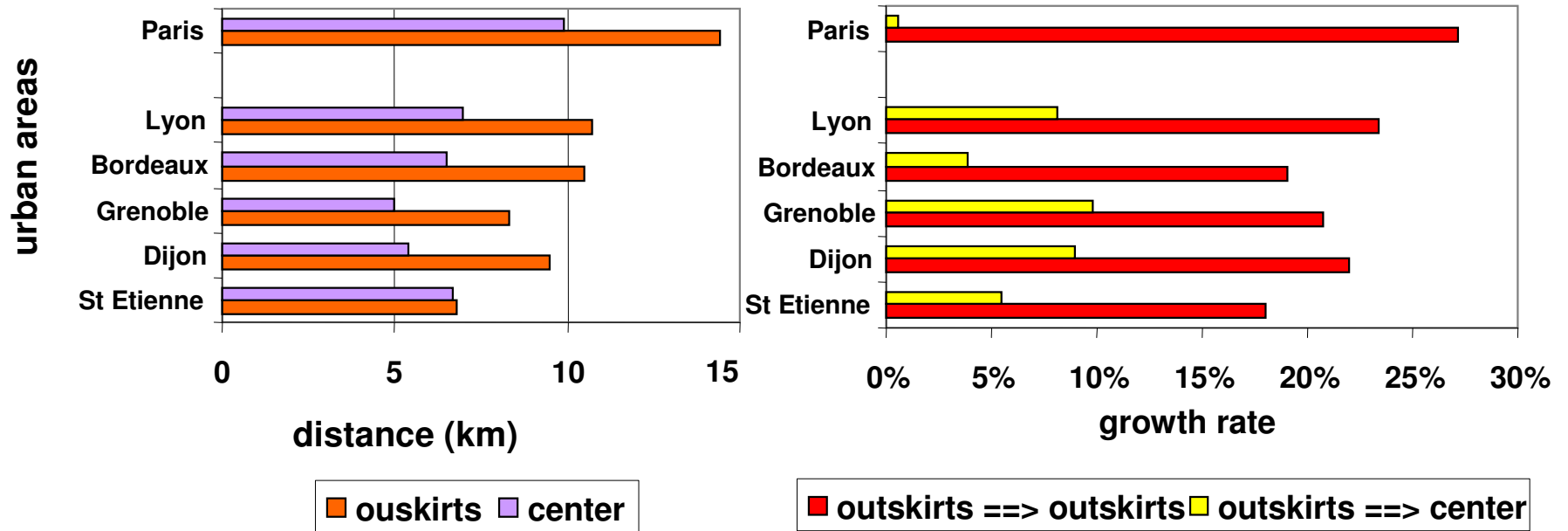


1999: 1 650 000 inhabitants

Source: Agence d'Urbanisme de Lyon, 2005

Background

✓ An increasing spatial dissociation between home and work, especially for non central locations of residence / work



Commuting distances in different urban areas, in 1999 census

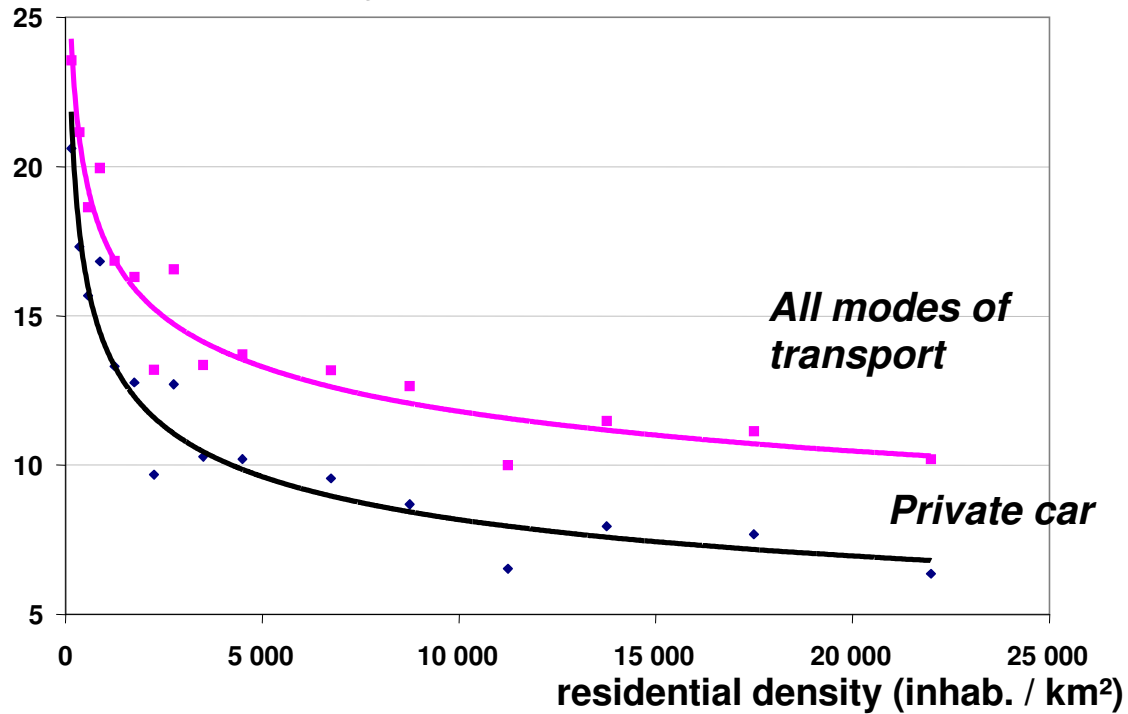
% of growth of commuting distances by spatial link in the outskirts (1990-1999)

Source: data from General Census, 1990 and 1999, taken from Mignot et al. 2004

Background

✓ Distances traveled decrease with density

km traveled on a weekday



Distances travelled per person during a weekday according to the residential density (Lyon)



Which inequalities in daily mobility?

- ✓ **Once access to car is assured, and to a given status (working population, housewives,...) few effects of income on mobility indexes,**

e. g. among population in employment:

Intensive daily use of car as a driver, high level of motorised mobility, similar (long) average daily distances

→ no differences by income group

	1 st income quintile (the poorest 20%)	5 th quintile (the richest 20%)
% living in the centre	30%	49%
Home to work distance	6.4 km	6.6 km
Number of daily trips	4.2	4.2
Daily distance covered	20 km	19 km
Travel time budget	70 mn	67 mn

Source: data from Lyon Household Travel Survey, 1995, in Paulo, 2006



Which inequalities in daily mobility?

- ✓ Among the persons who **do not** access to car, to a given status:
a strong 'income effect'

e. g. among population in employment:

Affluent households : non-motorisation seems to be chosen

→ a different situation when income is low

	1 st income quintile (the poorest 20%)	5 th quintile (the richest 20%)
% living in the centre	55%	84%
Home to work distance	4.9 km	3.4 km
Number of daily trips	2.7	3.8
Daily distance covered	10 km	9 km
Travel time budget	58 mn	67 mn



Which inequalities in daily mobility?

The usual access to car (driving) has become a social norm

This growing car dependency means strong social constraints

1. For those who **do not access to car**:

Less urban opportunities; more difficulties for moving in the city

2. For those who **cannot avoid motorisation**:

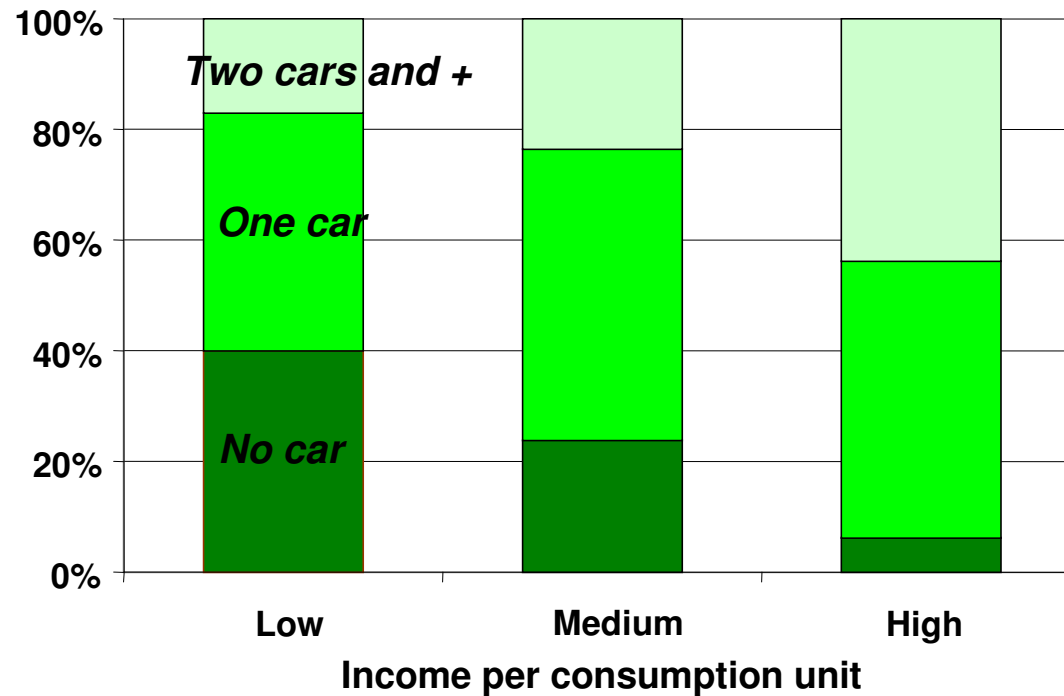
A financial weight, a pressure on other expenses

Two problems more difficult to solve in the outskirts

Motorization and access to cars

- ✓ **Motorisation keeps increasing, but still depends on household income**

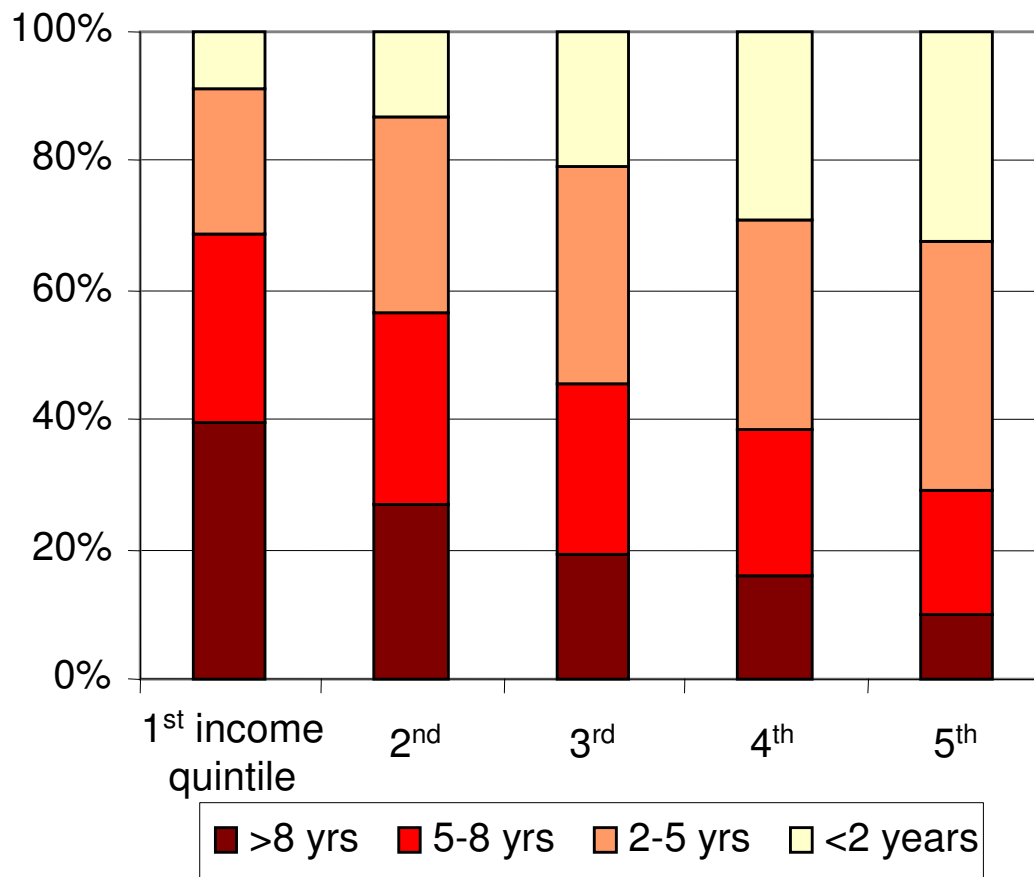
Number of cars per household



Number of cars by household income (Lyon)

Source: data from Lyon Household Travel Survey, 1995, in Nicolas et al., 2001

✓ Low income households own older vehicles

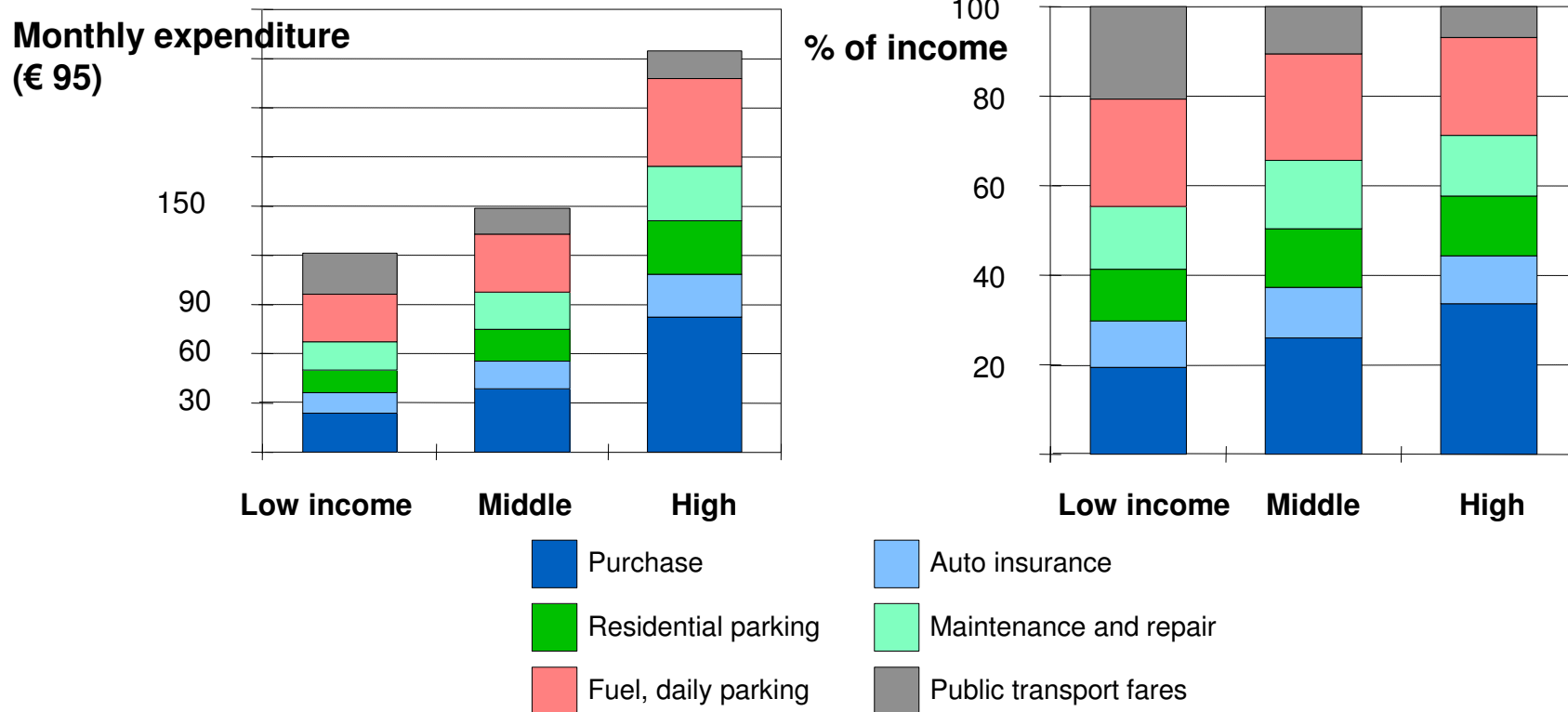


Age of household cars (Lyon)

Source: data from Lyon Household Travel Survey, 1995, in Paulo, 2006

The cost of mobility for the households

✓ Higher running costs (in % of the total) for low income groups

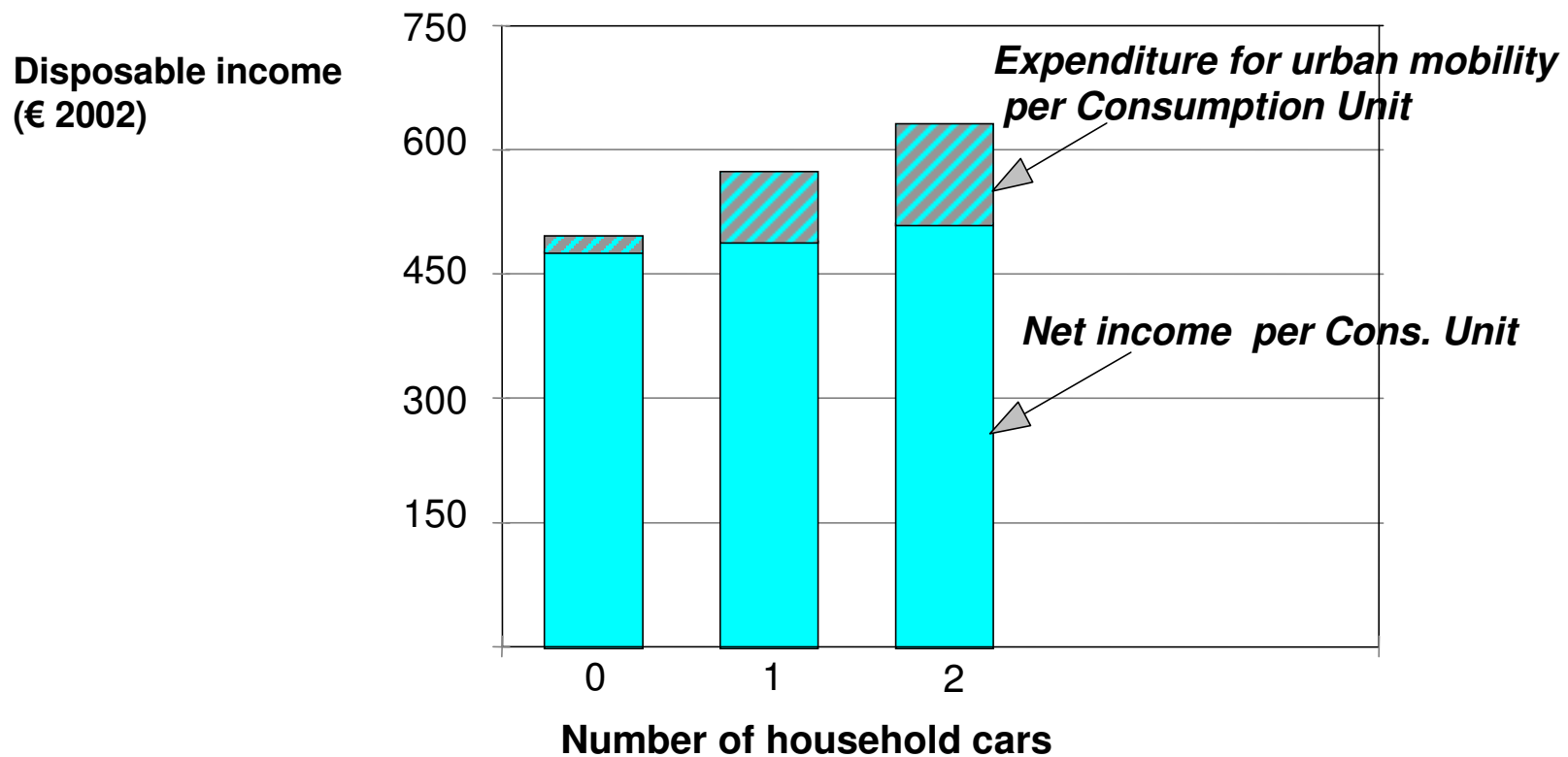


Structure of urban mobility expenses according to the household income (Lyon)

Source: data from Lyon Household Travel Survey, 1995, in Nicolas et al., 2001

The cost of mobility for the households

✓ **Owning a car, a priority investment for low income households**

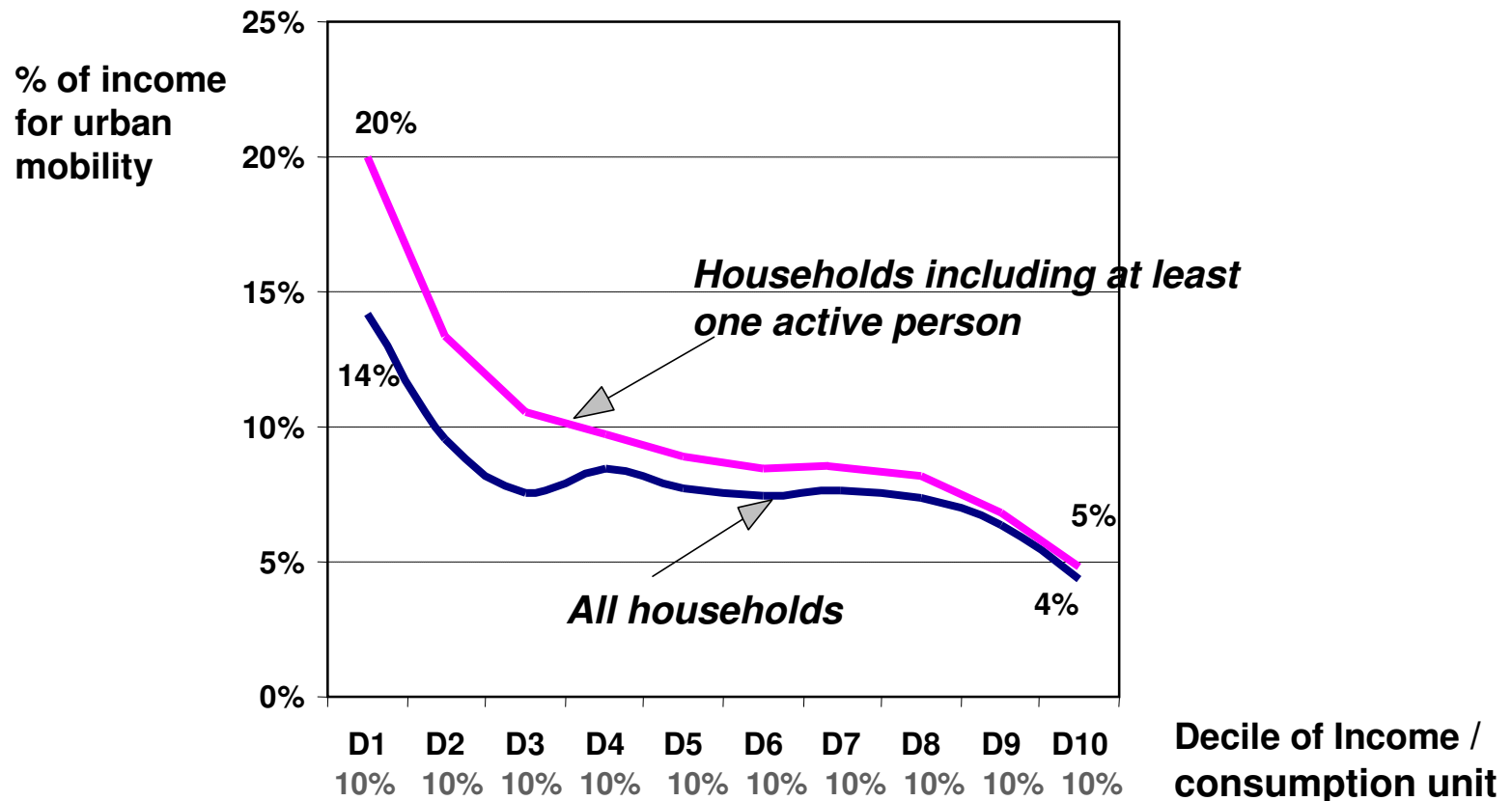


Focus on low income households: 'Net income' and travel expenditures by level of motorisation (Lyon)

Source: data from Lyon Household Travel Survey, 1995, in Nicolas et al., 2001

The cost of mobility for the households

✓ Very different financial burden according to income

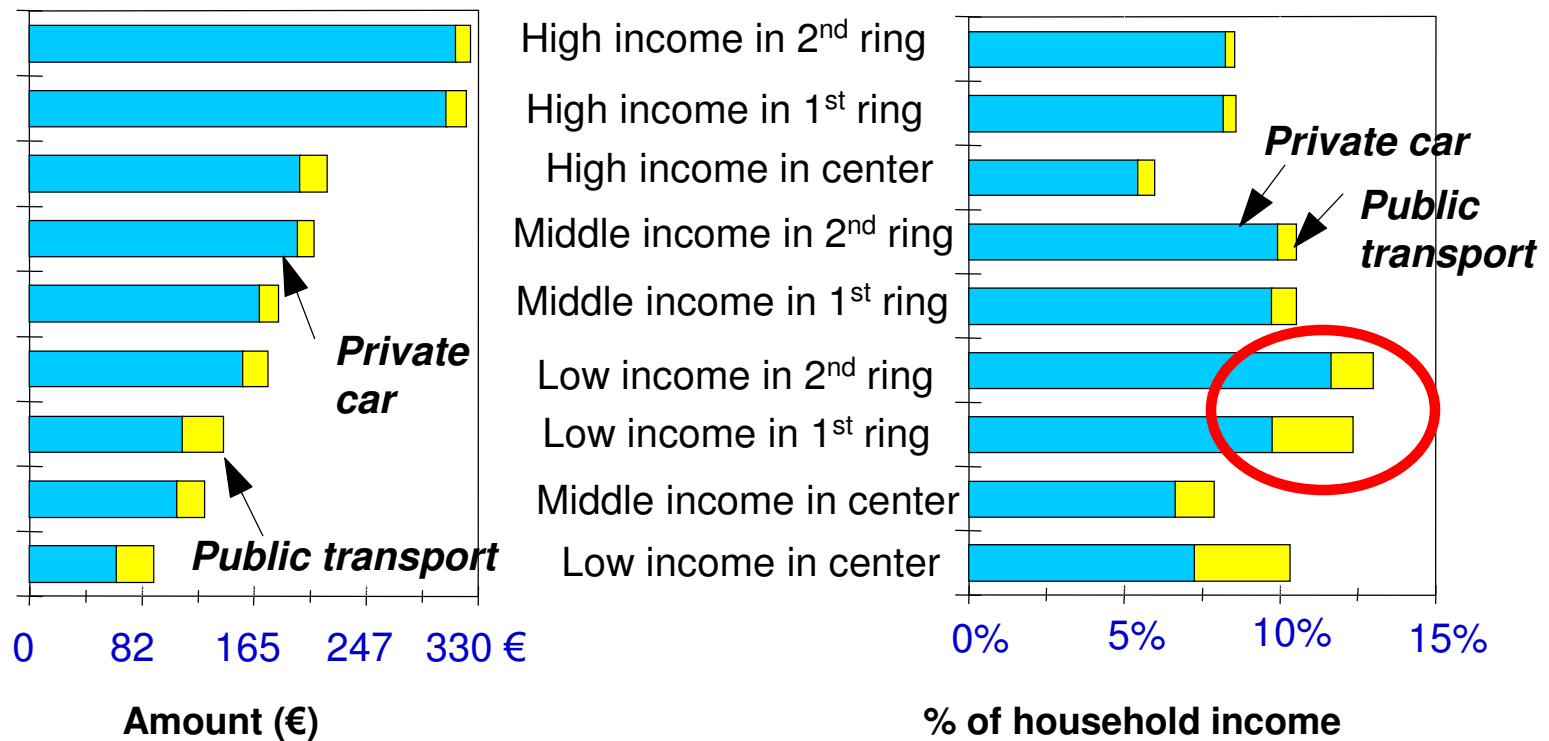


*% of income allocated to the urban mobility,
households ranked from the poorest to the richest (Lyon)*

Source: data from Lyon Household Travel Survey, 1995, in Paulo, 2006

The cost of mobility for the households

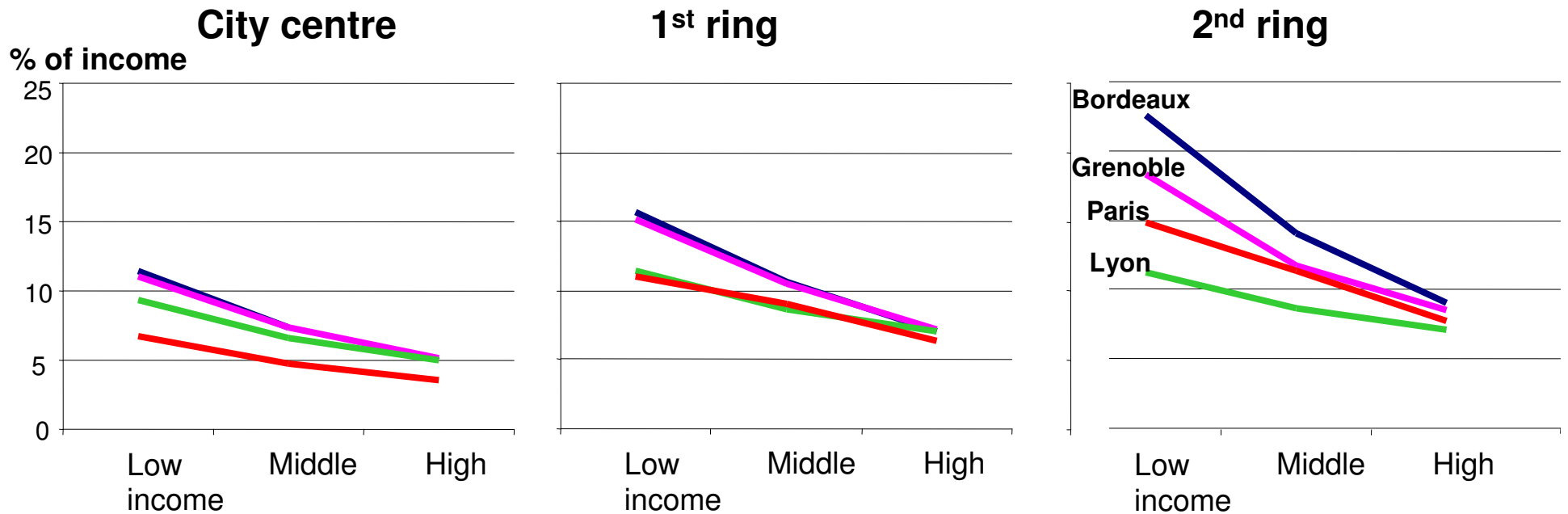
✓ **Urban mobility when income is low and home far from city center...: a high % of budget**



Source: data from Lyon Household Travel Survey, 1995, in Nicolas et al., 2001

The cost of mobility for the households

✓ **These results are not specific to Lyon's conurbation**



% of income allocated to urban mobility by household income in 4 urban areas:

- Bordeaux urban area 1998
- Grenoble urban area 2002
- Paris region 2002
- Lyon conurbation 1995

Source: data from Lyon Household Travel Survey, 1995, in Verry, forthcoming



Conclusion: how to make effective urban mobility for all?

✓ Different measures, depending of our appreciation of the situation

If the hypothesis is, anyway, past trends will continue...:

Urban sprawl, dissociation of urban functions, automobile dependence

- subsidized public transport is developed only in dense areas
- **a priority measure:** to facilitate access to car for low income households:

- *Unemployed: financial helps to get the driving licence*
- *Loan of a car for the first months when the job requires it,*
- *'Low cost' vehicles,*
- *Public subsidies for motorisation of low income groups...*

But this model is economically and socially fragile:

What will happen in case of increasing fuel prices?



Conclusion, how to make effective urban mobility for all?

But if there is the will to control urban evolutions:

No miracle solution,... but a set of long term, coordinated,
multi sectorial measures:

- **Urban planning:**
urban renewal with social housing policy,
diversity in the types of dwellings,
diversity of functions, proximity opportunities
urbanization of the suburbs
- **Transport:**
various modal alternatives to the car
reduction in the private advantages of the car



Related references of the Transport Economics Laboratory

Sorry, most are in French...

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- Verry D., forthcoming in 2008, *Développement durable et mobilité urbaine. Une mesure comparative sur quatre agglomérations françaises*, PhD thesis, Univ. Lyon 2.

Thank you for your attention
nicolas@entpe.fr pochet@entpe.fr