RE-READING URBANIZATION EXPERIENCE OF ISTANBUL; THROUGH CHANGING RESIDENTIAL MOBILITY BEHAVIOUR OF HOUSEHOLDS

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ABSTRACT

RE-READING URBANIZATION EXPERIENCE OF ISTANBUL; THROUGH CHANGING RESIDENTIAL MOBILITY BEHAVIOUR OF HOUSEHOLDS

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In 2000 more than one fifth of Istanbul's population lived in a different place than their place of residence five years ago. If we consider that the 2000 population of Istanbul was around some 9.2 million, this figure means that nearly 2 million people were not living in 2000 where they used to live in 1995. Of these two million mobiles, more than half (11.5% of total) were intra-urban movers who moved from one district to another in Istanbul in the same period. Changing the place of residence can be seen as one of the major sources of changing in the socio-spatial composition of a city. In the case of Istanbul, intra-urban mobility or Residential Mobility is the major process that redistributes people in the city since the 1990s. In simplistic words, Residential Mobility is one of the fundamental decision making process which in turn is influenced by macro processes of economic, social and demographic changes in urban setting of a city which are also the determinants of urbanization, and the urban setting of a city is an outcome of mobility decisions of households at

the aggregate level. In this regard, this study on residential mobility behaviours of households in Istanbul presents an avenue to further our understanding of the urbanization experience of Istanbul. In the broader context, this study focusses on the period between 1980 and 2000. It is well-known that the post-1980 period shows quite different urbanization setting from the former ones in terms of demographic, economic, political and socio-spatial settings in the world, as well as in Turkey. Within this backdrop, changing characteristics of population as that of economic structure provides unique backdrop to explore how residential mobility changes in metropolitan areas. Moreover, this study is an attempt to reach clear understanding of residential mobility which is one of the poorly understood and studied dynamics of Turkish urbanization.

Key words: Residential Mobility, Neighbourhood Change, Urban Social Geography, Housing, Urbanization

ÖZ

HANEHALKLARININ DEĞİŞEN KONUT HAREKETLİLİĞİ ÜZERİNDEN İSTANBUL KENTLEŞMESİNİN YENİDEN OKUNMASI

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2000 yılı İstanbul nüfusunun beşte birinden fazlası beş yıl önce yaşadığı yerden başka bir yerde yaşamaktadır. İstanbul'un 2000 yılı nüfusunun yaklaşık olarak 9,2 milyon olduğu kabul edildiğinde, bu yaklaşık 2 milyon kişinin 1995 ve 2000 yılları arasında oturdukları yeri değiştirmiş olduğu anlamına gelmektedir. Bu iki milyon kişinin yarısından fazlasını (toplamın %11,5'i) İstanbul'un ilçelerinden birinde bulunan konut alanından yine İstanbul içinde fakat başka bir ilçede bulunan konut alanına göç edenler -kent içi hareketliler- oluşturmaktadır. İnsanların bir konut alanından başka bir konut alanına doğru hareket etmesi, başka bir değişle kent içi hareketlilik, kentlerin sosyo-mekânsal kompozisyonunu şekillendiren en önemli süreçlerden biri olarak görülmektedir. Bu anlamda, kentleşme dinamikleri ile kent içi yer değiştirme arasında sıkı ve birbirini besleyen bir ilişki olduğu çok açıktır. Ne var ki Türkiye kentleşmesi üzerine yapılan çok az sayıda çalışmada nüfusun kent-içi hareketlilik süreçlerine değinilmiştir. Bu anlamda, 1980-2000 dönemini kapsayan ve İstanbul kenti özelinde yapılan bu çalışma önemli bir açığı kapatır niteliktedir. Bilindiği gibi, 1980 sonrası dönem demografik, ekonomik, politik ve mekânsal

anlamda önceki dönemlerden dikkate değer bir şekilde ayrılmaktadır. Türkiye'de yaşanan bu hızlı yeniden yapılanma süreçlerinin tüm boyutlarının incelenmesinde İstanbul kenti benzersiz bir laboratuvardır. Kentin sosyo-mekânsal yapısında yaşanan bu dönüşümler, hane halklarının kent içi yer değiştirme dinamikleri üzerine çalışmak için ise benzersiz bir olanak sağlamaktadır. Fakat burada belirtmem gerekir ki, bu tez sadece İstanbul'da 1985-1990 ve 1995-2000 dönemlerinde hane halklarının kent içi hareketlerini incelemeyi değil, bu noktadan hareketle Türkiye kentleşmesine dair de söz söyleme hakkına sahip olmayı hedeflemektedir.

Anahtar Kelimeler: Kent-içi hareketlilik, Sosyal Coğrafya, Kentsel Değişim/Dönüşüm, Kentleşme

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RM	Residential Mobility
HDA	Housing Development Agency

CHAPTER 1

INTRODUCTION

In 2000 more than one fifth of Istanbul's population lived in a different place than their place of residence five years ago. If we consider that the 2000 population of Istanbul was around some 9.2 million, this figure means that nearly 2 million people were not living in 2000 where they used to live in 1995. Of these 2 million "mobiles" nearly half (9.5% of the total) were migrants coming from a different city. The remaining 1 million inhabitants of Istanbul moved in the 5-year period between 1995 and 2000 from one district to another.[1] In other words, the percentage of intra-urban mobile people (hereafter "movers") in total population of Istanbul was approximately 11.5% in 2000. Although we do not have data for those who changed their house within the same district, the figures available refer to a massive mobility of people at any measure.

Changing the place of residence can be seen as a major source of the changes in the socio-spatial composition of a city. Residential changes are usually categorized into two: migration and intra-urban or residential mobility. In the case of Istanbul the picture above shows that residential mobility is one of the major processes that redistribute people in the city since the 1990s. However, research on residential mobility in Turkey is relatively poor compared to the well-developed literature on

[1] While the data of this study do not provide information on intra-districts moves (the moves within the same districts), in this study intra-urban mobility or residential mobility refers only to the moves from one district to another. In a same manner, the intra-urban mobile people or "the movers" refer to people who moved from one district to another in this thesis.

migration. Although our knowledge on the causes and effects of migration is almost complete, research on residential mobility is very limited in terms of theories describing residential mobility and modelling residential mobility flows.

Residential mobility (hereafter termed as "RM") is the fundamental process that reallocates people within a city. Numerous definitions of RM can be found in the literature ranging from "decision-making process" to "spatial adjustment process" or "a function of the household's dissatisfaction" or "a result of changes in housing needs". Nevertheless mobility commonly refers to the local moves of population within a neighbourhood, city, or metropolitan area and also involves adjustment mechanism (Cadwallader, 1992; Clark and Onaka, 1983; Clark, et al., 2003, Dieleman, 2001). However, the most cited definition of RM is driven by a mismatch between a household's residential needs and preferences as well as the household's desire to come to a better matching between the household's space requirements (Brummel, 1979; Clark, et al., 1984; Doorn and Van Rietbergen, 1990).

RM studies can conveniently be divided into micro- and macro approaches (Cadwallader, 1992; Moore, 1972; Dieleman, 2001; Quigley and Weinberg, 1977; Golledge and Stimson, 1997). What is referred to as micro or disaggregate approach is usually characterized by an interest in the characteristics of movers and concerned with the construction of models that represent the individual decision-making process involved in RM (Quigley and Weinberg, 1977; Cadwallader, 1982, 1992; Clark and Huang, 2003; Clark, 2009). This involves mainly a consideration of why people do or do not move in line with the classical life-cycle approach developed by Rossi as early as 1955. On the contrary, the macro or aggregate approach is used in two main contexts: first, to analyse the spatial pattern of mobility flows, and second, to establish the interrelationships between mobility flows and other features of the urban geography, such as socio-economic, demographic, and housing characteristics (Moore, 1972; Cadwallader, 1992; Quigley and Weinberg, 1977).

While there are numerous studies of micro approach the macro-approach RM studies is very limited in number. One of the aims of this study is to examine the relationship between RM and urban change so I prefer to use macro approach in order to highlight the characteristics of movers, the spatial patterns of RM flows and the interrelationships between mobility rates/levels and urban setting at the aggregate level. The findings of such patterns would indicate that the moves of households could be influenced by something else, something affects the movers to choose move to the specific residential areas, a stimulu also termed as the "neighbourhood effect".

The urban setting (the built environment, structure, form and processes of change in the city: economic, demographic and social) evolves over time through processes that include decision-making actions at the public, corporate, group and individual levels within a broad political, social and economic domain. In this respect, RM is one of the influential decision making processes which in turn is influenced by macro processes of economic, social and demographic changes in urban setting of a city which are also the determinants of urbanization, and the urban setting of a city is an outcome of RM decisions of individuals or people at the aggregate level. In this thesis, space is taken as urban space and to be specific, it is taken as the metropolitan urban space of the city of Istanbul, Turkey. In this regard, the study on RM of households in Istanbul presents an avenue to further our understanding of the urbanization experience of Istanbul. And, I believe that a closer look at the changes in RM processes of households can be useful in understanding the transformation of the urban settings of Istanbul, since this study does not only focus on the RM process of households, but also aims to carry it to the macro-scale debates on the city.

This study examines RM in Istanbul in two-periods: 1985-1990 and 1995-2000. In the broader context, this study focuses on the 1980-2000 period. The urbanization experience of Turkey in this period has extensively been studied by several scholars

(Danielson and Keleş, 1985; Tekeli, 1994; Işık, 1996; Güvenç and Işık, 1996; Kıray, 1998, Erkip, 2000; Işık and Pınarcıoğlu, 2003; Erder, 1997, 2006; Keyder, 2006; Alkay, 2011). Briefly, in the post-1980 period, significant changes took place in Turkey's socio-spatial structure, especially in Istanbul. Rapid urbanization, economic growth, ageing of population, changing family typology, the concentration of financial institutions and service industry, the development of new economic sectors, growing occupational differentiation and specialization are among the new dynamics that one can refer to, transforming the city's social and economic structure, and creating new life-styles. In simplistic words, these represent fundamental demographic, economic and social changes affecting mobility decisions and the nature of mobility behaviour in the city.

Since the 1980s, Istanbul has undergone a radical restructuring towards becoming what is referred to as 'globally connected city' (Öncü and Keyder, 1993; Keyder, 1999a, 2005, 2006). This restructuring has its impact on urban systems, physical set-up, social structure and finally on the growth of Istanbul. For some, Istanbul has also experienced the "dark side" of globalisation process with rising income inequalities, growing social exclusion and cultural fragmentation, new modalities of social cleavage and conflict previously unknown in the city (Keyder, 2005, 2009; Türkün and Kurtuluş, 2005). Within this background, in this period, the contradiction among urban social groups has significantly heightened and an unequal spatial distribution has become more visible. Here, it should be noted that this restructuring includes deep transformations of spatial organization and built environment.

Istanbul' urban geography has changed by these restructurings. Mainly the increase and diversification in service industry have a leading role in these transformations. Compatible with this transformation; the office headquarters and giant shopping malls, as well as new middle and upper-middle classes' residential enclaves have appeared on the geography of Istanbul. As a well-known fact, these new

development activities took place on the urban periphery of the city. While urban periphery was home of low-income groups and available to the development of irregular settlements in the previous periods, under the effects of these restructuring process urban periphery has commoditised and has not home of urban masses (Geniş, 2007). The rising inequalities in the society and its influences in the social and economic processes are also exposed in the residential location choice of population of Istanbul. Within the city, these are the marked patterns of differentiations in the economic and social fortunes of groups marked by segregation.

In Turkey, the state's attitude towards urbanization and housing markets were remarkable transformed both in the beginning of the 1980s and the mid-2000s (Öncü, 1988; Tekeli, 1994, Keyder, 1999b; Bozdoğan, 2002; Türel, 2002; Türel and Koç, 2007; Geniş, 2007; Özdemir, 2010). Since the second half of the 1980s, the role of state on housing industry has increase and its mode of intervention has changed. Accordance with this change, for financing housing a series of laws is enacted. With the assistance of these regulations, not only large housing projects are directly financed by HDA but also municipalities and cooperatives are indirectly financed by Mass Housing Fund (Geniş, 2007). Former chair of HDA Bayraktar (2006, 2007) stated that regarding the changed scope and powers of HDA in the mid-2000s, it is oriented to construct not only housing units for middle and low-income people, but also luxury housing and associated up-market consumer services for the upper-middle and upper classes such as Trumptower, IstHANbul, Saphire and etc. In order to support real estate sector as well as to develop new projects, the state enacts some regulations such as working international banks and architect firms (Geniş, 2007). Considering the positively correlated relationship between the differentiation level of housing opportunities and RM in a city, it can be assumed that RM in the period 1980-2000 is diversified from former periods in terms of rate/level, direction, distance as well as movers' typology, in Istanbul.

It is well-known that the post-1980 period shows quite different urbanization settings from the former one in terms of demographic, economic, political and socio-spatial settings in the world, as well as in Turkey. In the post-1980 period, changing characteristics of population as that of economic structure provides a unique backdrop to explore how RM changes in metropolitan areas. This is in compatible with the changes in socio-economic and demographic profiles of population- such as the increase in single-person and single parent households or in the ageing of population, etc. - and in the evolution of spatial development of the city such as de-centralization, de-concentration, and suburbanization. Furthermore, the period 1980-2000 can be conceptualised as the period when the concerns have shifted from quantity to quality and the post-2000 as the period that the aesthetic and architectural values of cities have gotten more influential. In this respect, the research into RM processes of household heads[2] in Istanbul presents an avenue to enlarge our understanding of the urbanization experience of Istanbul as well as Turkey.

This study is an attempt to reach a clear understanding of RM which is one of the poorly understood and scantly studied dynamics of Turkish urbanization. The aim of this study is thus to highlight the causal relationship between the movers and the urban space through the mediation of RM processes. In an attempt to achieve such a broad aim, I ask two main questions: Who are the movers? And "What part does RM have to play on the restructuring of urban setting? By doing this, I also intend to narrow down such a broad objective of this study. A detailed description of this formulation is mentioned later in the the study.

What I have said so far may indicate that I approach RM in a dual way: as a function of life-cycle and as a spatial process which governs and shapes urban socio-spatial setting. Behind this formulation, it is that while RM is a matching process between

[2] In this thesis, the basic unit of the analysis is "housing head". Due to the fact that the number of household heads is equal to the number of households, instead of "household heads" in the later of this study "household" is used.

household's preferences and housing feature, it is right to say that the effects of RM on urban geography of the city only occur if the characteristics of housing stock and the preferences of changing households are matched. Implicit in these conditions is the important assumption that the population is sufficiently mobile to match up social status and life-cycle needs to existing housing opportunities.

As mentioned in the previous paragraph, I approach RM in two ways. Firstly, RM is assumed to be a selective process that is differentiated by households' life-cycle. This approach helps me answer the first set of question that mainly aims to clarify: the interrelation between RM and characteristics of movers at the aggregate level: Who are the Movers? Is there any specific profile of Movers? Is there any specific profile of movers both in 1990 and in 2000? Do households' mobility rates differ in terms of age, education, family typology and labour force status? Have the mobility levels of households changed from 1990 to 2000? What is the exact nature of RM in terms of household characteristics and how it relates to life-cycle, life-style and status? Are households' characteristics significant in RM? Does RM reflect the changes of demographic and economic profile along with family typology of households?

And secondly, RM is regarded as a general socio-economic and spatial process which is also an important event for the person or household making the move, for the place of origin and destination of mobility flows, and for the society as a whole. Accepting this point of departure, I attempt to link social and spatial dimensions of RM with reference to the changes in urbanization in the city. To what extent does RM have effects on socio-economic and demographic profile of the city? Are different patterns of residential moves identifiable in different districts? What characteristics of districts contribute to the explanation of this variety? How does a person's area of residence affect his or her behaviour? How do the emerging RM patterns affect the dynamic processes of urban settings? What have been the

probable roles of the mobility during the formation of urban setting of Istanbul in the 2000s?

While research on RM has been one of the popular topics among the social scientists for a long time, almost nothing was written before 2000 in Turkey about the motivations and spatial patterns of RM and its role on transforming cities. However, after the mid-2000s RM researches in Turkey gained some popularity in academic sphere. I account this increase is closely related the decline on rates of migration (for example, in Istanbul the percentage of migrants in total households decreased from 14% 1990 to 9.5% the years between 1990 and 2000) and changes on direction of migration (since the 1990s the city to village movement has been gained momentum). A few studies address the RM of population including Türel's (1979), Aydemir's (1984) studies in Ankara, Kocatürk and Bölen's (2005) study in Kayseri, Alkay's (2011) and Erginli and Baycan's (2011) studies in Istanbul. I believe, this is partly related with the lack of available data and the difficulty of preparing RM questionnaire; and partly because of the dominance of migration studies in Turkish urbanization studies. In this respect, this study provides a case for the studies on RM in Turkey since it examine RM at the aggregate or macro level, different from the RM studies in Turkey that largely focus on the motivations of RM at the disaggregate or micro level.

To analyse RM numerous methods are employed such as longitudinal weights (see Fredland, 1974; Geist and McManus, 2008); regression analysis (see Hui et al, 2002); multivalve models (see Myers, Choi and Lee, 1997); discrete choice models (see Kan, 1999).[3] At the aggregate level RM is measured in either absolute terms or as a rate. Absolute measures mostly describe movers regarding distributions by age, sex, occupation, education level and so on, and mostly are used to examine

[3] A detailed examination of the selected studies in terms of aim, data analysed, variable used and method of analysis is given in Appendix A.

characteristics of movers. Rate measures are used to analyse the rate at which geographic areas gain and lose movers in terms of their socio-economic and demographic characteristics.

In this thesis, the analysis consists of two phases. The first phase of the analysis examines the characteristics of movers (Chapter 4). Apart from the well-known tendencies of RM studies, this thesis pays particular attention to the characteristics of movers from a cross-sectional perspective. In doing so, I figure out the RM patterns of sub-groups in terms of education, age, labour force status and etc. The other methodological significance of the thesis is using LQ method in the RM analyses. By doing so, unlike most of the researchers searching for RM, I take into account the existing demographic and socio-economic characteristics of households such as education, family type and etc. in the scale of districts as well as city. The first phase of the analysis basically aims to answer the "who" question of the thesis that focuses on identification and classification of the movers.

The second phase of the analysis examines the spatial flows between origins and destinations and the causal relationship between urban settings of the city, at the level of districts (Chapter 6). By doing this analysis, I focus my attention to considering the way in which the processes of socio-economic restructuring and the patterns of RM have been affecting urban setting of the city in the period between 1980 and 2000. Apart from the well-known spatial analysis methods of RM, in this thesis, "flow priority graph" is chosen to examine residential moves, partly because of the characteristics of data and partly because it is the most appropriate approach to achieve the aim of the study. The common data base for most graph analyses is a flow or FROM/TO matrix (M_{ij}). In this study, *i (rows)* and *j (columns)* denote the origin and destination districts in Istanbul. In 1990, the number of districts in Istanbul 19, so in 1990 M_{ij} Istanbul has 19 rows and 19 columns. The number of districts of Istanbul reached to 32 in 2000. However, in 2000 M_{ij} Istanbul has 29 rows and 29

columns, due to the fact that districts located outside the Istanbul Greater Municipality's Boundary (Çatalca, Şile and Gebze) are excluded from the analysis.

Furthermore, the second phase of the analysis basically aims to answer the "where and what" questions of the thesis which focus on identification of the effect of RM on the existing urban setting of the city: How do residential moves influence the socio-economic settings of the city in this period? In order to answer this broad question, the Socio-economic Development Index, which is another methodological contribution of this thesis, is developed at the district level. In this thesis, briefly, I use "Who" and "Where" questions in order to improve my understanding on the interactions among RM and the urban setting (built environment, and economic, demographic and social processes), society, groups, space. And I consider that the analytical framework of this thesis is appropriate to examine the city and to evaluate its potential evolution over time.

The primary data used in the thesis are drawn from the 1990 and the 2000 Population Census[4], specifically the public use 'microdata sample file'[5], which is a 5% sample of households in Istanbul. The microdata sample file is depersonalized and includes both household and non-household populations' entities and it makes available to form cross tabulation and recoding of the original variables and computing new variables.[6]

[4] These Population Censuses are carried out by the Turkish Statistic Institute (at the time of the Census; SIS) in 1990 and in 2000. The main aim of these censuses is to determine demographic profile of Turkey. According to this aim, population size, social and economic characteristics of population living in providence, districts, sub-districts and village within Turkey was count. The individuals were enumerated at the addresses where they live physically present on the census day (de facto). The questionnaire of 1990 and 2000 Census are consisting of four main parts: address, the characteristics of locality, the characteristics of people and the characteristics of households. The individuals were considered as a basic unit of the census and de facto method has been used; they s being enumerated at localities where they are physically present on the census day.

[5] This is a five per cent sample and selected systematically from raw data file. In order to prepare master sample file, the sample was selected from 100% census file and every 20th household and every 20th individual in the non-household population was copied in order to construct this dataset.

[6] Questions related to the characteristics of persons (with reference to this study-household headss)

One of the major limitations of this research is the lack of appropriate data that can be calculated intra-district residential moves. This means that I only analyse the moves of households between districts. In other words, the moves within the same districts are not included in the analysis. Another important problem stems from the fact that the boundaries of geographical units change considerably between the censuses. The 1990 data covers only the districts within in metropolitan boundaries, while the 2000 data covers all the districts. Consequently, the researchers who study Istanbul have to be so careful while comparing the periods and generalizing the assumptions through Istanbul. Moreover, these data provide no information on the motivations underpinning RM flows, and they provide only limited data on tendencies and changes in RM flows over time. In other words, there are no data available at examining the reason for move, the attributes of neighbourhood, and the income of households. Census variables emphasize usual place of residence and excludes information about multiple residences, information about the initial location of and attributes of residence and circular patterns of RM are also among the drawbacks to measure of RM in this study.

This thesis is organized into seven main chapters. Chapter 1 deals briefly with the issues which are regarded as an overview of this thesis, e.g. scope, aims and research questions, and structure of the thesis.

The second chapter is an attempt to provide a background for RM analyses in Istanbul through examining the transformation of Istanbul after the 1980s. While the transformation of Istanbul can be dated to the late 1970s, the inquiry here starts with 1980s, based on the fact that the most important changes have occurred in the last three decades. One more task of this chapter, therefore, is to provide a synopsis of

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contains these subjects: gender, age, relation to the household, providence of birth, citizenship, permanent residence at the time of Census, permanent residence at the five years earlier than the time of Census, literacy, educational attainment, marital status, fertility, and occupational figures such as type of economic activity, last week's occupation, and employment status available according to the age group, gender, providence and district.

the changing structures of socio-spatial and housing industry in Istanbul after the 1980s.

Chapter 3 presents an overview of micro-level RM studies. Briefly, the main aim of this chapter to present an overview of RM from life-course point of view and its interrelation between the characteristics of households that will shape the standpoints of this thesis. This chapter of study is organized into five sections. It begins by discussion on residential concept and its background, briefly. It proceeds secondly to evaluate the behavioural modelling of RM studies. And the next section will examine the regularities of the process and in the final section I try to summarize, mostly, the theoretical discussion of RM from micro or behavioural perspective.

In chapter 4, the first stage of the analysis is carried out for the cases of Istanbul, employing different levels of investigation methods. The main aim of chapter three is to explore the non-spatial characteristics of Istanbul's households in 1990 and 2000. Moreover, to figure out the interrelationships between non-spatial characteristics of movers such as age, education level, etc. and RM profiles of movers in the historical perspective are also main concerns.

Theoretical discussion is resumed in chapter 5. This chapter scans macro-level RM studies. Briefly, it aims to highlight the mutual relationship between RM and urban change at the aggregate level. In other words, on the one hand the effects of RM on socio-spatial structure of the city and on the other hand the effects of socio-spatial structure of city on RM (such as neighbourhood change, neighbourhood effect, segmentation and etc.) are the main concerns of this literature chapter.

In Chapter 6, the second phase of the analysis, the interaction between RM and the socio-spatial structure of the city is on the agenda. Mainly, the aims of this chapter examine both the effects of RM on the urban socio-spatial structure of the city and

the effects of socio-spatial dynamics of the city on RM process. Besides, the mutual role of neighbourhood effect on RM and vice versa; the relationship between RM and segmentation and polarization of the city are among the main concerns of the chapter six. In this respect, the detailed analyses of high-status and low-status households are also in the agenda of the chapter.

And in chapter 7, I conclude the research and discuss the findings. Besides, the recommendations of future works are also the main concerns of this chapter.

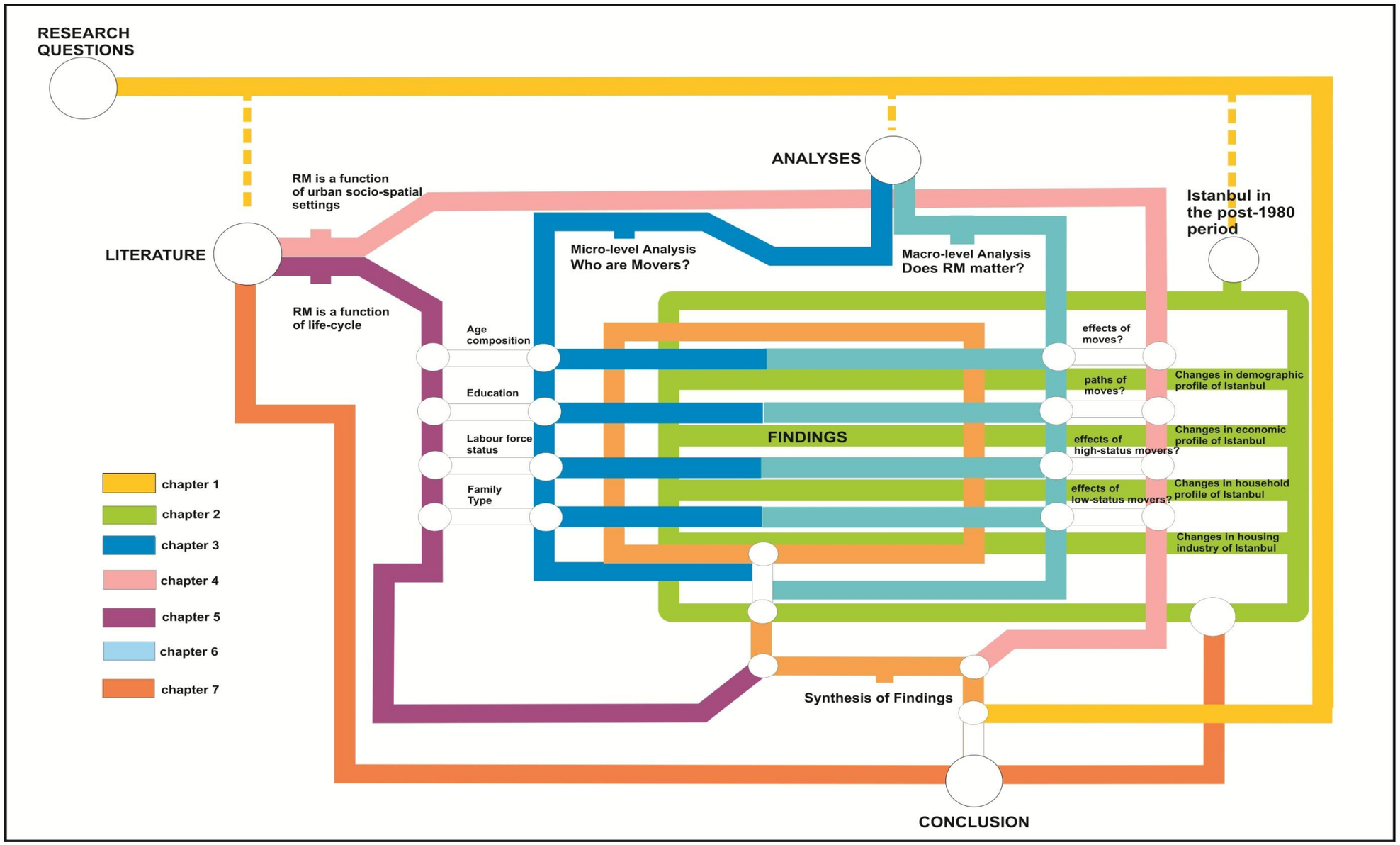

Figure 1.1: The Diagram of the Thesis

CHAPTER 2

THE BIG PICTURE: SOCIAL, ECONOMIC AND SPATIAL CHANGE IN ISTANBUL IN THE POST-1980 PERIOD

2.1 Introduction

In this thesis, RM is regarded as a function of the characteristics of households, the housing industry as well as the socio-economic structure of the country and the city. Here, it is important to restate that these two interpretations of RM process are mutually interrelated with each other (Clark, 1992; Dieleman, 2001).In compatible with this argument, recalling chapter 1, I establish the two-stage analysis. Basically, the first-level analysis aims to answer the question "who are the movers?" (Chapter 4), and the second- level analysis aims to answer the question "where do they go and what happens" (Chapter 6). Put these interpretations in mind, in order to study RM, it is necessary to see the big picture. In other words, it is necessary in the first place to examine the spatial and non-spatial characteristics of the city and/or the country in which RM process takes place.

This chapter is about the big picture. In the post-1980 period, significant changes took place in Turkey's socio-spatial structure, especially in Istanbul. Rapid urbanization, ageing of population, changing family typology, the differentiation and specification in financial institutions and service industry are the new dynamics that one can refer to the restructuring the city's social and economic structure and

creation of new life-styles. In simplistic words, these changes had its impact on urban systems, physical set-up, social structure and finally on the growth of Istanbul. Here, I would like to repeat that I am particularly interested in exploring how such changes influenced RM behaviour of households in Istanbul. To highlight the position of Istanbul within this shift I evaluate the statistical data related to these transformations under two headings: non-spatial and the spatial changes.

2.2 The Non-spatial Changes on the city of Istanbul

Since the 1980s, Istanbul has undergone a radical restructuring towards what for some is becoming 'globally connected city' (Ercan, 1996; Keyder and Öncü, 1993; Keyder, 1999a, 2005). The interventions devised and implemented under a neo-liberal discourse change Istanbul' urban geography. The increase and diversification in service industry have a leading role in these transformations. Compatible with this transformation; the office headquarters and giant shopping malls, as well as new middle and upper-middle classes' residential enclaves have appeared on the geography of Istanbul (Keyder, 1999a, Geniş, 2007; Kurtuluş, 2011). Meanwhile, for some, Istanbul has also experienced the "dark side" of globalisation process with rising income inequalities, growing social exclusion and cultural fragmentation, novel forms of social division and conflict previously unknown in the city (Keyder, 1992, 1999a, 2005).

2.2.1 Demographical Profile

As a matter of fact that demographic trend themselves reflect that the traditional structure of the society is currently in a remarkable transformation in the post-1980 period. Firstly, the population is ageing. Secondly, fertility rates are declining. And finally, the nuclear family is clearly becoming the standard in urban areas.

2.2.1.1 Istanbul' Population still keeps growing with a slight decrease in growth rate

Istanbul is and has always been the largest city in Turkey and it continues to grow. The overall population of Istanbul grew from 4.7 million in 1980 to 10 million in 2000 and finally reached 12.7 in 2008 (SIS, 2002; TURKSTAT, 2009b). Istanbul still keeps growing despite a slight decrease in the rate of growth. As can be seen in Figure 2.1, the annual growth rate of overall population for Istanbul decreased from 4.2 in 1980 to 3.0 in 2008, while the same rate for Turkey was 2.1 in 1980 and 0.7 in 2008 (SIS, 2002; TURKSTAT, 2009b).

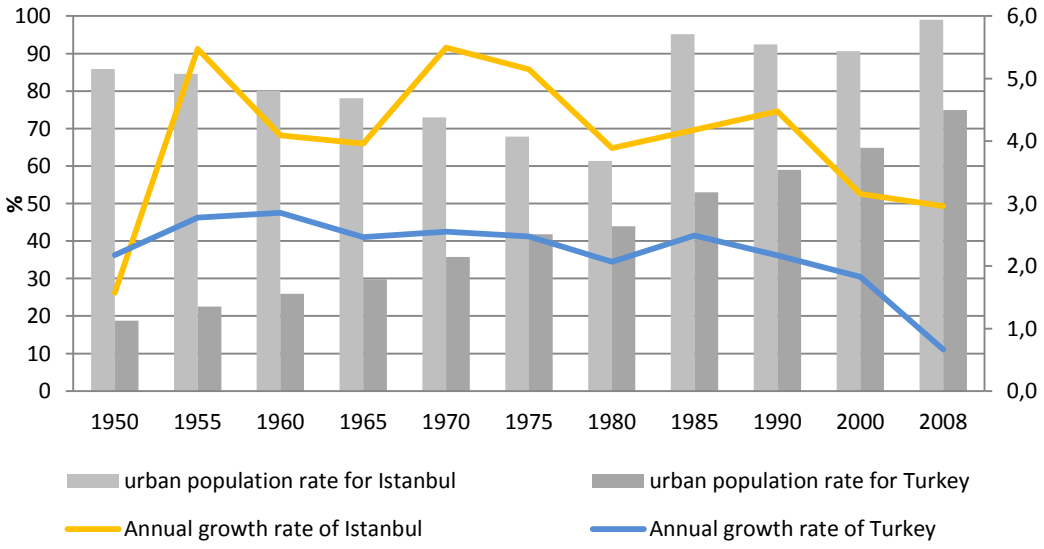

Figure 2.1: The urbanization ratio and annual growth rate of Istanbul and Turkey (Source: SIS, 1972, 2002, 2003; TURKSTAT, 2009a, 2009b)

Such shifts in population regarding overall number and growth rate have a direct effect on housing stock and an indirect effect on the pattern of households' RM in Istanbul. The most important direct effects of this shift are to increase the demand for housing and to lead diversification in the quality of housing and the price scales. As stated in Chapter 3, the variety in housing stock enables to supply more available housing units in terms of size, number of rooms, number of floors, and ownership to movers and as a result the rate of mobility increases.

2.2.1.2 Population is ageing

Focusing on the age pyramids of Turkey from 1980 to 2008, it could be seen that while the age distribution of population became less triangular (an indication of the falling fertility rates); the top of the pyramids became more rectangular (as indication of the falling mortality rate and rising life expectancy). In short, this is the picture of a country in the final phase of 'demographic transition process' (Behar, et al., 1999; Yüceşahin, 2009).

Behar et al., (1999) claimed that the demographic transition process has continued for a century in Europe, nevertheless, Turkey has experienced this process only in the last sixty or seventy years. In the most developed countries, as a reflection of this process, the elderly population (age 65 and older) formed a significant share of the overall population. According to the Behar et al., (1999), within the following 20-25 years, the share of age 20-24 and 65 and older population in overall population will increase considerably. However, it is necessary to remember that this report was prepared in the 1999, so, approximately one and half decades left to realize this situation. By 2008, the share of elderly population in overall population for Turkey was still quite low than European countries'[7] and the ageing issues have only

[7] The share of the 65 and older age population in overall population for Europe increased from 8 per

recently been regarded as a cause of concern in Turkey. In this respect, the share of 65 and older population in overall population for Turkey was 5% in 1980, then it decreased to 4% in 2000 while it reached 7% in 2008 (SIS, 2003; TURKSTAT, 2009a). Within this perspective, the share of age 20-24 population in overall population for Turkey was 7% in 1980, and then it increased to 9% in 2000, and it remained the same value in 2008 (SIS, 2003; TURKSTAT, 2009a). To summarize then, Turkey's population structure has started to become similar with the developed countries. Turkey has been seen as younger country among developed countries; in fact, the population of Turkey has been ageing.[8]

All findings make it clear that while Turkey passed the final stage of demographic transition process by the 2000s, Istanbul went through the final stage of the process by the 1980s (Behar et al., 1999). The share of 65 and older population in overall population for Istanbul was 3.5% in 1980, and then increased to 6% in 2008 (SIS, 2002; TURKSTAT, 2009b). In a similar vein, the share of age 20-24 population in overall population for Istanbul was 10% in 1980, and then it increased to 11% in 2000 and it remained the same value in 2008 (SIS, 2002; TURKSTAT, 2009b). At that stage, it is appropriate to note that either elderly people or young adults have different requirements with reference to social security, health care and moreover different careers in the housing industry.

In compatible with the consequences of demographic transition process, the fertility rate for Turkey and Istanbul has shown a continuous decline since the 1950s. In 1950, the fertility rate for Istanbul was 2.7, decreased to 2.3 in 1980 and 1.4 in 2008; while that for Turkey was 6.7 in 1950, then it decreased to 4.1 in 1990 and 2.1 in

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cent in 1950 to 14 per cent in 1995. However, it is assumed that this ratio will increase to 21 per cent in 2025. Available at: http://www.iiasa.ac.at/Research/ERD/DB/data/hum/dem/dem_2.htm

[8] Population 'Ageing' (UK) or 'Aging' (US) can be defined as a rise in the number of people over 65 and in the proportion of people over 65 in the society. The impacts of Ageing are noticeable. As most significant one, compare to young people old people's requirement from society and governments reflect differentiations (Available at: http://en.wikipedia.org/wiki/Ageing)

2008 (SIS, 1972, 2002, 2003; TURKSTAT, 2009a). Within this perspective, the growth of Istanbul's overall population is closely related to the mobilization of population rather than the high values of fertility rate (SIS, 1995). To summarize then, the fertility rate of Istanbul has always been lower than the average of the country and this means that the common reason behind population growth of the city is migration. Beside, migrants adjust their fertility trend to urban fertility trend in a very short period. On the other hand, as Shorter (1989 cited in SIS, 1995) claimed they migrate with unborn children which it is one of the important components of RM studies.

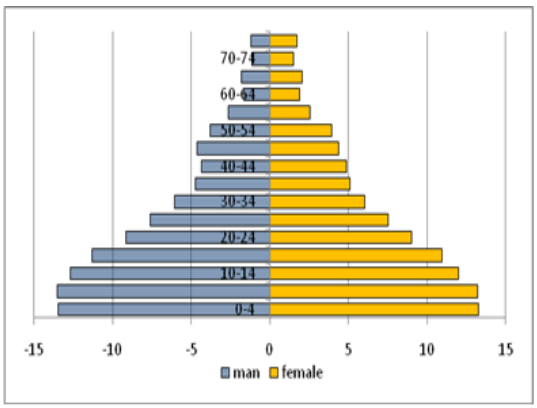


Figure 2.2 Population pyramid of Turkey in 1980 (SIS, 2002)

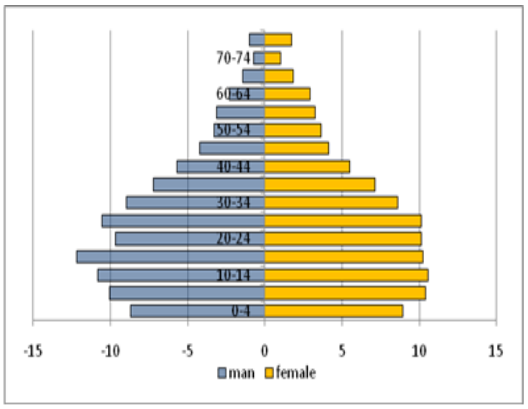


Figure 2.3: Population pyramid of Istanbul in 1980 (Source: SIS, 2002)

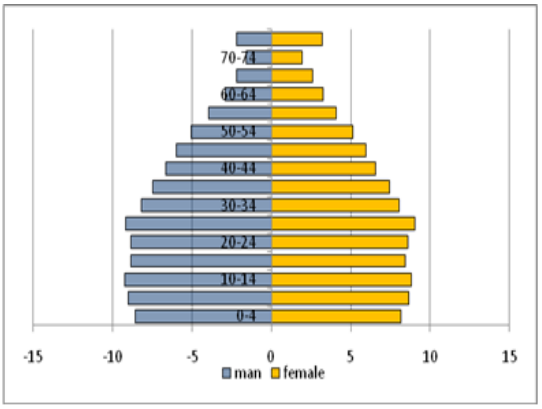


Figure 2.4: Population pyramid of Turkey in 2008

(Source: TURKSTAT, 2009a)

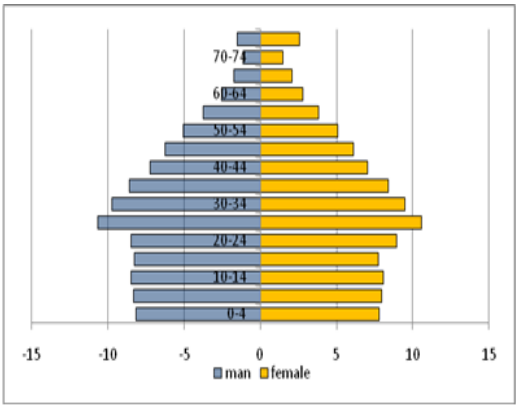


Figure 2.5: Population pyramid of Istanbul in 2008

(Source: TURKSTAT, 2009b)

Bloom and Williamson (1998) claimed that demographic transition process consists of two phases: the first is "demographic burden" and the second is "demographic gift". In the first phase, particularly youth dependency ratio[9] is high and in the followed phase working age population growth is high and the dependency ratio falls. In the 1970s, the youth dependency ratio for Turkey peaked at around 78% (SIS, 1972). However, as can be seen in Figure 2.6, this ratio shows continuous decline from around 70% in 1980 to 40% in 2008 (SIS, 2003; TURKSTAT, 2009a).

[9] Youth or child dependency ratio is the ratio between the number of persons aged 0-15 and the number of persons between aged 15-64

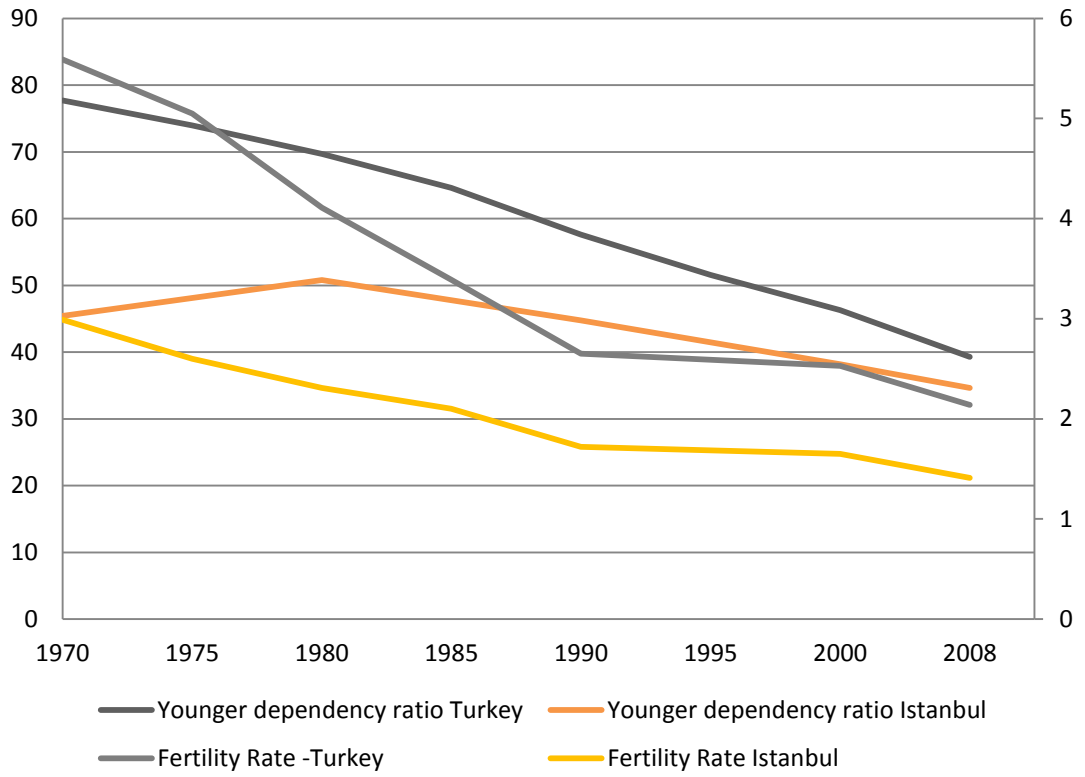


Figure 2.6: Youth Dependency Ratio and Fertility Rate for Istanbul and Turkey (Source: SIS (2002, 2003) and TURKSTAT (2009a, 2009b).

All these findings indicate that the working age population of Turkey increased since the late 1970s. In this context, it is correct to note that Istanbul and Turkey have shown a similar profile; but, Istanbul experienced this process faster and earlier than Turkey. While in 1970 the youth dependency ratio for Istanbul reached the highest value with 54%, and then it decreased from 50% in 1980 to 35% in 2008 (SIS, 2002; TURKSTAT, 2009b).

In short, these changes on age composition of population have a chain effect not only on urbanization, economy, and education policy but also on the main triggers of RM.

Hence I would like to restate that the socio-economic and demographic profiles as well as housing preferences and demands of households of post-1980 period must be different than pre-1980 periods' and in short it demands basically variety in house market regarding type, size and location and it is appropriate to claim that as a consequence of ageing process the new type of housing need has to be occurred for especially for elderly population. Here, it is essential to note that these claims become one of my concerns and are analysed detail in the following parts of this chapter.

5.2.1.3 Significant changes in traditional household typology: small household and nuclear family

Until the 1980s, Turkey was characterized by a large household size. According to Burch and Matthews (1987), one of the consequences of demographic transition process is the decline in the average household size. In 1970, the average household size of Turkey was 5.8 (SIS, 1972).[10] Since then, the average household size of Turkey has shown a secular and irreversible decline: as decreased from 5.3 in 1980 to 5 in 1990 and to 4.5 in 2000 (SIS, 2003). Not surprisingly, the household size of Istanbul is and has always been smaller than Turkey's. In 1970, this value for Istanbul was 4.7 and then decreased to 4.2 in 1980, and it increased to 4.1 in 1990 and finally to 3.8 in 2000 (SIS, 2002). Here, I would like to note that whereas this ratio is under Turkey's average household size, it is still higher than the average household size of many developed countries'.[11] The decrease of the average household size has closely interlinked with the increasing share of the one-person household in overall households which in turn is closely related with the increasing

[10] Data on the total household population have not been tabulated for the years before 1975. In this respect, the average sizes of households have been calculated by total population for these years.
[11] For example, in 1990 the average household size of Ireland: 3.1, of Japan: 2.8, of Italy: 2.7, etc. For more information on the average household size of most developed countries, see: http://www.nationmaster.com/graph/peo_ave_siz_of_hou-people-average-size-of households

rate of divorce and the decreasing rate of marriage.[12]

Since the second half of the 1970s, the 'one-person' segment of households has gained more importance all over the world. In Turkey, because of mainly increase in the schooling rate, the rise in marriage age, the decline in the marriage rate and the increase in the divorce rate, after the 1980s, the 'one-person household' profile is the fastest growing segment of the households. As mentioned above, Istanbul's household size profile is smaller than the average of the country: the share of one-person household in overall household for Turkey increased from 5.7% in 1990 to 6.3% in 2008 (SIS, 2003; TURKSTAT, 2009a). Nevertheless, for Istanbul, the share of one-person households in total was 4.5% in 1990, then it increased to 7.5% in 2008 (SIS, 2002; TURKSTAT, 2009b).

According to Wright (1990), recognizing the differentiations of household characteristics brings along the variety in the demand for the different types of houses as well as the reassessment of housing stock. Therefore, in order to rethink and to develop alternatives on housing, first of all, it is necessary to examine the lifestyles of individuals as the potential for housing to live. In simplest words, when the household composition changes; the budget of households, their attitude to consumption, saving and investment also changes. The reflection of these changes has operated on the housing industry regarding demands for financing, type and size of dwellings as well as quality of lived space. However, it is important to note that because of the nature of housing industry, the reflections of changing demands of households came into sight at least two or more years after.

[12] Until the 2000s, the row marriage rate for Turkey remained the same values except fluctuations, but, since the beginning of 2000s Turkey has shown the decline trend in this rate as 6.84‰ in Turkey. According to SIS (1995), the first marriage age of the women was around 19, since then this value increased to 22 in 1990 and in 2006 this value for women was 23 and for men was 26.

2.2.1.4 Population becomes more educated

Over the last few decades, educational opportunities have expanded significantly in Turkey. In the 1990s, the compulsory schooling was extended from five to eight years, and the system of State-provided, free primary and secondary education was revised. Linking with the opening of new universities both public and private and operating the distance learning programs, the higher education opportunities also grew.

An examination of the changes in education indicators shows that there have been substantial increases over time in the educational attainment of both men and women. Within this perspective, the shares of illiterates and those without basic education declined, while the share of higher education increased rapidly. According to Population Census 2000[13], in the 1975 the share of illiterate population in overall population by literacy for Istanbul was 22% (for Turkey: 29 %), and then decreased to 14% (for Turkey: 13 %) in 1990 and 7% (for Turkey: 11 %) in 2008 (SIS, 2002; TURKSTAT, 2009). In short, the population of Istanbul is more likely to have attended school for a longer period than Turkey; the share of people with higher education completed for Istanbul increased from 5% (for Turkey: 2 %) in 1975 to 12% (for Turkey: 7 %) in 2008 (SIS, 2002; TURKSTAT, 2009b).

2.2.2 Changes in the Economy

As in most other countries after the 1980s, the direction of Turkish economy has shifted from protectionism to open or market economy (Keyder, 1999). However, in 1985 the main sector of Turkish economy was still agriculture with 60% of total employment whereas the industry comprised 15% and the service industry only 25%.

[13] In Population Census 2000, the proportions of population by literacy and education levels of people have been calculated through population 25 years old and older.

Then, in 2008 the share of agriculture in overall employment of Turkey decreased to 24% (TURKSTAT, 2009a). As expected, between 1985 and 2008, services became the largest employer; the share of service employment in overall employment for Turkey nearly doubled and reached 50%, while the share of industry in total employment also increased to 27% in 2008 (TURKSTAT, 2009a).

2.2.2.1 Service Sector is on the Increase

In the late-1980s and throughout the 1990s, sectorial changes took place in the economy of Istanbul, the city has been targeted with the aim of transforming it into a global city; as the gateway for Turkey's to new era (Ercan, 1996; Keyder and Öncü, 1993; Keyder, 1999). Contrary to Turkey's economic profile, the main economic sector of Istanbul was service industry with 53% of total employment in 1980 and then this share increased to 60% in 2008 (SIS, 2002; TURKSTAT, 2009).[14] Within the same period, the proportion of industry in Istanbul's overall employment remained the same (41-40 %). Literally, it is appropriate to state that on one hand Istanbul has become a centre of attention for service industry, on the other hand, the city still maintains its privilege role in Turkish industry (see Figure 2.7).

However, all these findings do not provide the widespread framework for understanding the story of Istanbul's transformation or a kind of 'globalization'. Keyder (1999) and Erkip (2000) suggested that the main triggers behind the 'globalization' of Istanbul are the capacity of manufacturing, the being the sources of cheap labour and shop keeping potential instead of establishing a new kind of services or information economy. In Istanbul, whereas the service industry has been the largest employer after the late 1980s; however, it is important to examine the fluctuations in FIRE, manufacturing and construction sub-sectors with reference to

[14] In order to compare the data before and after 2004, the total (urban plus rural) data sets have been used in all employment analyses in this section.

basically employment rate. In 1985, the share of manufacturing in overall employment in Istanbul was 35% then it started to decrease 31% in 2000 (SIS, 2002). However, Turkey has shown opposite profile, while in 1985 this share was 11% and then it increased to 17% in 2000 (SIS, 2003). This trend has also been observed in construction and FIRE sub-sectors in Istanbul. The share of construction employment in overall employment for Istanbul decreased from 7% in 1985 to 6% in 2000, while that for Turkey increased from 4% to 6% over the same period (SIS, 2002, 2003).

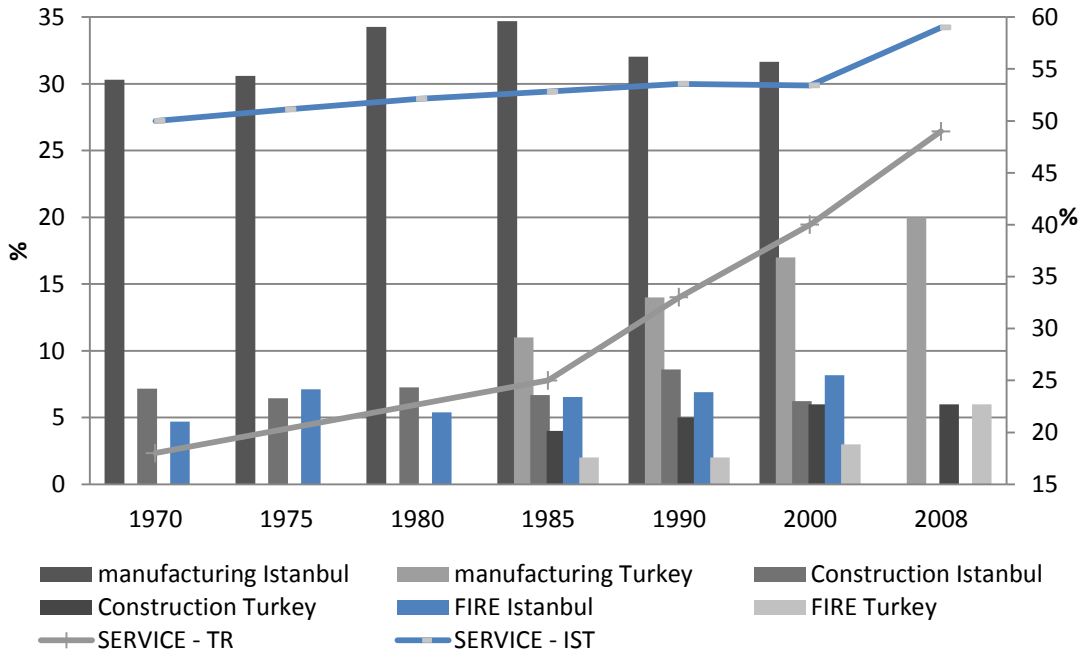


Figure 2.7: The share of manufacturing, construction and FIRE sub-sectors for Turkey and Istanbul and the share of service employment of Turkey and Istanbul, between the years 1970 and 2008 (Source: SIS, 1972, 2002, 2003; TURKSTAT, 2009a, 2009b).

With this backdrop, Keyder (1999) accepted that Istanbul has not retained at a

sufficient rate to provide impetus for highly waged professional employment in global sectors such as finance and business services; however, as mentioned above, Istanbul has become differentiated from the rest of Turkey with reference to her impetus in particularly FIRE sub-sector. Between 1985 and 2000, the share of FIRE in overall employees for Istanbul was about three times of the share of Turkey in the same period. In 1985, this ratio for Istanbul was 7% (for Turkey: 2 %) then for Istanbul it increased to 9% (for Turkey: 3 %) in 2000 (SIS, 2002, 2003). In Turkey, the share of FIRE in total service industry increased from 7% in 1985 to 9% in 2000, while the same increased from 13 to 16 over the same period in Istanbul (SIS, 2002, 2003).

Furthermore, the annual growth rate of employment for FIRE in Istanbul was higher than Turkey as 9% for Istanbul whereas that for Turkey was 6% between 1985 and 2000 (SIS, 2002, 2003). I would like to repeat that these findings do not mean that Istanbul is in the global city league at all, although, not for the first time in history Istanbul has been announced as a global city.[15] However, contrary to the point of view firstly voiced by Keyder (1999) and grounded in his contemporaries' claims, Işık and Pınarcıoğlu (2009) stated that Istanbul has not becoming a global city regarding the global city formulation or criteria of Sassen (1991); however, it has been globalized by its own ways. In other words, Istanbul has on the move to create her own way of 'globalization' to connect the 'globalized world' (Keyder, 1999).

2.2.2.2 Changes in Labour Force: Decrease in Youth Labour Force Participation Rate and Slight Increase in Female Labour Force Participation Rate

In the light of the foregoing, it is right to believe that the characteristics of labour force must have changed after the 1980s. As known, the demographic window of

[15] For further information on global city formulations of Istanbul, please look at Keyder, 1999.

opportunity caused the increasing working age population since the late 1970s in Turkey: the working age population (15-64 age groups) share increased from 56% in 1988 to 67% in 2008, while that for Istanbul increased from 67% to 71% over the same period (SIS, 1988-2010). Within this backdrop, Turkey shows steady increase in the employment rate[16], however, it is still under the EU27[17] average (65% in 2008). This ratio for Turkey increased from 28% in 1988 to 29% in 2004 and to 32% in 2008. Contrary to the current trend the employment rate (41.0-41.3%) is stable between the years 2004 and 2008 in Istanbul.[18] However, it is appropriate to note that the employment pattern of Istanbul show compliance with developed cohorts' profile other than Turkey.

In this sense, one of the most important developments contributing to the long-run labour participation trend has been the decline in the participation rates of youths since the late 1980s. As a result of the remarkable development in education infrastructures as well as the changing pattern of school enrolment is an obvious potential source of change in the "labour force participation rate" [19] of youths (aged between 15 and 19). As can be seen Figure 2.8, the overall labour force participation rate for 15-19 age groups for Turkey was 5.3% in 1988 (SIS, 1988-2010). Then, both Istanbul and Turkey have respectively decline; this ratio for Istanbul fell to 26% in 2008, while that for Turkey was 28% over the same period.

[16] Employment rate is the ratio between the number of people who have jobs and the overall workforce.

[17] The employment rate for some of the EU27 members for 2009 can be listed as follows: Bulgaria (63%), Germany (71%), Greece (61%), Spain (60%), Italy (58%), Hungary (55%), and United Kingdom (70%). For further information, please access to the Eurostat news releases on the Internet (Eurostat, 2009).

[18] Because of the lack of available data, the employment rate for Istanbul has been calculated since the second half of the 2000s.

[19] Labour Force Participation rate is the ratio between the labour force (the number of people employed and unemployed) and the overall size of economically active population. In order to make analyses comparable, I have preferred to eject the agriculture activities data from the data set. The non-agriculture activities are construction, manufacturing, electricity, communication, FIRE and trade sub-sectors. And in order to be comparable of the findings of employment analyses such as employment rate, Labour Force Participation Rate or unemployment rate of Istanbul with Turkey, the overall (rural plus urban) and non-agriculture activities data has been used.

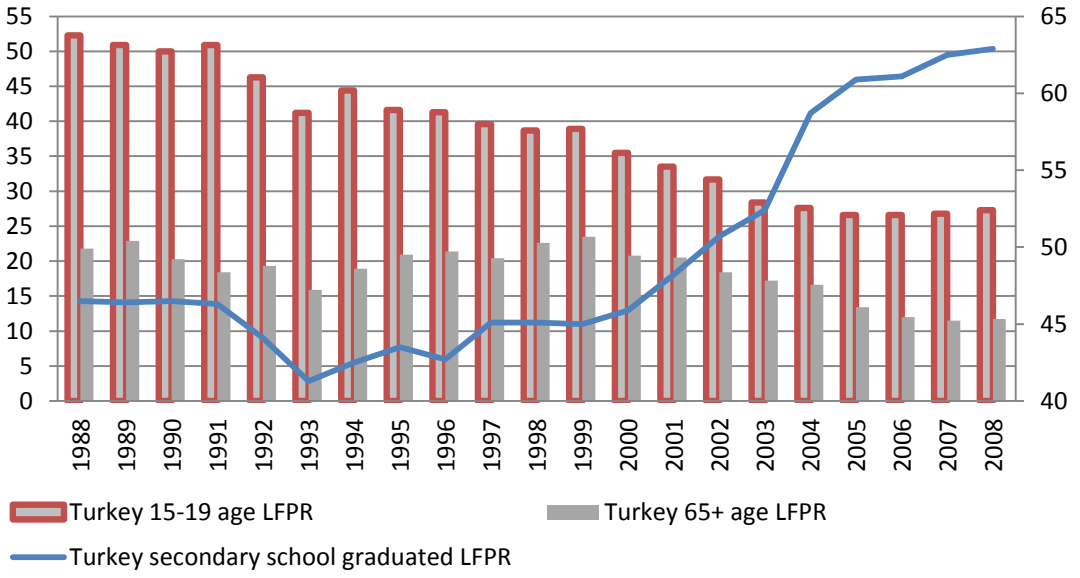


Figure 2.8: Youth, Elderly and Secondary School Graduates Labour Force Participation Rate for Turkey, 1988-2008 (Source: SIS, 1988-2010).

Cohen (1987) claims that the new employee groups have been created in the 1980s: high-skilled, high-paid and high-educated professionals, as well as low-educated and unskilled population employed in part-time and low-paid jobs. This transformation has been seen partly in Turkey's as well as Istanbul's labour force pattern. In Turkey, the overall labour force participation rate for secondary school and equivalent graduate people was 47% in 1988 (see Figure 2.8). Then, this ratio sharply increased from 58% in 2004 to 63% in 2008 (SIS, 1988-2010). In addition, the labour force participation rate for university graduated people which is relatively high (80%) remained the same between the years 2004 and 2008 in Turkey. These outcomes partly have proved Cohen's argument that has originated for understanding the transformation of developed countries economic geography. However, it is clear that there is a mismatch between the skills of employees provided by their schooling and labour market needs in Turkey.

The other parameter that affects the housing stock and housing industry is elderly labour force participation rate. Contrary to the developed countries, in Turkey, Labour Force Participation Rate for 65 and older decreased from 21% in 1990 to 12% in 2008 (see Figure 2.8). This indicates that the share of elderly employees in labour market has been in decline. However, because of the reflections of demographic transition process on labour force, it is not wrong to expect that the labour force participation rate for older population will increase within the following decades in Turkey.

Within this backdrop, female labour force participation rate has increased with small pace since the late 1980s. However it is still under the average size of European Countries.[20] As known, after the 1990s agriculture has lost its privilege position in the Turkish economy, where the female labour force mainly had been working. Between 1988 and 2008, the female labour force participation rate in non-agricultural activities for Turkey increased from 11% to 16%; while the female employment rate for Turkey increased from 7% to 13 % over the same period. In the year 2008, however, the overall male labour force participation rate was still more than three times female labour force participation rate in Turkey (SIS, 1988-2010). According to these findings, it is right to claim that the female labour force participation rate increased since the late 1980s by low proportion. However, this does not mean that female labour perfectly participates to the Turkish labour market still dominated by male labours. Within this perspective, the city of Istanbul is not an exception but slightly different where the low paid and part-time jobs opportunities have been much more available especially for women.

Either employment or labour force participation, and their trends have changed considerably with respect to gender, activities, age, education and location over time,

[20] The employment rate for female in some of the EU27 members for 2009 can be listed as follows: Bulgaria (58%), Germany (66%), Greece (49%), Spain (53%), Italy (46%), Hungary (50%), and United Kingdom (65%). For further information, please accessed to the Eurostat news releases on the Internet: http://ec.europa.eu/eurostat

and understanding the sources of these changes is important to our interpretation of the increase in the overall participation rate in recent decades and its changing relationship with housing and RM.

2.3 The Spatial Changes on the city of Istanbul

After the mid-1980s, as Özdemir (2002) perfectly says that in Istanbul Metropolitan Area's development, a large series of factors has been influenced in the different scales such as neo-liberal policies in national level and metropolitan governments in the local level. However, the geography of Istanbul has been regulated through the three main policies, since the 1950s. The first one is the decentralization of industry; the second one is the decentralization of Central Business Districts and the last one is the decentralization of residential areas regarding type and location. The changes on housing industry are also closely interlinked with the changes on spatial settings of the city.

2.3.1 Decentralization of Industry

Decentralization of industry from the core of the city has always been one of the main concerns of the plans of Istanbul since the late 1960s.[21] After the 1980s, the main trigger behind these decentralization processes was the desire to transform

[21] The first plan which aimed the decentralization of the industry was '*Istanbul Industrial Zones Master Plan (1966)'*. The second important plan of the city; 1/50.000 scaled 'Istanbul Master Plan' was done by Ministry of Public Works and Settlement and was approved in 1980. In 1995, 1/50.000 scaled 'İstanbul Metropolitan Area Master Plan' was approved by the Istanbul Greater Municipality. Then, the "1995 İstanbul Metropolitan Area Master Plan aimed to remove production industry out of Haliç, Kurtköy, Bakırköy, Zeytinburnu and Eminönü. It aims to find solution to the small-scale and middle-scale industries at the stated planned areas according to their sectors such as in Topkapı, Maltepe, Yenibosna, Kartal, Maltepe and Kurtköy districts, and prevent the areas from being wreckages which became empty after transferring prevailing industry" (İBB, 1995). And, the last plan of Istanbul was completed in 2007, 1/25.000 scaled "İstanbul Province Development Plan". Through this plan, industry was locating at the potential areas around İstanbul and the rehabilitation of the prevailing industry zones was planned (IMP, 2007).

Istanbul from national primate city to a world city (Keyder and Öncü, 1993; Keyder, 1999; Kuyucu and Ünsal, 2010; Timur, 2004). However, in Istanbul, as in all developing cities, this process was remarkably uneven, regarding either access of citizens to globalized activities or the physical spaces under transformation (Keyder, 1999). The former production sites were rapidly transformed to the new financial and commercial areas. Accordance with the decentralization process of industry from core of the city, the new service sector firms locate in these new central business districts such as Büyükdere-Maslak Axis in European side, Kozyatağı and Altunizade in Anatolian side (Dökmeci and Berköz, 1994).

2.3.2 Decentralization of Central Business District

Till the 1970s, Eminönü and Beyoğlu were the central business districts in which most of the offices, banking and trading activities of the city were agglomerated (Dökmeci and Berköz, 1994). The transformation and decentralization of such activities from traditional business centres started in the early 1970s. Both the demand of population growth and the declining accessibility to these areas caused the demand for more office areas (Özdemir, 2002). On the other hand, these demands could not be met in the historical city centres because of agglomeration in these areas.

By the construction of Bosporus Bridge (1973) and peripheral highways, the central business functions started to be dispersed along the Taksim, Şişli, Zincirlikuyu axis and Beşiktaş-Barbaros Boulevard. Especially, Beyoğlu and Taksim have a significant role in the development of Istanbul as a central business district by both being a part of the old city centre and having office spaces, after the 1980s (IMP, 2007). Then by the 1990s, the service sector developments on this axis extended in the direction of Maslak. Since the early 1990s, Maslak and Büyükdere Avenue were filled with multi-storey business and shopping centres. According to the Cengiz's (1995)

research covering the 1980-1993 period, mostly the headquarters and head offices of banks, other financial institutions and producer service firms located along this axis.

According to all these findings, it is right to assume that with the growth of the central business district tended to expand through the new development areas; in the east-west direction and the north-south corridors. The changes in the business centres and industrial areas and changes in the city distribution, together with the increase in the scale of the city and arrangements of the city transportation created important differences in residential areas that reflected by these changes (Ercan, 1996).

2.3.3 Decentralization of Residential Areas

Özdemir (2002) states that the urban land marked entered into a different period in the post-1980 era. The construction of Bosporus (1973) and The Fatih Sultan Mehmet Bridge (1987) triggered the development to the northern side of Istanbul, into the forests and water basins. In other words, the variations in the endowment of transportation network, opening of Fatih Sultan Mehmet Bridge and TEM highway, transformed the location pattern of housing.

Until the 1980s, urban fringe had mostly rural characteristics and was occupied by mostly by low-income groups, especially immigrants. The main mode of housing provision for low-income groups was 'gecekondu' in this period.[22] While the first example of gecekondu in Istanbul was observed at Zeytinburnu in the late the 1940s, their numbers grow significantly, and after the 1980s, gecekondu spread throughout Istanbul, and gecekondu became commercialized (Işık and Pınarcıoğlu, 2003; Yalçıntan and Erbaş, 2003). In this period, the growth of the urban real estate market

[22] Gecekondu etymologically means 'landed in one night' in Turkish. In the Law 775, Gecekondu explained as "a dwelling erected on land and lots which do not belong to the builder, without observing the laws and regulations concerning construction and building".

led to dramatically increased in land prices; and gecekondu became the subject of these increases (Yalçıntan and Erbaş, 2003). When the industrial zones expanded to longer-distances through urban fringe from city center, firstly, residential suburbs, then satellite cities established on the fringe of Istanbul (İBB, 1995).Within this backdrop, these areas quickly became the targets of the cooperatives of middle-income groups organized according to mass housing areas. Pınarcıoğlu and Işık (2009) pointed out that "the outskirts as well as the core of the city presented opportunities not just for the poor but also for middle and upper income groups who seeking to improve their quality of life and gain benefits from Istanbul's profitable property market after the 1990s".

Erkip (2000) stated that high and middle income groups begun to leave their former location in the city and, basically in order to improve their quality of life, moved to outskirts in the post-1980 period. High-income groups who stacked within the city tended to live in high-security prestige residential areas where constructed on big lands on the urban periphery. Çekiç and Ferhan (2004) claimed that luxurious-residences which developed after 1980 settle around forest areas which prevail at the northern sides of both edges of the city. Mostly, the villa style settlements located far from the city center and isolated from the other parts of the city were preferred by these groups such as Göktürk-Kemerburgaz. In majority, these villa sites or 'gated communities' were located in or near the forests and accessibility of these residences to city is easy via the provision D-100 and TEM highways (Geniş, 2007; Baycan-Levent et al, 2007; Kurtuluş, 2011) . In this sense, 'gated communities' in Istanbul can be defined as "the new areas that are produced in the global restructuring process and consisted group of users who have similar social and economic background and consumption habits" (Yıldız and Inalhan, 2007). In addition, Kurtuluş (2005) claimed that because of the demand and supply capacity of the investors in Istanbul who realize the potential of high-income groups' demand on the urban environment, this tendency was more distinct in the city. Today high-status residential areas or

gated enclaves can be located all over the city. However, it is necessary to mention that the high-income groups of the past-1980 period are different from the former ones in terms of their housing preferences and consumption behaviours.

2.3.4 Changes in Housing Industry

After the 1980s, with reference to the role of state, the actors of housing market, and the characteristics of housing stock and the characteristics of residential neighbourhoods, changes in Housing Industry of Turkey as well as Istanbul can be classified into two distinctive sub-periods: the years between 1985 and 2003 and the period after 2003.

2.3.4.1 The period between 1985 and 2003: the housing industry is provoked

Since the beginning of the 1950s, apartment blocks and gecekondu were the two common housing options, often seen as the opposite of each other regarding their symbolic values and inhabitants Turkey (Bozdoğan, 2002; Geniş, 2007; Işik and Pınarcıoğlu, 2003). While gecekondu dominates the illegal part of the housing market and supply mostly low-income groups, apartment blocks dominated the formal housing market provision that serves mostly middle and upper-middle income groups (Erman, 1997; see also Şenyapılı, 1998, 2004).

Figure 2.9: For Turkey, the Share of housing investment in GDP, the share of Public and Private Sector housing investments in GFI between 1970 and 2007 (Source: SIS, 2001, 2004; TURKSTAT, 2010)

Until the second half of the 2000s, the state not becoming a direct provider in housing industry, the private sector retained its important role in the housing market in Turkey. For example, between 1980 and 1984, the share of private dwelling units in overall construction permits in Turkey was 72% then decreased to 64% in the period covered 1985-1989 while it rose to 72% in 1990 and 94 period and to 74% in the 1994 and 2002 period (SIS, 2001, TURKSTAT, 2005). In a same manner, between 1974 and 1984, the average value of private housing investment in Gross-fixed Investment for Turkey was 22% and it increased to 28% in 1985-2002 period (SIS, 2001; TURKSTAT, 2005). In Figure 2.9, the fluctuation of the share of private and public investments in Gross-fixed Investment (GFI) is illustrated.

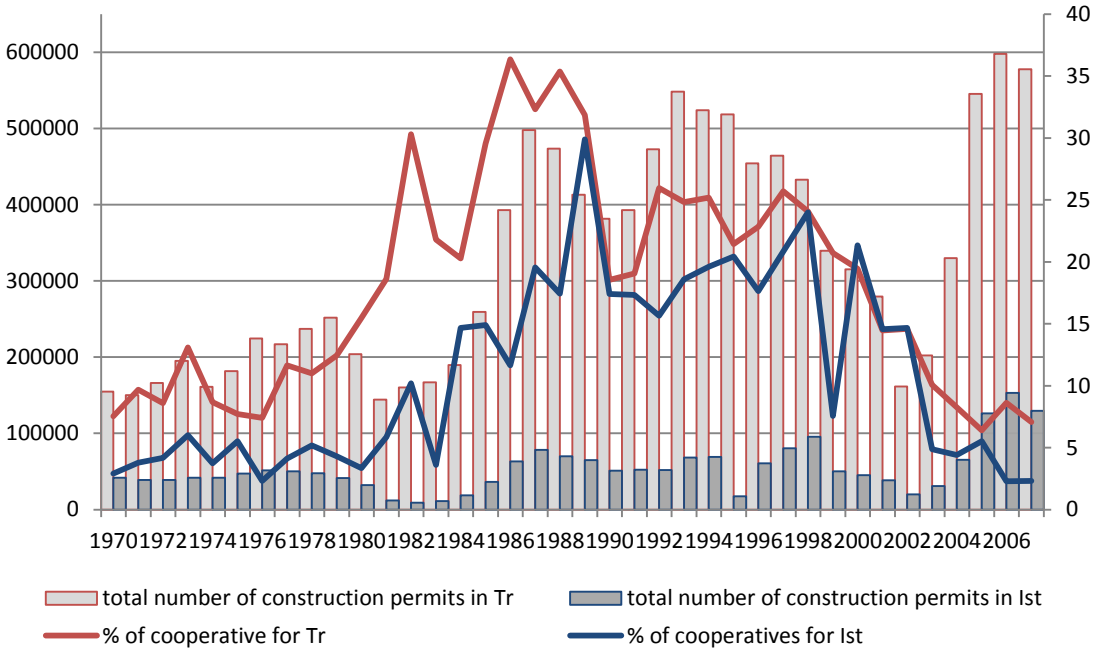


Figure 2.10: The total number of starts and the share of cooperatives in total starts for Turkey and Istanbul in the period 1970-2007 (Source: SIS, 2001, 2004; TURKSTAT, 2009, 2010)

The foundation of the Mass Housing and Investment Administration (HDA) in 1983 and the Mass Housing Fund (MHF) in 1984 can be seen as the re-definition of the role of state in the housing industry in the post-1980s period. Keyder (1999b) claimed that HDA encouraged the formation of housing cooperatives and offered inexpensive long-term credit to buyers. In other words, with the foundation of HDA, mass production of housing becomes widespread and gained popularity. In Figure 2.10, the share of cooperative housing dwelling units in overall starts grew from 21% in the 1980-1984 period to 45% in the 1985-89 period, to 53% between 1990-1994 period, and finally to its highest of 65% in the 1995-2002 period (see Figure 2.10). While the primary concern of these institutions has been to provide housing for low income groups, and to finance mass housing projects, Özdemir (2010) pointed that

the beneficiaries of the fund were also typically middle- and upper-middle income groups rather than lower-income people who had difficulty in accessing housing so the housing cooperatives turned into an instrument that frequently enabled families to purchase houses as a kind of speculative investment. As illustrated in Figure 2.10, the outskirts of Istanbul were the targets of middle and upper-middle groups' cooperatives: in Istanbul the share of cooperatives in total starts was 7% between 1980 and 1984, 20% in the period covered 1985-1989. Nevertheless, between 1990 and 1994 this ratio decreased to 17% and to 15% in 1995-2002 periods (SIS, 2001, 2004).

Meanwhile, large-scale private construction firms could only have a small share in the housing market (Özdemir, 2010). Small or medium-scale construction firms served for the greater part of the housing market (Işık and Pınarcıoğlu, 2003; Özdemir, 2010). Within this backdrop, after the 1990s, the metropolitan municipalities emerged as an alternative actor in the housing industry in Turkey. Between 1985 and 1989, the share of municipalities in housing starts for Turkey was 0.5% and increased to 1% in the 1990-1994 period and then it increased to 1.5% between 1995 and 2002 (SIS, 2001, 2004; TURKSTAT, 2009, 2010). These municipalities are preferred to enter into housing market through their own municipal companies such as Istanbul Municipality's "KİPTAŞ" which operated since the second half of the 1990 in Istanbul. Since the foundation of KİPTAŞ, approximately 50.000 housing units were constructed in Istanbul with all facilities (KİPTAŞ, 2000).

5.3.2.2 The post-2003 period: Does the housing industry deal with quantity anymore?

While, until the 2000s, the role of public sector in the housing provision in Turkey was insignificant, with a series of legal arrangements[23] HDA became the most

powerful real estate developer in the country as well as the most influential actor in constructing sector in the post mid-2000s (Bayraktar, 2006, 2007).[24] In 2001, the fund of HDA was transferred to the national budget. Then, in 2003, the duties of the former Land Office were transferred to HDA and HDA would be administered by the Office of the Prime Minister (Bayraktar, 2007). Consequently, in the second half of the 2000s, the state's intervention in housing industry gained its strongest position since the foundation of HDA in 1984. For example, HDA announced that until 2011 it aims to construct 500.000 housing units, 91% of which were completed between 2003 and 2010 (HDA, 2011).

In the mid-2000 period, the big construction firms with mostly assistance of the HDA entered the housing industry by building gated communities and middle- and upper-middle income housing areas (Keyder, 1999). In a same manner, Geniş (2007) stated that by directly financing them or providing subsidised credits to local governments and cooperatives through HDA, the state has become enabled the big construction companies to enter into the housing industry.[25] Özdemir (2010) perfectly clarified this process as "…in order to get finance for social housing projects for lower-income groups, HDA has been inviting bids from construction companies, with the winning company paying for the right to build apartments for middle- and upper-income groups on public land, while HDA retains the balance of profits in this 'revenue-sharing' model". HDA produced 16000 dwellings and 10000 dwellings by 'revenue-sharing' model in Istanbul between 2003 and 2011. In this respect, between 2003 and 2010 HDA produced 456.000 housing units and 386.000 of these housings are social housing, the others were produced by the revenue-

[23] Law no, 4966 in 2003, Law no 5162 in 2004, Law no 5582 in 2007, and Law no 5793 in 2008

[24] For a detailed discussion on the changing role of HDA, see also Özdemir (2010) and visit the internet page. Available at: http://www.toki.gov.tr/TR/Genel/BelgeGoster.aspx?F6E10F8892433CFFAAF6AA849816B2EF856F72A66C829B67

[25] In similar manner, the state passed a crucial law (No. 5582 in 2007) restructuring the housing finance sector through institutionalised "mortgage system".

sharing model (HDA, 2011). In a same manner, since 2003 HDA produced 35.000 housing units and 10% of them were social housing or low-income groups' housings, in Istanbul (HDA, 2011). While HDA, as an agent of the state, becomes the main actor in housing industry, urban transformation projects become the main tool for implementing the states' interventions on urban land in this period. In a same manner, as a former major of Istanbul Metropolitan Municipality and as Turkish Prime Ministry Recep Tayyip Erdoğan said that *"Urban transformation projects are surgical tools than can remove the tumours that have surrounded our cities"* (Radikal, 6 April 2006 cited in Kuyucu and Ünsal, 2010).

As mentioned in the preceding paragraphs, while the new types residential areas such as sites and gated communities mushroomed in the outskirts of Istanbul, urban transformation projects has gained momentum in former gecekondu areas in the core of Istanbul in the post-1980 period. With the assistance of HDA, urban transformation projects became the main tool for transforming the incompletely commoditized informal housing areas and deprived inner-city neighbourhoods in the cities (Kuyucu and Ünsal (2010). During this period, HDA prepared five urban transformation projects with local municipalities for gecekondu settlements in Istanbul with an objective constructing 2000 dwelling units, 50% of which is completed up to 2011 (HDA, 2012).

As indicated previously, 'revenue-sharing' model provides opportunities to HDA for turning revenues to social housing construction for low-income groups. During this process, HDA can be able to construct 'for profit' housing on state land by own subsidiary construction firms and by public private partnerships (Kuyucu and Ünsal, 2010). Especially in Istanbul, this model has been implemented perfectly since the mid-2000s. This means that HDA and big construction firms have changed the urban settings of Istanbul by large-scale housing projects for middle- and upper-middle income groups since 2005.

As known, the construction of gated communities accelerated after the mid-1990s, nevertheless, since the mid-2000s the characteristics of them have varied significantly in terms of housing type, housing quality, environmental quality and tenure profile. In this respect, Baycan-Levent and Gülümser's (2007) study on 161 gated communities constructed after the 1980s showed that in Istanbul gated communities show quite different variations regarding their housing types and size, and environmental structure. Within this backdrop, likewise the former ones newly constructed (after 2005) gated communities and gated sites locate in urban periphery. However, the later ones are significantly varied from the former ones, in terms of size of construction firms, housing type, housing quality, housing size options. In order to show these variations, the mass housing projects in Büyükçekmece are analysed in detail. In this respect, some process are selected and examined in detail (see Table 2.1). As can be seen in the table below, newly constructed housing projects could supply the diverged demands of vast majority of today's society in terms of housing size, number of rooms and purchase values. In short, after the mid-2000s the housing stock of the city has become suitable to supply the changing demands of households of the city as well as the country.

Table 2.1: Selected housing projects in Büyükçekmece

Name of the Project	Construction Firms	start	finish	number of housing	m2	number of rooms	Purchase Value
Agena Esenyurt Evleri	Üretici Firma:Kumuşoğlu İnşaat	2007	2009	320	89-321	1+1, 2+1, 3+1, 4+1	106-381 000 TL
Akkoza Evleri	Üretici Firma:Garanti Koza	2007	2010	5500	*	1+1, 2+1, 3+1, 4+1	119-700000 TL-
Alkent İstanbul 2000 Göl Malikaneleri	Üretici Firma:Alarko Gayrimenkul	2006	2008	63	607-1200	*	1 800 000 - 2 500 000 $
Ayışığı Sitesi	Üretici Firma:Demir İnşaat	2008	2010	336	65-145	1+1, 2+1, 3+1	90 - 180000 TL
Beyaz City Residence	Üretici Firma:Beyaz İnşaat	2007	2009	320	60-180	1+1, 2+1, 3+1, 4+1	120 - 320000 TL
Beyaz Residence Evleri	Üretici Firma:Beyaz İnşaat	2006	2008	*	150-180	3+1, 4+1	*
Bizim Evler	Üretici Firma:İhlas Yapı	2007	2009	720	85-210	1+1, 2+1, 3+1, 4+1	145-295000 TL
Fiba Manolya Evleri	Üretici Firma:Fiba Gayrimenkul/HDA	2007	2008	408	140-225	3+1, 4+1,6+1,	280 000 TL
Günışığı Sitesi	Üretici Firma:Demir İnşaat	2005	2007	138	120-150	3+1, 4+1	92-270000 TL
İstHANbul Evleri	Üretici Firma:Han Yapı	2006	2008	1600	84-142	1+1, 2+1, 3+1	112-225000 TL
Kent Plus Mimarsinan	Üretici Firma:Emlak Konut GYO	2005	2007	600	62-175	1+1, 2+1, 3+1, 4+1	126-320000 TL
Koza Bahçeşehir Evleri	Üretici Firma:Garanti Koza	2006	2008	292	70-202	1+1, 2+1, 3+1, 4+1	120-700000 $
Milpark	Üretici Firma:MilPA	2008	2010	1000	36-150	1+1, 2+1, 3+1, 4+1	63-360000 TL
Opal Park	Üretici Firma:Hasanoğlu İnşaat	2008	2011	356	125-260	2+1, 3+1, 32 dubleks	212500-442000TL
Spradon Evleri	Üretici Firma:Kuzu Grup	2006-2009		1738	65-456	1+1, 2+1, 3+1, 4+1	129000 - 1620000 TL

In this respect, the first differentiation in the housing typologies was seen in the size of house dwellings. After the second half of the 1990s, the size of houses increased. For instance, as can be seen in Figure 2.11, while the share of 150 square meters and larger houses in overall occupancy permits for Turkey was 3% in the period between 1985 and 1989, and it increased to 5% in the period 1990-1994, then it increased to 23% in the period covered 1995-2002; finally it rose to 36% between 2003 and 2009 (SIS, 2001; TURKSTAT, 2005, 2007, 2008, 2009, 2010b).

Together with this growth, the 'single house' typology has shown an important role; the share of 150 and more sq m-single houses in overall occupancy permits for Turkey increased from 4%, to 24% and it rose to 34% over the above-mentioned periods (SIS, 2001; TURKSTAT, 2005, 2007, 2008, 2009, 2010b). Nevertheless, after the 2000s, as a reflection of changing profile of the population and their housing demands, the share of dwelling units with less than 49 sq m in overall occupancy permits for Turkey has increased. Between 1995 and 2002, this ratio was 0.8% then it increased to 2% in the period 2003 and 2009 (SIS, 2001; TURKSTAT, 2005, 2007, 2008, 2009, 2010b).

In a same manner, apart from the previous periods; while the three and four-room dwellings still took the lion's share in the housing stock in Turkey; the proportion of five-room houses in occupancy permits increased after the second half of the 2000s.[26] In the 2000-2005 periods this ratio for Turkey was 28% then it increased to 35% the years between 2006 and 2009 (see Figure 2.12). At this stage, it is necessary to note that all these findings do not completely characterize the transformation of housing stock after the 1990s. Hence, the typologies of dwellings were analysed in detail over the same period. There was a high correlation between the size of dwellings and the number of rooms until the second half of the 2000s; for instance,

[26] For more information the housing preferences of Turkish Households, please visit the internet page available at: http://www.ilgazetesi.com.tr/2009/01/23/toki-bilinirlik-arastirmasini-yeniledi/

the period 2000-2005 the 88% of the 50-74 sq m-dwellings consisted of two-room in Turkey. However, since the 2005, this correlation seems to have become weakened; in the period covered 2006-09, the share of two-room dwellings in the overall 50-74 sq m-dwellings for Turkey decreased to 30% while the proportion of the three-room dwelling was 51% and the proportion of four-room dwellings was 10% in the overall 50-74 sq m-dwellings of Turkey (see Figure 2.11).

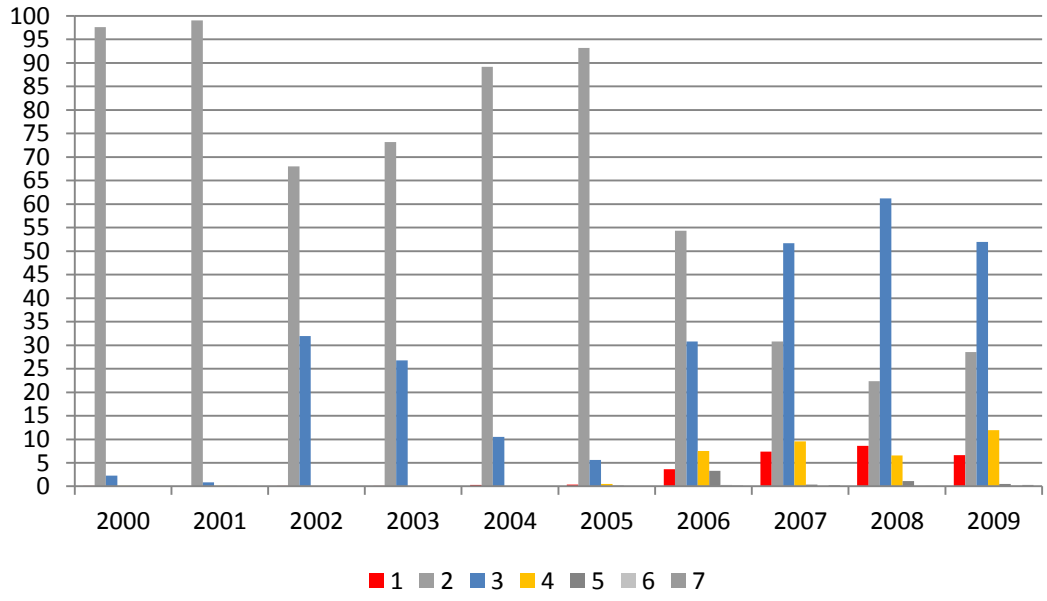


Figure 2.11: The diversification of 50-74 sq m dwellings with reference to number of room in Turkey (SIS, 2001; TURKSTAT, 2005, 2007, 2008, 2009, 2010b)

Here, it is necessary to note that refer to the nature of the housing industry itself; the respond of housing industry to the changing preferences of households took at least two years. However, Istanbul's housing stock responded to the changing housing demands and preferences of the households faster than rest of Turkey. For instance, as a reflection of the increasing number of elderly people and the decline in the

households' size, the small dwellings became the most favourable in the housing market; the share of the 50-74 sq m dwellings in overall occupancy for Istanbul increased from 6% in the period 2000-2005 to 11% between 2006 and 2009. In a same manner, the share of 150 and more sq m dwellings in overall occupancy permits for Istanbul decreased from 30% to 18% respectively over the same periods. (See Figure 2.12)

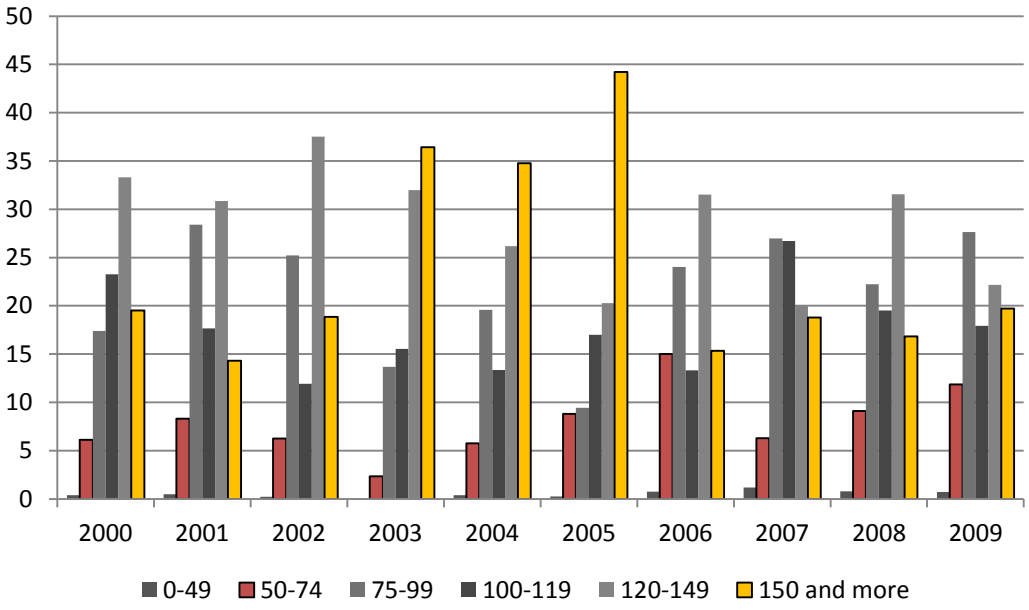


Figure 2.12: The share of dwellings in total occupancy permits with reference to sq m between 2000 and 2009 in Istanbul (SIS, 2001; TURKSTAT, 2007, 2008, 2009, 2010)

Here, it is necessary to note that refer to the nature of the housing industry itself; the respond of housing industry to the changing preferences of households took at least two years. However, Istanbul's housing stock responded to the changing housing demands and preferences of the households faster than rest of Turkey. For instance,

as a reflection of the increasing number of elderly people and the decline in the households' size, the small dwellings became the most favourable in the housing market; the share of the 50-74 sq m dwellings in overall occupancy for Istanbul increased from 6% in the period 2000-2005 to 11% between 2006 and 2009. In a same manner, the share of 150 and more sq m dwellings in overall occupancy permits for Istanbul decreased from 30% to 18% respectively over the same periods. (See Figure 2.12)

Within a similar perspective, the two room-houses segment (one room and one lounge) has shown an increase in Istanbul. Between 2000 and 2006 the share of two-room dwellings in overall OP for Istanbul was 5% and it reached 12% in the period 2006-2009 (TURKSTAT, 2007, 2008, 2009, 2010). In addition, partly as a consequence of the increasing number of gated communities and HDA prestige projects in the outskirts of Istanbul, after the second half of the 2000s, for the first time the seven and more-room dwellings took a significant value in overall occupancy permits as 12% for Istanbul in the period covered 2006 and 2009 (TURKSTAT, 2007, 2008, 2009, 2010).

As mentioned in the preceding paragraph, the housing type diversified with reference either to size or to number of rooms without any necessary correlation between. In this manner, the housing market of Istanbul has offered various alternatives to households compare to Turkey. For instance, in the period covered the 2000-2005 the 84% of 50-74 sq m dwellings in overall OP for Istanbul consisted of two-room; nonetheless between 2006 and 2009 this segment consisted of two-room (52%), three-room (37%), four-room (4%) and five-room (4%) segments. According to the analyses, it is appropriate to claim that this diversification can be seen in all housing types in Istanbul since 2005. (See Figure 2.13) To summarize then, while the share of large dwelling units and the share of smaller dwelling units in overall occupancy permits increase, meanwhile the typologies of dwellings also change: the share of

one to two-room dwellings and more than five-room dwelling also increase after the 2000s.

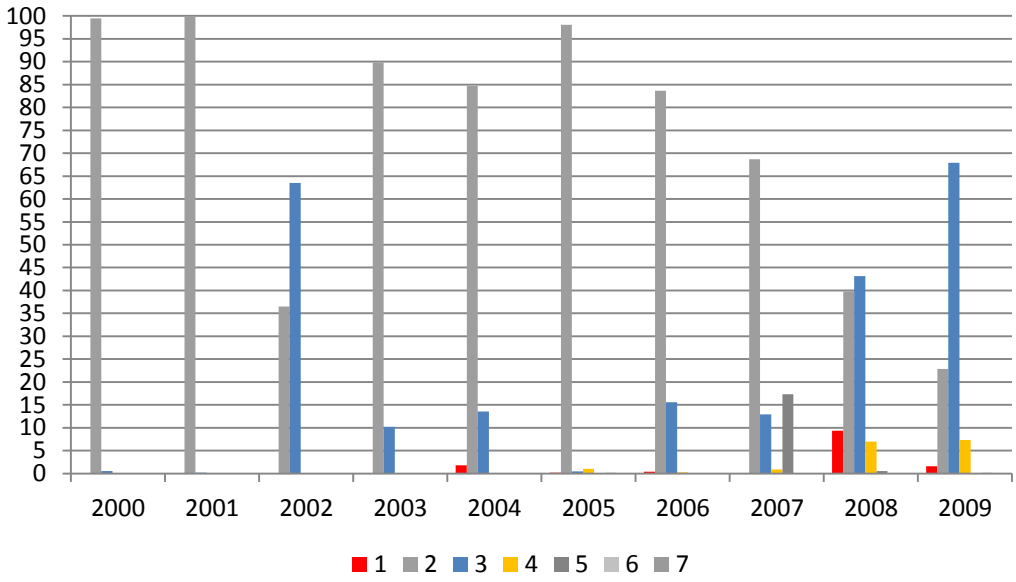


Figure 2.13: The diversification of 50-74 sq m dwellings with reference to number of room in Istanbul (SIS, 2001; TURKSTAT)

As well as the characteristics of households and demographic attributes, the characteristics of housing stock also affect RM (Clark et al, 1984). It can be argued that as a result of the diversification in the housing stock regarding the size, number of room, the type of investor in the post-1980 period; the residential mobility patterns of households might be different from the previous period. In light of these discussions, it is possible to infer that Istanbul's housing stock has shown distinct characteristics and claimed that RM characteristics of households have to be different after the 1990s.

2.4 Conclusion

Istanbul is under the spotlight in this chapter. The flow chart (Figure 2.14) below contains the main events and the main figures of the transformation of the city in the post-1980 period. In short, Istanbul is ageing, the average household size decrease, the share of nuclear and single person households increase, the labour force participation rate of female increase and service industry increases its share in the city. Meanwhile, the housing industry of Istanbul is also transformed. While the big-scale construction firms enter into the housing market, state left its audience role and becomes a one of the important actors in the market. In compatible with this transformation, the housing units are varied in terms of size, typology and location. For instance, the shares of small-size (small than 65 m^2) as well as extra-large-size (large than 250 m^2) housing units significantly increase in this period. Meanwhile, upper-class residential areas widespread the geography of the city: such as Kemer-country (former forest) and Göktürk (former gecekondu neighbourhood) and etc. Here, it is necessary to restate that the main purpose of this chapter is to provide a background or a kind of base map for analysing RM process of households of Istanbul in the macro-level. Keep these findings in mind; basically, it is right to say that the RM pattern of households of Istanbul have to be different in the post-1980 period. Now, the thesis moves on RM literature.

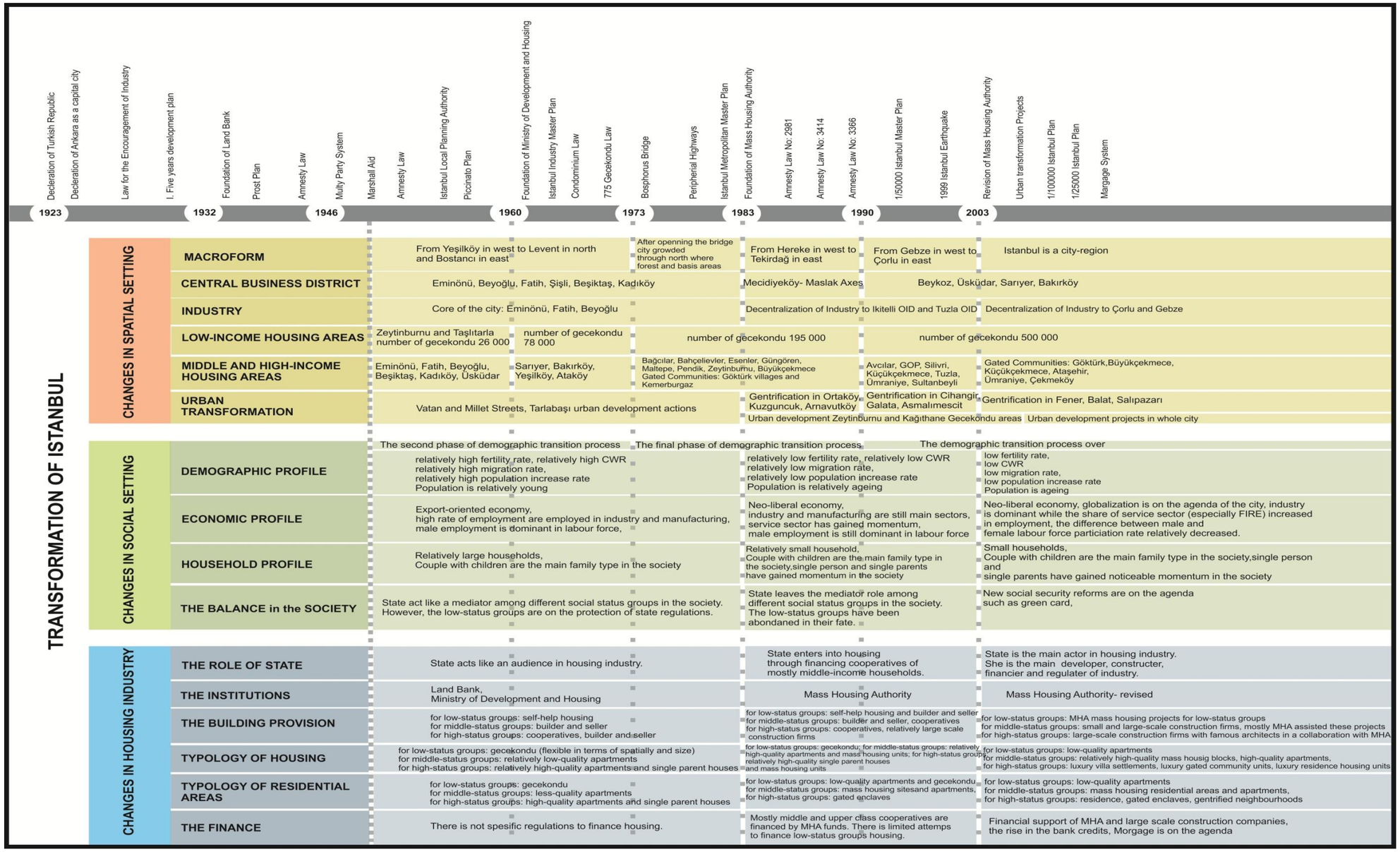


Figure 2.14 Transformation of Istanbul

CHAPTER 3

RESIDENTIAL MOBILITY AS A FUNCTION OF LIFE CYCLE

3.1 Introduction

RM literature can conveniently be subdivided into micro- and macro approaches (Cadwallader, 1992; Moore, 1972; Golledge and Stimson, 1997). The micro or disaggregate, or behavioural, approach is mostly characterized by an interest in the characteristics of movers and is concerned with the construction of models that realistically represent the individual decision-making process involved in RM (Quigley and Weinberg, 1977; Cadwallader, 1982, 1992). This involves mainly a consideration of both why people move and why people do not move. On the other hand, the macro or aggregate, or ecological, approach is used in two main contexts: first, to analyse the spatial pattern of mobility flows, and second, to establish the interrelationships between mobility flows and other features of the urban geography, such as socio-economic, demographic, and housing characteristics (Moore, 1972; Cadwallader, 1982, 1992). Here, the focus is on describing population flows (sometimes in terms of socio-economic characteristics of population) at an aggregate level between census tracts. Taking the risk of repeating myself, I want to restate that these two approaches are completing rather than vying (see Golledge, 1980). Whereas the roles of both approaches are significant in analysing RM, it is clear that the combined approach of these two points of views could be more appropriate to examining RM compare with each of them alone.

At the broadest level, this thesis aims to understand the relationships between RM and urban geography in the case of Istanbul. In this respect, this chapter presents an overview of RM phenomenon. The following review mainly focuses on RM process in compatible with micro rather than macro-approach. However, it is important to note that understanding the nature of RM is an important precondition to understanding of the aggregate effects of mobility on urban geography (see chapter 5 and 6). This chapter of study is organized into five sections. It begins with a discussion on the RM concept and its background. It then proceeds to the evaluation of the behavioural modelling of RM studies. And in the next section of the chapter I examine the micro-level approach in detail and finally summarize the evaluation of RM from a historical point of view.

3.2 Defining Residential Mobility

Commonly, the permanent or semi-permanent relocation in the residence is defined as "migration" (Lee, 1966; Roseman, 1971; Weeks, 2002). However, not all kind of spatial relocation activities are included within this definition. Since the Ravenstein's study (1866 cited in Lee 1966), "laws of migration", migration literature is divided into the studies of migration, which are supposed to be motivated by the opportunities for earning economic profits by the move, and the studies of intra-urban migration or RM, which are presumed to be mainly triggered by the family issues (Rossi, 1955; Clark and Onaka, 1983; Geist and McManus, 2008).

RM is an issue that has attracted considerable attention over the years.[27] Since the beginning of the 1950s sociologists, economists and psychologists have proposed a number of interdisciplinary analyses of "who, why, when, and where and how households move". Because of the specialization of the mobility term, the RM

[27] See Quigley and Weinberg, 1977; Clark, 1982; Dieleman, 2001; Vlist et al; 2002 for review of the early literature see Li and Tu, 2011 for a review of recent literature.

literature gives a series of definitions of residential mobility, ranging from “decision-making process” to “spatial adjustment process” or “a function of the household’s dissatisfaction” or “a result of changes in housing needs”. In its simplest terms, mobility refers to the local moves of the population within a neighbourhood, city, or metropolitan area (Cadwallader, 1992; Dieleman, 2001). However, the most cited definition of RM is driven by a mismatch between a household’s residential needs and preferences as well as the household’s desire to come to a better matching between the household’s space requirements (Clark and Onaka, 1983).

Dieleman (2001) argued that contemporary RM studies shifted their emphasis from the demand factors of households (e.g. family size, income, occupation career, life cycle events, and education attainments) to supply-side factors such as housing policy and local housing markets’ characteristics. Clark and Onaka (1983), Dieleman and Everaers (1994), Geist and McManus (2008) highlight the role of life-cycle events; Böheim and Taylor (1999), Clark (2009) indicate the role of income; Courgeau (1985), Clark and Winters (2007) analyse the role of family typology, on mobility. Besides, Huang and Clark (2002), Hui (2005) and Li (2003) point out the importance of the tenure choice, Teixeira and Murdie (1997) indicate the roles of developers, real estate agents, and Dieleman et al., (2000), Li and Sui (2001) and Vlist et al., (2002) focus on the differences of local housing market, in the RM literature. In taking this forward, Knox and Pinch (2000) indicate that studying RM is significant since it contributes to an understanding of the formation of urban structure, which is consisted of many individual movements.

As previously indicated, the decisions about whether and where to move are determined to a large extent by economic, life-course, housing, and residential satisfaction factors. The most recent mobility research is defined by the household's housing aspirations, stage and timing of events in the family life cycle: life-course (Geist and McManus, 2008). In short, the impact of life-course approach and housing

policy strategies – the availability in housing market, the limitations in choosing housing and the stringency degree in housing market -on residential mobility studies are well-known.

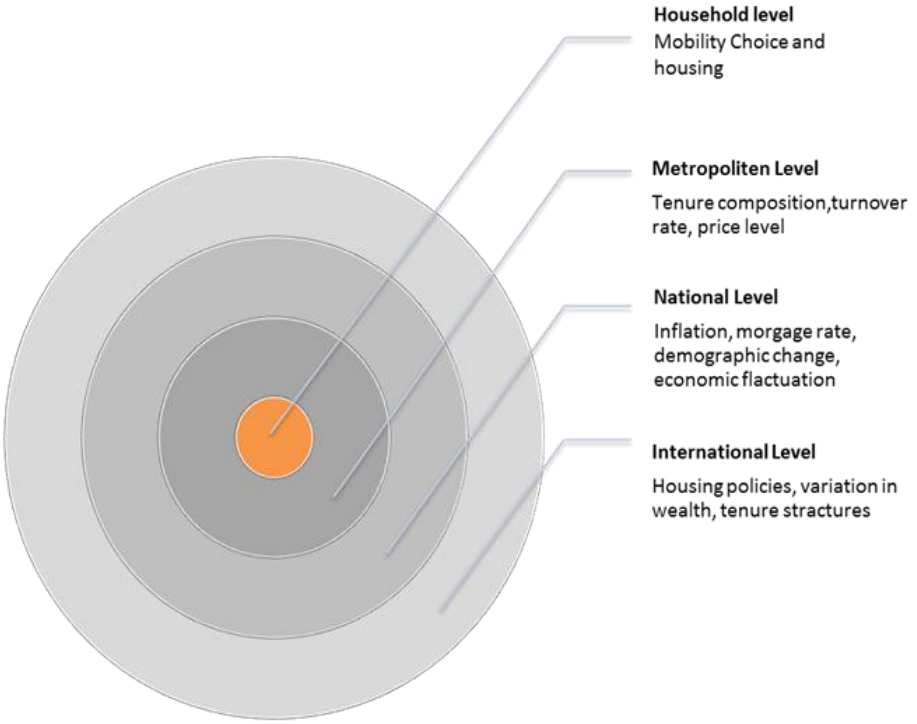


Figure 3.1: RM and its embeddedness in three geographical scales (Dieleman, 2001)

Dieleman (2001) models RM process embedded in three geographical levels: metropolitan, national and international levels. According to this model, represented graphically in Figure 3.1, Dieleman (2001) describes the core as household level and conceptualizes the interrelations between all scales as:

> the matching of households and dwellings at the household level is embedded in circumstances on these three geographical scales: 1. the metropolitan

housing market as a household lives in; 2. the national economic and demographic circumstances as these develop and fluctuate over time; 3. National level; differences in housing policies, wealth and tenure structure which shape the RM process" (Dieleman, 2001:252).

In compatible with this point of view, Clark (2005) defines RM as "… a consistent and pervasive behaviour forming a major element of the policy context: it affects the conditions under which policies are developed and exerts a strong influence on their outcomes" (Clark, 2005:15309).

3.3 Theoretical Perspectives on RM

RM studies are classified into two main perspectives: micro and macro (see Cadwallader, 1992; Quigley and Weinberg, 1977). The micro approach (or individual level) examines the movements of households at the individual level; however, macro approach examines the spatially-dependent links of the movements between origin and destination points at the aggregate level, in an urban context (Cadwallader, 1992; Quigley and Weinberg, 1977). The latter studies, including many ecological studies focusing on aggregate data, mostly use origin and destination matrices of moves to understand the rules of spatial correlations (Quigley and Weinberg, 1977). On the other hand, they also criticized this classification and considered that "the macro level studies only provide extra evidence, based on contextual effects, bearing on the decision process" (Quigley and Weinberg, 1977).

Another classification, which is under the same title, comes from Cadwallader (1992). He argues that the macro-approach is concerned with explaining aggregate mobility behaviour by analysing characteristics of socio-economic and physical environments, such as age, income, education, etc. On the other hand, the micro-approach mostly focusses on the psychological triggers of RM and is concerned with

why households do move or not move, plus how individuals choose between alternatives (Cadwallader, 1992). It is necessary to say that while both approaches are partially successful, a synthesis of these two approaches may be more successful to understand RM process. In this respect, the conceptualization of Dieleman (2001), as can be seen in Figure 3.1, is an appropriate attempt that aims to make a synthesis of these two approaches.

RM was perceived, before the 1950s, as a pathological phenomenon associated with transience: inadequate dwelling units, distressed in family and neighbourhood deprivation (Shumaker and Stokols, 1982). In that era, RM studies examined the standard economic model and develop alternative theories of this pure economic process. These models are based on consumer utility theory whereby individuals choose residential location in order to maximize their utility subject to an income constraint (Dieleman, 2001). The actual decision of whether or not to move is assumed to be undertaken by a rational individual based on a calculation of the perceived costs and utilities associated with various alternatives by emphasizing on the ultimate residential location (the "Where"). Lessons from the previous works on mobility show that RM cannot be sufficiently explained by pure economic models. In response, alternative RM theories with reference to sociology and physiology are developed. These models include the life-cycle then life-course models, residential satisfaction and environment issues which emphasis on the behavioural process of moving (the "Why"). This chapter follows by examining micro approaches to RM.

3.3.1 Economically-Oriented RM Studies: Economists' Utility Maximization Approach to RM

From economists' point of view, RM process of households is usually placed in a partial equilibrium framework that results from the disequilibrium in housing consumption (Quigley and Weinberg, 1977; Nordvik, 2001). In simple words,

economists suggest models in which assume that households move only if the projected gain surpasses the cost of moving (Quigley and Weinberg, 1977). In this sense, economists (Brown, 1975; Hanushek and Quigley, 1978) attempt to model the decision making process using micro-economic principle of utility maximization (Becker, 1964) or random utility function. These models mostly are based on housing consumption disequilibrium approach (for review see Nordvik, 2001) or housing consumption mismatch resulting from an unanticipated economic or demographic shock (for review see Ihlanfeldt and Sjoquist, 1998).

Hanushek and Quigley (1978) are among the first who attempts to model the relationships between mobility and housing consumption disequilibrium. In their model, moving decision is modelled as a function of housing demand, transaction and search costs, and the distribution of housing prices. Their findings indicate the importance of changing housing demand in affecting moving decision and searching intensity. Graves and Linneman (1979) develop a consumption model of residential choice, in which housing market disequilibrium-induced migration is modelled as a function of changes in the variables determining the demand and supply of the non-traded goods which are location specific such as housing type, value of housing. However, sociologists such as Rossi (1955) and Brown (1975) examine RM in accordance with the life-cycle approach in the context of housing market.

3.3.2 Behaviourally-Oriented RM Studies: Domination of Sociologists' Life-Cycle Approach to RM

In his well-known book, "Why Families Move: a study in the social physiology of urban RM", sociologist Rossi (1955) finds that mobility is a common process which is accomplished by households to adjust their housing demands in order to fit the needs of an increasing or decreasing household size. He applies the life-cycle approach to analyse the mobility. In compatible with this formulation RM is a

process that aims to adjust the changing households' needs which are mainly the outcomes of the changes in life-cycle domains (Rossi, 1955).

The life-cycle approach to RM interprets the mobility as a "functional response" to the changes in life, mostly in family life (Geist and McManus, 2008). Geist and McManus (2008) perfectly summarize Rossi's classic life-cycle model.

> The classic life-cycle model assumes an orderly transition through adulthood, a trajectory that moves from the completion of education to entry into the labour market, followed by marriage and the establishment of a nuclear family household, followed by the transition to parenthood and several decades of child-rearing before retirement (Geist and McManus, 2008:285).

Dieleman (2001) argues that the focus of attention of RM studies is changed by Rossi towards analysing the triggers of households' mobility to look for a new housing in the individual level. Rossi (1955) defines mobility as a decision-making process itself and points out three steps of mobility: 1) decision to leave old dwelling, 2) search for a new home, and 3) choosing new home from a set of alternatives. He concludes that the most effective factors of residential relocation choice include life-cycle issues, the housing tenure, general housing dissatisfaction and residential stress (Rossi, 1955). In compatible with this point of view, he mentioned that the majority of movers are driven by a desire to adjust their living space. Accordance with the RM perception of Rossi, RM is a process that focusses on adjustment to the changes in household life.

Brown and Moore (1970) state that mobility researches have focused on the decision to move and RM's interlinks with life-cycle events, in particular on the associations with related tenure choice and occupation (see Clark and Onaka, 1983). In this regard, as can be seen in Figure 3.2, RM is seen as a spatial adjustment process and

the aim of RM is rationalized as reducing the stress originating from the contradiction between housing needs and aspirations, and actual housing consumption-location, size, type, and tenure form (Brown and Moore, 1970; Hanushek and Quigley, 1978). Brown and Moore (1970) also focus on the household's decision to move. However, as can be seen in Figure 3.3, they take this point forward and divide the process into two stages:

> …people become dissatisfied with their present housing situation, as changes occur in the household environment or its composition. Afterward, room stress arises in the present housing situation and eventually leads the household to second stage: the search for a vacancy in the housing stock and the decision either to relocate or to stay in the present dwelling (Brown and Moore, 1970:45).

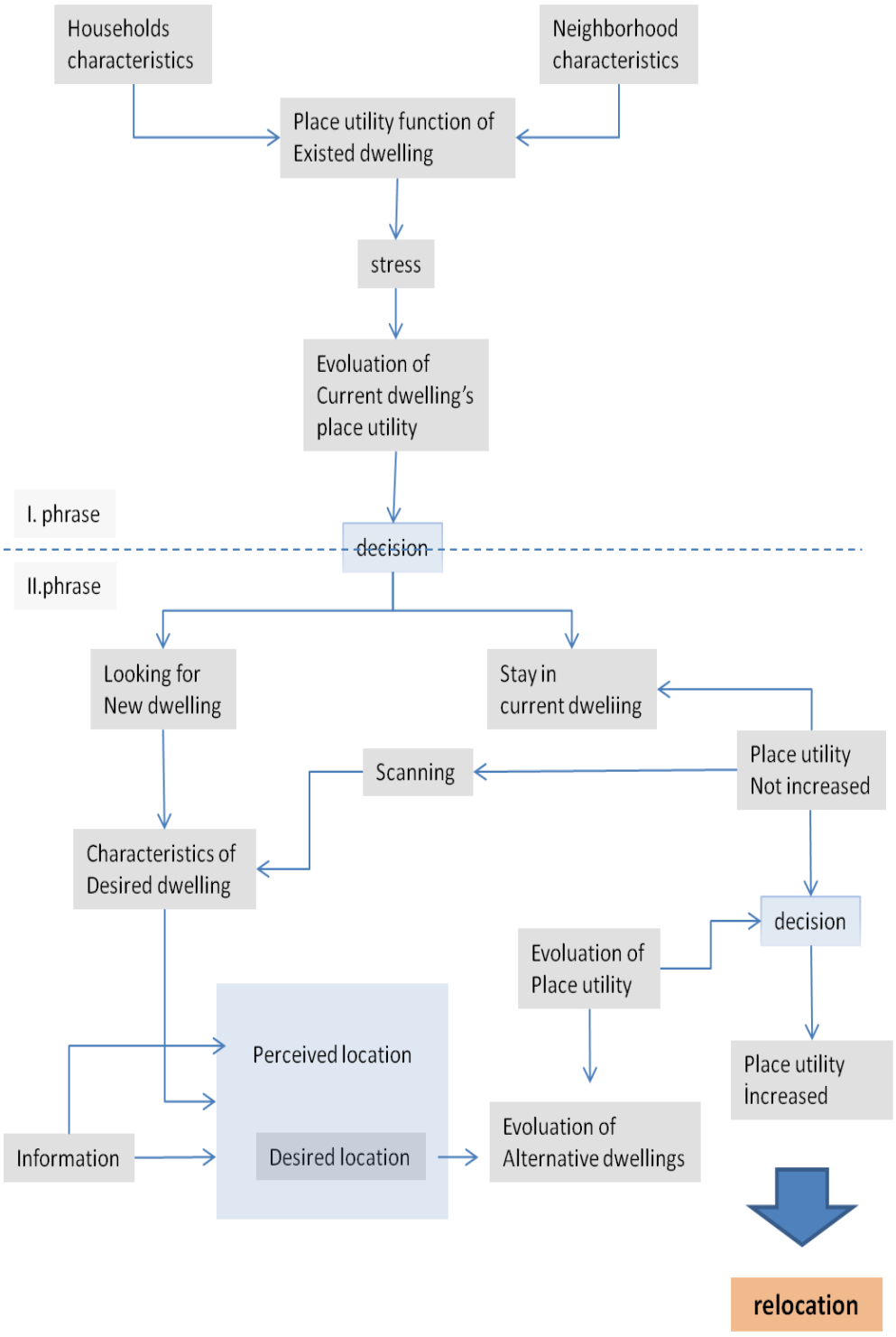


Figure 3.2: Brown and Moore's RM model (1970)

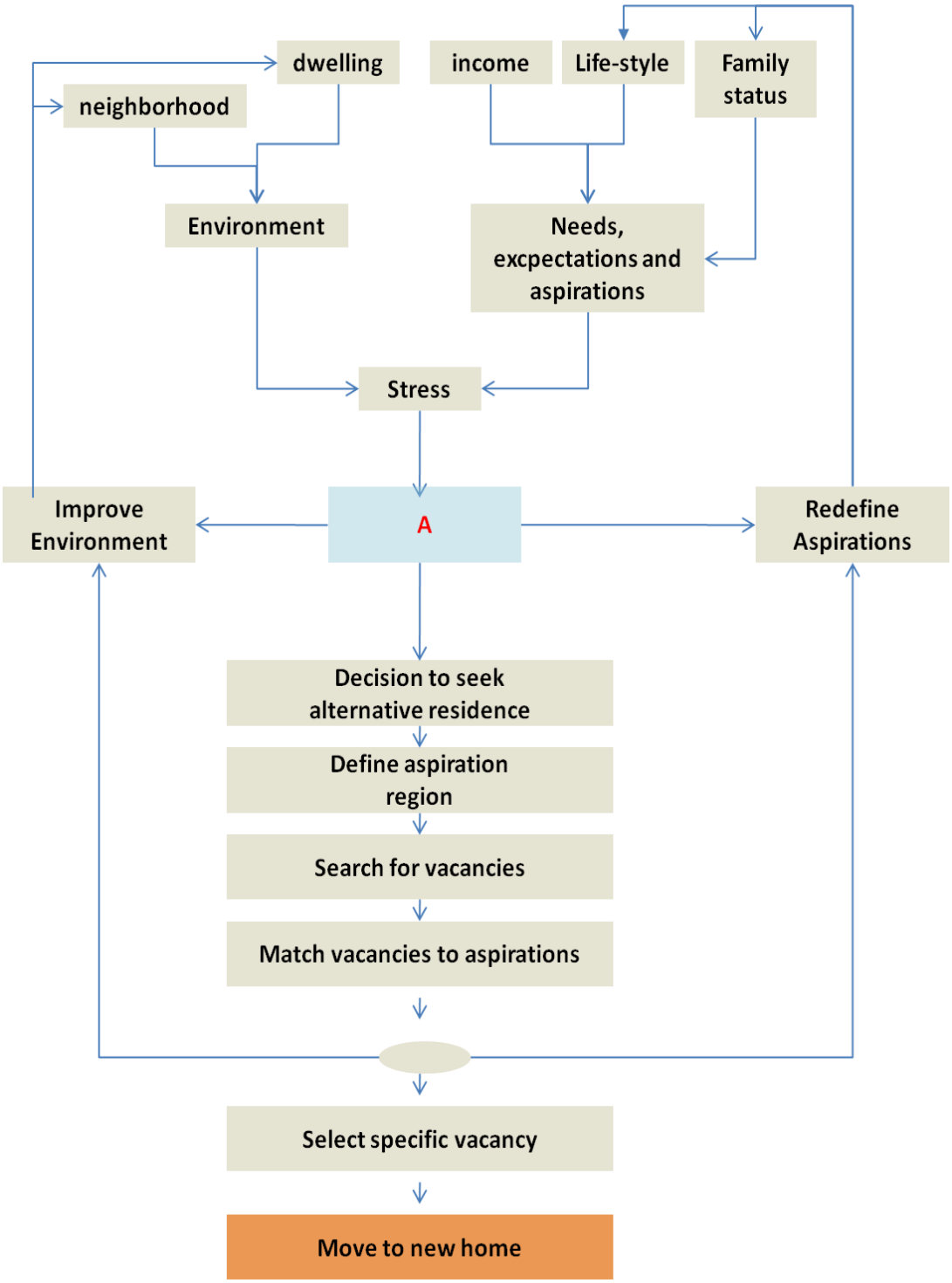


Figure 3.3: Modified RM model of Brown and Moore

The complexity of the RM process is illustrated in Figures 3.2 and 3.3 which is a modified model of the former. Brown and Moore (1970) also mention that households, after a searching process, could choose or not to choose to move depending on the availability of appropriate housing in local housing market. In these circumstances, the inhabitants act in two-way: adjust their needs or make arrangements in their existing housing units.

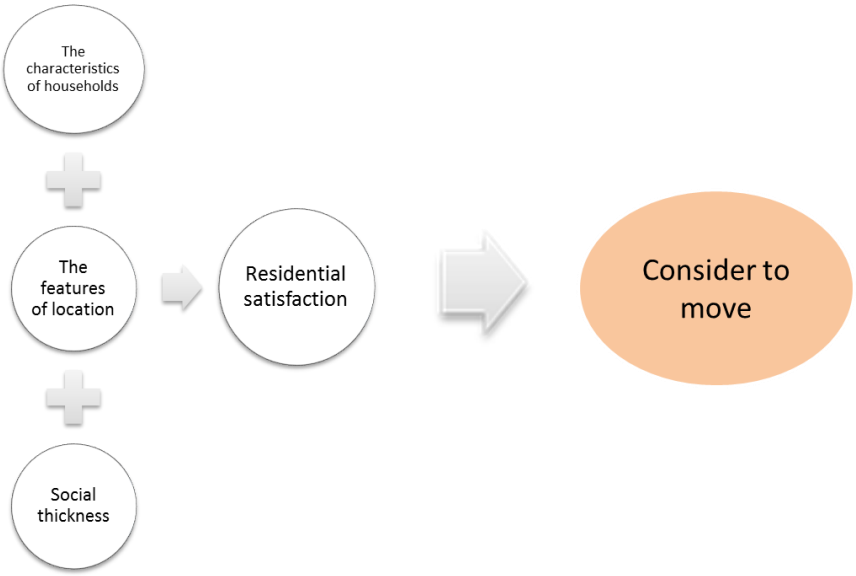


Figure 3.4: Speare's RM model (Speare, 1974)

In the second half of the 1970s, residential satisfaction concept was included more explicitly into model of RM. Speare et al., (1974) define three stages of RM process (see Figure 3.4): "(1) development of a decision to consider moving, (2) the selection of an alternative location, and (3) the decision to move or stay" (Speare et al, 1974). According to Speare et al, a household will consider moving only if their dissatisfaction passes some threshold; however, they only actually move if the future

benefits of move exceed the costs of moving. These first wave RM researchers' findings or non-economic models lay the foundation for numerous subsequent studies on the life-cycle process of RM.

The behaviourally oriented RM studies of Rossi (1955) and Brown and Moore (1970) have significant effects on the following RM studies. They place the process of RM in the context of housing studies and shift the focus from the aggregate move to the move of individuals and their motivation to look for another dwelling. The keystone of the RM literature is "How households are matched to houses". In a similar vein, as Dieleman perfectly says: "RM is seen as an adjustment process and its impacts can be seen on both the households who move and the places they choose in their relocation behaviour" (Dieleman, 2001).

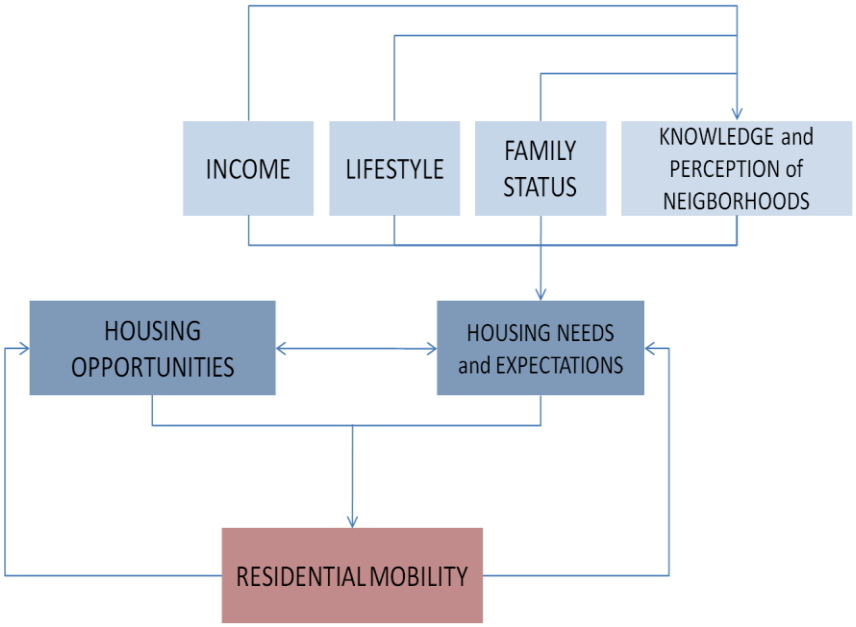


Figure 3.5: Modified model of relationship between housing demand and RM (Source: Thorns and Perkins, 2002)

After 1980, housing career concept has been clarified and examined explicitly in the mobility studies. The term was originally developed in employment studies and transferred into behavioural mobility models. In short, housing career concept assumes that if upward mobility is available in employment career, the upward mobility with improvement of housing situations (tenure, type, size, location, amenities) is also available (Winstanley et al, 2002). Within this backdrop, in order to increase in understanding the dynamics of the relationships between life-course issues and RM process, examining housing careers by concerning the mutual relations between life-course and RM provides a comprehensive as well as dynamic way (Clark et al., 2003; Özüekren and Kempen, 2002). This relation can be seen in Figure 3.5.

As mentioned above, in the previous periods, social scientists preferred more obvious representations of people's life and its transition as a result of macro-level developments. Earlier research on the "life-cycle" assumed that the sequences of life stages and the ages at which they occurred would be similar for all individuals and households (Clark, 2001; Dieleman, 2001; Mulder and Dieleman, 2002; Özüekren and Kempen, 2002); on the other hand, considering the externalities of RM this interpretation is not right. To redeem these weaknesses of life-cycle approach, the life-course perspective is developed as a comprehensive structure to represent society by introducing a historical perspective into the study of how people live from birth to death (Kertzer, 1983).[28] In this approach, researchers have to focus on the events themselves, and measure the intervals between them (Clark and Huang, 2004).In compatible with the life-course approach, there are several spheres in life, and each of them are closely related with social, housing and employment careers (Clark and Huang, 2003; Dieleman, 2001; Mulder and Dieleman, 2002; Geist and McManus, 2008).

[28] For detailed information on evaluation of life-course approach, see Kok (2007).

As indicated previously, in the household or individual level, as most of the moves are short distance moves, the characteristics of local housing markets are closely related with the RM behaviour of households (Clark and Dieleman, 1996). In this respect, RM process cannot be understood without considering the attitude of local housing markets (Dieleman and Everaers, 1994; Dieleman et al., 2000; Clark and Huang, 2004; Jones et al., 2004). Lawrence (2008) usefully summarises that relationships:

> The housing market is the outcome of set of interrelated actions, procedures and policies involving a wide range of individuals and institutions including building contractors, real estate developers, property owners, financial institutions, local and national authorities dealing with housing, building and land-use planning, and households (Lawrence, 2008:).

As mentioned before, RM is a process through which the household adjusts its housing consumption with reference to the demand for housing. Dieleman et al. (2000) stated that RM creates a vacancy chain which may lead to a better matching between housing consumption and housing needs. In this sense, housing market provides an opportunity for households to select their housing and to adjust their needs.

The variety of RM of households can depend either on what kind of housing is allowed to be built and where, or on the changes of the housing market at the global context (Floor et al., 1996 cited in Strassman, 2001). Housing conditions and housing market options mostly tend to reduce the inequalities between the households. As a result of diversity of choice in the housing market, levels of mobility can also be expected to be influenced by the supply side of housing market where private rental housing could accommodate frustrated potential movers.

Housing demand, housing supply, the features of dwellings, residential buildings and environments as well as neighbourhoods are essential components of housing markets (Vlist et al., 2002; Clark and Huang, 2003). The variety of RM of households can be dependent upon both what kind of housing is allowed to be built and where (Floor et al., 1996 cited in Strassman, 2001). Broadly, RM at the household level links with local housing market choices which differ from city to city. In other words, housing stock composition, local housing market, local economic structure and local government behaviours as well as state's position within all these arenas, are assumed as significant variables for understanding the interaction between RM process and housing market. In a similar vein, Clark and Dieleman (1996 cited in Dieleman, 2001) assume that the mismatch between the demand of household and the supply of housing market perfectly identify the household mobility flows in the well-functioning housing market. Vlist et al (2002) represents the interrelation between RM and housing as follows: "…first consider whether there are differences in RM between local housing markets… then consider what housing-market features determine these differences in RM rates" Vlist et al (2002).

Seko and Sumita (2007) highlight that while RM is a function of life-course; however, there are several environmental and institutional limitations to RM: such as households' "socioeconomic factors at the time of move and their future expectations, financial asset position, price of tenure, government interventions on housing, and housing policy" (Seko and Sumita, 2007). Similarly, residential preferences and housing dissatisfaction are seen as another important component of understanding the behaviour of households has the strongest influence not on when to move but on where to move (Clark, 1991; Adriaans, 2007).

As previously implied, changes within households are not the only reason for relocation. Here, the socio-spatial characteristics of RM and the quality of life issues

are added to the model. In this respect, Clark (1982) referred to the "inertia model" and argues that "this model posits the longer one remains in a location the less likelihood there is of moving …and quality of life factors, for example, climate, are weighed against cost of living variables…"(Clark, 1982). In compatible with this approach, Shumaker and Stokols (1982, cited in Winstenley et al., 2002) state that the notion behind the RM is based on the desire to improve the life-style amenities rather than to get a well-paid job.

As stressed above, there are distinctive regularities in RM studies and most of them are mutually related with the contexts of the markets. In other words, RM behaviours of households are dependent on the local housing market regularities and it is right to expect that in the different market contexts for example US and Europe, RM regularities act differently (Clark and Dieleman, 1996). Restrictions or regulations on the local housing market have strong influences on RM. The government regulations and market policies on housing are seen as an important factor of RM (Clark and Dieleman, 1996 cited in Strassman, 2001). Briefly, the state and market play different roles in different modes of RM (Cameron and Muellbauer, 1998).

Strassman (2001) also indicates that government intervention such as housing-allocation rules as well as demographic shifts decreases the rate of RM. Government and market play rather different roles on RM behaviour in different systems. For instance, since complex government interventions in land use, finance, construction, and pricing of housing constraint the supply of (new) housing in Europe, European researchers analyse RM at the micro (individual) level and stress the complexity of RM process (Strassman, 2001). On the contrary, in the US where the faiths in the efficiency of the markets are dominated by less government control (Strassman, 2001). In such a market economies, housing is private and the main trigger of housing supply and demand circle is the price (Strassman, 2001). All these interactions are summarized by Huang and Clark "the different government-market

interaction results in different tenure choices and a different profile of housing distribution among the population" Clark and Huang (2002). This is reflected in the researchers' approach to the RM process.

Within this background, Vlist et al. (2002) notice that the changes on households, the changes on housing and environment, and the changes on housing market are the key domains of understanding and modelling RM. Until at this point, the relationship between RM and the changes in housing as well as the changes in housing market are revealed. In what follows, I focus on the relationship between RM and the changes on households' characteristics in detail.

3.4 Changes on Households

As mentioned in the preceding paragraphs, in the RM studies, the reasons for changing residence vary with the characteristics of the movers. A considerable body of research has been dedicated to RM, in particular, to analyse the characteristics of households who move, in other words, to answer "who they are".

3.4.1 Socio-Demographic Characteristics of Households

As mentioned in the previous paragraphs, RM process is driven by a mismatch between residential needs as well as preferences of households, and the characteristics of their current housing situation (Brown and Moore, 1970; Speare et al, 1974; Quigley and Weinberg, 1977; Ham and Clark, 2009). Clark and Dieleman (1996 cited in Dieleman, 2001) state that this mismatch is often related with the changes in households' demographic profile in which it affects the need for more or less space. In the same scope, Mulder (1993) highlights that age and composition of household are among the most important predictors of RM. Singles and couples without children are known to be more mobile than couples with children, mainly

because they are more likely to have few commitments, to have not yet settled and to be working on their labour-market trajectory. In Clark (2009) income (and, indirectly, level of education) is assumed to be an important factor in understanding housing careers. After this short reminder, this section continues with a close look at demographic characteristics of households who move.

3.4.1.1 Age

Studies in RM uniformly include age as an essential analytical variable. RM studies fortify that young individuals are more mobile than old ones (Clark and Onaka, 1983; Long, 1992; Wulff, et al., 2010). As mentioned previously, there is a strong relation between the propensity to move and the stage in the life-cycle or life-course of an individual. In this context, as Wulff (2006) demonstrates that age also provides a sociological view point in the life cycle or life-course approaches which are one of the most used concepts in analysing RM. In all developed countries, people aged between 20 and 35 are by far the most mobile population brackets, and RM typically falls as one gets older (Rossi, 1955; Clark et al., 1984; Long, 1992; Clark, 2009).

Most of the RM analyses prove that the triggers of RM such as getting married, birth of children, divorce or getting a new job, are concentrated at the young ages, this partially clarifies why mobility decreases with age (Rossi, 1955). In a similar vein Geist and McManus (2008) find that "…mobility peaks when people are in their 20s compatible with high degrees of family formation and the establishment of independent households among the young; then mobility decreases substantially for individuals in their 30s and 40s, and remains low throughout the remainder of the life course" (Geist and McManus, 2008).

On the contrary, some studies find that RM increases again in later life. Wulff, et al., (2010) focus on the mobility of middle-aged persons (aged between 45 and 64), an

understudied cohort in RM. The most important finding of this research is that mid-life can no longer be simply viewed as settled, but instead represents a period of great change (Wulff et al., 2010). Furthermore, Huang and Clark (2003) found that older households were more likely to move in London. In their comprehensive survey on RM of European elderly, Angelini and Laferre`re (2011) found that the mobility of elderly was closely related with the housing market dynamics of the countries, and they tended to move renting and small-size homes despite owning homes.

3.4.1.2 Household Size

In the light of the literature, it is right to say that the relationship between household size and RM is ambiguous. In their well-known analyses, Rossi (1955) found that RM rates increases with household size. Long (1972), found that, on the contrary, RM rates decreases with the increase in household size. However, the findings of Torrens (2007) were mixed: two to four person households were more mobile than single person or more than five-person households.

3.4.1.3 Household Typology or Family Type

Since most movers are dependents, accompanying the head of a household, the household typology, rather than those of the individuals, is a critical factor (Simmons, 1968). As indicated previously, the research tradition analysing the effect of family change on RM has a long history (see Rossi 1955; Li and Tu, 2011). For example, Courgeau (1985) examines the roles of family on RM in France. The findings of his study in France show that having a child significantly raises the likelihood to move. Clark and Withers (2007) observe relatively similar patterns in their study: in the rental sector couples and nuclear families are less mobile than single person; on the contrary they are more mobile than single person to move to

home ownership. It seems clear that household typology is to have a significant impact on RM in various ways. First, living as a couple automatically entails a move from either one or two of the partners (Böheim and Taylor 1999). The impact of children is relatively complex as they tend to increase mobility at first, but ultimately decrease it (Geist and McManus, 2008).

3.4.1.4 Education

RM research examines the effects of the changes in the educational career of households in their mobility process (Geist and Manus, 2008; Clark, 2009). One of the well-known findings of RM studies is the increase effect of high-education in mobility (Clark, 2009). In other words, the more educated people are more mobile than less-educated people. Wu (2007) indicates that Chinese Communist Party membership and education, both enhancing the chance to move up the job ladder and increase the mobility rate. In short, "wealthier and better educated families are more mobile either in the sense of moving for exogenous reasons or moving more frequently to adjust housing consumption" (Clark, 2009). In the same line of thought, because better educated people can make easier use and analyse sophisticated sources of information, they should show a higher propensity to move (Kan, 2007).

3.4.2 Economic Characteristics of Households

This section continues with the close look to economic characteristics of households such as occupation, employment and tenure profile.

3.4.2.1 Employment

In the literature, unemployment is found to have mixed effects at the individual level; unemployment increases the probability to proceed to a residential move, otherwise,

the overall unemployment level exerts a negative effect on mobility (Pissarides and Wadsworth, 1989). In the case of unemployed households, whose bad economic prospects discourage to move, nevertheless, the effect is more significant (Pissarides and Wadsworth, 1989).

3.4.2.2 Tenure Profile

Tenure choice and mobility decision are usually treated as a simultaneous decision making process the studies (Clark et al, 1994). Clark and Huang (2003) declare that the relationship between housing tenure and RM is strong (see also Clark et al., 1984; Clark, 2006). In general, renters are more mobile than homeowners (Clark et al., 1984; Clark et al., 2003). This tendency is closely related with the quality of housing: the quality of owner-occupied houses are mostly higher than rental houses, so the higher quality of their existing houses declines the owners' dissatisfaction levels with the housing situation compared with renters'. Housing tenure with age and household composition is one of the dominant correlates of the propensity to move (Dieleman et al., 2000).

3.5 Conclusion

This brief review of RM literature demonstrates the fact that RM is a complex process in theoretically as well as practically. Conceptualised either as a decision making process or spatial adjustment process, the decision to move has unpredictable variables within all levels. In short, this chapter identifies the nature of RM, its most important domains, and the explanatory theoretical concepts and frameworks applied in analyses, for example; age, education, household typology, occupation profile of households and etc. Then, I conclude this chapter by a flowchart (Figure 3.7) which contains main themes and main researchers of RM process with regard to historical evaluation.

I believe it is important enough to restate that at first life-cycle and then life-course approaches to modelling RM mainly aim to highlight the motivations of RM process in the city through the analysis of the relationship between the changes on households and housing industry. In this thesis, while the motivations of RM are not mainly concerned, however, the variables of life-cycle method such as age, education, employment and etc., are used to analyse the characteristics of movers from the perspective of the thesis. In this respect, the micro-level analysis is carried out in the following chapter.

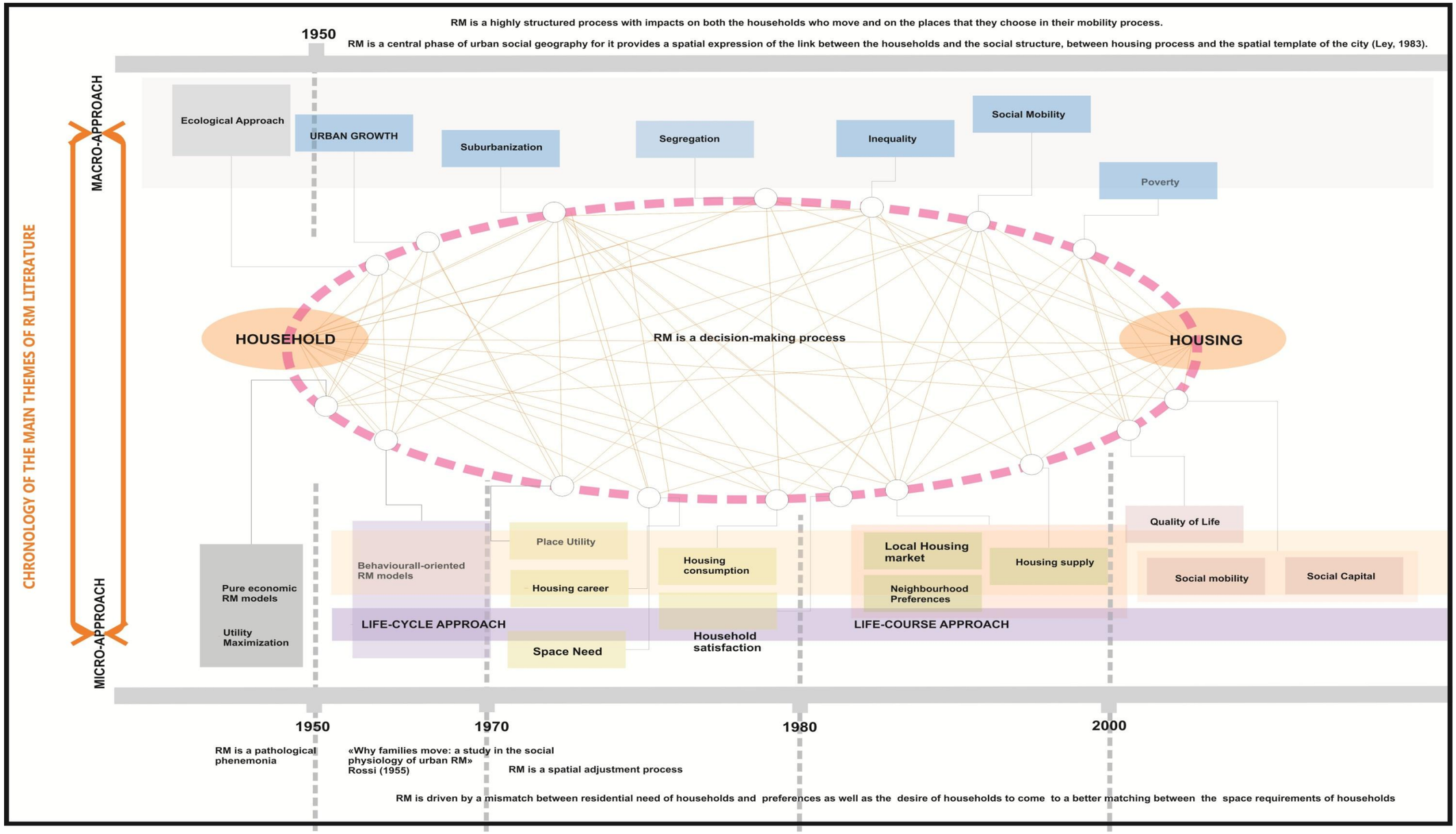


Figure 3.6: Chronology of the main themes of RM literature

CHAPTER 4

MOVERS: WHO ARE THEY?

4.1 Introduction

In this thesis, RM is assumed as a sequential process which operates by adjusting the changing dynamics of households and urban geography. In compatible with this perspective, in order to examine RM process in Istanbul, I develop the analysis with two-tier. The first stage of the analysis examines the characteristics of movers (chapter 4) and macro-level analysis highlights the spatial features and the effects of the moves on urban geography of the city (chapter 6).

Recalling chapter 3, sociologists, economists and psychologist propose a number of interdisciplinary analyses of "who, why, when, where and how households move" (Clark, 1982; Dieleman, 2001; Li and Tu, 2011). In this chapter of the thesis, I conduct an analysis to answer one of the questions above: "who are the movers". Life-course approach[29] to RM identifies two major set of variables that are examined: (1) demographic characteristics including age, household size and family types or household typology; (2) economic status including education, occupation and industry and labour force status. Within this background, this chapter gives an

[29] As indicated in chapter 2, at first life-cycle and then life-course approaches to modelling RM mainly aim to highlight the motivations of RM process in the city through the analysis of the relationship between the changes on households and housing industry. In this thesis, while the triggers of RM are not mainly concerned, however, the variables of life-cycle method such as age, education, employment and etc., are used to analyse the characteristics of movers from the perspective of the thesis.

overview of the demographic characteristics of the movers of Istanbul for the period 1990-2000, based on age, sex, size of the household and the structure of family. It also covers the basic socio-economic variables, for instance labour force status, employment sectors as well as the occupations. As previously indicated, the main aims of this chapter is to explore the socio-demographic and economic characteristics of the movers, to highlight the changes on the characteristics of the movers and to show how RM process changes associated with the changes on these demographic and economic settings of households during the ten-year period between 1990 and 2000. In other words, my main concern, here, is to explore how such changes influence the RM process of households in Istanbul between 1990 and 2000. Finally, it is right to say that the analyses provide a starting point for the macro-level question of the thesis that rely on searching the linkages between households composition and urban space in Istanbul.

4.1.1 Methods and Variables of the Analysis

In this section, at first the method (percentage distribution and location quotient (hereafter LQ) and then the variables (age, size, type, education, labour force status, employment profile) of the first level analysis are revealed.

4.1.1.1 The Methods of the Analysis: Percentage Distribution and LQ

Hakim (1977, 1978 cited in Visvalingam, 1983) claims that ratios as well as absolute numbers are mostly used as social indicators in most of the area-based analyses. However, using these methods is inadequate and misleading while analysing the area-based social indicators.

Basically, the percentage distribution or ratio (%) is used to standardize the base populations and to compare them. While Visvalingam (1983) discusses the

difficulties of this method, he notes that in small size population more extreme values are produced by using percentage distribution method, while in large size population the value remains on the average. The study of Visvalingam (1983) also shows that percentage distribution cannot be appropriate to use in the case of consideration of density or a reference points. Consequently, the percentage distribution represents the problems of small populations more than observed and also it is inappropriate for area-based analyses (Visvalingam, 1983). Another method of this thesis is the LQ analysis (Table 4.1).

The formula of LQ[30]:

$$LQ_i = \left(\frac{E_{ij}}{E_i}\right) \Big/ \left(\frac{\sum E_{ij}}{\sum E_i}\right) \qquad (4.1)$$

Where Eij = economic activity in sub-area i department j

Ei = total economic activity in sub-area i

∑Eij = economic activity of department j in the whole area

∑Ei = total economic activity in the whole area

As can be seen in Table 4.2, while analysing RM, this formula is converted as;

$$LQ_{Ci} = \left(\frac{C_{ij}}{A_i}\right) \Big/ \left(\frac{\sum C_{ij}}{\sum A_i}\right) \qquad (4.2)$$

Where Cij = independent variable frequency in sub-group of data set i

Ai = total independent variable frequency in sub-group of data set

[30] For detailed information about lq and % methods please see this internet page available at: http://mailer.fsu.edu/~tchapin/garnet-tchapin/urp5261/topics/econbase/lq.htm

$\sum$Cij = independent variable frequency in the whole data set

$\sum$Ai = total independent variable frequency in the whole data set

Therefore, the LQ method is commonly used in population geography, locational analysis and economic geography; it has much wider applicability for calculating and mapping relative distributions of analysed phenomena. As can be seen, both the calculation and the interpretation of LQ are quite simple. An LQ = 1 entails that $area_i$ (in this thesis a district of Istanbul under consideration) has the same composition compared to region as a whole, an LQ> 1 means that there is a relative concentration of the activity in area i compared to the region as a whole, in other words the activity concerned is basic; and an LQ < 1 indicates that an activity under consideration is non-basic for an $area_i$ compared to an area concerned.

Researchers of RM mostly prefer to use mostly area-based measurement methods; therefore, LQ is not one of the commonly used methods in RM studies. However, this method can be applied in the analysis of RM with reference to cross-sectional approaches, especially through the case based design of LQ estimation. On the other hand, according to the findings derived from the macro-level analyses of this thesis, it is correct to claim that these two methods are not appropriate to figure out the different patterns of the RM behaviour of households.

4.1.1.2 Variables of the Analysis

As mentioned in chapter 1, in this thesis, RM is measured by the microdata file variables of population censuses 1990 and 2000. In order to make analysis more comprehensive and complementary, number of variables are recoded or computed from the original micro-data file (Figure 4.1). And ın Table 4.3, the input variables of first-level analysis of this study are descripted.

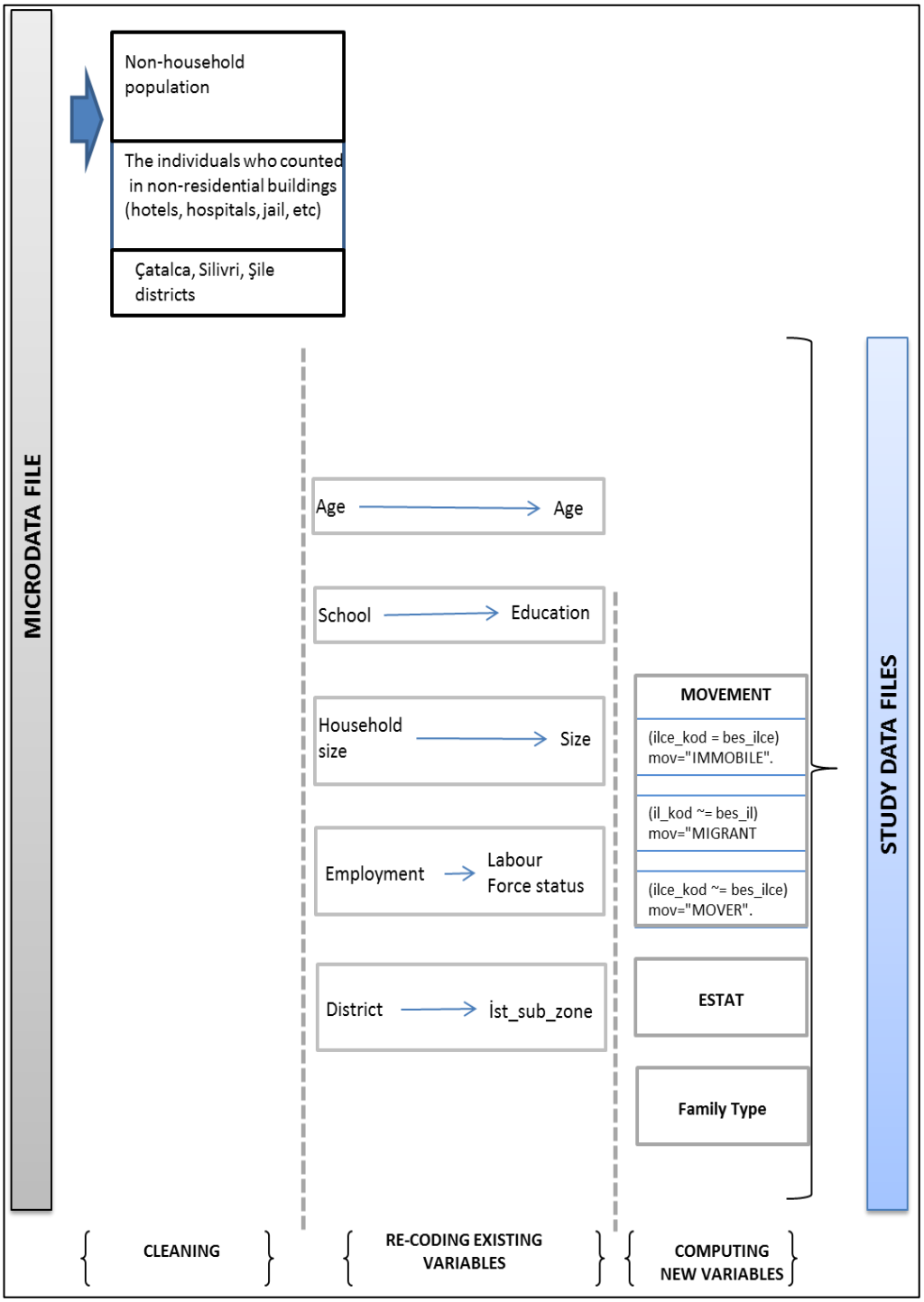


Figure 4.1: The formulation steps of study data-sets

Table 4.3: The variables of the first-level analysis of the thesis

Variable name	Categories of variable	Frequency	
		Data-set 1990	Data-set 2000
Age category	0-24 age	3148	4472
	25-39 age	33177	48740
	40-49 age	17137	39405
	50-64 age	16380	18033
	65 + age	6079	6551
Education	Not completed primary school	8366	9895
	completed primary school	40364	58949
	completed a middle school	8184	14029
	completed high school equivalent	10541	20110
	completed higher education schools	8414	14202
Household size	1	4459	10265
	2	10704	21606
	3	14917	27204
	4-5	32280	45656
	6-10	13020	12109
	11+	532	572
Labour Market Status	Wage –earner	35846	53381
	employer	4734	7885
	self-employed	11744	14548
	unemployed	21375	10376
	retired, housewife and	1969	31001
Family Type	Single person		746
	Single parent with one child		292
	Single parent with more than one children		370
	Couple		1710
	Couple with one child		2988
	Couple with more than one children		4092

The mobility status of households can be measured with the census in one of two ways, either by using the districts of residence five years before to define inter-city movers, or by using the city of residence five years before to define lifetime migration between cities or nations. In order to measure the RM behaviour of households, the movement variable has been computed from these two original variables of microdata files. However, the interval for the districts of residence question is fixed at five years. Given the focus of the analysis on inter-city differentiations in RM, movement is defined as a triple variable: MIGRANT= moved between cities in the past five years; NON-MOVER= lived in same district five years earlier and MOVER= moved between the districts of the same city in past five years.

Age of households is measured by the age variable reporting the age of the household head. The AGE variable is recoded from the original age variable of microdata file and is defined in eleven categories: 0-19, 20-24, 25-29, 30-34, 35-39, 40-44, 45-49, 50-54, 55-59, 60-64, 65 and older for the ease of comparison RM behaviours of households.

The household size is measured by the household-size variable that is recoded from the original household size variable of microdata file. It is defined in six categories: A= one-person households, B= two-person households, C= the three-person households, D= the household size four to five, E= the household size six or greater

The education attainment level of households is measured by the education variable that is recoded from original school variable of microdata file. This variable is defined in five categories: A= illiterates and not schooling, B= primary school, C= secondary school and its equivalent, D= high school and its equivalent, E= college, university, master and PhD degree.

The family type of households is computed from the original household size and relationship variables. It is defined in six categories: A= Single Person, B= Single parent, C= Single parent with more than one child, D=Childless couple, E= Couple with one child, F= Couple with more children

The labour status characteristics of households are measured by the Lab-Market variable. This variable is computed from the original "work" and "does not work" variables of microdata files. During the computing process, the 0-11 age population is excluded from the "work" variable and the Lab-Market variable is defined in five categories: A= Wage-earner, B= Employer, C= Self-Employer, D= retired, housewife and revenue owner.

In the table above, the basic information about the variables used in the macro-level analysis of the thesis is summarized.

4.2 The Findings

The findings of first level analysis which is basically aimed to examine the characteristics of movers are listed. The findings are categorized under four categories: demographic profile, household typology, social profile and economic profile of movers.

4.2.1 Demographic Profile

Considerable agreement exists that RM is a highly structured process and primarily driven by the "life-course", that is age, household size, family type, educational attainment of household and the occupation profile of households in the contemporary RM literature. In this respect, I mainly analyse the movers of Istanbul in terms of age, household size, family type and education attainment levels.

4.2.1.1 Age: The younger the more mobile

Istanbul finishes the demographic transition process in the late 1980s. In simplistic terms, this means that Istanbul is ageing. In compatible with this fact, while the median age of Istanbul's households was 37 in 1990, it increased to 41 in the 2000; and the share of 0-24 age households in overall Istanbul households remains the same: 4.1% in the same period. In compatible with the ageing process of Istanbul, while the share of 65 and older households in overall households of Istanbul increased from 8% in 1990 to 9,5% in 2000; the highest share of households also shift from 30-34 to 35-39 age bracket during the same periods (see Table 4.4 and Table 4.5).

Table 4.4 Age profile of the movers, non-movers, migrants and Istanbul in data set-1990

Demographic characteristics	**Movers**			**Non-movers**		**Istanbul**		**Rate of Mobility**	**Change in rate of RM**
	Number	**%**	**LQ**	**Number**	**%**	**Number**	**%**		
Age	(a)	(b)	(c)					(d)	(e)
0-19	41	0.50	0.79	215	0.38	474	0.62	8.65	
20-24	319	3.86	1.09	1359	2.39	2674	3.52	11.93	3.28
25-29	1293	15.63	1.21	5815	10.21	9813	12.93	13.18	1.25
30-34	1687	20.40	1.29	8642	15.17	12043	15.87	14.01	1.38
35-39	1426	17.24	1.16	8606	15.11	11294	14.88	12.63	-1.38
40-44	1070	12.94	1.02	7432	13.05	9589	12.63	11.16	-1.47
45-49	719	8.69	0.87	6029	10.59	7548	9.95	9.53	-1.63
50-54	518	6.26	0.78	4915	8.63	6120	8.06	8.46	-1.07
55-59	473	5.72	0.76	4743	8.33	5740	7.56	8.24	-0.22
60-64	324	3.92	0.66	3872	6.80	4520	5.96	7.17	-1.07
65 +	182	4.84	0.60	2413	5.25	2773	8	6.59	-0,58

Table 4.4 and Table 4.5 also illustrate that non-movers are older than movers in Istanbul: while the median age of Istanbul is 43 in 2000, for non-mover it is 45 and the median age of the movers is 38 in the same period. In addition, from 1990 to 2000 non-movers have become older: the share of 65 and older households in overall non-movers were 5.25% in 1990, however, this share significantly increased to 11% by 2000. This finding either fortifies the ageing trend of Istanbul's population or illustrates the increasing stability of Istanbul's elderly in the post-1980 period.

Table 4.5 Age profile of the movers, non-movers, migrants and Istanbul in data set-2000

Demographic characteristics	Movers			Non-movers		Istanbul		Rate of Mobility	Change in rate of RM
	Number	%	LQ	Number	%	Number	%		
Age	(a)	(b)	(c)					(d)	(e)
0-19	85	0.59	1.03	354	0.36	719	0.57	11.82	
20-24	624	4.34	1.18	2432	2.46	4604	3.67	13.55	1.73
25-29	2628	18.28	1.49	9821	9.92	15363	12.26	17.11	3.56
30-34	2998	20.85	1.41	13622	13.76	18590	14.83	16.13	-0.98
35-39	2544	17.70	1.16	15093	15.25	19088	15.23	13.33	-2.8
40-44	1764	12.27	0.92	13776	13.92	16682	13.31	10.57	-2.76
45-49	1278	8.89	0.81	11489	11.61	13693	10.93	9.33	-1.24
50-54	911	6.34	0.72	9489	9.59	11077	8.84	8.22	-1.11
55-59	598	4.16	0.67	6804	6.87	7821	6.24	7.65	-0.57
60-64	353	2.46	0.53	5209	5.26	5846	4.66	6.04	-1.61
65 +	270	4.13	0.47	4661	11.06	5118	9.46	5.28	-0.76

There is a strong life course trend towards RM and age: the younger the more mobile. In the case of Istanbul, while focusing on the age composition of moves from

1990 to 2000, it can be seen that young households are more mobile than older ones during this ten-year period. As can be seen in Figure 4.2 and Table 4.4, in column "e", mobility rate increase between 20 and 24 years of age, particularly between 30 and 34 years of age, and begin decreasing when households is 35 years old and older. In compatible with this finding, while LQ value of (column "c") movers aged between 30 and 34 is 1.29; for movers aged 35 and 39 this value is 1,16 in 1990. Here, as a matter of the fact that young households are more mobile than older households in Istanbul both in 1990 and in 2000; meaning that the highest probability occurs between the ages of 20s and 30s, with the beginning of married life and the arrival of children; as a response to the changing housing space needs of families. And then there tend to be greater stability in the older age. The LQ values of movers aged 65 and older also fortify this fact: LQ value of those is only 0.60 in 1990. This means that older households are not over represented among the movers in 1990.

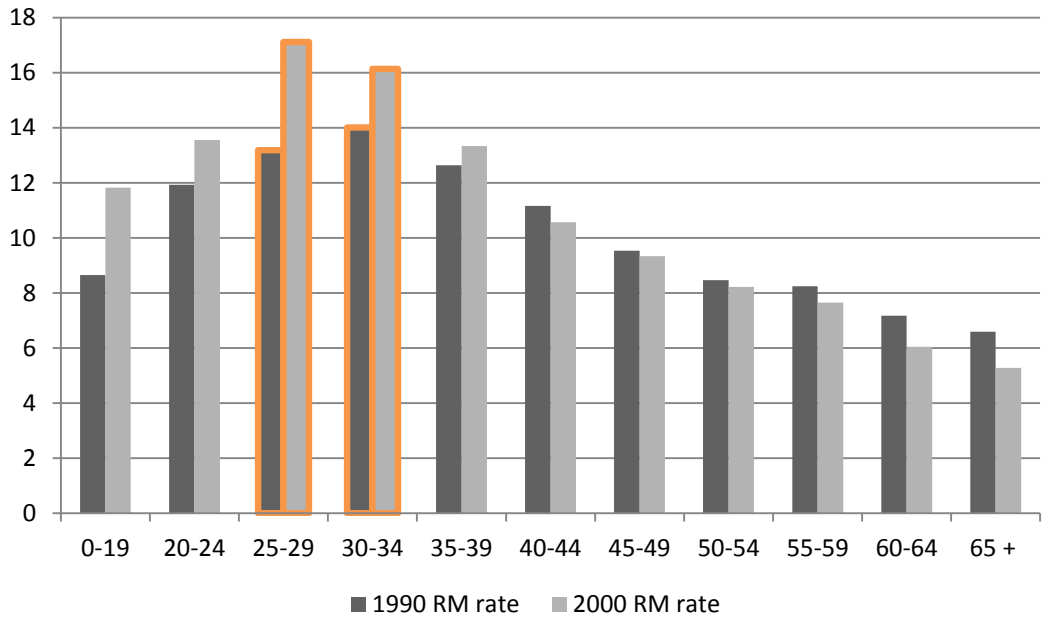


Figure 4.2 RM rate of movers in terms of age in 1990 and 2000

Figure 4.2 divides the households into eleven sub-groups by age and shows the distribution of RM rates of each sub-group. As illustrated in Figure 4.2, the gap between RM rates of younger and older households becomes wider from 1990 to 2000. In other words, between 1990 and 2000, while young households become more mobile, on the contrary, older households become less mobile in Istanbul. As can be seen in Figure 4.2 and the tables above, while LQ value of movers aged 25-29 is 1.21 in 1990, this value rise to 1,49 in 2000. In accordance with this change, LQ value of movers aged 65 and older is only 0.61 in 1990, nevertheless, by 2000 this value decreases to 0,37. When compare the age profile of movers in Istanbul with developed countries' movers such as United States (20-35) and Netherland (19-29); it is observed that movers of Istanbul are likely to move at a relatively older age (EUROSTAT, 2011).

However, as known, RM is a process that mainly regulated by either the changes on demographic profile of households or the variations on the housing stock in terms of size, type, number, finance, location and etc. In this respect, the increase of young households' mobility rate from 1990 to 2000 is also the function of local housing stock in Istanbul. More explicitly, if the housing stock cannot serve the appropriate housing units demands of the young households in the post-1980 period, this RM patterns cannot be seen in the city of Istanbul.

Taking the risk of repeating myself, I want to restate that young is more mobile than old households; moreover, during the ten-year period between 1990 and 2000, while young becomes more mobile (RM rate of 25-29 aged movers is 13.1% in 1990 and 17.1% in 2000) on the contrary older becomes less mobile (RM rate of 65 and older movers is 6.6% in 1990 and 5.3% in 2000) in Istanbul. In other words, there should be a negative correlation between age and RM rate in the case of Istanbul.

4.2.1.2 Household size: The smaller household the more mobile

Population of Istanbul is characterised by a smaller household size compared to that Turkey. The average household size of Istanbul decreased from 4.1 in 1990 to 3.8 in 2000, while for Turkey the average household size decreased from 5 to 4.5 in the same period. Recalling Chapter 2, this is closely related with significant decrease on Child Women Ratio and fertility rate values of Istanbul, particularly in the period between 1990 and 2000. Moreover, the decrease of average household size is closely interrelated with changing household size composition of the city for instance the significant increase of one-person household (from 5,7% in 1990 to 9% in 2000) in the city.

Table 4.6 Household size profile of the movers, non-movers, migrants and Istanbul in 1990

Demographic characteristics	Movers			Non-movers		Migrants		Istanbul		Rate of Mobility
	Number	%	LQ	Number	%	Number	%	Number	%	
Household size										
One-person	405	4.9	0.8	3346	5.9	708	6.6	4459	5.8	9.08
Two-person	1263	15.3	1.1	7847	13.8	1594	14.9	10704	14.1	11.80
Three-person	1858	22.5	1.1	10886	19.2	2173	20.3	14917	19.7	12.46
Four to five-person	3604	43.6	1.0	24743	43.5	3932	36.8	32279	42.5	11.17
More than six-person	1112	13.5	0.8	9752	17.1	2151	20.1	13015	17.1	8.54

The life-course approach points that household size is an important trigger of RM process. In the line with this argument, in this thesis, I categorise the household size into five sub-categories as: one-person, two-person, three-person, four to five-person

and more than six-person households, in order to highlight the household size composition of households, of movers as well as the interaction between the changes on household size and RM profiles of households in Istanbul. And, I think this point is important to enough to repeat: household size indirectly affect RM process through the changes in housing market conditions.

More explicitly, the household size composition of Istanbul remarkably changes during the ten-year period between 1990 and 2000. As can be seen in Table 4.6 and 4.7, the share of smaller than four-person households in total households increased from 39% to 52%, while the share of more than four-person households in total household head decreased from 61% to 48% in the same period. In a simplistic term, this means that compared to the pre-1980 period, the vast majority of households are characterized as smaller households after 1990 in Istanbul: the share of one-person household increased from 6% in 1990 to 9% in 2000; the share of two-person household increased from 14% in 1990 to 19% in 2000; and for three-person household this share increased from 19% to 24% in the same period.

Table 4.7 Household size profile of the movers, non-movers, migrants and Istanbul in 2000

Demographic characteristics	**Movers**			**Non-movers**		**Migrants**		**Istanbul**		**Rate of Mobility**
	Number	**%**	**LQ**	**Number**	**%**	**Number**	**%**	**Number**	**%**	
Household size										
One-person	1497	10.4	1.1	8244	8.3	1727	14.6	11468	9.2	13.05
Two-person	3218	22.4	1.2	17647	17.8	2577	21.7	23442	18.7	13.73
Three-person	3802	26.5	1.1	22667	22.9	2600	21.9	29069	23.2	13.08
Four to five-person	4869	33.9	0.8	39352	39.8	3454	29.2	47675	38.1	10.21
Six to ten-person	919	6.41	0.6	10451	10.57	1371	11.59	12741	10.2	7.21

Apart from this, it is important to point out that, in Istanbul, the percentage increase in the number of one-person households is the largest: approximately 60% between 1990 and 2000. As mentioned in Chapter 2, this profile is closely related with the increasing divorce rate and the decreasing marriage rate as well as the decreasing fertility rate of Istanbul in the post-1980 period. Nevertheless, this transformation is not interpreted by the changes on demographic profile of the city, it is more than this; it is a reflection of the variation on the urban life-styles; such as single parent, nuclear family, elderly living alone and yuppies.

In this sense, analysing household size does not give valuable information about the changing life-styles in the city; as well as its relationship between RM processes. Thus, in order to understand the relationship between RM and household composition, a novel household typology (named as family type) is developed in the following sections of this chapter. By doing so, I aim to answer this question: what kind of linkage is there between RM and the family type of households in the case of Istanbul? I believe that this kind of conception gives me an opportunity not only to highlight the relationship between different family structures and RM, but also to understand how diverse groups use urban space and how they become in advantage or in disadvantage position compare to each other, through observing how and to what extent these relationships change.

The findings show that the movers are smaller households compared to Istanbul. Whereas, as can be seen from Table 4.6 and Table 4.7, one-person household movers are underrepresented in 1990 (LQ value of those is 0.83); by 2000 they are overrepresented (LQ value of those is 1.14). In taking this put forward, data also indicates that two-person households become significant in this period: while LQ value of those is 1.08 in 1990, LQ value of those is calculated as 1.20 in 2000. In this respect, it is right to say that the movers in Istanbul are small households.

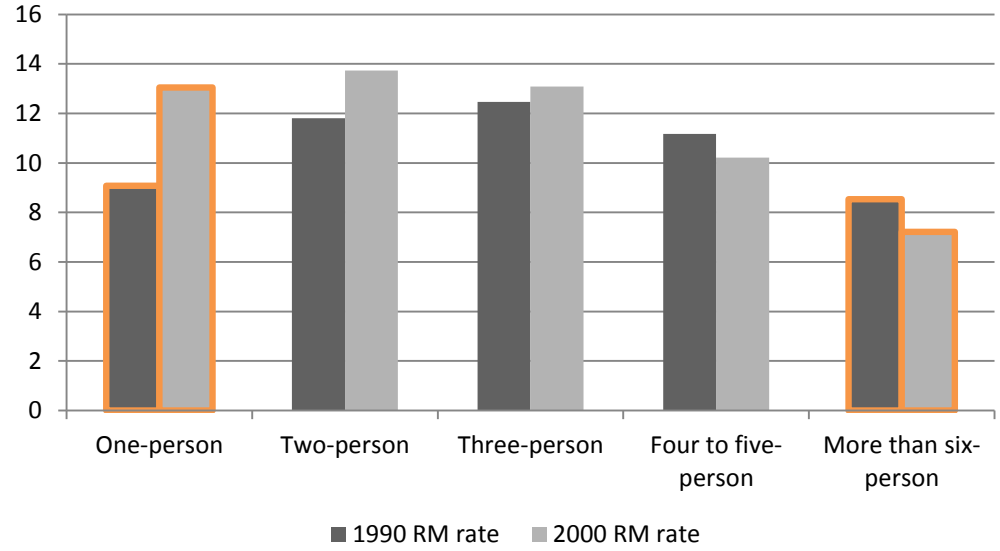


Figure 4.3 RM rate of movers in terms of household size both in 1990 and 2000

Figure 4.3 divides the households into five sub-groups by household size and shows the distribution of RM rates of each sub-group both in 1990 and in 2000. In general, it is noticeable that the smaller than four-person households are more mobile than larger than four-person households in Istanbul; but in particular, the most mobile segment is two-person households (RM rate of those 11.5% in 1990 and 13.7% in 2000). As can be seen in the figure above, in the case of Istanbul, RM rate of households is inversely correlated with the size of households: in 1990, two-person households' RM rate was 13%; for three-person households it was 11% and for more than six-person households it was only 9%. Besides, this already existing picture becomes much more visible by 2000: RM rate of two-person households was 14%, for three-person households it was 13% and only 7% more than six-person households. This means that small households become more mobile, while larger households become more stable during the ten-year period between 1990 and 2000 in the city of Istanbul. If, as accepted in this thesis, RM is interpreted as an indicator of

well-being and the mechanism of changing their living arrangements and the achievement of the adaptation of households to diverse socio-economic conditions; then, the findings above are also interpreted as an indicator of well-being improvement of those households.

However, it is interesting to see that the RM rate of one-person households is under the average of Istanbul in 1990. In compatible with the argument above, it is right to expect that one-person households to be more mobile. In 1990, as can be seen in Table 4.6, the three-person households were the most mobile groups in Istanbul (LQ=1.14). And, by 2000, this profile remarkably changes in Istanbul, the one-person households becomes more mobile from 1990 to 2000 (LQ=0.83 in 1990 and LQ=1.14 in 2000). However, as Figure 4.3 illustrates, the proportional increase in one-person households RM rate is astonishing with 48% (from 9.08% to 13.05). In this respect, while this tendency is interpreted as a reflection of the socio-economic and demographic transformations; if the housing industry does not supply to the varied demands of these new emerged groups, the RM rate of those could not reach this value. Consequently, this is also interpreted as an indicator of the sensitivity level of the local housing industry to the demographic transformations of the society.

Nevertheless, I would like to restate that in order to understand completely the interrelationship between RM and the new formations of the family structure in the society; the household size does not give adequate information. Thus, novel categories have to be developed to highlight these interactions perfectly. In this respect, in the next section of this chapter basically aims to this.

4.2.2 Household Typology

As mentioned in the preceding paragraphs, during the ten-year period between 1990 and 2000, the household size composition of Istanbul changes by a different way. As

a matter of fact, one of the most significant transformations is the decrease in the average size of households. This initiates, also, the increase in small size households contrary to the decrease in large size households. However, as previously stated, this situation is closely linked with the significant increase of one-person households in the post-1980 period.

Table 4.8 Household typology of the movers, non-movers, migrants and Istanbul in 2000

Household characteristics	Movers			Non-movers		Migrants		Istanbul		Rate of Mobility
	Number	%	LQ	Number	%	Number	%	Number	%	
Family Type										
Single Person	746	6.3	1.01	4930	6.3	759	8.6	6435	9.2	13.5
Single parent with one child	292	2.4	1.00	2120	2.7	133	1.5	2545	2.6	11.5
Single parent with more than one children	370	3.1	0.88	3044	3.9	233	2.6	3647	3.7	10.1
Childless couple	1710	14.3	1.26	9007	11.4	1112	12.6	11829	11.9	14.5
Couple with one child	2988	25.0	1.20	16711	21.2	1918	21.7	21617	21.7	13.8
Couple with more than one children	4092	34.3	0.91	32271	40.9	2687	30.4	39050	39.2	10.5

After this quick glance to household size profile of population, in order to explore the changing household composition of the city, the family type variable is computed from the data sets of the thesis. As can be seen in Table 4.8 and Figure 4.3, the family composition of households are categorized under six sub-groups as single person (one person households), single parent with one child, single parent with

more than one children, couples with no child, couple with one child, couples with more than one children. In interpreting these results, it is important to remember that these values are derived from the modified data-set of 2000; thus, the ratio distributions by family type sub-groups in the Table 4.8 could be overwhelmed.

4.2.2.1 Single Persons become more mobile between 1990 and 2000

In this period, the most significant transformation in the family structure of the society is the expansion of single person households (one-person households). As mentioned in the previous section of this chapter, in Istanbul single person households become more mobile from 1990 to 2000. In compatible with this increase, RM rate of single person households significantly increased from 9.08% in 1990 to 13.5% in 2000; meaning that from 1990 to 2000, the percentage increase in the number of one-person households is the largest: approximately 48% between 1990 and 2000 (see Figure 4.4).

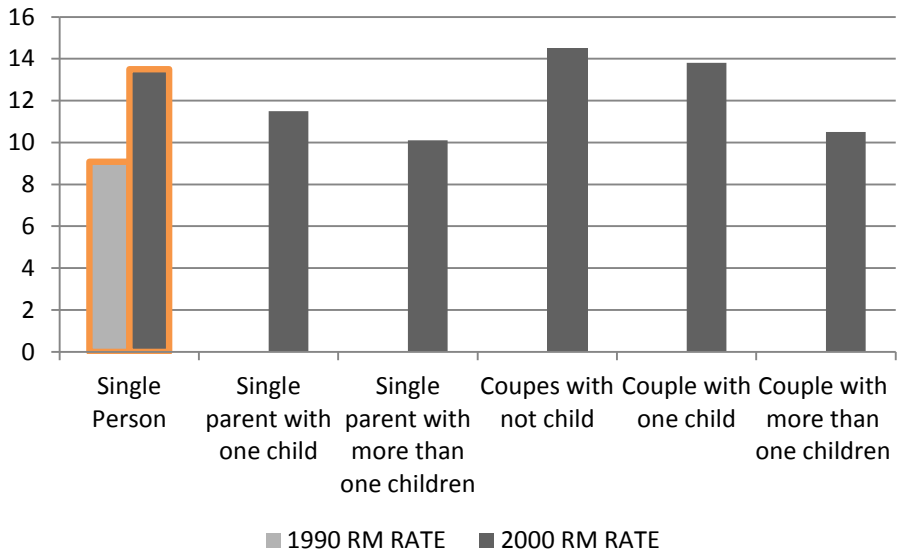


Figure 4.4 RM rate of movers in terms of family type in 1990 and 2000

This profile is closely interlinked with the increase of the well-being of whole society; on the other hand, in order to serve these differentiated preferences of households, these are the reflections of the restructurings of urban space and housing industry. If not, such an inconceivable increase on RM rate of single person households cannot be seen in the city of Istanbul. In explicit terms, the housing industry gains success to supply the demands of the social groups with the changed social and RM patterns in the post-1980 period. Otherwise, the increase on single persons' RM rate could not be reached in such as significant value.

4.2.2.2. Couples are more mobile than Single Parents

In Istanbul, while single person becomes more mobile from 1990 to 2000, it is not surprising to see that the most mobile segment in the society was "couples" in the same period. In accordance with the life-course approach to RM, the moving probability of people increases with the beginning of married life because of mostly increase changes in space needs. The mobility tendencies of Istanbul's households by family typology also fortify this well-accepted regularity. As indicated in Table 4.6, except couples with more than one children all couple sub-groups' RM rate are over the average of Istanbul: for childless couples it was 14.5, for couple with one child it was 13.8 and for couple with more than one children it was 10.5, in 2000. On the other hand, RM rates, of single parent with one child was 11.5 and of single parent with more than one child was only 10.1 in the same period (See Table 4.8).

4.2.2.2 The more child the less mobility

As can be seen in Table 4.8, LQ value of childless couple mover was 1.26 in 2000, meaning that in terms of family types, childless couples are far more mobile than single parents; while LQ value of single parent movers was 1.0 in the same period. Single persons have high mobility rate compare to single parents with more than one

children: LQ value of single person movers was 1.01; while LQ value of single parents with more than one children movers was only 0,88 in 2000. The findings also show the negative effects of children on mobility patterns of couple households of Istanbul in the period between 1980 and 2000; for instance, in the presence of one child, as can be seen in the table above, RM rate of couples slightly decreased from 14.5% to 13.8 %; then, when the number of children increases, the mobility rate of those remarkably decreased to 10.5 % in 2000 (see Table 4.8 and Figure 4.4).

4.2.2.3 Female-headed Single Parents are more mobile than Female Single Person

Being female has an increase effect in childless couples' mobility, on the contrary, has a decrease effect in the mobility of single parent with one child and single person in Istanbul in 2000. For example, the LQ value of single person was 1.0 in 2000, while for female single person it was only 0.77 in the same period (see Table 4.9).

Table 4.9 Distribution of selected family type profiles of Movers by sex in 2000

Household Characteristics	Male Movers			Female Movers		
	Number	%	LQ	Number	%	LQ
Family Type						
Single Person	428	15	1.31	318	8.9	0.77
Single parent with one child	49	11.3	0.99	243	11.5	1.0
Childless couple	1696	14.4	1.26	14	18.4	1.60

4.2.3 Social Profile

Under this title, the education attainment levels of households by mobility behaviour and the interrelation between education attainment levels and RM profile are examined. Furthermore, the transformation of this relationship is also on the agenda of this sub-section.

4.2.3.1 Education levels: The level of education increases the rate of mobility increase.

Clark et al., (2006), states that the level of education (indirectly the income) is thought to be an important factor in understanding the changing patterns of RM. In compatible with this argument, the research on RM shows that the higher level of education, the greater the likelihood that households will have residentially mobile during a given period of time. Within this background, Istanbul is not an exception.

Table 4.10 Education attainment level of the movers, non-movers, migrants and Istanbul in data set-1990

Social characteristics	Movers			Non-movers		Migrants		Istanbul		Rate of Mobility
	Number	%	LQ	Number	%	Number	%	Number	%	
Education Attainment										
Not formal diploma	588	7.1	0.64	6708	11,8	1070	10,0	8366	11,0	7,03
Primary school graduates	4284	51.8	0.97	30795	54,1	5258	49,4	40337	53,2	10,62
Secondary school graduates	929	11.2	1.04	6117	10,7	1138	10,6	8184	10,8	11,35
High school and its equivalent graduates	1334	16.1	1.16	7439	13,1	1768	16,5	10541	13,9	12,66
University or College graduates	1132	13.7	1.23	5855	10,3	1427	13,4	8414	11,1	13,45

As can be seen in Table 4.10 and Table 4.11, during the ten-year period between 1990 and 2000, the households of Istanbul became more educated in general. For instance, whereas the share of households with no-formal diploma (hereafter low-educated) in Istanbul decreased from 11% in 1990 to 8.3% in 2000; the share of households with university diploma (hereafter high-educated) increased from 11% to 13% in the same period. This profile is closely related with the significant increase on educational opportunities in Turkey as well as Istanbul. By 1990, the compulsory schooling is extended from five to eight years, and linking with the opening up the new universities both public and private, operating the distance learning (such as Open University) systems could be seen as triggers of this significant increase.

Table 4.11 Education attainment level of the movers, non-movers, migrants and Istanbul in data set-2000

Social characteristics	Movers			Non-movers		Migrants		Istanbul		Rate of Mobility
	Number	%	LQ	Number	%	Number	%	Number	%	
Education Attainment										
Not formal diploma	651	4,5	0,55	8911	9,0	833	7,0	10395	8,3	6,26
Primary school graduates	5789	40,3	0,82	51379	51,9	4657	39,3	61825	49,4	9,36
Secondary school graduates	1784	12,4	1,04	11938	12,1	1197	10,1	14919	11,9	11,96
High school and its equivalent graduates	3115	21,7	1,23	15997	16,2	2882	24,3	21994	17,6	14,16
University or College graduates	3037	21,1	1,65	10741	10,9	2294	19,3	16072	12,8	18,90

Within this background, the movers of Istanbul are shown more educated profile than non-movers and overall Istanbul during the ten-year period between 1990 and 2000.

In other words, the movers are more educated than non-movers of Istanbul in the same period. For instance, the share of university graduated households in movers was 13.7% in 1990, among the non-movers this share was 10.3% in the same year. The fact above also is fortified by LQ analysis of households educated attainment levels. The findings of this analyses show that whereas the LQ value of movers with no-diploma was 0.64 this value for university graduated movers was 1.23 in 1990.

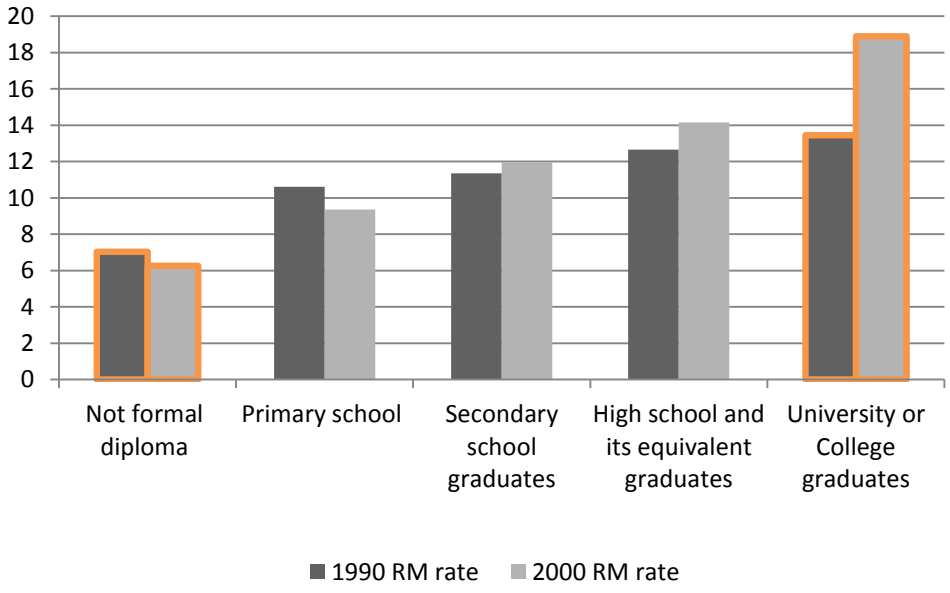


Figure 4.5 RM rate of movers in terms of education attainment levels in 1990 and 2000

This profile, as can be seen in Table 4.11, is valid among the movers of Istanbul in 2000. In simplistic terms, these findings are interpreted as evidence that there is a positive correlation between education levels of households and RM rate. In other words, households with higher-education level are more mobile than households with lower-education level. For instance, as Figure 4.5 perfectly illustrates, in 1990 whereas low-educated movers' RM rate was 7.0%, high-educated movers' RM rate was 13.5% in the same period. The movers of 2000 also reflect this profile: the low-

educated movers' RM rate was 6.3% and the high-educated movers' RM rate was in the same period 19.0% in 2000.

While focusing on these two tables with a comparative perspective, it is obvious that the movers are more educated than Istanbul; moreover, their education attainment level remarkably increases during the ten-year period between 1990 and 2000. The changes on LQ values of the movers verify this argument as well: for instance, the LQ value of low-educated movers was 0.64 in 1990 since then it decrease to 0.55 in 2000. In addition, the LQ value of high-educated movers was 1.23 in 1990 however it increased to 1.65 in 2000. In the line of these findings, as Figure 4.5 illustrates, it is a matter of fact that high-educated households (in 1990 RM rate= 14%, in 2000 RM rate=19%) are more mobile than low-educated households (in 1990 RM rate=7%, in 2000 RM rate=6%), and their mobility rate increases between 1990 and 2000. These findings also highlight that during the ten-year period between 1990 and 2000 the high-educated households are the most mobile segment of the society in Istanbul. In the same scope, it is also the fact that low-educated households are more stable than high-educated households and their stability increases between 1990 and 2000 (see Figure 4.4).

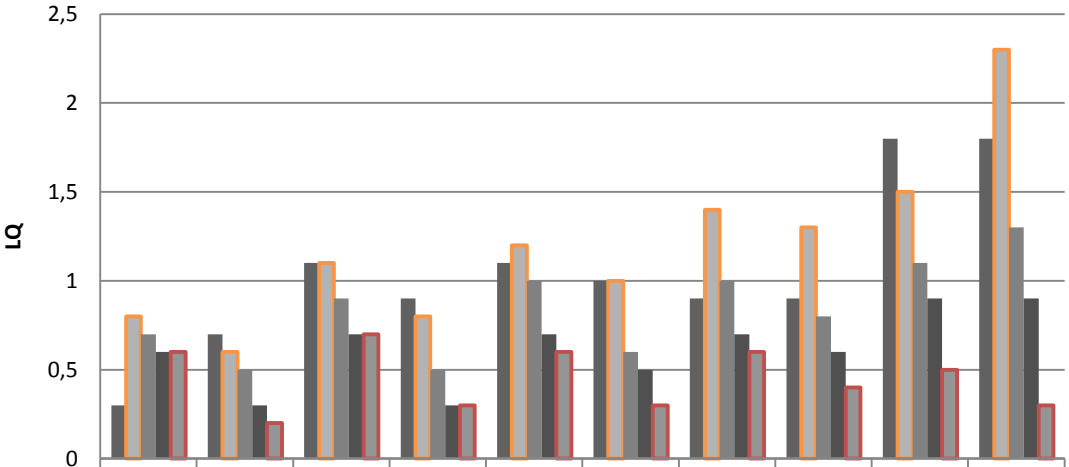
The interrelationship between education and poverty is clear: well-educated people have higher income earning potential, and are better able to improve the quality of their lives. As Tsakloglou (1990) claims that there is a negative correlation between education attainment level of households and the likelihood of being poor. In the case of Turkey, the findings of research which was conducted in 2009, supports the argument above. [31] In 2009, the poverty rate for the people who are not literate or who are not graduated from a school is approximately 30%, this rate decreases to 15% for the people graduated from primary school. For the people graduated from

[31] The research, here, is done by TURKSTAT which is one of the main bodies to investigate the relationship between education and poverty in Turkey.

high school or equivalent professional schools the rate was 5% and was 0.7% for the people graduated from a university degree. In simplistic terms, this means that as the educational level of the households increases the probability of that household being poor decreases.

Within this background, I believe it is right to state that high-educated households are regarded as well-being or high-status groups; and in a similar perspective, low-educated households are regarded as poor or low-status groups. In compatible with this perception, as a matter of fact that during the ten-year period between 1990 and 2000, the high-status groups are more mobile than low-status groups; also, the high-status groups become more mobile, the low-status groups become more stable in the city of Istanbul. This formulation helps me to interpret the RM behaviours of these groups within the context of the restructurings of Turkey in terms of social, demographical and economical in the post-1980 period.

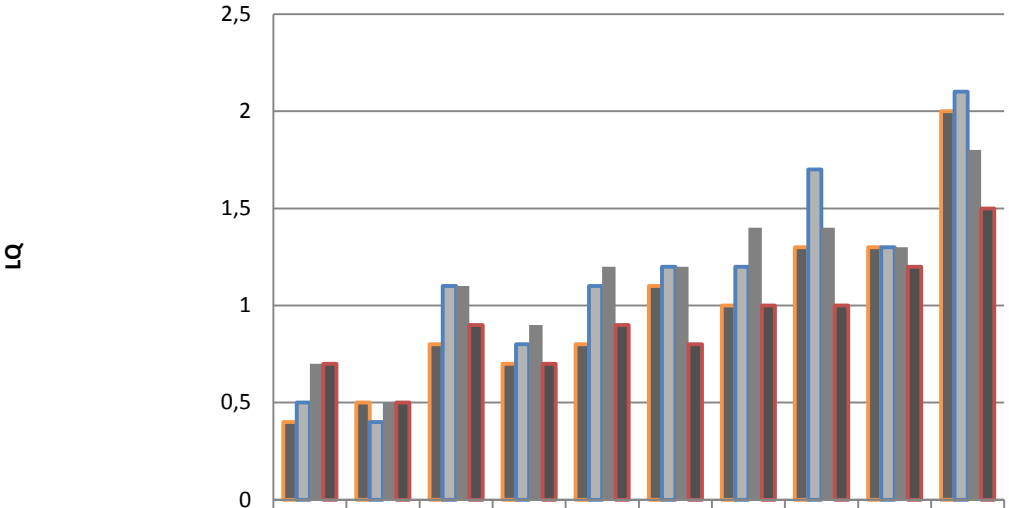
As mentions in the preceding paragraph, according to the findings of disaggregated analyses of the thesis, high-status households are the most mobile segment of the society; on the contrary, the low-status groups are less mobile segment in the society. At this point, I think that these two groups are the subject of detailed analyses. One way to both capture the role of education and provide an expression of the differences between low-and high-educated groups is the cross-tabulation of disaggregated data with education. By doing so, I assume that the effect of education on RM process of households has become more perceptible and is better able to interpret in the case of Istanbul.



	1990	2000	1990	2000	1990	2000	1990	2000	1990	2000
	Not Formal Education		Primary School Graduates		Secondary School Graduates		High-school and its equivalent		College and University Graduates	
0-24	0,3	0,7	1,1	0,9	1,1	1	0,9	0,9	1,8	1,8
25-39	0,8	0,6	1,1	0,8	1,2	1	1,4	1,3	1,5	2,3
40-54	0,7	0,5	0,9	0,5	1	0,6	1	0,8	1,1	1,3
55-64	0,6	0,3	0,7	0,3	0,7	0,5	0,7	0,6	0,9	0,9
65+	0,6	0,2	0,7	0,3	0,6	0,3	0,6	0,4	0,5	0,3

Figure 4.6 The LQ analysis of movers: cross tabulation of age and education levels for 1990 and 2000

As can be seen in Figure 4.6, in 1990, LQ values of college or university graduated prime age movers was 1,5, meaning that young university graduates are far more mobile than other groups; while LQ value of high-educated elderly movers was only 0,5. This makes it clear that the advantages brought about by virtue of having a university degree are off-set by the disadvantages brought about by being elderly. In compatible with this fact, by 2000, the already existing picture stays the same for both age groups: LQ value of college or graduated prime age movers increased to 2.0; besides, LQ value of high-educated elderly movers was only 0.3, meaning that the advantages brought about by virtue of having high-educated do not work later in life; however, their effect is multiplier for young people.

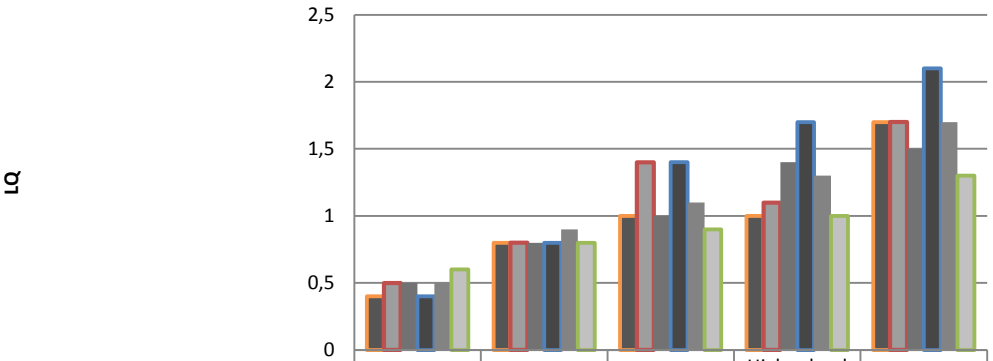


	1990	2000	1990	2000	1990	2000	1990	2000	1990	2000
	Not Formal Education		Primary School Graduates		Secondary School Graduates		High-school and its equivalent		College and University Graduates	
One-person	0,4	0,5	0,8	0,7	0,8	1,1	1	1,3	1,3	2
Two-person	0,5	0,4	1,1	0,8	1,1	1,2	1,2	1,7	1,3	2,1
Three-person	0,7	0,5	1,1	0,9	1,2	1,2	1,4	1,4	1,3	1,8
more than four-person	0,7	0,5	0,9	0,7	0,9	0,8	1	1	1,2	1,5

Figure 4.7 The LQ analysis of movers: cross tabulation of household size and education levels for 1990 and 2000

In 2000, as indicated in Figure 4.7, LQ value of college or university graduated two-person household movers was 2.1 and LQ value of college or university graduated more than six-person household movers 1.1; meaning that high-educated smaller size households are far more mobile than the other segments of the society. However, focusing on the figure 4.6 in detail, it is seen that LQ value of college or university graduated more than four-person households was 1.2 in 1990 and 1.5 in 2000. In a simplistic term, means that while more than four-person households are not more mobile, college or university graduated more than four-person households are more mobile.

Furthermore, it is interesting to see that LQ value of college or university graduated one-person households was 1.3 in 1990, meaning that apart from the general profile of one-person households, college or university graduated one-person households are more mobile. All these findings fortify that the advantages of having a university degree have an increased effect on all household size groups but the advantages of having college or university graduated have multiplied effect for larger-size households. However, as mentioned proceeding section, this profile is not only the reflection of the restructuring in demographic settings of the city, but also the function of the variations in the local housing market in terms of: finance, location, type and size of housing units in the post-1980 period.



	Not formal Education	Primary School graduates	Secondary School graduates	High school and its equivalent graduates	College or university graduates
Single person	0,4	0,8	1	1	1,7
Single Parent	0,5	0,8	1,4	1,1	1,7
Single Parent with more than one children	0,5	0,8	1	1,4	1,5
Couples with no child	0,4	0,8	1,4	1,7	2,1
Couples with one child	0,5	0,9	1,1	1,3	1,7
Couple with more than one children	0,6	0,8	0,9	1	1,3

Figure 4.8 The LQ analysis of movers: cross tabulation of family type and education levels in 2000

College or university graduated couples are far more mobile than the other groups, as can be seen in Figure 4.8, LQ value of those was 2.1 in 2000. It is interesting to see that, in 2000, LQ value of college or university graduates single parent movers was 1.7, in addition to this, LQ value of college or university graduated single parent with more than one child movers was 1.5, meaning that compare to single parent movers high-educated single parent movers are more mobile. In this respect, it is clear that the disadvantages of being single parent are off-set by the advantages brought about by virtue of having a university degree. Here, taking the risk of repeating myself, I want to say that this already existing picture is not an output of the restructuring of the socio-economic and demographic profile of the city; it is much more related with the transformations of the local housing market in the post-1980 period. In a simplistic term, this RM patterns are only seen if local housing market is supplied the diverse housing demands of these groups in terms of finance, type, size and etc. Within this background, in the next section of this chapter, economic profile of households and the relationship between the RM profile and economic characteristics of households is examined in either 1990 or 2000.

4.2.4 Economic Profile

In this section, economic profile of mobile households (mover) is examined under three sub-titles: labour force status, employment sector and occupation profile. Moreover, during the ten-year period between 1990 and 2000, the changes on economic profile of the movers and the effect of these changes on RM profiles of those are on the agenda of this section.

4.2.3.1 Labour force status: Employers are more mobile than wage-earners

A closer look at the distribution of labour force status of households in Istanbul reveals that an even higher proportion of labour force is in wage-employment. As

can be seen in Table 4.12 and Table 4.13, the share of wage-earner households in overall households was 47.4% in 1990 and 46% in 2000; while the share of self-employed households in overall households was 15.2 % and 12.3% in the same periods, respectively.

Table 4.12 Labour force status of the movers, non-movers, migrants and Istanbul in data set-1990

Economic characteristics	Movers			Non-movers		Migrants		Istanbul		Rate of Mobility
	Number	%	LQ	Number	%	Number	%	Number	%	
Labour Force Status										
Wage-earner	4356	52,9	1,11	25321	44,6	6169	57,8	35846	47,4	12,15
Employer	630	7,6	1,22	3637	6,4	467	4,4	4734	6,3	13,31
Self-employed	1348	16,4	1,05	9039	15,9	1357	12,7	11744	15,5	11,48
Housewife, retired, rentier	1744	21,2	0,75	17389	30,6	2242	21,0	21375	28,3	8,16
Unemployed	169	2,1	0,79	1365	2,4	435	4,1	1969	2,6	8,58

These findings also show that the percentage decrease in the number of self-employment households is the highest: -21% between 1990 and 2000. All these findings represent the shift from self-employment towards wage-employment in the labour force of the city. Bearing in mind the structural changes on formal and informal economy of the city, this is interpreted as the weakening role of informal sector in the city economy. However, in interpreting these results, it is necessary to remember the profile of unemployment which increased from 2.6% in 1990 to 8.9% in 2000 (240% percentage increase from 1990 to 2000). In what follows the labour force profile of the movers are analysed in connection with RM profile both in 1990 and in 2000.

Table 4.13 Labour force status of the movers, non-movers, migrants and Istanbul in data set-2000

Economic characteristics	Movers			Non-movers		Migrants		Istanbul		Rate of Mobility
	Number	%	LQ	Number	%	Number	%	Number	%	
Labour Force Status										
Wage-earner	7986	55,55	1,20	42664	43,11	7247	61,08	57897	46,2	13,79
Employer	1308	9,10	1,37	6667	6,74	344	2,90	8319	6,6	15,72
Self-employed	1897	13,20	1,08	12378	12,51	1080	9,10	15355	12,2	12,35
Housewife, retired, rentier	1989	13,84	0,53	28542	28,84	1917	16,16	32448	25,9	6,13
Unemployed	1195	8,31	0,93	8719	8,81	1277	10,76	11191	8,9	10,68

As indicated in Table 4.12, LQ value of employer movers was 1.22 in 1990, meaning that employers are far more mobile than retired, housewives and rentier, while their LQ value was only 0.75 in the same period. This tendency holds true in 2000 (see Table 4.13): LQ value of former was 1.37 and for later it was 0.53. As the figure given below make it clear that during the ten-year period while employer becomes more mobile; housewives, retired and rentier become more stable in the city of Istanbul.

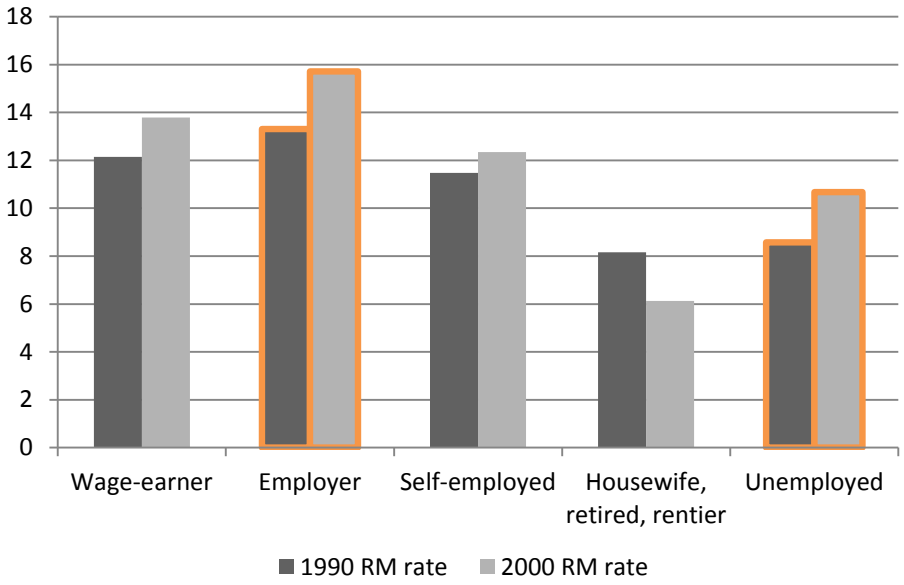
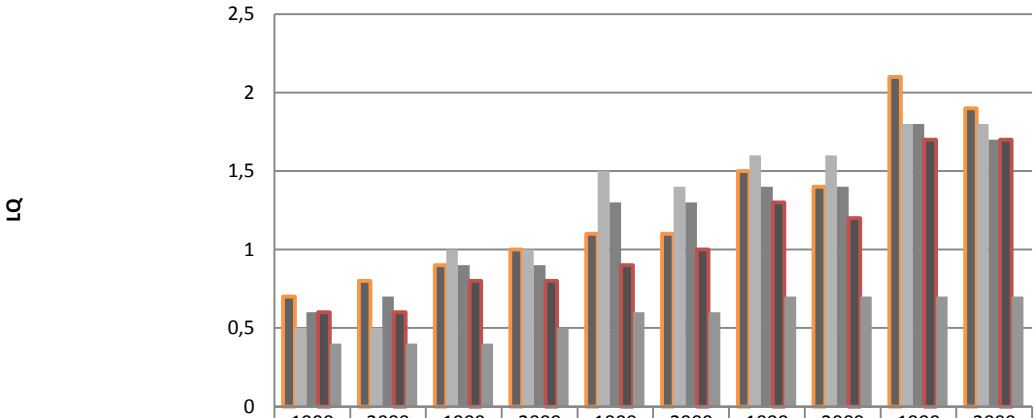


Figure 4.9 RM rate of movers in terms of labour force status in 1990 and 2000

The bars, in Figure 4.9 show the distribution of RM rate between 1990 and 2000 in terms of labour force status sub-groups. In this respect, the figure 4.8 shows that the biggest increase is in the employer households RM rate. It is interesting to see that while unemployed movers were less mobile, their mobility rate increased from 8.6% in 1990 to 10.7% in 2000. It is obvious that this profile is closely interlinked with changing urbanization dynamics including life-styles in the city after 1980. In what follows on this section the education attainment profile of movers are analysed by labour force status groups. However, this is also the reflection of the transformations in the housing industry, which means the increase on RM rate of unemployed movers is accordance with the changes on housing industry in terms of finance, type and size of housing, etc.



	1990	2000	1990	2000	1990	2000	1990	2000	1990	2000
	Not Formal Education		Primary School Graduates		Secondary School Graduates		High-school and its equivalent		College and University Graduates	
Wage-earner	0,7	0,8	0,9	1	1,1	1,1	1,5	1,4	2,1	1,9
Employer	0,5	0,5	1	1	1,5	1,4	1,6	1,6	1,8	1,8
Self-employed	0,6	0,7	0,9	0,9	1,3	1,3	1,4	1,4	1,8	1,7
Unemployed	0,6	0,6	0,8	0,8	0,9	1	1,3	1,2	1,7	1,7
Housewife, retired, rentier	0,4	0,4	0,4	0,5	0,6	0,6	0,7	0,7	0,7	0,7

Figure 4.10 LQ analysis of movers: cross tabulation of labour force status and education levels for 1990 and 2000

As can be seen in Figure 4.10, there are differences in the labour force status sub-groups for RM by education level. LQ value of college or university graduated movers was 2.1 in 1990 and 1.7 in 2000, meaning that high-educated wage-earners are more mobile than other groups. Besides, it is interesting to see that high-educated households have the highest LQ values in all labour force status groups including unemployment. This makes it clear that the advantages brought about by virtue of having a university degree are off-set by the disadvantages brought about by being unemployed. In other words, these also represent the remarkable effects of education on RM profile of households during the ten-year period between 1990 and 2000 in the city of Istanbul.

4.2.3.2 Occupation and Employment sectors: Employing in FIRE has an increase effect on RM of households

Table 4.14 and Table 4.15 show the shares of employment by selected sectors (manufacturing, construction and FIRE) of Istanbul, movers and non-movers, and the RM rates of households by selected employment sectors. In Istanbul, while manufacturing and construction are in decreased trend FIRE, on the contrary, is in the increased trend between 1990 and 2000. As can be seen in the tables below, the share of FIRE slightly increased from 5.06% to 5.1% in the same period.

Table 4.14: The distribution of the movers, non-movers, migrants and Istanbul by selected employment sector in 1990

Economic characteristics	Movers			Non-movers		Istanbul		Rate of Mobility
	Number	%	LQ	Number	%	Number	%	
Industry Type								
Manufacturing	2062	25	1,2	12158	21,4	16320	22	12,63
Construction	386	5	0,78	3040	5,3	4515	6	8,55
Finance, Insurance, Real Estate and Rental and Leasing (FIRE)	567	7	1,3	2727	4,8	3839	5,06	14,77

However, in interpreting these results it is necessary to look at the percentage increase of these values: the highest percentage increase is at FIRE (2%) while for manufacturing (-5%) and for construction (-2%) in the same period. This makes it clear, in assistance with huge service sector investments in the city, after the 1990s, the growth of service becomes significant. However, in order to further our

understanding of the interrelationship between the RM profile of households and in which they employed, I focus on the characteristics of movers in detail.

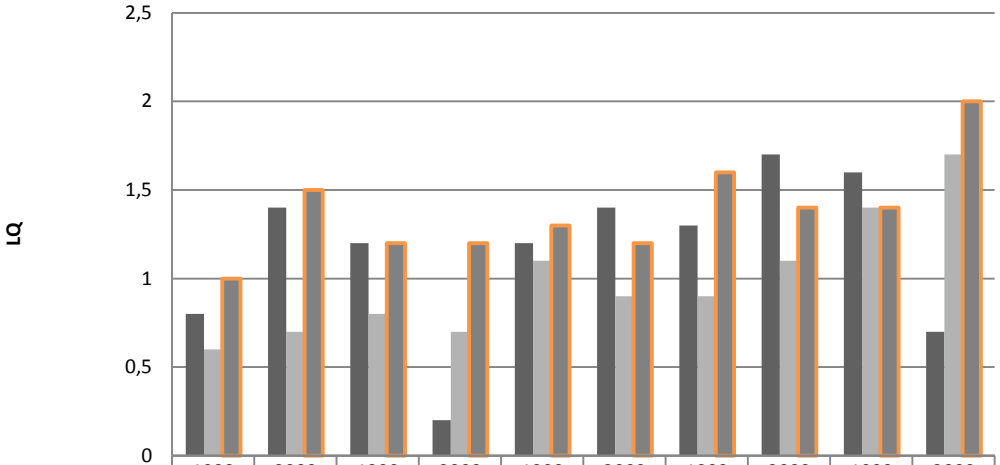
Table 4.15: The distribution of the movers, non-movers, migrants and Istanbul by selected employment sector in 2000

Economic characteristics	Movers			Non-movers		Istanbul		Rate of Mobility
	Number	%	LQ	Number	%	Number	%	
Industry Type								
Manufacturing	3546	24,5	1,2	20086	20	25880	21	13,8
Construction	642	4,5	0,8	5078	5,1	6640	5,3	10
Finance, Insurance, Real Estate and Rental and Leasing (FIRE)	1848	13	1,5	4447	4,5	6384	5,	19

As Table 4.14 and Table 4.15 illustrate, the share of households employed in FIRE in movers significantly increased from 7% in 1990 to 13% in 2000 (with 85% proportional increase); while the shares of manufacturing and construction remained almost same value in this period. This means that households work in FIRE are more mobile than counterparts who work in manufacturing and construction; and they become more mobile from 1990 to 2000: RM rate of those increased from 14% to 19% in the same period. Here, I believe that before interpreting these results, it is necessary to explore the linkages between movers' education profile and movers' employment sector.

As indicated in Figure 4.11, it is not surprising to see that LQ value of college or university graduated and works in FIRE movers was 1.4 in 1990 and 2.0 in 2000; meaning that they are far more mobile than the other groups. Moreover, this table

also points that college or university graduated and works in manufacturing households becomes less mobile in this period: LQ value of those was 1.6 in 1990 and 0.7 in 2000. However, high school or its equivalent graduated and works in manufacturing households becomes more mobile: LQ value of those was 1.3 in 1990 and then it remarkably increased to 1.7 in 2000.



	1990	2000	1990	2000	1990	2000	1990	2000	1990	2000
	Not Formal Education		Primary School Graduates		Secondary School Graduates		High-school and its equivalent		College and University Graduates	
Manufacturing	0,8	1,4	1,2	0,2	1,2	1,4	1,3	1,7	1,6	0,7
Construction	0,6	0,7	0,8	0,7	1,1	0,9	0,9	1,1	1,4	1,7
FIRE	1	1,5	1,2	1,2	1,3	1,2	1,6	1,4	1,4	2

Figure 4.11: The LQ analysis of movers: cross tabulation of Employment sector and education levels both in 1990 and in 2000

And finally, as indicated in the table above, households work in FIRE have high LQ value across all education levels, meaning that the advantageous of being service employment diminish the disadvantages of being less-educated. In interpreting this it

is important to bear in mind the nature of service jobs, meaning that on the one hand service industry demands well-educated and high-skilled professionals, on the other and, the increased diversification of service industry by sub-sectors created great occupation opportunities such as clerical, managerial, professional, skilled or unskilled, especially for females. Within this background, in order to explore the occupation change, and the relationship between this change and RM profile of the movers; movers, non-movers and overall households in Istanbul are analysed by their occupational profiles.

Table 4.16: The distribution of the movers, non-movers, migrants and Istanbul by occupations in 2000

Economic characteristics	**Movers**			**Non-movers**		**Istanbul**		**Rate of Mobility**
	Number	**%**	**LQ**	**Number**	**%**	**Number**	**%**	
Occupation Groups								
Professional, Technical and Related Workers	3091	23	1,7	11488	12	16608	16	18,61
Administrative and Managerial Workers	294	2	1,2	1788	2	2219	2	13,25
Clerical and Related Workers	1026	8	1,3	5390	5,7	7059	6	14,53
Sales Workers	1425	11	1,2	8547	9	10663	9	13,36
Service Workers	1321	10	1,0	8483	9	11322	10	11,67
Agricultural, Animal Husbandry and Forestry Workers, Fisherman and Hunters	318	2,5	0,79	2709	3	3577	3	8,89
Production and Related Workers	5730	43	0,89	46831	50	57466	52	9,97

Production and related jobs account for over 52% of all households in Istanbul in 2000. As indicated in Table 4.16, by occupation profile, there is no really significant

difference between the movers and general profile of households in 2000. It is in the category of professionals that difference of the movers becomes more apparent; in 2000, accounted for 16 % of all households in Istanbul, but was the largest group in the movers at 23%. As can be seen in Table 4.16, this means that households work in professional occupations including corporate managers, general managers, physical mathematical and engineering science professionals, teaching professionals and etc., are far mobile than other groups; in 2000, LQ value of those was 1.7 and their RM rate was approximately 19% (see Table 4.16).

Next comes households work in clerical occupations including secretaries, keyboard-operators library, mail and other workers and etc., LQ value of those was 1.3 and RM rates' was almost 15%. If RM is seen as a mechanism that reproduces the socio-economic profiles of the society, these findings also are represented as an indicator of the initial phrases of the three most important trends in the socio-economic profile of the city in the last three decades: 1. the decay both in skilled and unskilled jobs in non-service industries, 2. the growth in the share of all employment has been in professional and managerial service jobs; and 3. the growth in the share of people are employed in clerical, sales, personal and protective service jobs. If RM is assumed as a function of households' ability to move, these findings can be reded as an indicator the increase of well-beings in the whole society.

The findings, in Table 4.17, fortify this interpretation: LQ value of college or university graduated professional workers movers was 1.7 in 2000 and LQ value of college or university graduated agricultural workers was 2.6 in the same period. This means that education level has an increase effect on the mobility of households; besides, this effect becomes multiplier in low-waged workers. In addition to these, Table 4.15 also reveals that occupational status is more closely tied to an educational achievement (in 2000, LQ value of college or university graduated movers was 1.7; while LQ value of no formal educated clerical movers was only 0.4). Within this

background, I think this point is important enough to repeat: this already existing picture is outcomes not only of demographic and socio-economic restructuring, but also, of the variation/differentiation in housing market.

Table 4.17 The LQ analysis of movers: cross tabulation of employment sector and education in 2000

		Education Level				
	LQ	**Not formal education**	**Primary school graduates**	**Secondary school graduates**	**High school and its equivalent graduates**	**College or university graduates**
Occupation Profile	Professional, Technical and Related Workers	0,5	1,1	1,3	1,4	1,7
	Administrative and Managerial Workers	0,8	0,8	1,2	1,4	1,5
	Clerical and Related Workers	0,4	0,9	1,0	1,3	1,7
	Sales Workers	0,6	0,9	1,3	1,5	1,6
	Service Workers	0,9	0,9	1,0	1,2	1,5
	Production and Related Workers	0,6	0,9	1,1	1,2	1,1

4.3 Conclusion

The analyses in this chapter identify the particular groups in which they experienced "constant rates" of mobility as well as an increase in mobility rate: those who are young, small households, couples, high-educated, employer, high paid professional work in service sector mobile than households who are elderly, large households, single parents, low-educated, housewife-rentier or retired, low-paid workers. This

finding is interpreted as an indicator of profiling two distinct status groups of the society. Regarding socio-economic and demographic profile of households, the first status group represents well-beings or wealthy, while the second status groups represents the poor. Consequently, it can be said that while wealthy is more mobile than poor, they become more mobile in the period 1990-2000. In other words, from 1990 to 2000, while wealthy becomes more mobile; as opposed to these groups, poor becomes less mobile or more stable. Furthermore, it is clear from the findings of first-level analysis; "education attainment level" is interpreted as a key indicator or factor variable to examine the diversification of RM processes of households in Istanbul both in 1990 and in 2000.

Taking the risk of repeating myself, I would like to remind that there are differences on RM profile of movers in terms of their socio-economic and demographic characteristics, such as younger are more mobile than older, couples are more mobile than single parents, etc. Keep in mind these findings; I think it is right to assume that these differences reflect themselves on the interrelationship with urban geography. In other words, I assume that movers' effects on urban geography of the city are varied regarding socio-economic and demographic characteristics of households. In the same scope, it is now to draw out more detail the way in which RM interacts with urban geography. So, as a second literature review, I focus on the interrelationship between RM and urban geography in the fourth chapter of the thesis.

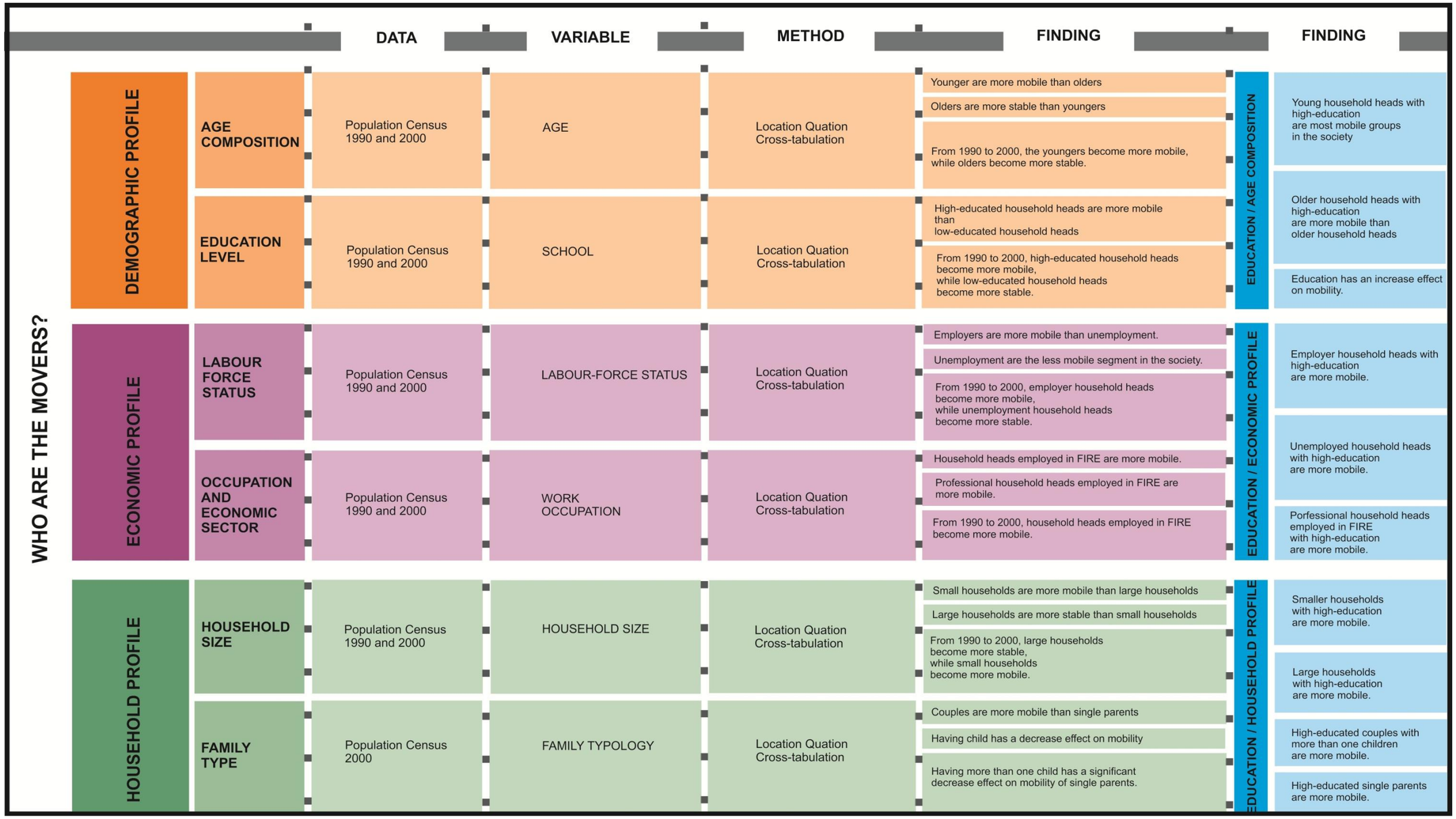


Figure 4.12: The findings of analysis (Who are movers)

CHAPTER 5

RESIDENTIAL MOBILITY AS A RESTRUCTURING PROCESS OF URBAN GEOGRAPHY

5.1 Introduction

Both migration and RM were embedded in the functioning of contemporary societies and are fundamental elements in the development of new urban fabric (Dieleman, 2001). Clark and Huang (2004) correctly stated that

> …mobility and migration were among the processes that distribute and redistribute population across the metropolitan structure of urban society, and within the communities and neighbourhoods of metropolitan areas (Clark and Huang, 2004:326).

Studying RM is one of the popular topics among social scientists after mid-1930s. Quigley and Weinberg (1977) perfectly define the reasons that make RM study an inexhaustible source of research topics in this period. They claim that "the results or effects of RM decision are critical to understanding the changes in the spatial character of regions and of urban areas" (Quigley and Weinberg, 1977). In a same scope, Cadwallader (1982) claimed that analysing the underlying processes related with residential moves' patterns is the crucial elements of understanding the changing socio-economic and demographic and spatial structure of the city (Cadwallader, 1982). In taking this forward, at first Knox and Pinch (2000) and

Feijten and van Ham (2009) then indicate that studying RM is significant since it contributes to an understanding of the formation of urban space[32], which is comprises many individual movements. The complexity of the process is illustrated in Figure 5.1.

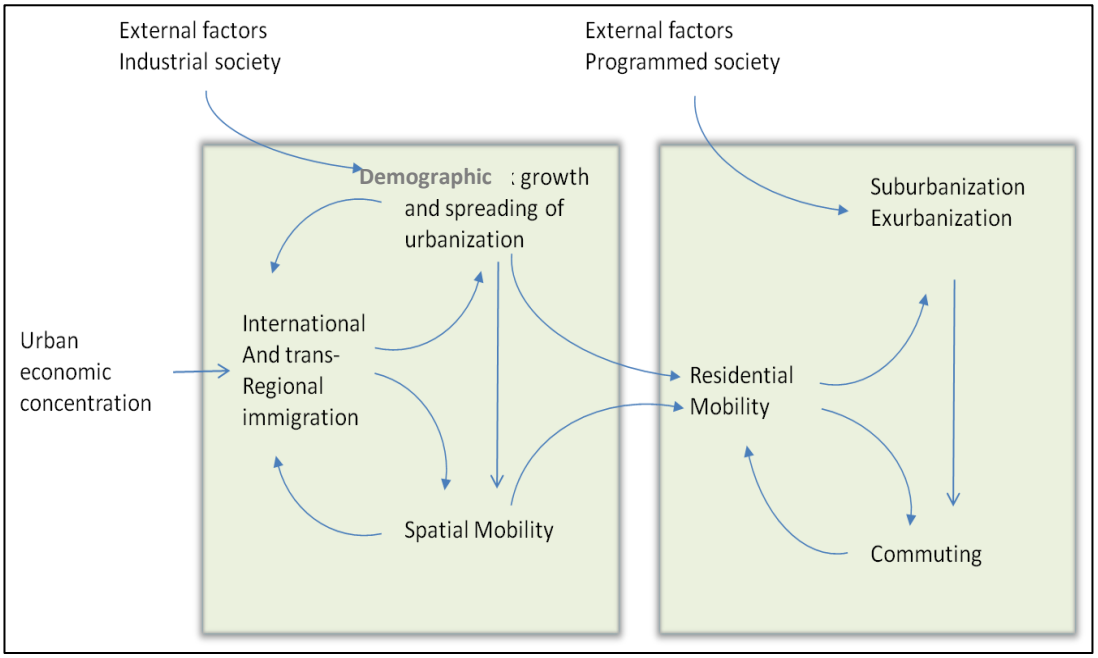


Figure 5.1: The system formed by mobility flows and the structuration of space
Source: Knox and McCarty, 2005

[32] In this thesis, "urban space" refers to the space conceptualization of Lefebvre. Lefebvre (1974, 1991) in his most-cited book, titled "The Production of Space", re-conceptualises the socio-spatial perspective through a Marxian and critical approach, and introduces the idea of "social production of urban space". He introduces three concepts: to reveal how capital, state and society conceive, live and perceive urban space in a capitalist society through the trial schema: representations of space, spaces of representation and spatial practice; representations of space illustrates the organization of urban space, which is created by power, spaces of representation is the lived space where social relations are experienced depending on particular symbols and signs, and dialectical relation between spaces of representation and representations of space gives rise to spatial practice (Lefebvre, 1991).

As mentioned in Chapter 3, the early studies of RM are mostly modelled in compatible with demand-oriented approaches (mostly based on age, family size, marriage, and some socio-economic characteristics of households such as education and occupation of households (Rossi, 1955; Brown and Moore, 1970; Clark et al, 2006). The demand-oriented approach of RM is challenged by a number of researchers who comment that the context in which mobility occurs deserves more attention than residential preferences in motivating RM (Huang and Clark, 2002; Li and Sui, 2001).

Here, I believe it is important enough to repeat that one of the aims of this thesis is to highlight the interrelation between RM process and urban space in the case of Istanbul. In other words, the effects of RM process of households on urban geography of the city are one of the main concerns. Within this background, at first I briefly examine RM studies from ecological perspective which is useful to interpret RM patterns in the city by categorising them in terms of socio-economic and demographic, as well as distance and direction profiles. Then I focus on the substantial relationship between RM and neighbourhood context and segregation phenomena.

5.2 Macro Approaches to Residential Mobility

Cadwallader (1982, 1992) said that as opposed to the micro approach to RM (see Chapter 3) the macro approach is rooted in the ecological studies. [33] Short (1978 cited in Cadwallader, 1992) claimed that the macro approach focussed upon the spatial distribution of RM rates associated with urban sub-areas, and the relationship between these mobility rates and other socio-economic and demographic characteristics. For example, the findings of a detailed study of the distribution of

[33] For example, the urban growth models of Burgess (1924) and Hoyt (1937) contain statements regarding RM (Cadwallader, 1982; Maloutas, 2004; Erginli and Baycan, 2011).

mobility rates in Brisbane which is made by Moore (1971) show that RM is a direct function of population density. In compatible with this argument, it follows that mobility rates should decline with increasing distance from the city centre, as is the case with population density (McDonald and Bowman, 1976 cited in Cadwallader, 1982).

While urbanization is the creation of built-environment, it also plays an indispensable role in producing spaces that would be compatible with existing social relations. But, how can one figure out the characteristics of patterns of this process? RM can be seen a most important mechanism that produces and reproduces urban geography. Macro approaches to RM basically aim to examine mobility flows between origin and destination points by categorizing moving patterns regarding RM rate at the aggregate level. In a sense, macro approaches to RM aims to highlight the divergence RM patterns of households in the broader context (Boyle, 1993). These divergence mobility patterns could point out that there is something else affecting or influencing mobility, namely "neighbourhood effect" It would thus provide a good basis for future studies on what this 'something else' might be.

On the other hand, Quigley and Weinberg (1977) stated that macro-level approach to RM cannot be seen as an explanatory framework for analysing mobility, to some extent it provides additional evidence based on "contextual effects", bearing on the household decision process mind. In compatible with this view-point, I think it is right to say that while the micro approaches try to find the determinants of households' decision to move, on the other hand, the macro approaches aim to conceptualize RM in broader contexts such as urbanization and etc. I believe it is important enough to repeat that these two approaches are partially successful; a synthesis of these two approaches can be more successful to understand RM process.

5.3 Relating Residential Mobility to the Urban Structure

"The macroform of metropolitan areas changed from a mono-centric structure to poly-centric structure characterized by surrounding areas containing new urban socio-spatial settings" (Knox and McCarthy, 2005). In accordance with this interpretation, urbanism is theorized as the complex pattern of "residential neighbourhoods", developed regarding overlapping cleavages of socio-economic profile, household type, ethnicity, and life-style of the inhabitants (Knox and McCarthy, 2005). In this respect, in order to understand the two-way relationship between RM and urban geography, the relationship between RM and neighbourhood change is clarified in the next section of this chapter.

5.3.1 Residential Mobility and Neighborhood Change

As Knox and McCarthy (2005) stated that each neighbourhood is a product of a frequent flux of change: "investment and disinvestment, physical deterioration of housing stock and housing obsolescence, social and demographic changes in place, household mobility (incomers and outgoers) that totally change a neighbourhood" (see Figure 5.2).[34] Before examining RM with a specific emphasis on the role of neighbourhood change, I want to clarify the basic dimensions of neighbourhood change which enable this transformation to occur.

The most obvious aspect of neighbourhood change is the physical deterioration of the housing stock (Knox and McCarthy, 2005). As Knox and McCarthy (2005) claimed that most of the housing areas are settled for particular and relatively similar

[34] The different components of neighbourhood change can be clarified as: the aging of the physical environment, the aging of residents and the movement of households into and out of the neighbourhood. Ley (2001 cited in Knox and McCarty, 2005) claimed that each of these components of neighbourhood change exhibits a different periodicity and that overall effect can be conceptualized in terms of neighbourhood life-cycles.

groups. As a consequence, of the filtering process, the compositions of occupants change regarding socio-economic, demographic, ethnic, or life-style (Knox and McCarthy, 2005).[35] After this brief clarification, I would like to examine the interrelationship between RM and neighbourhood change in detail.

Figure 5.2: The principal components of neighbourhood change Knox and McCarthy (2005)

[35] Basically, the differences among neighbourhoods in terms of the rate and the nature of the changes affect the landscape of investment opportunities. For example, neighbourhood with socially and demographically stable and physically quite sound may nevertheless be considered ripe for redevelopment or reinvestment; because the differences between current rates of return on property in the area and the rates of anticipated from investment in a change in neighbourhood character (Knox and McCarthy, 2005).

> Residential mobility is a central facet of urban social geography, for it provides a spatial expression of the link between the individual household and the social structure, between the households' life-world and its biographical situation, between internal culture-building processes and the spatial template of the city…The residential choices of individual households in aggregate define the social areas of the city. But there is a two-way relationship between individual and aggregate levels, for at the same time the individual's pattern of choices is constrained by the pre-existing set of spatial opportunities in the city and the households' own biography-such as those characteristics of income, stage in the life-cycle, ethnic status and life-style which will close off certain housing opportunities to it and substantially reduce its range of choice (Ley, 1983:298)

I think the citation from David Ley provides an appropriate description of the overall relationship between RM and urban residential structure. In the figure below, the effects of RM and urban residential structure on each other are emphasized. In this respect, the complex residential structure of metropolitan areas is seen as a product of RM, which in turn is a product of housing opportunities as well as households' needs.

In the light of RM studies, it is clear that each city is divided not just into neighbourhoods of different socio-economic and demographic composition but also different rates of RM and different rates of socio-economic change (Knox and McCarthy, 2005). Moore (1972 cited in Knox and McCarthy, 2005) captured these significant dimensions of urbanization in a four-fold typology for American cities (see, Table 5.1).

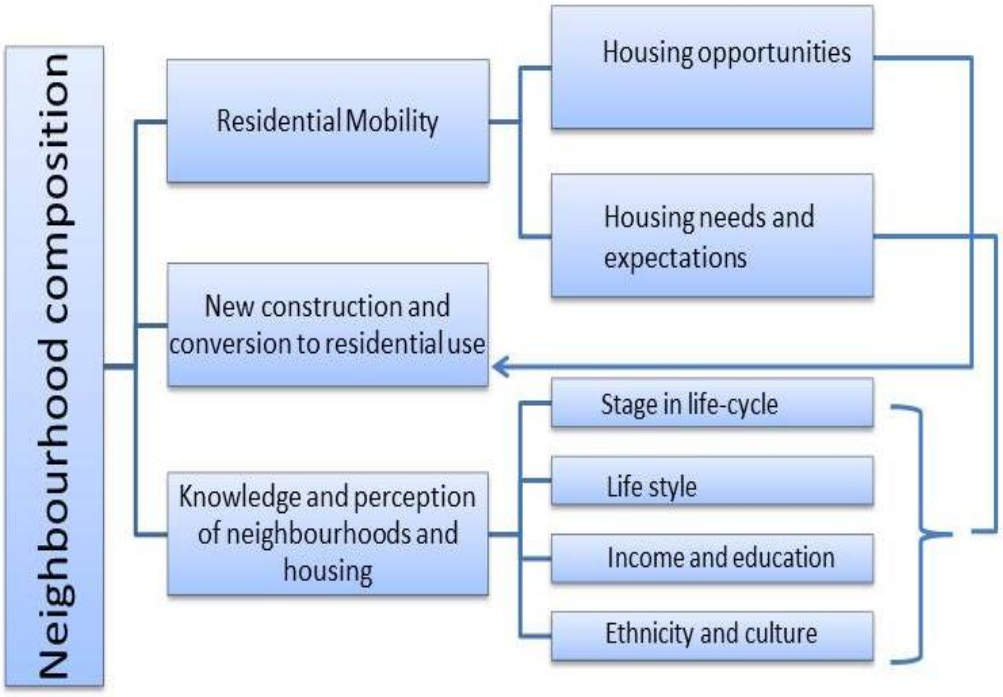


Figure 5.3 Relationship between RM, neighbourhood composition and housing stock (Knox and McCarthy, 2005).

In simplistic words, Type I situations are characterized by high RM and rapid change, and include the classic invasion-succession sequence (Moore, 1972 cited in Knox and McCarthy, 2005). Type II situations are represented the newer suburbs for newly established middle-income household or neighbourhoods. Type III situations are characterized by neighbourhoods that experience a gradual demographic change in place.

Table 5.1: A typology of neighbourhood change (Moore, 1972 Knox and McCarthy, 2005)

	Neighbourhoods with significant socio-demographic change	**Neighbourhoods with little socio-economic change**
Neighbourhoods with high mobility rate	**I** a. Rapid change: owing to the result of ethnic or racial conflict in residential enclave. b. Change: Because of the specific social groups, residential area gains high-social status. c. Change: because of the rapid deterioration of physical built environment	**II** a. Because of the inflexibility in housing, the area is not catered to large range of household typology b. In-migrants' terminal point.
Neighbourhoods with low-mobility rate	**III** a. Change: Many households tend to live in this type of residential are because of their flexible housing composition b. Deterioration: in-migration causes social and physical deterioration in the area.	**IV** a. Networks of ethnic minorities mostly structured the socio-economic and physical composition of the residential neighbourhood..

The typology above indirectly indicates that RM is a selective process, with some neighbourhoods are dominated by households with little propensity to move and vice versa. Until here, RM literature is explored regarding its role and position on neighbourhood change, in the next section of this chapter; the effects of neighbourhood on RM process are examined in detail.

5.3.2 Neighbourhoods Effects and Residential Mobility

In their well-known article, Quigley and Weinberg (1977) stated that RM was the main cause of the changes in structures and characteristics of neighbourhoods where

people live. “Little work has been done on the specific neighbourhood factors affecting mobility behaviour” (Quigley and Weinberg, 1977) In other words, in the literature, it is hard to find studies which examine how the neighbourhood affects moves (Ioannides, 2002).

Nevertheless, the studies of RM do not disregard the importance of the characteristics of locality. There is a growing body of evidence that the characteristics of neighbourhood are also part of the explanation of RM (Clark et al, 2006; Feijten and Ham, 2009). In the same manner, Mustard et al., (2003) and Sampson et al., (2002) discuss in what ways a neighbourhood affects inhabitants’ mobility decision through considering how social processes in the neighbourhood affects decision making such as local role models, relative status of groups and etc. Some recent studies basically focus on the relationship between local context, migrants’ decision-making, and levels of out-mobility; such as Ham and Clark (2009).

Amérigo (2002 cited in Adriaans, 2007) claimed that the growing RM literature distinguished two sets of neighbourhood characteristics which have potential influences on the mobility of inhabitants. These two characteristics are embedded in attractiveness concept. The first one was the physical structure of the neighbourhood. In a same manner, Brown and Moore (1970) claimed that attractiveness is that makes a household choose one dwelling over another. This is a search for a new location which is considered as more attractive than the previous residential areas. This process is profound to the dwelling’s feature, such as size and neighbourhood characteristics, location and socio-economic profile of inhabitants. Nevertheless, this choice was limited to a few alternatives which were evaluated based on the households’ subjective interpretations of at attractiveness (Brown and Moore, 1970).

In a same manner, Jones (1990) says that during the examination of the mobility flows between origin and destination points, the crucial conception is attractiveness. According to "neighbourhood effect" theory, distance is an important factor affecting attractiveness (Jones, 1990). There is a variety of ways to measure distance, for example, social distance and geographical distance. While geographical distance was still important; social distance affects households' propensities to move into an area with different social environment; that's why most moves were engaged between areas of similar socio-economic and environmental characteristics (Jones, 1990). It is obvious that geographical distance is closely related to local social network: for movers, short distance moves enable to maintain their social network. Jones (1990) assumed that local social network and knowledge were the components of attractiveness, and for mover having closed social network and/or social capital increased the possibility to move among short distance. Within this backdrop, it can be assumed that if socio-economic, demographic, ethnic or built environment compositions of neighbourhood affect RM; spatial preferences of mobility patterns should show these effects.

Based on the well-known studies on the interrelationship between RM and the attractiveness of locality (in a sense neighbourhood effect), it is right to say that the out-mobility rate in distressed or disadvantageous or unattractive residential areas is significantly high. For example, Bailey and Livingston (2007) conducted a research for the UK, and they found that neighbourhoods with a large percentage of rented dwellings and many young singles could be show the highest population mobility (Ham and Clark, 2009). In a same manner, put the relationship between local housing composition and mobility in mind, it can be expected that RM is likely to be highest in housing markets with many opportunities for households to find a dwelling that matches their housing needs.

And the second characteristic which potentially influences RM is the socioeconomic and ethnic characteristics of the inhabitants of neighbourhoods. Ham and Clark (1999) claimed that when given the opportunity, people exhibit a tendency to move away from neighbourhoods with low socio-economic status. There is a large literature that show a range of contextual effects of poor or low socio-economic status neighbourhoods on social position and social opportunities, for instance social exclusion (Buck, 2001); and social mobility (Mustered et al, 2003). In a similar vein, Harris (1999), in his well-documented literature review, shows that households with children attempt to avoid neighbourhoods with low socio-economic status and inhabitants who diverge from normal norms and values (such as unemployment and low-levels of education).

Bailey and Livingston (2007) pointed out the large number of assumptions about the relationship between neighbourhood socio-economic status and RM in neighbourhoods (Bailey and Livingston, 2007). Nevertheless, the literature explained the neighbourhood-level mobility refer to not only the socio-economic characteristics of neighbourhoods but also the mix of the neighbourhood population and characteristics of the housing stock, was limited (Bailey and Livingston, 2007; Hui, 2005; Ham and Clark, 2009).

In their well-organized study, Ham and Clark (2009) assumed that those who leave a neighbourhood have a potentially large effect on neighbourhood change when they are replaced by others with different characteristics. As mentioned in the previous paragraphs, the socio-economic and demographic characteristics of neighbourhood play a significant role in clarifying mobility at disaggregate or individual level (Clark et al, 2006; Ham and Feijten, 2008; Feijten and Ham, 2009). The results of the study of Bruch and Mare (2010) illustrated the ways in which individual-level mobility preferences for different kinds of neighbourhoods that modified residential patterns at the aggregate level. Harris (1999) initiated the linkage between the socioeconomic

status of neighbourhood and RM, at first Clark (1992) and then Crowder (2000) mentioned the linkage between RM and the ethnic mix of the neighbourhood population. In this manner, Bruch and Mare (2010) stated that for the potential movers, the relative attractiveness of neighbourhoods was altered sequentially by the changes in neighbourhoods. In this respect, both, Feijten and Ham (2009) and Lee et al (1994) initiated that RM studies should focus on the effect of changes in the neighbourhood as determinants of mobility behaviour.

5.3.3 Residential Mobility and Ethnicity and Race

The debate on the role of the neighbourhood socioeconomic status in understanding selective RM is closely related to the debate on the role of the ethnic composition of the neighbourhood population (Clark, 2007). Two main explanatory mechanisms have been suggested through which the ethnic composition of neighbourhoods influences mobility. The first one is proposed by Schelling (1969) - different ethnic groups live in different neighbourhoods because of their different preferences for own-race and other-race combinations. In simplistic words, individuals of one race or ethnicity cumulatively settle in highly segregated neighbourhoods.

And the second explanatory mechanism is based on the `racial proxy hypothesis' (Ham and Clark, 2009). In the line with this hypothesis, in neighbourhoods with a high percentage of ethnic minority residents, a whole range of social problems are concentrated and that people want to escape neighbourhoods with higher concentrations of ethnic minority residents (Clark, 1992; Harris, 1999; Taub et al, 1984 cited in Quillian and Bruch, 2010). In a similar scope, it is appropriate to claim that an increase in members of ethnic minorities in a neighbourhood can function as a proxy for an increase in a range of problems in the neighbourhood.

Within this background, Alba and Logan (1993) developed an alternative theoretical perspective on the selectivity of relocation process: the place stratification model in order to understand the relationship between race and RM:

> The place stratification model directs attention to the hierarchical ranking of places and social groups and the means by which advantaged social groups distance themselves-socially as well as spatially-from disadvantaged groups, including many racial and ethnic groups, especially African Americans (Alba and Logan, 1991:1391)

However, it is necessary to mention that the place stratification model does not deny that life-cycle and socioeconomic factors shape black RM patterns, but adds that these explanations by emphasizing the structural constraints that facilitate the mobility of blacks between different types of communities within urban areas (Alba and Logan, 1991).

5.3.4 Residential Mobility and Residential Segregation

Galster and Killen (1995) say that neighbourhoods' social and physical settings affect the decision making behaviour of households. Recalling Chapter 3, households' mobility decisions are case-specific. Households' life-styles, preferences, objectives as well as the idiosyncratic conceptualization of achievable effects form the mobility patterns of households. In simplistic words, social processes which affect the all components above, are continuously formed within the neighbourhood, and have a reciprocal effect in households' mobility. Put this reciprocal relationship in mind, it is right to say that at the aggregate level the households' mobility has an effect in the socio-economic as well as spatial characteristics of neighbourhoods both in a way of change and stabilize them. Within this backdrop, analysing RM patterns of households provides an opportunity to

examine the segregation. However, there are very few studies on how neighbourhoods affect RM and the interrelation between RM and segregation (for example Ham and Feijten, 2008). Waldorf (1990, 1993) claimed that the connection between residential segregation and RM is important; because RM is a principal force contributing to the change of residential segregation over time and vice versa.

Maloutas (2004) claimed that the relationship between RM and segregation are evolved in the mutual relationship between mobility and the modern city. He supported his assumption throughout Burgess Model. As known, mobility (both social and residential mobility) is the basic principle of Burgess Model; and at the aggregate level social and RM are combined by the assumption that the "socially mobile will inevitably be residentially mobile" (Maloutas, 2004). From this point of view, it is accepted that segregation is generated by the shifting and sorting of population by RM (Maloutas, 2004). In a sense, Knox and Pinch (2000) argue that the change in local social environment is produced by RM, and they claim that

> Although it is widely accepted that the shaping and reshaping of urban social areas is a product of the movement of households from one residence to another, the relationships between residential structure and patterns of RM are only imperfectly understood (Knox and Pinch, 2000: 522).

5.5 Conclusion

Literature points out that RM is one of the most important dynamic forces structuring and changing urban space in a given city. As RM can either provide explanations about the dynamics hindered in the mutualistic relationships between relocation and households' life cycle events, or arise the ways to recognise different social status groups and urban forms across and within cities; RM can provide a kind of links to wider themes of urban restructuring.

In the same manner, neighbourhood effect as well as neighbourhood change can be examined by analysing RM patterns both in individual and in aggregate levels. It is clear from the literature that residential segregation, in this context, is seen as an outcome of RM in the aggregate level. In this respect, macro or ecological approaches to RM give another point of view to researchers to interpret flows of RM and understand divergent patterns of RM. Consequently, in the following chapter of this thesis, I analyse RM patterns of households considering their roles during neighbourhood change and the effects of neighbourhoods on RM.

CHAPTER 6

RESIDENTIAL MOBILITY AND URBAN GEOGRAPHY OF ISTANBUL: DOES RM MATTER?

"Insanların kaderleri besbelli evlere bağlı:
Zengin evler fakirlere çok yüksekten baktılar,
Kendi seviyesine evler kız verdi, kız aldı
Bazıları özlediler daha yüksek hayatı,
Çırpındılar daha üste çıkmaya,
Evler bırakmadılar.
..."
(Behçet Necatigil, 1947, "Evler", Varlık, pp. 329)

RM is a central phase of urban geography for it provides a spatial expression of the link between the households and the social structure, between housing processes and the spatial setting of the city (Ley, 1983; Knox and McCarthy, 2005). In a same manner, RM is a highly structured process with impacts on both those who move and on the places they choose in their mobility process (Cadwallader, 1992). In this sense, RM process in any given city is understood by profiling movers as well as by exploring their interlinked mobility flows.

This last point of view constitutes the core arguments of this chapter. The pattern and rate of which people change their homes is obviously a process deeply rooted in the spatial organization of urban areas, but spatial factors cannot wholly explain the

characteristics of RM. Although such conditions as proximity or distance or direction or physical structure or socio-economic/demographic profile of local are significant parameters in any equation of movements, they can only be made expressive when RM is conceptualized in the context of social, political and economic and spatial settings of neighbourhood or city or urban area or state.

In Istanbul, raw "RM rate"[36] was 10.8 % in 1990 and was 11.5 % in 2000.[37] This means that the raw mobility rate of Istanbul rose with a small percentage increase (6.5%) between 1990 and 2000. As indicated in Chapter 5, there are plenty of reasons for this shift such as increase in population, decrease in household size, and increase in education attainment levels of the society and the differentiation in housing stock regarding size, type and location, of housing units. As known, I am not interested in the motivations behind such RM, notwithstanding I am particularly interested in to answer the questions (1) "Who does move", and (2) "Where do they move and "Does it matter?" In this respect, this chapter focuses on answering the second main question of the study.

Referring chapter 1, in this study, as well as identifying the spatial patterns of RM flows, establishing the interrelationship between RM and other features of the urban setting such as socio-economic and demographic characteristics, is also of interest. As known, this thesis focuses on RM at the aggregate level. Nevertheless, it is also interested in the differentiation of RM regarding households' socio-economic characteristics such as age, education and family typology, at the disaggregate level. Because of the fact that "education" is seen as a factor variable that represents the

[36] Formula of RM rate is as follows:

$$\text{Raw RM rate} = \frac{\text{number of movers in selected census year}}{\text{total number of household heads in selected census year}}$$

[37] In spite of the fact that Istanbul cannot be compared with other cities with respect to RM rate because of the lack of available data. However, I would like to inform you about mobility rate profile of such selected cities: Tokyo was 9.3% in 2004 (Seko and Sumita, 2007); Hong Kong was 36% in 2001 (Hui and Yu, 2009).

low-status and high-status households' RM preferences (as discusses in Chapter 4, Section 4.2.3.1). In this respect, the spatial patterns of RM of low-educated and high-educated households are also agenda of the second-phase analysis of this study, to highlight idiosyncratic interaction among mobility, urban setting and those groups.

Within this background, the second level analysis mainly aims to explore the reciprocal interactions between RM and changes on urban setting in the case of Istanbul through answering these questions: Are there specific spatial mobility patterns of households in the city? If so, what are the basic characteristics of RM patterns and how are they differentiated in terms of social status? Are these mobility patterns differentiated between 1990 and 2000? Does RM change the composition of districts' population? If so, do high-status or low-status group have the same impact on these changes? The next section describes methods of the analysis.

6.1.1 Graph Analysis: Flow Priority Graph and From/To Matrix

A graph is a kind of representation that consists of a set of points (an area under consideration such as places, districts or regions) and a set of lines represent the links between a pair of points. However, in RM and migration studies, 'digraphs' (directed graphs) are used which reflect in the real world structural patterns of relations of a system under consideration (Kipnis, 1985).

In order to illustrate the direction and concentration of RM moves, three graph methods are mostly preferred to use: "the dominant flows, the significant flows and the flow priority index" (Kipnis, 1985). Kipnis (1985) stated that "all three methods are complementary and each discloses similar basic flow patterns along a few distinctive features of the flow elements" (Kipnis, 1985). However, Flow Priority Graph is chosen to examine residential moves in this thesis, partly because of the characteristics of data and partly because it is the most appropriate approach to

answer the questions above.

6.1.1.1 Flow Priority Graph

Flow priority exhibits RM preferences among regions of a M_{ij} matrix (Kipnis, 1985). The graphs are defined on the basis of a "0 flow Priority Index (PR) in which

$$PR = \frac{Om_{ij} - Em_{ij}}{Em_{ij}} \tag{6.1}$$

where $'Om_{ij}'$ is the total observed number of people who moved from region i to region j, and

$$Em_{ij} = mt \left(\frac{Pi}{Pt}\right)\left(\frac{Pj}{Pt}\right) \tag{6.2}$$

where 'mt' is the total number of people who are residentially mobile in the whole urban area. Pi and Pj are the total population of area i and j respectively, and Pt is the total population of the urban area" (Kipnis, 1985)

6.1.1.1.1 In-comers Index and Out-goers Index

In order to find how flow priorities and the overall mobility are balanced in each region, Kipnis (1985) developed two related indices: In-Migration Index and Out-Migration Index. In this thesis, the level of mobility for districts is analysed using

these indices. The formula of the In-migration Index (hereafter termed as "In-comers Index"):

$$IM = \left(\frac{i_m}{Pi}\right) \Big/ \left(\frac{mt}{Pt}\right) \tag{6.3}$$

in which I_m is the number of people entering region i. The out-migration index (hereafter termed as "Out-goers Index") is similarly calculated as:

$$OM = \left(\frac{m_i}{Pi}\right) \Big/ \left(\frac{mt}{Pt}\right) \tag{6.4}$$

where m_i is the number of people leaving region i (Kipnis, 1985).

6.1.1.2. From/To or Flow Matrix

The mutual data base for almost all graph analyses is a flow or FROM/TO matrix (M_{ij}). The matrix consists of rows and columns with same labels in a corresponding sequence and it shows the relationship between a set of variables or indicators. And the entries can be representing the distance or number of person or number of trips, and etc. In the case of Istanbul: i rows and j columns of the M_{ij} Istanbul with i=j=29, refer the origin and destination districts of the matrix, respectively (See Figure 6.1).

While the captions of horizontal and vertical sequences of M_{ij} are not changed, the scope of entries can be formulated in the specific manners; such as, M_{ij} for high-educated or low-educated movers, etc. As previously mentioned, every type of

FROM/TO matrix reports about the mobility patterns of households of Istanbul; for instance M_{ij} - FIRE simplifies the mobility patterns of movers work in FIRE. Briefly, this matrix is a crucial part of the macro-level analysis while choosing case study groups.

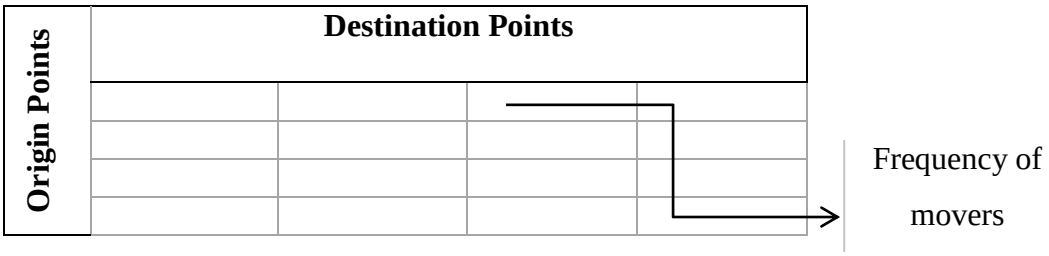


Figure 6.1: The FROM/TO Matrix

6.1.2 The Socio-economic Development Index

How do residential moves influence the socio-economic settings of Istanbul? In order to answer this broad question, the Development Index is developed. Mainly, the Socio-economic Development Index is a composite statistic that ranks the areas by their development degree. In other words, the Development Index is designed to compare the development status of areas at a given point in time.

Socio-economic Development Index is an area level index, and is assigned to areas, not to individuals. It indicates the collective selected socio-economic and demographic status of the people living in an area. It may be assumed that relatively under-developed areas are likely to have a high proportion of people with illiterate, large household size and low labour force participation rate. However, such an area is also likely to contain people who do not reflect such characteristics, as well as people who are relatively high of socio-economic and demographic profile.

When area level indices, like Socio-economic Development index, are used as proxy measures of individual level socio-economic status, many people are likely to be misclassified. This is known as the ecological fallacy (see Piantadosi, et al., 1988; Nabi and Oliver, 2009). Because the boundaries of the relevant areas may have changed, the distribution of the minimum and maximum index values will have changed; it is not recommended using the development index to compare development status of areas from different census years. In this thesis, as can be seen in Table 6.5, the Development Index is accepted and used as a comparative measure of education, employment, and demography for the scale of districts:

Table 6.5 Input variables for the Development Index

A- EDUCATION		
	A_1- Rate of literacy	The higher the level of the indicator, the more developed the district
	A_2- Percentage of university graduates	The higher the level of the indicator, the more developed the district
	A_3- Difference between male and female literacy	The lower the level of the indicator, the more developed the district
B- EMPLOYMENT		
	B_1- FIRE sector employment	The higher the level of the indicator, the more developed the district
	B_2-Labour force participation rate	The higher the level of the indicator, the more developed the district
	B_3- Difference between male and female labour force participation rates	The lower the level of the indicator, the more developed the district
C- DEMOGRAPHY		
	C_1- Household size	The lower the level of the indicator, the more developed the district
	C_2- Child Women Ratio	The lower the level of the indicator, the more developed the district

Education: Education is commonly recognised as a leading tool for promoting economic growth. It can also change the demography of the community through

contributing to reduce fertility rate and population growth. In short, having a university diploma gives a person an advantage over someone with no qualifications while the high rates of literacy and the rate of university graduates variables are positively correlated, on the contrary, for difference between male and female literacy variable is negatively correlated with development level of selected district. Işık and Ataç (2011) examined the relationship between households' education level and their social status: it is clear that households with higher education have a great propensity to be members of high-status groups in the society, vice versa.

Employment: Another employment indicator used in the development index is the difference between female and male labour force participation rates. In simplistic word, the lower rate of this variable indicates the high-level of development.

Demography: Işık and Pınarcıoğlu (2006, 2010) show the reciprocal relationship between demography and socio-economic development level of households. The household size and child women ratio variables are selected. As known, the Child Women Ratio and average household size has significantly decreased since the middle-1980s. While there is a close relationship between the income level and status of groups, the area with low Child Women Ratio and the average household size shows high-development profile. In the table above, the input variables of the Development Index are indicated. The formula:

$$Normalised\ value = {(X_i - Min_i)}\Big/{(Max_i - Min_i)} \qquad (6.6)$$

X_i , is the value of selected variable in selected district

$Max_i - Min_i$, are the highest and lowest values the variable x, respectively.

Here, the point that has to be considered is that this normalization process is applied to "The higher the better" variables. "The lower the better" variables are normalized as Min=1 and Max=0. And, finally, as can be seen from the formula below, all these values are summed and are divided to the total number of variables (It means that this method is run without weight variables). And the total score is the Socio-economic Development Index of selected district.

$$Socio-economic\ Development\ Index_i = \frac{total\ normalized\ value\ _i}{number\ of\ input\ vairables} \qquad (6.7)$$

$i =$ Selected district

As measures of development level, the index is ordinal. It can be used to rank areas, yet cannot be used to measure the size of the difference in development level between areas. For example: it cannot be interpreted that an area with an Index of Development value of for example 0.3 is twice as less-developed as an area with an index value of 0.6; and the difference in development between two areas with values of 0.7 and 0.8 is not necessarily the same as the difference between two areas with values of 0.8 and 0.9. Briefly, it is only used to distinguish whether the area is a high-development or a less-development.

6.2 Findings: The Effects of RM on Urban Setting

The findings of second-phase analysis of the study are classified under three categories: (1) RM and urban form, (2) RM and built environment, (3) RM and social environment.

6.2.1 RM and Urban Form

Most models on RM focus on the direction and distance preferences of mobility flows. Distance can be calculated in different ways, for instance, driving distance, geodetic distance or bird's eye distance. While, the most appropriate one is driving distance, because of the geographic characteristics and variation in the transport lines, in this thesis, I use "distance" as a straight-line between the centre points of districts (See Appendix B).

RM researches show that the vast majority of residential moves are short distances Clark and Dieleman, 2006). In the case of Istanbul, the average distance of residential moves is 13.7 km, 70% of moves being less than 10 km, while only 6% of moves more than 25 km of their previous residence in 2000. Besides, RM verifies that when people move, they consider not only distance but also direction. In the following part of this section, the findings represent the interaction between RM and urban form as well as urban growth.

6.2.1.1 There is a tendency to move towards periphery

Both in 1990 and in 2000, RM flows of Istanbul exhibit relatively complex patterns. In order to decrease this complexity as well as to show the relationship between RM and urban form, as a first step Istanbul's districts are grouped in three sub-groups by housing stocks' construction periods, in 2000. Table 6.8 initiates the description and districts, of sub-groups.[38] And as a second step, I calculate Flow priority From/To Matrix of Istanbul for each sub-groups (see Table 6.9).

[38] In the following parts of this study, sub-group 1 refers to the "inner-zone" of the city, sub-group 2 refers to the "middle-zone" of the city, and sub-group 3 refers to the "outer-zone" of the city in 2000.

Table 6.8 Sub-groups of districts by construction period of housing stock in Istanbul

Sub-groups	Description	Districts	
Sub-group 1	Nearly more than half of its housing stock was constructed before the 1970s	Eminönü, Fatih, Beşiktaş, Şişli, Beyoğlu	Core
Sub-group 2	Nearly more than half of its housing stock was constructed in the period 1970-1990	Bakırköy, Bayrampaşa, Beykoz, Esenler, Sarıyer, Bağcılar, Kağıthane, Kadıköy, Güngören, Eyüp, Ümraniye, Bahçelievler, Üsküdar, Zeytinburnu,	
Sub-group 3	Nearly more than half of its housing stock was constructed in the period 1990-2000	Pendik, Tuzla, Büyükçekmece, Sultanbeyli, Avcılar, Gaziosmanpaşa, Küçükçekmece, Kartal, Maltepe	Periphery

A closer look at the distribution of flow priority index value of sub-groups in Istanbul reveals that people tend to move from inner and middle zones towards the outer-zone of the city in 2000. As can be seen in Table 6.3, the priority index value of from inner-zone to outer-zone flows was 0.3 in 2000, while the priority index value of from inner-zone to middle-zone flows was only -0.5 in the same period. The in-comers and out-goers index values for each sub-group also fortify this tendency: in 2000 the in-comers index value of inner-zone was only 0.7, while for outer-zone this value was 1.2 (see table 6.3).

Table 6.9 Priority Index From/To matrix, the In-comers and Out-goers Indices of Istanbul for sub-groups in 2000

1995-2000		Priority Index			In-comers Index	Out-goers Index
		Destination				
		Inner	Middle	Outer		
Origin	Inner	-	-0.5	0.3	0.7	1.5
	Middle	-0.2	-	0.4	0.9	1.1
	Outer	-0.6	-0.3	-	1.2	0.8

In a same manner, Küçükçekmece and Ümraniye were the most favourable outer-zone districts in 1990. As can be seen in Table 6.10, the in-comers index of Küçükçekmece was 3.1 and for Ümraniye this rate was 1.8 in 1990. It is clear that the mobility flows from Kadıköy, Üsküdar, Şişli, Beşiktaş and Beyoğlu to Ümraniye represent priority (see Figure 6.2). However, in the case of Küçükçekmece, flows from Bakırköy, Zeytinburnu and Fatih represent priority. The findings of the analysis also show that while in-comers of Küçükçekmece were relatively high-status groups, the in-comers of Ümraniye were mostly middle-status groups in 1990.

By 2000, Büyükçekmece became the most favourable district with 2.6 in-comers index. The mobility flows from Bakırköy and Bahçelievler to Büyükçekmece show priority (see figure 6.3). As can be seen in Table 6.10, the in-comers index of Maltepe was 1.3; this means that in Anatolian side Maltepe was the most favourable district of households. A closer look at the composition of the in-comers of those districts shows that while Büyükçekmece was preferred by mostly high-educated households, Maltepe was the favourable district of elderly in 2000.

Table 6.10: In-comers and Out-goers Indices of Districts both in 1990 and in 2000

	1985-1990		1995-2000	
	In-comers Index	**Outgoers Index**	**In-comers Index**	**Outgoers Index**
Avcılar			1.2	1.9
Bağcılar			0.9	1.0
Bahçelievler			1.0	1.2
Bakırköy	0.9	1.3	1.0	2.1
Bayrampaşa	1.1	0.9	0.8	1.4
Beşiktaş	0.8	1.9	0.9	1.8
Beykoz	0.6	0.6	0.8	0.6
Beyoğlu	0.5	1.2	0.6	1.2
Eminönü	0.6	4.2	0.6	4.5
Esenler			0.8	1.0
Eyüp	0.7	1.2	0.9	0.9
Fatih	0.5	1.2	0.6	1.7
Gaziosmanpaşa	0.6	0.6	0.8	0.5
Güngören			1.2	1.3
Kadıköy	0.9	0.7	0.8	1.1
Kağıthane	0.7	0.4	0.8	0.8
Kartal	1.0	0.5	1.1	0.8
Küçükçekmece	3.1	0.3	1.1	0.5
Maltepe			1.3	1.0
Pendik	0.9	0.3	0.8	0.5
Sarıyer	0.8	0.9	1.0	1.1
Şişli	0.6	2.3	1.3	1.5
Tuzla			1.0	0.6
Ümraniye	1.8	0.3	1.1	0.6
Üsküdar	1.0	0.9	1.0	1.0
Zeytinburnu	0.6	1.1	0.7	1.0
Büyükçekmece			2.6	0.3
Sultanbeyli			1.1	0.6

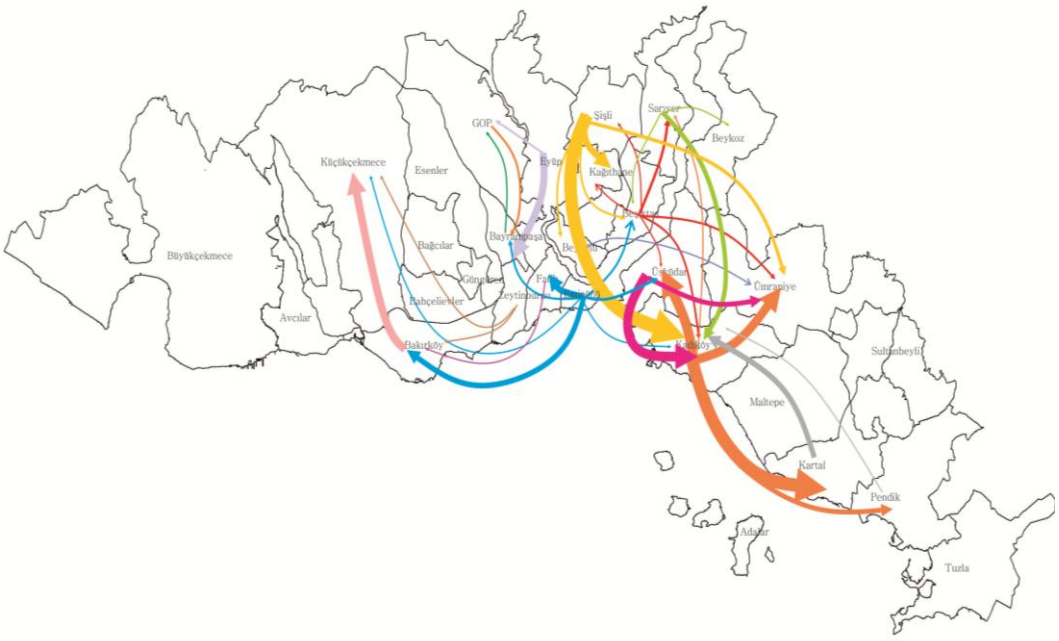


Figure 6.2 Priority Flows of Istanbul in 1990

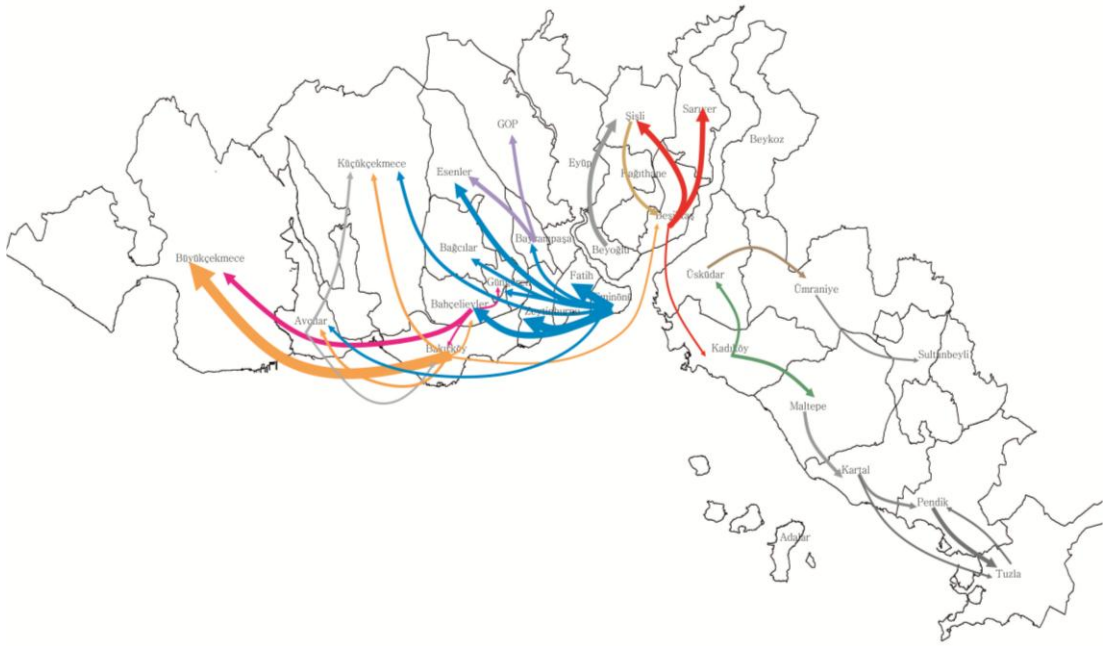


Figure 6.3 Priority Flows of Istanbul in 2000

6.2.1.2 People tend to leave from historical core of the city

As indicated in chapter 2, processes of changes on economic, social, and demographic and technical domains also create dispersal of population. Table 6.9 indirectly indicates the tendencies of movers in the redistribution of population within Istanbul metropolitan area, with the inner zone experiencing substantial but declining loss of population, as did the middle-suburbs.

Table 6.11 In-comers and Out-goers Indices of inner-zone districts both in 1990 and in 2000

	1985-1990		1995-2000	
	In-comers Index	**Outgoers Index**	**In-comers Index**	**Outgoers Index**
Beşiktaş	0.8	1.9	0.9	1.8
Beyoğlu	0.5	1.2	0.6	1.2
Eminönü	0.6	4.2	0.6	4.5
Fatih	0.5	1.2	0.6	1.7
Şişli	0.6	2.3	1.3	1.5

The out-goers index values of all inner-zone districts are significant: Beşiktaş with 1.9, Şişli with 2.3 and Eminönü with 4.2 in 1990 (see Table 6.11). Considering the in-comers index values of those districts, it is clear that people tend to move from historical core of the city and this is a one-way flow. However, on the contrary to the other inner-zone districts, the out-goers index values of Eminönü and Fatih increased in the period between 1990 and 2000. As can be seen in Table 6.11, the out-goers index, of Eminönü increased from 4.2 in 1990 to 4.5 in 2000, of Fatih it increased from 1.2 to 1.7 in the same period. It is right to expect that this situation is closely related with decentralization of industry from inner-city since the early 1980s.

Furthermore, this tendency is also in compatible with the labelling Eminönü as one of the touristic points of Istanbul in the post-1990 period. At the aggregate level, this indicates the decline of the historical core of the city.

6.2.1.3 High-educated people diffused from inner-city

Both in 1990 and in 2000, high-educated households mostly prefer to leave inner-city districts, in particular Eminönü and Fatih. Table 6.12 illustrates that the out-goers index score of high-educated households was 0.6 for Eminönü, was 0.5 for Beşiktaş, was 0.2 for Fatih, in 2000. These movements do not show reciprocal characteristics, except Beşiktaş: the in-comers index score of the district was 0.3. This means that the turnover rate of Beşiktaş regarding high-educated households is relatively higher than the rest of the city in 1990. It is clear that high-educated households mostly move towards districts with high development index which is discussed in detail in the following part of this chapter. In compatible with the deprivation of inner-city, the decentralization of high-educated movers has gained momentum by 2000. Table 6.12 provides evidence to this tendency regarding in-comers and out-goers indices. In Eminönü, the out-goers rate of high-educated households was 0.8, while the in-comers rate of those was only 0.1. It is not difficult to see the same profile in Fatih: of high-educated households the in-comers rate was 0.11 and the out-goers rate was only 0.40 in the same period. Nevertheless, Beşiktaş and Şişli show different composition. In simplistic words, the flows of Beşiktaş and Şişli are two-way. In other words, Beşiktaş and Şişli are either origin or destination points for high-educated households. For example, in 2000, both the out-goers and in-comers indices of Beşiktaş were significant: 0.5 and 0.8 respectively. This can be interpreted as Beşiktaş and Şişli were still among the favourable districts of high-educated households, on the contrary to Eminönü and Fatih.

Table 6.12 High-educated households' In-comers and Out-goers indices both in 1990 and in 2000

	1985-1990		1995-2000	
	In-comers Index	**Outgoers Index**	**In-comers Index**	**Outgoers Index**
Avcılar			0.16	0.43
Bağcılar			0.05	0.07
Bahçelievler			0.17	0.29
Bakırköy	0.10	0,12	0.41	0.75
Bayrampaşa	0.08	0.04	0.05	0.13
Beşiktaş	0.28	0.47	0.50	0.78
Beykoz	0.05	0.11	0.22	0.12
Beyoğlu	0.06	0.10	0.10	0.19
Eminönü	0.06	0.56	0.06	0.77
Esenler			0.03	0.05
Eyüp	0.07	0.05	0.12	0.11
Fatih	0.07	0.21	0.11	0.40
Gaziosmanpaşa	0.03	0.04	0.03	0.05
Güngören			0.19	0.19
Kadıköy	0.28	0.14	0.36	0.40
Kağıthane	0.05	0.04	0.11	0.11
Kartal	0.14	0.09	0.18	0.12
Küçükçekmece	0.19	0.03	0.16	0.10
Maltepe			0.36	0.24
Pendik	0.07	0.04	0.10	0.09
Sarıyer	0.10	0.15	0.43	0.31
Şişli	0.14	0.36	0.49	0.41
Tuzla			0.17	0.21
Ümraniye	0.08	0.03	0.15	0.08
Üsküdar	0.18	0.15	0.35	0.27
Zeytinburnu	0.05	0.09	0.13	0.12
Büyükçekmece			0.77	0.05
Sultanbeyli			0.03	0.07

In short, as can be seen in Figure 6.4 and 6.5, high-educated households decentralized from the city-centre to the new developed residential areas that were mostly sites and gated communities (as discussed in chapter 2, section 2.3.3). This tendency also accelerated the filtering down of housing opportunities and the movement of low-educated households into higher-income residential areas in the periphery of Istanbul in the post-1980 period.

6.2.1.4 D-100 is not a boundary any longer for high-educated households

As indicated previously, high-educated households diffused from core of the city in 1990 and this tendency became more visible in 2000. Looking at from the broader perspective, it is obviously the fact that high-educated households' residential moves take place among the middle and upper-middle districts lying on both sides of the Bosphorus (see Figure 6.4). As known, these districts are on the route of D-100 highway; so, D-100 can be seen as a boundary for high-educated moves in 1990. In this period, Beşiktaş, Kadıköy and Küçükçekmece were the favourable districts of high-educated households, the in-comers index of those districts were 0.3, 0.3 and 0.2 respectively (see Table 6.12)

In 2000, high-educated households move significantly towards Büyükçekmece with 0.8 in-comers index (see Table 6.12). Beşiktaş, Şişli, Kadıköy and Maltepe were also favourable districts of high-educated households in 2000. As can be seen in Table 6.6, the in-comers index of Beşiktaş and Şişli was 0.5, along with Kadıköy, Sarıyer and Maltepe was 0.4 in 2000. This means that Büyükçekmece was chosen by vast majority of high-educated household in 2000. Considering the housing stock characteristics of Büyükçekmece, I think it is right to say that high-educated movers tend to live relatively new residential areas in the city of Istanbul.

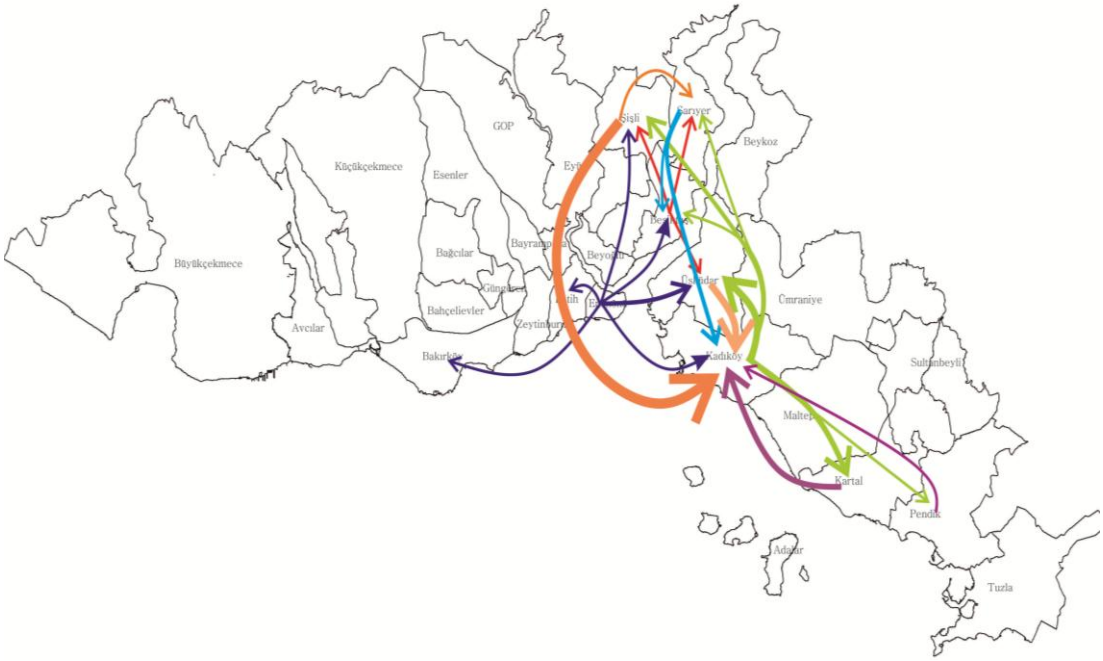


Figure 6.4 Priority Flows of High-educated households in 1990

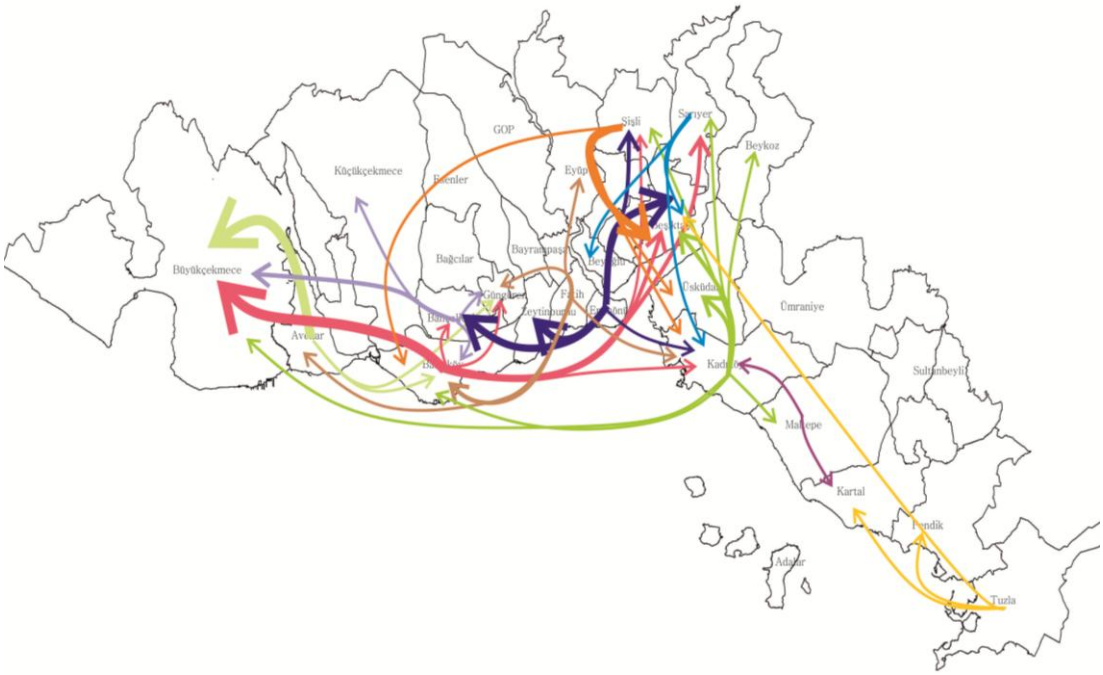


Figure 6.5 Priority Flows of High-educated households in 2000

As can be seen in Figure 6.4 and 6.5, these patterns show that the interaction between high-educated households and the city increased between 1990 and 2000. Especially, the reciprocal moves between the new CBDs (Beşiktaş and Kadıköy) increased in 2000. If you look at more closely, it is clear that D-100 is not a boundary any longer; the districts which high-educated households interact with located unevenly in the city. In consistent with the growing middle- and upper-middle income residential areas at the outskirts of the city, residential moves of high-educated households towards the outskirts areas such as Beykoz, Şişli, Küçükçekmece, Büyükçekmece and Eyüp, have gained momentum in 2000. These patterns also show the differentiated as well as increased number of sub-urbanization patterns of high-educated households both in 1990 and in 2000 (see Figure 6.4 and 6.5).

6.2.1.5 People tend to move short distance in the city: Proximity matters

In order to examine distance preferences of mobility flows in Istanbul, I analyse mobility flows in 2000 in terms of distance and direction tendencies. Table 6.13 illustrates this analysis. As can be seen in this table, some of the cells are highlighted regarding priority index value (PR>2). Furthermore, it is necessary to mentioned that districts are listed according to the distance from each other. [39] This means that while Beşiktaş and Şişli are close by each other, Beşiktaş and Tuzla are far from each other.

It is clear that proximity matters but there is not general profile which represents all RM patterns in Istanbul. However, most of the mobility flows of households in Istanbul are relatively short distance moves. For example, out-goers of Eminönü mostly prefer to move to the nearest districts-Fatih and Zeytinburnu: the out-goers index of these flows was 12 in 2000. In a same manner, households who move from

[39] The hierarchical clustering of districts in terms of their distance to each other can be seen in Appendix D.

Beşiktaş mostly tend to move to Şişli and Sarıyer which are neighbouring districts of Beşiktaş: the priority index of these flows was 8 in the same period (see Table 6.13). The two-way flows between two neighbouring districts, Pendik and Tuzla also show this tendency. The priority index of the flow from Pendik to Tuzla was 6, and for the flow from Tuzla to Pendik it was 3 in 2000. In the light of these findings, it is right to state that households mostly move among neighbouring or at least nearest district in the city in 2000. Consequently, taking the risk of repeating myself, I would like to remind that this trend is not a general rule which describes the distance preferences of all RM flows in Istanbul. In other words, there are exceptions to this rule.

Table 6.13 Flow Priority Index by district in 2000

		PRIORITY INDEX																									
		DESTINATION																									
	1995-2000	BESIKTAS	SISLI	SARIYER	EYUP	KAGITHANE	BEYOGLU	EMINONU	FATIH	BAHCELIEVLER	BAKIRKOY	GUNGOREN	ZEYTINBURNU	BAYRAMPASA	BAGCILAR	ESENLER	GAZIOSMANPAS	AVCILAR	KUCUKCEKMECE	BUYUKCEKMECE	KADIKOY	USKUDAR	UMRANIYE	MALTEPE	BEYKOZ	KARTAL	SULTANBEYLI	PENDIK	TUZLA
ORIGIN	BESIKTAS		8	8	0	2	1	0	0	-1	1	0	-1	-1	-1	-1	-1	0	0	0	3	2	1	0	1	1	0	-1	-1
	SISLI	5		0	1	0	2	-1	0	0	1	0	0	-1	-1	-1	-1	0	0	1	0	1	1	0	0	0	2	0	0
	SARIYER	2	-1		0	-1	0	-1	-1	0	-1	-1	-1	-1	0	-1	0	0	0	0	-1	0	-1	-1	0	0	0	-1	0	-1
	EYUP	-1	0	-1		0	0	-1	0	0	-1	0	-1	0	0	0	4	0	0	0	-1	-1	-1	0	-1	-1	-1	-1	-1
	KAGITHANE	0	-1	-1	1		0	0	-1	-1	-1	0	-1	-1	-1	-1	0	-1	-1	-1	-1	-1	-1	-1	1	-1	-1	-1	-1
	BEYOGLU	0	7	1	0	2		-1	0	0	0	0	0	-1	-1	-1	0	0	0	0	0	1	0	-1	-1	-1	0	0	-1
	EMINONU	4	2	-1	0	-1	2		12	9	3	7	12	6	5	8	3	4	5	3	2	2	1	-1	0	1	-1	1	-1
	FATIH	0	1	0	2	0	0	0		2	3	3	3	1	1	2	1	2	1	4	0	0	-1	0	0	-1	-1	-1	-1
	BAHCELIEVLER	0	0	0	-1	-1	-1	1	0		3	3	0	-1	2	0	-1	2	1	7	-1	0	-1	-1	0	-1	-1	-1	-1
	BAKIRKOY	3	1	2	-1	-1	-1	0	1	3		2	2	-1	1	0	-1	4	3	13	1	0	0	0	1	-1	-1	-1	-1
	GUNGOREN	-1	0	-1	0	0	-1	-1	0	3	0		0	0	4	2	0	1	1	4	-1	-1	0	-1	-1	-1	-1	0	-1
	ZEYTINBURNU	-1	-1	-1	0	-1	0	3	0	0	1	1		0	1	0	0	0	2	2	-1	-1	-1	-1	-1	0	-1	0	-1
	BAYRAMPASA	-1	0	-1	1	-1	-1	0	0	0	0	2	0		1	6	5	1	1	2	-1	-1	-1	-1	-1	-1	0	-1	-1
	BAGCILAR	-1	0	-1	0	-1	-1	0	0	2	0	3	0	0		2	0	2	2	1	-1	-1	-1	-1	-1	-1	0	-1	-1
	ESENLER	-1	-1	-1	0	-1	-1	0	0	0	-1	2	0	2	3		1	0	1	1	-1	-1	0	-1	-1	0	0	-1	0
	GAZIOSMANPASA	-1	0	-1	2	-1	-1	-1	0	-1	-1	0	-1	3	-1	0		0	0	0	-1	-1	-1	-1	-1	-1	-1	-1	-1
	AVCILAR	0	1	-1	0	0	0	0	1	2	3	1	1	0	0	0	-1		4	17	0	-1	0	0	-1	0	-1	0	-1
	KUCUKCEKMECE	-1	0	-1	-1	-1	-1	-1	-1	0	0	-1	0	-1	0	-1	-1	2		3	-1	-1	-1	-1	-1	-1	-1	-1	-1
	BUYUKCEKMECE	-1	-1	-1	-1	-1	-1	0	-1	-1	0	-1	-1	-1	-1	-1	-1	1	0		-1	-1	-1	-1	-1	-1	-1	-1	-1
	KADIKOY	1	0	0	-1	-1	0	-1	-1	0	-1	0	-1	-1	-1	-1	-1	-1	-1	0		2	1	5	1	1	1	0	1
	USKUDAR	0	0	-1	-1	-1	0	-1	0	-1	-1	0	-1	-1	-1	-1	-1	-1	-1	0	2		4	2	0	1	1	0	0
	UMRANIYE	-1	-1	-1	0	-1	-1	0	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	0	0	1		0	0	1	3	-1	0
	MALTEPE	-1	0	0	-1	-1	-1	-1	-1	0	-1	-1	-1	-1	-1	-1	-1	-1	-1	0	1	0	1		0	5	0	2	1
	BEYKOZ	-1	0	0	-1	0	0	-1	-1	-1	-1	0	-1	-1	-1	-1	-1	-1	-1	-1	-1	1	1	0		0	0	0	0
	KARTAL	-1	-1	-1	0	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	0	0	0	0	2	-1		2	4	3
	SULTANBEYLI	-1	0	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	0	-1	-1	0	-1	0	-1	0	1	-1	-1	2		0	0
	PENDIK	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	0	0	-1	1	0	2	-1		6
	TUZLA	0	0	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	0	-1	-1	0	-1	-1	1	-1	1	-1	3	

At this point, as assumption comes up "when the distance between the districts of origin and that of destination increases, the priority index of mobility flows decreases" In order to test this assumption I examine the in-comers and out-goers flows of districts in terms of distance and direction composition. In this respect, I focus on the distance and direction preferences of the flows of Şişli and Güngören, in detail. As can be seen in Table 6.13, Şişli's out-goers mostly tend to move to Beşiktaş, Beyoğlu and Sultanbeyli: the priority index of the flow from Şişli to Beşiktaş was 5 and it was 2 for both the flows to Beyoğlu and Sultanbeyli. This means that although Şişli and Sultanbeyli are noticeably far from each other, the priority index of the flow from Şişli to Sultanbeyli was the same as the flow from Şişli to Beyoğlu which are neighbouring districts. This trend is also true for the flows from Güngören. For example, the outgoers of Güngören mostly tend to move towards Bağcılar, Bahçelievler and Büyükçekmece. As can be seen in Table 6.13, the priority index of the flows from Güngören to Bahçelievler was 2 in 2000; however the out-goers index of the flows from Güngören to Bağcılar and Büyükçekmece was the same: 4 in the same period. In the light of these findings, it is clear that the assumption above is refuted.

6.2.1.6 High-educated Households Move Further than Low-educated Households

In the case of Istanbul, the average distance is 13.7 km, 70% of moves being less than 10 km, while only 6% of them moves more than 25 km of their previous residence in 2000. In the same period, for moves of high-educated households the average distance was 14.5 km and for low-educated households it was 11.5 km: meaning that high-educated move further than low-educated households. Here, it is right to say that the proximity to former housing is not significant for high-educated households' moves, on the contrary to the low-educated households' moves. A closer look at this situation highlights that low-educated with unemployed households move farther than average low-status groups. For instance, when analysing the in-comers

of Sultanbeyli, I find that approximately 50% of low-educated in-comers moved from Bağcılar to Sultanbeyli were unemployed in 2000. This holds true for the cases of Ümraniye-Bağcılar and Tuzla. And it is significant that the socio-economic development indexes of these districts are low and their levels are very close to each other.

As indicated in the previously, high-educated households move further than low-educated households. The average distance of high-educated movers' moves was 14.1 km in 2000; while the average distance of low-educated movers' moves was 12.5 km. This indirectly implies that the distance between workplace and home are still important for low-status movers in their choice of residents, yet, for high-status households the distance between workplace and residence does not seem to be important in such a decision. According to social capital theory, households can derive financial and emotional support from its social networks, and once it moves to another neighbourhood, this kind of social capital may be lost (Kan, 2007). In this sense, the low-mobility rate and short-distance moves of poor could also be seen as a survive mechanism in Istanbul until the 2000s.

6.2.1.7 Low-educated households stuck in one-side of the city

Referring chapter 4, RM rate of low-educated household significantly decreased from 11% in 1990 to 8.3% in 2000. This shift can be seen through the changes on spatial patterns of low-educated households both in 1990 and in 2000. This profile can also been seen through the changes in the spatial patterns of their mobility flows.

As can be seen in Figure 6.8, in 1990, four distinct patterns of low-educated households' residential moves were realized. In 1990, following Küçükçekmece, Ümraniye was the second most favourable district of low-educated households: the in-comers index of this district was 0.3 (see Table 6.14). The flows from Kadıköy to

Ümraniye and Pendik, see figure 6.6, display the mobility of mostly middle-aged and large low-educated households. The second mobility pattern of low-educated households is the flows from Eminönü to Bayrampaşa and Bakırköy which show the mobility of low-educated with small households. In compatible with the decentralization of small industry from core of the city, low-educated households who mostly were employed these sites preferred to move from inner-city (such as Eminönü) to new industrial sites such as Bayrampaşa and Bakırköy in this period. The in-comers and out-goers indices also fortify this interpretation: for example while the out-goers index of Eminönü was 0.28 and the in-comers index of Bayrampaşa was 0.14 in 1990. In compatible with the argument on decentralization of industry, low-educated households move from Şişli to Kağıthane and Sarıyer.

Referring Chapter 2, in the post-1980 period Şişli was labelled as a new finance centre of the city. In order to gain this aim, the small manufacturing was decentralized from Şişli. As one of the consequences of this process, low-educated households move from the district. Furthermore, a closer look at these movers highlights that these are mostly low-educated with large-households. Considering the distance and housing preferences of low-educated households, it is not surprising to see that Kağıthane and Sarıyer (with high-percentage of gecekondu and closest districts from Şişli) are destinations of them. Apart from the other segments of low-educated households, older ones tend to move from Üsküdar and Şişli to Kadıköy. Here, in the light of the findings of this study, it is right to claim that Kadıköy is one of the favourable districts for older and retirement in 1990.

Table 6.14 Low-educated households' In-comers and Out-goers indices both in 1990 and in 2000

	1985-1990		1995-2000	
	In-comers Index	**Outgoers Index**	**In-comers Index**	**Outgoers Index**
Avcılar			0,05	0,07
Bağcılar			0,06	0,04
Bahçelievler			0,04	0,03
Bakırköy	0,06	0,11	0,03	0,07
Bayrampaşa	0,14	0,07	0,02	0,05
Beşiktaş	0,02	0,08	0,02	0,06
Beykoz	0,03	0,04	0,01	0,03
Beyoğlu	0,05	0,14	0,04	0,07
Eminönü	0,03	0,28	0,10	0,48
Esenler			0,04	0,04
Eyüp	0,05	0,12	0,05	0,03
Fatih	0,04	0,07	0,02	0,09
Gaziosmanpaşa	0,08	0,05	0,06	0,03
Güngören			0,06	0,07
Kadıköy	0,03	0,02	0,01	0,04
Kağıthane	0,05	0,04	0,02	0,04
Kartal	0,03	0,04	0,04	0,05
Küçükçekmece	0,30	0,02	0,05	0,02
Maltepe			0,04	0,03
Pendik	0,08	0,02	0,05	0,02
Sarıyer	0,08	0,04	0,02	0,03
Şişli	0,03	0,19	0,05	0,06
Tuzla			0,07	0,02
Ümraniye	0,16	0,02	0,05	0,02
Üsküdar	0,03	0,06	0,03	0,03
Zeytinburnu	0,05	0,13	0,04	0,04
Büyükçekmece			0,06	0,01
Sultanbeyli			0,12	0,05

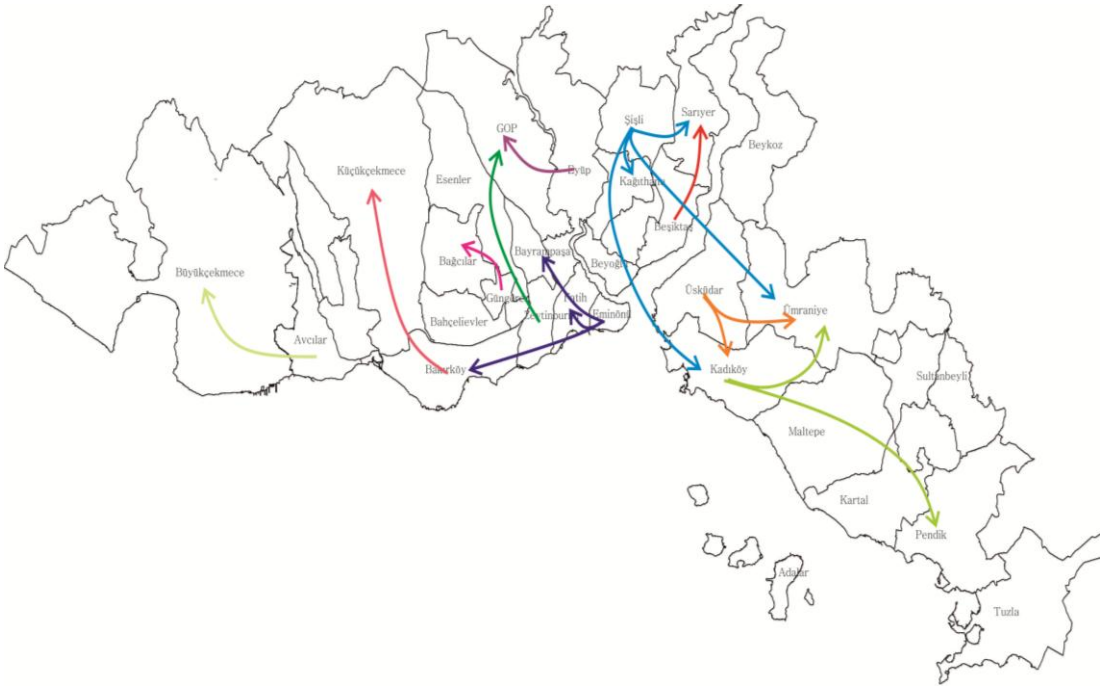


Figure 6.6 Priority Flows of low-educated households in 1990

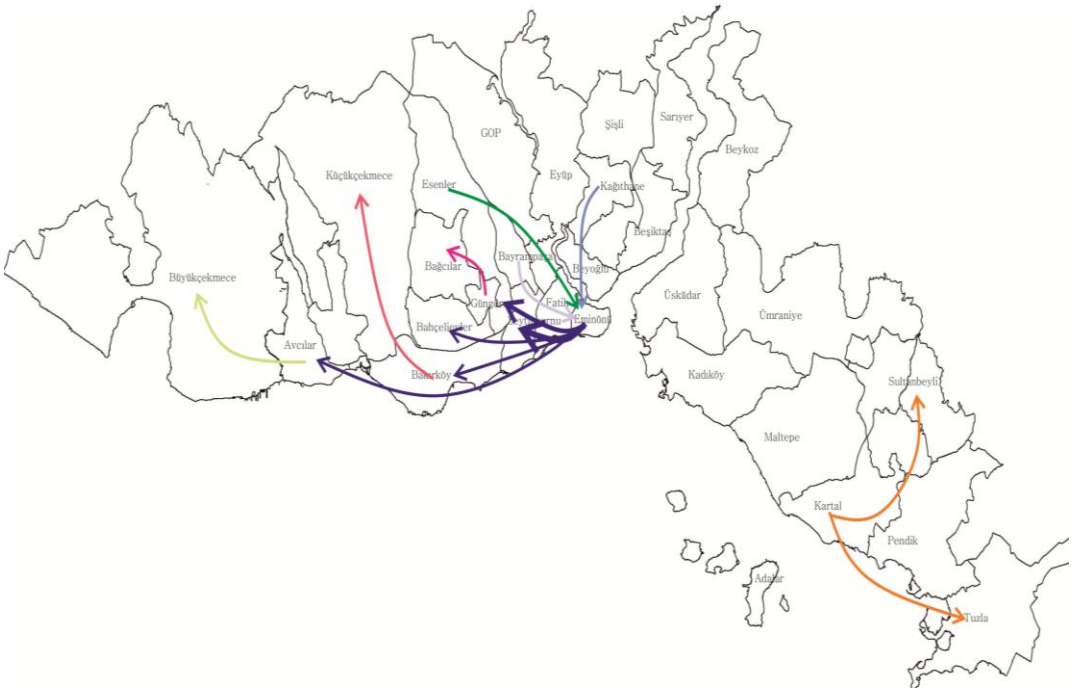


Figure 6.7 Priority Flows of low-educated households in 2000

In 2000, the picture above significantly changed. Figure 6.7 perfectly shows this transformation. As can be seen, three clear patterns are recognized:

- The flow from Eminönü to Güngören, Bahçelievler, Bakırköy and Avcılar show the mobility of low-educated household and couples with children as well as of low-educated with single parents. This pattern shows the decentralization of low-educated households from historical core of the city. In 2000, the out-goers index of Eminönü was 0.48 (see Table 6.14). As mentioned previously, this situation is closely interlinked with the changing employment profile of Eminönü.

- The flow from Kartal to Sultanbeyli shows the mobility of low-educated household with large households, couple with children and unemployed (see figure 6.7). This means that the most disadvantaged segment of low-educated households prefer to move to Sultanbeyli. In other words, the least mobile segment of low-status groups can move from Kartal to Sultanbeyli, considering the distance preferences of low-educated households this movement becomes more meaningful.

- The flow from Esenler, Kağıthane and Bayrampaşa towards Eminönü shows the mobility of low-educated household with single parent. This means that, on the contrary to high-educated households, for low-educated households Eminönü was still attractive in 2000. The in-comers index of Eminönü was 0.1 in the same period. However, it is necessary to remind you that its attractiveness is limited. This can be interpreted like that Eminönü can serve appropriate housing units (mostly single room) for this particular segment of low-status groups in 2000.

Within this background, it is clear that while RM rate of low-educated households decreases, in addition, the spatial patterns of those became undiversified in terms of number, distance and direction, from 1990 to 2000. In other words, of low-educated movers; the number of priority flows decreased, the average distance of moves

decreased, the scope of directions significantly decreased in this period. In this sense, it is right to claim that the interaction between urban space and low-educated households significantly decreased in 2000.

6.2.2 Built Environment

How a neighbourhood affects the mobility tendencies of a household. As indicated in Chapter 5, there is large number of studies which focus on the mutual relationships between neighbourhood and inhabitants, as well as the role of mobility during the formulation of these relationships. One of the major findings of these studies is that the place of residence has particular effect on relocation process of households both in terms of built environment and socio-economic as well as ethnic composition. In this study, the interrelation between built environment and RM is examined referring to age of the housing stock by districts.

6.2.2.1 There is a tendency towards new residential areas in the city

The composition of the housing stock and the characteristics of the population living in the stock are the most important predictors of variation in mobility between districts (Quigley and Weinbeg 1977; Bailey and Livinston, 2007). Thus it is appropriate to assume that RM patterns of households are constrained by the existing set of spatial settings and housing opportunities in the city. In order to test this assumption, I examine the relationship between in-comers index and the age of housing stock, by districts in 2000.

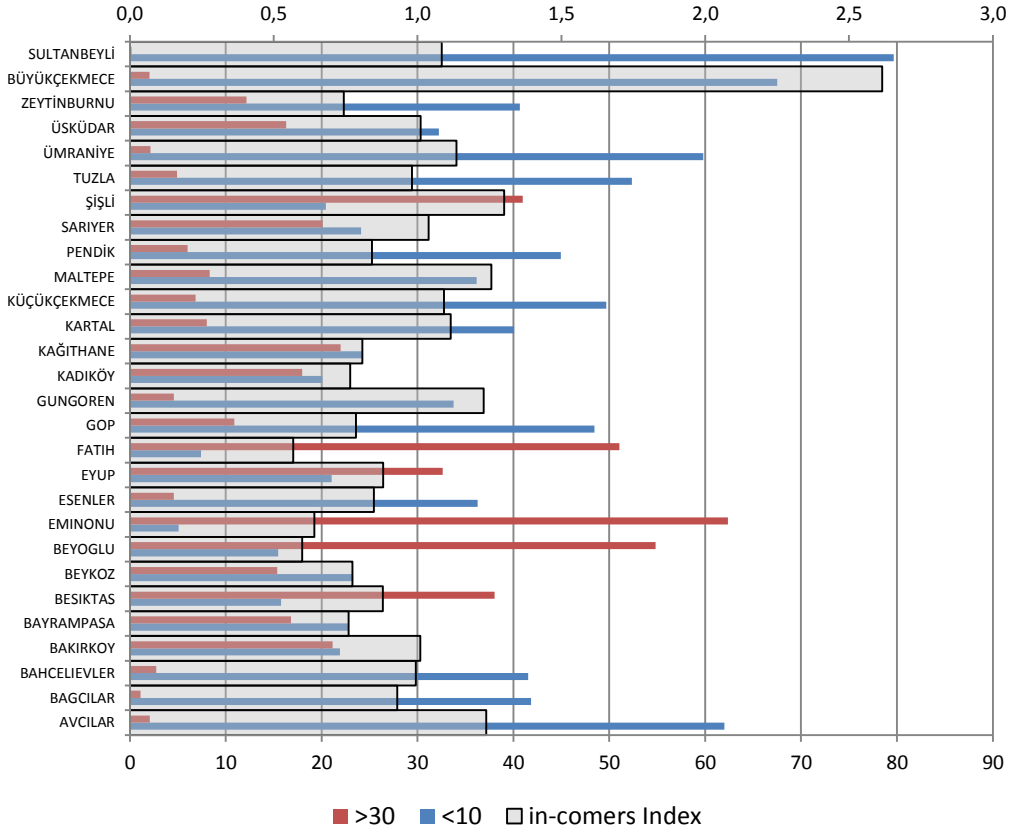


Figure 6.8 Housing stock by age and the in-comers index of districts in 2000

In Figure 6.8, the bar chart illustrates the housing age (primary index) and the line, the in-comers index (secondary index) in 2000, by districts. It is clear that there is a negative relationship between RM and the housing age, of districts. This means that the availability of new housing stock in these areas has an increasing effect on RM. In simplistic words, districts with a large percentage of new buildings show the highest in-comers index such as Büyükçekmece, Maltepe and like.

Regarding the housing stock age composition, in Büyükçekmece, as can be seen in figure 6.8 more than 70% of its housing stock aged <10, and of its housing stock

only 2% aged>30 in 2000. In a same vein, Eminönü shows just the opposite profile: more than 70% of housing stock aged >30 and only 5% of housing stock aged <10, in Eminönü. This composition becomes more meaningful, considering the in-comers rates of those districts: Eminönü was the least on the contrary Büyükçekmece was the most favourable districts of Istanbul in 2000. This profile can be interpreted like that while the gap between housing stock age composition of district increase in favour of young housing units, the attractiveness of district decreases in the case of Istanbul.

Referring chapter 2, in Turkey, while housing age of housing stock decreases, the differentiation of housing stock (in terms of the number of rooms and housing size) increase in the post-1980 period. This tendency is also true in the case of Istanbul. Within this background, thus, it is right to state that mobility is likely to be highest in local housing markets with relatively new and many opportunities for households to find a dwelling that suits their housing needs. In this sense, it is right to assume that there is a close relationship between high mobility rate and the variety in housing opportunities that are supplied the selective demands of households.

As a conclusion, the efforts to generalize the nature of directional preferences of households across different districts failed, however, largely based on the findings of second-phase analysis of this study, it is right to state that the direction of moves are sensitive to the distinctive location of new housing opportunities in the city of Istanbul.

6.2.3 Social Environment

Over time, the residential moves and the changes that they bring ultimately effect and transform the population composition as well as the spatial structure of neighbourhoods. In simplistic word, neighbourhoods change as people move in and

out. Within this framework, I can conceptualize the changes on urban socio-spatial structure as the outcome of residential moves. Here, the focus is specifically on the effects of residential moves on the districts' socio-economic composition where they move.

6.2.3.1 People Tend To Move Mostly among Relatively Similar Development Status Districts

The most significant regularity in residential mobility patterns is that households tend to move between areas of similar socio-economic status (Cadwallader, 1992; Clark, 1976). Is this argument valid in the case of Istanbul between 1980 and 2000? In the case of Istanbul, with the aim of examining the interrelationship between RM patterns and socio-economic profiles of districts, at first I develop a "socio-economic development index" of districts (see Section 6.1.2). Then I classify districts of Istanbul into four categories regarding their "development index" value in 2000 (see table 6.9). By doing so, I aim to simplify the complex nature of flows and to show the direction preferences of households.

Table 6.15 Sub-groups of districts regarding the socio-economic development index value in 2000

Sub-groups	**Description**	**Districts**	**Socio-economic development Index**
Category 1	Higher development districts	Beşiktaş, Kadıköy, Bakırköy, Büyükçekmece, Şişli, Üsküdar	High
Category 2	Middle development districts-a	Maltepe, Sarıyer, Fatih, Avcılar, Bahçelievler, Güngören, Kartal, Beykoz	
Category 3	Middle development districts-b	Kağıthane, Eyüp, Bayrampaşa, Zeytinburnu, Beyoğlu, Ümraniye, Küçükçekmece	
Category 4	Lower development districts	Eminönü, Pendik, Tuzla, Gaziosmanpaşa, Bağcılar, Esenler, Sultanbeyli	Low

In Table 6.15, as can be seen, priority flows are highlighted. A closer look at this pattern shows that the mobility flows from Beşiktaş to Şişli, Kadıköy and Bakırköy show priority. The priority Index of the flows from Beşiktaş to Sarıyer and Şişli was 8, for the flows from Beşiktaş to Kadıköy it was 2 and for the flows from Beşiktaş to Bakırköy it was 1 in 2000. In a similar vein, the priority index of the flows towards Beşiktaş from Şişli was 5, from Kadıköy to Beşiktaş was 1, and from Bakırköy to Beşiktaş it was 3, in the same period. In the light of these findings, it is right to say that the mobility among districts with high socio-economic index is significant in the case of Istanbul.

Table 6.16 From/To Matrix (Priority Index) in 2000

PRIORITY INDEX																												
		DESTINATION																										
ORIGIN	1995-2000	Avcılar	Bağcılar	Bahçelievler	Bakırköy	Bayrampaşa	Beşiktaş	Beykoz	Beyoğlu	Eminönü	Esenler	Eyüp	Fatih	Gaziosmanpaşa	Güngören	Kadıköy	Kağıthane	Kartal	Küçükçekmece	Maltepe	Pendik	Sarıyer	Şişli	Tuzla	Ümraniye	Üsküdar	Zeytinburnu	Büyükçekmece	Sultanbeyli
	Avcılar		0	2	3	0	0	-1	0	0	0	0	1	-1	1	0	0	0	4	0	0	-1	1	-1	0	-1	1	17	-1
	Bağcılar	2		2	0	0	-1	-1	-1	0	2	0	0	0	3	-1	-1	-1	2	-1	-1	-1	0	-1	-1	-1	0	1	0
	Bahçelievler	2	2		3	-1	0	0	-1	1	0	-1	0	-1	3	-1	-1	-1	1	-1	-1	0	0	-1	-1	0	0	7	-1
	Bakırköy	4	1	3		-1	3	1	-1	0	0	-1	1	-1	2	1	-1	-1	3	0	-1	2	1	-1	0	0	2	13	-1
	Bayrampaşa	1	1	0	0		-1	-1	-1	0	6	1	0	5	2	-1	-1	-1	1	-1	-1	-1	0	-1	-1	-1	0	2	0
	Beşiktaş	0	-1	-1	1	-1		1	1	0	-1	0	0	-1	0	3	2	1	0	0	-1	8	8	-1	1	2	-1	0	0
	Beykoz	-1	-1	-1	-1	-1	-1		0	-1	-1	-1	-1	-1	0	-1	0	0	-1	0	0	0	0	0	1	1	-1	-1	0
	Beyoğlu	0	-1	0	0	-1	0	-1		-1	-1	0	0	0	0	0	2	-1	0	-1	0	1	7	-1	0	1	0	0	0
	Eminönü	4	5	9	3	6	4	0	2		8	0	12	3	7	2	-1	1	5	-1	1	-1	2	-1	1	2	12	3	-1
	Esenler	0	3	0	-1	2	-1	-1	-1	0		0	0	1	2	-1	-1	0	1	-1	-1	-1	-1	0	0	-1	0	1	0
	Eyüp	0	0	0	-1	0	-1	-1	0	-1	0		0	4	0	-1	0	-1	0	0	-1	-1	0	-1	-1	-1	-1	0	-1
	Fatih	2	1	2	3	1	0	0	0	0	2	2		1	3	0	0	-1	1	0	-1	0	1	-1	-1	0	3	4	-1
	Gaziosmanpaşa	0	-1	-1	-1	3	-1	-1	-1	-1	0	2	0		0	-1	-1	-1	0	-1	-1	-1	0	-1	-1	-1	-1	0	-1
	Güngören	1	4	3	0	0	-1	-1	-1	-1	2	0	0	0		-1	0	-1	1	-1	0	-1	0	-1	0	-1	0	4	-1
	Kadıköy	-1	-1	-1	0	-1	1	1	-1	0	-1	-1	-1	-1	-1		-1	1	-1	5	0	0	0	1	1	2	-1	0	1
	Kağıthane	-1	-1	-1	-1	-1	0	1	0	0	-1	1	-1	0	0	-1		-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1
	Kartal	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	0	-1	-1	-1	0	-1		-1	2	4	-1	-1	3	0	0	-1	0	2
	Küçükçekmece	2	0	0	0	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1		-1	-1	-1	0	-1	-1	-1	0	3	-1
	Maltepe	-1	-1	-1	0	-1	-1	0	-1	-1	-1	-1	-1	-1	-1	1	-1	5	-1		2	0	0	1	1	0	-1	0	0
	Pendik	-1	-1	-1	-1	-1	-1	0	-1	-1	-1	-1	-1	-1	-1	0	-1	2	-1	1		-1	-1	6	-1	0	-1	-1	-1
	Sarıyer	0	0	0	-1	-1	2	0	0	-1	-1	0	-1	0	-1	0	-1	0	0	0	0		-1	-1	-1	-1	-1	-1	-1
	Şişli	0	-1	0	1	-1	5	0	2	-1	-1	1	0	-1	0	0	0	0	0	0	0	0		0	1	1	0	1	2
	Tuzla	0	-1	-1	-1	-1	0	-1	-1	-1	-1	-1	-1	-1	-1	0	-1	1	-1	1	3	-1	0		-1	-1	-1	-1	-1
	Ümraniye	-1	-1	-1	-1	-1	-1	0	-1	0	-1	0	-1	-1	-1	0	-1	1	-1	0	-1	-1	-1	0		1	-1	0	3
	Üsküdar	-1	-1	-1	-1	-1	0	0	0	-1	-1	-1	0	-1	0	2	-1	1	-1	2	0	-1	0	0	4		-1	0	1
	Zeytinburnu	0	1	0	1	0	-1	-1	0	3	0	0	0	0	1	-1	-1	0	2	-1	0	-1	-1	-1	-1	-1		2	-1
	Büyükçekmece	1	-1	-1	0	-1	-1	-1	-1	0	-1	-1	-1	-1	-1	-1	-1	-1	-1	0	-1	-1	-1	-1	-1	-1	-1		-1
	Sultanbeyli	0	0	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	-1	2	-1	-1	0	-1	0	0	1	0	-1	0	

This tendency is also seen through the mobility flows among middle-development districts. For example, see Table 6.16, the priority index of the flows from Eyüp to Gaziosmanpaşa was 4 in 2000. In addition, the in-comers to Eyüp mostly move from Gaziosmanpaşa and Fatih with priority index of those flows was 2 in 2000. Considering the socio-economic development level of those districts, this means that the argument above is also true in the case of middle-development districts of Istanbul in 2000.

In the mobility flows among the less-development districts of Istanbul, this tendency is also shown in 2000. For example, as can be seen in Table 6.16, while in-comers of Tuzla mostly move from Pendik (the priority index of this flow was 6), the out-goers from Tuzla mostly move to Pendik (the priority index of this flow was 3), in 2000.

In this thesis, I state that RM of households can be occurred if the housing stock in destination point is available to supply the demand of those households. Taking this statement as point of departure, it is right to say that these findings emphasize the reciprocal relationship among RM and, socio-economic and housing characteristics, of districts. In simplistic words, households can move to a district if there are appropriate housing units regarding size, type but in particular regarding purchasing level of households. This means that households move a house if only they can afford it. In this respect, the finding above can be interpreted like that people tend to move between districts with relatively similar socio-economic level because of the fact that at the aggregate level there is a two-way relationship between characteristics of housing units and of users.

6.2.3.2 Mobility changes the population composition of districts

In order to explore the effects of residential moves on destination districts, as mentioned previously, I calculate the changes on the development index score of

districts (for the method used see Appendix C) and then I summarize results in Table 6.17. Figure 6.9 is a visual representation of Table 6.17. In the figure below, socio-economic development index (grey bar) is represented in the primary index, and in the secondary index the red bar represents the percentage contribution of in-comers (Movers) and the green bar represents the contribution of migrants (%) to the percentage change on socio-development index, by district in 2000.

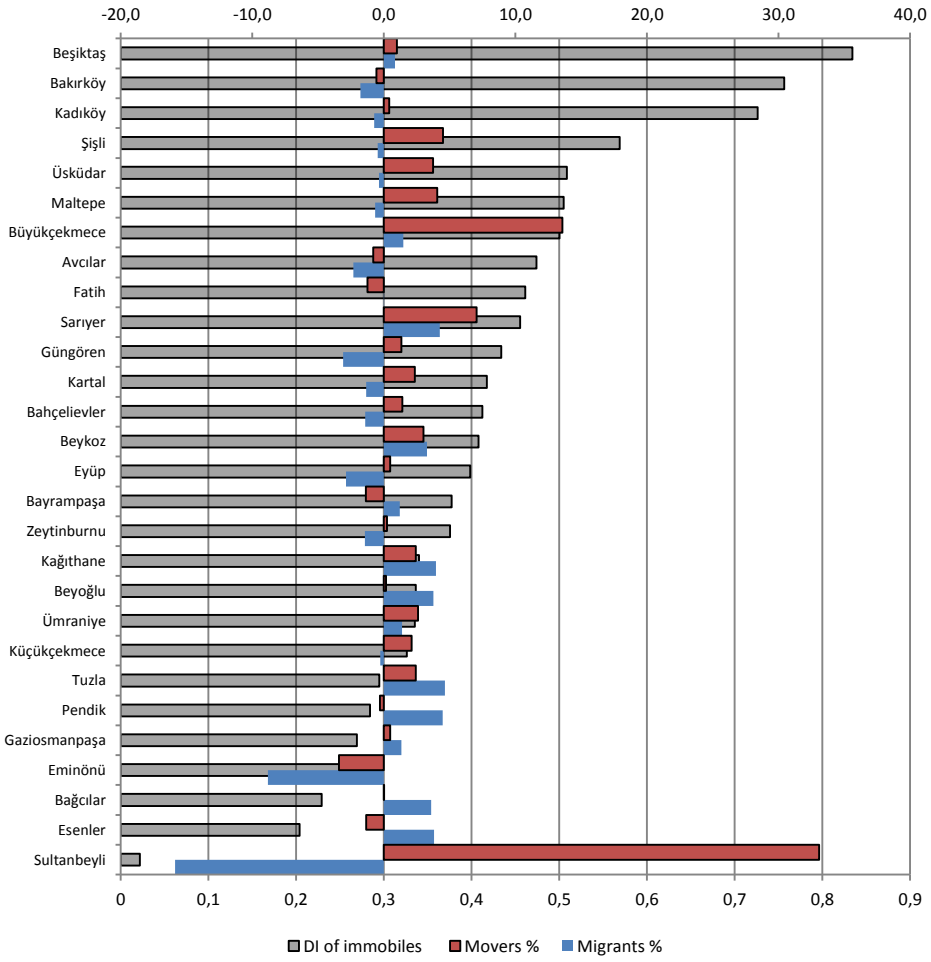


Figure 6.9 Socio-economic development Index, the contribution (%) by movers and migrants to development Index, by districts in 2000

Table 6.17 Contributions of Movers and Migrants on the change in Development Index, by Districts in 2000

Districts in 2000	Socio-economic development Index	Socio-economic development Index of immobiles	The contribution of both Migrants and Movers to development index (%)	The contribution of Migrants (%)	The contribution of Movers (In-comers) (%)
Avcılar	0.459278	0.474164	-3.14	-2.32	-0.82
Bağcılar	0.237535	0.229221	3.63	3.61	0.02
Bahçelievler	0.412271	0.412323	-0.01	-1.43	1.41
Bakırköy	0.738722	0.756528	-2.35	-1.79	-0.56
Bayrampaşa	0.376687	0.377210	-0.14	1.22	-1.36
Beşiktaş	0.849840	0.834364	1.85	0.85	1.00
Beykoz	0.433532	0.407895	6.29	3.27	3.01
Beyoğlu	0.349541	0.336371	3.92	3.76	0.16
Büyükçekmece	0.575740	0.500350	15.07	1.49	13.58
Eminönü	0.222277	0.253181	-12.21	-8.81	-3.40
Esenler	0.208851	0.203848	2.45	3.80	-1.35
Eyüp	0.389103	0.398650	-2.39	-2.88	0.49
Fatih	0.455525	0.461192	-1.23	0.01	-1.24
Gaziosmanpaşa	0.274187	0.269258	1.83	1.34	0.49
Güngören	0.426123	0.433756	-1.76	-3.09	1.33
Kadıköy	0.723684	0.726120	-0.34	-0.74	0.40
Kağıthane	0.361729	0.340012	6.39	3.97	2.42
Kartal	0.421834	0.417596	1.01	-1.34	2.35
Küçükçekmece	0.332378	0.326310	1.86	-0.26	2.12
Maltepe	0.522213	0.505000	3.41	-0.66	4.07
Pendik	0.295995	0.284161	4.16	4.47	-0.30
Sarıyer	0.507040	0.455528	11.31	4.26	7.04
Sultanbeyli	0.025544	0.021791	17.22	-15.87	33.09
Şişli	0.591690	0.568717	4.04	-0.46	4.50
Tuzla	0.315863	0.294992	7.07	4.65	2.42
Ümraniye	0.348638	0.335320	3.97	1.37	2.60
Üsküdar	0.525759	0.508548	3.38	-0.36	3.74
Zeytinburnu	0.371165	0.375639	-1.19	-1.44	0.25

Basically, Table 6.17 and Figure 6.10 provide important information on to what degree migrants and in-comers or movers affect the socio-economic and demographic settings of Istanbul, by district. For an example of how to read this table, take the second row which begins with Bağcılar: both immigrants and in-comers are responsible for 3.63 % increase on socio-economic development index of Bağcılar. Out of this, in-comers account for 3.61% of the increase whereas immigrants are responsible for the remaining 0.02%.

It can be seen that both migrants and movers have significant impacts on development levels of districts in 2000. The complexity of the interrelationships between development index and the effects of migrants and movers can be seen in Table 6.17 and Figure 6.10. However, a closer look at the analysis results highlights that there are four generalisations of relationship between development levels and the impacts of movers and migrants, of districts.

Figure 6.10 illustrates that the changes on socio-economic development index of higher development districts are mostly on account of the increase effect of in-comers to those districts' population compositions in 2000. In other words, for higher development districts, in-comers (movers) are mostly responsible for the increase in the socio-economic development. For example, for Beşiktaş, the total contribution of immigrants and in-comers on development index is 1.85% increase in 2000. Whereas immigrants were responsible for 0.86%, the remaining 1.0% increase was mainly spurred by the in-comers to Beşiktaş in 2000. This tendency is also seen in the case of Maltepe. As can be seen from the twentieth row of Table 6.17, at aggregate immigrants and in-comers of Maltepe were responsible for 3.41% increase on socio-economic development index of districts. The contribution of immigrants on this increase was -0.66% and the remaining 4.5% was accounted for in-comers, of Maltepe in 2000. In a similar sense, Sarıyer, Şişli and Büyükçekmece also show this profile in 2000. In short, these findings show that in-comers of most of the higher

development districts have similar or higher socio-economic status compared to the immobiles composition of those districts. Besides, in the case of the higher development districts, the in-comers to those districts have compensated the negative contribution of the immigrants to the development index changes in such districts.

Another generality derived from the findings is that in peripheral districts of the city such as Beykoz, Büyükçekmece, Sarıyer, Kağıthane and Gaziosmanpaşa, either immigrants or in-comers have an increase effect on socio-economic development index. For example, as can be seen in Table 6.17 and Figure 6.10, the total contribution of immigrants and in-comers on socio-economic development index of Beykoz is nearly 6.3%. Whereas the in-comers of Beykoz account for approximately 3% of this increase, the remaining 3.3% is the contribution of immigrants of Beykoz in 2000.

In a similar vein, Büyükçekmece is also appropriate example: the immigrants and in-comers are responsible for approximately 15.1% increase on socio-economic development index of Büyükçekmece; whereas the in-comers of Büyükçekmece account for approximately 13.6% of this increase; the remaining 1.5% is the contribution of immigrants of Büyükçekmece in 2000. The picture above shows that either immigrants or in-comers of most of the peripheral districts have higher socio-economic and demographic profile compare to the composition of immobiles in those districts. Bering the nature of the socio-economic development index in mind, this situation is also interpreted like that high-status immigrants as well as high-status in-comers tend to move more likely to peripheral districts having young housing stock in Istanbul. Taking the risk of repeating myself, I would like restate that these findings are also incompatible with the previous findings of the study (see sections 6.2.1.3 and 6.2.1.4).

While the decrease in the socio-economic development index of most of the inner-city districts (Beşiktaş, Beyoğlu and Şişli) accounts for the in-comers' contributions, migrants are significantly responsible for the deprivation of the historical core of the city in this period. It can be seen from Table 6.17 and Figure 6.10, migrants and in-comers to Eminönü decreased socio-economic index of district by approximately -12.2% in total. Out of this, the contribution of migrants to this change is approximately -9% and the remaining -3.4% is contributed by in-comers of Eminönü. The main reason of this composition is that relatively low-status in-comers and migrants mostly tend to move towards Eminönü, and they have multiplier effect on deprivation process in district. Nevertheless, as mentioned, migrants are the primary actors compared to in-comers, on this process.

The other generality shows that migrants are responsible for the increase in the socio-economic development index of lower development districts of Istanbul such as Bağcılar, Tuzla, Ümraniye, Esenler and Pendik. It can be seen in the twenty-fifth row of the table 6.11; both immigrants and in-comers are responsible for approximately 7.1 % increase in the socio-economic development index of Tuzla. Out of this, migrants account for 4.7% of the increase whereas in-comers are responsible for the remaining 2.4. This means that in the case of lower development districts the inflows of immigration play a leading role on the increase of the socio-economic development level. In other words, migrants are mainly responsible for population composition changes at lower development districts.

There are, nevertheless, a few exceptions of these rules. Sultanbeyli is the most noticeable one. While Sultanbeyli is the least development district in Istanbul, however, regarding the contribution share of movers on its population composition change it is on the top. As can be seen in Table 6.17, for Sultanbeyli, the total contribution of immigrants and in-comers to the development index is approximately increase by 17%. Whereas immigrants were responsible for -15.9%, the remaining

33.1% increase was mainly spurred by the in-comers to Sultanbeyli in 2000. This means that despite of the fact that the share of high-status groups in Sultanbeyli is relatively low; the in-comers to Sultanbeyli compensate the negative contribution of migrants on population composition of the district.

At this point the question comes up "Do people tend to live with people having similar socio-economic profile?" The answer of this question is somewhat complicated. Nevertheless, in the following part of this chapter, I try to answer this significant question of the study.

6.2.3.3 High-educated households tend to live households with similar profile

Do people want to live with people have similar profile? In order to answer this broad question, whereas education is a factor variable to analyse households composition in this study; I examine the changes on high-educated households' rate and the effects of in-comers and migrants on this change. By doing so, I attempt to highlight the selectiveness as well as generalities in the mobility tendencies of households.[40]

Table 6.18 indicates that there are two generalities. The first one is that high-educated movers mostly tend to move districts with high-rate of high-educated immobiles such as Beşiktaş, Sarıyer, Şişli, Kadıköy and Bakırköy. For example, as can be seen from sixteenth row of the Table 6.18; both immigrants and in-comers are responsible for 7.8 % increase on high—educated households' rate of Kadıköy. Out of this, in-comers account for 4% of the increase whereas immigrants are responsible

[40] With this aim, at first, I examine the rate of high-educated households by districts (existing). Then, I calculate the ratio of immobiles with high-educated, by districts and I subtract the rate of immobiles high-educated household from the rate of household (existing). And I calculate the percentage increase or decrease of this value. The result of this calculation is the total contribution of movers and migrants to the rate of high-educated households. Then I analyse the percentage contribution of migrants and of movers for each districts.

for the remaining 3.8%. Bearing the rate of high-educated immobiles of Kadıköy (23%) in mind, it is right to say that high-educated households tend to live households with similar education profiles. At the aggregate level, this tendency could increase segmentation level in the city of Istanbul.

Nevertheless, Büyükçekmece and Sultanbeyli are the most significant exceptions of this regularity. Whereas for Büyükçekmece the rate of high-educated immobiles is low, high-educated in-comers significantly prefer to move to the district. As can be seen in Table 6.18, the rate of high-educated immobiles in Büyükçekmece was approximately 4.7%; the rate of high-educated households was approximately 8.7% in existing households of Büyükçekmece. It is clear that 4% of high-educated households in Büyükçekmece move to this district either RM or migration between 1995 and 2000. This means that both immigrants and in-comers are responsible for relatively 87% increase on the rate of high-educated households in Büyükçekmece. Out of this, in-comers account for 65% of the increase whereas immigrants are responsible for the remaining 22%. However, this profile is in compatible with high-educated movers' tendency regarding being likelihood to move towards outskirts of the city.

The other generalization aims to represents the preferences of high-educated migrants in the city. Table 6.18 indicates that for high-educated migrants, to live with high-educated households is not a criterion to choose the district to move. This means that high-educated migrants tend to move either districts with higher development or lower development. This can be interpreted like that bearing in mind that mobility is a function of housing, these findings are also interpreted as the evidence of being distinctive movement patterns of households with and without information on housing market characteristics of the city.

Table 6.18 Share of high-educated households for existing, and immobiles; and the contribution of movers and migrants on the rate of change in high-educated households, by Districts in 2000

Districts in 2000	High-educated households % existing	High-educated households % Immobiles	The contribution of both Migrants and Movers to high-educated households (%)	The contribution of Migrants (%)	The contribution of Movers (In-comers) (%)
Avcılar	7.79	7.65	1,8	1,9	-0,1
Bağcılar	2.67	2.43	9,8	6,4	3,3
Bahçelievler	8.10	7.26	11,6	6,1	5,4
Bakırköy	24.57	22.71	8,2	4,8	3,4
Bayrampaşa	3.72	3.40	9,1	5,7	3,5
Beşiktaş	31.89	28.42	12,2	7,2	5,0
Beykoz	6.50	4.50	44,6	14,2	30,4
Beyoğlu	5.27	4.45	18,4	11,7	6,7
Büyükçekmece	8.70	4.66	86,4	22,0	64,5
Eminönü	3.87	3.97	-2,5	-7,0	4,4
Esenler	1.97	1.64	19,9	16,8	3,1
Eyüp	4.51	4.12	9,7	2,8	6,9
Fatih	9.14	8.38	9,0	6,8	2,2
Gaziosmanpaşa	2.29	2,02	13,3	8,4	4,9
Güngören	7.02	6,29	11,8	3,8	7,9
Kadıköy	24.85	23,06	7,8	3,8	4,0
Kağıthane	4,40	3,59	22,7	10,2	12,5
Kartal	6,32	5,31	19,1	7,7	11,3
Küçükçekmece	4,84	4,17	16,0	4,1	11,8
Maltepe	12,34	10,53	17,3	6,5	10,8
Pendik	4,55	3,96	14,8	7,0	7,8
Sarıyer	11,62	8,15	42,6	15,5	27,1
Sultanbeyli	1,51	1,21	25,5	23,7	1,8
Şişli	13,99	11,26	24,2	10,7	13,5
Tuzla	4,84	3,39	42,7	19,7	23,1
Ümraniye	4,32	3,43	25,8	13,8	12,1
Üsküdar	13,38	11,11	20,4	8,5	12,0
Zeytinburnu	4,89	3,91	25,1	13,8	11,3

However, at the aggregate level these tendencies represent the segmentation patterns in the city. In this respect, it can be said that while RM relatively increase the segmentation level and make them more visible, apart from Istanbul's migrants in the period between 1995 and 2000.

6.3 Conclusion

The second-phase analysis of the study confirms that people mostly tend to move to urban periphery. And, this tendency increased in the period between 1990 and 2000. In the light of the findings, it is right to say that sub-urbanization process increased and diversified regarding direction preferences of population in the same period. Within this process, the roles of high-status group is noticeable important. High-status groups left the historical core of the city and mostly move towards new residential areas such as sites and gated communities located in the urban peripheral districts. In other words, they passed through the middle-income housing areas located on D-100 (buffer zone between high-income residential areas along with Bosphorus and forest areas in north of the city) and they move to high-security enclaves. These mobility patterns of high-status groups are also incompatible with distance preferences of those groups. The findings state that high-status groups move further than low-status groups in the case of Istanbul. This profile can be interpreted like that in making their RM decision; high-status groups may exercise choice over a wide spectrum of city and of housing markets within a city. In a sense, this composition can be interpreted as the increase in the role of high-status groups on restructuring of Istanbul's urbanization after the mid-1990s.

Meanwhile, RM of low-status groups decreased in terms of rate and direction differentiations. In a sense, they stuck in the city. There is a plenty of explanation on this profile. Nevertheless, housing market conditions of the city can serve much appropriate explanation on the changes in RM of low-status groups in the city of

Istanbul. As previously mentioned, RM operates smoothly when local housing market is appropriate to supply the housing preferences of all segments of the society. In compatible with this point of view, it is clear that between 1990 and 2000, for high-status groups the housing opportunities increase in terms of location, size and typology. On the other hand, for low-status groups the housing opportunities are limited in terms of type, size and location in the same period.

The findings also support that people tend to live with people having similar profile or people with similar composition tend to concentrate in certain areas. The findings also show that while RM increases this tendency, contrary to migration. In a sense, RM increases the segmentation level in the city between 1990 and 2000.

It is clear that RM is an important or main force that restructures population composition of the city. In particular, in-comers (movers) are responsible for the changes in population composition of higher development districts. Nevertheless, the contributions of migrants at lower development districts are significant. In other words, while RM is responsible for the population composition changes in most of the higher development districts; most of the lower development districts are transformed by the impacts of migrants in Istanbul.

CHAPTER 7

CONCLUDING REMARKS

This thesis studies RM in Istanbul. This, to the best of my knowledge, is the first study to examine residential mobility in Istanbul at an aggregate level. To what degree is RM interrelated with the "shifts of urbanization in Istanbul" that seem to have taken place between 1990 and 2000? Basically, it is this broad question that I have tried to answer in this thesis. By doing this, I gain a perspective to review the urbanization of Istanbul as well as such diverse socio-economic phenomena as poverty, segregation, polarization, suburbanization in the post-1980 period. Before turning to the summary of the major findings, I would like to make a few introductory remarks.

The study of RM involves a dynamic interaction between urban space and its inhabitants. RM redistributes and relocates the inhabitants over space. This in all is a complex process as RM is not the only dynamic element involved, but both entities; space and its inhabitants, are also mobile in their own contexts under the influence of various exogenous and endogenous factors. Mobility over urban space is displayed through evolution of built-up environment. This evolutionary process is structured through exogenous factors, determinants like different categories and scales of urban and environmental plans, implementations of the local and supra-local administrations, urban housing and land market strategies and policies, attitude and behaviour of relevant agents and stakeholders in the urban housing and land markets and finally attitude and behaviour of the inhabitant segments who move in and out,

locate and relocate in that specific residential space in different periods of time through RM.

The inhabitants on the other hand are motivated into RM through various exogenous but mostly endogenous and integral factors like their socio-cultural, demographic, and economic specifications and combinations of them. So a comprehensive research designed to discuss both elements their causal and functional interrelation through RM and the final impact of RM on both elements demands an extensive pool of relevant data and a meticulous design of research. This study aims to clarify the character, nature and specifications of RM in a city striving to become a global urban socio-economic and cultural node, namely İstanbul, in a certain period range of time, and its impact on the urban space.

Urbanization entered a new phase under mostly the pressure of neo-liberal policies after the 1980s. In the demographic sphere Istanbul became more older, the fertility rate decreased, the average household size decreased and the nuclear family replaced traditional extended family; in the economic sphere while industry was still the dominant sector service industry enlarged its share in economy; and in spatial sphere the peripheral urban areas occupied mostly by low-status groups were opened to middle and high-status groups residents like gated communities. Consequently, the dynamics of the urbanization after the 1980s can no longer be explained through the concepts and concerns of the preceding period such as gecekondu, informal sector, migration and poverty.

Within this background, Turkish cities faced new problems such as new urban poverty, segregation and suburbanization in addition to the inherited problem areas of previous era such as gecekondu and informal sector in the post-1980 period. As mentioned in Chapter 4, the transformation of Istanbul represents a unique and particularly vivid example of the nature of Turkish urbanization story. The findings

derived from the analyses have proved that Istanbul has shown different profile than the country; today's problems, concerns and potential of the city of Istanbul with reference to socio-economic, demographic and housing issues are likely to be faced by Turkey at least one decade later. I believe that through an analysis of the mobility behaviours of various households, the urbanization experience of Istanbul could be rethought in a proper way.

One of the major limitations of this research is the lack of appropriate data that could take into account residential moves within districts themselves. Whereas the intra-districts residential moves take into account in this study; I speculate that RM rate of Istanbul would most probably be higher than the current value. Furthermore, the RM rates of RM of high-educated and in particular low-educated households would be higher than current values. Furthermore, while the data includes intra-districts moves, I assume that the major findings of this study are rectified. Another important problem of the data stems from the fact that the boundaries of geographical units change considerably between the censuses. Consequently, the researchers who study Istanbul have to be so careful while comparing the periods and generalizing the assumptions through Istanbul (Işık and Pınarcıoğlu, 2009). Another limitation of studying RM in Istanbul is linked with the physical geography of Istanbul: Bosphorus is a natural boundary between Anatolia side and European side, and the golden horn also creates another boundary at the southern end of the Bosphorus. In a sense, the city acts like the combination of three separated zones: Anatolia, Europe and Historical core. In this respect, this physical nature of the city probably affects the RM of households in Istanbul. Nevertheless, the data do not allow calculating the effects of this physical geography of the city. For example, while examining the distance preferences of RM, the effects of Bosphorus on distance of mobility flows cannot be calculated.

Within the backdrop, one of the major findings of the thesis is that young, well-educated and couple households were more mobile than elder, less-educated and single parent households both in 1990 and in 2000. Nevertheless, whereas the former has become more mobile from 1990 to 2000; the latter has become more stable in the same period. As indicated in Chapter 4, the former ones indirectly represents high-status groups or wealthy, whereas the latter indirectly represents low-status groups or poor in the post-1980 period.

Another finding is that the vast majority of moves have been towards the outskirts of the city in both 1990 and 2000. This finding indicates the picture of suburbanization in the city between 1980 and 2000. In simplistic terms, there is a tendency to move from old residential areas to the new developed residential areas mostly located in the outskirts of Istanbul. As known, by the opening Bosphorus and Fatih Sultan Mehmet Bridges with peripheral highways reinforce the suburbanization process in the city; and the finding above, in a way, reflect the results of these developments.

Moreover, another important finding of this thesis is that there is a tendency towards new residential areas in the city. The composition of the housing stock is one of the most important predictors of variation in mobility between districts. The analysis shows that there is a negative relationship between RM and the housing age, of districts. This means that the availability of new housing stock in these areas has an increase effect on RM. In 2000, districts with a large percentage of new buildings show the highest in-comers index such as Büyükçekmece, Maltepe.

The other finding of this study is that high-status groups diffused from inner-city and tend to move towards the urban peripheral areas both in 1990 and in 2000. Until the 1980s, urban fringe has been preferred mostly by immigrants, in the past-1980 period, middle and high-status groups also preferred to live in these areas. This means that in the post-1980 period, the outskirts of the city were characterized as

bipolar neighbourhood. Mostly, the villa style settlement located far from the city center and isolated from the other parts of the city was preferred by these groups. In majority, these villa sites or 'gated communities' were located in the forests whose accessibility to the city is easy via the provision of D-100 and TEM. Especially after 1990, high-status households have mostly preferred to move to new suburban areas mostly developed after the 1990s such as Büyükçekmece on the European side and Kadıköy on the Anatolian side of the city. As mentioned in chapter 6, this situation is closely linked with the characteristics of housing stock. In this sense, it is right to say that the residential mobility of high-status groups were dominated by mostly housing quality and housing type concerns in the post-1990 period.

Moreover, another important finding of the study is that high-status groups move farther than low-status groups in the 1990s and in the 2000. This means that "proximity" is not as a significant criteria for high-status movers as it is to low-status movers in Istanbul. This indirectly implies that the distance between workplace and home are still important for low-status movers in their choice of residents, yet, for high-status movers the distance between workplace and residence does not seem to be important in such a decision. Here, it is clear that "proximity" is an important trigger of mobility of low-status movers in Istanbul. From the social capital theory point of view, high RM rate reduces social network and weakened social ties in a neighbourhood. In this respect, households can derive financial and/or emotional support from their social networks, and once they move to another neighbourhood, this kind of social capital may be lost. In this sense, the low-mobility rate and short-distance moves of the poor could also be seen as a survival mechanism or a mechanism in order to combat poverty in Istanbul until the 2000s.

The other finding of this thesis is that low-educated households are stuck on one-side of the city. RM rate of low-educated households significantly decreased from 11% in 1990 to 8.3% in 2000. In this period, as indicated in chapter 6, the number of

mobility patterns of low-educated movers decreased and the range of these patterns also declined by the year 2000. As known, in this study, it is accepted that households can move if they found appropriate housing units. In other words, the availability of housing stock for differentiated demands of households is a key mechanism of RM in Istanbul. In this respect, it is appropriate to say that one of the reasons behind this significant increase on RM of low-educated households is the lack of available housing units that supply their changing demands. In a sense, this profile represents the decrease of interaction between low-status groups and urban space in this period.

Another major finding of the study is that the vast majority of the moves are between districts having similar status groups. In other words, high-status group moves between mostly districts with high-development score, vice versa. All these findings indicate that in some degree RM causes homogenization as well as polarization in the city. However, the findings indicate that whereas the destinations of high-status and low-status groups were significantly different in 1990, in 2000 high-status and low-status groups mostly moved towards the districts with bipolar neighbourhoods in outskirts. Considering the mutual relationship between RM and polarization phenomena it is right to state that the polarization level between social status groups has increased between 1990 and 2000.

In compatible with the finding above, this thesis also confirms that both high-educated and low-educated households tend to live with households have similar profile. However, for high-educated migrants, it does not matter. This means that high-educated migrants tend to move either districts with higher development or lower development. This can be interpreted like that bearing in mind that mobility is a function of housing, these findings are also interpreted as the evidence of being distinctive movement patterns of households with and without information on housing market characteristics of the city. However, at the aggregate level these

tendencies represent the segmentation patterns in the city. In this respect, it can be said that while RM relatively increase the segmentation level and make them more visible, apart from Istanbul's migrants in the period between 1995 and 2000.

RM is one of the major force shaping the the social geography of Istanbul. The finding of this study is that RM changes the population composition of districts. The findings indicate that while in-comers (movers) are responsible for the increase on the development level of higher development districts, immigrants (migrants) are responsible for the increase on the development level of lower development districts of Istanbul in 2000. This means that in-comers of higher development districts have similar or higher socio-economic status compare to the immobiles of those districts. This interpretation is also true for the relationship between migrants and lower development districts.

I speculate that these tendencies become more visible in the post-2000s. In the post-2000 period, both urban periphery and historical core became the targets of urban rent and transformed by big scale local, international and global capital owners and public institutions. In a similar vein, with assistance of HDA, global capital owners developed to new partnerships for when development in this era. Within this backdrop, this tendency collapsed one of the important as well as a unique integration way of integration of low status groups' into urban society (Buğra, 2008).

Apart from the developed world's metropolitan cities, in Istanbul, the strategy of real estate market investments is depended on the leading role of the nation state rather than local government. HDA was founded in 1984, nevertheless, its power is strengthened and it became the main actor in housing industry in Turkey by the first half of the 2000s. The former chair of HDA and the current Minister of Environment and Urban Planning Bayraktar (2006, 2007) stated that regarding the changed scope and powers of HDA, it is oriented to construct not only housing units for middle and

low-income people, but also luxury housing and associated up-market consumer services for the upper-middle and upper classes such as Tramptower, IstHANbul, Saphire and etc.

Istanbul's housing stock responded to the changing housing demands and preferences of the households faster than rest of Turkey. For instance, as a reflection of the increasing number of elderly people and the decline in the household size, the small size dwelling became the most favourable in the housing market; the share of the 50-74 sq m dwellings in overall occupancy for Istanbul increased from 6% in the period 2000-2005 to 11% between 2006 and 2009. In a same manner, the share of 150 and more sq m dwellings in overall occupancy permits for Istanbul decreased from 30% to 18% respectively over the same periods. Within a similar perspective, the two room-houses segment (one room and one lounge) has shown an increase in Istanbul. In addition, partly as a consequence of the increasing number of gated communities and HDA prestige projects in the outskirts of Istanbul, by the second half of the 2000s, for the first time the seven and more-room dwellings took a significant value in overall occupancy permits with 12% for Istanbul in the period covered between 2006 and 2009.

In the post-2000 period, the main tool for urban restructuring the city is urban transformation projects which are micro scale projects but also arranging the macro scale relations. In this scope, urban transformation projects in prestigious areas of the urban space are transferred in the best interests of particular urban social groups; mostly for wealthy in this period. Gecekondu areas and old city centres will be emptied from its users and turned into prestige residential areas for an upper-class. An unfamiliar period has started on gecekondu areas in respect of former years. The large-scale developments directly fortify the capitalist property rights on urban periphery. This is the end of one of the important integration ways of low-status groups into urban society.

These interventions not only changed Istanbul's economic and urban structure but also led to an increase in socio-economic inequalities and segregation. In this manner, the contradiction among urban social groups has significantly increased, and an unequal spatial distribution has become more visible, and the likelihood of the meeting on the same urban space with different classes is decreasing in the urban space in the post-2000 period.

Prime Minister Recep Tayyip Erdoğan frequently uses "tumour" and "elements that contort the city" with reference to the gecekondu (Erdem, 2006). Thus, as the issue is not discussed with reference to the dynamics resulting in the urban poverty or segregation on such a large scale and limited only to the appeared consequences of the situation for the other parts the society, the solutions suggested do not aim to decrease the economic and social inequalities in the urban area but are limited to the elimination of appearances of urban poverty.

All of the gecekondu areas are determined as urban transformation areas in Istanbul. Recep Tayyip Erdogan, Prime Minister of Turkey, stated in his opening speech in General Housing Assembly organized by HDA in 2004 that gecekondus are "tumours" of the city of Istanbul and have to be got rid of. In a parallel vein, Bayraktar (former head of HDA, 2002-2011) announced new declarations one after another. Bayraktar, the first minister of Environment and Urban Planning of Turkey said that "…urban transformation is the second biggest issue in Turkey after unemployment"… and "…Gecekondu areas are the regions where all negative things, mafia organizations and unlawful developments can flourish. We have to get rid of gecekondus for the sake of our children's future…" (DoğanNewsAgency, 2010), and "…urban transformation is one of the important problems in Turkey…, we cannot restrict the migration to Istanbul, and nevertheless, we should find a way to keep poor people from the city of Istanbul…" (Bayraktar, 2006)

Behind this point of view, the perception is that Istanbul is a global city; it is the centre of finance and tourism. According to them, city is an uncanny space that has to be sterilized and have to be protected from insecurity. And within this imagination, Istanbul is just composed of wealthy; in other words, there is no place for the poor in the city. Within this scope the main tool of HDA that used for restructuring the city irreversible way "urban transformation projects" acts like a kind of social and spatial exclusion process in which the residents of the gecekondus are forced to leave their houses and to leave HDA's low-income residential areas in the outskirts of the city. This means that urban transformation projects are not only urban transformation projects, but also they are social exclusion projects. In this respect, the spatial representation of social exclusion process is based on the equilibrium between income distribution and differentiated housing stock. And, RM is a process that perfectly aimed to gain equilibrium of those two concerns.

In the light of the preceding discussions, I argue that it is possible to depict three tendencies in RM in Istanbul in the post-2000 period. As mentioned previously, there are differences among different social groups in terms of mobility level and movement patterns. Intervention on socio-spatial setting of Istanbul such as urban transformation in old gecekondu areas directly increases the housing problem of urban poor in the post-2000s. In addition to these transformations, the role of family on the survival mechanism of poor regarding finding housing as well as jobs in the city has declined. In this scope, while poor were less mobile in the period between 1990 and 2000, I assume that their RM rate decreases in the post-2000 period and they mostly move towards HDA's mass housing projects in the urban periphery. This propensity also indicates the poor's lock-in situation in the city.

In the former period, whereas middle-income groups unevenly distributed among the city, they tend to move towards semi-luxury and secured housing units in urban periphery in the post-2000 period. Large-scale builders construct residential units for

middle-income groups at the peripheral urban areas and this tendency gained speed after the second half of 2000s. For instance, in the former period the direction of suburbanization was towards northern part of the city; however, with the huge construction activities of HDA in the post-2000 period this occurred throughout east-west direction of the city.

The third tendency is that in the post 2000 period wealthy groups become more mobile than those in previous periods. This is closely interlinked with the weighted role of those groups in the social and spatial structure of the city as well as the response of housing industry in this period. They mostly demand high-secure residential areas and so they mostly tend to live in new constructed gated communities in the urban periphery. Nevertheless, they also tend to turn back to live in the gentrified neighbourhood in the historical core of the city. This means that restructuring of Istanbul mainly aims to satisfy the demands and needs of wealthy groups which are also in compatible with the demands and interventions of neo-liberal urbanism.

In closing, I note some warnings to my work and suggestions for future research. My thesis does not result in any advice to planners or practitioners. It is an academic thesis and contains empirical conclusions. In this respect, the findings of this thesis should be seen as contributions to the existing research on RM in Turkey. As known, this thesis tries to draw the contours of the socio-spatial changes in the city of Istanbul through RM process of households in the period between 1990 and 2000. In other words, it paves the way to reveal the main dynamics behind such significant shifts in urbanization dynamics of Turkey through unique way. This thesis raises as many questions as it answers. In the light of the findings of my research, it is appropriate to assume that in the post-2000 period RM increases residential polarization level in Istanbul. I think, the interrelation between RM and residential segregation deserves further investigations on the possible consequences of

restructuring process of Istanbul to reveal the future of the city.

Consequently, RM matters…

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APPENDIX A

The selected RM researches and the methods, variables and the findings of selected researches

Research	Main argument	Data source	Method	Main Findings
GEIST, C. and MCMANUS, P.A., 2008, "*Geographical Mobility over the life Course: Motivations and Implications"*	Mobility decreases with age in early adulthood, and continues to decline slowly through the later years.	The 1999-2005 March Annual Social and Economic Supplement of the Current Population Survey (Longitudinal data)	Cross-sectional and Longitudinal Weights, Regression analyses	Mobility trajectories (age, education, etc.) and motivations for movers vary by economic status and family status.
SEKO, M., and SUMITA, K, 2007, *Effects of Government policies on residential mobility in Japan: Income tax deduction system and the Rental Act*	The effect of Japan rent control system on residential mobility based on an estimate of the implicit subsidy resulting from this act.	Keiko Household Panel Survey, 2004-2005-2006-2007.	Hazard Model, log-normal and log-logistic regression analyses.	Government policies have a strong impact on residential mobility.
SOMIK V. LALL, AJAY SURI AND UWE DEICHMANN, 2006, *"Household Savings and Residential Mobility in Informal Settlements in Bhopal, India"*, Urban Studies, Vol. 43, No. 7, 1025–1039	There is a direct correlation between the saving and RM.	The household-level data set in Bhopal, India.	Regression analyses	In situations with limited access to institutional housing finance in general, and for slum-dwellers in particular, the ability of households to save regularly significantly improves their chances for moving out of slums.
W. A. V. CLARK, M. C. DEURLOO, and F. M. DIELEMAN, 1984, *"Housing Consumption and Residential*	The nature of housing consumption by tenure and life-cycle characteristics of households and the impact of space	The Netherlands household-level data set	Stepwise logit and discriminant models	The space considerations are central stimuli in the mobility process and that square meters per person is the most

Mobility", Annals of the Association of American Geographers, 74(1), pp. 29-43	requirements effects RM.			consistent predictor of the propensity to move
DOWELL MYERS, S. SIMON CHOI and S. WOO LEE, 1997, *"Constraints of Housing Age and Migration on Residential Mobility",* Professional Geographer, 49(1), pp. 14-28	Not only the age of household head but also the age of housing units affects the residential mobility.	1990 U.S. decennial census of population and housing.	Multivalve-models: binominal logistic regression,	The households in older housing have lower likelihood of recent mobility even after controlling for age, tenure, migration, and state location of residence.
EDDIE CHI-MAN HUI, SI-MING LI, FRANCIS KWAN-WAH WONG, ZHENG YI and KA-HUNG YU, 2002, "*Ethnicity and Residential Mobility in Hong Kong: Analysis of the 2001 Population Census",*	The differences of residential mobility behaviour are likely to be institutionally-induced, and reflect the different housing choice sets faced by the different ethnic/cultural groups	Using a micro-data file derived from the 2001 Population Census	Regression analysis	Socio-economic factors such as household income and household size have vastly different effects on different ethnic/cultural groups with reference to residential mobility.
KAMHON KAN, 1999, *"Expected and Unexpected Residential Mobility"*, Journal of Urban Economics 45, 72-96	While changes in socioeconomic circumstances may prompt a household to plan to move, the mobility plan is likely to be interrupted by unanticipated changes.	PSID data,	Discrete choice models	For households who did not plan to move, unanticipated changes in socioeconomic circumstances have significant and positive effects on residential mobility.
JOS VAN OMMEREN, PIET RIETVELD and PETER NIJKAMP, 1999, *"Job Moving, Residential Moving, and Commuting: A Search Perspective",* Journal of Urban Economics 46, 230-253	The workers search simultaneously on the labour and housing market, while taking into account commuting costs as well as moving costs and that they move more than once in the future.	Telepanel: collected in 1992-1993	Preliminary univariate model and bivariate model	The relationship between job-to-job and residential mobility depends on the geographical structure of the economy.

APPENDIX B

DISTANCE MATRIX

	ADALAR	AVCILAR	BAGCILAR	BAHCELIEVLER	BAKIRKOY	BAYRAMPASA	BESIKTAS	BEYKOZ	BEYOGLU	EMINONU	ESENLER	EYUP	FATIH	GAZIOSMANPASA	GUNGOREN	KADIKOY	KAGITHANE	KARTAL	KUCUKCEKMECE	MALTEPE	PENDIK	SARIYER	SISLI	TUZLA	UMRANIYE	USKUDAR	ZEYTINBURNU	BUYUKCEKMECE	SULTANBEYLI
ADALAR		36,65	28,66	25,25	24,66	24,94	21,63	26,63	20,11	17,79	29,96	25,46	19,85	30,61	23,91	11,44	24,82	11,57	34,01	10,457	15,413	27,16	23,06	20,81	16,22	17,52	20,64	46,03	18,47
AVCILAR	36,7		11,64	11,15	10,05	16,75	27,69	37,26	22,39	21,85	15,01	20,92	19,33	19,45	14,19	36,16	24,3	48,06	9,3	42,82	52,98	31,01	26,35	61,17	38,63	27,2	29,06	16,38	11,57	49,64
BAGCILAR	28,7	11,64		4,07	6,84	5,44	16,36	23,77	11,7	11,82	4,48	9,33	9,17	8,55	4,16	22,35	12,66	34,37	5,94	29,52	39,48	19,33	14,89	47,01	27,2	18,25	7,3	21,49	37,66
BAHCELIEVLER	25,3	11,15	4,07		3,02	6,57	16,84	24,82	11,33	10,78	8,24	11,07	8,12	12,09	3,33	20,93	14,03	32,63	8,77	27,69	37,73	20,97	15,84	44,84	26,49	17,71	5,39	22,05	36,42
BAKIRKOY	24,7	10,05	6,84	3,02		9,65	19,12	27,27	13,48	12,39	11,19	13,94	9,85	15,03	5,99	21,75	16,71	32,93	10,07	28,42	37,92	23,67	18,27	44,88	27,74	19,56	7,07	21,4	37,53
BAYRAMPASA	24,9	16,75	5,44	6,57	9,65		10,98	18,5	6,5	7,53	5,45	4,55	4,97	6,45	3,76	17,78	7,44	30,43	10,69	25,13	35,44	14,34	9,65	42,98	22,15	13,11	5,16	26,79	33,04
BESIKTAS	21,6	27,69	16,36	16,84	19,12	10,98		8,28	5,9	7,95	14,98	7,56	9,405	12,52	13,62	10,87	4,86	22,55	21,42	14,74	27,46	5,49	1,69	35,55	12,39	4,28	12,18	37,95	23,86
BEYKOZ	26,6	35,22	23,77	24,82	27,27	18,5	8,28		14,02	15,92	21,41	14,51	17,82	23,81	21,61	12,26	16,22	23,66	31,51	19,11	27,59	18,23	13,72	35,61	12,01	9,97	21,14	47,61	22,29
BEYOGLU	20,1	22,39	11,7	11,33	13,48	6,5	5,9	14,02		2,89	11,41	5,34	3,7	10,73	8,24	14,01	5,33	25,8	17,13	18,81	29,03	11,06	5,29	36,75	15,71	7,46	6,77	33,04	26,49
EMINONU	17,8	21,85	11,82	10,78	12,39	7,53	7,95	15,92	2,89		12,87	7,77	2,78	13,11	8,04	15,58	8,15	27	17,7	22,01	32,05	13,69	7,75	40,22	17,37	8,62	5,55	32,83	28,45
ESENLER	30	15,01	4,48	8,24	11,19	5,45	14,98	21,41	11,41	12,87		7,22	10,52	4,54	7,08	24,57	10,39	36,55	6,75	31,34	41,39	16,83	13,18	49,34	26,83	17,85	9,93	23,51	37,94
EYUP	25,5	20,92	9,33	11,07	13,94	4,55	7,56	14,51	5,34	7,77	7,22		6,79	5,5	8,18	14,08	3,27	29,33	23,85	19,11	33,91	10,05	5,97	30,49	17,89	11,05	5,97	14,98	30,49	30,92
FATIH	19,9	19,33	9,17	8,12	9,85	4,97	9,405	17,82	3,7	2,78	10,52	6,79		11,38	5,28	17,36	8,28	29,32	15,23	23,99	34,06	10,86	8,93	42,35	19,65	14,96	2,89	29,92	30,72
GAZIOSMANPASA	30,6	19,45	8,55	12,09	15,03	6,45	12,52	23,81	10,73	13,11	4,54	5,5	11,38		8,22	21,58	7,29	34,29	10,51	28,07	38,47	12,86	10,11	47,15	24,05	14,96	10,28	27,23	35,16
GUNGOREN	23,9	14,19	4,16	3,33	5,99	3,76	13,62	21,61	8,24	8,04	7,08	8,18	5,28	8,22		22,17	10,76	34,14	10,08	33,91	38,86	17,59	12,52	46,78	24,43	15,47	3,12	24,78	46,65	35,44
KADIKOY	11,4	31,64	22,35	20,93	21,75	17,78	10,87	12,26	14,01	15,58	24,57	16,69	17,36	21,58	22,17		15,01	12,49	30,58	7,3	17,37	29,02	23,52	32,92	7,13	6,45	20,12	46,65	15,78
KAGITHANE	24,8	24,3	12,66	14,03	16,71	7,44	4,86	16,22	5,33	8,15	24,57	10,39	8,28	7,29	15,01	27,07		27,07	17,13	21,88	31,94	6,93	3,09	39,95	17,89	8,57	10,58	33,74	28,82
KARTAL	11,6	42,87	34,37	32,63	32,93	30,43	22,55	23,66	25,8	27	36,55	29,33	29,32	34,29	34,14	12,49	27,07		42,46	37,34	47,33	29,02	24,47	13,02	11,05	18,58	32,03	58,54	7,25
KUCUKCEKMECE	34	9,3	5,94	8,77	10,07	10,69	21,42	31,51	17,13	17,7	6,75	14,08	15,23	10,51	10,08	30,58	17,13	42,46		37,34	23,52	23,55	19,73	55,36	32,92	23,74	13,1	16,65	44
MALTEPE	10,5	38,44	29,52	27,69	28,42	25,13	14,74	19,11	18,81	22,01	31,34	23,85	23,99	28,07	33,91	7,3	21,88	5,21	37,34		10,34	23,55	19,27	18,41	7,4	13,31	26,82	53,33	9,41
PENDIK	15,4	47,95	39,48	37,73	37,92	35,44	27,46	27,59	29,03	32,05	41,39	33,91	34,06	38,47	38,86	17,37	31,94	4,67	47,33	10,34		33,82	29,61	8,14	15,69	23,39	10,55	17,22	40,2	30,71
SARIYER	27,2	31,01	19,33	20,97	23,67	14,34	5,49	18,23	11,06	13,69	16,83	10,05	14,56	12,86	17,59	17,04	6,93	29,02	23,52	23,55	33,82		5,88	41,95	19,49	10,55	17,22	40,2	30,71
SISLI	23,1	26,35	14,89	15,84	18,27	9,65	1,69	13,72	5,29	7,75	13,18	5,97	8,93	10,11	12,52	12,49	3,09	24,47	19,73	19,27	29,61	5,88		37,26	14,98	6,08	11,48	36,15	26,26
TUZLA	20,8	61,17	47,01	44,84	44,88	42,98	35,55	35,61	36,75	40,22	49,34	41,96	42,35	47,15	46,78	25,29	39,95	13,02	55,36	18,41	8,14	41,95	37,26		23,92	31,49	45,22	71,52	14,03
UMRANIYE	16,2	37,43	27,2	26,49	27,74	22,15	12,39	12,01	15,71	17,37	26,83	19,75	19,65	24,05	24,43	7,13	17,89	11,05	32,92	7,4	15,69	19,49	14,98	23,92		9,16	13,59	40,01	22,51	48,96	11,28
USKUDAR	17,5	29,06	18,25	17,71	19,56	13,11	4,28	9,97	7,46	8,62	17,85	10,85	10,86	14,96	15,47	6,45	8,57	18,58	23,74	13,31	23,39	10,55	6,08	31,49	9,16		13,59	40,01	20,14
ZEYTINBURNU	20,6	16,38	7,3	5,39	7,07	5,16	12,18	21,14	6,77	5,55	9,93	8,29	2,89	10,28	3,12	20,12	10,58	32,03	13,1	26,82	36,91	17,22	11,48	45,22	22,51	13,59		27,39	33,68
BUYUKCEKMECE	46	11,57	21,49	22,05	21,4	26,79	37,95	47,61	33,04	32,83	23,51	30,49	29,92	27,23	24,78	46,65	33,74	58,54	16,65	53,33	63,39	40,2	36,15	71,52	48,96	40,01	27,39		59,99
SULTANBEYLI	18,5	47,32	37,66	36,42	37,53	33,04	23,86	22,29	26,49	28,45	37,94	30,92	30,72	35,16	35,44	15,78	28,82	7,25	44	9,41	7,01	30,71	26,26	14,03	11,28	20,14	33,68	59,99	

APPENDIX C

The Method used for highlighting the effects of Movers on socio-economic Development Index

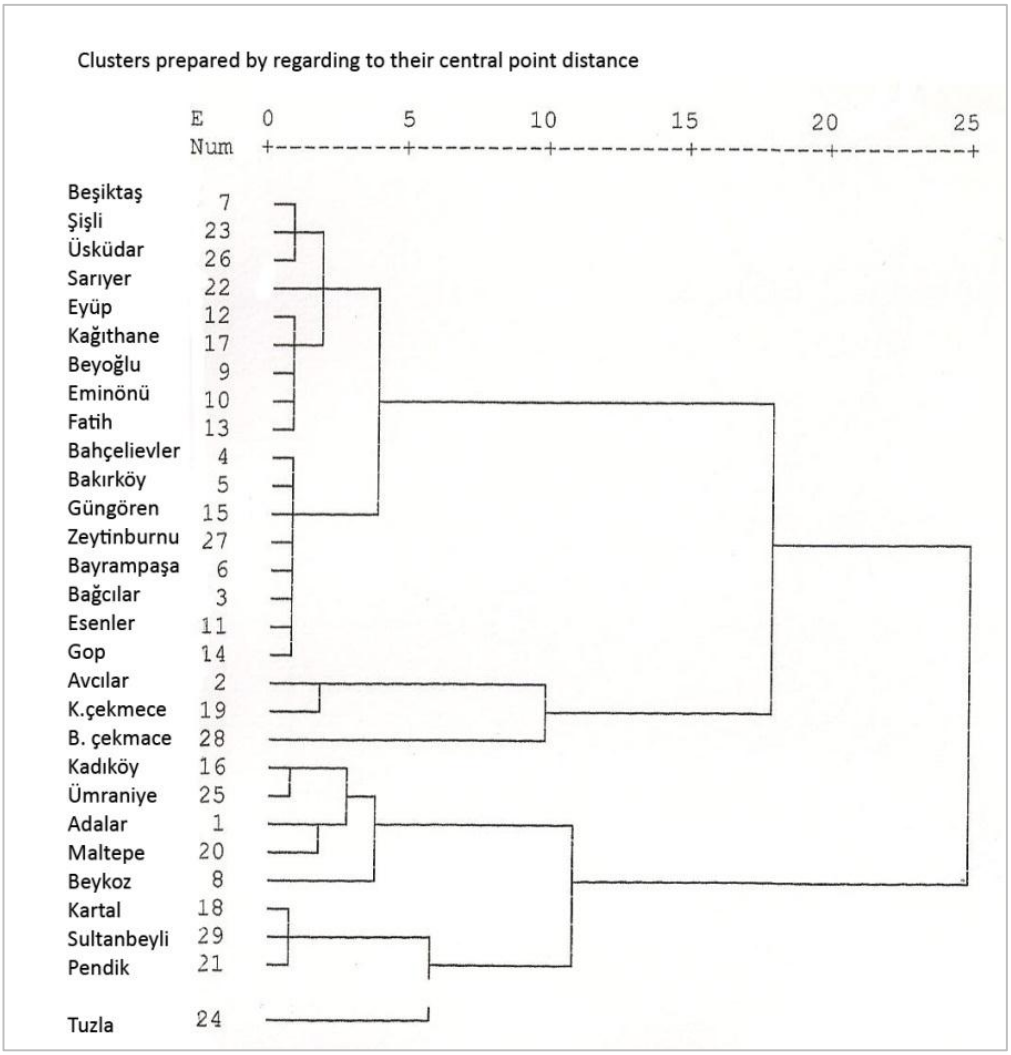
1. Calculation of
    a. The Development Index by districts (DI). It reflects the existing profile of population in districts.
    b. The Development Index for Immobiles. It reflects only immobile populations profile in the districts.
    c. The Development Index for Immobiles plus Migrants. It reflects both immobile and migrants profiles in districts.
2. Then,
    a. $\text{DI} - \text{DI for Immobiles} = \text{Difference 1}$
    b. $\text{DI for Immobiles plus Migrants} - \text{DI for Immobiles} = \text{Difference 2}$
    c. $\text{DI} - \text{DI for Immobiles plus Migrants} = \text{Difference 3}$

3. Finally, I calculate the percentage change of each scores. Express this increase or decrease as a percentage of index scores.

    a. Migrants and Movers %: This illustrates the percentage of the contribution of both migrants and movers to development index score of selected district.
    b. Migrants %: This illustrates the percentage of the contribution of migrants to the development index score of selected district.
    c. Movers %: This illustrates the the percentage of the contribution of movers to the development index score of selected district.

APPENDIX D

The hierarchical clustering of districts in terms of their distance to each other



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PUBLICATIONS

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HOBBIES

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