Resident and Non-resident Populations: Quality of Life, Mobility and Time Policies

Giampaolo Nuvolati

Abstract. Cities are currently characterized by the presence of different populations: inhabitants, commuters, city users, tourists, and metropolitan businessmen, competing in the processes of accessing, controlling, and using resources and services. Local communities are no longer stable and closed entities but interact constantly with different populations coming from different places. Therefore, in order to study quality of life, problems and opportunities in the communities must be analyzed considering the daily flows of people using resources and services located in the city. The article has four main goals: 1) to point out the presence of different populations living, working and consuming in the city; 2) to underline a set of conflicts related to the spatial concentration of resident and non-resident populations; 3) to propose an analytical model able to combine different levels of data in relation to different populations in order to study the quality of life in a community; and 4) to focus on time policies as innovative instruments for managing urban complexity using mobility data.

1. Introduction

Community quality of life indicators are normally based on statistical information about the living conditions of residents in terms of micro data collected through surveys or macro data produced by official sources. But in many cases community should be considered as the result of a combination and integration of the needs, expectations, and behaviors of inhabitants, commuters, city users, tourists, and metropolitan businessmen (Martinotti, 1993; Nuvolati, 2002). Each of these groups presents different attitudes in the performance of activities and the use of services in the city ranging from a large and intensive utilization of the city made by inhabitants and commuters to the more fragmented and seasonal passages of tourists and businessmen (Table 1).

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Table 1. Definition of resident and non-resident populations by some variables

<table>
<thead>
<tr>
<th>Populations</th>
<th>Activities performed</th>
<th>Utilization of resources and services by population</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Living</td>
<td>Working</td>
</tr>
<tr>
<td>Inhabitants</td>
<td>Yes</td>
<td>Yes/ No</td>
</tr>
<tr>
<td>Commuters*</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Daily or weekend city users**</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Seasonal Tourists</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Businessmen***</td>
<td>No</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Frequency: type of periodicity in using the city and its resources and services
Completeness: number and type of services utilized

* workers or students
** go to the city for shopping, medical visits, cultural or leisure activities, personal relationships, etc.
*** go to the city for fairs, congresses, meetings, etc.


The awareness of having several populations working and using the city community has not stimulated innovative methodological approaches in the tradition of community indicators. Sawicki (2002), for example, in his very recent review of the types of data to be used in community indicators systems, points out the importance of spatial data (GIS) and place data (indicators about local infrastructures) in community analysis; even if linkages between these data and different kinds of populations entering and consuming in the city are missing. Currently, the quality of public services has to be evaluated through analysis of the variations of populations and their demands. In general, Craglia et al. (2003) observe that:

"A great number of indicators can be used in order to describe the services of a city. The most important domains relating to this issue are commerce, education, culture, entertainment, hotel and restaurant business as well as health care. For each of these areas different variables can be measured to give a description of the services available in a city (see Andranovich & Riposa 1993; Lineberry 1984; Mendenso 1986) such as:
Given that it is normal practice to consider the range of services in relation to the served population, the following question inevitably arises: which population is supplied? The range of services reaches far beyond the administrative boundaries of the cities: not only the city but also a whole region is often supplied. If the analysis focuses exclusively on the urban population, the supraregional supply function of the city results in an over-estimation of the quality of service, and hence quality of life, available to the resident population. The higher the attractiveness of the range of services and the larger the catchment area, the greater the degree of over-estimation.

If we adopt a time perspective we can easily argue that the space in which the community is located is daily or seasonally populated by different groups coming from different places and staying for different quantities of time during the day. Quite often transients spend time and use city services in more extensive ways than residents do, especially when residents work in another city. Neighborhoods are therefore characterized by cycles of daily land use that determine change in the urban ecological structure. Today these changes are strongly related to different combinations of resident and non-resident populations.

Also from a quantitative point of view the amount of in-comers seems to widely compensate for the number of out-going residents – see Figure 1 regarding the case of Milan, Italy – thus necessitating that catchment areas be defined by function in order to properly analyze the quality of life in a community.

In other words, since many quality of life indicators are still based on the ratio between number of service units and inhabitants, new measures have to be developed which take into account the number of real or potential users of such services.

In the contemporary city, the evolution of patterns of work, mobility and consumption toward a more geographically articulated use of services is quite evident, although not for all activities. A recent Italian study (Boffi and Nuvolati, 2002) regarding the city of Milan shows that the behaviors of commuters and residents in consuming and using services are overlapping,
becoming more and more similar: in particular the use of a large set of services during the lunch break (Table 2). Of course this finding is less true for non-replaceable services like register offices or health services and more true for the more replaceable ones like post offices and shops. Nevertheless, the profiles of these two populations are converging, making it more difficult to distinguish between the practices and life styles of residents and non-residents. In general, data show that transients are becoming part of new enlarged and adaptable communities also based on an increasing number of in and out population flows.

**Figure 1.** Daily and nightly population in the Province of Milan (percentage of variation). Source: My elaboration of istat, Census, Roma, 1991 (Boffi and Nuvolati, 2002).
Table 2. Activities performed during the lunch break (*) - % of total

<table>
<thead>
<tr>
<th>Activity areas</th>
<th>Residents</th>
<th>Commuters</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>banks</td>
<td>66.8</td>
<td>53.5</td>
<td>64.5</td>
</tr>
<tr>
<td>post offices</td>
<td>62.0</td>
<td>54.1</td>
<td>60.6</td>
</tr>
<tr>
<td>register offices (**)</td>
<td>41.8</td>
<td>10.9</td>
<td>36.4</td>
</tr>
<tr>
<td>shops</td>
<td>11.9</td>
<td>15.1</td>
<td>12.6</td>
</tr>
<tr>
<td>foodstuffs shops</td>
<td>11.1</td>
<td>12.6</td>
<td>11.4</td>
</tr>
<tr>
<td>barbers</td>
<td>8.7</td>
<td>8.4</td>
<td>8.7</td>
</tr>
<tr>
<td>fitness centers</td>
<td>4.4</td>
<td>7.1</td>
<td>5.1</td>
</tr>
<tr>
<td>social relations</td>
<td>1.1</td>
<td>3.2</td>
<td>1.5</td>
</tr>
</tbody>
</table>

* workers having schedule w/lunch-break
** and others like health services, and so on.

Source: my elaboration of data collected by the Dept. of Sociology – University of Milan Bicocca – Province of Milan, 1998 (Boffi and Nuvolati, 2002: 127)

People are also increasingly oriented to develop multiple patterns of identity and attachment in relation to the spatial distribution of life opportunities and activities (Bonaiuto & Bonnes, 2002). In fact, post-fordist living and labor styles are characterized by a less intensive relationship with one single place (that of origin) and by a more articulated set of weak linkages with several places (those of destination). Obviously, as pointed out by several authors: Pahl (1968), Seamon (1979), Walmsley & Lewis (1984), even in a society where mobility is increasing, the human need to belong to a specific community is not disappearing. Individuals are still able to differentiate their feelings in relation to different localities and through hierarchical models in which personal attachments play an important role. However, Georg Simmel's (1909) well-known theory of the multiplication of social circles is currently, especially in geographical terms, more and more meaningful. People tend to interact within a wider spectrum of contexts and therefore physical and symbolic boundaries become unstable.

In the past, commuters -- mainly workers in the industrial sectors -- went into the city just for work and they performed consumption activities in their places of origin during the evening and on the weekend or according to the traditional division of roles inside the family (Figure 2a). Today many of them, male and female, are employed in the tertiary sector -- above all in the core of metropolitan areas -- and tend to articulate and distribute their everyday practices on a larger set of spatial opportunities, in different moments, according to their more flexible time schedules (Figure 2b). The increasing mobility of the population for different motives is also changing the shape of our cities generating urban continua outlined by mobility patterns (Figure 2c). Ville à la carte (Chalas, 1997) is the term used to interpret the modern megalopolis as the product of the propensity of the individuals to use services and resources that are geographically widely distributed. The ville à la carte, or ville aux choix, offers people increasing freedom to design their own
life spaces and interpersonal relations not necessarily linked to defined administrative bounders.

Figure 2a. Industrialization phase: metropolis as a place of production for commuters.

Contemporary society, especially in urban areas, is therefore characterized by deep changes in terms of community features and dimensions. These transformations are based on the concept of community without propinquity (Webber, 1963) and the idea of a pervasive technological communication system able to reduce the space-time friction, but they are also grounded on the concept of community with hyper-propinquity. Indeed, cities are still the place where people from different origins concentrate and where population flows and density strongly influence the urban quality of life. Lynch (1976) and Goodchild and Janelle (1984) had already depicted cities according to the cycles of daily land use. In combining spatial and temporal variables they were able to categorize urban sub-areas and therefore to contribute to the study of the quality of life in these neighborhoods.
More recently, and from a more theoretical point of view, Amin and Thrift (2002) confirm how transitivity and rhythms of the city are coordinates through which inhabitants and visitors order and frame their urban experience. The porosity of the community in combining needs and behaviors of resident and non-resident populations becomes crucial in determining living conditions and the concentration and flows of populations can be considered as dimensions through which the communities themselves can be defined.

2. Conflicts between Populations

The morphology of the city, the limited amount of resources available, the problematic accessibility of the services generate conflicts in the short as well as in the long-run between populations with different status, culture, and mobility but all concentrating in the same places.

Five types of struggle, more or less explicit, can be depicted (Table 3).

The first regards the struggle for the occupation of space. Actually, the teriarization process of some central quarters promoted by multinational
enterprises and the invasion of the same or other prestigious neighborhoods by the so-called international iper-bourgeoisie (Marceau, 1989; Castells, 1996; Duclos, 1999; Martinotti, 1999) are generating in many cities a process of gentrification of some areas and the consequent marginalization of the expelled residents. Effects of the disenfranchisement of the local community are linked to the phenomena of space occupation. As Martinotti (1999: 169-170) points out:

“Local governments are elected by residents, but the economic interests of the metropolis area are increasingly dependent on a population not politically accountable from the point of view of the city itself. The issue has to be raised: What is the basis of citizenship in the new metropolis? There is considerable discussion of the social exclusion of the poorer strata of the population including the more marginalized groups of newcomers. The inhabitants of a city, however, might well suffer a particular form of exclusion as their territory is invaded by the new transient populations of consumers.”

<table>
<thead>
<tr>
<th>Conflicts</th>
<th>Objects of the conflicts</th>
<th>Problems</th>
<th>Reactions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spatial</td>
<td>conflicts related to the occupation of the space</td>
<td>tertiariization, gentrification, disenfranchisement, cost of living</td>
<td>re-qualification of the poor neighborhoods</td>
</tr>
</tbody>
</table>
| Accessibility   | conflicts related to physical accessibility of the services and resources | density, traffic, pollution                | improvements of the infrastructure system, time policies safeguarding of the local culture, improving of face to face relationships development of the local economy and welfare, training, participation |}

Public policies oriented to the upgrading of central neighborhoods and to the safeguarding of the old function and population of selected areas constitute quite diffused forms of reaction. For example, several European UDPs (Urban Development Programs) like Urban I and II (Mingione and Nuvolati, 2003), are heading in this direction as they aim to revitalize the
central historic neighborhoods of cities without driving away low income families.

The second conflict is related to the concept of accessibility in terms of traffic congestion and pollution in the use of available resources and services. To contend with negative situations local communities and governments have often implemented two different actions: the hard ones in terms of the improvement and betterment of infrastructures, and the soft ones in terms of the development of time policies. Time policies are very useful instruments aimed at improving living standards in the local community with the specific objective of integrating the individual needs of the resident and non-resident populations, with the time schedule of public and private services. Several administrative practices of time policy implementation have been built up over the last decade in many European cities, Italian in particular. (Bonfiglioli, 1997).

But, in order to solve problems linked to the increasing mobility of people, innovative procedures for accessing services have been defined also considering technological devices and individual competence. Information and Communication Technologies (ICT) are now so widespread that they affect every aspect of our everyday life. Working, shopping, travelling, banking, receiving services from our local council, going to the hospital or to the cinema are all activities that involve contact with ICT to a greater or lesser extent (Craglia et al., 2003).

The third point regards the cultural conflict, mainly between residents and transients, and is, above all, connected to the safeguarding of local identity and culture in reaction to the standardization of life styles and the disembedding of the human relationships more or less explicitly formed by predominant global models (Giddens, 1990; Bauman, 1998). In the 1990s, in the context of postmodernism in architecture, several practices aimed at preserving the urban scene had been promoted. This school stresses and encourages fragmentation, urban mosaics and the colorfulness of cultural difference as aspects that improve the urban quality of life (Harvey 1989, Leontidou 1993, Ellin 1996). But cultural conflicts also concern a set of questions linked to the process of immigrant integration. Many European cities are nowadays characterized by new and widespread phenomena of migration, especially from African and Western countries which produce several problems in terms of social and cultural inclusion and cohesion.

Another conflict is more socioeconomic and concerns the growing polarization of the population in modern global cities (Sassen, 1991) where the presence of low-wage workers, especially in the service sector (restaurants and bars, commerce, leisure) is functional to the permanence and livelihood of the local upper class but also to the already mentioned internationaliperbourgeoisie. New stratification cannot be analyzed and interpreted only at the level of the local community. As a matter of fact, the origin of the polariza-
tion is often exogenous to the community. Strategies to avoid large disparities and social exclusion regard the improvement of the local economy and the welfare system, the development of vocational training activities and new forms of social participation for the more disadvantaged groups, immigrants included.

Finally the last type of conflict is the fiscal one, the so called spillover problem, and it is related to the taxes paid by the inhabitants to the local municipality in order to create or maintain a set of services used also by the transient populations. Many solutions have been adopted in order to balance the fiscal contribution. In some cities - like London or Venice - special fees for visitors entering the city by car or using public transports are foreseen.

Of course, all of these aspects are very controversial. Residents and non-residents are not always in conflict and several positive effects are produced by the concentration of populations in the city in terms of economic, social, and cultural progress for residents also. Many local economies, especially in tourist and business cities or neighborhoods, are based on the presence of visitors. Sometimes inhabitants are the weak actors of the play, sometimes they coincide with the strong side, especially if we include immigrants in the transient populations. In this paper the typology of populations has been simplified. Immigrants, whether they live in the city or travel to the city for a variety of reasons have been included within the categories of inhabitants, commuters or city users, even if they probably correspond to the more fragile segments of these populations.

In general, given that modern society, and in particular the urban context, are strongly influenced by the mobility and conflicts of different types of population, the concept of community also needs to be revisited. Is community exclusively based on territorial, historical, and cultural issues linked to a specific place? Is community only formed by its stable inhabitants? Or is community the result of a combination of several populations using the same services, even if at different points in time during the day and coming from different places? As far as we increasingly distribute our time and activities in different contexts are we still part of only one community or more than one? It is not easy to answer these questions, but two aspects seem to be quite clear. First, in order to study the living conditions in a community we cannot avoid analyzing the stock of human resources and services available not only in relation to residents but also to potential external users. Second, the quality of life in the community has to be conceptualized considering not only the availability of resources and services, but also reflecting on the real accessibility and usability of such resources and services, in terms of time, knowledge, and competence achieved by the individuals in dealing with urban congestion and complexity. According to Sen (1993) an approach based on the functionings and capabilities of the individuals in accessing and using the resources seems to be more appropriate than one simply grounded on the availability of commodities and services in the city.
From a methodological point of view it is necessary to combine the classic indicators of quality of life with new measures about the daily or seasonal level of exposition and integration of the local community in relation to other populations. New indicators should reflect the imbalance between residents and non-residents in using local and finite resources.

3. Indicators

The conceptualization of the quality of life in terms of the negotiation of conflicts and the regulation of flows in using the city is crucial, and a new list of concerns and indicators able to combine information about resident and non-resident populations -- commuters, city users, tourists, and metropolitan businessmen -- is needed in order to analyze different types of problems. The operationalization of these concepts in terms of the definition and construction of indicators is, however, quite difficult. In some countries, the obsolete organization of the statistical system makes it very difficult to collect data and to construct social indicators for catchment areas or even for metropolitan areas. Data on specific domains are either missing or not systematically collected. In particular, to capture and analyze the size and the behaviors of the non-resident populations is a very hard task especially if their passages in the city are irregular. Nevertheless, in the following proposal some concerns and indicators (objective and subjective) are proposed in order to study the quality of life in a community combining information about different kinds of populations and trying also to focus on the puzzling issues linked to the presence of these groups in the city (Table 4).

Concerns or data/ indicators are divided in three sections. The first set of thematic areas regards the main socioeconomic characteristics of the community. No indicators are reported here because there is an almost infinite number of indicators (objective and subjective) on these topics available in the literature. The second set of data concerns the description of inhabitants, commuters, city users, tourists, and businessmen in terms of their mobility, consumption, and staying practices. In the future, a more regular collection of these data will be crucial in order to analyze the composition of the community in different points in time and according to different functions. The final aim will be to obtain reliable statistical pictures of the city as a dynamic habitat, presenting different proportions between users (internal and external) and resources or services in different moments. Such an approach should determine a shift from (1) to (2) in computing quality of life indicators.

\[(US / R) \times 1,000\]  

where:
US = units of services (beds in hospital, policemen, performances in theatre, and so on)
R = residents

\[
\left[ \frac{\text{US}_{a1t1}}{(\text{R}_{a1t1} - \text{RN}_{a1t1} + \text{NR}_{a1t1})} \right] \times 1,000
\]

(2)

where:
\( \text{US}_{a1t1} \) = units of services (beds in hospital, bus, performances in theatre, and so on) in area 1 at time 1
\( \text{R}_{a1t1} \) = residents users of \( \text{US}_{a1t1} \)
\( \text{RN}_{a1t1} \) = residents non-users of \( \text{US}_{a1t1} \)
\( \text{NR}_{a1t1} \) = non-residents users of \( \text{US}_{a1t1} \)

The last section of the grid is aimed at measuring in objective and subjective terms the level of conflict between residents and non-residents. This section also concerns the spatial and economic accessibility of the services as a proxy dimension of the concentration in the city of different populations. Of course not all of the issues outlined in this section are the consequence of the presence of transient people in the city nor are they the source of conflicts. Nevertheless, the indicators constitute starting points in the analysis of the relationship between residents and transients.

In general, community quality of life indicators should not rely only on the characteristics of the inhabitants, but they need to be more focused on the interactions between spatially distributed sub-communities. Sociology, starting from the Chicago School in the 1920s, has strongly developed community studies and research based on the analysis of the socioeconomic, cultural, and ethnic characteristics of inhabitants. With mobility as a constitutive element of modern forms of disparity, social exclusion and lifestyle, new paradigms for defining community have to be adopted. These should be able to conceive of communities referring to a more dynamic framework. In particular, the boundaries of the community are to be identified not only in spatial terms: neighborhoods, city, metropolitan, and catchment areas; but also considering temporal patterns as key elements in defining the shape and the daily variation and composition of a community (Parkes & Thrift, 1980). According to this approach, the issues of openness and accessibility of cities and individuals (Dijst et al., 2002), becomes crucial for the theoretical foundation of community quality of life indicators.

In measuring non-resident populations, many problems are still unsolved, at least for the Italian case. It remains very difficult for example, to count exactly how many visitors are daily present in the city to verify what kind of services they use and to discover the time in which these are being used (Nuvolati, 2003). In fact, data about time of utilization of services are rarely registered or available for statistical analysis. Moreover, ecological
data about users hardly report their geographical origin making it difficult to distinguish between residents and non-residents. Only data about commuters (workers and students), collected through the Census, and data about tourists spending at least one night in a hotel, are available. Other types of data, especially about city users are still missing. Many micro data regarding living styles and consumption practices of the metropolitan populations are currently available, but this information does not always possess locational attributes, like addresses or latitude-longitude measurements.

Recently, Istat (Italian National Statistical Office) has developed new strategies, mainly based on surveys, for hunting mobile populations, and several studies have been performed at the local level in order to analyze the presence of visitors in the city. Much of this research is contributing to the rationalization of the system of time schedules in the city and to the improvement of public policies.

4. Public Policy Implications: Time Policies as an Innovative Sector

Cities are places where complexity displays its most evident and controversial features in terms of opportunities and externalities, conflicts and cohesion/participation between inhabitants and visitors. The spread of cities at the metropolitan and regional level makes it more difficult for local administration to develop urban policies oriented to reduce complexity and to solve the problems of citizenship. Time policies have been recognized as very useful instruments to improve living standards in communities. Such policies are based on a preliminary analysis of the spatial mobility and time use of the populations and on the time schedule regimes in the public and private sector. In view of the transformation of the cities and their governance, there is presently an urgent need to draw up theoretical and empirical typologies of the use of time and space based on the sociological attributes of resident and non-resident populations.

Some administrative experience of time policy implementation in cities has been built up over the last decade in many European countries, and in Italy in particular (Bonfiglioli and Mareggi 1997). Urban time policies started in Italy at the beginning of the 1990s within the framework of public administrative reform. New legislation gave mayors the power to co-ordinate public service timetables, with the aim of revising the schedules to meet the users’ needs. This action, in turn, led to a change in the time schedules regulating human relationships at the city level. Since then, several municipalities in Italy have been implementing time policies, sometimes within the overall framework of regional regulation. In particular, many municipalities have set up the so-called Ufficio Tempi with the task of implementing the Time Regu-
lation Plan (P.R.O., Piano Regolatore degli Orari) (Paolucci, 1998; Mareggi, 2000). PRO is an instrument aimed to promote:

- a new organization of the daily working hours and of the yearly time schedules;
- an increasing mobility of different population groups;
- new ways of combining work, use of services and care.

In particular time policies in Italy have been developing according to two main logics of intervention, often positively overlapping:

- the model of users, emphasizing differences in gender or life cycle and oriented to generate a friendlier and more human city in which work time and care time can be easily combined;
- the model of collective services, which focuses on the quality of services for a more efficient city, also considering different patterns of mobility of the populations.

As Bonfiglioli (1997: 13) points out, originally public interventions on city times concerned the redesigning of time tables for public services or commercial activities. Today these interventions work within a framework aimed at a qualitative transformation of public services towards higher urban quality.

In order to develop such an approach much data has been collected and mapped by local municipalities, not only about the inhabitants of the population, but also about commuters, city users, and businessmen. In particular, several surveys have examined the socioeconomic characteristics of the people using services in different moments and coming from different places in order to outline the mobility patterns of different groups of the population and to verify their level of satisfaction with the quality and the time schedules of services. The results have been combined with other data about services for planning new time regimes.

5. Conclusion

New urban morphology can be conceived of as the progressive differentiation of four main populations that impinge on cities today: inhabitants, commuters, city users, and businessmen. Currently the quality of life in local communities is strongly related to the presence of these different populations in the city. In general, non-residents can be considered as important resources for local socioeconomic development but they also are sources of conflict. Neighborhoods change rapidly during the day according to their prevalent functions, availability of services, and effective users, determining changes in the urban ecological structure. In order to capture and evaluate these situations, a new system of indicators has to be devised. In particular,
this system has to be oriented toward the analysis of the size and characteristics of the inhabitant, commuter, city user, and businessmen populations working and consuming in the city and their possible, more or less latent, struggles. This approach asks for new statistical information spatially and temporally determined that should allow planners to evaluate the range of catchment areas (where users come from) and their rhythm (when they use the area). Even if in many countries such data are not now systematically collected, many efforts, especially at the local level, have been carried out in order to measure resident and non-resident populations and their needs. In Italy, these attempts have mainly been devoted to supporting public policies in the time sector. Italy, characterized by medium sized and historic cities marked by recent and deep transformations in terms of mobility flows, has a strong tradition in this field. In particular, during the last decade local municipalities supported many surveys that studied the mobility patterns of individuals in the city as well as their satisfaction with the set of available services.

References

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