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Commuting and quality of life. The Italian case

Giampaolo NUVOLATI University of Milan
- Bicocca giampaolo.nuvolati@unimib.it

Abstract

Cities are nowadays characterized by the presence of a growing number of commuters. Commuting practices are increasing and transforming themselves in connection with changes in residential patterns, labor markets, transport facilities, household structure. Commuting toward the metropolis can generate a weakening of identity and linkages with the origin's community and within the family, a sense of risk in relation to criminality issues, health and psychological problems, transport costs. But commuting also contributes to improve economic conditions, job opportunities, cultural level of the individuals, to maintain a relationship with the social and environmental local context as well as with the large and fascinating city. The paper is therefore oriented to analyze, from a theoretical and empirical perspective, negative and positive aspects linked to commuting, and in particular to consider the relationships between quality of life and everyday travelling. Italian survey data will be analyzed. The hypothesis to be tested is that commuting is not only a problem but it is also a solution when positively combined with other dimensions of the life.

1. The increase of commuting practices in the world.

Cities are currently characterized by the presence of different resident and non-resident populations competing in the processes of accessing, controlling and using local resources and services (Nuvolati, 2003a). Therefore, communities are no longer stable and closed entities but interact daily with different populations coming from different places. In particular, in many metropolitan areas of the world, the number of commuters is constantly growing. Commuting trends are mainly the consequences of:

- increasing processes of sub-urbanization, general
- improvements in transport systems,
- difficulties in substituting physical relationships with virtual relationships through the diffusion of technological devices,
- lasting concentration of work opportunities in large urban center.

Commuting is a worldwide phenomenon (Tab. 1). In the world people go to work mainly using:

- public transport (especially in the Latin American Countries or the East European Countries)
 - car (especially in the more industrialized countries)
 - foot or bike (Africa and Asia Pacific)
- and, on the average, people spend around half an hour to arrive at the labor place.

Tab. 1 - Travel to go to work in cities (*)

	Time and means					Car owners x 1.000 (b)	Road expenditu res \$ (c)	Person/ hectare
	min.	car	pub. (a)	motor cycle	foot or bicycle			
Africa	37.3	11.8%	30.6%	8.4%	44.9%	32.4	5.82	146.0
LAC	36.6	25.2%	54.5%	2.0%	26.2%	101.1	15.36	149.8
Transitional	35.8	18.4%	63.5%	1.9%	19.4%	177.6	55.49	126.2
Asia Pacific	31.9	9.0%	29.0%	18.7%	38.4%	78.9	2.50	247.2
Arab States	31.9	27.4%	32.1%	4.3%	21.3%	63.3	32.65	252.0
Industrialized	25.0	54.9%	24.1%	2.2%	23.3%	423.5	115.67	82.4
Low HDI (d)	34.0	10.0%	22.5%	1.0%	43.2%	41.1	4.00	190.4
Medium HDI	39.0	18.4%	50.8%	9.5%	19.4%	78.6	32.00	158.5
High HDI	28.0	45.1%	31.7%	10.2%	18.7%	354.4	81.00	98.8
Very low CDI (e)	36.0	10.3%	32.6%	9.8%	48.8%	23.8	4.00	146.8
Low CDI	32.0	11.7%	28.2%	15.7%	44.0%	38.1	4.00	189.8
Medium CDI	38.0	15.4%	51.7%	3.8%	26.4%	58.7	9.00	211.1
High CDI	37.0	22.2%	45.5%	2.0%	19.9%	137.4	15.00	127.7
Very high CDI	31.0	50.4%	25.0%	3.5%	16.4%	356.5	107.00	74.5
(N=247)	34.4	21.9%	37.1%	8.2%	34.2%	144.6	32.69	154.0

Sources: UNCHS (Habitat) Global Urban Indicators Database, 1996

NOTES

(*) Indicators and data were collected for the urban agglomeration (defined as the built-up or densely populated area containing the city proper; suburbs, and continuously settled commuter areas); however, some data were collected at the metropolitan area level.

a - Work trips by public transports are the percentage of trips to work made by bus or minibus, train or tram. Buses or minibuses refer to road vehicles other than cars taking passengers on a fare-paying basis. Other means of transport such as taxi, ferry, rickshaw or animal are not included.

b - Defined as the ratio of automobiles to 1000 population. Automobiles in this case are taken to include all private motorized vehicles exclusively used for personal transport (including sedans used for business).

c - Defined as the per-capita expenditure in US dollars on roads (three years average). Expenditure includes capital and maintenance expenditure on all roads in the urban area, averaged in constant value terms over three years. Where some roads are built or managed by non-city authorities (i.e. national or state) the amount spent in the urban area is estimated.

d - Cities have been ranked using the Human Development Index of their country.

e - Cities have been ranked using the City Development Index.

In Italy, almost the half of the population (47% in 2001) commutes every day to go to work or to study. Commuting is more frequent in the North-Western regions of the country where large cities like, Milan, Turin and Genoa, and correspondent metropolitan areas are located. But also in the North Eastern regions, characterized by a thick networks of medium sized cities, the mobility is very high (Tab. 2).

Commune centre of the metropolitan area	12,8%	
Peripheral commune of the metropolitan area	54,5%	
Commune with more than 50.000 inhabitants	67,2%	
Commune with 10.001-50.000 inhabitants	53,5%	
Commune with 2.001-10.000 inhabitants	42,4%	
Commune with less than 2.000 inhabitants	22,9%	
North-West	50,6%	
North-East	45,7%	
Centre	33,3%	
South	34,9%	
Islands	30,1%	
Italy	40,4%	46,8%

Source: Istat, Indagine multiscopo sulle famiglie, Survey, 1998

Source: Istat, Census, 2001

Students with more than 14 years mainly use tram, bus and coach to go to school. Of course, if we consider all the students, included pupils with less than 14 years, the percentage of students that go to school with their relatives by feet or by car increases. On the other side, workers clearly prefer to go to work by car (around 2/3). Results based on Survey (1995, 1998) or Census data (2001) are not easily comparable. However, in 2001 only 9% of the people (workers and students together) uses public transport. 59% need 15 min. to go to work or to school; 13,6% from half to one hour; 3,4% more than one hour (Tab. 3).

	Students (more than 14 years old)			Workers		
	1995	1998	2001*	1995	1998	2001
Mean						
By feet	15,0	14,9	25,9	13,7	13,3	11,4
Train	15,9	14,8	30,3	2,3	2,6	9,2
Tram-bus	22,9	23,0		4,9	5,3	
Metro	4,3	6,0		1,7	2,3	
Coach	26,7	29,3		3,3	3,4	
Car driver	10,6	10,6	7,6	65,0	66,5	66,3
Car (passenger)	13,2	13,6	29,9	6,2	6,0	4,8
Motorcycle	8,0	9,6	7,6	4,0	4,6	5,1
Bicycle	3,4	2,9	2,5	3,3	2,6	3,2
Time						
till 15 min	31,8	29,7		50,9	48,3	58,8
16-30 min.	29,5	29,8		24,1	24,7	24,8
31-60 min.	15,2	13,3		7,6	6,9	13,0
more than 60 min.	18,2	19,6		6,1	7,2	3,4
time variable	4,2	7,0		10,0	12,2	n. a.
non answering	1,1	0,6		1,2	0,7	n. a.
* all the students						
** all the students and the workers						
n. a. not available						
Source: Istat, Indagine multiscopo sulle famiglie, Survey, 1998						
Istat, Census, 2001						

2. The evolution of commuting.

Commuting practices deeply changes during the last decades. The transformation from a fordist to a post-fordist phase, the diffusion of technological personal devices and the flexibility of the working time schedules, caused a general betterment in commuting. An increasing number of commuters, at least in the more advanced countries, work in the tertiary or quaternary sector, change often their work destination, can also tele-work at home for some days a month, have and use time-consuming and time-saving instruments when travelling (Tab. 4).

Fordist period	Post-fordist period
- Industrial sector	- Tertiary, quaternary and creative sector
- Fixed working time schedules	- Flexible time
- Daily travels	- Possibility to work at home
- Commuting all the labor life	- Commuting for a period of the labor life
- One travel destination	- More travel destinations
- Public transport	- Private, public or mixed transport
- Low quality of the means of transport (frequency, time, heating, cleanliness)	- Better quality (but not optimum)

Of course, not all the problems relating to the transport are solved. As the next table shows, commuters' opinions about travel means (train in particular) are still often negative (Tab. 5). What is changing is not really the infrastructure system in which individual move, but the capacity of the individual to deal with specific problems, to develop a strategy in order to combine and solve several needs (like: identity, income, labor, family relationships, transport, leisure and consuming). In particular, these issues are nowadays framed through different places and according to different mobility patterns scattered on the territory.

Crowding	76 %
Information	74 %
Cleanness	70 %
Regularity	69 %
Air conditioning	52 %
Safety	48 %
Courtesy	39 %
General evaluation	71 %
% of commuters' train with delay (more than 10 min.)	
	Milan Rome
2002	21,5 % 24,7 %
2003	26,1 % 35,7 %
2004	46,7 % 57,5 %
Source: Altroconsumo, Indagine sul pendolarismo, Survey, 2004 on a sample of commuters and trains in Milan, Rome, Naples	

Today, commuting practices linked to alternative work activities and living styles show an increasing segmentation. In particular, we can distinguish between different types of commuters according to the following variables: place of residence, family composition, type of job, moving frequency, mean and time (Tab. 6).

by place of residence	forced by gentrification vs. free choice oriented toward new towns vs. native residence
by family composition	single vs. couple vs. couple with children
by type of job	workers vs. clerks vs. managers or self- employees
by frequency	everyday vs. some days a week
by means	private vs. public
by time (go and return)	less than 1 hour vs. more than 1 hours vs. more than 2 hours

Place of residence, in particular, refers to different life choices, more or less forced. As a matter of fact people can decide to commute:

because a process of gentrification make for them impossible to continue to live close to the place where they work, and they are forced to transfer in the periphery or in the hinterland, because they freely decide to go live in a town, maybe well equipped and immersed in a nice environment, but far away from the place where they work,

because they grown up and continue to live in a city that is not close to the place where they work, but with whom they are strongly identified.

These three models are, of course, fundamental in shaping the level of attachment of the people with different locations, their determination to commute, their quality and style of life. But also the other mentioned dimensions strongly contribute to create different patterns of mobility and adaptability. The composition and organization of the family, the type of labor, the possibility of a relatively short travel, the reliability of the means, public or private, makes commuting routines more or less different and tolerable.

3. Commuting and quality of life

Commuting practices present positive and negative aspects strongly influencing the quality of life of the population. On one side, commuting means travel costs, waste of time, weakness of identity, health problems, exposition to criminality. But, on the other side, commuting means also higher earnings, opportunities in a more advanced environment and, therefore, possibility to develop new social and cultural relationships (Tab. 7).

Negative aspects	Positive aspects
- Travel costs	- High wage earned in the destination city and low life cost in the origin city
- Travelling time	- Activities during travels (computing, phoning, reading news paper, chatting)
- Weaker identity and relationships with the local community	- Opportunity to change contexts and to meet people - Cultural and job opportunities
- Exposition to the criminality - Health problems - Psychological problems - stress	- Improvement of information and communication sources

Research findings show that quality of life is normally higher in the small and medium sized cities than in the large one (Nuvolati, 2003b). But the paradox we are dealing with here is the following. How can residents of these communities enjoy the living conditions if they commute every day toward another city? The answer is that quality of life of the commuters is different from the quality of life of the more stable residents, but such a quality of life could be even better if commuters are able to exploit the positive aspects of commuting. The morphological configuration and the cultural tradition of Italy are elements that contribute to reinforce commuting practices. In particular, the scattered urbanization process based on a multi-cephalic pattern, the reduced distances between cities, the strong identity with local community, make commuting an accepted and diffused activities. The well know process named voting by feet, in analyzing the quality of life of the city, based on the territorial re-distribution of the residents, is not very well applicable for the Italian case as for the Anglo Saxon countries (Tiebout, 1956, Findlay A Rogerson 1991, Douglas e Wall, 1993). People prefer to live in the city where they are born and commute.

A survey performed in 1996 show very small differences in the overall quality of life perception by several demographic and social variables, including mean of transport to go to work (Tab. 8). Also people using the train and therefore travelling for many minutes each day present a high level of satisfaction. On the other side, not all the people that go to work by feet are satisfied about their quality of life. The occupation (employed vs. unemployed) seems to be the strongest predictor. But inside workers the level of satisfaction is high quite stable.

Sex	Education	Transport to go to work	
male	82,5 no school	78,5 car	84,8
female	82,4 elementary school	81,3 train	84,2
Age	secondary school 1	83,0 bus	82,9
15-24 years	83,0 secondary school 2	83,9 bike	88,6
24-34	83,7 university degree	84,3 feet	79,4
35-44	78,7 Area		
45-54	79,7 North-West	86,1	
55-64	79,2 North-East	85,5	
over 64	88,9 Centre	84,3	
Occupation	South	77,1	
entrepreneur/self employed	85,5 Community		
clerk/teacher	83,8 rural commune	84,6	
worker/farmer	84,7 small town	82,2	
housewife	80,8 medium city	81,4	
retired	86,0 large city	79,9	
student	83,2		
unemployed	53,6 Total (all the sample)	82,4	
Source: Abacus, Barometro sociale, Survey, 1996, national sample 3.561 cases			

Commuters are oriented to gain an equilibrated compensation between economic and familiar issues by playing a double role in the origin as well in the destination city. Lewis Mumford (1938) pointed out that the city has three main functions: to guarantee the individual identity, to improve experience, to generate civiness. Nowadays, such functions find solution in relation to a set of different cities that the individuals mix with. In Italy, in particular the strong attachment and identity with the origin places makes commuting very useful in order to maintain everyday contacts with local communities and, at the same time, to take advantage of resources and opportunities available in the large centers. According to the above presented survey, people also think that the improvement of communication and transport tools is more important (76,2%) than the development of tele-working opportunities (23,8%) for the betterment of quality of life. Moreover, several of them would even accept to lengthen the travel in order to maintain their actual working and residential condition (Tab. 9).

rural commune	14,7
small town	20,9
medium city	25,6
large city	23,5
Source: Abacus, Barometro sociale, Survey, 1996, national sample 3.561 cases	

More recent survey - performed in 2002 within a research project financed by the Italian Ministry of the University and Research (MIUR) and based on 9 samples of medium sized cities (7.246 cases) located in the metropolitan areas of Turin (Alessandria, Asti, Rivoli), Milan (Monza, Sesto San Giovanni), Naples (*Caserta*, Torre del Greco) and in a southern conurbation of Italy (Cosenza, Rende) - confirm the above presented data. Different times and means of transport for commuting to go to work or to school do not generate very different level of satisfaction for several concerns (Tab. 10). Only satisfaction for health and leisure seem to be slightly lower in comparison with other groups. Economic condition is even improved by long-run commuters (> 60 min.) without compromising social relationships. Therefore, commuters earning money in the core of the metropolitan area and living, consuming and paying taxes in their own towns - where the cost of living is often lower - present a privileged condition when compared with other groups, also from a fiscal point of view. For these and other reasons many large cities are considering to charge commuters (Shields and Shideler, 2003) for example introducing new systems of road pricing.

Dear Ruut,

I send you:

the text of the question in table 8 (A)

the text of the question in table 10 (B)

For the question A, I send you the distribution of data

(Source: Abacus, *Barometro sociale*, 1996, national sample 3.561 cases)

For the question B, I send you the distribution of data

(Source: MIUR-Cofin, *La qualità della vita nelle città medie*, 2002, 9 cities samples, 7.240 cases) All the best Giampaolo.

A) Nel complesso, come giudica la Sua qualità della vita?

- 1 Molto soddisfacente
- 2 Abbastanza soddisfacente
- 3 Poco soddisfacente
- 4 Per nulla soddisfacente
- 5 Non sa

B) Tenendo conto di tutto, Lei nel complesso è soddisfatto, abbastanza soddisfatto o per niente soddisfatto della vita che conduce?

- 1 Soddisfatto
- 2 Abbastanza soddisfatto
- 3 Per niente soddisfatto
- 4 Non sa

A

Giudizio su propria qualità della vita

		Frequenza	Percentuale	Percentuale valida	Percentuale cumulata
Validi	molto sodd	289	8,1	8,3	8,3
	abb sodd	2597	72,9	74,2	82,5
	poco sodd	563	15,8	16,1	98,6
	per nulla sodd	50	1,4	1,4	100,0
	Totale	3499	98,3	100,0	
Mancanti	Mancante di sistema	62	1,7		
Totale		3561	100,0		

Si ritiene soddisfatto della vita che conduce?

		Frequenza	Percentuale	Percentuale valida	Percentuale cumulata
Validi	Soddisfatto	2736	37,8	38,1	38,1
	Abbastanza soddisfatto	4063	56,1	56,6	94,7
	Per niente soddisfatto	383	5,3	5,3	100,0
	Totale	7182	99,2	100,0	
Mancanti	Non sa	58	,8		
Totale		7240	100,0		

Tab. 10 - % very or enough satisfied for different concerns by commuting time							
commuting time (min.)	0-5	6-15	16-30	31-60	>60	variable	total
	(19,9)	(32,9)	(23,9)	(14,1)	(4,5)	(4,7)	(100,0)
economic conditions	77,3	73,0	74,7	77,5	82,1	71,3	75,2
health	90,6	90,6	91,4	90,7	88,6	86,9	90,5
family relationships	95,7	96,0	96,2	94,2	95,3	93,7	95,6
friends relationships	95,6	95,6	94,1	95,5	94,6	92,5	95,0
him/herself	92,3	92,5	90,2	92,4	92,3	93,2	91,9
leisure	63,1	67,9	67,8	67,3	61,7	64,6	67,8
life in general	96,4	96,7	97,4	96,8	97,0	94,9	96,7

Source: CATI - University of Milan Bicocca and University of Calabria, 2002. MIUR 2001-2003.
Quota samples: Total 7.200 cases

Concluding, commuters show a positive perception of their quality of life. Of course data have been controlled for a set of socioeconomic variables (gender, age, education, occupation) in order to avoid misinterpretation linked to the characteristics of the commuters. However, not relevant differences are emerging between short-run and long-run workers or students, excluding a slight higher percentage of women, young, not-married, medium educated people and clerks in the long-run commuters.

4. Conclusion: commuting in a turbulent world.

Many studies confirm that technology could be a complement and not a substitute for face-to-face interaction (Sridhar and Sridhar, 2003). The number of workers and students that everyday commute is increasing and many problems are linked to these mobility practices in terms of wasted resources like money, time, social capital. The poetry of Jeffrey Weitzman in Internet (see annex I) is quite realistic: commuting is still a tiring and sometime sad performance. Moreover, New York, 11 of September, 2002 and Madrid, 11 of March 2004 are terrible dates for the entire world but especially for the commuters that were and are daily exposed to terrorist attacks. Other several negative situations like improvised strikes, black out, earthquake and so on seem to be more problematic for people that intensively use public transport and that cannot easily join their family in their home when they want during the day. The perception of the risk linked to mobility practices can contribute to reduce our sense of quiet and serenity and sometimes a more fatalistic approach is not sufficient to attenuate the state of alert and preoccupation. Italian researchers also point out negative relationships between commuting and health conditions: physical and mental. More precisely, commuting is not the main cause of health diseases but contribute to worsen them (Istituto italiano di medicina sociale, 1986).

Despite these issues, studies show also that commuters, at least in some countries like Italy, do not have a negative perception of their life in general and about related concerns. When displayed, the will of commuters to stop to travel to go to work is probably linked to specific activities, working conditions and life cycle. But in any case it is not absolute. In particular, survey data collected at local level (Universita Cattolica di Piacenza, Indagine sui pendolari piacentini, 2004) show that male, more than 45 years old, self-employed or high level manager - probably people at the top of their career and with lower problems in terms of family and child care - are less interested in findings a job closer to their residence. Their effort in commuting is still compensated by the quality of job and opportunities offered by the large city. We do not even know if people that decide to live in the city where they daily go to work and therefore that stop to commute are more satisfied about their new overall condition. We do not even know if people that find a job in their own origin town and therefore stop to commute are more satisfied about their new overall condition. Public administrators and economic actors are nowadays dealing with this dilemma: its is better to improve local working opportunities or public transport connections? Many elements have to be carefully examined in order to define a strategy and