# **İSTANBUL TECHNICAL UNIVERSITY ★ INSTITUTE OF SCIENCE AND TECHNOLOGY**

INTRA-METROPOLITAN MOBILITY PATTERNS IN ISTANBUL

M.Sc. Thesis by Bürge Elvan ERGİNLİ

**Department : Urban and Regional Planning** 

**Programme : Regional Planning** 

**JUNE 2010** 

# **İSTANBUL TECHNICAL UNIVERSITY ★ INSTITUTE OF SCIENCE AND TECHNOLOGY**

INTRA-METROPOLITAN MOBILITY PATTERNS IN ISTANBUL

M.Sc. Thesis by Bürge Elvan ERGİNLİ

Date of submission :07 May 2010Date of defence examination:07 June 2010

| Supervisor (Chairman) :              | Assoc. Prof. Dr. Tüzin BAYCAN |
|--------------------------------------|-------------------------------|
|                                      | LEVENT (ITU)                  |
| Members of the Examining Committee : |                               |
|                                      | Prof. Dr. Murat Himmet GÜVENÇ |
|                                      | (İstanbul Bilgi University)   |

**JUNE 2010** 

# <u>İSTANBUL TEKNİK ÜNİVERSİTESİ ★ FEN BİLİMLERİ ENSTİTÜSÜ</u>

İSTANBUL'DA METROPOL İÇİ HAREKETLİLİK

YÜKSEK LİSANS TEZİ Bürge Elvan ERGİNLİ (502071852)

Tezin Enstitüye Verildiği Tarih :07 Mayıs 2010Tezin Savunulduğu Tarih :07 Haziran 2010

Tez Danışmanı :Doç. Dr. Tüzin Baycan LEVENT (İTÜ)Diğer Jüri Üyeleri :Prof. Dr. Gülden ERKUT (İTÜ)Prof. Dr. Murat Himmet GÜVENÇ(İstanbul Bilgi Üniversitesi)

HAZİRAN 2010

#### FOREWORD

Even though residential mobility is a popular topic, relatively few studies are concerned about the intra-metropolitan mobility patterns in changing metropolitan regions. More about residential mobility and intra-urban mobility, or intra-urban residential mobility concepts are concerned who study about the mobility flows between one neighbourhood/part of a town/city to another. However cities are becoming city-regions and metropolitan cities are not only considered within their province boundaries. When I started to work on this thesis, the logical first step was to look for studies similar to mine. While there are plenty of studies about residential mobility, most of them are related to the reasons of households' mobility decisions and the impacts of the movements of households on housing market and policies. This study aims to figure out the intra-metropolitan mobility patterns in Istanbul by considering its metropolitan field within Marmara Region.

It is impossible to avoid building up a debt to a great number of persons while writing a thesis, including my familiy and colleagues who gave me support. I am especially grateful to Murat Güvenç for his valuable advices.

And finally, let me thank my adviser Tüzin Baycan Levent for her valuable remarks and suggestions concerning my thesis.

July 2010

Bürge Elvan Erginli Urban Planner

vi

# **TABLE OF CONTENTS**

# Page 1

| TABLE OF CONTENTS  |
|--|
| ABBREVIATIONS  |
| LIST OF TABLES   |
| LIST OF FIGURES  |
| SUMMARY  |
| ÖZETxxiii  |
| 1. INTRODUCTION  |
| 1.1 Purpose of the Thesis  |
| 1.2 Research Questions   |
| 1.3 Hypothesis   |
| 1.4 Objectives   |
| 1.5 Data and Sample  |
| 1.6 Methodology  |
| 1.7 Structure of the Thesis  |
| 2. INTRA-METROPOLITAN RESIDENTIAL MOBILITY                                       |
| 2.1 The Concept of Intra-urban Residential Mobility and the Differences between  |
| Mobility and Migration   |
| 2.2 The Importance of Residential Mobility                                       |
| 2.3 Residential Mobility Approaches  |
| 2.3.1 Micro-analytical approaches of residential mobility                        |
| 2.3.1.1 Tiebout Thesis   |
| 2.3.1.2 Family life-cycle and life course  |
| 2.3.1.3 Social capital and social networks                                       |
| 2.3.1.4 Residential mobility, suburbanization and residential                    |
| segregation  |
| 2.3.2 Macro-analytical approaches of residential mobility                        |
| 3. INTRA-METROPOLITAN MOBILITY PATTERNS IN ISTANBUL                              |
| 3.1 Aim, Focus, Data and Methodology   |
| 3.1.1 Aim and focus of the thesis  |
| 3.1.2 Hypothesis   |
| 3.1.3 Data and methodology   |
| 3.2 Analyses of Residential Mobility in Marmara Region                           |
| 3.2.1 Residential mobility in Marmara Region between 1985-1990                   |
| 3.2.2 Residential mobility in Marmara Region between 1995-2000                   |
| 3.3 Analyses of Intra-metropolitan Mobility in Istanbul Interaction Field        |
| 3.3.1 Intra-metropolitan mobility in Istanbul Interaction Field between 1985-    |
| 1990   |
| 3.3.2 Intra-metropolitan mobility in Istanbul Interaction Field between 1995-    |
| 2000   |
| 3.4 Analyses of Intra-metropolitan Mobility from Urban to Urban Area in Istanbul |
| Interaction Field  |

| 3.4.1 Intra-metropolitan mobility from urban to urban area in Istanbul             |
|--|
| Interaction Field between 1985-199056  |
| 3.4.2 Intra-metropolitan mobility from urban to urban area in Istanbul             |
| Interaction Field between 1995-2000  |
| 3.5 Analyses of Intra-metropolitan Mobility from Urban to Rural Area in Istanbul   |
| Interaction Field71  |
| 3.5.1 Intra-metropolitan mobility from urban to rural area in Istanbul             |
| Interaction Field between 1985-199071  |
| 3.5.2 Intra-metropolitan mobility from urban to rural area in Istanbul             |
| Interaction Field between 1995-200078  |
| 3.6 Analyses of Intra-metropolitan Mobility from Rural to Urban Area in Istanbul   |
| Interaction Field  |
| 3.6.1 Intra-metropolitan mobility from rural to urban area in Istanbul             |
| Interaction Field between 1985-199085  |
| 3.6.2 Intra-metropolitan mobility from rural to urban area in Istanbul             |
| Interaction Field between 1995-200093  |
| 3.7 Analyses of Intra-metropolitan Mobility from Rural to Rural Area in Istanbul   |
| Interaction Field 100  |
| 3.7.1 Intra-metropolitan mobility from rural to rural area in Istanbul Interaction |
| Field between 1985-1990100   |
| 3.7.2 Intra-metropolitan mobility from rural to rural area in Istanbul Interaction |
| Field between 1995 -2000106  |
| 3.8 Analyses of Movers' Profiles   |
| 3.8.1 The individuals that moved from urban to urban area                          |
| 3.8.1.1 The individuals that moved from urban to urban area between                |
| 1985-1990112   |
| 3.8.1.2 The individuals that moved from urban to urban area between                |
| 1995-2000116   |
| 3.8.2 The individuals that moved from urban to rural area                          |
| 3.8.2.1 The individuals that moved from urban to rural area between                |
| 1985-1990  |
| 3.8.2.2 The individuals that moved from urban to rural area between                |
| 1995-2000  |
| 3.8.3 The individuals that moved from rural to urban area                          |
| 3.8.3.1 The individuals that moved from rural to urban area between                |
| 1985-1990  |
| 3.8.3.2 The individuals that moved from rural to urban area between                |
| 1995-2000  |
| 3.8.4.1 The individuals that moved from rural to rural area between 1985-          |
| 1990   |
| 3.8.4.2 The individuals that moved from rural to rural area between 1995-          |
| 2000   |
| 3.9 Results of the Empirical Study   |
| 3.9.1 Evaluation of residential mobility in Marmara Region                         |
| 3.9.2 Evaluation of intra-metropolitan mobility in Istanbul Interaction Field 147  |
| 3.9.2 Evaluation of intra-metropolitan mobility from urban to urban area in        |
| Istanbul Interaction Field   |
| 3.9.4 Evaluation of intra-metropolitan mobility from urban to rural area in        |
| Istanbul Interaction Field   |

| 3.9.5 Evaluation of intra-metropolitan mobility from rural to urban area in |       |
|---|-------|
| Istanbul Interaction Field  | . 159 |
| 3.9.6 Evaluation of intra-metropolitan mobility from rural to rural area in |       |
| Istanbul Interaction Field  | . 161 |
| 3.9.7 Evaluation of Movers' Profiles  | . 163 |
| 4. CONCLUSION AND RECOMMENDATIONS   | . 165 |
| REFERENCES  | . 169 |
| CURRICULUM VITA   | . 175 |

х

# ABBREVIATIONS

- : Turkish Statistical Institute: Correspondence Analysis TSI
- CA

xii

# LIST OF TABLES

# Page 1

| Table 3.1: Marmara NUTS regions 1990, EUROSTAT   |
|--|
| Table 3.2: Reduced and reordered residential mobility matrix for Marmara Region                                    |
| 1985-1990 (flows in absolute numbers)  |
| <b>Table 3.3:</b> Reduced and reordered residential mobility matrix for Marmara Region                             |
| 1985-1990 (signed chi square indices)  |
| Table 3.4: Residential mobility in Marmara Region 1985-1990 (districts of origin)30                                |
| Table 3.5: Residential mobility in Marmara Region 1985-1990 (districts of  |
| destination)   |
| Table 3.6: Reduced and reordered residential mobility matrix for Marmara Region                                    |
| 1985-1990 (distinctive arrival profiles%'s)  |
| <b>Table 3.7:</b> Reduced and reordered residential mobility matrix for Marmara Region                             |
| 1985-1990 (distinctive departure profiles%'s)  |
| <b>Table 3.8:</b> Marmara NUTS regions 2000, EUROSTAT  |
| <b>Table 3.9:</b> Reduced and reordered residential mobility matrix for Marmara Region                             |
| 1995-2000 (flows in absolute numbers)  |
| <b>Table 3.10:</b> Reduced and reordered residential mobility matrix for Marmara Region                            |
| 1995-2000 (signed chi square indices)  |
| <b>Table 3.11:</b> Residential mobility in Marmara Region 1995-2000 (districts of origin)                          |
|  |
| Table 3.12: Residential mobility in Marmara Region 1995-2000 (districts of   |
| destination)   |
| Table 3.13: Reduced and reordered residential mobility matrix for Marmara Region                                   |
| 1995-2000 (distinctive arrival profiles%'s)  |
| Table 3.14: Reduced and reordered residential mobility matrix for Marmara Region                                   |
| 1995-2000 (distinctive departure profiles%'s)  |
| Table 3.15: Reduced and reordered intra-metropolitan mobility matrix for Istanbul                                  |
| Interaction Field 1985-1990 (flows in absolute numbers)  |
| Table 3.16: Reduced and reordered intra-metropolitan mobility matrix for Istanbul         12                       |
| Interaction Field 1985-1990 (signed chi square indices)  |
| Table 3.17: Intra-metropolitan mobility in Istanbul Interaction Field 1985-1990         (distribute of existin)    |
| (districts of origin)  |
| Table 3.18: Intra-metropolitan mobility in Istanbul Interaction Field 1985-1990         (districts of destination) |
| (districts of destination)   |
| <b>Table 3.19:</b> Reduced and reordered intra-metropolitan mobility matrix for Istanbul                           |
| Interaction Field 1985-1990 (distinctive arrival profiles%'s)  |
| Interaction Field 1985-1990 (distinctive departure profiles%'s)  |
| <b>Table 3.21:</b> Reduced and reordered intra-metropolitan mobility matrix for Istanbul                           |
| Interaction Field 1995-2000 (flows in absolute numbers)  |
| Table 3.22: Reduced and reordered intra-metropolitan mobility matrix for Istanbul                                  |
| Interaction Field 1995-2000 (signed chi square indices)  |
| interaction richer 1775-2000 (signed ein square indices)   |

| <b>Table 3.23:</b> Intra-metropolitan mobility in Istanbul Interaction Field 1995-2000  |
|---|
| (districts of origin)   |
| <b>Table 3.24:</b> Intra-metropolitan mobility in Istanbul Interaction Field 1995-2000  |
| (districts of destination)  |
| <b>Table 3.25:</b> Reduced and reordered intra-metropolitan mobility matrix for Istanbul  |
| Interaction Field 1995-2000 (distinctive arrival profiles%'s)53   |
| <b>Table 3.26:</b> Reduced and reordered intra-metropolitan mobility matrix for Istanbul  |
| Interaction Field 1995-2000 (distinctive departure profiles%'s)54   |
| <b>Table 3.27:</b> Reduced and reordered intra-metropolitan mobility matrix for Istanbul  |
| Interaction Field 1985-1990: Extended mobility from the urban   |
| settlements to the urban settlements (flows in absolute numbers)  |
| Table 3.28: Reduced and reordered intra-metropolitan mobility matrix for Istanbul   |
| Interaction Field 1985-1990: Extended mobility from the urban   |
| settlements to the urban settlements (signed chi square indices)  |
| Table 3.29: Reduced and reordered intra-metropolitan mobility matrix for Istanbul   |
| Interaction Field 1985-1990: Extended mobility from the urban   |
| settlements to the urban settlements (distinctive arrival profiles%'s)58  |
| Table 3.30: Reduced and reordered intra-metropolitan mobility matrix for Istanbul   |
| Interaction Field 1985-1990: Extended mobility from the urban   |
| settlements to the urban settlements (distinctive departure profiles%'s)62  |
| Table 3.31: Reduced and reordered intra-metropolitan mobility matrix for Istanbul         Image: State of the state o |
| Interaction Field 1995-2000: Extended mobility from the urban   |
| settlements to the urban settlements (flows in absolute numbers)  |
| Table 3.32: Reduced and reordered intra-metropolitan mobility matrix for Istanbul           Interaction Field 1005, 2000: Extended mobility from the when   |
| Interaction Field 1995-2000: Extended mobility from the urban settlements to the urban settlements (signed chi square indices)  |
| Table 3.33: Reduced and reordered intra-metropolitan mobility matrix for Istanbul   |
| Interaction Field 1995-2000: Extended mobility from the urban   |
| settlements to the urban settlements (distinctive arrival profiles%'s) 68   |
| Table 3.34: Reduced and reordered intra-metropolitan mobility matrix for Istanbul   |
| Interaction Field 1995-2000: Extended mobility from the urban   |
| settlements to the urban settlements (distinctive departure profiles%'s)70  |
| Table 3.35: Reduced and reordered intra-metropolitan mobility matrix for Istanbul   |
| Interaction Field 1985-1990: Extended mobility from the urban   |
| settlements to the rural settlements (flows in absolute numbers)  |
| <b>Table 3.36:</b> Reduced and reordered intra-metropolitan mobility matrix for Istanbul  |
| Interaction Field 1985-1990: Extended mobility from the urban   |
| settlements to the rural settlements (signed chi square indices)  |
| <b>Table 3.37:</b> Reduced and reordered intra-metropolitan mobility matrix for Istanbul  |
| Interaction Field 1985-1990: Extended mobility from the urban   |
| settlements to the rural settlements (distinctive arrival profiles%'s)76  |
| <b>Table 3.38:</b> Reduced and reordered intra-metropolitan mobility matrix for Istanbul  |
| Interaction Field 1985-1990: Extended mobility from the urban   |
| settlements to the rural settlements (distinctive departure profiles%'s) 77   |
| <b>Table 3.39:</b> Reduced and reordered intra-metropolitan mobility matrix for Istanbul  |
| Interaction Field 1995-2000: Extended mobility from the urban   |
| settlements to the rural settlements (flows in absolute numbers)79  |
| Table 3.40: Reduced and reordered intra-metropolitan mobility matrix for Istanbul   |
| Interaction Field 1995-2000: Extended mobility from the urban   |
| settlements to the rural settlements (signed chi square indices)  |

- **Table 3.42:** Reduced and reordered intra-metropolitan mobility matrix for Istanbul

   Interaction Field 1995-2000: Extended mobility from the urban

   settlements to the rural settlements (distinctive departure profiles%'s)... 84

 Table 3.52: Reduced and reordered intra-metropolitan mobility matrix for Istanbul

 Interaction Field 1985-1990: Extended mobility from the rural settlements

 to the rural settlements (signed chi square indices)

 101

 Table 3.55: Reduced and reordered intra-metropolitan mobility matrix for Istanbul

 Interaction Field 1995-2000: Extended mobility from the rural settlements

 to the rural settlements (flows in absolute numbers)

 106

 Table 3.56: Reduced and reordered intra-metropolitan mobility matrix for Istanbul

 Interaction Field 1995-2000: Extended mobility from the rural settlements

 to the rural settlements (signed chi square indices)

 107

| <b>Table 3.57:</b> Reduced and reordered intra-metropolitan mobility matrix for Istanbul           |
|--|
| Interaction Field 1995-2000: Extended mobility from the rural settlements                          |
| to the rural settlements (distinctive arrival profiles%'s)   |
| <b>Table 3.58:</b> Reduced and reordered intra-metropolitan mobility matrix for Istanbul           |
| Interaction Field 1995-2000: Extended mobility from the rural settlements                          |
| to the rural settlements (distinctive departure profiles%'s)                                       |
| <b>Table 3.59:</b> The economic activities of the individuals that moved from the urban            |
| settlements to the urban settlements between 1985-1990 113   |
| <b>Table 3.60:</b> The educational levels of the individuals that moved from the urban             |
| settlements to the urban settlements between 1985-1990 113   |
| Table 3.61: The economic activities and the educational levels of the individuals that             |
| moved from the urban settlements to the urban settlements between 1985-                            |
| 1990   |
| <b>Table 3.62:</b> The economic activities of the individuals that moved from the urban            |
| settlements to the urban settlements between 1995-2000 117   |
| <b>Table 3.63:</b> The educational levels of the individuals that moved from the urban             |
| settlements to the urban settlements between 1995-2000 117   |
| <b>Table 3.64:</b> The economic activities and the educational levels of the individuals that      |
| moved from the urban settlements to the urban settlements between 1995-                            |
| 2000   |
| Table 3.65: The economic activities of the individuals that moved from the urban         122       |
| settlements to the rural settlements between 1985-1990   |
| <b>Table 3.66:</b> The educational levels of the individuals that moved from the urban         122 |
| settlements to the rural settlements between 1985-1990   |
| <b>Table 3.67:</b> The economic activities and the educational levels of the individuals that      |
| moved from the urban settlements to the rural settlements between 1985-                            |
| 1990   |
| settlements to the rural settlements between 1995-2000   |
| <b>Table 3.69:</b> The educational levels of the individuals that moved from the urban             |
| settlements to the rural settlements between 1995-2000   |
| <b>Table 3.70:</b> The economic activities and the educational levels of the individuals that      |
| moved from the urban settlements to the rural settlements between 1995-                            |
| 2000   |
| Table 3.71: The economic activities of the individuals that moved from the rural                   |
| settlements to the urban settlements between 1985-1990   |
| <b>Table 3.72:</b> The educational levels of the individuals that moved from the rural             |
| settlements to the urban settlements between 1985-1990   |
| Table 3.73: The economic activities and the educational levels of the individuals that             |
| moved from the rural settlements to the urban settlements between 1985-                            |
| 1990   |
| <b>Table 3.74:</b> The economic activities of the individuals that moved from the rural            |
| settlements to the urban settlements between 1995-2000   |
| <b>Table 3.75:</b> The educational levels of the individuals that moved from the rural             |
| settlements to the urban settlements between 1995-2000   |
| Table 3.76: The economic activities and the educational levels of the individuals that             |
| moved from the rural settlements to the urban settlements between 1995-                            |
| 2000   |
| <b>Table 3.77:</b> The economic activities of the individuals that moved from the rural            |
| settlements to the rural settlements between 1985-1990   |

| <b>Table 3.78:</b> The educational levels of the individuals that moved from the rural        |
|---|
| settlements to the rural settlements between 1985-1990  |
| <b>Table 3.79:</b> The economic activities and the educational levels of the individuals that |
| moved from the rural settlements to the rural settlements between 1985-                       |
| 1990  |
| <b>Table 3.80:</b> The economic activities of the individuals that moved from the rural       |
| settlements to the rural settlements between 1995-2000  |
| <b>Table 3.81:</b> The educational levels of the individuals that moved from the rural        |
| settlements to the rural settlements between 1995-2000  |
| <b>Table 3.82:</b> The economic activities and the educational levels of the individuals that |
| moved from the rural settlements to the rural settlements between 1995-                       |
| 2000  |
| <b>Table 3.83:</b> The over-represented mobility flows in Marmara Region in the 1985-         |
| 1990 period   |
| <b>Table 3.84:</b> The over-represented mobility flows in Marmara Region in the 1995-         |
| 2000 period145  |
| <b>Table 3.85:</b> Mobility from / to the districts of Istanbul in all Marmara Region in the  |
| 1985-1990 and the 1995-2000 periods146  |
| <b>Table 3.86:</b> The over-represented mobility flows in Istanbul Interaction Field in the   |
| 1985-1990 period147   |
| <b>Table 3.87:</b> The over-represented mobility flows in Istanbul Interaction Field in the   |
| 1995-2000 period149   |
| Table 3.88: Mobility from / to the districts of Istanbul in all Istanbul Interaction          |
| Field in the 1985-1990 and the 1995-2000 periods  |
| <b>Table 3.89:</b> The most distinctive mobility flows from the urban settlements to the      |
| urban settlements in the 1985-1990 period152  |
| <b>Table 3.90:</b> The most distinctive mobility flows from the urban settlements to the      |
| urban settlements in the 1995-2000 period   |
| <b>Table 3.91:</b> The most distinctive mobility flows from the urban settlements to the      |
| rural settlements in the 1985-1990 period155  |
| <b>Table 3.92:</b> The most distinctive mobility flows from the urban settlements to the      |
| rural settlements in the 1995-2000 period155  |
| <b>Table 3.93:</b> The most distinctive mobility flows from the rural settlements to the      |
| urban settlements in the 1985-1990 period160  |
| <b>Table 3.94:</b> The most distinctive mobility flows from the rural settlements to the      |
| urban settlements in the 1995-2000 period 160   |
| <b>Table 3.95:</b> The most distinctive mobility flows from the rural settlements to the      |
| rural settlements in the 1985-1990 period162  |
| <b>Table 3.96:</b> The most distinctive mobility flows from the rural settlements to the      |
| rural settlements in the 1995-2000 period162  |

# LIST OF FIGURES

# Page 1

| Figure 3.1 : Residential Mobility in Marmara Region between 1985-1990            | 31   |
|--|------|
| Figure 3.2 : Residential Mobility in Marmara Region between 1995-2000            | 37   |
| Figure 3.3 : Intra-metropolitan mobility in Istanbul Interaction Field between 1 | 985- |
| 1990   | 45   |
| Figure 3.4 : Intra-metropolitan mobility in Istanbul Interaction Field between 1 | 995- |
| 2000   | 51   |
| Figure 3.5 : Intra-metropolitan mobility from urban to urban area in Istanbul    |      |
| Interaction Field between 1985-1990  | 59   |
| Figure 3.6 : Intra-metropolitan mobility from urban to urban area in Istanbul    |      |
| Interaction Field between 1995-2000  | 65   |
| Figure 3.7 : Intra-metropolitan mobility from urban to rural area in Istanbul    |      |
| Interaction Field between 1985-1990  | 73   |
| Figure 3.8 : Intra-metropolitan mobility from urban to rural area in Istanbul    |      |
| Interaction Field between 1995-2000  | 81   |
| Figure 3.9 : Intra-metropolitan mobility from rural to urban area in Istanbul    |      |
| Interaction Field between 1985-1990  | 89   |
| Figure 3.10 : Intra-metropolitan mobility from rural to urban area in Istanbul   |      |
| Interaction Field between 1995-2000  | 95   |
| Figure 3.11 : Intra-metropolitan mobility from rural to rural area in Istanbul   |      |
| Interaction Field between 1985-1990  | 103  |
| Figure 3.12 : Intra-metropolitan mobility from rural to rural area in Istanbul   |      |
| Interaction Field between 1995-2000  | 109  |

#### **INTRA-METROPOLITAN MOBILITY PATTERNS IN ISTANBUL**

## SUMMARY

Intra-urban residential mobility is a crucial subject to understand urbanization dynamics. This study aims to figure out the intra-metropolitan mobility patterns in Istanbul by considering its metropolitan area within Marmara Region. Having a very crucial position in its region and the whole country, Istanbul, has gone through a continuous and a very rapid change in metropolitanisation process while being in a ceaseless interaction with its hinterland and having its own urbanization dynamics. Therefore, residential mobility patterns of the individuals in both the 1985-1990 and the 1995-2000 periods have been analyzed in 3 levels: First of all, mobility behaviours between the districts belonging to the provinces in TR 1 Istanbul, TR 2 Western Marmara and TR 4 Eastern Marmara NUTS Level 1 Regions have been analyzed. These three NUTS Level 1 Regions have been defined as Marmara Region in this study. In addition, the mobility patterns between the districts of Istanbul Interaction Field and the urban-rural interaction between these districts have been analyzed. The rest of the empirical study is an attempt to examine the characteristics of the individuals who moved from one district to another. All quantitative data of the study is derived from the censuses of 1990 and 2000. Turkish Statistical Institute's (TSI) both censuses of 1990 and 2000 contain 5% sample of all population in Turkey. Correspondence Analysis, a variant of factor analysis devised for reducing large data sets, has been used in this study. All the results of the empirical study show that the mobility patterns of the individuals have distinctive characteristics as the individuals from the same group of origins substantially moved to the same group of destinations. Moreover, the economic activities and the educational levels of these individuals, who have similar origin and destination profiles, also show similar characteristics.

# İSTANBUL'DA METROPOL İÇİ HAREKETLİLİK

## ÖZET

Şehir içi ikamet hareketliliği konusu, kentleşme dinamiklerinin anlaşılabilmesi bakımından çok büyük önem taşımaktadır. Bu çalışma, İstanbul'da metropol içi hareketliliği, kentin metropol alanını Marmara Bölgesi içerisinde ele alarak değerlendirmeyi amaçlamaktadır. Bulunduğu bölge ve ülke içerisinde çok önemli bir yere sahip olan İstanbul metropolleşme sürecinde bir yandan hinterlandı ile sürekli etkileşim halinde iken, bir yandan da kendi içerisindeki kentleşme dinamikleri sebebiyle sürekli ve hızlı bir değişim içinde olmuştur. Bu nedenle, şehir içi ikamet hareketlilikleri öncelikle NUTS Düzey 1 bölgelerinden Istanbul, Batı Marmara ve Doğu Marmara Bölgeleri'nin oluşturduğu, ve çalışmada Marmara Bölgesi olarak tanımlanan bir alan içerisinde değerlendirilmiştir. Daha sonra, İstanbul Etki Alanı içerisindeki metropol içi hareketililik ve kentsel ve kırsal bölgelerin birbirleri ile olan etkileşimleri ayrı ayrı analiz edilmiştir. Ampirik çalışmanın son aşamasında ise bir ilçeden diğer bir ilçeye hareket etmiş olan bireylerin ekonomik faaliyet ve eğitim seviyeleri incelenmiştir. Çalışmada kullanılan tüm sayısal veriler Devlet İstatistik Enstitüsü tarafından yapılmış olan 1990 ve 2000 Genel Nüfus Sayımı verilerinden elde edilmiştir ve tüm nüfusun% 5 örneklemini kapsamaktadır. Çalışmada, büyük veri setlerini indirgemede kullanılan ve faktör analizinin başka bir biçimi olan Correspondence Analizi kullanılmıştır. Çalışmanın ampirik kısmından elde edilen bulgular, bireylerin hareketlerinin ayırt edici özelliğe sahip olduğunu göstermektedir. Bireylerin ikamet hareketleri belirli ilçe gruplarından belirli ilçe gruplarına doğru olmuştur. Bununla birlikte, benzer çıkış ve varış profiline sahip olan bireyler ekonomik faaliyet ve eğitim seviyesi özellikleri bakımından da benzerlikler göstermektedir.

## **1. INTRODUCTION**

The concept of "intra-metropolitan mobility" has been recently cited by the leading researchers on mobility. More about residential mobility and intra-urban mobility, or intra-urban residential mobility concepts are cited by the authors who study about the mobility flows between one neighbourhood/part of a town/city to another. However cities are becoming city-regions and metropolitan cities are not only considered within their province boundaries.

A world-wide mosaic of large city-regions seems to be over-riding (though is not effacing entirely) an earlier core-periphery system of spatial organization. As globalization proceeds, an extended archipelago or mosaic of large city-regions is evidently coming into being, and these peculiar agglomerations now increasingly function as the spatial foundations of the new world system that has been taking shape since the end of the 1970s (Scott, 2001).

In the context of a globalizing economy, the entry of markets into peripheral regions disrupts existing social and economic arrangements and brings about the displacement of people from customary livelihoods, creating a mobile population of workers who actively search for new ways of earning income, managing risk, and acquiring capital. Migration does not stem from a lack of economic development, but from development itself (Hirschman et al., 1999).

Residential mobility may be defined as the movement of residents from one house to another, or from one neighbourhood/part of a town/city to another (Gbakeji and Rilwani, 2009). In Simmel's terms mobility is part of a 'world in flux, whose substantive contents are themselves dissolved in motion' (Frisby, 2002). Mobility is the product of the intense commodification of social relations fuelled by industrial development and entwined with the sharply increasing division of labour and the spatial concentration of diversified activities in the modern metropolis. (Maloutas, 2004).

This study aims to figure out the intra-metropolitan mobility in Istanbul by considering its metropolitan field within Marmara Region.

Istanbul, the demographic and economic heart of Turkey, has gone through enormous changes over the past century. The mega-city of about 13 to 16 million inhabitants (depending on the unit of analysis), 20% of Turkey's total population has registered a dramatic population increase since 1950 (more than tenfold) (OECD, 2008). Istanbul stands as the centre of both the country and the Marmara region. The province has, in the last few decades, also assumed a transboundary function and has become a global city, i.e. a city of the world where the main administrative units of international companies are located.

Having a very crucial position in its region and the whole country, Istanbul, has gone through a continuous and a very rapid change in metropolitanisation process while being in a ceaseless interaction with its hinterland and having its own urbanization dynamics.

Therefore, residential mobility of the individuals has been analyzed and evaluated within Marmara Region to see the interaction between the districts of Istanbul and the other districts of Marmara Region. The reason why mobility from/to the districts of Istanbul has been studied district-based is that the province-based analyses are not enough to examine the complex relationships within the regions. Understanding the dynamics of the demographics and sociospatial transformations of the metropolitan area is merely possible by examining the multi-dimenaional relations.

#### 1.1 Purpose of the Thesis

In this study, the aim is to figure out the intra-metropolitan mobility in Istanbul by considering its metropolitan field within Marmara Region. In order to study this topic, the thesis focuses on the individuals who have moved from one district to another in 5 year periods (1985-1990 and 1995-2000).

#### **1.2 Research Questions**

**1.** What is the position of Istanbul in Marmara Region when the mobility between districts are considered?

2. What are the distinctive characteristics of individuals' mobility behaviours when

the intra-metropolitan mobility between the districts and between the urban and rural areas of the districts are considered?

**3.** What features do the individuals have with respect to their educational level and economical activity when they have been analyzed as groups according to their origin and destination units?

# **1.3 Hypothesis**

 $h_1$  - Istanbul has strong relations with its surroundings when the mobility flows of individuals in all districts of Marmara Region are considered as a whole.

 $h_2$  - The mobility in between the districts of Istanbul is more significant than the mobility between the districts of Istanbul and the districts of other provinces.

 $h_3$  - The interaction between the districts of Istanbul and the district of the other provinces of Marmara Region with respect to the individuals' mobility, is more in the 1995-2000 period then the 1985-1990 period.

 $h_4$  - In the 1985-1990 period, the districts of Istanbul have more interaction with the districts of other provinces when they are only evaluated as destination units.

 $h_5$  - In the 1995-2000 period, the districts of Istanbul have more interaction with the districts of other provinces when they are only evaluated as origin units.

 $h_6$  - The individuals from the same districts generally have similar mobility behaviours such that they moved to the same districts.

 $h_7$  - The mobility behaviours show different characteristics when they are evaluated according to the origins and destinations are rural and/or urban areas.

 $h_8$  - The individuals who have the same mobility profiles regarding their educational levels and economical activities have similar features.

# **1.4 Objectives**

**1.** Finding the interaction field of Istanbul within Marmara Region in the periods of 1985-1990 and 1995-2000.

**2.** Clarifying the distinctive characteristics of mobility behaviours according to the individuals' origin and destination units in urban and rural settlements' mobility interactions.

**3.** Analyzing the individuals' features with respect to their educational levels and economical activities when the individuals are grouped according to their distinctive mobility profiles.

## 1.5 Data and Sample

All quantitative data of the study is derived from the censuses of 1990 and 2000. Turkish Statistical Institute's (TSI) both censuses of 1990 and 2000 contain 5% sample of all population in Turkey.

#### **1.6 Methodology**

Two methods have been used for analysing the data. First of all, a data reduction method is used for summarizing and depicting qualitative contrast invisible to the naked eye. By clustering the origin and destiantion units according to their distinctive and similar arrival and departure profiles, a caotic picture of a huge original interaction matrix of 1985-1990 and 1995-2000 mobility flows can be communicable. Clustering the districts of origins and destinations is not a random grouping. Every origin and destination profiles of the districts in the same group must be similar. Secondly, this study uses Correspondence Analysis, a variant of factor analysis devised for reducing large data sets.

## **1.7 Structure of the Thesis**

For the aim of this thesis, in the literature view, the concept of residential mobility, the differences between the concepts of mobility and migration, the impacts of mobility on cities' formations and residential mobility approaches have been explained.

In the empirical part of the study, first of all, mobility behaviours between the districts which belong to the provinces in TR 1 Istanbul, TR 2 Western Marmara and TR4 Eastern Marmara NUTS Level 1 Regions have been analyzed in both the 1985-1990 and the 1995-2000 periods by clustering the districts which show similar origin

and destination profiles. Intra-urban mobility in Istanbul itself and interaction between the districts of Istanbul and the other districts of Marmara Region have been evaluated according to the origin and destination profiles of all the districts.

Secondly, by considering the results obtained from the "Intra-metropolitan Mobility in Marmara Region Analysis", the groups including all the districts of Istanbul have been selected among all the groups which are constituted according to the origin and destination profiles of the districts of Marmara Region. Thereby, the mobility between these districts has been analyzed with the same method in a more detailed way. This analysis reveals intra-metropolitan mobility in Istanbul Interaction Field for both the 1985-1990 and the 1995-2000 periods.

Thirdly, with respect to the residential mobility of the individuals, urban and rural interaction between the districts of Istanbul Interaction Field has been analyzed by the same method used in previous parts. By considering the results obtained from the "Intra-metropolitan Mobility in Istanbul Interaction Field", the groups including all the districts of Istanbul are selected among all the groups which are constituted according to the origin and destination profiles of the districts of the area. The mobility flows from the urban settlements to the urban settlements, from the urban settlements to the rural settlements to the rural settlements have been analyzed respectively for both the 1985-1990 and the 1995-2000 periods.

In the last analysis of the empirical part, the economic activities and the educational levels of the individuals are examined. Only the individuals who carried out the over-represented mobility flows have been selected and analyzed. The movers who moved from the urban settlements to the urban settlements, from the urban settlements to the rural settlements, from the rural settlements and from the rural settlements to the rural settlements have been analyzed respectively for both the 1985-1990 and the 1995-2000 periods.

Finally, all the mobility flows and the movers' profiles analyses have been evaluated for both the 1985-1990 and the 1995-2000 periods.

## 2. INTRA-METROPOLITAN RESIDENTIAL MOBILITY

Intra-metropolitan residential mobility is a new concept that is used in urban and regional studies. More about residential mobility and intra-urban mobility, or intraurban residential mobility concepts are cited by the authors who study about the mobility flows between one neighbourhood/part of a town/city to another. However cities are becoming city-regions and metropolitan cities are not only considered within their province boundaries.

A world-wide mosaic of large city-regions seems to be over-riding (though is not effacing entirely) an earlier core-periphery system of spatial organization. As globalization proceeds, an extended archipelago or mosaic of large city-regions is evidently coming into being, and these peculiar agglomerations now increasingly function as the spatial foundations of the new world system that has been taking shape since the end of the 1970s (Scott, 2001).

On the other hand, process of growing of the metropolitan areas, both physical and demographic, is a question of concern for various professionals of different areas, especially demographers. Regarding migration, despite its importance in this process, little is yet known about the mobility of the population inside the metropolis, although such local migrations may be just as significant as those of people from other regions for the understanding of the dynamics of the demographics and sociospatial transformations of the metropolitan area (Cunha, 2009).

In this part of the study, for the aim of this thesis, the concept of residential mobility, the differences between the concepts of mobility and migration, the impacts of mobility on cities' formations and residential mobility approaches have been explained. A rich literature exists about the individual-level and/or demand oriented factors affecting the intra-urban residential mobility. Bulk of existing studies point out the relationships between residential mobility, suburbanization and residential segregation. However, this thesis is more concerned about the spatial pattern of mobility rates and the socio-economic characteristics of the movers, yet these concepts have not been touched on except few studies in literature.

# 2.1 The Concept of Intra-urban Residential Mobility and the Differences between Mobility and Migration

Population mobility is the main variable to understand the processes of dynamic cities, and is somehow the main demographic variable related with metropolisation dynamics. According to Módenes (1998), there are different types of population mobility: usual mobility, daily mobility, occasional mobility and residential mobility (Elordui-Zapaterietxe and Cladera, 2006). All of these are inter-related and have different functions in the general mobility process.

Residential mobility may be defined as the movement of residents from one house to another, or from one neighbourhood/part of a town/city to another (Gbakeji and Rilwani, 2009). In the sense of relocation, enables individuals and households to change their residence for one that suits them better (Mandic, 2001).

Residential mobility is a widely discussed phenomenon whose inherent positive connotation could hardly be disputed. It can be conceptualized as an outcome of a choice process exercised under complex institutional and personal constraints.

There are different theoretical frameworks and perspectives to understand and analyse residential mobility. Generally it is used to describe the definitive housing change of a person or household and sometimes would be understood as a migration. Accroding to Módenes (1998) and Lewis (1982), although they are very close concepts, **migration** is use to describe the residential change which supposes a large distance and change in everyday habits, meanwhile **residential mobility** does not suppose a total change of one's everyday habits (Elordui-Zapaterietxe and Cladera, 2006). Thus, the correct term which links residential mobility and migration, is **intermunicipal** or **intra-metropolitan** migration.

A long tradition of research has provided a basic understanding of the causes of intra-urban and inter-regional migration. Long distance moves are typically linked to changes in employment, while the reasons households make short distance moves are more varied (Painter, 1997). Migrant settlement and mobility patterns may be affected by a number of individuallevel factors, chief among which are proximity to employment, duration of residence, employment status, income level, gender and family status (Conway, 1985; Gilbert and Varley, 1990; Klak and Holtzclaw, 1993; Miraftab, 1997; Selier and Klare, 1991; Sdra, 1982; Turner, 1968; UNCHS, 1982).

There appears to be a direct relationship between housing choices (e.g. renting versus ownership) and economic status of migrants. Often it is only after migrants reach the stage of a secure job with reasonable income that they are able to become owners of a dwelling. Proximity to existing or potential employment, measured in distance or travel time, is another major determinant of locational behaviour of migrants. Housing type also is directly linked to duration of residence in the city. Over time migrants tend to move from rented rooms to squatter dwellings and then to houses (Wu, 2006).

## 2.2 The Importance of Residential Mobility

Urban spaces are dynamic entities, so that to understand the socio-spatial processes of these entities is hard to analyse and evaluate. Residential mobility is probably one of the most important socio-spatial dynamics proceeding in an urban space through which socio-economic changes are produced consistently.

Geographers, demographers, and sociologists traditionally have portrayed residential mobility as the dominant force in altering the urban demographic landscape while aging in place, or in situ changes in population structure, takes a secondary role constraints (Gober, McHugh and Reid, 1991).

The study of intra-urban residential mobility has been a popular topic among social scientists for a long time, as it is felt that the changing economic and demographic structure of cities can only be fully understood by analysing the underlying processes associated with residential movements patterns (Clark and Moore, 1978; Cadwallader, 1982).

The change of intraurban spatial structure is largely the aggregate outcome of residential mobility and residential location choice (Wu, 2004; Knox and Pinch, 2000; Kim, 1994; Kim, Pagliara and Preston, 2005).

In Simmel's terms mobility is part of a 'world in flux, whose substantive contents are themselves dissolved in motion' (Frisby, 2002). Mobility is the product of the intense commodification of social relations fuelled by industrial development and entwined with the sharply increasing division of labour and the spatial concentration of diversified activities in the modern metropolis. In more abstract terms, motion is at the heart of capitalist social relations through the objectification of contentless form in money, which 'embodies social reality in constant motion' (Frisby, 2002) (Maloutas, 2004).

The study of local residential mobility is important from several perspectives. First, moving behavior provides insight into the dynamics of individual choice and the timing of adjustment for the single most important component of consumer expenditures. Additionally, household mobility has a direct impact upon the evolving spatial structure of urban areas and results in marginal changes in land use patterns and in the spatial distribution of sociodemographic groups. In fact, this latter implication of mobility has motivated a variety of studies by urban planners and transportation economists who have a practical interest in the aggregate outcomes of household mobility. Some of the outcomes of mobility are commonly observed and widely reported-the postwar decentralization of metropolitan areas and the process of neighborhood change and decline in central cities (Hanushek and Quigley, 1978).

The claim that the change in local social profiles is a product of residential mobility remains unchallenged and has progressively become implicit. Knox and Pinch (2000), for example, start their chapter on 'residential mobility and neighbourhood change' as follows:

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 residential mobility are only imperfectly understood (Maloutas, 2004).

With Esping-Andersen's (1990) regime typology of welfare capitalism in mind, large cities within liberal regulation systems may reasonably be expected to show a higher residential mobility since increased commodification in the labour market and in the housing market is bound to increase the 'shifting and sorting' process and therefore the segregating impact of market mechanisms. Less mobility, or at least less segregation as a consequence of mobility, would be expected in systems attempting decommodification (Maloutas, 2004).

#### 2.3 Residential Mobility Approaches

Residential migration can be analyzed in various ways, focusing either on the behaviour of individuals or households, on their residential choices and strategies, or

on the spatial aspects of migratory flows that reveal interactions between different localities (Baccaïni and Dutreuilh, 2007).

The vast body of literature on residential mobility can be conveniently subdivided into micro and macro-analytical approaches.

The micro approach is characterized by an interest in the characteristics of movers versus stayers, and is concerned with the construction of models that realistically represent the individual decision-making process involved in residential mobility (Cadwallader, 1982). Alternatively, the macro approach has been used in two main contexts (Moore, 1971; Cadwallader, 1982). First, to identify the spatial pattern of mobility rates, and second, to establish the interrelationships between mobility rates and other features of the urban environment, such as socio-economic, demographic, and housing characteristics.

#### 2.3.1 Micro-analytical approaches of residential mobility

Within the micro approach, the analysis of longitudinal data files for individual households has facilitated the construction of socio-economic profiles for both movers and stayers, and has encouraged the formulation of stochastic models to represent such concepts as cumulative inertia (Goldstein, 1954; Huff and Clark, 1978; Cadwallader, 1982). In his study, Cadwallader (1982) emphasized the importance of prior mobility history as a determinant of the decision to seek a new residence, noting that, in general, recent movers are more likely to move again. As always, however, there are exceptions to the rule, and for certain sub-populations the probability of a move appears to actually increase with increasing duration of stay (Clark and Huff, 1977; Cadwallader, 1982).

Household residential location choice is a complex function of a wide range of housing and location attributes. The relative importance of these attributes will vary across different types of household (Kim, Pagliara and Preston, 2005). The overall **decision-making process** associated with residential mobility is generally conceptualized as being composed of three major stages; the decision to move, the search for available alternatives, and the evaluation of those alternatives (Brown and Moore, 1971; Cadwallader, 1982).

Past studies of residential mobility have postulated many causes for residential mobility. **Economic arguments** about residential mobility stress the cost and

benefits of moving. In short, these theories are based on measuring wage or opportunity differentials between different areas and predicting moves based on predicted returns to moving (as an investment). Others argue that discussions of residential mobility must include assessments of **social and cultural factors** that influence mobility. In short, these theories stress the role of structural constraints to and opportunities for mobility and assess the role of social and human capital on mobility prospects (Pettit, 1999).

A related line of inquiry, largely conducted by sociologists, has linked moving behavior and moving intentions to levels of "satisfaction" and the "stresses" of particular locations (usually based upon reported attitudes). This line of inquiry does link moving to dynamic factors, at least as they are reflected in attitude formation, but at the same time neglects most economic influences on household behaviour (Hanushek and Quigley, 1978).

Economists' analyses relate almost exclusively to the comparative statics of housing markets. With perfect information and no transactions costs, conventional residential location models derive, in a quite general way, the equilibrium household location and housing consumption, along with the overall surface of location rents and housing prices in a metropolitan area (Hanushek and Quigley, 1978).

In economic research housing choice is most frequently perceived "as a result of a rational decision making process, in which the individual evaluates perceived costs and benefits of one location versus another, and the costs of moving versus not moving. The decision to choose a particular house and to move is made when the benefits are deemed to outweigh the costs" (Clark, 1987; Mandić, 2001).

In housing, economic rationality is not only very difficult to define and achieve, due to the complexity of housing as a commodity, but is also competing with other non-economic considerations and preferences related to the evaluation of a particular housing unit. Indeed, there are a variety of needs that may ifluence preferences for housing characteristics and individual decisions for moving or non-moving. Examples include, the need for a group (belonging and participation); the need for self-affirmation and the need for ontological security (the feeling of trust and predictability in contrast to fear and uncertainty), to mention a few needs that, according to Turner (1991), strongly motivate human behaviour. Among characteristics of the dwelling that correspond to these needs might be, for instance,

the neighbourhood and its social network. Consequently, a reliance on its well functioning informal support may outweigh many economically rational options of relocation, for instance a move to a dwelling with a somewhat better price-to-quality ratio (Mandić, 2001).

A socio-psychological framework has frequently been used as a basis for analysing the initial decision to seek a new residence. For example, it has been argued that the concept of locational stress, where the amount of stress experienced by an individual household is evaluated across a set of stressors, can be used to predict the propensity to move (Clark and Cadwallader, 1973). The model is operationalized by comparing the perceived level of present satisfaction with the perceived ease of obtaining better elsewhere, for each of the stressors, and a weighting term for each of the stressors can also be added.

Investigations of the second stage of the hypothesized decision-making process, the search for available alternatives, have generally focussed upon the role of information acquisition and utilization. The mass media, specialized agencies, such as real estate agents, display boards, and the household's network of social contacts, are all important sources of information about housing vacancies. Rossi (1980) has concluded, however, that personal contacts, while being the second most frequently used medium, after newspapers, are by far the most effective. The properties of these contact fields, and their associated search patterns, tend to vary systematically for different population sub-groups, and such systematic variation is of great consequence to those interested in modelling the general process of residential search and information acquisition (Flowerdew, 1976; Clark and Smith, 1979).

The final part of the decision-making process, involving the overall evaluation of perceived alternatives, has required researchers to identify the evaluative dimensions across which individuals assess the relative desirability of neighbourhoods, or houses, and also, to identify the appropriate combination rules for deriving an overall utility value for a specific neighbourhood, or house, from measurements on the evaluative dimensions of that neighbourhood, or house. In general, the major evaluative dimensions used to discriminate between alternative neighbourhoods can be conveniently categorized as representing physical characteristics, social characteristics, and location (Johnston, 1973; Cadwallader, 1979a). The appropriate com- bination rules for integrating the subjective ratings associated with these three

evaluative dimensions into an overall utility value for a particular neighbourhood is still a matter of some debate, although there is preliminary evidence to suggest that an additive formulation performs quite satisfactorily (Cadwallader, 1979b).

#### 2.3.1.1 Tiebout thesis

According to **Tiebout Thesis**, in a fragmented, barrier-free system of uneven-sized competing local governments offering differentiated products—where revenues and expenditures vary across municipalities, where omniscient consumers are aware of these disparate patterns, where they are unhindered by employment location opportunities, and where they are fully mobile—the "consumer-voter" is able to discern a particular mix of housing, community, and local public services that "best" gratifies his or her preferences (demands) (Margulis, 2001).

Governments unquestionably have a significant impact on migration through differential taxation, land-use regulation, infrastructure expansion, zoning code enforcement, human capital investment, aesthetic-amenity augmentation, and the creation of a favorable business climate. As a consequence, patterns of human migration are directly and indirectly influenced by public policy actions that advantage one geographical area over another (Charney, 1993; Margulis, 2001).

Tiebout contends that a mechanism exists which allows local or small-scale collective goods to be allocated efficiently in a manner analogous to the market. If there are a large number of local governments in a single metropolitan district, they may offer rival sets of collective goods and households can choose the tax-service package which best suits their needs. He argues, 'There is no way in which the consumer can avoid revealing his preferences in a spatial economy. Spatial mobility provides the local-goods counterpart to the private market's shopping trip.'3 Mobility is the key factor: 'Moving or failing to move replaces the usual market test of willingness to buy a good and reveals the consumer-voter's demand for collective goods. Thus each locality has a revenue and expenditure pattern that reflects the desires of its residents.'4 If citizens vote with their feet by moving to communities which offer the most suitable mix of local public services, their demand for local collective goods will be revealed. The implication for local public finance theory and practice is that population movements will be intrinsically linked to local public finance and expenditure decisions. Thus Tiebout has been used to explain population flight to the suburbs (John, Dowding and Biggs, 1995).

High-income citizen-consumers play a pivotal role in determining the availability, quality, and expenditure levels of local public services. However, the propensity to migrate differs greatly among socioeconomic groups because other household location determinants intervene, some of which may be far more important than the differential in local government public goods expenditures (Margulis, 2001).

#### 2.3.1.2 Family life-cylce and life course

Rossi and Shlay (1982, 25) noted that most household moves are not policy manipulated because they are derived from processes that influence "macro" social and demographic shifts that alter family composition (household formation, dissolution, childbearing, and mortality rates). Similarly, a household's housing trajectory is also shaped by cohort size, **family life cycle**, and the historical epoch within which a person is born—factors that determine a generation's mobility rates, life circumstances, and opportunity structures (Rogerson 1987; Starkey and Port 1993; Clark, Deurloo, and Dieleman 1994) (Margulis, 2001).

In his classic book on residential mobility, Why families move (1980 [1955]), Rossi outlines a life-cycle approach to residential mobility, arguing that residential mobility is a consequence of life-cycle events. When individuals age, leave home or school, and form families they move. Moreover, one's ability to move is often structured by the availability of economic resources (Pettit, 1999). According to the life-cycle model, household instability and mobility are intimately intertwined centers on the family life-cycle model in which individuals pass through a predetermined set of stages as they age (Rossi 1955; Speare et al. 1975; Carliner 1975). These stages, based on a very traditional view of family life, assume that young women and men remain in their parents' home until marriage and form new households with their spouses at the time of marriage. The household grows with the addition of children and later declines as children leave and one spouse dies. The household is finally dissolved with the death of the remaining spouse (Stapleton 1980). Passage through the family life cycle generates mobility as individuals and families adjust their housing in response to changing space needs, subject to financial and other constraints (Gober, McHugh and Reid, 1991).

A few notable revisions have been made to Rossi's argument. Long (1988), finds that nearly half of all long-distance moves are for employment related reasons. Speare (1974) argues that, particularly among the economically secure, short-distance moves are often a consequence of residential dissatisfaction. For example, when families are dissatisfied with public goods such as schools, parks, or levels of crime, they may choose to move to a different house or neighborhood. These two reasons for long and short-distance moves, in search of pecuniary and non-pecuniary rewards, highlights a segmentation of movers. Despite different reasons for moving, it remains unclear how people successfully adapt to a new environment when they do move and why some people choose to make multiple moves while others choose to remain rooted (Pettit, 1999).

While the family life cycle has proven to be a rich and productive theme around which to organize research in residential mobility, it is increasingly unable to capture a great deal of contemporary intraurban population change. Not all changes in living arrangements occur as a result of life-cycle changes nor are all changes in residence life-cycle-induced. People divorce and cohabitate, move into and out of households as economic need and social circumstances dictate, and their residential mobility may or may not occur in conjunction with these shifts (Stapleton 1980). The notion of a life course has replaced the family life cycle as an organizing framework for sociodemographic change (Clausen 1986). The life course consists of a more broadly defined set of stages including childhood, young adulthood, middle age, later maturity, and old age, triggered by events like marriage, divorce, entering and leaving school, job change, and retirement. The life course recognizes the existence of many paths from childhood to old age (Gober, McHugh and Reid, 1991).

Opinions differ about the strength of the relationship between intention to move and actual mobility behaviour (Cadwallader, 1992). Recently, more attention has been given to supply-side variables, including availability of housing opportunities, constraints on housing choices and housing market tightness (Huang and Clark, 2002). These variables also play an important role in the relationship between prospective mobility and actual moves, because the availability of suitable alternatives to current housing is crucial (Cadwallader, 1992, Wu, 2005).

Long (1988) suggests that with technological advancement, mobility is increasingly motivated by choice and by economic and cultural abilities to make successful moves. Although he contends that the relationship between cultural resources and residential mobility is becoming increasingly important, he does not empirically test this theory. Nor does he speculate about the mechanisms through which cultural abilities might influence residential mobility (Pettit, 1999).

#### 2.3.1.3 Social capital and social networks

Although the literature on residential mobility is vast, Pettit (1999) focuses on two particularly relevant theoretical arguments used to explain patterns of residential mobility: **human capital** and **social network explanations**. In brief, human capital explanations for mobility explore how attributes of people, including life-cycle position, help to explain residential mobility. In contrast, social network explanations for mobility examine the **interpersonal** processes that facilitate residential mobility.

The factors which are related to social capital sould be considered, such as previous experience in or knowledge about the respective region and the availability of social capital and social support networks such networks may constrain social and spatial mobility, since they can have a tremendous impact on family life, especially for low income families (Cunha, 2009).

The concept of social capital originates from sociology. In the past decade, there has been a sprout of interest in social capital by social scientists. Research on social capital has been encouraged by findings of the correlation between measures of social capital and some socio-economic outcomes (e.g., education attainment, criminality, income level, and job search outcomes) (Kan, 2007).

In the broadly defined migration literature (that pertains to interand intrametropolitan mobility, and international migration), there are studies focusing on the relationship between an individual's migration decision and her social capital, and some of these studies were conducted before the concept of social capital was being formalized. These studies are mainly concerned with the facilitating effects of social networks (e.g., having neighbors, friends or family members who are migrants) on the propensity for an individual to emigrate in the context of a developing country (Kan, 2007).

In a long research tradition assessing residential segregation in the United States and residential mobility patterns of immigrant groups to the United States, Massey assesses the flow of resources and information across spatial boundaries (Massey, 1986). Massey and Garcia Espana (1987) consistently find social networks to be the biggest single predictor of residential mobility for a sample of Mexican immigrants

to the United States. Massey stresses the importance of ethnic enclaves in providing information about opportunities for moves as well as to assist movers in the transition process. Like Portes, Massey's work advances previous investigations of the mechanisms that facilitate residential mobility. Here again, social networks seem to be critical in the moving and transition process (Pettit, 1999).

Two contemporary sociologists have been primarily responsible for establishing the link between social network formation and residential mobility and grounding these theoretical ideas in empirical research. Critical of the human capital approach to the study of migration, Portes (for example Portes and Castells, 1989; Portes and Schauffler, 1993) notes that other institutional factors are critical in the process of migration. For example, he cites the importance of immigration policies, the role of an ethnic community, and the mechanisms through which immigrants get jobs as critical components in the study of residential mobility. Portes' work advances previous research on the complex links between institutions and individual behaviors and the importance social networks play in facilitating individual action (Pettit, 1999).

The strength of one's social ties and the extensiveness of one's social networks are observable dimensions of one's stock of social capital. Residential mobility is a major mechanism through which neighborhood dynamics are driven. The rapid inflows and outflows of residents in a neighborhood lead to neighborhood instability. Social capital may mitigate neighborhood instability and promote neighborhood cohesion by encouraging residents to stay put. Having friends or family members in one's neighbourhood (i.e., social networks), especially those who are geographically close and willing to help, is an example of social capital. A household can derive financial and/or emotional support from its social networks, and once it moves to another neighborhood, this kind of social capital may be lost. Thus, residential mobility is likely to be deterred by local social networks. The relationship between social capital and residential mobility is likely to be close and intricate. This has much to do with the spatial dimension of social ties. The spatial dimension of social ties arises from the fact that their value and the way they are valuable to an individual depends on the physical distance between the locations where she possesses social ties and the location where she resides (Kan, 2007).

Considering that housing may well represent the most difficult problem people face when they want to stay in a given metropolitan region, moving from one house to another can be one of the strategies used to deal with this need. Insofar as occupied space is a reification of socially constructed space (Bourdieu, 2003), large segments of metropolitan populations can use mobility to help overcome the limitations imposed by the land and real-estate market. Mobility can also be accompanied by the acquisition or loss of important assets such as social and family relationships or, more generally, social capital (Cunha, 2009).

Owing to the spatial dimension of social capital, such that social capital is locationspecific, one's residential mobility decision incorporates the stock of local social capital into consideration, and the incentive to accumulate local social capital hinges on one's plan or tendency to move in the future. Accordingly, a mobility-prone individual will have less incentive to invest in local social capital, because the stock of social capital that one has accumulated in one location will become less useful after she has moved. Since local social capital may be lost as a result of residential mobility, it may pose as a part of the opportunity cost of residential mobility (Kan, 2007).

#### 2.3.1.4 Residential mobility, suburbanization and residential segregation

One of the most studied subjects about residential mobility is the segregation between different racial groups with respect to their mobility patterns. Migration of different groups between cities and suburbs is considered as a very important element to understand the suburbanization processes of metropolis. The relation between segregation and residential mobility goes back to the relation between mobility and the modern metropolis.

Suburbanisation is considered to be the most important process of socio-spatial change in metropolitan regions in many transition countries. Two population groups contribute to migration into the suburbs as a result of socioeconomic transformations in central and eastern Europe. First, people with lower social status seek cheaper living conditions outside the major cities. Secondly, the suburbanisation process was also initiated by people with higher social status who created a demand for new singlefamily dwellings in environmentally attractive and accessible suburban areas, a process that coincided with the spread of car transport. The moves of the wealthiest

are influenced by the low quality of the existing housing stock as well as environmental concerns in major cities (Kährik and Tammaru, 2008).

Turner (1968) suggests a two-stage process for rural–urban migrants in urbanizing countries: initial settlement in central city slum rental units and subsequent intraurban relocation to peripheral self-help shanties or housing. The choice of housing represents a compromise among three housing needs: access, amenity and tenure. Inner-city slums are the major receiving areas for new migrants who view proximity to employment as the highest priority. As migrants improve their income level, they move to build peripheral informal shanties for residential stability or ownership and then upgrade shanty dwellings over time into more substantial houses to allow for amenity considerations. Turner's notion of upward housing mobility of migrants, from slum renters to squatter owners, concurs with the popular belief contrasting 'slum of despair' and 'shantytown of hope' (Conway, 1985). Following Turner, a large number of studies have been conducted across Latin America and in some African and Asian countries. Many agree with Turner's notion of housing mobility in which most new migrants rent or share and are likely to move into an ownership of self-help housing later (Wu, 2005).

While the life-course and, to a lesser extent, socioeconomic factors are established predictors of the decision to move, it is less clear how they influence the choice of a destination, that is, whether to move to (or within) a suburb or to (or within) a central city. The locational amenities that increase the attractiveness of suburbs, including low-density housing, high-quality schools, and less crime, are especially salient for young families with children (Frey and Kobrin 1982). Hence, although the presence of children may, in general, deter mobility, their presence may be less likely to deter, and may actually increase, the likelihood of moving from cities to suburbs. In contrast, central cities are believed to be the preferred location for young unmarried persons and for childless married couples, who evince higher suburb-to-city mobility than do husband-wife families with children (Frey and Kobrin 1982; South and Crowder, 1997).

Socioeconomic factors, although only weakly related to local residential mobility per se, may nonetheless be important in the decision to relocate to a city or suburb. Greater economic resources should enable potential movers to satisfy preferences for suburban locations, which are generally favored over large cities and nonmetropolitan communities (Fuguitt and Brown 1990). By the same logic, because high socioeconomic groups are likely to remain in the suburbs once having moved there, moving from suburb to city is expected to be inversely related to socioeconomic status (Nelson and Edwards 1993). Nelson (1988) demonstrates that, among movers, the choice of a city location rather than a suburban location declines with income. The source of income may also be important. Kasarda (1988, 1989), for example, suggests that the receipt of public assistance inhibits mobility from deteriorating inner cities to suburbs, the locus of most entry-level job growth in recent decades (South and Crowder, 1997).

Although this life-cycle perspective on residential mobility has become the dominant model for explaining the migration of whites between cities and suburbs, it has been argued that this model is much less relevant for explaining the mobility patterns of African Americans (Logan and Alba 1993). Suburbanization of blacks has increased markedly in recent decades but blacks remain overrepresented in central cities (Schneider and Phelan 1993). Moreover, black suburbanites tend to be concentrated in predominantly black suburban communities (Alba and Logan 1993), usually adjacent to central cities and characterized by residential instability, weak property-tax bases, low average incomes, and high crime (Alba, Logan, and Bellair, 1994; South and Crowder, 1997).

These racial differences in suburbanization patterns (and intrametropolitan residential distributions more generally) have inspired the development of an alternative theoretical perspective on urban locational attainments.

With respect to moves between ethnic and predominantly white neighbourhoods, three models can be distinguished in the residential segregation literature: the spatial assimilation model, the place stratification model, and the ethnic enclave model. Whereas the segregation and the residential mobility literatures too often form two worlds apart, these models offer a chance to combine insights from both angles. The three models each emphasise different aspects of the residential mobility process. The spatial assimilation model concentrates on the individual level and regards the residential moves of minority group members as a consequence of their preferences as well as of their resources and restrictions. The place stratification model, on the other hand, focuses on the macro level, stressing the constraints that minority groups have to face on the housing market. The ethnic enclave model, finally, is centred on the individual preference of minority ethnic households. Unlike the assimilation model, the enclave model questions the idea that the neighbourhood preferences of ethnic minorities will become more and more in line with the preferences of the native majority as their duration of stay in the host society lengthens (Bolt and van Kempen, 2010).

#### 2.3.2 Macro-analytical approaches of residential mobility

As opposed to the relatively recent interest in the micro, or behavioural, approach to residential mobility, **the macro, or aggregate, approach** is rooted in the ecological studies of urbanism that became popular in the early part of this century (Albig, 1933). Both the classical models of urban growth developed during this period, by Burgess and Hoyt (Johnston, 1971), contain statements with respect to residential mobility (Cadwallader, 1982).

The protagonists of the Chicago School, deeply inspired by the Simmelian treatment of mobility and social change – R.E. Park was Simmel's student – translated the theoretical construction to a research agenda for social change in the modern metropolis. Subsequently they presented, among many other things, their model of the social patterning of urban growth – the Burgess zonal model – in which mobility and segregation were key elements related by competition. Increased mobility in both its social and spatial components was conceived as the product of growing competition. Social mobility was seen as a consequence of the process of individuation that broke up old bonds and attachments through the occupational opportunities and moral choices offered in the urban context (Park, 1957a). At the same time, competition induces segregation, since 'change of occupation, personal success or failure ... tend to be registered in changes in location' (Park, 1957b). In 'the expansion of the city a process of distribution takes place which shifts and sorts and relocates individuals and groups by residence and occupation' (Burgess, 1996: 158) (Maloutas, 2004).

Burgess, in his concentric zone model, argues that recent migrants to the city generally locate towards the centre of that city, and then, over time, move out towards the edge of the city via a filtering of housing process. This process produces a temporal succession of occupancy, whereby progressively poorer households are located at any particular distance from the centre of the city.

The rationale of the Burgess model privileges one form of mobility (residential mobility) over the others and especially over social mobility.4 Social and residential mobility are in fact conflated through the assumption that the socially mobile will inevitably relocate. (Maloutas, 2004).

The models of social distribution in urban space that were subsequently developed as competitors to the Burgess model did not challenge its emphasis on residential mobility as the vehicle of segregation, but rather the resulting spatial form and/or the definition of the social actors instigating the mobility process. In contrast to this zonal formulation of Burgess, the sectoral growth model of Hoyt argues that the outward movement of high rent districts is associated with particular transportation routes radiating outward from the central business district (Cadwallader, 1982). Hoyt's model, described a sectoral rather than a zonal pattern of socio-spatial differentiation and related its dynamic to the behaviour of the more affluent social strata who preempted the most desirable locations in the easily accessible suburbs and abandoned their former areas of residence to a process of filtering down (Knox, 1995, Maloutas, 2004).

More recently, the attention of macro-analysts has been focussed upon the spatial distribution of residential mobility rates associated with urban sub-areas, such as census tracts or blocks, and the relationship between these mobility rates and other socio-economic and demographic characteristics (Short, 1978). For example, Moore (1971) has made a detailed study of the distribution of mobility rates in Brisbane, Australia. He suggests that residential mobility is a direct function of population density, as the latter is a surrogate for a variety of other variables, such as patterns of tenure and demographic structure, which are considered to be related to movement propensity. From 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), and Moore provides evidence that this is indeed the case for Brisbane (Cadwallader, 1982).

The same author (Moore, 1969) has also attempted to identify the relationship between mobility rates and selected socio-economic and demographic variables, again using data from Brisbane. He develops a causal model involving variables such as age, distance from the central business district, percentage of dwellings owneroccupied, and percentage of Australian born, and suggests that these variables are

23

comparatively successful in terms of accounting for the systematic variation in the spatial pattern of mobility rates. Moore's causal model, however, is deficient in at least two respects which are characteristic of work of this genre. First, the explanatory variables were selected in an *ad hoc* fashion, rather than on the basis of any underlying theoretical framework. Second, the model is recursive in nature, and thus does not consider the possibility of two-way causation. The exclusion of two-way causality presents a major theoretical problem, as it can be reasonably argued that, although the socio-economic characteristics of urban sub-areas undoubtedly influence the magnitude of residential mobility rates, the reverse is also equally true (Cadwallader, 1982).

#### 3. INTRA-METROPOLITAN MOBILITY PATTERNS IN ISTANBUL

In the empirical part of the study, the residential mobility in Marmara Region, intrametropolitan mobility in Istanbul Interaction Field, intra-metropolitan mobility between the urban settlements and the rural settlements of the districts of Istanbul Interaction Field have been analyzed.

#### 3.1 Aim, Focus, Data and Methodology

#### 3.1.1 Aim and focus of the thesis

In this study, the aim is to figure out the intra-metropolitan mobility in Istanbul by considering its metropolitan field within Marmara Region. The concept of "intra-metropolitan mobility" has been recently cited by the authors. In order to study this topic, the thesis focuses on the individuals who had moved from one district to another in 5 year periods.

#### 3.1.2 Hypothesis

 $h_1$  - Istanbul has strong relations with its surroundings when the mobility flows of individuals in all districts of Marmara Region are considered as a whole.

 $h_2$  - The mobility in between the districts of Istanbul is more significant than the mobility between the districts of Istanbul and the districts of other provinces.

 $h_3$  - The interaction between the districts of Istanbul and the district of the other provinces of Marmara Region with respect to the individuals' mobility, is more in the 1995-2000 period then the 1985-1990 period.

 $h_4$  - In the 1985-1990 period, the districts of Istanbul have more interaction with the districts of other provinces when they are only evaluated as destination units.

 $h_5$  - In the 1995-2000 period, the districts of Istanbul have more interaction with the districts of other provinces when they are only evaluated as origin units.

 $h_6$  - The individuals from the same districts generally have similar mobility behaviours such that they moved to the same districts.

 $h_7$  - The mobility behaviours show different characteristics when they are evaluated according to the origins and destinations are rural and/or urban areas.

 $h_8$  - The individuals who have the same mobility profiles regarding their educational levels and economical activities have similar features.

#### 3.1.3 Data and methodology

All quantitative data of the study is derived from the census of 1990 and 2000. Turkish Statistical Institute's (TSI) both censuses of 1990 and 2000 contain 5% sample of all population in Turkey.

Two questions from the census are significant for the analyses of intra-regional and intra-metropolitan mobility: (1. In which district did you use to live 5 years ago? 2. In which district do you live now?). For the analyses of the movers profiles, the data of the economic activities and the educational levels of the individuls is used.

Two methods have been used for analysing the data. First of all, a data reduction method has been used for summarizing and depicting qualitative contrast invisible to the naked eye. By clustering the origin and destination units according to their distinctive and similar arrival and departure profiles, a chaotic picture of a huge original interaction matrix of 1985-1990 and 1995-2000 mobility flows can be communicable. Clustering the districts of origins and destinations is not a random grouping. Every origin and destination profiles of the districts in the same group must be similar.

Secondly, this study uses Correspondence Analysis, a variant of factor analysis devised for reducing large data sets.<sup>1</sup> The Correspondence Analysis is an efficient data reduction tool summarizing large data sets with manuel and measurable information losses (Güvenç and Kirmanoğlu, 2009). Rows and the coloumns of the data set are considered as data **profiles** and are represented via **points** with known coordinates. The profile of each row is represented through a **row-point** and that of each column is represented through a **coloumn-point**. The representation of a data set with N rows and M columns with **n row-points** and **m column points** produces a substantive economy. This property, has, as we are going to see, interesting implications for the strafication, categorization and cartographic representation of qualitative sets (Güvenç and Kirmanoğlu, 2009).

Correspondence Analysis produces a permuted correspondence table that allows us to see permutations of the correspondence table. The correspondence table is reorganized such that the rows and columns are in increasing order according to the scores on the first dimension. In the study, 4 types of table are produced from these permuted correspondence tables.

**Flows in absolute numbers** table shows the mobility from one group of districts to another by the absolute numbers of individuals. The rows of the table contain the group of districts showing similar origin profiles, while the columns contain the districts which have similar destination profiles. These groups had been formed by clustering signed chi square values of all districts.

**Signed chi square indices** table shows signed chi square values of the groups. They get positive value where the mobility from one group to another is over-represented, on the contrary they get a negative value where the mobility from one group to another is under-represented.

Another way to perceive the over-represented mobility according to the signed chi square index is to evaluate the mobility by percentages of arrival and departure points. **Distinctive arrival** and **departure profiles%'s** tables show the percentages of the groups of origins and destinations.

#### 3.2 Analyses of Residential Mobility in Marmara Region

In this part of the study about the 1985-1990 and the 1995-2000 periods, mobility behaviours between the districts which belong to the provinces in TR 1 Istanbul, TR 2 Western Marmara and TR4 Eastern Marmara NUTS Level 1 Regions have been analyzed by clustering the districts which show similar origin and destination profiles. Intra-urban mobility in Istanbul itself and interaction between the districts of Istanbul and other districts in Marmara Region have been evaluated according to the origin and destination profiles of all districts. Thus, to have a knowledge about the boundaries of Istanbul Metropolitan Region at these periods could be possible.

In this study, TR 1 Istanbul, TR 2 Western Marmara and TR4 Eastern Marmara NUTS Level 1 Regions are called "Marmara Region" in brief.

#### 3.2.1 Residential mobility in Marmara Region between 1985-1990

In the 1985-1990 period, Marmara Region has 12 provinces including 155 districts. Table 3.1 shows NUTS Level 1, Level 2 and Level 3 Regions (see Table 3.1).

| NUTS Level 1    | NUTS Level 2      | NUTS Level 3        |
|-----------------|-------------------|---------------------|
| TR 1 – ISTANBUL | TR 10 - ISTANBUL  | TR 100 - Istanbul   |
|                 |                   | TR 211 – Tekirdağ   |
| TR 2 – WESTERN  | TR21 – TEKİRDAĞ   | TR 212 – Edirne     |
| MARMARA         |                   | TR 213 – Kırklareli |
|                 | TR22 – BALIKESİR  | TR 221 – Balıkesir  |
|                 | I K22 – BALIKESIK | TR 222 – Çanakkale  |
|                 |                   | TR 411 – Bursa      |
|                 | TR 41 - BURSA     | TR 412 – Eskişehir  |
| TR 4 – EASTERN  |                   | TR 413 – Bilecik    |
| MARMARA         |                   | TR 421 – Kocaeli    |
|                 | TR 42 – KOCAELİ   | TR 422 – Sakarya    |
|                 |                   | TR 424 – Bolu       |

Table 3.1: Marmara NUTS regions 1990, EUROSTAT

**Table 3.2:** Reduced and reordered residential mobility matrix for Marmara Region 1985-1990 (flows in absolute numbers)

| Districts of<br>Origin (1985)     |      | Districts of Destination (1990) |       |      |     |         |          |         |     |      |     |     |                   |
|-----------------------------------|------|---------------------------------|-------|------|-----|---------|----------|---------|-----|------|-----|-----|-------------------|
|                                   | 1    | 2                               | 3     | 4    | 5   | 6       | 7        | 8       | 9   | 10   | 11  | 12  | Arrivals<br>Total |
| 1                                 | 5332 | 212                             | 3316  | 189  | 8   | 495     | 43       | 191     | 14  | 201  | 84  | 4   | 10089             |
| 2                                 | 1018 | 1543                            | 9306  | 225  | 3   | 538     | 60       | 161     | 0   | 128  | 36  | 2   | 13020             |
| 3                                 | 579  | 226                             | 20690 | 2815 | 48  | 562     | 107      | 523     | 12  | 481  | 208 | 15  | 26266             |
| 4                                 | 6    | 7                               | 321   | 474  | 310 | 16      | 3        | 20      | 0   | 22   | 9   | 0   | 1188              |
| 5                                 | 173  | 102                             | 1105  | 83   | 0   | 1450    | 20       | 122     | 3   | 88   | 21  | 0   | 3167              |
| 6                                 | 85   | 40                              | 1223  | 209  | 4   | 171     | 446      | 1536    | 263 | 314  | 299 | 15  | 4605              |
| 7                                 | 1    | 0                               | 34    | 16   | 0   | 13      | 10       | 482     | 2   | 28   | 1   | 0   | 587               |
| 8                                 | 37   | 23                              | 810   | 126  | 0   | 94      | 25       | 345     | 7   | 2954 | 82  | 1   | 4504              |
| 9                                 | 4    | 1                               | 67    | 14   | 0   | 6       | 0        | 56      | 42  | 41   | 906 | 0   | 1137              |
| 10                                | 0    | 3                               | 66    | 13   | 0   | 3       | 5        | 53      | 0   | 11   | 0   | 226 | 380               |
| Departures<br>Total               |      |                                 |       |      |     |         |          |         |     |      |     |     |                   |
| Source: Derive<br>See Table 3.4 a |      |                                 |       |      |     | 990 Pop | oulation | Census, | 151 |      |     |     |                   |

Total number of the individuals representing a 5% sample of all the population which moved from one district to another in defined area is 64943 (see Table 3.2). The 3rd group of origins has more than one third of individuals, and the 3rd group of destinations has more than half the number of individuals of the sample total.

| Districts<br>of Origin<br>(1985) | Districts of Destination (1990)  |            |             |            |         |        |       |        |       |         |         |       |
|----------------------------------|--|------------|-------------|------------|---------|--------|-------|--------|-------|---------|---------|-------|
|                                  | 1  | 2          | 3           | 4          | 5       | 6      | 7     | 8      | 9     | 10      | 11      | 12    |
| 1                                | 15754,5  | -45,2      | -<br>1022,6 | -<br>324,1 | -43,1   | -1,2   | -42,3 | -227,3 | -29,0 | -322,0  | -115,3  | -33,2 |
| 2                                | -129,0   | 2852       | 487,8       | -446       | -68,9   | -26,4  | -49,1 | -414,5 | -68,8 | -618,8  | -261,9  | -48,8 |
| 3                                | -1882,7  | -479       | 2213,5      | 759,4      | -70,1   | -463,3 | -116  | -559,0 | -116  | -898,2  | -314,7  | -78,5 |
| 4                                | -120,6   | -26,7      | -186,2      | 2078       | 13471   | -33,4  | -7,8  | -30,1  | -6,3  | -40,3   | -14,8   | -4,8  |
| 5                                | -91,6  | -0,1       | -269,2      | -71,0      | -18,2   | 10141  | -6,5  | -13,6  | -11,3 | -69,3   | -43,8   | -12,8 |
| 6                                | -357,1   | -83,4      | -744,3      | -25,2      | -19,1   | -18,6  | 3061  | 6712   | 2342  | 0,4     | 284,7   | -0,7  |
| 7                                | -63,4  | -19,5      | -269,3      | -12,4      | -3,4    | -9,8   | 1,9   | 6435   | -0,4  | -2,9    | -12,9   | -2,4  |
| 8                                | -430,5   | -107       | -1198       | -91,8      | -25,9   | -82,2  | -12,4 | 43,9   | -11,8 | 23868,2 | -9,1    | -16,3 |
| 9                                | -118,8   | -35,8      | -519,6      | -47,6      | -6,5    | -47,2  | -12,6 | -0,4   | 215,8 | -15,2   | 26700,7 | -4,6  |
| 10                               | -42,3  | -7,3       | -104,3      | -5,3       | -2,2    | -14,0  | 0,1   | 52,0   | -2,0  | -7,8    | -9,6    | 32740 |
| Source: I                        | Source: Derived from the 5% Public Use Sample of the 1990 Population Census, TSI |            |             |            |         |        |       |        |       |         |         |       |
| See Table                        | e 3.4 and Ta   | able 3.5 t | for the co  | ntent of g | groups. |        |       |        |       |         |         |       |

 Table 3.3: Reduced and reordered residential mobility matrix for Marmara Region 1985-1990 (signed chi square indices)

The over-represented mobility can be clearly seen in the table above (see Table 3.3). The districts belonging to Istanbul only appear in the 1st, 2nd and 3rd groups as origins, and the 1st, 2nd, 3rd and the 4th groups as destinations. These groups contain all the districts of Istanbul and also the districts which have over-represented mobility flows from and/or to Istanbul. In other words, the other groups comprise the districts which have under-represented mobility flows to/from Istanbul.

Table 3.4 and Table 3.5 reveal the districts which are comprised in groups.

The 1st group of origins contains only Bakırköy which has a distinctive profile as an origin. Mobility from Bakırköy to the 1st group of destinations which includes only Küçükçekmece is extremely over-represented such that no other districts have a positive signed chi square value neither as an origin, nor a destination unit.

Figure 3.1 is a representation of the residential mobility flows in Marmara Region between 1995-2000.

The over-represented mobility flows are shown by the arrows. As it can be seen in the figure, the most over-represented mobility flows were from/to the districts of Istanbul.

 Table 3.4: Residential mobility in Marmara Region 1985-1990 (districts of origin)

| 1  | ISTANBUL (Bakırköy)   |
|----|---|
| 2  | <b>ISTANBUL</b> (Bayrampaşa, Eminönü, Eyüp, Fatih, Gaziosmanpaşa, Küçükçekmece, Zeytinburnu,<br>Büyükçekmece, Çatalca, Silivri ), EDİRNE (Centre), TEKİRDAĞ (Centre)  |
| 3  | ISTANBUL (Adalar, Beşiktaş, Beykoz, Beyoğlu, Kadıköy, Kağıthane, Kartal, Pendik, Sarıyer, Şişli,<br>Ümraniye, Üsküdar, Şile, Yalova)<br>BALIKESİR (Marmara), BOLU (Centre, Dörtdivan, Gerede, Göynük), BURSA (Kestel), ESKİŞEHİR<br>(Günyüzü)<br>KOCAELİ (Centre, Gebze, Gölcük, Kandıra, Karamürsel, Körfez), SAKARYA (Centre, Akyazı,<br>Ferizli, Geyve, Hendek, Karapürçek, Karasu, Kaynarca, Kocaali, Pamukova, Sapanca, Söğütlü) |
| 4  | BOLU (Akçakoca, Cumaova, Çılımlı, Düzce, Gölkaya, Kıbrısçık, Mengen, Mudurnu, Seben, Yeniçağa, Yığılca)   |
| 5  | ÇANAKKALE (Gelibolu), EDİRNE (Enez, Havsa, İpsala, Keşan, Lalapaşa, Meriç, Süleoğlu,<br>Uzunköprü), KIRKLARELİ (Centre, Babaeski, Demirköy, Kofçaz, Lüleburgaz, Pehlivanköy,<br>Pınarhisar, Vize), SAKARYA (Taraklı), TEKİRDAĞ (Çerkezköy, Çorlu, Hayrabolu, Malkara,<br>Marmara Ereğlisi, Muratlı, Saray, Şarköy)  |
| 6  | BALIKESİR (Centre, Ayvalık, Bandırma, Burhaniye, Dursunbey, Edremit, Gömeç, Gönen, Havran,<br>İvrindi, Susurluk), BİLECİK (Centre, Bozüyük, Gölpazarı, Osmaneli, Pazaryeri, Yenipazar), BURSA<br>(Centre), ÇANAKKALE (Centre, Ayvacık, Bayramiç, Biga, Bozcaada, Çan, Eceabat, Ezine,<br>Gökçeada, Lapseki, Yenice), ESKİŞEHİR (Centre, Beylikova, İnönü)   |
| 7  | BALIKESİR (Balya, Bigadiç, Kepsut, Manyas, Savaştepe, Sındırgı)   |
| 8  | BİLECİK (İnhisar), BURSA (Nilüfer, Osmangazi, Yıldırım, Büyükorhan, Gemlik, Gürsu, Harmancık,<br>İnegöl, İznik, Karacabey, Keles, Mudanya, M.Kemalpaşa, Orhanlı, Orhangazi, Yenişehir)  |
| 9  | BİLECİK (Söğüt), ESKİŞEHİR (Alpu, Çifteler, Han, Mahmudiye, Mihalgazi, Mihalıççık, Sarıcakaya, Seyitgazi, Sivrihisar)   |
| 10 | BALIKESİR (Erdek)   |

# **Table 3.5:** Residential mobility in Marmara Region 1985-1990 (districts of destination)

| 1  | ISTANBUL (Küçükçekmece)   |
|----|---|
| 2  | ISTANBUL (Bayrampaşa)   |
| 3  | ISTANBUL (Adalar, Bakırköy, Beşiktaş, Beykoz, Beyoğlu, Eminönü, Eyüp, Fatih, Gaziosmanpaşa,<br>Kadıköy, Kağıthane, Kartal, Pendik, Sarıyer, Şişli, Ümraniye, Üsküdar, Zeytinburnu, Büyükçekmece,<br>Çatalca, Silivri, Şile, Yalova), BURSA (Büyükorhan, İnegöl), ÇANAKKALE (Gelibolu), EDİRNE<br>(Lalapaşa, Süleoğlu), KOCAELİ (Gebze), SAKARYA (Sapanca)                                     |
| 4  | BİLECİK (Gölpazarı), BOLU (Centre, Akçakoca, Dörtdivan, Düzce, Gerede, Göynük, Mengen,<br>Seben, Yeniçağa, Yığılca), KOCAELİ (Centre, Gölcük, Kandıra, Karamürsel, Körfez), SAKARYA<br>(Centre, Akyazı, Ferizli, Geyve, Hendek, Karapürçek, Karasu, Kaynarca, Kocaali, Pamukova, Söğütlü,<br>Taraklı)   |
| 5  | BOLU (Cumaova, Çılımlı, Gölyaka)  |
| 6  | EDİRNE (Centre, Enez, Havsa, İpsala, Keşan, Meriç, Uzunköprü), KIRKLARELİ (Centre, Babaeski,<br>Demirköy, Kofçaz, Lüleburgaz, Pehlivanköy, Pınarhisar, Vize), TEKİRDAĞ (Centre, Çerkezköy,<br>Çorlu, Hayrabolu, Malkara, Marmara Ereğlisi, Muratlı, Saray, Şarköy)  |
| 7  | ÇANAKKALE (Centre, Bayramiç, Biga, Bozcaada, Ezine, Lapseki, Yenice)  |
| 8  | BALIKESİR (Centre, Ayvalık, Balya, Bandırma, Bigadiç, Burhaniye, Dursunbey, Edremit, Erdek,<br>Gönen, Havran, İvrindi, Kepsut, Manyas, Savaştepe, Sındırgı, Susurluk), BİLECİK (Centre, Bozüyük,<br>Osmaneli, Pazaryeri, Söğüt, Yenipazar), BOLU (Kıbrısçık, Mudurnu), BURSA (Karacabey, M.<br>Kemalpaşa), ÇANAKKALE (Ayvacık, Çan, Eceabat, Gökçeada), ESKİŞEHİR (Mihalıççık,<br>Sarıcakaya) |
| 9  | BALIKESİR (Gömeç), ESKİŞEHİR (Alpu, Mahmudiye, Seyitgazi, Sivrihisar)   |
| 10 | BURSA (Nilüfer, Osmangazi, Yıldırım, Gemlik, Gürsu, Harmancık, İznik, Keleş, Kestel, Mudanya, Orhaneli, Orhangazi, Yenişehir)   |
| 11 | BİLECİK (İnhisar), ESKİŞEHİR (Centre, Beylikova, Çifteler, Günyüzü, Han, İnönü, Mihalgazi)  |
| 12 | BALIKESİR (Marmara)   |

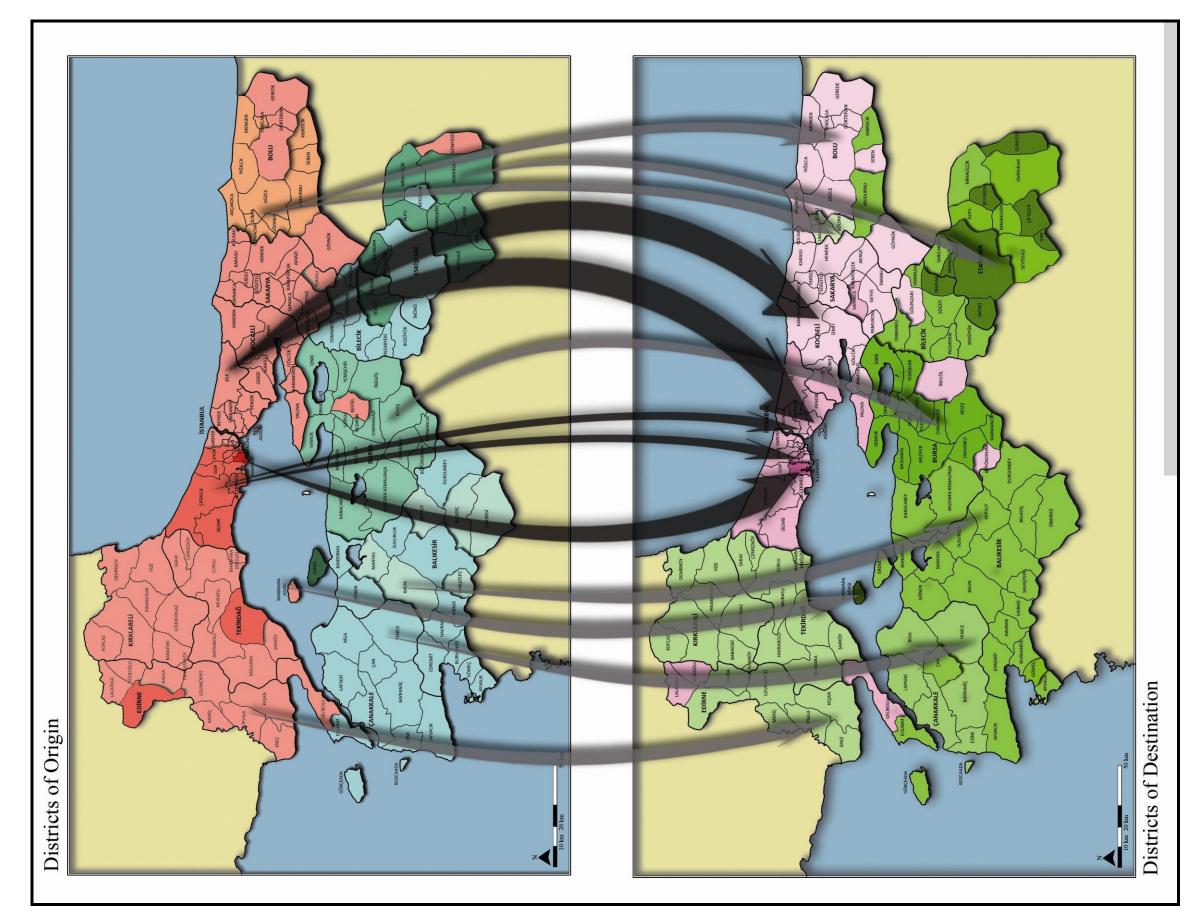


Figure 3.1 : Residential Mobility in Marmara Region between 1985-1990.

The 2nd group of origins includes Bayrampaşa, Eminönü, Eyüp, Fatih, Gaziosmanpaşa, Küçükçekmece, Zeytinburnu, Büyükçekmece, Çatalca and Silivri districts of Istanbul, Central Edirne and Central Tekirdağ. The inividuals who moved from these districts substantially moved to the 2nd group which includes only Bayrampaşa and also to the 3rd group which includes all the districts of Istanbul except Bayrampaşa and Küçükçekmece and few districts of Bursa, Çanakkale, Edirne, Kocaeli and Sakarya.

The 3rd group of orgins comprises a great number of districts including Adalar, Beşiktaş, Beykoz, Beyoğlu, Kadıköy, Kağıthane, Kartal, Pendik, Sarıyer, Şişli, Ümraniye, Üsküdar, Şile and Yalova districts of Istanbul and numerous districts of Bolu, Kocaeli and Sakarya, and one each from Balıkesir, Bursa and Eskişehir. The individuals who moved from these districts substantially placed in the 3rd group, and less in the 4th which does not contain any districts of Istanbul.

| Districts of<br>Origin (1985) |   | Districts of Destination (1990) |      |      |      |      |      |      |      |      |      |      |               |
|-------------------------------|---|---------------------------------|------|------|------|------|------|------|------|------|------|------|---------------|
|                               | 1   | 2                               | 3    | 4    | 5    | 6    | 7    | 8    | 9    | 10   | 11   | 12   | Arrivals<br>% |
| 1                             | 73,7  | 9,8                             | 9,0  | 4,5  | 2,1  | 14,8 | 6,0  | 5,5  | 4,1  | 4,7  | 5,1  | 1,5  | 15,5          |
| 2                             | 14,1  | 71,5                            | 25,2 | 5,4  | 0,8  | 16,1 | 8,3  | 4,6  | 0,0  | 3,0  | 2,2  | 0,8  | 20,0          |
| 3                             | 8,0   | 10,5                            | 56,0 | 67,6 | 12,9 | 16,8 | 14,9 | 15,0 | 3,5  | 11,3 | 12,6 | 5,7  | 40,4          |
| 4                             | 0,1   | 0,3                             | 0,9  | 11,4 | 83,1 | 0,5  | 0,4  | 0,6  | 0,0  | 0,5  | 0,5  | 0,0  | 1,8           |
| 5                             | 2,4   | 4,7                             | 3,0  | 2,0  | 0,0  | 43,3 | 2,8  | 3,5  | 0,9  | 2,1  | 1,3  | 0,0  | 4,9           |
| 6                             | 1,2   | 1,9                             | 3,3  | 5,0  | 1,1  | 5,1  | 62,0 | 44,0 | 76,7 | 7,4  | 18,2 | 5,7  | 7,1           |
| 7                             | 0,0   | 0,0                             | 0,1  | 0,4  | 0,0  | 0,4  | 1,4  | 13,8 | 0,6  | 0,7  | 0,1  | 0,0  | 0,9           |
| 8                             | 0,5   | 1,1                             | 2,2  | 3,0  | 0,0  | 2,8  | 3,5  | 9,9  | 2,0  | 69,2 | 5,0  | 0,4  | 6,9           |
| 9                             | 0,1   | 0,0                             | 0,2  | 0,3  | 0,0  | 0,2  | 0,0  | 1,6  | 12,2 | 1,0  | 55,0 | 0,0  | 1,8           |
| 10                            | 0,0   | 0,1                             | 0,2  | 0,3  | 0,0  | 0,1  | 0,7  | 1,5  | 0,0  | 0,3  | 0,0  | 85,9 | 0,6           |
| Departures%                   | 100   | 100                             | 100  | 100  | 100  | 100  | 100  | 100  | 100  | 100  | 100  | 100  | 100           |
|                               | Gepartures%       100 |                                 |      |      |      |      |      |      |      |      |      |      |               |

**Table 3.6:** Reduced and reordered residential mobility matrix for Marmara Region 1985-1990 (distinctive arrival profiles%'s)

Table 3.6 shows the percentages of the mobility flows according to their distinctive arrival profiles.

The 1st group of destinations received 73.7% of all its movers from the 1st group of origins which comprises 15,5% of all departures.

The 2nd group of destinations received 71.5% of all its movers from the 2nd group of origins which comprises 20.0% of all departures.

The 3rd group of destinations received 56.0% of all its movers from the 3rd group, and 25.2% of all its movers from the 2nd group of origins.

The 4th group of destinations received 67,6% of all its movers from the 3rd group of origins which contains 40.2% of all departures.

| Districts of<br>Origin (1985) |  | Districts of Destination (1990) |           |           |        |      |     |      |     |      |          |      |               |
|-------------------------------|--|---------------------------------|-----------|-----------|--------|------|-----|------|-----|------|----------|------|---------------|
|                               | 1  | 2                               | 3         | 4         | 5      | 6    | 7   | 8    | 9   | 10   | 11       | 12   | Arrivals<br>% |
| 1                             | 52,8   | 2,1                             | 32,9      | 1,9       | 0,1    | 4,9  | 0,4 | 1,9  | 0,1 | 2,0  | 0,8      | 0,0  | 100           |
| 2                             | 7,8  | 11,9                            | 71,5      | 1,7       | 0,0    | 4,1  | 0,5 | 1,2  | 0,0 | 1,0  | 0,3      | 0,0  | 100           |
| 3                             | 2,2  | 0,9                             | 78,8      | 10,7      | 0,2    | 2,1  | 0,4 | 2,0  | 0,0 | 1,8  | 0,8      | 0,1  | 100           |
| 4                             | 0,5  | 0,6                             | 27,0      | 39,9      | 26,1   | 1,3  | 0,3 | 1,7  | 0,0 | 1,9  | 0,8      | 0,0  | 100           |
| 5                             | 5,5  | 3,2                             | 34,9      | 2,6       | 0,0    | 45,8 | 0,6 | 3,9  | 0,1 | 2,8  | 0,7      | 0,0  | 100           |
| 6                             | 1,8  | 0,9                             | 26,6      | 4,5       | 0,1    | 3,7  | 9,7 | 33,4 | 5,7 | 6,8  | 6,5      | 0,3  | 100           |
| 7                             | 0,2  | 0,0                             | 5,8       | 2,7       | 0,0    | 2,2  | 1,7 | 82,1 | 0,3 | 4,8  | 0,2      | 0,0  | 100           |
| 8                             | 0,8  | 0,5                             | 18,0      | 2,8       | 0,0    | 2,1  | 0,6 | 7,7  | 0,2 | 65,6 | 1,8      | 0,0  | 100           |
| 9                             | 0,4  | 0,1                             | 5,9       | 1,2       | 0,0    | 0,5  | 0,0 | 4,9  | 3,7 | 3,6  | 79,<br>7 | 0,0  | 100           |
| 10                            | 0,0  | 0,8                             | 17,4      | 3,4       | 0,0    | 0,8  | 1,3 | 13,9 | 0,0 | 2,9  | 0,0      | 59,5 | 100           |
| Departures%                   | 11,1   | 3,3                             | 56,9      | 6,4       | 0,6    | 5,2  | 1,1 | 5,4  | 0,5 | 6,6  | 2,5      | 0,4  | 100           |
| Source: Derive                | Source: Derived from the 5% Public Use Sample of the 1990 Population Census, TSI |                                 |           |           |        |      |     |      |     |      |          |      |               |
| See Table 3.4 a               | nd Table   | 3.5 fo                          | r the con | tent of g | roups. |      |     |      |     |      |          |      |               |

**Table 3.7:** Reduced and reordered residential mobility matrix for Marmara Region 1985-1990 (distinctive departure profiles%'s)

Table 3.7 shows the percentages of the mobility flows according to their distinctive departure profiles.

The 1st group of origins sent 52.8% of all its movers to the 1st group od destinations which contains 11.1% of all arrivals.

The 2nd group of origins sent 11.9% of all its movers to the 2nd group of destinations which comprises 3.3% of all arrivals, and 71.5% of all its movers to the 3rd group which includes 56.9% of all arrivals.

The 3rd group of origins sent 10.7% of all its movers to the 4th group of destinations which contains 6.4% of all arrivals, and 78.8% of all its movers to the 3rd group.

#### 3.2.2 Residential mobility in Marmara Region between 1995-2000

In the 1995-2000 period, Marmara Region has 14 provinces including 172 districts. Table 3.8 shows NUTS Level 1, Level 2 and Level 3 Regions (see Table 3.8).

| NUTS Level 1    | NUTS Level 2     | NUTS Level 3        |
|-----------------|------------------|---------------------|
| TR 1 – ISTANBUL | TR 10 - ISTANBUL | TR 100 - Istanbul   |
|                 |                  | TR 211 – Tekirdağ   |
| TR 2 – WESTERN  | TR21 – TEKİRDAĞ  | TR 212 – Edirne     |
| MARMARA         |                  | TR 213 – Kırklareli |
|                 | TR22 – BALIKESİR | TR 221 – Balıkesir  |
|                 | TK22 – DALIKESIK | TR 222 – Çanakkale  |
|                 |                  | TR 411 – Bursa      |
|                 | TR 41 - BURSA    | TR 412 – Eskişehir  |
|                 |                  | TR 413 – Bilecik    |
| TR 4 – EASTERN  |                  | TR 421 – Kocaeli    |
| MARMARA         |                  | TR 422 – Sakarya    |
|                 | TR 42 – KOCAELİ  | TR 423 – Düzce      |
|                 |                  | TR 424 – Bolu       |
|                 |                  | TR 425 - Yalova     |

Table 3.8: Marmara NUTS regions 2000, EUROSTAT

### **Table 3.9:** Reduced and reordered residential mobility matrix for Marmara Region 1995-2000 (flows in absolute numbers)

| Districts of<br>Origin (1995) |  | Districts of Destination (2000) |      |      |      |    |      |      |      |                   |  |
|-------------------------------|--|---------------------------------|------|------|------|----|------|------|------|-------------------|--|
|                               | 1  | 2                               | 3    | 4    | 5    | 6  | 7    | 8    | 9    | Arrivals<br>Total |  |
| 1                             | 27273  | 631                             | 202  | 283  | 608  | 0  | 619  | 295  | 569  | 30480             |  |
| 2                             | 19968  | 1238                            | 112  | 180  | 333  | 0  | 634  | 147  | 373  | 22985             |  |
| 3                             | 1714   | 2230                            | 15   | 81   | 107  | 0  | 249  | 59   | 126  | 4581              |  |
| 4                             | 623  | 68                              | 631  | 128  | 118  | 0  | 64   | 82   | 108  | 1822              |  |
| 5                             | 3602   | 307                             | 470  | 1535 | 1614 | 13 | 497  | 515  | 695  | 9248              |  |
| 6                             | 713  | 172                             | 7    | 50   | 82   | 0  | 1560 | 85   | 227  | 2896              |  |
| 7                             | 138  | 41                              | 8    | 13   | 21   | 0  | 832  | 18   | 132  | 1203              |  |
| 8                             | 144  | 26                              | 11   | 50   | 45   | 0  | 35   | 915  | 92   | 1318              |  |
| 9                             | 1044   | 171                             | 32   | 72   | 251  | 0  | 487  | 219  | 5039 | 7315              |  |
| Departures<br>Total           | 55219  | 4884                            | 1488 | 2392 | 3179 | 13 | 4977 | 2335 | 7361 | 81848             |  |
|                               | ource: Derived from the 5% Public Use Sample of the 2000 Population Census, TSI<br>ee Table 3.11 and Table 3.12 for the content of groups. |                                 |      |      |      |    |      |      |      |                   |  |

Total number of individuals representing a 5% sample of all the population which moved from one district to another in defined area is 81848. The 1st group of destinations contains more than half of all the individuals (see Table 3.9).

| Districts of<br>Origin<br>(1995) | Districts of Destination (2000)  |         |         |        |        |      |         |         |         |  |
|----------------------------------|--|---------|---------|--------|--------|------|---------|---------|---------|--|
|                                  | 1  | 2       | 3       | 4      | 5      | 6    | 7       | 8       | 9       |  |
| 1                                | 2189,2   | -775,7  | -223,8  | -414,7 | -280,1 | -4,8 | -822,2  | -379,6  | -1721,3 |  |
| 2                                | 1283,4   | -13,0   | -223,9  | -360,0 | -351,0 | -3,7 | -417,3  | -394,7  | -1388,5 |  |
| 3                                | -613,1   | 14005,4 | -56,0   | -20,9  | -28,3  | -0,7 | -3,1    | -39,3   | -198,5  |  |
| 4                                | -299,0   | -15,3   | 10791,4 | 104,9  | 31,5   | -0,3 | -19,8   | 17,3    | -19,0   |  |
| 5                                | -1114,7  | -108,6  | 542,0   | 5918,3 | 4383,5 | 90,5 | -7,6    | 239,1   | -22,5   |  |
| 6                                | -788,0   | 0,0     | -39,6   | -14,2  | -8,3   | -0,5 | 10875,6 | 0,1     | -4,3    |  |
| 7                                | -559,1   | -13,2   | -8,8    | -14,0  | -14,2  | -0,2 | 7872,0  | -7,8    | 5,2     |  |
| 8                                | -624,5   | -35,2   | -7,0    | 3,4    | -0,7   | -0,2 | -25,4   | 20473,9 | -5,9    |  |
| 9                                | -3067,9  | -161,5  | -76,7   | -94,0  | -3,9   | -1,2 | 4,0     | 0,5     | 29176,2 |  |
|                                  | Source: Derived from the 5% Public Use Sample of the 2000 Population Census, TSI<br>See Table 3.11 and Table 3.12 for the content of groups. |         |         |        |        |      |         |         |         |  |

 Table 3.10: Reduced and reordered residential mobility matrix for Marmara Region 1995-2000 (signed chi square indices)

The over-represented mobility can be clearly seen in the table above (Table 3.10). The districts belonging to Istanbul only appear in the 1st and the 2nd groups as origins, and the 1st group as destinations. These groups contain all the districts of Istanbul and also the districts which have over-represented migration movements from and/or to Istanbul. In other words, the other groups comprise the districts which have under-represented mobility flows to/from Istanbul.

Table 3.11 and Table 3.12 reveal the districts which are comprised in group.

The 1st group of origins is generated from Adalar, Beşiktaş, Beykoz, Beyoğlu, Kadıköy, Kağıthane, Kartal, Maltepe, Pendik, Sarıyer, Şişli, Tuzla, Ümraniye, Üsküdar, Çatalca, Sultanbeyli and Şile, Tekirdağ Marmara Ereğlisi and Balıkesir Marmara. The individuals from these districts substantially moved to the 1st group which is generated from all the districts of Istanbul and Bursa Harmancık, Kırklareli Pehlivanköy, Kocaeli Gebze and Kandıra, Tekirdağ Marmara Ereğlisi and Şarköy.

The 2nd group which includes Avcılar, Bağcılar, Bahçelievler, Bakırköy, Bayrampaşa, Eminönü, Eyüp, Fatih, Gaziosmanpaşa, Güngören, Küçükçekmece, Zeytinburnu and Büyükçekmece moved to the 1st group as well.

Figure 3.2 is a representation of the residential mobility flows in Marmara Region between 1995-2000.

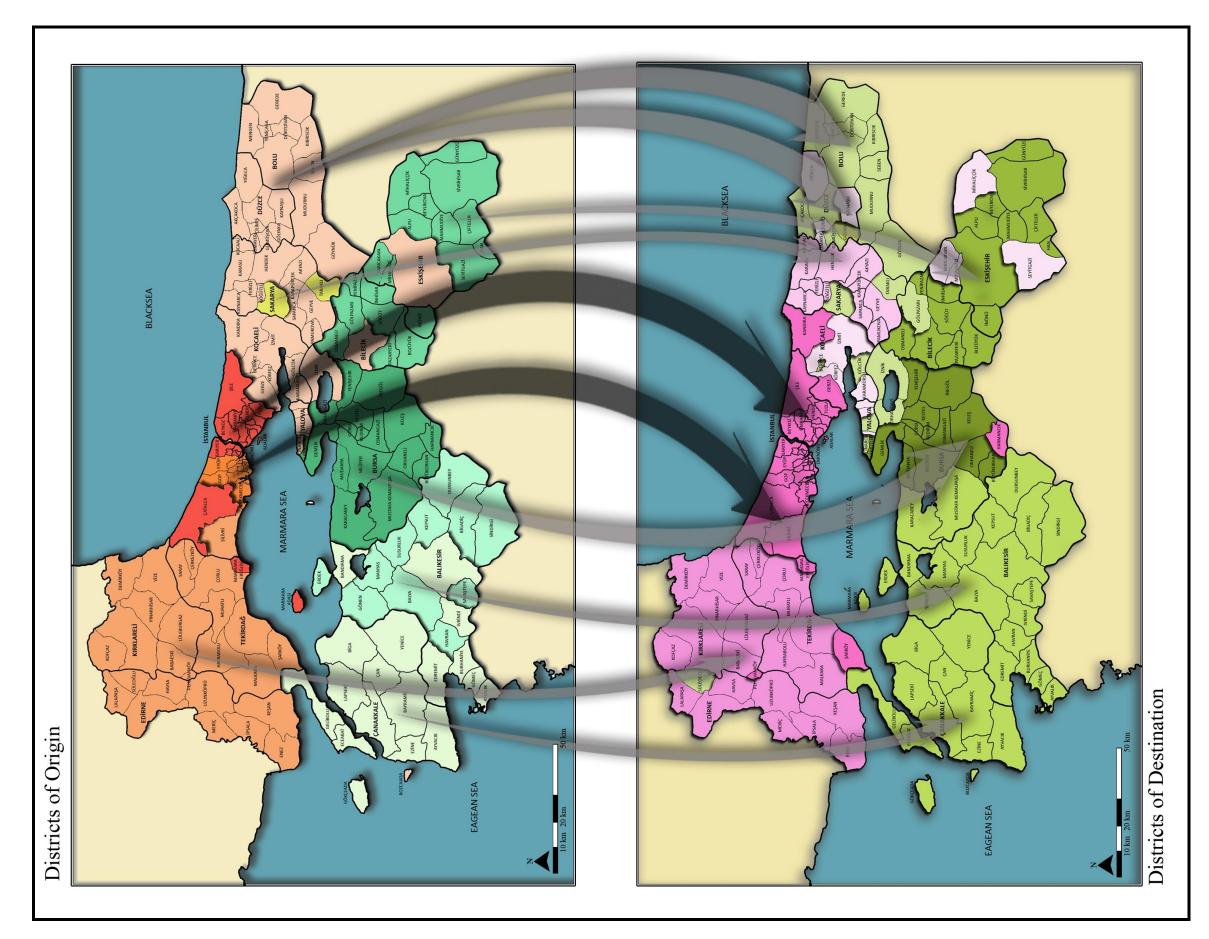


Figure 3.2 : Residential Mobility in Marmara Region between 1995-2000.

| 1 | ISTANBUL (Adalar, Beşiktaş, Beykoz, Beyoğlu, Kadıköy, Kağıthane, Kartal, Maltepe,<br>Pendik, Sarıyer, Şişli, Tuzla, Ümraniye, Üsküdar, Çatalca, Sultanbeyli, Şile), BALIKESİR<br>(Marmara), TEKİRDAĞ (Marmara Ereğlisi)  |
|---|--|
| 2 | <b>ISTANBUL</b> (Avcılar, Bağcılar, Bahçelievler, Bakırköy, Bayrampaşa, Eminönü, Esenler, Eyüp, Fatih, Gaziosmanpaşa, Güngören, Küçükçekmece, Zeytinburnu, Büyükçekmece)   |
| 3 | EDİRNE (Centre, Enez, Havsa, İpsala, Keşan, Lalapaşa, Meriç, Süleoğlu, Uzunköprü),<br>KIRKLARELİ (Centre, Babaeski, Demirköy, Kofçaz, Lüleburgaz, Pehlivanköy, Pınarhisar,<br>Vize), TEKİRDAĞ (Centre, Çerkezköy, Çorlu, Hayrabolu, Malkara, Muratlı, Saray, Şarköy)   |
| 4 | SAKARYA (Centre, Taraklı)  |
| 5 | BİLECİK (Centre), BOLU (Centre, Dörtdivan, Gerede, Göynük), BURSA (İznik),<br>ÇANAKKALE (Bozcaada), ESKİŞEHİR (Centre), KOCAELİ (Centre, Gebze, Gölcük,<br>Kandıra, Karamürsel, Körfez, Derince), SAKARYA (Akyazı, Ferizli, Geyve, Hendek,<br>Karapürçek, Karasu, Kaynarca, Kocaali, Pamukova, Sapanca, Söğütlü), YALOVA (Centre,<br>Altınova, Çınarcık, Çiftlikköy), DÜZCE (Centre, Akçakoca, Cumayeri, Çilimli, Gölkaya,<br>Gümüşova, Kaynaşlı, Yığılca) |
| 6 | BALIKESİR (Centre, Ayvalık, Balya, Bandırma, Burhaniye, Edremit, Gömeç, İvrindi),<br>ÇANAKKALE (Centre, Ayvacık, Bayramiç, Biga, Çan, Eceabat, Ezine, Gelibolu, Gökçeada,<br>Lapseki, Yenice), YALOVA (Termal)   |
| 7 | BALIKESİR (Bigadiç, Dursunbey, Erdek, Gönen, Havran, Kepsut, Manyas, Savaştepe, Sındırgı, Susurluk)  |
| 8 | BİLECİK (Bozüyük, Gölpazarı, İnhisar, Osmaneli, Pazaryeri, Söğüt, Yenipazar),<br>ESKİŞEHİR (Alpu, Beylikova, Çifteler, Günyüzü, Han, İnönü, Mahmudiye, Mihalgazi,<br>Mihalıççık, Sarıcakaya, Seyitgazi, Sivrihisar)  |
| 9 | BURSA (Centre, Nilüfer, Osmangazi, Yıldırım, Büyükorhan, Gemlik, Gürsu, Harmancık,<br>İnegöl, Karacabey, Keleş, Kestel, Mudanya, M. Kemalpaşa, Orhaneli, Orhangazi, Yenişehir),<br>YALOVA (Armutlu)  |

**Table 3.11:** Residential mobility in Marmara Region 1995-2000 (districts of origin)

## **Table 3.12:** Residential mobility in Marmara Region 1995-2000 (districts of destination)

| 1 | <b>ISTANBUL</b> (Adalar, Avcılar, Bağcılar, Bahçelievler, Bakırköy, Bayrampaşa, Beşiktaş, Beykoz,<br>Beyoğlu, Eminönü, Esenler, Eyüp, Fatih, Gaziosmanpaşa, Güngören, Kadıköy, Kağıthane, Kartal,<br>Küçükçekmece, Maltepe, Pendik, Sarıyer, Şişli, Tuzla, Ümraniye, Üsküdar, Zeytinburnu,<br>Büyükçekmece, Çatalca, Silivri, Sultanbeyli, Şile), BURSA (Harmancık), KIRKLARELİ (Pehlivanköy),<br>KOCAELİ (Gebze, Kandıra), TEKİRDAĞ (Marmara Ereğlisi, Şarköy) |
|---|---|
| 2 | EDİRNE (Centre, Enez, Havsa, İpsala, Keşan, Lalapaşa, Meriç, Uzunköprü), KIRKLARELİ (Centre, Babaeski, Demirköy, Kofçaz, Lüleburgaz, Pınarhisar, Vize), TEKİRDAĞ (Çerkezköy, Çorlu, Hayrabolu, Malkara, Muratlı, Saray)   |
| 3 | SAKARYA (Akyazı, Ferizli, Geyve, Hendek, Karapürçek, Karasu, Kaynarca, Kocaali, Pamukova, Sapanca, Söğütlü)   |
| 4 | ESKİŞEHİR (Mihalgazi, Mihalıcçık, Sarıcakaya, Seyitgazi), KOCAELİ (Centre, Karamürsel, Körfez), YALOVA (Altınova, Çiftlikköy, Termal), DÜZCE (Cumayeri, Çilimli, Kaynaşlı, Yığılca)   |
| 5 | BİLECİK (Gölpazarı), BOLU (Centre, Dörtdivan, Gerede, Göynük), BURSA (İznik, Orhangazi),<br>EDİRNE (Süleoğlu), KOCAELİ (Gölcük, Derince), SAKARYA (Centre, Taraklı), YALOVA (Centre,<br>Çınarcık), DÜZCE (Centre, Akçakoca, Gümüşova)   |
| 6 | Düzce (Gölkaya)   |
| 7 | BALIKESİR (Centre, Ayvalık, Balya, Bandırma, Bigadiç, Burhaniye, Dursunbey, Edremit, Erdek,<br>Gömeç, Gönen, Havran, İvrindi, Kepsut, Manyas, Marmara, Savaştepe, Sındırgı, Susurluk), BURSA(<br>Karacabey, M. Kemalpaşa), ÇANAKKALE (Centre, Ayvacık, Bayramiç, Biga, Bozcaada, Çan, Eceabat,<br>Ezine, Gelibolu, Gökçeada, Lapseki, Yenice)   |
| 8 | BİLECİK (Centre, Bozüyük, İnhisar, Osmaneli, Pazaryeri, Söğüt, Yenipazar), ESKİŞEHİR (Centre, Alpu, Beylikova, Çifteler, Günyüzü, Han, İnönü, Mahmudiye, Sivrihisar)  |
| 9 | BURSA (Centre, Nilüfer, Osmangazi, Yıldırım, Büyükorhan, Gemlik, Gürsu, İnegöl, Keleş, Kestel,<br>Mudanya, Orhaneli, Yenişehir), YALOVA (Armutlu)   |

| Districts of<br>Origin (1995) |     | Districts of Destination (2000) |     |     |     |         |           |           |     |           |  |  |
|-------------------------------|-----|---------------------------------|-----|-----|-----|---------|-----------|-----------|-----|-----------|--|--|
|                               | 1   | 2                               | 3   | 4   | 5   | 6       | 7         | 8         | 9   | Arrivals% |  |  |
| 1                             | 49  | 13                              | 14  | 12  | 19  | 0       | 12        | 13        | 8   | 37,2      |  |  |
| 2                             | 36  | 25                              | 8   | 8   | 10  | 0       | 13        | 6         | 5   | 28,1      |  |  |
| 3                             | 3   | 46                              | 1   | 3   | 3   | 0       | 5         | 3         | 2   | 5,6       |  |  |
| 4                             | 1   | 1                               | 42  | 5   | 4   | 0       | 1         | 4         | 1   | 2,2       |  |  |
| 5                             | 7   | 6                               | 32  | 64  | 51  | 100     | 10        | 22        | 9   | 11,3      |  |  |
| 6                             | 1   | 4                               | 0   | 2   | 3   | 0       | 31        | 4         | 3   | 3,5       |  |  |
| 7                             | 0   | 1                               | 1   | 1   | 1   | 0       | 17        | 1         | 2   | 1,5       |  |  |
| 8                             | 0   | 1                               | 1   | 2   | 1   | 0       | 1         | 39        | 1   | 1,6       |  |  |
| 9                             | 2   | 4                               | 2   | 3   | 8   | 0       | 10        | 9         | 68  | 8,9       |  |  |
| Departures%                   | 100 | 100                             | 100 | 100 | 100 | 100     | 100       | 100       | 100 | 100       |  |  |
| Source: Derived               |     |                                 |     | 1   |     | 000 Pop | ulation ( | Census, T | ISI |           |  |  |

**Table 3.13:** Reduced and reordered residential mobility matrix for Marmara Region1995-2000 (distinctive arrival profiles%'s)

The 1st group of destinations received 49.4% of all its movers from the 1st group of origins which comprises 37,2% of all departures and 36.2% of all its movers from the 2nd group which generates 28.1% of all departures (see Table 3.13).

**Table 3.14:** Reduced and reordered residential mobility matrix for Marmara Region 1995-2000 (distinctive departure profiles%'s)

| Districts of<br>Origin (1995) |           | Districts of Destination (2000) |            |            |          |         |           |           |     |           |  |  |  |
|-------------------------------|-----------|---------------------------------|------------|------------|----------|---------|-----------|-----------|-----|-----------|--|--|--|
|                               | 1         | 2                               | 3          | 4          | 5        | 6       | 7         | 8         | 9   | Arrivals% |  |  |  |
| 1                             | 89        | 2                               | 1          | 1          | 2        | 0       | 2         | 1         | 2   | 100       |  |  |  |
| 2                             | 87        | 5                               | 0          | 1          | 1        | 0       | 3         | 1         | 2   | 100       |  |  |  |
| 3                             | 37        | 49                              | 0          | 2          | 2        | 0       | 5         | 1         | 3   | 100       |  |  |  |
| 4                             | 34        | 4                               | 35         | 7          | 6        | 0       | 4         | 5         | 6   | 100       |  |  |  |
| 5                             | 39        | 3                               | 5          | 17         | 17       | 0       | 5         | 6         | 8   | 100       |  |  |  |
| 6                             | 25        | 6                               | 0          | 2          | 3        | 0       | 54        | 3         | 8   | 100       |  |  |  |
| 7                             | 11        | 3                               | 1          | 1          | 2        | 0       | 69        | 1         | 11  | 100       |  |  |  |
| 8                             | 11        | 2                               | 1          | 4          | 3        | 0       | 3         | 69        | 7   | 100       |  |  |  |
| 9                             | 14        | 2                               | 0          | 1          | 3        | 0       | 7         | 3         | 69  | 100       |  |  |  |
| Departures%                   | 67,5      | 6,0                             | 1,8        | 2,9        | 3,9      | 0,0     | 6,1       | 2,9       | 9,0 | 100       |  |  |  |
| Source: Derived               | d from th | ne 5% Pu                        | ıblic Use  | e Sample   | of the 2 | 000 Pop | ulation C | Census, T | SI  |           |  |  |  |
| See Table 3.11 a              | and Tabl  | e 3.12 fo                       | or the con | ntent of g | groups.  |         |           |           |     |           |  |  |  |

The 1st group of origins sent 89.5% of all its movers to the 1st group of destinations which generates 67.5% of all arrivals.

The 2nd group of origins sent 86.9% of all its movers to the 1st group (Table 3.14).

#### 3.3 Analyses of Intra-metropolitan Mobility in Istanbul Interaction Field

In this part of the study about the 1985-1990 and the 1995-2000 periods, by considering the results obtained from the "Residential Mobility in Marmara Region Analysis", the groups including all the districts of Istanbul are selected among all the groups which are constituted according to the origin and destination profiles of the districts of Marmara Region. Thereby, the mobility between these districts has been analyzed with the same method in a more detailed way. This analysis reveals intra-metropolitan mobility in Istanbul Interaction Field.

### 3.3.1 Intra-metropolitan mobility in Istanbul Interaction Field between 1985-1990

In the 1985-1990 period, Istanbul Interaction Field has 45 districts as origin units and 50 districts as destination units.

| Districts of        | Districts of Destination (1990)  |      |    |     |    |       |      |      |      |      |      |      |                   |
|---------------------|--|------|----|-----|----|-------|------|------|------|------|------|------|-------------------|
| Origin (1985)       | 1  | 2    | 3  | 4   | 5  | 6     | 7    | 8    | 9    | 10   | 11   | 12   | Arrivals<br>Total |
| 1                   | 75   | 91   | 1  | 0   | 0  | 33    | 11   | 56   | 20   | 2    | 14   | 0    | 303               |
| 2                   | 8  | 313  | 28 | 3   | 1  | 74    | 21   | 127  | 19   | 15   | 23   | 20   | 652               |
| 3                   | 0  | 363  | 0  | 216 | 0  | 135   | 51   | 243  | 79   | 1    | 37   | 23   | 1148              |
| 4                   | 9  | 857  | 3  | 61  | 54 | 339   | 112  | 548  | 177  | 15   | 70   | 47   | 2292              |
| 5                   | 5  | 603  | 1  | 22  | 2  | 7624  | 2406 | 4501 | 1763 | 197  | 716  | 475  | 18315             |
| 6                   | 0  | 97   | 4  | 2   | 0  | 360   | 80   | 965  | 83   | 7    | 41   | 43   | 1682              |
| 7                   | 1  | 186  | 3  | 32  | 1  | 1260  | 508  | 2196 | 3461 | 1529 | 1424 | 952  | 11553             |
| 8                   | 0  | 3    | 0  | 0   | 0  | 20    | 9    | 63   | 18   | 3    | 139  | 37   | 292               |
| 9                   | 0  | 195  | 0  | 16  | 0  | 664   | 394  | 1169 | 3    | 212  | 1062 | 5332 | 9047              |
| Departures<br>Total | 98   | 2708 | 40 | 352 | 58 | 10509 | 3592 | 9868 | 5623 | 1981 | 3526 | 6929 | 45284             |
|                     | Source: Derived from the 5% Public Use Sample of the 1990 Population Census, TSI<br>See Table 3.17 and Table 3.18 for the content of groups. |      |    |     |    |       |      |      |      |      |      |      |                   |

**Table 3.15:** Reduced and reordered intra-metropolitan mobility matrix for Istanbul Interaction Field 1985-1990 (flows in absolute numbers)

Total number of individuals representing a 5% sample of all the population which moved from one district to another in defined area is 45284, which means that the mobility in Istanbul Interaction Field comprises 69.7% of the mobility in Marmara Region (see Table 3.15).

| Districts of<br>Origin (1985) | Districts of Destination (1990) |              |            |            |          |          |           |          |         |        |        |         |
|-------------------------------|---------------------------------|--------------|------------|------------|----------|----------|-----------|----------|---------|--------|--------|---------|
| Dist                          | 1                               | 2            | 3          | 4          | 5        | 6        | 7         | 8        | 9       | 10     | 11     | 12      |
| 1                             | 8429                            | 293,1        | 2,0        | -2,4       | -0,4     | -19,8    | -7,1      | -1,5     | -8,3    | -9,6   | -3,9   | -46,4   |
| 2                             | 30,8                            | 1925,7       | 1306       | -0,8       | 0,0      | -39,5    | -18,2     | -1,6     | -47,4   | -6,4   | -15,2  | -63,8   |
| 3                             | -2,5                            | 1262,1       | -1,0       | 4805       | -1,5     | -64,8    | -17,6     | -0,2     | -28,3   | -48,2  | -30,7  | -132,7  |
| 4                             | 3,3                             | 3781,6       | 0,5        | 104,7      | 888,3    | -70,0    | -26,8     | 4,7      | -40,7   | -72,5  | -65,9  | -263,0  |
| 5                             | -30,3                           | -221,2       | -14,2      | -<br>101,8 | -19,6    | 2677,8   | 625,4     | 65,1     | -114,9  | -455,6 | -353,6 | -1932,9 |
| 6                             | -3,6                            | -0,1         | 4,3        | -9,4       | -2,2     | -2,4     | -21,4     | 977,2    | -75,8   | -60,2  | -61,8  | -178,6  |
| 7                             | -23,0                           | -368,9       | -5,1       | -37,2      | -12,9    | -753,2   | -182,0    | -41,1    | 2862,5  | 2073,1 | 305,7  | -376,4  |
| 8                             | -0,6                            | -12,0        | -0,3       | -2,3       | -0,4     | -33,7    | -8,7      | 0,0      | -9,2    | -7,5   | 594,5  | -1,3    |
| 9                             | -19,6                           | -221,3       | -8,0       | -42,0      | -11,6    | -981,5   | -145,9    | -326,6   | -1117,4 | -85,3  | 181,5  | 11257,9 |
| Source: Deri                  | ved fron                        | n the 5% Pu  | ublic Use  | Sample     | of the 1 | 990 Popu | lation Ce | nsus, TS | [       |        |        |         |
| See Table 3.1                 | 7 and T                         | able 3.18 fo | or the con | ntent of   | groups.  |          |           |          |         |        |        |         |

**Table 3.16:** Reduced and reordered intra-metropolitan mobility matrix for Istanbul Interaction Field 1985-1990 (signed chi square indices)

The table above (Table 3.16) reflecting the over-represented mobility from one group of districts to another shows that the districts belonging to Istanbul only appear in the 5th, 6th, 7th, 8th and 9th groups as origins, and the 6th, 7th, 8th, 9th, 10th, 11th and 12th groups as destinations. The other groups do not include any of the districts of Istanbul, so that they have under-represented mobility flows to/from Istanbul in this scale.

Table 3.17 and Table 3.18 reveal the districts which are comprised in groups.

**Table 3.17:** Intra-metropolitan mobility in Istanbul Interaction Field 1985-1990(districts of origin)

| 1 | SAKARYA (Akyazı)   |
|---|--|
| 2 | BOLU (Gerede, Ferizli, Hendek, Karasu, Kaynarca, Kocaali)  |
| 3 | KOCAELİ (Centre, Karamürsel)   |
| 4 | BOLU (Centre, Göynük), KOCAELİ (Gebze, Gölcük, Kandıra, Körfez), SAKARYA (Centre, Geyve, Sapanca)  |
| 5 | <b>ISTANBUL</b> (Adalar, Beşiktaş, Beykoz, Beyoğlu, Kadıköy, Kağıthane, Pendik, Sarıyer,<br>Şişli, Ümraniye, Üsküdar, Şile, Yalova), TEKİRDAĞ (Centre) |
| 6 | ISTANBUL (Kartal)  |
| 7 | <b>ISTANBUL</b> (Bayrampaşa, Eminönü, Eyüp, Fatih, Gaziosmanpaşa, Küçükçekmece, Zeytinburnu, Büyükçekmece, Silivri), EDİRNE (Centre)                   |
| 8 | ISTANBUL (Çatalca)   |
| 9 | ISTANBUL (Bakırköy)  |

**Table 3.18:** Intra-metropolitan mobility in Istanbul Interaction Field 1985-1990 (districts of destination)

|    | r i i i i i i i i i i i i i i i i i i i   |
|----|---|
| 1  | SAKARYA (Karapürçek)  |
| 2  | BOLU (Centre, Akçakoca, Düzce, Mengen), BURSA (İnegöl), KOCAELİ (Centre,          |
| 2  | Akyazı, Ferizli, Geyve, Hendek, Karasu, Kocaali, Pamukova, Sapanca)               |
| 3  | BOLU (Yeniçağa)   |
| 4  | KOCAELİ (Körfez)  |
| 5  | SAKARYA (Taraklı)   |
| 6  | ISTANBUL (Kartal, Ümraniye, Üsküdar, Şile)  |
| 7  | ISTANBUL (Adalar, Beşiktaş, Beyoğlu, Kağıthane, Sarıyer)                          |
| 8  | ISTANBUL (Beykoz, Eminönü, Eyüp, Fatih, Kadıköy, Pendik, Şişli, Çatalca, Yalova), |
| 0  | ÇANAKKALE (Gelibolu), KOCAELİ (Gebze)   |
| 9  | ISTANBUL (Bakırköy), EDİRNE (Süleoğlu)  |
| 10 | ISTANBUL (Bayrampaşa)   |
| 11 | ISTANBUL (Gaziosmanpaşa, Zeytinburnu, Büyükçekmece, Silivri)                      |
| 12 | ISTANBUL (Küçükçekmece)   |

The individuals in the 5th group of origins including Adalar, Beşiktaş, Beykoz, Beyoğlu, Kadıköy, Kağıthane, Pendik, Sarıyer, Şişli, Ümraniye, Üsküdar, Şile, Yalova from Istanbul and Central Tekirdağ substantially moved to the 6th group which contains Kartal, Ümraniye, Üsküdar and Şile (see Figure 3.3).

The 6th group of origins contains only Kartal which has an over-represented individual mobility to the 8th group which is generated from ISTANBUL (Beykoz, Eminönü, Eyüp, Fatih, Kadıköy, Pendik, Şişli, Çatalca, Yalova), ÇANAKKALE Gelibolu, KOCAELİ Gebze.

The 7th group of origins includes Bayrampaşa, Eminönü, Eyüp, Fatih, Gaziosmanpaşa, Küçükçekmece, Zeytinburnu, Büyükçekmece, Silivri districts from Istanbul and Central Edirne. Individuals who moved from these districts substantially moved to the 9th group which includes Bakırköy from Istanbul and Süleoğlu from Edirne and to the10th group including only Bayrampaşa from Istanbul.

The individuals in the 8th group, in which only Çatalca appears, moved to the group of Gaziosmanpaşa, Zeytinburnu, Büyükçekmece and Silivri districts from Istanbul.

Mobility from the 9th group of origins comprising only Bakırköy from Istanbul to the 12th group of destinations which only comprises Küçükçekmece from Istanbul is extremely over-represented when compared to the other mobility flows. Table 3.19 shows the percentages of the mobility flows according to their distinctive arrival profiles.

| Districts of<br>Origin | Districts of Destination (1990)  |      |     |      |      |      |      |      |      |      |      |      |               |
|------------------------|--|------|-----|------|------|------|------|------|------|------|------|------|---------------|
| (1985)                 | 1  | 2    | 3   | 4    | 5    | 6    | 7    | 8    | 9    | 10   | 11   | 12   | Arrivals<br>% |
| 1                      | 76,5   | 3,4  | 2,5 | 0,0  | 0,0  | 0,3  | 0,3  | 0,6  | 0,4  | 0,1  | 0,4  | 0,0  | 0,7           |
| 2                      | 8,2  | 11,6 | 70  | 0,9  | 1,7  | 0,7  | 0,6  | 1,3  | 0,3  | 0,8  | 0,7  | 0,3  | 1,4           |
| 3                      | 0,0  | 13,4 | 0,0 | 61,4 | 0,0  | 1,3  | 1,4  | 2,5  | 1,4  | 0,1  | 1,0  | 0,3  | 2,5           |
| 4                      | 9,2  | 31,6 | 7,5 | 17,3 | 93,1 | 3,2  | 3,1  | 5,6  | 3,1  | 0,8  | 2,0  | 0,7  | 5,1           |
| 5                      | 5,1  | 22,3 | 2,5 | 6,3  | 3,4  | 72,5 | 67,0 | 45,6 | 31,4 | 9,9  | 20,3 | 6,9  | 40,4          |
| 6                      | 0,0  | 3,6  | 10  | 0,6  | 0,0  | 3,4  | 2,2  | 9,8  | 1,5  | 0,4  | 1,2  | 0,6  | 3,7           |
| 7                      | 1,0  | 6,9  | 7,5 | 9,1  | 1,7  | 12,0 | 14,1 | 22,3 | 61,6 | 77,2 | 40,4 | 13,7 | 25,5          |
| 8                      | 0,0  | 0,1  | 0,0 | 0,0  | 0,0  | 0,2  | 0,3  | 0,6  | 0,3  | 0,2  | 3,9  | 0,5  | 0,6           |
| 9                      | 0,0  | 7,2  | 0,0 | 4,5  | 0,0  | 6,3  | 11,0 | 11,8 | 0,1  | 10,7 | 30,1 | 77,0 | 20,0          |
| Departures<br>%        | 100  | 100  | 100 | 100  | 100  | 100  | 100  | 100  | 100  | 100  | 100  | 100  | 100           |
|                        | ource: Derived from the 5% Public Use Sample of the 1990 Population Census, TSI<br>ee Table 3.17 and Table 3.18 for the content of groups. |      |     |      |      |      |      |      |      |      |      |      |               |

**Table 3.19:** Reduced and reordered intra-metropolitan mobility matrix for Istanbul Interaction Field 1985-1990 (distinctive arrival profiles%'s)

The 6th group of destinations received 72.5% of all its movers from the 5th group of origins which comprises 40,4% of all departures.

The 7th group of destinations received 67.0% of all its movers from the 5th group of origins.

The 8th group of destinations received 45,6% of all its movers from the 5th group of origins and 9.8% from the 6th group comprising 3.7% of all departures.

The 9th group of destinations received 61.6% of all its movers from the 7th group of origins which include 25.5 of all departures.

The 10th group of destinations received 77.2% of all its movers from the 7th group of origins.

The 11th group of destinations received 40.4% of all its movers from the 7th, 30.1% from the 9th, and 3.9% from the 8th group of origins.

The 12th group of destinations received 77.0% of all its movers from the 9th group of origins which contains 20.0% of all departures.

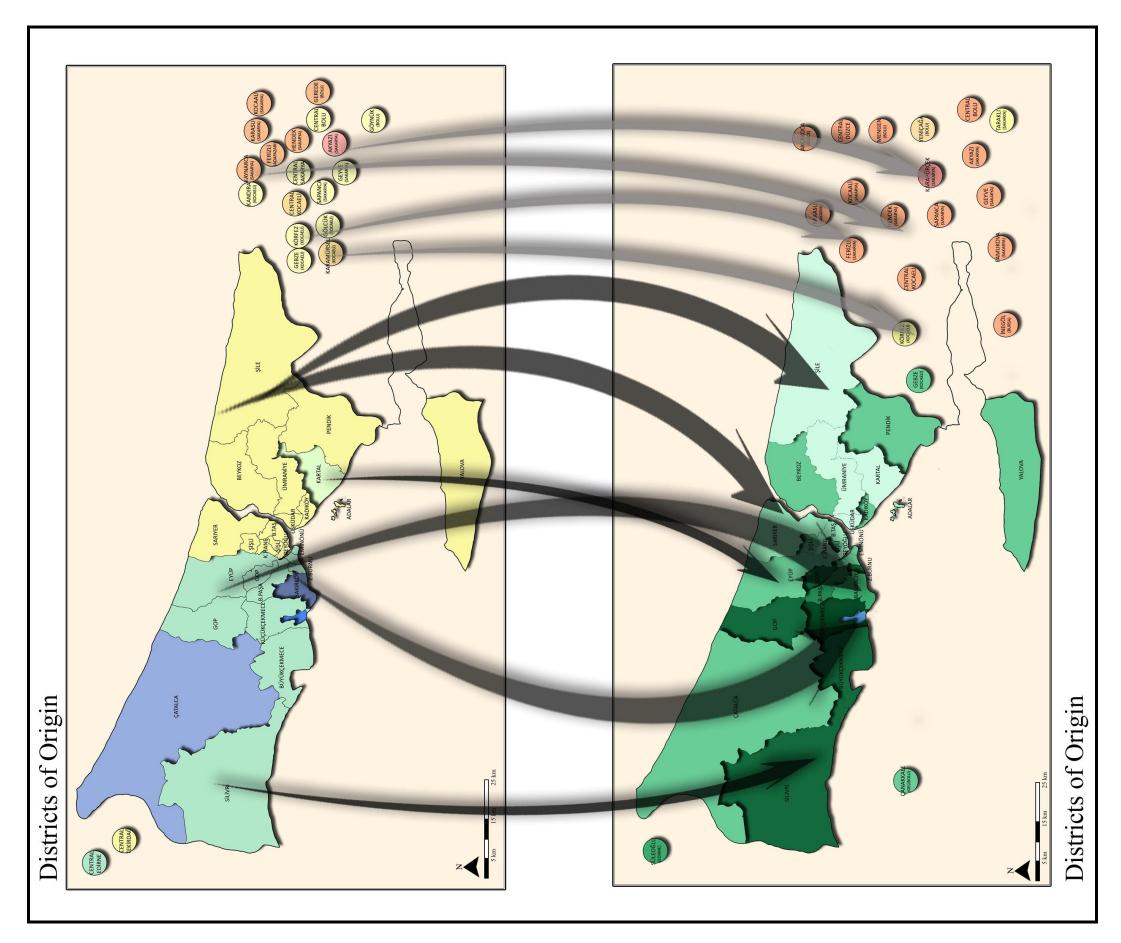


Figure 3.3 : Intra-metropolitan mobility in Istanbul Interaction Field between 1985-1990.

| Districts of    |   |      |     |      | Distri | cts of De | estinatio | on (1990) | )    |      |      |      |               |
|-----------------|---|------|-----|------|--------|-----------|-----------|-----------|------|------|------|------|---------------|
| Origin (1985)   | 1   | 2    | 3   | 4    | 5      | 6         | 7         | 8         | 9    | 10   | 11   | 12   | Arrivals<br>% |
| 1               | 24,8  | 30,0 | 0,3 | 0,0  | 0,0    | 10,9      | 3,6       | 18,5      | 6,6  | 0,7  | 4,6  | 0,0  | 100           |
| 2               | 1,2   | 48,0 | 4,3 | 0,5  | 0,2    | 11,3      | 3,2       | 19,5      | 2,9  | 2,3  | 3,5  | 3,1  | 100           |
| 3               | 0,0   | 31,6 | 0,0 | 18,8 | 0,0    | 11,8      | 4,4       | 21,2      | 6,9  | 0,1  | 3,2  | 2,0  | 100           |
| 4               | 0,4   | 37,4 | 0,1 | 2,7  | 2,4    | 14,8      | 4,9       | 23,9      | 7,7  | 0,7  | 3,1  | 2,1  | 100           |
| 5               | 0,0   | 3,3  | 0,0 | 0,1  | 0,0    | 41,6      | 13,1      | 24,6      | 9,6  | 1,1  | 3,9  | 2,6  | 100           |
| 6               | 0,0   | 5,8  | 0,2 | 0,1  | 0,0    | 21,4      | 4,8       | 57,4      | 4,9  | 0,4  | 2,4  | 2,6  | 100           |
| 7               | 0,0   | 1,6  | 0,0 | 0,3  | 0,0    | 10,9      | 4,4       | 19,0      | 30,0 | 13,2 | 12,3 | 8,2  | 100           |
| 8               | 0,0   | 1,0  | 0,0 | 0,0  | 0,0    | 6,8       | 3,1       | 21,6      | 6,2  | 1,0  | 47,6 | 12,7 | 100           |
| 9               | 0,0   | 2,2  | 0,0 | 0,2  | 0,0    | 7,3       | 4,4       | 12,9      | 0,0  | 2,3  | 11,7 | 58,9 | 100           |
| Departures<br>% | 0,2   | 6,0  | 0,1 | 0,8  | 0,1    | 23,2      | 7,9       | 21,8      | 12,4 | 4,4  | 7,8  | 15,3 | 100           |
|                 | 0,2         6,0         0,1         0,8         0,1         23,2         7,9         21,8         12,4         4,4         7,8         15,3         100           Source: Derived from the 5% Public Use Sample of the 1990 Population Census, TSI           See Table 3.17 and Table 3.18 for the content of groups. |      |     |      |        |           |           |           |      |      |      |      |               |

 Table 3.20: Reduced and reordered intra-metropolitan mobility matrix for Istanbul

 Interaction Field 1985-1990 (distinctive departure profiles%'s)

Table 3.20 shows the percentages of the mobility flows according to their distinctive departure profiles.

The 5th group of origins sent 41.6% of all its movers to the 6th group which contains 23.2% of all arrivals, 13.1% of all its movers to the 7th group which includes 7.9 of all arrivals.

The districts in the 6th group of origins sent 57.4% of all its movers to the disticts in the 8th group which comprises 21.8 of all arrivals.

The 7th group of origins sent 30.0% of all its movers to the 9th group which includes 12.4% o all arrivals, 13.2% to the 10th and 12.3% to the 11th groups.

The 8th group of origins sent 47.6% of all its movers to the 11th group of destinations which includes 7.8% of all arrivals.

The 9th group of origins sent 58.9% of all its movers to the 12th group of destinations which includes 15.3% of all arrivals (see Figure 3.3).

### 3.3.2 Intra-metropolitan mobility in Istanbul Interaction Field between 1995-2000

In the 1995-2000 period, Istanbul Interaction Field has 34 districts as origin units and 38 districts as destination units.

| Districts of<br>Origin   |      | Districts of Destination (2000) |      |      |      |      |      |     |      |      |    |                   |  |  |
|--|------|---------------------------------|------|------|------|------|------|-----|------|------|----|-------------------|--|--|
| ( <b>1995</b> )  | 1    | 2                               | 3    | 4    | 5    | 6    | 7    | 8   | 9    | 10   | 11 | Arrivals<br>Total |  |  |
| 1  | 1912 | 2112                            | 412  | 266  | 537  | 124  | 704  | 35  | 542  | 257  | 6  | 6907              |  |  |
| 2  | 313  | 1313                            | 196  | 432  | 78   | 124  | 148  | 8   | 184  | 120  | 3  | 2919              |  |  |
| 3  | 1366 | 4133                            | 571  | 1949 | 1167 | 736  | 2998 | 34  | 2553 | 1028 | 0  | 16535             |  |  |
| 4  | 157  | 399                             | 79   | 983  | 94   | 71   | 179  | 7   | 128  | 80   | 0  | 2177              |  |  |
| 5  | 132  | 299                             | 70   | 74   | 69   | 409  | 161  | 10  | 116  | 109  | 0  | 1449              |  |  |
| 6  | 262  | 660                             | 71   | 291  | 111  | 218  | 2459 | 23  | 1444 | 426  | 1  | 5966              |  |  |
| 7  | 130  | 282                             | 37   | 101  | 36   | 40   | 721  | 24  | 1287 | 478  | 0  | 3136              |  |  |
| 8  | 197  | 403                             | 28   | 127  | 85   | 86   | 766  | 36  | 2688 | 1374 | 0  | 5790              |  |  |
| 9  | 62   | 154                             | 28   | 47   | 51   | 31   | 486  | 21  | 505  | 964  | 0  | 2349              |  |  |
| Departures<br>Total  | 4531 | 9755                            | 1492 | 4270 | 2228 | 1839 | 8622 | 198 | 9447 | 4836 | 10 | 47228             |  |  |
| Source: Derived from the 5% Public Use Sample of the 2000 Population Census, TSI |      |                                 |      |      |      |      |      |     |      |      |    |                   |  |  |

| <b>Table 3.21:</b> Reduced and reordered intra-metropolitan mobility matrix for Istanbul |  |
|--|--|
| Interaction Field 1995-2000 (flows in absolute numbers)                                  |  |

Total number of individuals of all the population which moved from one district to another in defined area is 47228 which means that the mobility in Istanbul Interaction Field comprises 57.7% of the mobility in Marmara Region (see Table 3.21).

Table 3.22 reflects the over-represented mobility in Istanbul Interaction Field between 1995-2000 from one group of districts to another according to the signed chi-square indices.

The individuals from Avcılar, Bahçelievler, Bakırköy and Küçükçekmece substantially moved to Büyükçekmece, Çatalca and Silivri, and less significantly to Bahçelievler, Bakırköy, Eminönü, Fatih, Güngören, Küçükçekmece, Zeytinburnu, Avcılar, Tekirdağ Marmara Ereğlisi, Bağcılar and Tekirdağ Şarköy and inconsiderably to Kocaeli Kandıra and Kırklareli Pehlivanköy.

| Districts of<br>Origin (1995) |  |        |        | ]      | Districts | of Destinat | ion (2000) |       |        |        |      |
|-------------------------------|--|--------|--------|--------|-----------|-------------|------------|-------|--------|--------|------|
| Dis<br>Orig                   | 1  | 2      | 3      | 4      | 5         | 6           | 7          | 8     | 9      | 10     | 11   |
| 1                             | 2355,5   | 329,2  | 172,1  | -205,8 | 136,8     | -78,1       | -246,0     | 1,3   | -510,2 | -286,6 | 14,1 |
| 2                             | 3,9  | 836,3  | 116,8  | 107,1  | -25,9     | 0,9         | -278,0     | -1,5  | -273,9 | -107,1 | 9,2  |
| 3                             | -30,6  | 150,8  | 4,5    | 137,9  | 192,0     | 13,2        | -0,1       | -18,0 | -172,1 | -261,3 | -3,5 |
| 4                             | -12,9  | -5,7   | 1,5    | 3140,1 | -0,7      | -2,2        | -120,1     | -0,5  | -217,1 | -91,6  | -0,5 |
| 5                             | -0,4   | 0,0    | 12,8   | -24,8  | 0,0       | 2203,2      | -40,5      | 2,5   | -104,3 | -10,4  | -0,3 |
| 6                             | -168,3   | -265,8 | -73,2  | -114,4 | -103,2    | -0,9        | 1722,9     | -0,2  | 52,6   | -56,0  | -0,1 |
| 7                             | -97,0  | -206,5 | -38,9  | -117,5 | -84,7     | -55,2       | 38,5       | 9,0   | 693,8  | 76,6   | -0,7 |
| 8                             | -231,4   | -525,7 | -131,2 | -300,3 | -129,6    | -86,3       | -80,1      | 5,7   | 2020,7 | 1029,1 | -1,2 |
| 9                             | -118,4   | -226,1 | -28,8  | -128,8 | -32,3     | -40,0       | 7,6        | 12,6  | 2,6    | 2176,1 | -0,5 |
| Source: D                     | Source: Derived from the 5% Public Use Sample of the 2000 Population Census, TSI |        |        |        |           |             |            |       |        |        |      |
| See Table                     | See Table 3.23 and Table 3.24 for the content of groups.                         |        |        |        |           |             |            |       |        |        |      |

**Table 3.22:** Reduced and reordered intra-metropolitan mobility matrix for Istanbul

 Interaction Field 1995-2000 (signed chi square indices)

The individuals from Bağcılar and Zeytinburnu significantly moved to Bahçelievler, Bakırköy, Eminönü, Fatih, Güngören, Küçükçekmece, Zeytinburnu, and less significantly to Avcılar, Tekirdağ Marmara Ereğlisi, Esenler and Gaziosmanpaşa, and insubstantially to Büyükçekmece, Çatalca, Silivri and Kırklareli Pehlivanköy (see Figure 3.4).

The inhabitants who used to live in Eminönü, Esenler, Fatih, Güngören, Büyükçekmece moved to Bağcılar and Tekirdağ Şarköy, Bahçelievler, Bakırköy, Eminönü, Fatih, Güngören, Küçükçekmece, Zeytinburnu, Esenler and Gaziosmanpaşa and inconsiderably to Bayrampaşa, Eyüp, Avcılar and Tekirdağ Marmara Ereğlisi.

The individuals from Bayrampaşa and Eyüp substantially moved to Esenler and Gaziosmanpaşa and inconsiderably to Avcılar and Tekirdağ Marmara Ereğlisi.

The individuals from Gaziosmanpaşa which is a unique profile as an origin substantially moved to Bayrampaşa and Eyüp and inconsiderably to Avcılar, Tekirdağ Marmara Ereğlisi and Kocaeli Kandıra.

Table 3.23 and Table 3.24 reveal the districts which are comprised in groups.

The residents from Beşiktaş, Beyoğlu, Kağıthane, Sarıyer and Şişli significantly moved to Beşiktaş, Beyoğlu, Kadıköy, Kağıthane, Sarıyer and Şişli, and less significantly to Adalar, Beykoz, Maltepe, Ümraniye, Üsküdar, Sultanbeyli and Şile.

**Table 3.23:** Intra-metropolitan mobility in Istanbul Interaction Field 1995-2000 (districts of origin)

| 1 | ISTANBUL (Avcılar, Bahçelievler, Bakırköy, Küçükçekmece)  |
|---|---|
| 2 | ISTANBUL (Bağcılar, Zeytinburnu)  |
| 3 | ISTANBUL (Eminönü, Esenler, Fatih, Güngören, Büyükçekmece)  |
| 4 | ISTANBUL (Bayrampaşa, Eyüp)   |
| 5 | ISTANBUL (Gaziosmanpaşa)  |
| 6 | ISTANBUL (Beşiktaş, Beyoğlu, Kağıthane, Sarıyer, Şişli)   |
| 7 | ISTANBUL (Beykoz, Üsküdar, Çatalca, Sultanbeyli, Şile), BALIKESİR<br>(Marmara), TEKİRDAĞ (Marmara Ereğlisi) |
| 8 | ISTANBUL (Kadıköy, Kartal, Tuzla, Ümraniye)   |
| 9 | ISTANBUL (Adalar, Maltepe, Pendik)  |

**Table 3.24:** Intra-metropolitan mobility in Istanbul Interaction Field 1995-2000(districts of destination)

| 1  | ISTANBUL (Büyükçekmece, Çatalca, Silivri)  |
|----|--|
| 2  | ISTANBUL (Bahçelievler, Bakırköy, Eminönü, Fatih, Güngören, Küçükçekmece, Zeytinburnu) |
| 3  | ISTANBUL (Avcılar), TEKİRDAĞ (Marmara Ereğlisi)  |
| 4  | ISTANBUL (Esenler, Gaziosmanpaşa)  |
| 5  | ISTANBUL (Bağcılar), TEKİRDAĞ (Şarköy)   |
| 6  | ISTANBUL (Bayrampaşa, Eyüp)  |
| 7  | ISTANBUL (Beşiktaş, Beyoğlu, Kadıköy, Kağıthane, Sarıyer, Şişli)                       |
| 8  | Kocaeli (Kandıra)  |
| 9  | ISTANBUL (Adalar, Beykoz, Maltepe, Ümraniye, Üsküdar, Sultanbeyli, Şile)               |
| 10 | ISTANBUL (Kartal, Pendik, Tuzla), KOCAELİ (Gebze)                                      |
| 11 | KIRKLARELİ (Pehlivanköy)   |

The individuals from Balıkesir Marmara, Beykoz, Üsküdar, Çatalca, Sultanbeyli and Şile moved to Adalar, Beykoz, Maltepe, Ümraniye, Üsküdar, Sultanbeyli and Şile, and less considerably to Kartal, Pendik, Tuzla, Kocaeli Gebze, Beşiktaş, Beyoğlu, Kadıköy, Kağıthane, Sarıyer and Şişli, and inconsiderably to Kocaeli Kandıra.

The inhabitants from Kadıköy, Kartal, Tuzla and Ümraniye significantly moved to Adalar, Beykoz, Maltepe, Ümraniye, Üsküdar, Sultanbeyli, Şile, Kartal, Pendik, Tuzla and Kocaeli Gebze.

The individuals from Adalar, Maltepe and Pendik substantially moved to Kartal, Pendik, Tuzla and Kocaeli Gebze, and inconsiderably to Kocaeli Kandıra, Beşiktaş, Beyoğlu, Kadıköy, Kağıthane, Sarıyer and Şişli, Adalar, Beykoz, Maltepe, Ümraniye, Üsküdar, Sultanbeyli and Şile (see Figure 3.4).

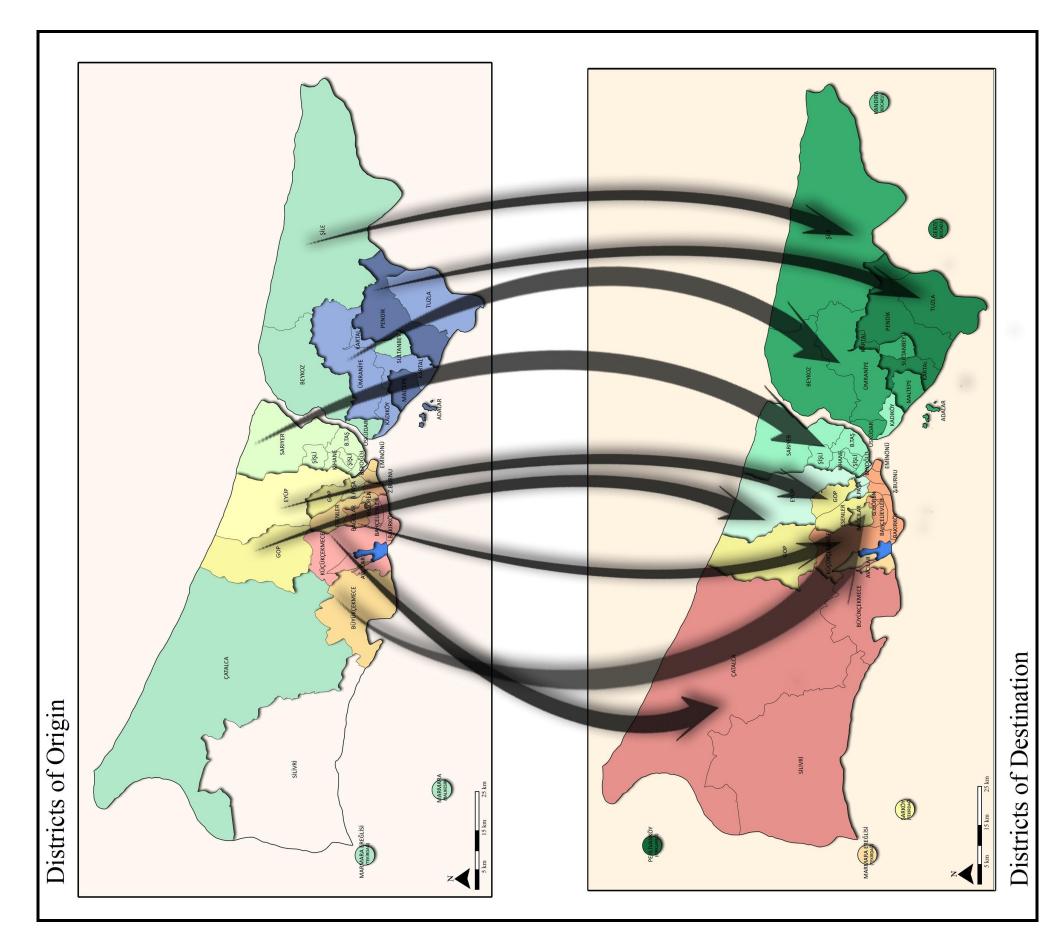


Figure 3.4 : Intra-metropolitan mobility in Istanbul Interaction Field between 1995-2000.

Table 3.25 shows the percentages of the mobility flows according to their distinctive arrival profiles.

| Districts of<br>Origin |  |      |      | Di   | stricts of | f Destin: | ation (20 | )00) |      |      |      |           |
|------------------------|--|------|------|------|------------|-----------|-----------|------|------|------|------|-----------|
| (1995)                 | 1  | 2    | 3    | 4    | 5          | 6         | 7         | 8    | 9    | 10   | 11   | Arrivals% |
| 1                      | 42,2   | 21,7 | 27,6 | 6,2  | 24,1       | 6,7       | 8,2       | 17,7 | 5,7  | 5,3  | 60,0 | 14,6      |
| 2                      | 6,9  | 13,5 | 13,1 | 10,1 | 3,5        | 6,7       | 1,7       | 4,0  | 1,9  | 2,5  | 30,0 | 6,2       |
| 3                      | 30,1   | 42,4 | 38,3 | 45,6 | 52,4       | 40,0      | 34,8      | 17,2 | 27,0 | 21,3 | 0,0  | 35,0      |
| 4                      | 3,5  | 4,1  | 5,3  | 23,0 | 4,2        | 3,9       | 2,1       | 3,5  | 1,4  | 1,7  | 0,0  | 4,6       |
| 5                      | 2,9  | 3,1  | 4,7  | 1,7  | 3,1        | 22,2      | 1,9       | 5,1  | 1,2  | 2,3  | 0,0  | 3,1       |
| 6                      | 5,8  | 6,8  | 4,8  | 6,8  | 5,0        | 11,9      | 28,5      | 11,6 | 15,3 | 8,8  | 10,0 | 12,6      |
| 7                      | 2,9  | 2,9  | 2,5  | 2,4  | 1,6        | 2,2       | 8,4       | 12,1 | 13,6 | 9,9  | 0,0  | 6,6       |
| 8                      | 4,3  | 4,1  | 1,9  | 3,0  | 3,8        | 4,7       | 8,9       | 18,2 | 28,5 | 28,4 | 0,0  | 12,3      |
| 9                      | 1,4  | 1,6  | 1,9  | 1,1  | 2,3        | 1,7       | 5,6       | 10,6 | 5,3  | 19,9 | 0,0  | 5,0       |
| Departures<br>%        | 100  | 100  | 100  | 100  | 100        | 100       | 100       | 100  | 100  | 100  | 100  | 100       |
|                        | Source: Derived from the 5% Public Use Sample of the 2000 Population Census, TSI<br>See Table 3.23 and Table 3.24 for the content of groups. |      |      |      |            |           |           |      |      |      |      |           |

**Table 3.25:** Reduced and reordered intra-metropolitan mobility matrix for Istanbul Interaction Field 1995-2000 (distinctive arrival profiles%'s)

The 1st group of destinations received 42.2% of all its movers from the 1st group of origins which comprises 14.6% of all departures.

The 2nd group of destinations received 42.4% of all its movers from the 3rd group of origins which comprises 35.0% of all departures, 21.7% of all its movers from the 1st group, and 13.5% of all its movers from the 2nd group which generates 6.2% of all departures.

The 3rd group of destinations received 27.6% of all its movers from the 1st group of origins, 13.1% of all its movers from the 2nd group.

The 4th group of destinations received 45.6% of all its movers from the 3rd group of origins which comprises 35.0% of all departures, 23.0% of all its movers from the 4th group which generates 4.6% of all departures, and 10.1% of all its movers from the 2nd group.

The 5th group of destinations received 52.4% of all its movers from the 3rd group and 24.1% of all its movers from the 1st group of origins.

The 6th group of destinations received 22.2% of all its movers from the 5th group which generates 3.1% of all departures.

The 7th group of destinations received 28.5% of all its movers from the 6th group which generates 12.6% of all departures.

The 9th group of destinations received 28.5% of all its movers from the 8th group which generates 12.3% of all departures, and 13.6% of all its movers from the 7th group which generates 6.6% of all departures.

The 10th group of destinations received 28.4% of all its movers from the 8th group, and 19.9% of all its movers from the 9th group which generates 5.0% of all departures.

Table 3.26 shows the percentages of the mobility flows according to their distinctive departure profiles.

| Disricts of  |      |      |     | Dis  | stricts of | <sup>°</sup> Destina | tion (20 | 00) |      |      |     |               |
|--|------|------|-----|------|------------|----------------------|----------|-----|------|------|-----|---------------|
| Origin (1995)  | 1    | 2    | 3   | 4    | 5          | 6                    | 7        | 8   | 9    | 10   | 11  | Arrivals<br>% |
| 1  | 27,7 | 30,6 | 6,0 | 3,9  | 7,8        | 1,8                  | 10,2     | 0,5 | 7,8  | 3,7  | 0,1 | 100           |
| 2  | 10,7 | 45,0 | 6,7 | 14,8 | 2,7        | 4,2                  | 5,1      | 0,3 | 6,3  | 4,1  | 0,1 | 100           |
| 3  | 8,3  | 25,0 | 3,5 | 11,8 | 7,1        | 4,5                  | 18,1     | 0,2 | 15,4 | 6,2  | 0,0 | 100           |
| 4  | 7,2  | 18,3 | 3,6 | 45,2 | 4,3        | 3,3                  | 8,2      | 0,3 | 5,9  | 3,7  | 0,0 | 100           |
| 5  | 9,1  | 20,6 | 4,8 | 5,1  | 4,8        | 28,2                 | 11,1     | 0,7 | 8,0  | 7,5  | 0,0 | 100           |
| 6  | 4,4  | 11,1 | 1,2 | 4,9  | 1,9        | 3,7                  | 41,2     | 0,4 | 24,2 | 7,1  | 0,0 | 100           |
| 7  | 4,1  | 9,0  | 1,2 | 3,2  | 1,1        | 1,3                  | 23,0     | 0,8 | 41,0 | 15,2 | 0,0 | 100           |
| 8  | 3,4  | 7,0  | 0,5 | 2,2  | 1,5        | 1,5                  | 13,2     | 0,6 | 46,4 | 23,7 | 0,0 | 100           |
| 9  | 2,6  | 6,6  | 1,2 | 2,0  | 2,2        | 1,3                  | 20,7     | 0,9 | 21,5 | 41,0 | 0,0 | 100           |
| Departures%  | 9,6  | 20,7 | 3,2 | 9,0  | 4,7        | 3,9                  | 18,3     | 0,4 | 20,0 | 10,2 | 0,0 | 100           |
| Source: Derived from the 5% Public Use Sample of the 2000 Population Census, TSI<br>See Table 3.23 and Table 3.24 for the content of groups. |      |      |     |      |            |                      |          |     |      |      |     | -             |

**Table 3.26:** Reduced and reordered intra-metropolitan mobility matrix for IstanbulInteraction Field 1995-2000 (distinctive departure profiles%'s)

The 1st group of origins sent 27.7% of all its movers to the 1st group which contains 9.6% of all arrivals, 30.6% of all its movers to the 2nd group, 6.0% to the 3rd group and 7.8% to the 5th group.

The 2nd group of origins sent 45.0% of all its movers to the 2nd group which contains 20.7% of all arrivals, 14.8% of all its movers to the 4th group, 6.7% to the 3rd group which generates 3.2% of all arrivals.

The 3rd group of origins sent 25.0% of all its movers to the 2nd group of destinations, 11.8% of all its movers to the 4th group and 7.1% of all its movers to the 5th group which generates 4.7% of all arrivals.

The 4th group of origins sent 45.2% of all its movers to the 4th group of destinations which generates 9.0% of all arrivals.

The 5th group of origins sent 28.2% of all its movers to the 6th group of destinations which generates 3.9% of all arrivals.

The 6th group of origins sent 41.2% of all its movers to the 7th group of destinations which generates 18.3% of all arrivals.

The 7th group of origins sent 41.0% of all its movers to the 9th group of destinations which generates 20.0% of all arrivals.

The 8th group of origins sent 46.4% of all its movers to the 9th group and 23.7% of all its movers to the 10th group of destinations.

The 9th group of origins sent 41.0% of all its movers to the 10th group of destinations which generates 10.2% of all arrivals.

#### 3.4 Analyses of Intra-metropolitan Mobility from Urban to Urban Area in Istanbul Interaction Field

In this part of the study about the 1985-1990 and the 1995-2000 periods, urban and rural interaction between the districts of Istanbul Interaction Field has been analyzed by the same method used in the previous parts. By considering the results obtained from the "Intra-metropolitan Mobility in Istanbul Interaction Field", the groups including all the districts of Istanbul have been selected among all the groups which have been constituted according to the origin and destination profiles of the districts of the area.

## 3.4.1 Intra-metropolitan mobility from urban to urban area in Istanbul Interaction Field between 1985-1990

Total number of individuals representing a 5% sample of all the population which moved from urban area of a district to another urban area in Istanbul Interaction Field is 35141 (see Table 3.27).

**Table 3.27:** Reduced and reordered intra-metropolitan mobility matrix for IstanbulInteraction Field 1985-1990: Extended mobility from the urbansettlements to the urban settlements (flows in absolute numbers)

|  |          |                 | Distric     | ts of Des                         | tination  | (1990)                                   |            |              |                     |
|--|----------|-----------------|-------------|-----------------------------------|---|--|------------|--------------|---------------------|
| Districts of Origin (1985)   | Ümraniye | Kartal, Üsküdar | Bakırköy    | Kadıköy, Pendik,<br>Kocaeli Gebze | Adalar, Beşiktaş,<br>Beyoğlu, Kağıthane,<br>Sarıyer | OTHER DISTRICTS<br>OF DESTINATIONS<br>** | Bayrampaşa | Küçükçekmece | DEPARTURES<br>TOTAL |
| Beykoz, Kağıthane, Sarıyer,<br>Üsküdar   | 1336     | 453             | 381         | 835                               | 355   | 505                                      | 41         | 91           | 3997                |
| Kadıköy  | 731      | 1107            | 207         | 294                               | 212   | 263                                      | 15         | 31           | 2860                |
| Bayrampaşa, Eminönü, Fatih,<br>Küçükçekmece, Zeytinburnu   | 248      | 429             | 2575        | 618                               | 316   | 1293                                     | 202        | 632          | 6313                |
| Kartal   | 249      | 103             | 78          | 737                               | 79  | 157                                      | 7          | 43           | 1453                |
| Şişli  | 628      | 399             | 426         | 441                               | 1155  | 313                                      | 45         | 140          | 3547                |
| OTHER DISTRICTS OF<br>ORIGINS*   | 672      | 920             | 960         | 1091                              | 718   | 1241                                     | 113        | 303          | 6018                |
| Gaziosmanpaşa  | 69       | 78              | 275         | 67                                | 65  | 224                                      | 257        | 75           | 1110                |
| Eyüp   | 115      | 69              | 336         | 71                                | 48  | 255                                      | 1025       | 104          | 2023                |
| Bakırköy   | 232      | 298             | 0           | 436                               | 357   | 1088                                     | 210        | 5199         | 7820                |
| ARRIVALS TOTAL   | 4280     | 3856            | 5238        | 4590                              | 3305  | 5339                                     | 1915       | 6618         | 35141               |
| <ul> <li>* Adalar, Beşiktaş, Beyoğlu, Pendik, Ümraniye, Büyükçekmece, Çatalca, Silivri, Şile, Yalova, Central Edirne,<br/>Central Tekirdağ</li> <li>** Beykoz, Eminönü, Eyüp, Fstih, Gaziosmanpaşa, Şişli, Zeytinburnu, Büyükçekmece, Çatalca, Silivri, Şile,<br/>Yalova, Çanakkale Gelibolu, Edirne Süleoğlu</li> </ul> |          |                 |             |                                   |   |  |            |              |                     |
| Source: Derived from the 5% Pu   | blic Use | Sample of       | of the 1990 | Census,                           | TSI   |  |            |              |                     |

Table 3.28 reflects the over-represented mobility from the urban settlements to the urban settlements in Istanbul Interaction Field between 1985-1990 from one group of districts to another according to the signed chi-square indices. It shows that the mobility from the urban settlements to the urban settlements shows distinctive characteristics between the 1985-1990 period.

The individuals from the urban areas of Beykoz, Kağıthane, Sarıyer and Üsküdar substantially moved to the urban area of Ümraniye. Thus, the individuals from this group also moved to the urban areas of Kartal and Üsküdar (see Figure 3.5).

**Table 3.28:** Reduced and reordered intra-metropolitan mobility matrix for IstanbulInteraction Field 1985-1990: Extended mobility from the urbansettlements to the urban settlements (signed chi square indices)

|  |            |                 | Distri     | cts of Dest                       | ination (19   | 90)                                     |            |              |  |
|--|------------|-----------------|------------|-----------------------------------|---|---|------------|--------------|--|
| Districts of Origin (1985)   | Ümraniye   | Kartal, Üsküdar | Bakırköy   | Kadıköy, Pendik,<br>Kocaeli Gebze | Adalar, Beşiktaş,<br>Beyoğlu,<br>Kağıthane, Sarıyer | OTHER<br>DISTRICTS OF<br>DESTINATIONS** | Bayrampaşa | Küçükçekmece |  |
| Beykoz, Kağıthane,   |            |                 | 1          |                                   |   |   | I          |              |  |
| Sarıyer, Üsküdar   | 1481,3     | 0,5             | -77,4      | 187,6                             | -1,2  | -17,2                                   | -143,5     | -581,7       |  |
| Kadıköy  | 420,4      | 2004,7          | -112,8     | -16,9                             | -12,1   | -67,7                                   | -127,3     | -478,4       |  |
| Bayrampaşa, Eminönü,<br>Fatih, Küçükçekmece,<br>Zeytinburnu  | -352,9     | -100,4          | 2837,4     | -51,8                             | -129,9  | 116,2                                   | -58,6      | -260,9       |  |
| Kartal   | 29,3       | -20,0           | -88,7      | 1577,8                            | -24,3   | -18,4                                   | -65,8      | -194,4       |  |
| Şişli  | 88,9       | 0,2             | -20,0      | -1,1                              | 2022,5  | -94,7                                   | -113,8     | -417,3       |  |
| OTHER DISTRICTS OF<br>ORIGINS*   | -5,1       | 102,1           | 4,4        | 118,3                             | 40,8  | 116,7                                   | -140,9     | -608,4       |  |
| Gaziosmanpaşa  | -32,4      | -15,8           | 72,5       | -41,9                             | -14,9   | 18,2                                    | 638,4      | -86,0        |  |
| Eyüp   | -70,1      | -105,4          | 3,9        | -141,3                            | -106,4  | -8,9                                    | 7590,3     | -201,4       |  |
| Bakırköy   | -544,9     | -365,6          | -1165,6    | -335,5                            | -194,8  | -8,4                                    | -109,6     | 9428,3       |  |
| * Adalar, Beşiktaş, Beyoğlu,<br>Central Tekirdağ   | Pendik, Üm | raniye, Büy     | /ükçekmece | e, Çatalca, S                     | Silivri, Şile,                                      | , Yalova,                               | Central Ec | lirne,       |  |
| ** Beykoz, Eminönü, Eyüp, Fstih, Gaziosmanpaşa, Şişli, Zeytinburnu, Büyükçekmece, Çatalca, Silivri, Şile,<br>Yalova, Çanakkale Gelibolu, Edirne Süleoğlu |            |                 |            |                                   |   |   |            |              |  |
| Source: Derived from the 5%  | Public Use | e Sample of     | the 1990 C | Census, TSI                       |   |   |            |              |  |

The 2nd group which is generated from the urban area of Kadıköy moved to Kartal, Üsküdar and Ümraniye.

The individuals from the urban areas of Bayrampaşa, Eminönü, Fatih, Küçükçekmece and Zeytinburnu moved to the urban area of Bakırköy.

The inhabitants from Kartal which has a unique profile as a departure unit moved to the urban areas of Kadıköy, Pendik and Gebze.

The individuals who used to live in the urban area of Şişli substantially moved to the urban areas of Adalar, Beşiktaş, Beyoğlu, Kağıthane, Sarıyer and also with a lower level to Ümraniye (see Figure 3.5).

As a transition profile, the 6th group including the urban areas of Central Edirne, Adalar, Beşiktaş, Beyoğlu, Pendik, Ümraniye, Büyükçekmece, Çatalca, Silivri, Şile, Yalova, Central Tekirdağ moved to the urban areas of Kadıköy, Pendik, Kocaeli Gebze, Çanakkale Gelibolu, Edirne Süleoğlu, Beykoz, Eminönü, Eyüp, Fatih, Gaziosmanpaşa, Şişli, Zeytinburnu, Büyükçekmece, Çatalca, Silivri, Şile, Yalova, Kartal, Üsküdar, Adalar, Beşiktaş, Beyoğlu, Kağıthane, Sarıyer and Bakırköy. The inhabitants from the urban areas of Gaziosmanpaşa substantially moved to the urban areas of Bayrampaşa and Bakırköy, and inconsiderably to Çanakkale Gelibolu, Edirne Süleoğlu, Beykoz, Eminönü, Eyüp, Fatih, Gaziosmanpaşa, Şişli, Zeytinburnu, Büyükçekmece, Çatalca, Silivri, Şile, Yalova

The individuals who used to live in the urban area of Eyüp considerably moved to the urban area of Bayrampaşa (see Figure 3.5).

The individuals from the urban area of Bakırköy which is a unique profile as a departure unit significantly moved to the urban area of Küçükçekmece

Table 3.29 shows the percentages of the mobility flows according to their distinctive arrival profiles.

|  |          |                 | Distric  | ts of Des                         | tination   | (1990)                               |            | _            |             |
|--|----------|-----------------|----------|-----------------------------------|--|--------------------------------------|------------|--------------|-------------|
| Districts of Origin (1985)   | Ümraniye | Kartal, Üsküdar | Bakırköy | Kadıköy, Pendik, Kocaeli<br>Gebze | Adalar, Beşiktaş, Beyoğlu,<br>Kağıthane, Sarıyer | OTHER DISTRICTS OF<br>DESTINATIONS** | Bayrampaşa | Küçükçekmece | DEPARTURES% |
| Beykoz, Kağıthane, Sarıyer,<br>Üsküdar   | 31,2     | 11,7            | 7,3      | 18,2                              | 10,7   | 9,5                                  | 2,1        | 1,4          | 11,4        |
| Kadıköy  | 17,1     | 28,7            | 4,0      | 6,4                               | 6,4  | 4,9                                  | 0,8        | 0,5          | 8,1         |
| Bayrampaşa, Eminönü, Fatih,<br>Küçükçekmece, Zeytinburnu   | 5,8      | 11,1            | 49,2     | 13,5                              | 9,6  | 24,2                                 | 10,5       | 9,5          | 18,0        |
| Kartal   | 5,8      | 2,7             | 1,5      | 16,1                              | 2,4  | 2,9                                  | 0,4        | 0,6          | 4,1         |
| Şişli  | 14,7     | 10,3            | 8,1      | 9,6                               | 34,9   | 5,9                                  | 2,3        | 2,1          | 10,1        |
| OTHER DISTRICTS OF<br>ORIGINS*   | 15,7     | 23,9            | 18,3     | 23,8                              | 21,7   | 23,2                                 | 5,9        | 4,6          | 17,1        |
| Gaziosmanpaşa  | 1,6      | 2,0             | 5,3      | 1,5                               | 2,0  | 4,2                                  | 13,4       | 1,1          | 3,2         |
| Eyüp   | 2,7      | 1,8             | 6,4      | 1,5                               | 1,5  | 4,8                                  | 53,5       | 1,6          | 5,8         |
| Bakırköy   | 5,4      | 7,7             | 0,0      | 9,5                               | 10,8   | 20,4                                 | 11,0       | 78,6         | 22,3        |
| ARRIVALS%  | 100      | 100             | 100      | 100                               | 100  | 100                                  | 100        | 100          | 100         |
| <ul> <li>* Adalar, Beşiktaş, Beyoğlu, Pendik, Ümraniye, Büyükçekmece, Çatalca, Silivri, Şile, Yalova, Central Edirne,<br/>Central Tekirdağ</li> <li>** Beykoz, Eminönü, Eyüp, Fstih, Gaziosmanpaşa, Şişli, Zeytinburnu, Büyükçekmece, Çatalca, Silivri, Şile,<br/>Yalova, Çanakkale Gelibolu, Edirne Süleoğlu</li> </ul> |          |                 |          |                                   |  |                                      |            |              |             |
| Source: Derived from the 5% Public   | ic Use S | ample of        | the 199  | 0 Census                          | s, TSI   |                                      |            |              |             |

**Table 3.29:** Reduced and reordered intra-metropolitan mobility matrix for IstanbulInteraction Field 1985-1990: Extended mobility from the urbansettlements to the urban settlements (distinctive arrival profiles%'s)

Ümraniye received 31.2% of all its movers from Beykoz, Kağıthane, Sarıyer, Üsküdar which comprises 11.4% of all departures and 17.1% of all its movers from the 2nd group.

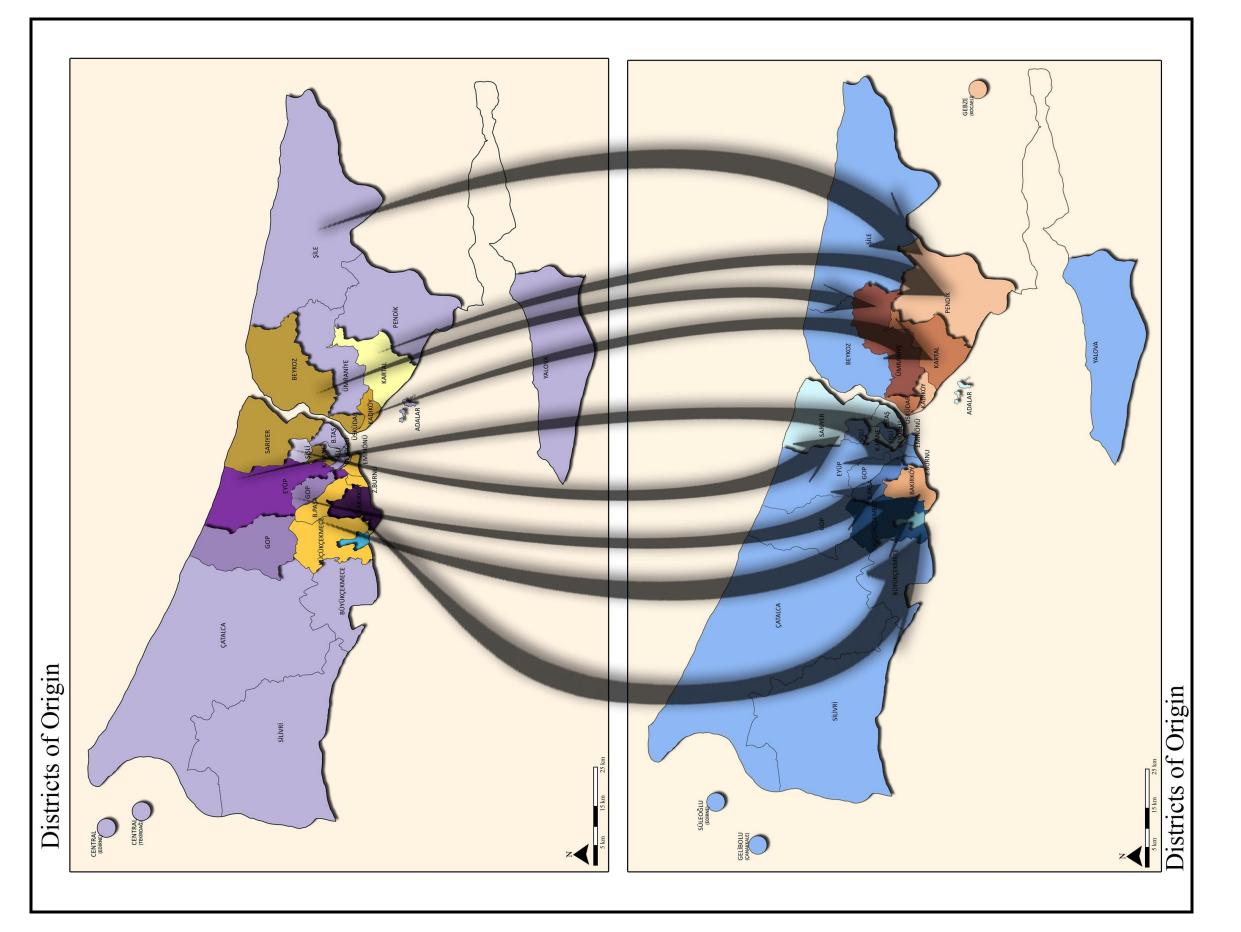


Figure 3.5 : Intra-metropolitan mobility from urban to urban area in Istanbul Interaction Field between 1985-1990.

Kartal and Üsküdar received 28.7% of all its movers from Kadıköy which generates 8.1% of all departures.

Bakırköy received 49.2% of all its movers from Bayrampaşa, Eminönü, Fatih, Küçükçekmece and Zeytinburnu which generates 18.0% of all departures.

Kadıköy, Pendik and Kocaeli Gebze received 16.1% of all its movers from Kartal which generates 4.1% of all departures.

Adalar, Beşiktaş, Beyoğlu, Kağıthane and Sarıyer received 34.9% of all its movers from Şişli which generates 10.1% of all departures.

Beykoz, Eminönü, Eyüp, Fstih, Gaziosmanpaşa, Şişli, Zeytinburnu, Büyükçekmece, Çatalca, Silivri, Şile, Yalova, Çanakkale Gelibolu and Edirne Süleoğlu received 23.2% of all its movers from Adalar, Beşiktaş, Beyoğlu, Pendik, Ümraniye, Büyükçekmece, Çatalca, Silivri, Şile, Yalova, Central Edirne and Central Tekirdağ which generates 17.1% of all departures.

Bayrampaşa received 53.5% of all its movers from Eyüp which generates 8.1% of all departures and 13.4% of all its movers from Gaziosmanpaşa comprising 3.2% of all departures.

Küçükçekmece received 78.6% of all its movers from Bakırköy which generates 22.3% of all departures.

Table 3.30 shows the percentages of the mobility flows according to their distinctive arrival profiles.

Beykoz, Kağıthane, Sarıyer, Üsküdar sent 33.4% of all its movers to Ümraniye which contains 12.2% of all arrivals.

Kadıköy sent 25.6% of all its movers Ümraniye, and 38.7% of all its movers to Kartal and Üsküdar which includes 11.0% of all arrivals.

Bayrampaşa, Eminönü, Fatih, Küçükçekmece and Zeytinburnu sent 40.8% of all its movers to Bakırköy which contains 14.9% of all arrivals.

Kartal sent 50.7% of all its movers to Kadıköy, Pendik and Kocaeli Gebze which contains 13.1% of all arrivals.

Şişli sent 32.6% of all its movers to Adalar, Beşiktaş, Beyoğlu, Kağıthane, and Sarıyer which generates 9.4% of all arrivals.

**Table 3.30:** Reduced and reordered intra-metropolitan mobility matrix for IstanbulInteraction Field 1985-1990: Extended mobility from the urbansettlements to the urban settlements (distinctive departure profiles%'s)

|   |          |                 | Dist     | ricts of I                        | Destination                                      | (1990)                               |            |              |             |  |
|---|----------|-----------------|----------|-----------------------------------|--|--------------------------------------|------------|--------------|-------------|--|
| Districts of Origin (1985)  | Ümraniye | Kartal, Üsküdar | Bakırköy | Kadıköy, Pendik, Kocaeli<br>Gebze | Adalar, Beşiktaş, Beyoğlu,<br>Kağıthane, Sarıyer | OTHER DISTRICTS OF<br>DESTINATIONS** | Bayrampaşa | Küçükçekmece | DEPARTURES% |  |
| Beykoz, Kağıthane, Sarıyer,<br>Üsküdar  | 33,4     | 11,3            | 9,5      | 20,9                              | 8,9  | 12,6                                 | 1,0        | 2,3          | 100         |  |
| Kadıköy   | 25,6     | 38,7            | 7,2      | 10,3                              | 7,4  | 9,2                                  | 0,5        | 1,1          | 100         |  |
| Bayrampaşa, Eminönü, Fatih,<br>Küçükçekmece, Zeytinburnu  | 3,9      | 6,8             | 40,8     | 9,8                               | 5,0  | 20,5                                 | 3,2        | 10,0         | 100         |  |
| Kartal  | 17,1     | 7,1             | 5,4      | 50,7                              | 5,4  | 10,8                                 | 0,5        | 3,0          | 100         |  |
| Şişli   | 17,7     | 11,2            | 12,0     | 12,4                              | 32,6   | 8,8                                  | 1,3        | 3,9          | 100         |  |
| OTHER DISTRICTS OF<br>ORIGINS*  | 11,2     | 15,3            | 16,0     | 18,1                              | 11,9   | 20,6                                 | 1,9        | 5,0          | 100         |  |
| Gaziosmanpaşa   | 6,2      | 7,0             | 24,8     | 6,0                               | 5,9  | 20,2                                 | 23,2       | 6,8          | 100         |  |
| Eyüp  | 5,7      | 3,4             | 16,6     | 3,5                               | 2,4  | 12,6                                 | 50,7       | 5,1          | 100         |  |
| Bakırköy  | 3,0      | 3,8             | 0,0      | 5,6                               | 4,6  | 13,9                                 | 2,7        | 66,5         | 100         |  |
| ARRIVALS%   | 12,2     | 11,0            | 14,9     | 13,1                              | 9,4  | 15,2                                 | 5,4        | 18,8         | 100         |  |
| <ul> <li>* Adalar, Beşiktaş, Beyoğlu, Pendik, Ümraniye, Büyükçekmece, Çatalca, Silivri, Şile, Yalova, Central Edirne, Central Tekirdağ</li> <li>** Beykoz, Eminönü, Eyüp, Fstih, Gaziosmanpaşa, Şişli, Zeytinburnu, Büyükçekmece, Çatalca, Silivri, Şile, Yalova, Çanakkale Gelibolu, Edirne Süleoğlu</li> <li>Source: Derived from the 5% Public Use Sample of the 1990 Census, TSI</li> </ul> |          |                 |          |                                   |  |                                      |            |              |             |  |

Adalar, Beşiktaş, Beyoğlu, Pendik, Ümraniye, Büyükçekmece, Çatalca, Silivri, Şile, Yalova, Central Edirne and Central Tekirdağ as a transition profile sent 15.3% of all its movers to Kartal and Üsküdar, 16.0% of all its movers to Bakırköy, 18.1% to Kadıköy, Pendik and Kocaeli Gebze, 11.9% to Adalar, Beşiktaş, Beyoğlu, Kağıthane, and Sarıyer and 20.6% to Beykoz, Eminönü, Eyüp, Fstih, Gaziosmanpaşa, Şişli, Zeytinburnu, Büyükçekmece, Çatalca, Silivri, Şile, Yalova, Çanakkale Gelibolu and Edirne Süleoğlu.

Gaziosmanpaşa sent 23.2% of all its movers to Bayrampaşa which contains 5.4% of all arrivals.

Eyüp sent 50.7% of all its movers to Bayrampaşa.

Bakırköy sent 66.5% of all its movers to Küçükçekmece which contains 18.8% of all arrivals.

### 3.4.2 Intra-metropolitan mobility from urban to urban area in Istanbul Interaction Field between 1995-2000

Total number of individuals of all population which moved from the urban area of a district to another urban area in defined area is 31038 (see Table 3.31).

|  |  |               |                                      | Di               | stricts of                           | f Destina | ation (2(                             | 000)                          |                   |        |               |                  |  |
|--|--|---------------|--------------------------------------|------------------|--------------------------------------|-----------|---------------------------------------|-------------------------------|-------------------|--------|---------------|------------------|--|
| Districts of Origin  | Bağcılar   | Gaziosmanpaşa | Bahçelievler, Güngören, Küçükçekmece | Bayrampaşa, Eyüp | OTHER DISTRICTS of<br>DESTINATIONS** | _         | Beşiktaş, Beyoğlu, Kağıthane, Sarıyer | Maltepe, Üsküdar, Sultanbeyli | Kadıköy, Ümraniye | Pendik | Kartal, Tuzla | DEPARTURES TOTAL |  |
| (1995)   | Bağ  | Gaz           | Bah                                  | Bay              | DES                                  | Şişli     | Beși                                  | Mal                           | Kad               | Pen    | Kar           | DEI              |  |
| Bahçelievler, Esenler<br>Güngören  | evler, Esenler         894         244         1000         203         1026         64         161         206         145         39         69         40 |               |                                      |                  |                                      |           |                                       |                               |                   |        |               |                  |  |
| Bayrampaşa, Eyüp   | 84   | 675           | 259                                  | 60               | 518                                  | 40        | 108                                   | 66                            | 52                | 16     | 16            | 1894             |  |
| Avcılar, Bağcılar,<br>Bakırköy,  | 189  |               | 1981                                 |                  | 1406                                 |           | 278                                   | 237                           | 286               |        |               | 5037             |  |
| Zeytinburnu  |  | 190           |                                      | 195              |                                      | 108       |                                       |                               |                   | 74     | 93            |                  |  |
| Gaziosmanpaşa<br>OTHER DISTRICTS   | 53   | 0             | 176                                  | 374              | 292                                  | 42        | 78                                    | 60                            | 49                | 23     | 22            | 1169             |  |
| of ORIGINS*  | 307  | 433           | 1032                                 | 294              | 1575                                 | 204       | 470                                   | 829                           | 603               | 185    | 285           | 6217             |  |
| Beşiktaş, Beyoğlu,<br>Kağıthane  | 44   | 153           | 225                                  | 119              | 367                                  | 502       | 548                                   | 420                           | 456               | 77     | 82            | 2993             |  |
| Sarıyer, Şişli   | 61   | 66            | 172                                  | 85               | 234                                  | 93        | 791                                   | 295                           | 331               | 35     | 58            | 2221             |  |
| Kadıköy  | 23   | 30            | 103                                  | 22               | 332                                  | 61        | 206                                   | 1111                          | 288               | 162    | 252           | 2590             |  |
| Üsküdar  | 10   | 23            | 90                                   | 14               | 216                                  | 53        | 120                                   | 224                           | 832               | 78     | 119           | 1779             |  |
| Kartal   | 26   | 15            | 39                                   | 32               | 103                                  | 7         | 54                                    | 295                           | 168               | 233    | 54            | 1026             |  |
| Adalar, Maltepe,<br>Pendik   | 40   | 18            | 75                                   | 30               | 295                                  | 41        | 111                                   | 243                           | 450               | 142    | 616           | 2061             |  |
| ARRIVALS TOTAL   | 1731   | 1847          | 5152                                 | 1428             | 6364                                 | 1215      | 2925                                  | 3986                          | 3660              | 1064   | 1666          | 31038            |  |
| * Beykoz, Eminönü, Fati<br>Marmara, Tekirdağ Marr<br>** Adalar, Aycılar, Bakı  | nara Er  | eğlisi        |                                      |                  |                                      | ,         |                                       |                               |                   |        | , ·           | kesir            |  |
| ** Adalar, Avcılar, Bakırköy, Beykoz, Eminönü, Esenler, Fatih, Zeytinburnu, Büyükçekmece, Çatalca, Silivri, Şile,<br>Pehlivanköy, Kocaeli Gebze, Kocaeli Kandıra, Kırklareli Pehlivanköy, Tekirdağ Marmara Ereğlisi, Tekirdağ Şarköy |  |               |                                      |                  |                                      |           |                                       |                               |                   |        |               |                  |  |
| Source: Derived from the   | Source: Derived from the 5% Public Use Sample of the 2000 Census, TSI  |               |                                      |                  |                                      |           |                                       |                               |                   |        |               |                  |  |

# **Table 3.31:** Reduced and reordered intra-metropolitan mobility matrix for IstanbulInteraction Field 1995-2000: Extended mobility from the urbansettlements to the urban settlements (flows in absolute numbers)

Table 3.32 reflecting the over-represented mobility flows shows that the mobility from the urban settlements to the urban settlements shows distinctive characteristics between 1995-2000.

**Table 3.32:** Reduced and reordered intra-metropolitan mobility matrix for IstanbulInteraction Field 1995-2000: Extended mobility from the urbansettlements to the urban settlements (signed chi square indices)

|  |                                    |                              |   | Di                         | stricts o                            | f Destina             | ation (20                                | 00)                           |                   |           |               |
|--|------------------------------------|------------------------------|---|----------------------------|--------------------------------------|-----------------------|--|-------------------------------|-------------------|-----------|---------------|
| Districts of Origin<br>(1995)  | Bağcılar                           | Gaziosmanpaşa                | Bahçelievler, Güngören,<br>Küçükçekmece | Bayrampaşa, Eyüp           | OTHER DISTRICTS of<br>DESTINATIONS** | Şişli                 | Beşiktaş, Beyoğlu, Kağıthane,<br>Sarıyer | Maltepe, Üsküdar, Sultanbeyli | Kadıköy, Ümraniye | Pendik    | Kartal, Tuzla |
| Bahçelievler, Esenler<br>Güngören  | 1975,5                             | 0,0                          | 159,6                                   | 1,5                        | 46,0                                 | -56,4                 | -127,7                                   | -189,8                        | -231,7            | -71,8     | -101,3        |
| Bayrampaşa, Eyüp   | -4,4                               | 2805,2                       | -9,8                                    | -8,5                       | 43,3                                 | -15,7                 | -27,8                                    | -129,1                        | -131,4            | -36,9     | -72,2         |
| Avcılar, Bağcılar,<br>Bakırköy, Zeytinburnu  | -30,1                              | -40,2                        | 1567,8                                  | -5,8                       | 134,9                                | -40,3                 | -81,5                                    | -259,7                        | -159,7            | -56,4     | -116,4        |
| Gaziosmanpaşa  | -2,3                               | -69,6                        | -1,7                                    | 1906,5                     | 11,4                                 | -0,3                  | -9,4                                     | -54,1                         | -57,3             | -7,3      | -26,5         |
| OTHER DISTRICTS of<br>ORIGINS*   | -4,6                               | 10,7                         | 0,0                                     | 0,2                        | 70,7                                 | -6,4                  | -22,9                                    | 1,2                           | -23,1             | -3,7      | -7,1          |
| Beşiktaş, Beyoğlu,<br>Kağıthane  | -90,5                              | -3,5                         | -148,7                                  | -2,5                       | -99,2                                | 1264,1                | 250,7                                    | 3,3                           | 30,1              | -6,4      | -38,5         |
| Sarıyer, Şişli   | -31,9                              | -33,1                        | -104,9                                  | -2,9                       | -<br>107,6                           | 0,4                   | 1616,6                                   | 0,3                           | 18,2              | -22,2     | -31,4         |
| Kadıköy  | -102,1                             | -100,0                       | -248,6                                  | -79,2                      | -74,6                                | -16,1                 | -5,9                                     | 1821,6                        | -1,0              | 60,4      | 91,8          |
| Üsküdar  | -80,2                              | -64,9                        | -142,7                                  | -56,2                      | -60,7                                | -4,0                  | -13,5                                    | -0,1                          | 1845,5            | 4,7       | 5,8           |
| Kartal   | -17,0                              | -34,7                        | -101,2                                  | -4,9                       | -54,8                                | -27,4                 | -18,8                                    | 202,2                         | 18,3              | 1112,7    | 0,0           |
| Adalar, Maltepe,<br>Pendik   | -48,9                              | -89,3                        | -208,5                                  | -44,3                      | -38,5                                | -19,5                 | -35,7                                    | -1,8                          | 176,3             | 72,1      | 2308,7        |
| <ul> <li>* Beykoz, Eminönü, Fatih,<br/>Marmara, Tekirdağ Marma</li> <li>** Adalar, Avcılar, Bakırkö<br/>Pehlivanköy, Kocaeli Gebz</li> <li>Source: Derived from the 5</li> </ul> | ra Éreğli<br>öy, Beyko<br>æ, Kocae | si<br>oz, Emino<br>li Kandır | önü, Eser<br>a, Kırklaı                 | iler, Fatih<br>reli Pehliv | , Zeytinl<br>vanköy,                 | burnu, Bi<br>Tekirdağ | iyükçekn                                 | nece, Çata                    | alca, Siliv       | ri, Şile, | kesir         |

The individuals from the urban areas of Bahçelievler, Esenler and Güngören substantially moved to the urban areas of Bağcılar, less significantly to Bahçelievler, Güngören, Küçükçekmece, Eminönü, Adalar, Avcılar, Bakırköy, Beykoz, Eminönü, Esenler, Fatih, Zeytinburnu, Büyükçekmece, Çatalca, Silivri, Şile, Pehlivanköy, Gebze, Kandıra, Marmara Ereğlisi, Şarköy (see Figure 3.6).

The individuals from Bayrampaşa and Eyüp significantly moved to Gaziosmanpaşa which has a unique district profile as a destination unit, and less significantly to Adalar, Avcılar, Bakırköy, Beykoz, Eminönü, Esenler, Fatih, Zeytinburnu, Büyükçekmece, Çatalca, Silivri, Şile, Pehlivanköy, Gebze, Kandıra, Marmara Ereğlisi, Şarköy.

The inhabitants who used to live in Avcılar, Bağcılar, Bakırköy and Zeytinburnu moved to Bahçelievler, Güngören and Küçükçekmece, and less substantially to

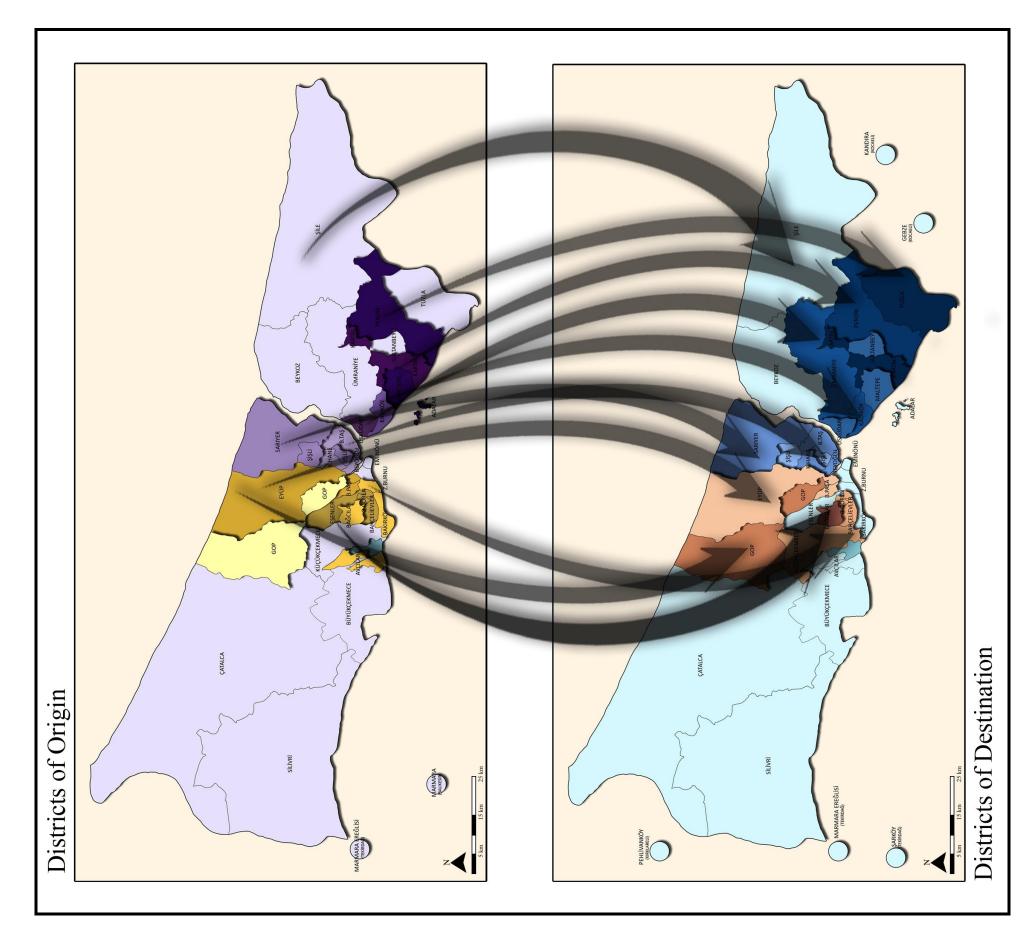


Figure 3.6 : Intra-metropolitan mobility from urban to urban area in Istanbul Interaction Field between 1995-2000.

Adalar, Avcılar, Bakırköy, Beykoz, Eminönü, Esenler, Fatih, Zeytinburnu, Büyükçekmece, Çatalca, Silivri, Şile, Pehlivanköy, Gebze, Kandıra, Marmara Ereğlisi, Şarköy.

The individuals from the urban area of Gaziosmanpaşa moved to the urban areas of Bayrampaşa and Eyüp, and also inconsiderably to Adalar, Avcılar, Bakırköy, Beykoz, Eminönü, Esenler, Fatih, Zeytinburnu, Büyükçekmece, Çatalca, Silivri, Şile, Pehlivanköy, Gebze, Kandıra, Marmara Ereğlisi, Şarköy.

The inhabitants moved from the urban areas of Balıkesir Marmara, Beykoz, Eminönü, Fatih, Küçükçekmece, Tuzla, Ümraniye, Büyükçekmece, çatalca, Silivri, Sultanbeyli, Şile and Tekirdağ Marmara Ereğlisi, to the urban areas of Adalar, Avcılar, Bakırköy, Beykoz, Eminönü, Esenler, Fatih, Zeytinburnu, Büyükçekmece, Çatalca, Silivri, Şile, Pehlivanköy, Gebze, Kandıra, Marmara Ereğlisi, Şarköy.

The individuals from Beşiktaş, Beyoğlu and Kağıthane substantially moved to the urban areas of Şişli, and less considerably to Beşiktaş, Beyoğlu, Kağıthane, Sarıyer, Kadıköy and Ümraniye.

The residents from Sarıyer and Şişli significantly moved to the urban areas of Beşiktaş, Beyoğlu, Kağıthane and Sarıyer, and inconsiderably to Kadıköy and Ümraniye.

The individuals from the urban area of Kadıköy which has a unique profile as an origin, substantially moved to the urban areas of Maltepe, Üsküdar and Sultanbeyli and less substantially to Kartal, Tuzla and Pendik.

The inhabitants who used to live in the urban area of Üsküdar which has a unique origin profile significantly moved to the urban areas of Kadıköy and Ümraniye, and inconsiderably to Kartal, Tuzla and Pendik.

From the urban area of Kartal, the residents substantially moved to the urban area of Pendik, and less significantly to the urban areas of Maltepe, Üsküdar and Sultanbeyli.

From the urban areas of Adalar, Maltepe and Pendik, the inhabitants significantly moved to the urban areas of Kartal and Tuzla, and less significantly to Kadıköy, Ümraniye and Pendik (see Figure 3.6).

Table 3.33 shows the percentages of the mobility flows according to their distinctive arrival profiles.

| Table 3.33: Reduced a | and reor | dered intra-n | netropolitan   | mobility i  | matrix   | for Is | stanbul |
|-----------------------|----------|---------------|----------------|-------------|----------|--------|---------|
| Interaction           | Field    | 1995-2000:    | Extended       | mobility    | from     | the    | urban   |
| settlements           | to the u | rban settleme | nts (distincti | ive arrival | profiles | s%'s)  |         |

| Districts of Origin (1995)   | Bağcılar | Gaziosmanpaşa | Bahçelievler, Güngören,<br>Küçükçekmece | Bayrampaşa, Eyüp | OTHER DISTRICTS of<br>DESTINATIONS** | Şişli | Beşiktaş, Beyoğlu, Kağıthane,<br>Sarıyer | Maltepe, Üsküdar, Sultanbeyli | Kadıköy, Ümraniye | Pendik   | Kartal, Tuzla | DEPARTURES% |
|--|----------|---------------|---|------------------|--------------------------------------|-------|--|-------------------------------|-------------------|----------|---------------|-------------|
| Bahçelievler, Esenler, Güngören  | 51,6     | 13,2          | 19,4                                    | 14,2             | 16,1                                 | 5,3   | 5,5                                      | 5,2                           | 4,0               | 3,7      | 4,1           | 13,1        |
| Bayrampaşa, Eyüp   | 4,9      | 36,5          | 5,0                                     | 4,2              | 8,1                                  | 3,3   | 3,7                                      | 1,7                           | 1,4               | 1,5      | 1,0           | 6,1         |
| Avcılar, Bağcılar, Bakırköy,   |          |               |   |                  |                                      |       |  |                               |                   |          | 16,2          |             |
| Gaziosmanpaşa  | 3,1      | 0,0           | 3,4                                     | 26,2             | 4,6                                  | 3,5   | 2,7                                      | 1,5                           | 1,3               | 2,2      | 1,3           | 3,8         |
| OTHER DISTRICTS of ORIGINS*  | 17,7     | 23,4          | 20,0                                    | 20,6             | 24,7                                 | 16,8  | 16,1                                     | 20,8                          | 16,5              | 17,4     | 17,1          | 20,0        |
| Beşiktaş, Beyoğlu, Kağıthane   | 2,5      | 8,3           | 4,4                                     | 8,3              | 5,8                                  | 41,3  | 18,7                                     | 10,5                          | 12,5              | 7,2      | 4,9           | 9,6         |
| Sarıyer, Şişli   | 3,5      | 3,6           | 3,3                                     | 6,0              | 3,7                                  | 7,7   | 27,0                                     | 7,4                           | 9,0               | 3,3      | 3,5           | 7,2         |
| Kadıköy  | 1,3      | 1,6           | 2,0                                     | 1,5              | 5,2                                  | 5,0   | 7,0                                      | 27,9                          | 7,9               | 15,2     | 15,1          | 8,3         |
| Üsküdar  | 0,6      | 1,2           | 1,7                                     | 1,0              | 3,4                                  | 4,4   | 4,1                                      | 5,6                           | 22,7              | 7,3      | 7,1           | 5,7         |
| Kartal   | 1,5      | 0,8           | 0,8                                     | 2,2              | 1,6                                  | 0,6   | 1,8                                      | 7,4                           | 4,6               | 21,9     | 3,2           | 3,3         |
| Adalar, Maltepe, Pendik  | 2,3      | 1,0           | 1,5                                     | 2,1              | 4,6                                  | 3,4   | 3,8                                      | 6,1                           | 12,3              | 13,3     | 37,0          | 6,6         |
| ARRIVALS%  | 100      | 100           | 100                                     | 100              | 100                                  | 100   | 100                                      | 100                           | 100               | 100      | 100           | 100         |
| <ul> <li>* Beykoz, Eminönü, Fatih, Küçükçekmed<br/>Marmara, Tekirdağ Marmara Ereğlisi</li> <li>** Adalar, Avcılar, Bakırköy, Beykoz, Er</li> </ul> | ·        |               |   | 5                | ,                                    | .,    |  |                               |                   | <b>,</b> | ·             | ıkesir      |
| Pehlivanköy, Kocaeli Gebze, Kocaeli Ka   |          |               |   |                  |                                      |       |  |                               |                   |          |               | /           |
| Source: Derived from the 5% Public Use Sample of the 2000 Census, TSI  |          |               |   |                  |                                      |       |  |                               |                   |          |               |             |

Bağcılar received 51.6% of all its movers from Bahçelievler, Esenler and Güngören which comprises 13.1% of all departures.

Gaziosmanpaşa received 36.5% of all its movers from Bayrampaşa and Eyüp which comprises 6.1% of all departures.

Bahçelievler, Güngören and Küçükçekmece received 38.5% of all its movers from Avcılar, Bağcılar, Bakırköy and Zeytinburnu which comprises 16.2% of all departures.

Bayrampaşa and Eyüp received 26.2% of all its movers from Gaziosmanpaşa which generates 3.8% of all departures.

Adalar, Avcılar, Bakırköy, Beykoz, Eminönü, Esenler, Fatih, Zeytinburnu, Büyükçekmece, Çatalca, Silivri, Şile, Pehlivanköy, Kocaeli Gebze, Kocaeli Kandıra, Kırklareli Pehlivanköy, Tekirdağ Marmara Ereğlisi and Tekirdağ Şarköy received 24.7% of all its movers from Beykoz, Eminönü, Fatih, Küçükçekmece, Tuzla, Ümraniye, Büyükçekmece, Çatalca, Silivri, Sultanbeyli, Şile, Balıkesir Marmara and Tekirdağ Marmara Ereğlisi which generates 20.0% of all departures.

Şişli received 41.3% of all its movers from Beşiktaş, Beyoğlu and Kağıthane which generates 9.6% of all departures.

Beşiktaş, Beyoğlu, Kağıthane and Sarıyer received 27.0% of all its movers from Sarıyer and Şişli which generates 7.2% of all departures.

Maltepe, Üsküdar and Sultanbeyli received 27.9% of all its movers from Kadıköy which generates 8.3% of all departures.

Kadıköy and Ümraniye received 22.7% of all its movers from Üsküdar which generates 5.7% of all departures.

Pendik received 21.9% of all its movers from Kartal which generates 3.3% of all departures. Kartal and Tuzla received 37.0% of all its movers from Adalar, Maltepe and Pendik which generates 6.6% of all departures.

Table 3.34 shows the percentages of the mobility flows according to their distinctive departure profiles.

Bahçelievler, Esenler and Güngören sent 22.1% of all its movers to Bağcılar which generates 5.6% of all arrivals.

Bayrampaşa and Eyüp sent 35.6% of all its movers to Gaziosmanpaşa which generates 6.0% of all arrivals.

Avcılar, Bağcılar, Bakırköy and Zeytinburnu sent 39.3% of all its movers to Bahçelievler, Güngören and Küçükçekmece which generates 16.6% of all arrivals.

Gaziosmanpaşa sent 32.0% of all its movers to Bayrampaşa and Eyüp which generates 4.6% of all arrivals.

Beşiktaş, Beyoğlu and Kağıthane sent 16.8% of all its movers to Şişli which generates 3.9% of all arrivals.

Kartal sent 22.7% of all its movers to Pendik which generates 3.4% of all arrivals.

**Table 3.34:** Reduced and reordered intra-metropolitan mobility matrix for IstanbulInteraction Field 1995-2000: Extended mobility from the urbansettlements to the urban settlements (distinctive departure profiles%'s)

|   |  |               | Ι  | Distric          | ts of Dest                              | inatio | n (200                                   | 0)                               |                   |        |               |             |  |
|---|--|---------------|--|------------------|---|--------|--|----------------------------------|-------------------|--------|---------------|-------------|--|
| Districts of Origin (1995)                                    | Bağcılar   | Gaziosmanpașa | Bahçelievler,<br>Güngören,<br>Küçükçekmece | Bayrampaşa, Eyüp | OTHER<br>DISTRICTS of<br>DESTINATIONS** | Şişli  | Beşiktaş, Beyoğlu,<br>Kağıthane, Sarıyer | Maltepe, Üsküdar,<br>Sultanbeyli | Kadıköy, Ümraniye | Pendik | Kartal, Tuzla | DEPARTURES% |  |
| Bahçelievler, Esenler, Güngören                               | 22,1   | 6,0           | 24,7                                       | 5,0              | 25,3                                    | 1,6    | 4,0                                      | 5,1                              | 3,6               | 1,0    | 1,7           | 100         |  |
| Bayrampaşa, Eyüp  | 4,4  | 35,6          | 13,7                                       | 3,2              | 27,3                                    | 2,1    | 5,7                                      | 3,5                              | 2,7               | 0,8    | 0,8           | 100         |  |
| Avcılar, Bağcılar, Bakırköy,<br>Zeytinburnu                   | 3,8 3,8 39,3 3,9 27,9 2,1 5,5 4,7 5,7 1,5 1,8 10   |               |  |                  |   |        |  |                                  |                   |        |               |             |  |
| Gaziosmanpaşa   | 4,5  | 0,0           | 15,1                                       | 32,0             | 25,0                                    | 3,6    | 6,7                                      | 5,1                              | 4,2               | 2,0    | 1,9           | 100         |  |
| OTHER DISTRICTS of ORIGINS*                                   | 4,9  | 7,0           | 16,6                                       | 4,7              | 25,3                                    | 3,3    | 7,6                                      | 13,3                             | 9,7               | 3,0    | 4,6           | 100         |  |
| Beşiktaş, Beyoğlu, Kağıthane                                  | 1,5  | 5,1           | 7,5  | 4,0              | 12,3                                    | 16,8   | 18,3                                     | 14,0                             | 15,2              | 2,6    | 2,7           | 100         |  |
| Sarıyer, Şişli  | 2,7  | 3,0           | 7,7  | 3,8              | 10,5                                    | 4,2    | 35,6                                     | 13,3                             | 14,9              | 1,6    | 2,6           | 100         |  |
| Kadıköy   | 0,9  | 1,2           | 4,0  | 0,8              | 12,8                                    | 2,4    | 8,0                                      | 42,9                             | 11,1              | 6,3    | 9,7           | 100         |  |
| Üsküdar   | 0,6  | 1,3           | 5,1  | 0,8              | 12,1                                    | 3,0    | 6,7                                      | 12,6                             | 46,8              | 4,4    | 6,7           | 100         |  |
| Kartal  | 2,5  | 1,5           | 3,8  | 3,1              | 10,0                                    | 0,7    | 5,3                                      | 28,8                             | 16,4              | 22,7   | 5,3           | 100         |  |
| Adalar, Maltepe, Pendik                                       | 1,9  | 0,9           | 3,6  | 1,5              | 14,3                                    | 2,0    | 5,4                                      | 11,8                             | 21,8              | 6,9    | 29,9          | 100         |  |
| ARRIVALS% 5,6 6,0 16,6 4,6 20,5 3,9 9,4 12,8 11,8 3,4 5,4 100 |  |               |  |                  |   |        |  |                                  |                   |        |               |             |  |
| Marmara, Tekirdağ Marmara Ereğlisi                            | mece, Tuzla, Ümraniye, Büyükçekmece, Çatalca, Silivri, Sultanbeyli, Şile, Balıkesir<br>, Eminönü, Esenler, Fatih, Zeytinburnu, Büyükçekmece, Çatalca, Silivri, Şile, |               |  |                  |   |        |  |                                  |                   |        |               |             |  |
| Pehlivanköy, Kocaeli Gebze, Kocaeli Ka                        |  |               |  |                  |   |        |  |                                  |                   |        |               |             |  |
| Source: Derived from the 5% Public Us                         | e Sample   | e of the      | 2000 Cen                                   | isus, T          | SI                                      |        |  |                                  |                   |        |               |             |  |

Beykoz, Eminönü, Fatih, Küçükçekmece, Tuzla, Ümraniye, Büyükçekmece, Çatalca, Silivri, Sultanbeyli, Şile, Balıkesir Marmara and Tekirdağ Marmara Ereğlisi sent 25.3% of all its movers to Adalar, Avcılar, Bakırköy, Beykoz, Eminönü, Esenler, Fatih, Zeytinburnu, Büyükçekmece, Çatalca, Silivri, Şile, Pehlivanköy, Kocaeli Gebze, Kocaeli Kandıra, Kırklareli Pehlivanköy, Tekirdağ Marmara Ereğlisi and Tekirdağ Şarköy which generates 20.5% of all arrivals.

Sarıyer and Şişli sent 35.6% of all its movers to Beşiktaş, Beyoğlu, Kağıthane and Sarıyer which generates 9.4% of all arrivals.

Kadıköy sent 42.9% of all its movers to Maltepe, Üsküdar and Sultanbeyli which generates 12.8% of all arrivals.

Üsküdar sent 46.8% of all its movers to Kadıköy and Ümraniye which generates 11.8% of all arrivals.

Adalar, Maltepe and Pendik sent 29.9% of all its movers to Kartal and Tuzla which generates 5.4% of all arrivals.

## 3.5 Analyses of Intra-metropolitan Mobility from Urban to Rural Area in Istanbul Interaction Field

### 3.5.1 Intra-metropolitan mobility from urban to rural area in Istanbul Interaction Field between 1985-1990

Total number of individuals representing a 5% sample of all the population which moved from an urban field to a rural field of a district in defined area is 3777 (see Table 3.35).

**Table 3.35:** Reduced and reordered intra-metropolitan mobility matrix for IstanbulInteraction Field 1985-1990: Extended mobility from the urbansettlements to the rural settlements (flows in absolute numbers)

|  |           |         |        | Γ     | Districts    | of De    | estinatio | on (1990)                         | )             |   |            |                  |
|--|-----------|---------|--------|-------|--------------|----------|-----------|-----------------------------------|---------------|---|------------|------------------|
|  | Kağıthane | Kadıköy | Yalova | Gebze | Kartal, Şile | Ümraniye | Eminönü   | OTHER DISTRICTS of<br>DEPARTURES* | Gaziosmanpașa | Adalar, Bakırköy,<br>Küçükçekmece, Büyükçekmece | Bayrampaşa | DEPARTURES TOTAL |
| Districts of Origin (1985)   |           |         |        |       |              |          |           |                                   | -             | 7   |            |                  |
| Kağıthane  | 14        | 0       | 2      | 5     | 50           | 4        | 0         | 3                                 | 2             | 6   | 0          | 86               |
| Kadıköy  | 0         | 37      | 62     | 44    | 144          | 49       | 0         | 36                                | 6             | 6   | 0          | 384              |
| Yalova   | 0         | 1       | 24     | 0     | 2            | 0        | 0         | 3                                 | 0             | 0   | 0          | 30               |
| Adalar, Kartal, Pendik   | 1         | 5       | 17     | 124   | 46           | 9        | 0         | 19                                | 1             | 6   | 0          | 228              |
| Üsküdar  | 0         | 2       | 11     | 7     | 191          | 27       | 0         | 17                                | 4             | 7   | 0          | 266              |
| Beşiktaş, Şişli, Silivri, Şile, Central<br>Edirne, Central Tekirdağ  | 0         | 3       | 15     | 25    | 246          | 124      | 0         | 115                               | 8             | 72  | 0          | 608              |
| Beykoz, Beyoğlu, Sarıyer, Ümraniye   | 1         | 3       | 5      | 15    | 113          | 143      | 0         | 44                                | 3             | 33  | 0          | 360              |
| Eminönü  | 0         | 0       | 1      | 8     | 15           | 0        | 2         | 3                                 | 0             | 16  | 0          | 45               |
| Eyüp, Fatih, Büyükçekmece, Çatalca   | 0         | 0       | 9      | 8     | 47           | 12       | 0         | 110                               | 77            | 201   | 2          | 466              |
| Gaziosmanpasa  | 0         | 2       | 2      | 18    | 1            | 7        | 0         | 5                                 | 65            | 21  | 2          | 123              |
| Bakırköy, Küçükçekmece,<br>Zevtinburnu   | 0         | 1       | 20     | 25    | 91           | 27       | 0         | 158                               | 73            | 684   | 2          | 1081             |
|  |           |         | -      | _     | -            |          |           |                                   |               |   |            |                  |
| Bayrampaşa   | 0         | 0       | 2      | 3     | 3            | 6        | 0         | 28                                | 21            | 25  | 12         | 100              |
| ARRIVALS TOTAL 16 54 170 282 949 408 2 541 260 1077 18 3777  |           |         |        |       |              |          |           |                                   |               |   |            |                  |
| * Beşiktaş, Beykoz, Beyoğlu, Eyüp, Fatih, Pendik, Sarıyer, Şişli, Üsküdar, Zeytinburnu, Çatalca, Silivri, Çanakkale<br>Gelibolu, Edirne Süleoğlu |           |         |        |       |              |          |           |                                   |               |   |            |                  |
| Source: Derived from the 5% Public Use   | Samp      | le of   | the 19 | 90 Ce | nsus, TS     | SI       |           |                                   |               |   |            |                  |

Table 3.36 reflecting the over-represented mobility flows shows that the mobility from the urban settlements to the rural settlements shows distinctive characteristics between the 1985-1990 period.

The individuals from the urban field of Kağıthane substantially moved to the rural field of the same district and also to the rural areas of Kartal and Şile.

| Table 3.36: Reduced a | and reor | dered intra-n  | netropolitan  | mobility 1  | matrix  | for Is | stanbul |
|-----------------------|----------|----------------|---------------|-------------|---------|--------|---------|
| Interaction           | Field    | 1985-1990:     | Extended      | mobility    | from    | the    | urban   |
| settlements           | to the r | ural settlemen | ts (signed cl | hi square i | ndices) |        |         |

|   |   |           |          | Dist      | tricts of i  | Destina  | tion (19 | 90)                               |               |   |            |  |
|---|---|-----------|----------|-----------|--------------|----------|----------|-----------------------------------|---------------|---|------------|--|
| Districts of Origin (1985)  | Kağıthane   | Kadıköy   | Yalova   | Gebze     | Kartal, Şile | Ümraniye | Eminönü  | OTHER DISTRICTS of<br>DEPARTURES* | Gaziosmanpaşa | Adalar, Bakırköy,<br>Küçükçekmece, Büyükçekmece | Bayrampaşa |  |
| Kağıthane   | 510,4   | -1,2      | -0,9     | -0,3      | 37,3         | -3,0     | 0,0      | -7,0                              | -2,6          | -14,0   | -0,4       |  |
| Kadıköy   | -1,6  | 180,8     | 115,7    | 8,2       | 23,4         | 1,4      | -0,2     | -6,6                              | -15,8         | -97,8   | -1,8       |  |
| Yalova  | -0,1  | 0,8       | 379,9    | -2,2      | -4,1         | -3,2     | 0,0      | -0,4                              | -2,1          | -8,6  | -0,1       |  |
| Adalar, Kartal, Pendik  | 0,0   | 0,9       | 4,4      | 672,3     | -2,2         | -9,9     | -0,1     | -5,7                              | -13,8         | -53,6   | -1,1       |  |
| Üsküdar   | -1,1  | -0,9      | -0,1     | -8,3      | 230,7        | -0,1     | -0,1     | -11,7                             | -11,2         | -62,5   | -1,3       |  |
| Beşiktaş, Şişli, Silivri, Şile, Central<br>Edirne, Central Tekirdağ | -2,6  | -3,7      | -5,6     | -9,2      | 56,9         | 51,8     | -0,3     | 8,9                               | -27,4         | -59,3   | -2,9       |  |
| Beykoz, Beyoğlu, Sarıyer, Ümraniye                                  | -0,2  | -0,9      | -7,7     | -5,2      | 5,6          | 278,7    | -0,2     | -1,1                              | -19,1         | -47,3   | -1,7       |  |
| Eminönü   | -0,2  | -0,6      | -0,5     | 6,4       | 1,2          | -4,9     | 163,9    | -1,8                              | -3,1          | 0,8   | -0,2       |  |
| Eyüp, Fatih, Büyükçekmece,<br>Çatalca                               | -2,0  | -6,7      | -6,8     | -20,6     | -42,0        | -29,2    | -0,2     | 28,0                              | 62,9          | 34,9  | 0,0        |  |
| Gaziosmanpaşa   | -0,5  | 0,0       | -2,3     | 8,5       | -28,9        | -3,0     | -0,1     | -9,0                              | 377,5         | -5,6  | 3,4        |  |
| Bakırköy, Küçükçekmece,<br>Zeytinburnu                              | -4,6  | -13,5     | -16,9    | -38,5     | -120,1       | -69,0    | -0,6     | 0,1                               | 0,0           | 458,1   | -1,9       |  |
| Bayrampaşa -0,4 -1,4 -1,4 -2,7 -19,5 -2,1 -0,1 13,1 28,9 -0,4 278,6 |   |           |          |           |              |          |          |                                   |               |   |            |  |
| * Beşiktaş, Beykoz, Beyoğlu, Eyüp, Fat<br>Gelibolu, Edirne Süleoğlu | o, Fatih, Pendik, Sarıyer, Şişli, Üsküdar, Zeytinburnu, Çatalca, Silivri, Çanakkale |           |          |           |              |          |          |                                   |               |   |            |  |
| Source: Derived from the 5% Public Us                               | se Samp   | le of the | e 1990 C | Census, ' | TSI          |          |          |                                   |               |   |            |  |

The individuals from the urban area of Kadıköy substantially moved to the rural areas of Kadıköy and Yalova and relatively less to the rural areas of Gebze, Kartal, Şile and Ümraniye.

The dwellers in the urban area of Yalova have an over-represented mobility to the rural area of Yalova itself.

The inhabitants from the urban areas of Adalar, Kartal and Pendik substantially moved to the rural areas of Gebze.

The individuals who used to live in the urban area of Üsküdar considerably moved to the rural areas of Kartal and Şile. The individuals from Beşiktaş, Şişli, Silivri, Şile, Central Edirne and Central Tekirdağ have an over-represented individual mobility to the rural areas of Kartal, Şile and Ümraniye (see Figure 3.7).

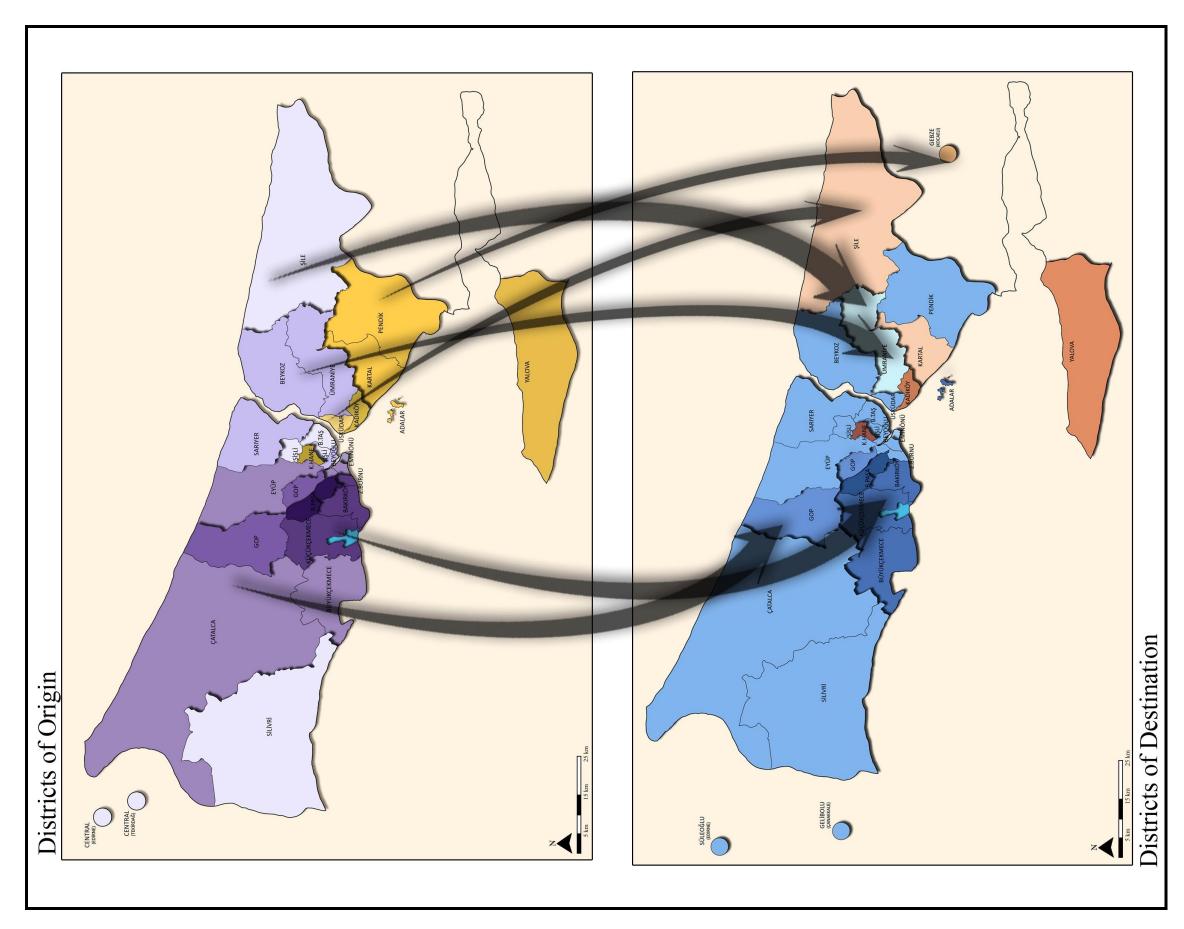


Figure 3.7 : Intra-metropolitan mobility from urban to rural area in Istanbul Interaction Field between 1985-1990.

The inhabitants from the urban areas of Beykoz, Beyoğlu, Sarıyer and Ümraniye have an over-represented mobility to the rural area of Ümraniye and relatively lower to the rural areas of Kartal and Şile.

The urban area of Eminönü has a substantial individual mobility to the rural area of Eminönü, and relatively less to the rural areas of Gebze, Kartal and Şile.

From the urban areas of Eyüp, Fatih, Büyükçekmece and Çatalca the inhabitants substantially moved to the rural areas of Gaziosmanpaşa, Adalar, Bakırköy, Küçükçekmece, Büyükçekmece, Beşiktaş, Beykoz, Beyoğlu, Eyüp, Fatih, Pendik, Sarıyer, Şişli, Üsküdar, Zeytinburnu, Çatalca, Silivri, Çanakkale Gelibolu, Edirne Süleoğlu.

The individuals from the urban area of Gaziosmanpaşa moved to the rural area of the same district.

The urban areas of Bakırköy, Küçükçekmece and Zeytinburnu generated a group of origins from which the inhabitants moved to a group of destinations including the rural areas of Adalar, Bakırköy, Küçükçekmece and Büyükçekmece.

The dwellers from the urban area of Bayrampaşa, which has a unique profile as an origin, considerably moved to the rural area of the same district and relatively less to the rural areas of Gaziosmanpaşa, Beşiktaş, Beykoz, Beyoğlu, Eyüp, Fatih, Pendik, Sarıyer, Şişli, Üsküdar, Zeytinburnu, Çatalca, Silivri, Çanakkale Gelibolu and Edirne Süleoğlu (see Figure 3.7).

Table 3.37 shows the percentages of the mobility flows according to their distinctive arrival profiles.

Kağıthane received 87.5% of all its movers from the urban area of Kağıthane which comprises 2,3% of all departures.

Kadıköy received 68.5% of all its movers from Kadıköy which comprises 10,2% of all departures.

Yalova received 36,5% of all its movers from Kadıköy and 14.1% Yalova comprising 0.8% of all departures.

Gebze received 44.0% of all its movers from Adalar, Kartal and Pendik which include 6.0% of all departures.

**Table 3.37:** Reduced and reordered intra-metropolitan mobility matrix for IstanbulInteraction Field 1985-1990: Extended mobility from the urbansettlements to the rural settlements (distinctive arrival profiles%'s)

|  |           | -                                       |         | D        | istricts     | of Desti | nation (1  | <b>1990</b> )                     |               |  | -          |             |
|--|-----------|---|---------|----------|--------------|----------|------------|-----------------------------------|---------------|--|------------|-------------|
| Districts of Origin (1985)   | Kağıthane | Kadıköy                                 | Yalova  | Gebze    | Kartal, Şile | Ümraniye | Eminönügoo | OTHER DISTRICTS of<br>DEPARTURES* | Gaziosmanpaşa | Adalar, Bakırköy,<br>Küçükçekmece,<br>Büyükçekmece | Bayrampaşa | DEPARTURES% |
| Kağıthane  | 87,5      | 0,0                                     | 1,2     | 1,8      | 5,3          | 1,0      | 0,0        | 0,6                               | 0,8           | 0,6  | 0,0        | 2,3         |
| Kadıköy  | 0,0       | 68,5                                    | 36,5    | 15,6     | 15,2         | 12,0     | 0,0        | 6,7                               | 2,3           | 0,6  | 0,0        | 10,2        |
| Yalova   | 0,0       | 1,9                                     | 14,1    | 0,0      | 0,2          | 0,0      | 0,0        | 0,6                               | 0,0           | 0,0  | 0,0        | 0,8         |
| Adalar, Kartal, Pendik   | 6,3       | 9,3                                     | 10,0    | 44,0     | 4,8          | 2,2      | 0,0        | 3,5                               | 0,4           | 0,6  | 0,0        | 6,0         |
| Üsküdar  | 0,0       | 3,7                                     | 6,5     | 2,5      | 20,1         | 6,6      | 0,0        | 3,1                               | 1,5           | 0,6  | 0,0        | 7,0         |
| Beşiktaş, Şişli, Silivri, Şile,<br>Central Edirne, Central<br>Tekirdağ | 0,0       | 5,6                                     | 8,8     | 8,9      | 25,9         | 30,4     | 0,0        | 21,3                              | 3,1           | 6,7  | 0,0        | 16,1        |
| Beykoz, Beyoğlu, Sarıyer,<br>Ümraniye                                  | 6,3       | 5,6                                     | 2,9     | 5,3      | 11,9         | 35,0     | 0,0        | 8,1                               | 1,2           | 3,1  | 0,0        | 9,5         |
| Eminönü  | 0,0       | 0,0                                     | 0,6     | 2,8      | 1,6          | 0,0      | 100,0      | 0,6                               | 0,0           | 1,5  | 0,0        | 1,2         |
| Eyüp, Fatih,<br>Büyükçekmece, Çatalca                                  | 0,0       | 0,0                                     | 5,3     | 2,8      | 5,0          | 2,9      | 0,0        | 20,3                              | 29,6          | 18,7   | 11,1       | 12,3        |
| Gaziosmanpaşa  | 0,0       | 3,7                                     | 1,2     | 6,4      | 0,1          | 1,7      | 0,0        | 0,9                               | 25,0          | 1,9  | 11,1       | 3,3         |
| Bakırköy, Küçükçekmece,<br>Zeytinburnu                                 | 0,0       | 1,9                                     | 11,8    | 8,9      | 9,6          | 6,6      | 0,0        | 29,2                              | 28,1          | 63,5   | 11,1       | 28,6        |
| Bayrampaşa   | 0,0       | 0,0                                     | 1,2     | 1,1      | 0,3          | 1,5      | 0,0        | 5,2                               | 8,1           | 2,3  | 66,7       | 2,6         |
| ARRIVALS%  | 100       | 100                                     | 100     | 100      | 100          | 100      | 100        | 100                               | 100           | 100  | 100        | 100         |
| * Beşiktaş, Beykoz, Beyoğlu,<br>Gelibolu, Edirne Süleoğlu              | Eyüp, I   | Fatih, I                                | Pendik, | Sarıyer, | Şişli, Üs    | küdar, Z | eytinbur   | nu, Çata                          | lca, Siliv    | zri, Çanak   | kale       |             |
| Source: Derived from the 5%  | Public    | blic Use Sample of the 1990 Census, TSI |         |          |              |          |            |                                   |               |  |            |             |

Kartal and Şile received 25,9% of all its movers from Beşiktaş, Şişli, Silivri, Şile, Central Edirne and Central Tekirdağ comprising 16.1% of all departures and 20.1% from Üsküdar comprising 7.0% of all departures.

Ümraniye received 35,0% of all its movers from Beykoz, Beyoğlu, Sarıyer and Ümraniye comprising 9.5% of all departures and 30.4% from Beşiktaş, Şişli, Silivri, Şile, Central Edirne and Central Tekirdağ.

Beşiktaş, Beykoz, Beyoğlu, Eyüp, Fatih, Pendik, Sarıyer, Şişli, Üsküdar, Zeytinburnu, Çatalca, Silivri, Çanakkale Gelibolu and Edirne Süleoğlu received 20.3% of all its movers from Eyüp, Fatih, Büyükçekmece and Çatalca which include 12.3% of all departures.

Gaziosmanpaşa received 29,6% of all its movers from Eyüp, Fatih, Büyükçekmece and Çatalca and 25.0% from Gaziosmanpaşa including 3.3% of all departures.

Adalar, Bakırköy, Küçükçekmece and Büyükçekmece received 63,5% of all its movers from Bakırköy, Küçükçekmece and Zeytinburnu comprising 28.6% of all departures and 18.7% from Eyüp, Fatih, Büyükçekmece and Çatalca.

Bayrampaşa received 66.7% of all its movers from Bayrampaşa which include 2.6% of all departures.

|   |           |         |        | Di     | stricts      | of Des   | tinati  | on (1990                             | )             |  |            |             |
|---|-----------|---------|--------|--------|--------------|----------|---------|--------------------------------------|---------------|--|------------|-------------|
| Districts of Origin (1985)  | Kağıthane | Kadıköy | Yalova | Gebze  | Kartal, Şile | Ümraniye | Eminönü | OTHER<br>DISTRICTS of<br>DEPARTURES* | Gaziosmanpaşa | Adalar, Bakırköy,<br>Küçükçekmece,<br>Büyükçekmece | Bayrampaşa | DEPARTURES% |
| Kağıthane   | 16,3      | 0,0     | 2,3    | 5,8    | 58,1         | 4,7      | 0,0     | 3,5                                  | 2,3           | 7,0  | 0,0        | 100         |
| Kadıköy   | 0,0       | 9,6     | 16,1   | 11,5   | 37,5         | 12,8     | 0,0     | 9,4                                  | 1,6           | 1,6  | 0,0        | 100         |
| Yalova  | 0,0       | 3,3     | 80,0   | 0,0    | 6,7          | 0,0      | 0,0     | 10,0                                 | 0,0           | 0,0  | 0,0        | 100         |
| Adalar, Kartal, Pendik  | 0,4       | 2,2     | 7,5    | 54,4   | 20,2         | 3,9      | 0,0     | 8,3                                  | 0,4           | 2,6  | 0,0        | 100         |
| Üsküdar   | 0,0       | 0,8     | 4,1    | 2,6    | 71,8         | 10,2     | 0,0     | 6,4                                  | 1,5           | 2,6  | 0,0        | 100         |
| Beşiktaş, Şişli, Silivri, Şile, Central<br>Edirne, Central Tekirdağ   | 0,0       | 0,5     | 2,5    | 4,1    | 40,5         | 20,4     | 0,0     | 18,9                                 | 1,3           | 11,8   | 0,0        | 100         |
| Beykoz, Beyoğlu, Sarıyer,<br>Ümraniye   | 0,3       | 0,8     | 1,4    | 4,2    | 31,4         | 39,7     | 0,0     | 12,2                                 | 0,8           | 9,2  | 0,0        | 100         |
| Eminönü   | 0,0       | 0,0     | 2,2    | 17,8   | 33,3         | 0,0      | 4,4     | 6,7                                  | 0,0           | 35,6   | 0,0        | 100         |
| Eyüp, Fatih, Büyükçekmece,<br>Çatalca   | 0,0       | 0,0     | 1,9    | 1,7    | 10,1         | 2,6      | 0,0     | 23,6                                 | 16,5          | 43,1   | 0,4        | 100         |
| Gaziosmanpaşa   | 0,0       | 1,6     | 1,6    | 14,6   | 0,8          | 5,7      | 0,0     | 4,1                                  | 52,8          | 17,1   | 1,6        | 100         |
| Bakırköy, Küçükçekmece,<br>Zeytinburnu  | 0,0       | 0,1     | 1,9    | 2,3    | 8,4          | 2,5      | 0,0     | 14,6                                 | 6,8           | 63,3   | 0,2        | 100         |
| Bayrampaşa  | 0,0       | 0,0     | 2,0    | 3,0    | 3,0          | 6,0      | 0,0     | 28,0                                 | 21,0          | 25,0   | 12,0       | 100         |
| ARRIVALS%   | 0,4       | 1,4     | 4,5    | 7,5    | 25,1         | 10,8     | 0,1     | 14,3                                 | 6,9           | 28,5   | 0,5        | 100         |
| * Beşiktaş, Beykoz, Beyoğlu, Eyüp, Fatih, Pendik, Sarıyer, Şişli, Üsküdar, Zeytinburnu, Çatalca, Silivri, Çanakkale Gelibolu, Edirne Süleoğlu |           |         |        |        |              |          |         |                                      |               |  |            |             |
| Source: Derived from the 5% Public V  | Use Sa    | mple    | of the | 1990 C | Census,      | TSI      |         |                                      |               |  |            |             |

| Table 3.38: Reduced | and reor  | dered intra-  | metropolitan    | mobility :  | matrix    | for Is | stanbul |
|---------------------|-----------|---------------|-----------------|-------------|-----------|--------|---------|
| Interaction         | Field     | 1985-1990:    | Extended        | mobility    | from      | the    | urban   |
| settlements         | to the ru | ural settleme | nts (distinctiv | ve departur | re profil | les%'  | s)      |

Table 3.38 shows the percentages of the mobility flows according to their distinctive departure profiles.

Kağıthane sent 16.3% of all its movers to Kağıthane which contains 0.4% of all arrivals.

Kadıköy sent 9.6% of all its movers to Kadıköy which contains 1.4% of all arrivals, 16.1% of all its movers to Yalova which generates 4.5% of all arrivals.

Yalova sent 80.0% of all its movers to Yalova.

Adalar, Kartal and Pendik sent 54.4% of all its movers to the 9027th group which contains 7.5% of all arrivals.

Üsküdar sent 71.8% of all its movers to the Kartal and Şile which contains 25.1% of all arrivals.

Beşiktaş, Şişli, Silivri, Şile, Central Edirne and Central Tekirdağ sent 40.5% of all its movers to the 9048th group, and 20.4% of all its movers to the 9036th group which generates 10.8% of all arrivals.

Beykoz, Beyoğlu, Sarıyer and Ümraniye sent 39.7% of all its movers to the 9036th group.

Eyüp, Fatih, Büyükçekmece and Çatalca sent 43.1% of all its movers to Adalar, Bakırköy, Küçükçekmece and Büyükçekmece which contains 28.5% of all arrivals, 23.6% of all its movers to Beşiktaş, Beykoz, Beyoğlu, Eyüp, Fatih, Pendik, Sarıyer, Şişli, Üsküdar, Zeytinburnu, Çatalca, Silivri, Çanakkale Gelibolu and Edirne Süleoğlu which includes 14.3% of all arrivals and 16.5% of all its movers to Gaziosmanpaşa which generates 6.9% of all arrivals

Gaziosmanpaşa sent 52.8% of all its movers Gaziosmanpaşa.

Bakırköy, Küçükçekmece and Zeytinburnu sent 63.3% of all its movers to Adalar, Bakırköy, Küçükçekmece and Büyükçekmece.

Bayrampaşa sent 12.0% of all its movers to Bayrampaşa which contains 0.5% of all arrivals.

#### 3.5.2 Intra-metropolitan mobility from urban to rural area in Istanbul Interaction Field between 1995-2000

Total number of individuals of all the population which moved from an urban field to a rural field of a district in defined area is 6620 (Table 3.39).

Table 3.40 reflecting the over-represented mobility flows shows that the mobility from the urban settlements to the rural settlements shows distinctive characteristics between 1995-2000.

The individuals from the urban areas of Ümraniye and Beykoz substantially moved to the rural areas of the same districts in which they used to live (see Figure 3.8).

|  |             |          | Distri   | cts of Dest                          | ination (           | (2000)                |              |              |                  |
|--|-------------|----------|----------|--------------------------------------|---------------------|-----------------------|--------------|--------------|------------------|
| Districts of Origin (1995)   | Ümraniye    | Beykoz   | Tuzla    | OTHER DISTRICTS of<br>DESTINATIONS** | Sariyer             | Gaziosmanpaşa         | Çatalca      | Büyükçekmece | DEPARTURES TOTAL |
| Ümraniye   | 364         | 13       | 7        | 77                                   | 1                   | 7                     | 0            | 31           | 500              |
| Beykoz   | 32          | 79       | 0        | 14                                   | 1                   | 1                     | 0            | 0            | 127              |
| Pendik, Tuzla  | 6           | 0        | 39       | 63                                   | 4                   | 2                     | 1            | 6            | 121              |
| Kadıköy, Kağıthane, Kartal, Üsküdar,<br>Sultanbeyli  | 306         | 89       | 10       | 376                                  | 32                  | 16                    | 12           | 182          | 1023             |
| OTHER DISTRICTS of ORIGINS*  | 141         | 37       | 16       | 168                                  | 24                  | 9                     | 20           | 221          | 636              |
| Beşiktaş, Sarıyer  | 24          | 20       | 1        | 42                                   | 111                 | 6                     | 4            | 67           | 275              |
| Esenler, Gaziosmanpaşa   | 43          | 0        | 6        | 117                                  | 6                   | 159                   | 18           | 185          | 534              |
| Bağcılar, Bayrampaşa, Eyüp   | 25          | 2        | 0        | 84                                   | 6                   | 92                    | 16           | 261          | 486              |
| Çatalca  | 7           | 0        | 0        | 5                                    | 3                   | 1                     | 25           | 13           | 54               |
| Bahçelievler, Bakırköy, Fatih,<br>Güngören, Küçükçekmece   | 47          | 43       | 5        | 197                                  | 48                  | 27                    | 31           | 1364         | 1762             |
| Avcılar, Büyükçekmece  | 13          | 0        | 0        | 42                                   | 2                   | 13                    | 21           | 1011         | 1102             |
| ARRIVALS TOTAL   | 1008        | 283      | 84       | 1185                                 | 238                 | 333                   | 148          | 3341         | 6620             |
| <ul> <li>* Adalar, Beyoğlu, Eminönü, Maltepe, Şişli</li> <li>** Eyüp, Kartal, Küçükçekmece, Pendik, Si<br/>Tekirdağ Şarköy</li> <li>Source: Derived from the 5% Public Use Sa</li> </ul> | livri, Şile | e, Kocae | li Gebze | , Kocaeli K                          | Marmar<br>andıra, T | a Ereğlis<br>Fekirdağ | si<br>Marmar | a Ereğlis    | i,               |

# **Table 3.39:** Reduced and reordered intra-metropolitan mobility matrix for IstanbulInteraction Field 1995-2000: Extended mobility from the urbansettlements to the rural settlements (flows in absolute numbers)

The dwellers from the urban areas of Pendik and Tuzla significantly moved to the rural areas of Tuzla, and less considerably to Eyüp, Kartal, Küçükçekmece, Pendik, Silivri, Şile, Gebze, Kandıra, Marmara Ereğlisi and Şarköy.

The individuals from the urban areas of Kadıköy, Kağıthane, Kartal, Üsküdar and Sultanbeyli significantly moved to the rural areas of Eyüp, Kartal, Küçükçekmece, Pendik, Silivri, Şile, Gebze, Kandıra, Marmara Ereğlisi and Şarköy. The people from this group also moved to the rural areas of Beykoz.

Having an assemblage profile according to its destination points, individuals from a group including Adalar, Beyoğlu, Eminönü, Maltepe, Şişli, Zeytinburnu, Silivri, Şile and Marmara Ereğlisi moved to Eyüp, Kartal, Küçükçekmece, Pendik, Silivri, Şile, Gebze, Kandıra, Marmara Ereğlisi, Şarköy, Ümraniye, Tuzla and Beykoz.

**Table 3.40:** Reduced and reordered intra-metropolitan mobility matrix for IstanbulInteraction Field 1995-2000: Extended mobility from the urbansettlements to the rural settlements (signed chi square indices)

|  | Districts of Destination (2000) |        |       |                                      |         |               |         |              |
|--|---------------------------------|--------|-------|--------------------------------------|---------|---------------|---------|--------------|
| Districts of Origin (1995)   | Ümraniye                        | Beykoz | Tuzla | OTHER DISTRICTS of<br>DESTINATIONS** | Sarıyer | Gaziosmanpașa | Çatalca | Büyükçekmece |
| Ümraniye   | 1088,5                          | -3,3   | 0,1   | -1,7                                 | -16,0   | -13,1         | -11,2   | -194,1       |
| Beykoz   | 8,3                             | 997,0  | -1,6  | -3,4                                 | -2,8    | -4,5          | -2,8    | -64,1        |
| Pendik, Tuzla  | -8,4                            | -5,2   | 914,2 | 78,9                                 | 0,0     | -2,7          | -1,1    | -49,7        |
| Kadıköy, Kağıthane, Kartal,<br>Üsküdar, Sultanbeyli  | 144,9                           | 46,9   | -0,7  | 203,2                                | -0,6    | -24,4         | -5,2    | -216,4       |
| OTHER DISTRICTS of<br>ORIGINS*   | 20,1                            | 3,5    | 7,8   | 25,8                                 | 0,1     | -16,5         | 2,4     | -31,1        |
| Beşiktaş, Sarıyer  | -7,6                            | 5,8    | -1,8  | -1,1                                 | 1034,1  | -4,4          | -0,8    | -37,1        |
| Esenler, Gaziosmanpaşa   | -18,1                           | -22,8  | -0,1  | 4,8                                  | -9,1    | 650,0         | 3,1     | -26,5        |
| Bağcılar, Bayrampaşa, Eyüp   | -32,4                           | -17,0  | -6,2  | -0,1                                 | -7,5    | 186,7         | 2,4     | 1,0          |
| Çatalca  | -0,2                            | -2,3   | -0,7  | -2,3                                 | 0,6     | -1,1          | 468,9   | -7,5         |
| Bahçelievler, Bakırköy, Fatih,<br>Güngören, Küçükçekmece   | -182,5                          | -13,9  | -13,5 | -44,4                                | -3,7    | -42,9         | -1,8    | 253,5        |
| Avcılar, Büyükçekmece  | -142,8                          | -47,1  | -14,0 | -<br>122,2                           | -35,7   | -32,5         | -0,5    | 372,0        |
| <ul> <li>* Adalar, Beyoğlu, Eminönü, Maltepe, Şişli, Zeytinburnu, Silivri, Şile, Tekirdağ Marmara Ereğlisi</li> <li>** Eyüp, Kartal, Küçükçekmece, Pendik, Silivri, Şile, Kocaeli Gebze, Kocaeli Kandıra, Tekirdağ Marmara Ereğlisi, Tekirdağ Şarköy</li> <li>Source: Derived from the 5% Public Use Sample of the 2000 Census, TSI</li> </ul> |                                 |        |       |                                      |         |               |         |              |

The individuals from the urban areas of Beşiktaş and Sarıyer substantially moved to the rural areas of Sarıyer, and inconsiderably to Beykoz. The individulas from Esenler and Gaziosmanpaşa significantly moved to the rural area of Sarıyer as well. However they inconsiderably moved to the rural areas of Eyüp, Kartal, Küçükçekmece, Pendik, Silivri, Şile, Kocaeli Gebze, Kocaeli Kandıra, Tekirdağ Marmara Ereğlisi, Tekirdağ Şarköy and Çatalca.

The individuals who used to live in the urban areas of Bağcılar, Bayrampaşa and Eyüp significantly moved to the rural areas of Gaziosmanpaşa and inconsiderably to Çatalca and Büyükçekmece.

The residents that used to live in the urban areas of Bahçelievler, Bakırköy, Fatih, Güngören and Küçükçekmece and to the urban areas of Avcılar and Büyükçekmece substantially moved to the rural areas of Büyükçekmece. There is only a difference of degree between these two groups of origins (see Figure 3.8).

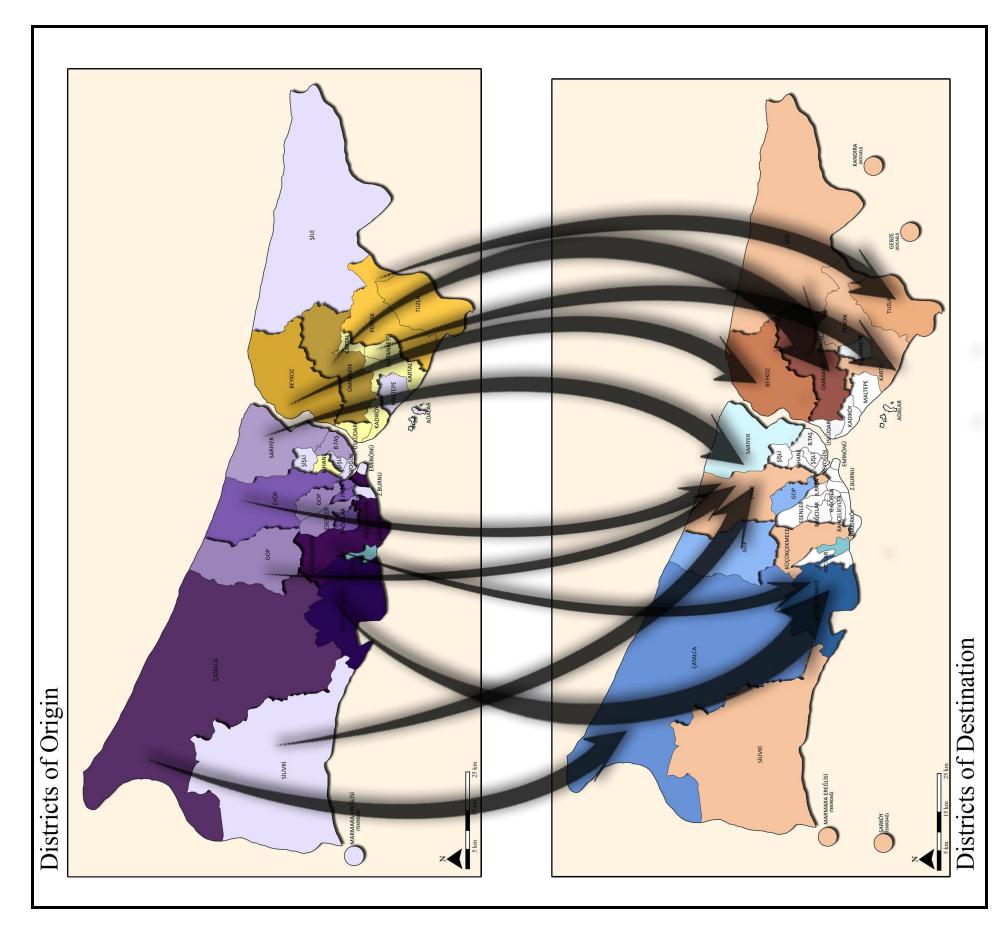


Figure 3.8 : Intra-metropolitan mobility from urban to rural area in Istanbul Interaction Field between 1995-2000.

|  |          |          | Distric   | ts of Des                            | tination | (2000)        | 1       |              |             |
|--|----------|----------|-----------|--------------------------------------|----------|---------------|---------|--------------|-------------|
| Districts of Origin (1995)   | Ümraniye | Beykoz   | Tuzla     | OTHER DISTRICTS of<br>DESTINATIONS** | Sariyer  | Gaziosmanpaşa | Çatalca | Büyükçekmece | DEPARTURES% |
| Ümraniye   | 36,1     | 4,6      | 8,3       | 6,5                                  | 0,4      | 2,1           | 0,0     | 0,9          | 7,6         |
| Beykoz   | 3,2      | 27,9     | 0,0       | 1,2                                  | 0,4      | 0,3           | 0,0     | 0,0          | 1,9         |
| Pendik, Tuzla  | 0,6      | 0,0      | 46,4      | 5,3                                  | 1,7      | 0,6           | 0,7     | 0,2          | 1,8         |
| Kadıköy, Kağıthane, Kartal,<br>Üsküdar, Sultanbeyli  | 30,4     | 31,4     | 11,9      | 31,7                                 | 13,4     | 4,8           | 8,1     | 5,4          | 15,5        |
| OTHER DISTRICTS of ORIGINS**   | 14,0     | 13,1     | 19,0      | 14,2                                 | 10,1     | 2,7           | 13,5    | 6,6          | 9,6         |
| Beşiktaş, Sarıyer  | 2,4      | 7,1      | 1,2       | 3,5                                  | 46,6     | 1,8           | 2,7     | 2,0          | 4,2         |
| Esenler, Gaziosmanpaşa   | 4,3      | 0,0      | 7,1       | 9,9                                  | 2,5      | 47,7          | 12,2    | 5,5          | 8,1         |
| Bağcılar, Bayrampaşa, Eyüp   | 2,5      | 0,7      | 0,0       | 7,1                                  | 2,5      | 27,6          | 10,8    | 7,8          | 7,3         |
| Çatalca  | 0,7      | 0,0      | 0,0       | 0,4                                  | 1,3      | 0,3           | 16,9    | 0,4          | 0,8         |
| Bahçelievler, Bakırköy, Fatih,<br>Güngören, Küçükçekmece   | 4,7      | 15,2     | 6,0       | 16,6                                 | 20,2     | 8,1           | 20,9    | 40,8         | 26,6        |
| Avcılar, Büyükçekmece  | 1,3      | 0,0      | 0,0       | 3,5                                  | 0,8      | 3,9           | 14,2    | 30,3         | 16,6        |
| ARRIVALS%  | 100      | 100      | 100       | 100                                  | 100      | 100           | 100     | 100          | 100         |
| <ul> <li>* Adalar, Beyoğlu, Eminönü, Maltepe, Ş</li> <li>** Eyüp, Kartal, Küçükçekmece, Pendik,<br/>Tekirdağ Şarköy</li> <li>Source: Derived from the 5% Public Use</li> </ul> | Silivri, | Şile, Ko | caeli Gel | oze, Koc                             |          |               |         | armara I     | Ereğlisi,   |

**Table 3.41:** Reduced and reordered intra-metropolitan mobility matrix for IstanbulInteraction Field 1995-2000: Extended mobility from the urbansettlements to the rural settlements (distinctive arrival profiles%'s)

Table 3.41 shows the percentages of the mobility flows according to their distinctive arrival profiles.

Ümraniye received 36.1% of all its movers from Ümraniye which generates 7.6% of all departures and 30.4% from the 22nd group.

Beykoz received 27.9% of all its movers from Beykoz which generates 1.9% of all departures.

Tuzla received 46.4% of all its movers from Pendik and Tuzla which generates 1.8% of all departures.

Eyüp, Kartal, Küçükçekmece, Pendik, Silivri, Şile, Kocaeli Gebze, Kocaeli Kandıra, Tekirdağ Marmara Ereğlisi and Tekirdağ Şarköy received 31.7% of all its movers from Kadıköy, Kağıthane, Kartal, Üsküdar and Sultanbeyli which generates 15.5% of all departures.

Sarıyer received 46.6% of all its movers from Beşiktaş and Sarıyer which generates 4.2% of all departures.

Gaziosmanpaşa received 47.7% of all its movers from Esenler and Gaziosmanpaşa which generates 8.1% of all departures, and 27.6% of all its movers from Bağcılar, Bayrampaşa and Eyüp which generates 7.3% of all departures.

Çatalca received 16.9% of all its movers from Çatalca which generates 0.8% of all departures.

Büyükçekmece received 40.8% of all its movers from Bahçelievler, Bakırköy, Fatih, Güngören and Küçükçekmece which generates 26.6% of all departures, and also 30.3% of all its movers from Avcılar and Büyükçekmece which generates 16.6% of all departures.

Table 3.42 shows the percentages of the mobility flows according to their distinctive departure profiles.

|   |            | -           | Distri    | cts of Dest                          | ination  | (2000)        |         |              |             |
|---|------------|-------------|-----------|--------------------------------------|----------|---------------|---------|--------------|-------------|
| Districts of Origin (1995)  | Ümraniye   | Beykoz      | Tuzla     | OTHER DISTRICTS of<br>DESTINATIONS** | Sarıyer  | Gaziosmanpaşa | Çatalca | Büyükçekmece | DEPARTURES% |
| Ümraniye  | 72,8       | 2,6         | 1,4       | 15,4                                 | 0,2      | 1,4           | 0,0     | 6,2          | 100         |
| Beykoz  | 25,2       | 62,2        | 0,0       | 11,0                                 | 0,8      | 0,8           | 0,0     | 0,0          | 100         |
| Pendik, Tuzla   | 5,0        | 0,0         | 32,2      | 52,1                                 | 3,3      | 1,7           | 0,8     | 5,0          | 100         |
| Kadıköy, Kağıthane, Kartal,<br>Üsküdar, Sultanbeyli   | 29,9       | 8,7         | 1,0       | 36,8                                 | 3,1      | 1,6           | 1,2     | 17,8         | 100         |
| OTHER DISTRICTS of<br>ORIGINS*  | 22,2       | 5,8         | 2,5       | 26,4                                 | 3,8      | 1,4           | 3,1     | 34,7         | 100         |
| Beşiktaş, Sarıyer   | 8,7        | 7,3         | 0,4       | 15,3                                 | 40,4     | 2,2           | 1,5     | 24,4         | 100         |
| Esenler, Gaziosmanpaşa  | 8,1        | 0,0         | 1,1       | 21,9                                 | 1,1      | 29,8          | 3,4     | 34,6         | 100         |
| Bağcılar, Bayrampaşa, Eyüp  | 5,1        | 0,4         | 0,0       | 17,3                                 | 1,2      | 18,9          | 3,3     | 53,7         | 100         |
| Çatalca   | 13,0       | 0,0         | 0,0       | 9,3                                  | 5,6      | 1,9           | 46,3    | 24,1         | 100         |
| Bahçelievler, Bakırköy, Fatih,<br>Güngören, Küçükçekmece  | 2,7        | 2,4         | 0,3       | 11,2                                 | 2,7      | 1,5           | 1,8     | 77,4         | 100         |
| Avcılar, Büyükçekmece   | 1,2        | 0,0         | 0,0       | 3,8                                  | 0,2      | 1,2           | 1,9     | 91,7         | 100         |
| ARRIVALS%   | 15,2       | 4,3         | 1,3       | 17,9                                 | 3,6      | 5,0           | 2,2     | 50,5         | 100         |
| * Adalar, Beyoğlu, Eminönü, Maltepe<br>** Eyüp, Kartal, Küçükçekmece, Pene<br>Tekirdağ Şarköy<br>Source: Derived from the 5% Public | lik, Siliv | ri, Şile, I | Kocaeli ( | Gebze, Koc                           | aeli Kan |               |         | armara I     | Ereğlisi,   |

**Table 3.42:** Reduced and reordered intra-metropolitan mobility matrix for IstanbulInteraction Field 1995-2000: Extended mobility from the urbansettlements to the rural settlements (distinctive departure profiles%'s)

Ümraniye sent 72.8% of all its movers to Ümraniye which generates 15.2% of all arrivals.

Beykoz sent 62.2% of all its movers to Beykoz which generates 4.3% of all arrivals.

Pendik and Tuzla sent 32.2% of all its movers to Tuzla which generates 1.3% of all arrivals.

Kadıköy, Kağıthane, Kartal, Üsküdar and Sultanbeyli sent 36.8% of all its movers to Eyüp, Kartal, Küçükçekmece, Pendik, Silivri, Şile, Kocaeli Gebze, Kocaeli Kandıra, Tekirdağ Marmara Ereğlisi and Tekirdağ Şarköy of destinations which generates 17.9% of all arrivals, and also 29.9% of all movers to Ümraniye.

Beşiktaş and Sarıyer sent 40.4% of all its movers to Sarıyer which generates 3.6% of all arrivals.

Esenler and Gaziosmanpaşa sent 29.8% of all its movers to Gaziosmanpaşa which generates 5.0% of all arrivals.

Bağcılar, Bayrampaşa and Eyüp sent 18.9% of all its movers to the urban settlements Gaziosmanpaşa.

Çatalca sent 46.3% of all its movers to Çatalca which generates 2.2% of all arrivals.

Bahçelievler, Bakırköy, Fatih, Güngören and Küçükçekmece sent 77.4% of all its movers to Büyükçekmece which generates 50.5% of all arrivals.

Avcılar and Büyükçekmece sent 91.7% of all its movers to Büyükçekmece.

#### 3.6 Analyses of Intra-metropolitan Mobility from Rural to Urban Area in Istanbul Interaction Field

#### 3.6.1 Intra-metropolitan mobility from rural to urban area in Istanbul Interaction Field between 1985-1990

Total number of individuals representing a 5% sample of all the population which moved from the rural area of a district to an urban area in defined area is 764 (see Table 3.43).

Table 3.44 reflecting the over-represented mobility flows shows that the mobility from the rural settlements to the urban settlements shows distinctive characteristics in the 1985-1990 period.

The individuals from the rural areas of Büyükçekmece and Çatalca considerably moved to the urban areas of the same districts (see Figure 3.9).

The individuals who used to live in the rural area of Silivri substantially moved to the urban area of the same district.

The inhabitants in the rural areas of Bakırköy and Küçükçekmece moved to the urban area of Küçükçekmece which has a unique profile as a destiantion.

|  |                       |         |              |        | Distri                               | cts of                | f Des              | tinati  | on (1         | <b>990</b> )         |           |        |          |        |                  |
|--|-----------------------|---------|--------------|--------|--------------------------------------|-----------------------|--------------------|---------|---------------|----------------------|-----------|--------|----------|--------|------------------|
| Districts of Origin (1985)   | Büyükçekmece, Çatalca | Silivri | Küçükçekmece | Pendik | OTHER DISTRICTS of<br>DESTINATIONS** | Şile, Edirne Süleoğlu | Bayrampaşa, Beykoz | Sarıyer | Gaziosmanpaşa | Kadıköy, Zeytinburnu | Kağıthane | Yalova | Ümraniye | Kartal | DEPARTURES TOTAL |
| Büyükçekmece, Çatalca  | 118                   | 4       | 4            | 2      | 27                                   | 0                     | 2                  | 0       | 1             | 1                    | 0         | 0      | 0        | 0      | 159              |
| Silivri  | 1                     | 10      | 2            | 0      | 10                                   | 0                     | 0                  | 0       | 0             | 0                    | 0         | 0      | 0        | 0      | 23               |
| Bakırköy, Küçükçekmece   | 1                     | 0       | 45           | 0      | 34                                   | 0                     | 0                  | 0       | 0             | 0                    | 1         | 0      | 0        | 0      | 81               |
| Pendik   | 0                     | 0       | 2            | 8      | 2                                    | 0                     | 1                  | 0       | 0             | 0                    | 0         | 0      | 0        | 0      | 13               |
| OTHER DISTRICTS of<br>ORIGINS*                                       | 3                     | 0       | 8            | 1      | 78                                   | 10                    | 21                 | 3       | 9             | 9                    | 3         | 0      | 9        | 2      | 156              |
| Bayrampaşa   | 0                     | 0       | 0            | 0      | 1                                    | 0                     | 31                 | 0       | 1             | 1                    | 1         | 0      | 0        | 0      | 35               |
| Sarıyer  | 0                     | 0       | 1            | 0      | 1                                    | 0                     | 1                  | 8       | 0             | 1                    | 0         | 0      | 0        | 0      | 12               |
| Gaziosmanpaşa  | 0                     | 0       | 0            | 0      | 4                                    | 0                     | 3                  | 0       | 23            | 1                    | 0         | 0      | 0        | 0      | 31               |
| Kadıköy, Central Tekirdağ  | 0                     | 0       | 2            | 2      | 13                                   | 0                     | 2                  | 0       | 0             | 27                   | 1         | 1      | 0        | 2      | 50               |
| Kağıthane  | 0                     | 0       | 1            | 0      | 1                                    | 0                     | 0                  | 0       | 0             | 0                    | 11        | 0      | 0        | 1      | 14               |
| Yalova   | 0                     | 0       | 0            | 0      | 17                                   | 0                     | 1                  | 0       | 0             | 0                    | 1         | 26     | 6        | 1      | 52               |
| Beşiktaş, Ümraniye, Üsküdar  | 0                     | 0       | 1            | 0      | 15                                   | 0                     | 0                  | 0       | 0             | 1                    | 1         | 0      | 77       | 3      | 98               |
| Kartal   | 1                     | 0       | 0            | 1      | 3                                    | 0                     | 0                  | 0       | 1             | 0                    | 0         | 0      | 0        | 34     | 40               |
| ARRIVALS TOTAL   | 124                   | 14      | 66           | 14     | 206                                  | 10                    | 62                 | 11      | 35            | 41                   | 19        | 27     | 92       | 43     | 764              |
| * Adalar, Beykoz, Beyoğlu, Eminönü, I                                | Eyüp,                 | Fatih   | , Şişli      | , Zey  | tinbur                               | nu, Şi                | ile, C             | entral  | Edir          | ne                   |           |        |          |        |                  |
| ** Adalar, Bakırköy, Beşiktaş, Beyoğlu                               |                       |         |              |        |                                      |                       |                    |         |               |                      | ;         |        |          |        |                  |
| ource: Derived from the 5% Public Use Sample of the 1990 Census, TSI |                       |         |              |        |                                      |                       |                    |         |               |                      |           |        |          |        |                  |

**Table 3.43:** Reduced and reordered intra-metropolitan mobility matrix for IstanbulInteraction Field 1985-1990: Extended mobility from the rural settlementsto the urban settlements (flows in absolute numbers)

The individuals who used to live in the rural area of Pendik substantially moved to the urban area of the same district.

Adalar, Beykoz, Beyoğlu, Eminönü, Eyüp, Fatih, Şişli and Central Edirne have a substantial individual mobility to the urban areas of Adalar, Bakırköy, Beşiktaş,

Beyoğlu, Eminönü, Fatih, Şişli, Üsküdar, Gebze, Edirne Süleoğlu, Şile, Bayrampaşa and Beykoz.

|                                   |                       |         |              |          | ]                                 | Distric               | ts of De           | estinatio | on (1990      | ))                   |           |        |           |        |
|-----------------------------------|-----------------------|---------|--------------|----------|-----------------------------------|-----------------------|--------------------|-----------|---------------|----------------------|-----------|--------|-----------|--------|
| Districts of Origin<br>(1985)     | Büyükçekmece, Çatalca | Silivri | Küçükçekmece | Pendik   | OTHER DISTRICTS of DESTINATIONS** | Şile, Edirne Süleoğlu | Bayrampaşa, Beykoz | Sariyer   | Gaziosmanpaşa | Kadıköy, Zeytinburnu | Kağıthane | Yalova | Ümraniye  | Kartal |
| Büyükçekmece,<br>Çatalca          | 329                   | 0,4     | -6,9         | -0,3     | -5,9                              | -2,1                  | -9,2               | -2,3      | -5,4          | -6,6                 | -4,0      | -5,6   | -<br>19,1 | -8,9   |
| Silivri                           | -2,0                  | 218     | 0,0          | -0,4     | 2.3                               | -0,3                  | -1,9               | -0,3      | -1,1          | -1,2                 | -0,6      | -0,8   | -2,8      | -1,3   |
| Bakırköy,<br>Küçükçekmece         | - 11,2                | -1,5    | 206,4        | -1,5     | 6,8                               | -1,1                  | -6,6               | -1,2      | -3,7          | -4,3                 | -0,5      | -2,9   | -9,8      | -4,6   |
| Pendik                            | -2,1                  | -0,2    | 0,7          | 252,9    | -0,6                              | -0,2                  | 0,0                | -0,2      | -0,6          | -0,7                 | -0,3      | -0,5   | -1,6      | -0,7   |
| OTHER<br>DISTRICTS of<br>ORIGINS* | -<br>19,7             | -2,9    | -2,2         | -1,2     | 30,7                              | 31,0                  | 5,5                | 0,3       | 0,5           | 0,0                  | -0,2      | -5,5   | -5,1      | -5,2   |
| Bayrampaşa                        | -5,7                  | -0,6    | -3,0         | -0,6     | -7,5                              | -0,5                  | 279,2              | -0,5      | -0,2          | -0,4                 | 0,0       | -1,2   | -4,2      | -2,0   |
| Sarıyer                           | -1,9                  | -0,2    | 0,0          | -0,2     | -1,5                              | -0,2                  | 0,0                | 354,6     | -0,5          | 0,2                  | -0,3      | -0,4   | -1,4      | -0,7   |
| Gaziosmanpaşa                     | -5,0                  | -0,6    | -2,7         | -0,6     | -2,3                              | -0,4                  | 0,1                | -0,4      | 327,9         | -0,3                 | -0,8      | -1,1   | -3,7      | -1,7   |
| Kadıköy, Central<br>Tekirdağ      | -8,1                  | -0,9    | -1,2         | 1,3      | 0,0                               | -0,7                  | -1,0               | -0,7      | -2,3          | 220,4                | 0,0       | -0,3   | -6,0      | -0,2   |
| Kağıthane                         | -2,3                  | -0,3    | 0,0          | -0,3     | -2,0                              | -0,2                  | -1,1               | -0,2      | -0,6          | -0,8                 | 325,9     | -0,5   | -1,7      | 0,1    |
| Yalova                            | -8,4                  | -1,0    | -4,5         | -1,0     | 0,6                               | -0,7                  | -2,5               | -0,7      | -2,4          | -2,8                 | -0,1      | 318    | 0,0       | -1,3   |
| Beşiktaş,<br>Ümraniye,<br>Üsküdar | 15,9                  | -1,8    | -6,6         | -1,8     | -4,9                              | -1,3                  | -8,0               | -1,4      | -4,5          | -3,4                 | -0,8      | -3,5   | 360       | -1,1   |
| Kartal                            | -4,6                  | -0,7    | -3,5         | 0,1      | -5,6                              | -0,5                  | -3,2               | -0,6      | -0,4          | -2,1                 | -1,0      | -1,4   | -4,8      | 448    |
| * Adalar, Beykoz, Be              |                       |         |              |          | .,,,                              | 2                     |                    | ,         |               |                      |           |        |           |        |
| ** Adalar, Bakırköy,              |                       |         |              |          |                                   |                       |                    |           | Kocaeli       | Gebze                |           |        |           |        |
| Source: Derived from              | n the 5               | % Publi | ic Use S     | ample of | or the 1                          | 990 Ce                | ensus, T           | 51        |               |                      |           |        |           |        |

**Table 3.44:** Reduced and reordered intra-metropolitan mobility matrix for Istanbul

 Interaction Field 1985-1990: Extended mobility from the rural settlements

 to the urban settlements (signed chi square indices)

The dwellers from the rural area of Bayrampaşa moved to the urban areas of Bayrampaşa and Beykoz.

The individuals who used to live in the rural area of Sarıyer substantially moved to the urban area of the same district.

The individuals who used to live in the rural area of Gaziosmanpaşa substantially moved to the urban area of the same district.

The dwellers from the rural areas of Kadıköy and Central Tekirdağ moved to the urban areas of Kadıköy and Zeytinburnu.

The individuals who used to live in the rural areas of Kağıthane, Yalova and Kartal substantially moved to the urban areas of the same districts.

The inhabitants from the rural areas of Beşiktaş, Ümraniye and Üsküdar moved to the urban area of Ümraniye which has a unique profile as a destination unit.

Table 3.45 shows the percentages of the mobility flows according to their distinctive arrival profiles (see Figure 3.9).

**Table 3.45:** Reduced and reordered intra-metropolitan mobility matrix for IstanbulInteraction Field 1985-1990: Extended mobility from the rural settlementsto the urban settlements (distinctive arrival profiles%'s)

|                                   |                       |         |              |          | D                                    | istricts              | of Des             | stinatio  | on (199       | 90)                  |           |        |          |        |                  |
|-----------------------------------|-----------------------|---------|--------------|----------|--------------------------------------|-----------------------|--------------------|-----------|---------------|----------------------|-----------|--------|----------|--------|------------------|
| Districts of Origin<br>(1985)     | Büyükçekmece, Çatalca | Silivri | Küçükçekmece | Pendik   | OTHER DISTRICTS of<br>DESTINATIONS** | Şile, Edirne Süleoğlu | Bayrampaşa, Beykoz | Sarıyer   | Gaziosmanpaşa | Kadıköy, Zeytinburnu | Kağıthane | Yalova | Ümraniye | Kartal | DEPARTURES TOTAL |
| Büyükçekmece,<br>Çatalca          | 95,2                  | 28,6    | 6,1          | 14,3     | 13,1                                 | 0,0                   | 3,2                | 0,0       | 2,9           | 2,4                  | 0,0       | 0,0    | 0,0      | 0,0    | 20,8             |
| Silivri                           | 0,8                   | 71,4    | 3,0          | 0,0      | 4,9                                  | 0,0                   | 0,0                | 0,0       | 0,0           | 0,0                  | 0,0       | 0,0    | 0,0      | 0,0    | 3,0              |
| Bakırköy,<br>Küçükçekmece         | 0,8                   | 0,0     | 68,2         | 0,0      | 16,5                                 | 0,0                   | 0,0                | 0,0       | 0,0           | 0,0                  | 5,3       | 0,0    | 0,0      | 0,0    | 10,6             |
| Pendik                            | 0,0                   | 0,0     | 3,0          | 57,1     | 1,0                                  | 0,0                   | 1,6                | 0,0       | 0,0           | 0,0                  | 0,0       | 0,0    | 0,0      | 0,0    | 1,7              |
| OTHER<br>DISTRICTS of<br>ORIGINS* | 2,4                   | 0,0     | 12,1         | 7,1      | 37,9                                 | 100,0                 | 33,9               | 27,3      | 25,7          | 22,0                 | 15,8      | 0,0    | 9,8      | 4,7    | 20,4             |
| Bayrampaşa                        | 0,0                   | 0,0     | 0,0          | 0,0      | 0,5                                  | 0,0                   | 50,0               | 0,0       | 2,9           | 2,4                  | 5,3       | 0,0    | 0,0      | 0,0    | 4,6              |
| Sarıyer                           | 0,0                   | 0,0     | 1,5          | 0,0      | 0,5                                  | 0,0                   | 1,6                | 72,7      | 0,0           | 2,4                  | 0,0       | 0,0    | 0,0      | 0,0    | 1,6              |
| Gaziosmanpaşa                     | 0,0                   | 0,0     | 0,0          | 0,0      | 1,9                                  | 0,0                   | 4,8                | 0,0       | 65,7          | 2,4                  | 0,0       | 0,0    | 0,0      | 0,0    | 4,1              |
| Kadıköy, Central<br>Tekirdağ      | 0,0                   | 0,0     | 3,0          | 14,3     | 6,3                                  | 0,0                   | 3,2                | 0,0       | 0,0           | 65,9                 | 5,3       | 3,7    | 0,0      | 4,7    | 6,5              |
| Kağıthane                         | 0,0                   | 0,0     | 1,5          | 0,0      | 0,5                                  | 0,0                   | 0,0                | 0,0       | 0,0           | 0,0                  | 57,9      | 0,0    | 0,0      | 2,3    | 1,8              |
| Yalova                            | 0,0                   | 0,0     | 0,0          | 0,0      | 8,3                                  | 0,0                   | 1,6                | 0,0       | 0,0           | 0,0                  | 5,3       | 96,3   | 6,5      | 2,3    | 6,8              |
| Beşiktaş, Ümraniye,<br>Üsküdar    | 0,0                   | 0,0     | 1,5          | 0,0      | 7,3                                  | 0,0                   | 0,0                | 0,0       | 0,0           | 2,4                  | 5,3       | 0,0    | 83,7     | 7,0    | 12,8             |
| Kartal                            | 0,8                   | 0,0     | 0,0          | 7,1      | 1,5                                  | 0,0                   | 0,0                | 0,0       | 2,9           | 0,0                  | 0,0       | 0,0    | 0,0      | 79,1   | 5,2              |
| ARRIVALS<br>TOTAL                 | 100                   | 100     | 100          | 100      | 100                                  | 100                   | 100                | 100       | 100           | 100                  | 100       | 100    | 100      | 100    | 100              |
| * Adalar, Beykoz, Bey             | oğlu, E               | Eminör  | ıü, Eyü      | ip, Fati | ih, Şişl                             | i, Zeytir             | nburnu             | , Şile, ( | Centra        | l Edirn              | e         |        |          |        |                  |
| ** Adalar, Bakırköy, E            | Beşikta               | ş, Beyo | oğlu, E      | minön    | ü, Eyü                               | p, Fatih              | , Şişli,           | Üsküd     | ar, Ko        | caeli G              | ebze      |        |          |        |                  |
| Source: Derived from              | the 5%                | 5 Publi | c Use S      | Sample   | e of the                             | 1990 C                | Census,            | TSI       |               |                      |           |        |          |        |                  |

Büyükçekmece and Çatalca received 95.2% of all its movers from Büyükçekmece and Çatalca which generates 20.8% of all departures.

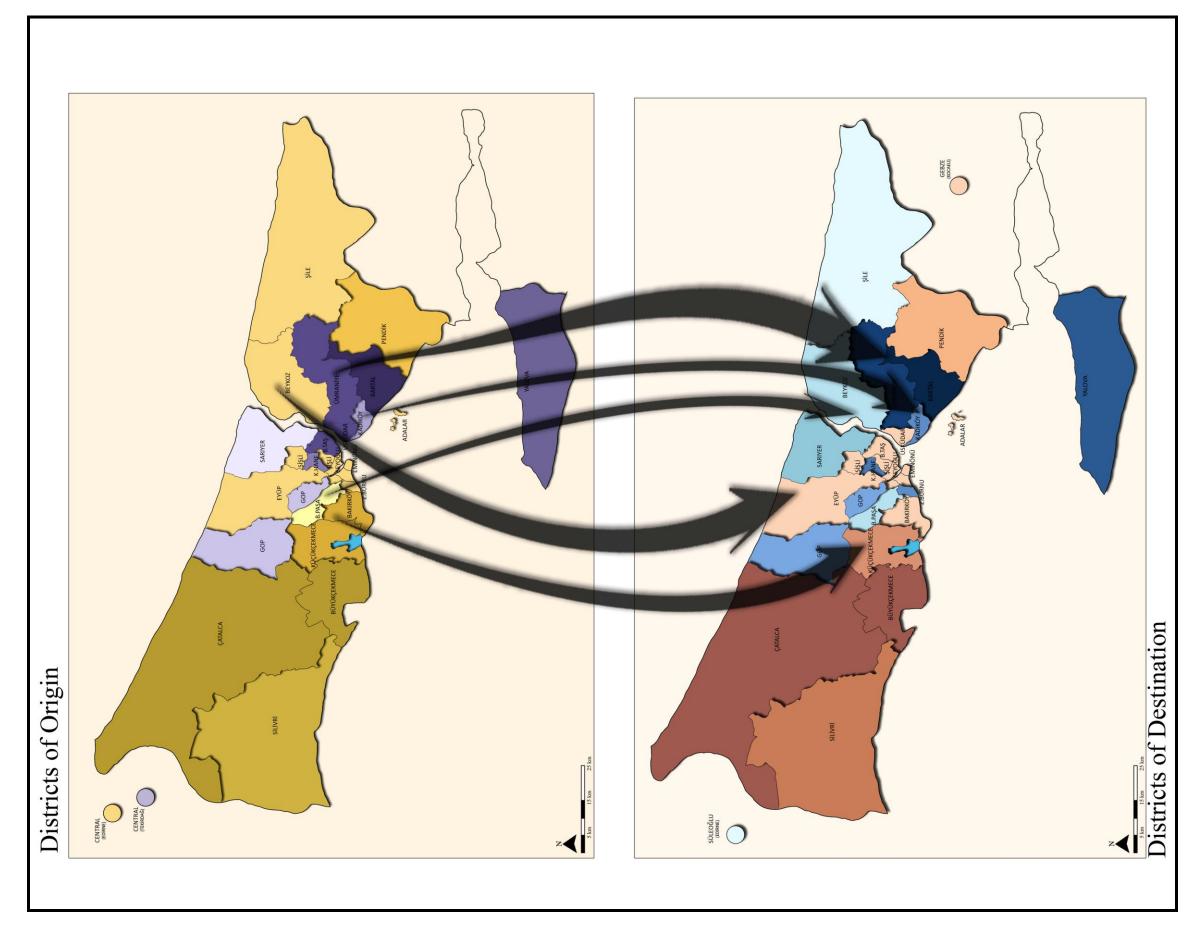


Figure 3.9 : Intra-metropolitan mobility from rural to urban area in Istanbul Interaction Field between 1985-1990.

Silivri received 71.4% of all its movers from Silivri which generates 3.0% of all departures.

Küçükçekmece received 68.2% of all its movers from Bakırköy and Küçükçekmece which generates 10.6% of all departures.

Pendik received 57.1% of all its movers from Pendik which generates 1.7% of all departures.

Adalar, Bakırköy, Beşiktaş, Beyoğlu, Eminönü, Eyüp, Fatih, Şişli, Üsküdar and Kocaeli Gebze received 37.9% of all its movers from Adalar, Beykoz, Beyoğlu, Eminönü, Eyüp, Fatih, Şişli, Zeytinburnu, Şile and Central Edirne which generates 20.4% of all departures, 16.5% of all its movers from Bakırköy and Küçükçekmece and 4.9% of all its movers from Silivri.

Şile and Edirne Süleoğlu received 100% of all its movers from Adalar, Beykoz, Beyoğlu, Eminönü, Eyüp, Fatih, Şişli, Zeytinburnu, Şile and Central Edirne.

Bayrampaşa and Beykoz received 50.0% of all its movers from Bayrampaşa which generates 4.6% of all departures, 33.9% of all its movers from Adalar, Beykoz, Beyoğlu, Eminönü, Eyüp, Fatih, Şişli, Zeytinburnu, Şile, Central Edirne.

Sariyer received 72.7% of all its movers from Sariyer which generates 1.6% of all departures.

Gaziosmanpaşa received 65.7% of all its movers from Gaziosmanpaşa which generates 4.1% of all departures.

Kadıköy and Zeytinburnu received 65.9% of all its movers from Kadıköy and Central Tekirdağ which generates 6.5% of all departures.

Kağıthane received 57.9% of all its movers from Kağıthane which generates 1.8% of all departures.

Yalova received 96,3% of all its movers from Yalova which generates 6,8% of all departures.

Ümraniye received 83.7% of all its movers from Beşiktaş, Ümraniye and Üsküdar which generates 12.8% of all departures.

Kartal received 79.1% of all its movers from Kartal which generates 5.2% of all departures.

Table 3.46 shows the percentages of the mobility flows according to their distinctive departure profiles.

|                                |                       |         |              |         | Dis                                  | tricts                | of Des                  | stinatio | on (19        | 90)                  |           |        |          |        |                  |
|--------------------------------|-----------------------|---------|--------------|---------|--------------------------------------|-----------------------|-------------------------|----------|---------------|----------------------|-----------|--------|----------|--------|------------------|
| Districts of Origin<br>(1985)  | Büyükçekmece, Çatalca | Silivri | Küçükçekmece | Pendik  | OTHER DISTRICTS of<br>DESTINATIONS** | Şile, Edirne Süleoğlu | g<br>Bayrampaşa, Beykoz | Sarıyer  | Gaziosmanpaşa | Kadıköy, Zeytinburnu | Kağıthane | Yalova | Ümraniye | Kartal | DEPARTURES TOTAL |
| Büyükçekmece, Çatalca          | 74,2                  | 2,5     | 2,5          | 1,3     | 17,0                                 | 0,0                   | 1,3                     | 0,0      | 0,6           | 0,6                  | 0,0       | 0,0    | 0,0      | 0,0    | 100              |
| Silivri                        | 4,3                   | 43,5    | 8,7          | 0,0     | 43,5                                 | 0,0                   | 0,0                     | 0,0      | 0,0           | 0,0                  | 0,0       | 0,0    | 0,0      | 0,0    | 100              |
| Bakırköy,<br>Küçükçekmece      | 1,2                   | 0,0     | 55,6         | 0,0     | 42,0                                 | 0,0                   | 0,0                     | 0,0      | 0,0           | 0,0                  | 1,2       | 0,0    | 0,0      | 0,0    | 100              |
| Pendik                         | 0,0                   | 0,0     | 15,4         | 61,5    | 15,4                                 | 0,0                   | 7,7                     | 0,0      | 0,0           | 0,0                  | 0,0       | 0,0    | 0,0      | 0,0    | 100              |
| OTHER DISTRICTS of<br>ORIGINS* | 1,9                   | 0,0     | 5,1          | 0,6     | 50,0                                 | 6,4                   | 13,5                    | 1,9      | 5,8           | 5,8                  | 1,9       | 0,0    | 5,8      | 1,3    | 100              |
| Bayrampaşa                     | 0,0                   | 0,0     | 0,0          | 0,0     | 2,9                                  | 0,0                   | 88,6                    | 0,0      | 2,9           | 2,9                  | 2,9       | 0,0    | 0,0      | 0,0    | 100              |
| Sarıyer                        | 0,0                   | 0,0     | 8,3          | 0,0     | 8,3                                  | 0,0                   | 8,3                     | 66,7     | 0,0           | 8,3                  | 0,0       | 0,0    | 0,0      | 0,0    | 100              |
| Gaziosmanpaşa                  | 0,0                   | 0,0     | 0,0          | 0,0     | 12,9                                 | 0,0                   | 9,7                     | 0,0      | 74,2          | 3,2                  | 0,0       | 0,0    | 0,0      | 0,0    | 100              |
| Kadıköy, Central<br>Tekirdağ   | 0,0                   | 0,0     | 4,0          | 4,0     | 26,0                                 | 0,0                   | 4,0                     | 0,0      | 0,0           | 54,0                 | 2,0       | 2,0    | 0,0      | 4,0    | 100              |
| Kağıthane                      | 0,0                   | 0,0     | 7,1          | 0,0     | 7,1                                  | 0,0                   | 0,0                     | 0,0      | 0,0           | 0,0                  | 78,6      | 0,0    | 0,0      | 7,1    | 100              |
| Yalova                         | 0,0                   | 0,0     | 0,0          | 0,0     | 32,7                                 | 0,0                   | 1,9                     | 0,0      | 0,0           | 0,0                  | 1,9       | 50,0   | 11,5     | 1,9    | 100              |
| Beşiktaş, Ümraniye,<br>Üsküdar | 0,0                   | 0,0     | 1,0          | 0,0     | 15,3                                 | 0,0                   | 0,0                     | 0,0      | 0,0           | 1,0                  | 1,0       | 0,0    | 78,6     | 3,1    | 100              |
| Kartal                         | 2,5                   | 0,0     | 0,0          | 2,5     | 7,5                                  | 0,0                   | 0,0                     | 0,0      | 2,5           | 0,0                  | 0,0       | 0,0    | 0,0      | 85,0   | 100              |
| ARRIVALS TOTAL                 | 16,2                  | 1,8     | 8,6          | 1,8     | 27,0                                 | 1,3                   | 8,1                     | 1,4      | 4,6           | 5,4                  | 2,5       | 3,5    | 12,0     | 5,6    | 100              |
| * Adalar, Beykoz, Beyoğlu      | , Emir                | iönü, E | yüp, F       | atih, Ş | işli, Zey                            | /tinbu                | rnu, Şi                 | ile, Cei | ntral E       | dirne                |           |        |          |        |                  |
| ** Adalar, Bakırköy, Beşik     | taş, Be               | eyoğlu  | , Emin       | önü, E  | yüp, Fa                              | tih, Şi               | şli, Üs                 | küdar,   | Kocae         | li Geb               | ze        |        |          |        |                  |
| Source: Derived from the       | 5% Pu                 | blic Us | e Sam        | ple of  | the 1990                             | ) Cen                 | sus, TS                 | SI       |               |                      |           |        |          |        |                  |

**Table 3.46:** Reduced and reordered intra-metropolitan mobility matrix for IstanbulInteraction Field 1985-1990: Extended mobility from the rural settlementsto the urban settlements (distinctive departure profiles%'s)

Büyükçekmece and Çatalca sent 74.2% of all its movers Büyükçekmece and Çatalca which contains 16.2% of all arrivals.

Silivri sent 43.5% of all its movers to Silivri which contains 1.8% of all arrivals.

Bakırköy and Küçükçekmece sent 55.6% of all its movers to Küçükçekmece which contains 8.6% of all arrivals.

Pendik sent 61.5% of all its movers to Pendik which contains 1.8% of all arrivals.

Adalar, Beykoz, Beyoğlu, Eminönü, Eyüp, Fatih, Şişli, Zeytinburnu, Şile and Central Edirne sent 50.0% of all its movers to Adalar, Bakırköy, Beşiktaş, Beyoğlu, Eminönü, Eyüp, Fatih, Şişli, Üsküdar and Kocaeli Gebze which contains 27.0% of

all arrivals, 6.4% of all its movers to Şile and Edirne Süleoğlu which generates 1.3% of all arrivals and 13.5% of all its movers to Bayrampaşa and Beykoz which generates 8.1% of all arrivals.

Bayrampaşa sent 88.6% of all its movers to Bayrampaşa and Beykoz.

Sariyer sent 66.6% of all its movers to Sariyer which contains 1.4% of all arrivals.

Gaziosmanpaşa sent 74.2% of all its movers to Gaziosmanpaşa which contains 4.6% of all arrivals.

Kadıköy and Central Tekirdağ sent 54.0% of all its movers to Kadıköy and Zeytinburnu which contains 5.4% of all arrivals.

Kağıthane sent 78.6% of all its movers to Kağıthane which contains 2.5% of all arrivals.

Yalova sent 50.0% of all its movers to Yalova which contains 3.5% of all arrivals.

Beşiktaş, Ümraniye and Üsküdar sent 78.6% of all its movers to Ümraniye which contains 12.0% of all arrivals.

Kartal sent 85.0% of all its movers to Kartal which contains 5.6% of all arrivals.

#### 3.6.2 Intra-metropolitan mobility from rural to urban area in Istanbul Interaction Field between 1995-2000

Total number of individuals of all the population which moved from the rural area of a district to an urban area in defined area is 2134 (see Table 3.47).

Table 3.48 reflecting the over-represented mobility flows shows that the mobility from the rural settlements to the urban settlements shows distinctive characteristics between the 1995-2000 period.

The dwellers from the rural areas of Eyüp, Büyükçekmece, Çatalca, Silivri and Şile significantly moved to the urban areas of Avcılar, Beyoğlu, Eyüp, Fatih, Üsküdar, Büyükçekmece, Çatalca, Silivri and Şile, and inconsiderably to Bağcılar, Bahçelievler, Bakırköy, Bayrampaşa, Esenler, Güngören, Kadıköy, Kağıthane, Maltepe, Şişli, Zeytinburnu, Sultanbeyli, Gebze and the urban area of Gaziosmanpaşa (see Figure 3.10).

**Table 3.47:** Reduced and reordered intra-metropolitan mobility matrix for IstanbulInteraction Field 1995-2000: Extended mobility from the rural settlementsto the urban settlements (flows in absolute numbers)

|  |              |         |          | Districts o   | of Destin | nation  | (2000)        |                                     |         |          |         |                     |
|--|--------------|---------|----------|---|-----------|---------|---------------|-------------------------------------|---------|----------|---------|---------------------|
| Districts of Origin (1995)                                   | Küçükçekmece | Beykoz  | Beşiktaş | Avcılar, Beyoğlu,<br>Eyüp, Fatih, Üsküdar,<br>Büyükçekmece,<br>Çatalca, Silivri, Şile | Ümraniye  | Sarıyer | Gaziosmanpaşa | OTHER DISTRICTS<br>of DESTINATIONS* | Kartal  | Tuzla    | Pendik  | DEPARTURES<br>TOTAL |
| Küçükçekmece   | 273          | 4       | 0        | 14  | 1         | 0       | 1             | 35                                  | 4       | 0        | 0       | 332                 |
| Beykoz   | 0            | 127     | 1        | 1   | 8         | 0       | 3             | 9                                   | 2       | 0        | 5       | 156                 |
| Beşiktaş   | 0            | 0       | 36       | 6   | 10        | 1       | 0             | 9                                   | 0       | 0        | 1       | 63                  |
| Eyüp, Büyükçekmece,<br>Çatalca, Silivri, Şile                | 20           | 0       | 0        | 175   | 8         | 3       | 40            | 48                                  | 7       | 0        | 6       | 307                 |
| Ümraniye   | 0            | 1       | 0        | 3   | 117       | 0       | 0             | 32                                  | 0       | 0        | 2       | 155                 |
| Sarıyer  | 1            | 0       | 1        | 1   | 1         | 94      | 0             | 25                                  | 0       | 1        | 3       | 127                 |
| Gaziosmanpaşa  | 5            | 0       | 0        | 16  | 0         | 0       | 186           | 30                                  | 2       | 4        | 14      | 257                 |
| Kartal   | 0            | 0       | 0        | 1   | 8         | 1       | 0             | 22                                  | 162     | 0        | 41      | 235                 |
| Tuzla  | 0            | 0       | 0        | 0   | 0         | 0       | 0             | 1                                   | 2       | 30       | 21      | 54                  |
| Pendik   | 1            | 0       | 0        | 0   | 0         | 0       | 2             | 20                                  | 16      | 2        | 407     | 448                 |
| ARRIVALS TOTAL   | 300          | 132     | 38       | 217   | 153       | 99      | 232           | 231                                 | 195     | 37       | 500     | 2134                |
| * Bağcılar, Bahçelievler, Bakı<br>Sultanbeyli, Kocaeli Gebze | ırköy, Ba    | ayrampa | șa, Es   | enler, Güngöre  | en, Kadıl | köy, k  | Kağıthan      | e, Malt                             | tepe, Ş | Sişli, Z | Zeytinb | urnu,               |
| Source: Derived from the 5%                                  | Public       | Use Sam | ple of   | the 2000 Cen  | sus, TSI  |         |               |                                     |         |          |         |                     |

**Table 3.48:** Reduced and reordered intra-metropolitan mobility matrix for IstanbulInteraction Field 1995-2000: Extended mobility from the rural settlementsto the urban settlements (signed chi square indices)

|  |                    |                   |                     | Districts   | of Dest              | ination            | (2000)           |                                     |                    |                   |                           |
|--|--------------------|-------------------|---------------------|---|----------------------|--------------------|------------------|-------------------------------------|--------------------|-------------------|---------------------------|
| Districts of Origin (1995)   | Küçükçekmece       | Beykoz            | Beşiktaş            | Avcılar, Beyoğlu,<br>Eyüp, Fatih, Üsküdar,<br>Büyükçekmece,<br>Çatalca, Silivri, Şile | Ümraniye             | Sarıyer            | Gaziosmanpaşa    | OTHER DISTRICTS<br>of DESTINATIONS* | Kartal             | Tuzla             | Pendik                    |
| Küçükçekmece   | 1097,<br>5         | -13,3             | -5,9                | -11,6   | 21,8                 | -15,4              | -34,1            | 0,0                                 | -22,9              | -5,8              | -77,8                     |
| Beykoz   | -21,9              | 1427,<br>1        | -1,1                | -13,9   | -0,9                 | -7,2               | -11,5            | -3,7                                | -10,5              | -2,7              | -27,2                     |
| Beşiktaş   | -8,9               | -3,9              | 1084,4              | 0,0   | 6,7                  | -1,3               | -6,8             | 0,7                                 | -5,8               | -1,1              | -12,8                     |
| Eyüp, Büyükçekmece,<br>Çatalca, Silivri, Şile                        | -12,4              | -19,0             | -5,5                | 662,2   | -8,9                 | -8,9               | 1,3              | 6,6                                 | -15,8              | -5,3              | -60,4                     |
| Ümraniye   | -21,8              | -7,7              | -2,8                | -10,3   | 100<br>9             | -7,2               | -16,9            | 13,8                                | -14,2              | -2,7              | -32,4                     |
| Sariyer  | -15,9              | -7,9              | -0,7                | -11,0   | -7,2                 | 1318               | -13,8            | 9,2                                 | -11,6              | -0,7              | -24,1                     |
| Gaziosmanpaşa  | -26,8              | -15,9             | -4,6                | -3,9  | -<br>18,4            | -11,9              | 894,2            | 0,2                                 | -19,7              | 0,0               | -35,5                     |
| Kartal   | -33,0              | -14,5             | -4,2                | -21,9   | -4,6                 | -9,0               | -25,5            | -0,5                                | 919,6              | -4,1              | -3,6                      |
| Tuzla  | -7,6               | -3,3              | -1,0                | -5,5  | -3,9                 | -2,5               | -5,9             | -4,0                                | -1,7               | 902,2             | 5,5                       |
| Pendik<br>* Bağcılar, Bahçelievler, Ba<br>Sultanbeyli, Kocaeli Gebze | -61,0<br>kırköy, I | -27,7<br>Bayrampa | -8,0<br>aşa, Esenle | -45,6<br>r, Güngören, k   | -<br>32,1<br>Kadıköy | -20,8<br>/, Kağıtl | -44,8<br>hane, M | -16,7<br>altepe,                    | -15,2<br>Şişli, Ze | -4,3<br>sytinburi | <mark>869,1</mark><br>nu, |
| <b>Source:</b> Derived from the 59                                   | % Public           | Use Sar           | nple of the         | 2000 Census,  | TSI                  |                    |                  |                                     |                    |                   |                           |

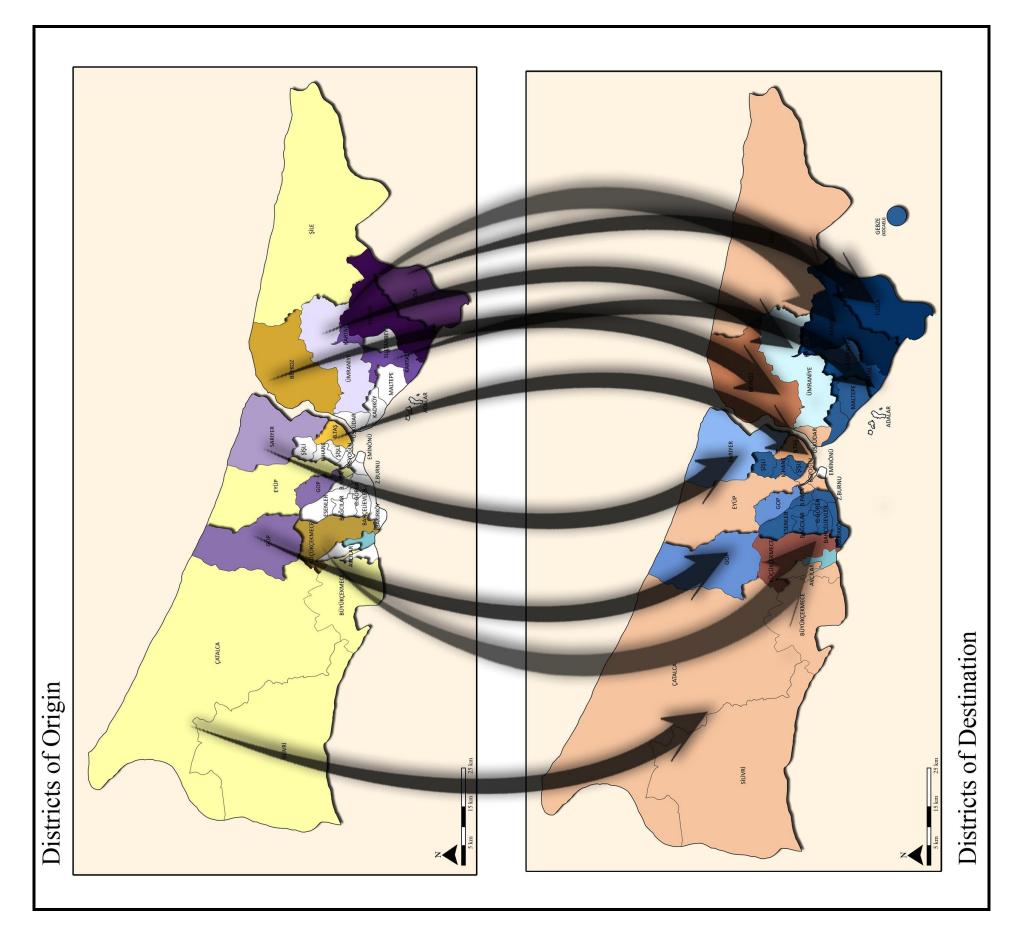


Figure 3.10 : Intra-metropolitan mobility from rural to urban area in Istanbul Interaction Field between 1995-2000.

The individuals from the rural areas of Küçükçekmece, Beykoz and Beşiktaş substantially moved to the urban areas of the same districts that they used to live.

The individuals from the rural areas of Ümraniye and Sarıyer substantially moved to the urban areas of the same districts that they used to live, and inconsiderably to Bağcılar, Bahçelievler, Bakırköy, Bayrampaşa, Esenler, Güngören, Kadıköy, Kağıthane, Maltepe, Şişli, Zeytinburnu, Sultanbeyli and Kocaeli Gebze.

The inhabitants from the rural areas of Gaziosmanpaşa, Kartal, Tuzla and Pendik significantly moved to the urban areas of the same districts that they used to live (see Figure 3.10).

Table 3.49 shows the percentages of the mobility flows according to their distinctive arrival profiles.

|  |              |        |          | Dis  | stricts of | f Destin: | ation (20     | 00)                                 |         |           |          |             |
|--|--------------|--------|----------|--|------------|-----------|---------------|-------------------------------------|---------|-----------|----------|-------------|
|  |              |        |          | DI   | suriets of | Destin    |               | 00)                                 |         |           |          |             |
| Districts of Origin (1995)                                   | Küçükçekmece | Beykoz | Beşiktaş | Avcılar, Beyoğlu, Eyüp, Fatih,<br>Üsküdar, Büyükçekmece,<br>Çatalca, Silivri, Şile | Ümraniye   | Sariyer   | Gaziosmanpaşa | OTHER DISTRICTS of<br>DESTINATIONS* | Kartal  | Tuzla     | Pendik   | DEPARTURES% |
| Küçükçekmece   | 91,0         | 3,0    | 0,0      | 6,5  | 0,7        | 0,0       | 0,4           | 15,2                                | 2,1     | 0,0       | 0,0      | 15,6        |
| Beykoz   | 0,0          | 96,2   | 2,6      | 0,5  | 5,2        | 0,0       | 1,3           | 3,9                                 | 1,0     | 0,0       | 1,0      | 7,3         |
| Beşiktaş   | 0,0          | 0,0    | 94,7     | 2,8  | 6,5        | 1,0       | 0,0           | 3,9                                 | 0,0     | 0,0       | 0,2      | 3,0         |
| Eyüp, Büyükçekmece,<br>Çatalca, Silivri, Şile                | 6,7          | 0,0    | 0,0      | 80,6   | 5,2        | 3,0       | 17,2          | 20,8                                | 3,6     | 0,0       | 1,2      | 14,4        |
| Ümraniye   | 0,0          | 0,8    | 0,0      | 1,4  | 76,5       | 0,0       | 0,0           | 13,9                                | 0,0     | 0,0       | 0,4      | 7,3         |
| Sarıyer  | 0,3          | 0,0    | 2,6      | 0,5  | 0,7        | 94,9      | 0,0           | 10,8                                | 0,0     | 2,7       | 0,6      | 6,0         |
| Gaziosmanpaşa  | 1,7          | 0,0    | 0,0      | 7,4  | 0,0        | 0,0       | 80,2          | 13,0                                | 1,0     | 10,8      | 2,8      | 12,0        |
| Kartal   | 0,0          | 0,0    | 0,0      | 0,5  | 5,2        | 1,0       | 0,0           | 9,5                                 | 83      | 0,0       | 8,2      | 11,0        |
| Tuzla  | 0,0          | 0,0    | 0,0      | 0,0  | 0,0        | 0,0       | 0,0           | 0,4                                 | 1,0     | 81,1      | 4,2      | 2,5         |
| Pendik   | 0,3          | 0,0    | 0,0      | 0,0  | 0,0        | 0,0       | 0,9           | 8,7                                 | 8,2     | 5,4       | 81,4     | 21,0        |
| ARRIVALS%  | 100          | 100    | 100      | 100  | 100        | 100       | 100           | 100                                 | 10<br>0 | 100       | 100      | 100         |
| * Bağcılar, Bahçelievler, Bakı<br>Sultanbeyli, Kocaeli Gebze | köy, B       | ayramp | başa, E  | senler, Gü   | ingören,   | Kadıköy   | y, Kağıth     | ane, Ma                             | ltepe,  | Şişli, Ze | ytinburn | u,          |
| Source: Derived from the 5%                                  | Public       | Use Sa | mple o   | f the 2000   | ) Census   | s, TSI    |               |                                     |         |           |          |             |

| <b>Table 3.49:</b> Reduced and reordered intra-metropolitan mobility matrix for Istanbul |
|--|
| Interaction Field 1995-2000: Extended mobility from the rural settlements                |
| to the urban settlements (distinctive arrival profiles%'s)                               |

Küçükçekmece received 91.0% of all its movers from Küçükçekmece which generates 15.6% of all departures.

Beykoz received 96.2% of all its movers from Beykoz which generates 7.3% of all departures.

Beşiktaş received 94.7% of all its movers from Beşiktaş which generates 3.0% of all departures.

Avcılar, Beyoğlu, Eyüp, Fatih, Üsküdar, Büyükçekmece, Çatalca, Silivri and Şile received 80.6% of all its movers Eyüp, Büyükçekmece, Çatalca, Silivri and Şile which generates 14.4% of all departures.

Ümraniye received 76.5% of all its movers from Ümraniye which generates 7.3% of all departures.

Sariyer received 94.9% of all its movers from Sariyer which generates 6.0% of all departures.

Gaziosmanpaşa received 80.2% of all its movers from Gaziosmanpaşa which generates 12.0% of all departures.

Bağcılar, Bahçelievler, Bakırköy, Bayrampaşa, Esenler, Güngören, Kadıköy, Kağıthane, Maltepe, Şişli, Zeytinburnu, Sultanbeyli and Kocaeli Gebze received 20.8% of all its movers from Eyüp, Büyükçekmece, Çatalca, Silivri and Şile.

Kartal received 83.1% of all its movers from Kartal which generates 11.0% of all departures.

Tuzla received 81.1% of all its movers from Tuzla which generates 2.5% of all departures.

Pendik received 81.4% of all its movers from Pendik which generates 21.0% of all departures.

Table 3.50 shows the percentages of the mobility flows according to their distinctive departure profiles.

Küçükçekmece sent 82.2% of all its movers to Küçükçekmece which generates 14.1% of all arrivals.

Beykoz sent 81.4% of all its movers to Beykoz which generates 6.2% of all arrivals.

|   |              |        |          | District   | s of Des | tination | a (2000       | )                                   |         |         |         |             |
|---|--------------|--------|----------|--|----------|----------|---------------|-------------------------------------|---------|---------|---------|-------------|
| Districts of Origin (1995)  | Küçükçekmece | Beykoz | Beşiktaş | Avcılar, Beyoğlu, Eyüp, Fatih,<br>Üsküdar, Büyükçekmece,<br>Çatalca, Silivri, Şile | Ümraniye | Sariyer  | Gaziosmanpaşa | OTHER DISTRICTS of<br>DESTINATIONS* | Kartal  | Tuzla   | Pendik  | DEPARTURES% |
| Küçükçekmece  | 82,2         | 1,2    | 0,0      | 4,2  | 0,3      | 0,0      | 0,3           | 10,5                                | 1,2     | 0,0     | 0,0     | 100         |
| Beykoz  | 0,0          | 81,4   | 0,6      | 0,6  | 5,1      | 0,0      | 1,9           | 5,8                                 | 1,3     | 0,0     | 3,2     | 100         |
| Beşiktaş  | 0,0          | 0,0    | 57,1     | 9,5  | 15,9     | 1,6      | 0,0           | 14,3                                | 0,0     | 0,0     | 1,6     | 100         |
| Eyüp, Büyükçekmece,<br>Çatalca, Silivri, Şile   | 6,5          | 0,0    | 0,0      | 57,0   | 2,6      | 1,0      | 13,0          | 15,6                                | 2,3     | 0,0     | 2,0     | 100         |
| Ümraniye  | 0,0          | 0,6    | 0,0      | 1,9  | 75,5     | 0,0      | 0,0           | 20,6                                | 0,0     | 0,0     | 1,3     | 100         |
| Sarıyer   | 0,8          | 0,0    | 0,8      | 0,8  | 0,8      | 74,0     | 0,0           | 19,7                                | 0,0     | 0,8     | 2,4     | 100         |
| Gaziosmanpaşa   | 1,9          | 0,0    | 0,0      | 6,2  | 0,0      | 0,0      | 72,4          | 11,7                                | 0,8     | 1,6     | 5,4     | 100         |
| Kartal  | 0,0          | 0,0    | 0,0      | 0,4  | 3,4      | 0,4      | 0,0           | 9,4                                 | 68,9    | 0,0     | 17,4    | 100         |
| Tuzla   | 0,0          | 0,0    | 0,0      | 0,0  | 0,0      | 0,0      | 0,0           | 1,9                                 | 3,7     | 55,6    | 38,9    | 100         |
| Pendik  | 0,2          | 0,0    | 0,0      | 0,0  | 0,0      | 0,0      | 0,4           | 4,5                                 | 3,6     | 0,4     | 90,8    | 100         |
| ARRIVALS%   | 14,1         | 6,2    | 1,8      | 10,2   | 7,2      | 4,6      | 10,9          | 10,8                                | 9,1     | 1,7     | 23,4    | 100         |
| * Bağcılar, Bahçelievler, Bakırko<br>Sultanbeyli, Kocaeli Gebze<br>Source: Derived from the 5% Pu |              |        |          |  |          | -        | ğıthane       | e, Malt                             | epe, Şi | şli, Ze | ytinbur | nu,         |

 
 Table 3.50: Reduced and reordered intra-metropolitan mobility matrix for Istanbul
 Interaction Field 1995-2000: Extended mobility from the rural settlements to the urban settlements (distinctive departure profiles%'s)

Beşiktaş sent 57.1% of all its movers to Beşiktaş which generates 1.8% of all arrivals.

Eyüp, Büyükçekmece, Çatalca, Silivri, and Şile sent 57.0% of all its movers to Avcılar, Beyoğlu, Eyüp, Fatih, Üsküdar, Büyükçekmece, Çatalca, Silivri and Şile which generates 10.2% of all arrivals.

Ümraniye sent 75.5% of all its movers to Ümraniye which generates 7.2% of all arrivals.

Sariyer sent 74.0% of all its movers to Sariyer which generates 4.6% of all arrivals.

Gaziosmanpaşa sent 72.4% of all its movers to Gaziosmanpaşa which generates 10.9% of all arrivals.

Kartal sent 68.9% of all its movers to Kartal which generates 9.1% of all arrivals.

Tuzla sent 55.6% of all its movers to Tuzla which generates 1.7% of all arrivals.

Pendik sent 90.8% of all its movers to Pendik which generates 23.4% of all arrivals.

# 3.7 Analyses of Intra-metropolitan Mobility from Rural to Rural Area in Istanbul Interaction Field

### 3.7.1 Intra-metropolitan mobility from rural to rural area in Istanbul Interaction Field between 1985-1990

Total number of individuals representing a 5% sample of all the population which moved from a rural area of a district to a rural area in defined area is 815 (see Table 3.51).

| Table 3.51: Reduced and reordered intra-metropolitan mobility matrix for Istanbul |
|---|
| Interaction Field clear: Extended mobility from the rural settlements to          |
| the rural settlements (flows in absolute numbers)                                 |

|  |  | ]        | Districts of  | Destinatio                           | n (1990)                       |              |                    |                  |  |  |  |
|--|--|----------|---------------|--------------------------------------|--------------------------------|--------------|--------------------|------------------|--|--|--|
| Districts of Origin (1985)                         | Kartal   | Ümraniye | Pendik, Gebze | OTHER DISTRICTS of<br>DESTINATIONS** | Gaziosmanpaşa,<br>Küçükçekmece | Büyükçekmece | Çanakkale Gelibolu | DEPARTURES TOTAL |  |  |  |
| Pendik, Sarıyer, Ümraniye                          | 144  | 0        | 5             | 4                                    | 9                              | 3            | 0                  | 165              |  |  |  |
| Beyoğlu, Şişli, Üsküdar, Şile                      | 35   | 51       | 2             | 13                                   | 20                             | 4            | 0                  | 125              |  |  |  |
| OTHER DISTRICTS of ORIGINS*                        | 69   | 23       | 8             | 22                                   | 31                             | 44           | 0                  | 197              |  |  |  |
| Kartal   | 0  | 1        | 15            | 2                                    | 3                              | 5            | 0                  | 26               |  |  |  |
| Adalar, Kağıthane, Central Edirne                  | 15   | 0        | 0             | 15                                   | 1                              | 2            | 0                  | 33               |  |  |  |
| Bakırköy, Bayrampaşa, Zeytinburnu                  | 17   | 1        | 6             | 25                                   | 85                             | 17           | 0                  | 151              |  |  |  |
| Küçükçekmece, Çatalca                              | 1  | 0        | 0             | 13                                   | 18                             | 81           | 0                  | 113              |  |  |  |
| Central Tekirdağ                                   | 0  | 0        | 0             | 2                                    | 0                              | 2            | 1                  | 5                |  |  |  |
| ARRIVALS TOTAL                                     | 281  | 76       | 36            | 96                                   | 167                            | 158          | 1                  | 815              |  |  |  |
| ** Adalar, Bakırköy, Bayrampaşa, Beyko<br>Süleoğlu | <ul> <li>* Beşiktaş, Beykoz, Eminönü, Eyüp, Fatih, Gaziosmanpaşa, Kadıköy, Büyükçekmece, Silivri, Yalova</li> <li>** Adalar, Bakırköy, Bayrampaşa, Beykoz, Eyüp, Kadıköy, Sarıyer, Şişli, Çatalca, Bayrampaşa, Şile, Yalova, Edirne</li> </ul> |          |               |                                      |                                |              |                    |                  |  |  |  |

Table 3.52 reflecting the over-represented mobility flows shows that the mobility from the rural settlements to the rural settlements shows distinctive characteristics between the 1985-1990 period.

# **Table 3.52:** Reduced and reordered intra-metropolitan mobility matrix for Istanbul Interaction Field 1985-1990: Extended mobility from the rural settlements to the rural settlements (signed chi square indices)

|   |                           |                             | Districts                  | of Destinati                         | ion (1990)                     |              |                    |
|---|---------------------------|-----------------------------|----------------------------|--------------------------------------|--------------------------------|--------------|--------------------|
| Districts of Origin (1985)  | Kartal                    | Ümraniye                    | Pendik, Gebze              | OTHER DISTRICTS of<br>DESTINATIONS** | Gaziosmanpaşa,<br>Küçükçekmece | Büyükçekmece | Çanakkale Gelibolu |
| Pendik, Sarıyer, Ümraniye   | 133,4                     | -15,4                       | -0,7                       | -12,3                                | -18,2                          | -26,3        | -0,2               |
| Beyoğlu, Şişli, Üsküdar, Şile   | -1,5                      | 132,8                       | -2,2                       | -0,2                                 | -1,2                           | -16,9        | -0,2               |
| OTHER DISTRICTS of ORIGINS*   | 0,0                       | 1,2                         | -0,1                       | -0,1                                 | -2,2                           | 0,9          | -0,2               |
| Kartal  | -9,0                      | -0,8                        | 167,1                      | -0,4                                 | -1,0                           | 0,0          | 0,0                |
| Adalar, Kağıthane, Central Edirne   | 1,2                       | -3,1                        | -1,5                       | 31,8                                 | -4,9                           | -3,0         | 0,0                |
| Bakırköy, Bayrampaşa, Zeytinburnu   | -23,6                     | -12,2                       | -0,1                       | 2,9                                  | 94,4                           | -5,1         | -0,2               |
| Küçükçekmece, Çatalca   | -37,0                     | -10,5                       | -5,0                       | 0,0                                  | -1,1                           | 159,4        | -0,1               |
| Central Tekirdağ  | -1,7                      | -0,5                        | -0,2                       | 3,4                                  | -1,0                           | 1,1          | 161,0              |
| * Beşiktaş, Beykoz, Eminönü, Eyüp, Fatih, C<br>** Adalar, Bakırköy, Bayrampaşa, Beykoz, E<br>Süleoğlu<br>Source: Derived from the 5% Public Use Sar | Baziosmanp<br>Eyüp, Kadıl | aşa, Kadıka<br>köy, Sariyer | by, Büyükç<br>, Şişli, Çat | ekmece, Sil                          | ivri, Yalov                    | a            | ,                  |

The individuals from the rural areas of Pendik, Sarıyer and Ümraniye considerably moved to the rural area of Kartal (see Figure 3.11).

The individuals who used to live in the rural areas of Beyoğlu, Şişli, Üsküdar and Şile substantially moved to the rural area of Ümraniye.

The inhabitants from the rural areas of Beşiktaş, Beykoz, Eminönü, Eyüp, Fatih, Gaziosmanpaşa, Kadıköy, Büyükçekmece, Silivri and Yalova moved to the rural areas of Ümraniye.

The individuals from the rural area of Kartal which is a unique profile as a departure unit significantly moved to the rural areas of Pendik and Gebze.

The individuals from the rural areas of Central Edirne, Adalar and Kağıthane moved to the rural areas of Edirne Süleoğlu, Adalar, Bakırköy, Bayrampaşa, Beykoz, Eyüp, Kadıköy, Sarıyer, Şişli, Çatalca, Bayrampaşa, Şile and Yalova.

The individuals who used to live in the rural areas of Bakırköy, Bayrampaşa and Zeytinburnu moved to the rural areas of Gaziosmanpaşa and Küçükçekmece.

The individuals from the rural areas of Küçükçekmece and Çatalca significantly moved to the rural area of Büyükçekmece (see Figure 3.11).

Table 3.53 shows the percentages of the mobility flows according to their distinctive arrival profiles.

| <b>Table 3.53:</b> Reduced and reordered intra-metropolitan mobility matrix for Istanbul |
|--|
| Interaction Field 1985-1990: Extended mobility from the rural settlements                |
| to the rural settlements (distinctive arrival profiles %'s)                              |

|  |          |          | District      | s of Destin                          | ation (19                      | 90)          |                    |             |
|--|----------|----------|---------------|--------------------------------------|--------------------------------|--------------|--------------------|-------------|
| Districts of Origin (1985)   | Kartal   | Ümraniye | Pendik, Gebze | OTHER DISTRICTS of<br>DESTINATIONS** | Gaziosmanpaşa,<br>Küçükçekmece | Büyükçekmece | Çanakkale Gelibolu | DEPARTURES% |
| Pendik, Sarıyer, Ümraniye  | 51,2     | 0,0      | 13,9          | 4,2                                  | 5,4                            | 1,9          | 0,0                | 20,2        |
| Beyoğlu, Şişli, Üsküdar, Şile  | 12,5     | 67,1     | 5,6           | 13,5                                 | 12,0                           | 2,5          | 0,0                | 15,3        |
| OTHER DISTRICTS of ORIGINS*  | 24,6     | 30,3     | 22,2          | 22,9                                 | 18,6                           | 27,8         | 0,0                | 24,2        |
| Kartal   | 0,0      | 1,3      | 41,7          | 2,1                                  | 1,8                            | 3,2          | 0,0                | 3,2         |
| Adalar, Kağıthane, Central Edirne  | 5,3      | 0,0      | 0,0           | 15,6                                 | 0,6                            | 1,3          | 0,0                | 4,0         |
| Bakırköy, Bayrampaşa, Zeytinburnu  | 6,0      | 1,3      | 16,7          | 26,0                                 | 50,9                           | 10,8         | 0,0                | 18,5        |
| Küçükçekmece, Çatalca  | 0,4      | 0,0      | 0,0           | 13,5                                 | 10,8                           | 51,3         | 0,0                | 13,9        |
| Central Tekirdağ   | 0,0      | 0,0      | 0,0           | 2,1                                  | 0,0                            | 1,3          | 100,0              | 0,6         |
| ARRIVALS%  | 100      | 100      | 100           | 100                                  | 100                            | 100          | 100                | 100         |
| <ul> <li>* Beşiktaş, Beykoz, Eminönü, Eyüp, Fati</li> <li>** Adalar, Bakırköy, Bayrampaşa, Beyko<br/>Süleoğlu</li> <li>Source: Derived from the 5% Public Use</li> </ul> | oz, Eyüp | , Kadıkö | y, Sariye     | r, Şişli, Ça                         |                                |              |                    | a, Edirne   |

Kartal received 51.2% of all its movers Pendik, Sarıyer, and Ümraniye which generates 20.2% of all departures.

Ümraniye received 67.1% of all its movers from Beyoğlu, Şişli, Üsküdar and Şile which generates 15.3% of all departures and also 30.3% of all its movers from Beşiktaş, Beykoz, Eminönü, Eyüp, Fatih, Gaziosmanpaşa, Kadıköy, Büyükçekmece, Silivri and Yalova comprising 24.2% of all departures.

Pendik and Gebze received 41.7% of all its movers from Kartal which generates 3.2% of all departures.

Adalar, Bakırköy, Bayrampaşa, Beykoz, Eyüp, Kadıköy, Sarıyer, Şişli, Çatalca, Bayrampaşa, Şile, Yalova and Edirne Süleoğlu received 15.6% of all its movers from

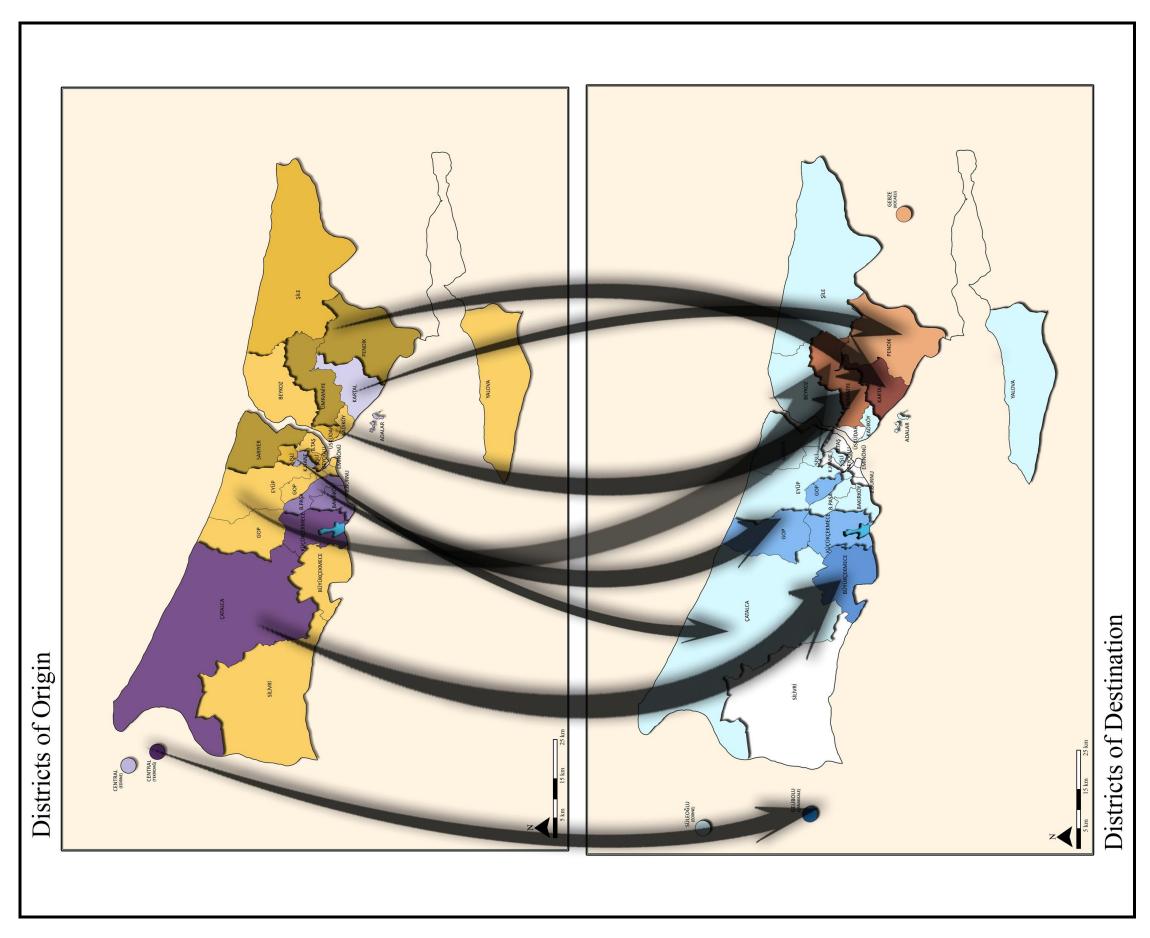


Figure 3.11 : Intra-metropolitan mobility from rural to rural area in Istanbul Interaction Field between 1985-1990.

Adalar, Kağıthane and Central Edirne which generates 4.0% of all departures and 26.0% of all its movers from Bakırköy, Bayrampaşa and Zeytinburnu.

Gaziosmanpaşa and Küçükçekmece received 50.9% of all its movers from Bakırköy, Bayrampaşa and Zeytinburnu which generates 18.5% of all departures.

Büyükçekmece received 51.3% of all its movers from Küçükçekmece and Çatalca which generates 13.9% of all departures.

Table 3.54 shows the percentages of the mobility flows according to their distinctive departure profiles.

**Table 3.54:** Reduced and reordered intra-metropolitan mobility matrix for IstanbulInteraction Field 1985-1990: Extended mobility from the rural settlementsto the rural settlements (distinctive departure profiles%'s)

|  |        |          | Districts     | of Destina                           | tion (1990)                    | )            |                    |             |  |  |
|--|--------|----------|---------------|--------------------------------------|--------------------------------|--------------|--------------------|-------------|--|--|
| Districts of Origin (1985)   | Kartal | Ümraniye | Pendik, Gebze | OTHER DISTRICTS of<br>DESTINATIONS** | Gaziosmanpaşa,<br>Küçükçekmece | Büyükçekmece | Çanakkale Gelibolu | DEPARTURES% |  |  |
| Pendik, Sarıyer, Ümraniye  | 87,3   | 0,0      | 3,0           | 2,4                                  | 5,5                            | 1,8          | 0,0                | 100         |  |  |
| Beyoğlu, Şişli, Üsküdar, Şile  | 28,0   | 40,8     | 1,6           | 10,4                                 | 16,0                           | 3,2          | 0,0                | 100         |  |  |
| OTHER DISTRICTS of<br>ORIGINS*   | 35,0   | 11,7     | 4,1           | 11,2                                 | 15,7                           | 22,3         | 0,0                | 100         |  |  |
| Kartal   | 0,0    | 3,8      | 57,7          | 7,7                                  | 11,5                           | 19,2         | 0,0                | 100         |  |  |
| Adalar, Kağıthane, Central<br>Edirne   | 45,5   | 0,0      | 0,0           | 45,5                                 | 3,0                            | 6,1          | 0,0                | 100         |  |  |
| Bakırköy, Bayrampaşa,<br>Zeytinburnu   | 11,3   | 0,7      | 4,0           | 16,6                                 | 56,3                           | 11,3         | 0,0                | 100         |  |  |
| Küçükçekmece, Çatalca  | 0,9    | 0,0      | 0,0           | 11,5                                 | 15,9                           | 71,7         | 0,0                | 100         |  |  |
| Central Tekirdağ   | 0,0    | 0,0      | 0,0           | 40,0                                 | 0,0                            | 40,0         | 20,0               | 100         |  |  |
| ARRIVALS%  | 34,5   | 9,3      | 4,4           | 11,8                                 | 20,5                           | 19,4         | 0,1                | 100         |  |  |
| AKKIVALS%       34,5       9,5       4,4       11,8       20,5       19,4       0,1       100         * Beşiktaş, Beykoz, Eminönü, Eyüp, Fatih, Gaziosmanpaşa, Kadıköy, Büyükçekmece, Silivri, Yalova         ** Adalar, Bakırköy, Bayrampaşa, Beykoz, Eyüp, Kadıköy, Sarıyer, Şişli, Çatalca, Bayrampaşa, Şile, Yalova, Edirne         Süleoğlu         Source: Derived from the 5% Public Use Sample of the 1990 Census, TSI |        |          |               |                                      |                                |              |                    |             |  |  |

Pendik, Sarıyer and Ümraniye sent 87.3% of all its movers to Kartal which contains 34.5% of all arrivals.

Beyoğlu, Şişli, Üsküdar and Şile sent 40.8% of all its movers to Ümraniye which contains 9.3% of all arrivals.

Beşiktaş, Beykoz, Eminönü, Eyüp, Fatih, Gaziosmanpaşa, Kadıköy, Büyükçekmece, Silivri and Yalova sent 11.7% of all its movers to Ümraniye.

Kartal sent 57.7% of all its movers to Pendik and Gebze which generates 4.4% of all arrivals.

Adalar, Kağıthane and Central Edirne sent 45.5% of all its movers to Adalar, Bakırköy, Bayrampaşa, Beykoz, Eyüp, Kadıköy, Sarıyer, Şişli, Çatalca, Bayrampaşa, Şile, Yalova and Edirne Süleoğlu which generates 11.8% of all arrivals.

Bakırköy, Bayrampaşa and Zeytinburnu sent 56.3% of all its movers to Gaziosmanpaşa and Küçükçekmece which contains 20.5% of all arrivals.

Küçükçekmece and Çatalca sent 71.7% of all its movers to Büyükçekmece which generates 19.4% of all arrivals.

## 3.7.2 Intra-metropolitan mobility from rural to rural area in Istanbul Interaction Field between 1995 -2000

Total number of individuals of all the population which moved from the rural field of a district to another rural field in defined area is 195 (see Table 3.55).

| Table 3.55: Reduced and reordered intra-metropolitan mobility matrix for Istanbul |
|---|
| Interaction Field 1995-2000: Extended mobility from the rural settlements         |
| to the rural settlements (flows in absolute numbers)                              |

|   |          |          | Distric | ts of Des | stination                               | (2000)           |               |              |                  |
|---|----------|----------|---------|-----------|---|------------------|---------------|--------------|------------------|
| Districts of Origin (1995)                | Kartal   | Gebze    | Tuzla   | Sanyer    | Beykoz, Eyüp, Ümraniye, Şile,<br>Şarköy | Çatalca, Silivri | Gaziosmanpaşa | Büyükçekmece | DEPARTURES TOTAL |
| Ümraniye                                  | 10       | 3        | 0       | 0         | 1                                       | 0                | 1             | 4            | 19               |
| Kartal, Tuzla, Şile                       | 1        | 25       | 0       | 0         | 14                                      | 1                | 0             | 4            | 45               |
| Pendik                                    | 1        | 4        | 5       | 0         | 0                                       | 0                | 2             | 2            | 14               |
| Beşiktaş                                  | 0        | 1        | 0       | 2         | 2                                       | 0                | 0             | 1            | 6                |
| Gaziosmanpaşa, Silivri                    | 0        | 8        | 0       | 0         | 3                                       | 7                | 0             | 4            | 22               |
| Beykoz, Sarıyer, Büyükçekmece,<br>Çatalca | 0        | 1        | 1       | 0         | 9                                       | 7                | 1             | 11           | 30               |
| Eyüp                                      | 0        | 0        | 0       | 0         | 0                                       | 1                | 3             | 0            | 4                |
| Küçükçekmece                              | 0        | 0        | 0       | 0         | 5                                       | 6                | 5             | 39           | 55               |
| ARRIVALS TOTAL                            | 12       | 42       | 6       | 2         | 34                                      | 22               | 12            | 65           | 195              |
| Source: Derived from the 5% Public Use    | e Sample | of the 2 | 000 Cen | sus, TSI  |   |                  |               |              |                  |

Table 3.56 reflecting the over-represented mobility flows shows that the mobility from the rural settlements to the rural settlements shows distinctive characteristics between the 1995-2000 period.

**Table 3.56:** Reduced and reordered intra-metropolitan mobility matrix for Istanbul

 Interaction Field 1995-2000: Extended mobility from the rural settlements

 to the rural settlements (signed chi square indices)

|   |          |          | Distric | ts of Des | stination  | (2000)           |               |              |
|---|----------|----------|---------|-----------|--|------------------|---------------|--------------|
|   | Kartal   | Gebze    | Tuzla   | Sarıyer   | Beykoz, Eyüp, Ümraniye, Şile,<br>Tekirdağ Şarköy | Çatalca, Silivri | Gaziosmanpașa | Büyükçekmece |
| Districts of Origin (1995)                |          |          |         |           |  |                  |               |              |
| Ümraniye                                  | 66,7     | -0,3     | -0,6    | -0,2      | -1,6   | -2,1             | 0,0           | -0,9         |
| Kartal, Tuzla, Şile                       | -1,1     | 24,2     | -1,4    | -0,5      | 4,8  | -3,3             | -2,8          | -8,1         |
| Pendik                                    | 0,0      | 0,3      | 48,5    | -0,1      | -2,4   | -1,6             | 1,5           | -1,5         |
| Beşiktaş                                  | -0,4     | -0,1     | -0,2    | 61,1      | 0,9  | -0,7             | -0,4          | -0,5         |
| Gaziosmanpaşa, Silivri                    | -1,4     | 2,2      | -0,7    | -0,2      | -0,2   | 8,2              | -1,4          | -1,5         |
| Beykoz, Sarıyer, Büyükçekmece,<br>Çatalca | -1,8     | -4,6     | 0,0     | -0,3      | 2,7  | 3,9              | -0,4          | 0,1          |
| Eyüp                                      | -0,2     | -0,9     | -0,1    | 0,0       | -0,7   | 0,7              | 30,8          | -1,3         |
| Küçükçekmece                              | -3,4     | -11,8    | -1,7    | -0,6      | -2,2   | 0,0              | 0,8           | 23,3         |
| Source: Derived from the 5% Public Use    | e Sample | of the 2 | 000 Cen | sus, TSI  |  |                  |               |              |

The individuals from the rural area of Ümraniye substantially moved to the rural area of Kartal (see Figure 3.12).

The residents who used to live in the rural areas of Kartal, Tuzla and Şile significantly moved to the rural area of Gebze, and also less significantly to the rural areas of Beykoz, Eyüp, Ümraniye, Şile and Şarköy.

The individuals from the rural area of Pendik significantly moved to the rural area of Tuzla, while the people from the rural area of Beşiktaş moved to the rural area of Sarıyer.

The inhabitants from the rural areas of Gaziosmanpaşa and Silivri moved to the rural areas of Çatalca, Silivri and Gebze.

The individuals form the rural area of Beykoz, Sarıyer, Büyükçekmece and Çatalca moved to the rural areas of Çatalca, Silivri, Beykoz, Eyüp, Ümraniye, Şile and Şarköy.

The individuals that used to live in the rural area of Eyüp substantially moved to the rural area of Gaziosmanpaşa.

The individuals from the rural area of Küçükçekmece significantly moved to the rural area of Büyükçekmece (see Figure 3.12).

Table 3.57 shows the percentages of the mobility flows according to their distinctive arrival profiles.

| <b>Table 3.57:</b> Reduced and reordered intra-metropolitan mobility matrix for Istanbul |
|--|
| Interaction Field 1995-2000: Extended mobility from the rural settlements                |
| to the rural settlements (distinctive arrival profiles%'s)                               |

|   |             |             | Distric    | ts of Des  | stination  | n (2000)         |               |              |             |
|---|-------------|-------------|------------|------------|--|------------------|---------------|--------------|-------------|
|   | Kartal      | Gebze       | Tuzla      | Sariyer    | Beykoz, Eyüp, Ümraniye,<br>Şile, Tekirdağ Şarköy | Çatalca, Silivri | Gaziosmanpaşa | Büyükçekmece | DEPARTURES% |
| Districts of Origin (1995)                |             |             |            |            |  |                  |               |              |             |
| Ümraniye<br>Kartal, Tuzla, Şile           | 83,3<br>8,3 | 7,1<br>59,5 | 0,0<br>0,0 | 0,0<br>0,0 | 2,9<br>41,2                                      | 0,0<br>4,5       | 8,3<br>0,0    | 6,2<br>6,2   | 9,7<br>23,1 |
| Pendik                                    | 8,3         | 9,5         | 83,3       | 0,0        | 0,0  | 4,5<br>0,0       | 16,7          | -            |             |
| Beşiktaş                                  | 0,0         | 2,4         | 0,0        | 100,0      | 5,9  | 0,0              | 0,0           | 3,1<br>1,5   | 7,2<br>3,1  |
| Gaziosmanpaşa, Silivri                    | 0,0         | 19,0        | 0,0        | 0,0        | 8,8  | 31,8             | 0,0           | 6,2          | 11,3        |
| Beykoz, Sarıyer, Büyükçekmece,<br>Çatalca | 0,0         | 2,4         | 16,7       | 0,0        | 26,5   | 31,8             | 8,3           | 16,9         | 15,4        |
| Eyüp                                      | 0,0         | 0,0         | 0,0        | 0,0        | 0,0  | 4,5              | 25,0          | 0,0          | 2,1         |
| Küçükçekmece                              | 0,0         | 0,0         | 0,0        | 0,0        | 14,7   | 27,3             | 41,7          | 60,0         | 28,2        |
| ARRIVALS%                                 | 100         | 100         | 100        | 100        | 100  | 100              | 100           | 100          | 100         |
| Source: Derived from the 5% Public U      | Jse Sam     | ple of th   | e 2000 C   | Census, T  | SI   |                  |               |              |             |

Kartal received 83.3% of all its movers from Ümraniye which generates 9.7% of all departures.

Gebze received 59.5% of all its movers from Kartal, Tuzla and Şile which generates 23.1% of all departures.

Tuzla received 83.3% of all its movers Pendik which generates 7.2% of all departures.

Sarıyer received 100% of all its movers from Beşiktaş which generates 3.1% of all departures.

Beykoz, Eyüp, Ümraniye, Şile and Tekirdağ Şarköy received 41.2% of all its movers from Kartal, Tuzla and Şile.

Çatalca, and Silivri received 31.8% of all its movers Gaziosmanpaşa and Silivri which generates 11.3% of all departures, and also 31.8% of all its movers from

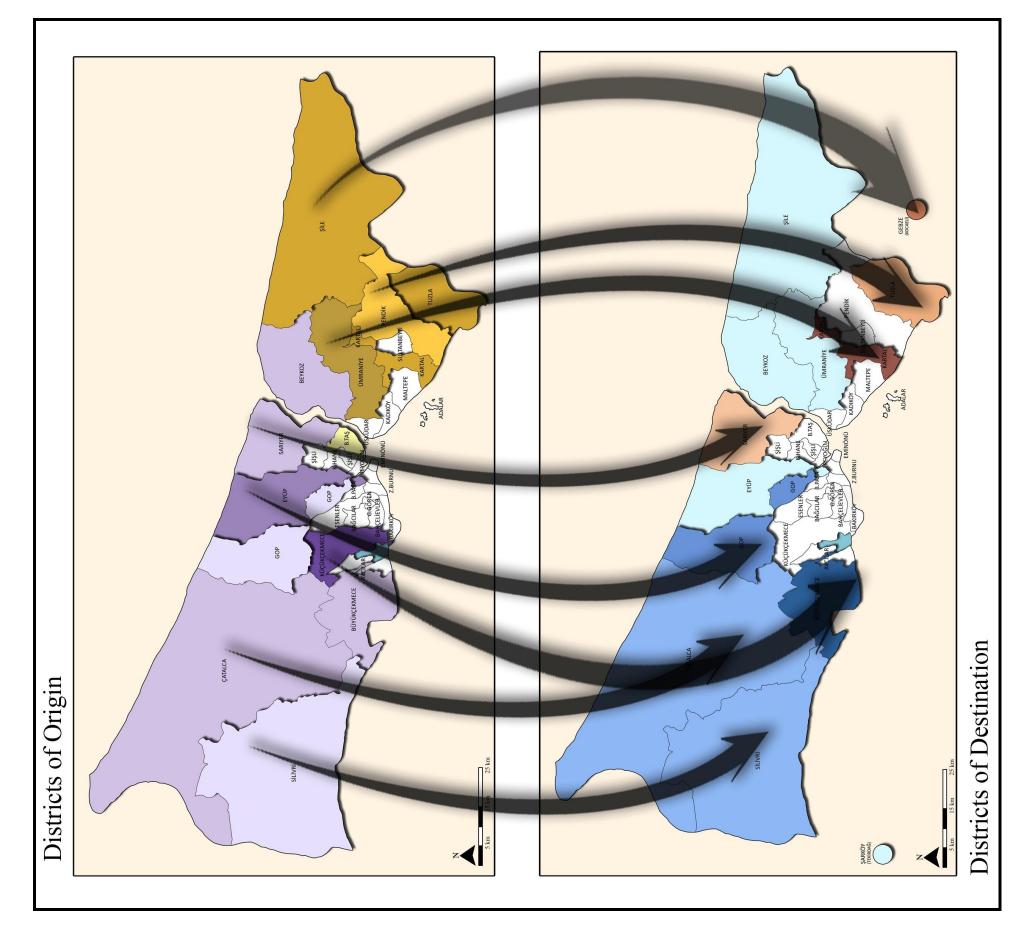


Figure 3.12 : Intra-metropolitan mobility from rural to rural area in Istanbul Interaction Field between 1995-2000.

Beykoz, Sarıyer, Büyükçekmece and Çatalca which generates 15.4% of all departures.

Gaziosmanpaşa received 25.0% of all its movers from Eyüp of origins which generates 2.1% of all departures.

Büyükçekmece received 60.0% of all its movers from Küçükçekmece which generates 28.2% of all departures.

Table 3.58 shows the percentages of the mobility flows according to their distinctive departure profiles.

**Table 3.58:** Reduced and reordered intra-metropolitan mobility matrix for IstanbulInteraction Field 1995-2000: Extended mobility from the rural settlementsto the rural settlements (distinctive departure profiles%'s)

|   |         | n         | Distric  | ts of Des | tination   | (2000)           | n             | n            |             |
|---|---------|-----------|----------|-----------|--|------------------|---------------|--------------|-------------|
| Districts of Origin (1995)                | Kartal  | Gebze     | Tuzla    | Sariyer   | Beykoz, Eyüp, Ümraniye,<br>Şile, Tekirdağ Şarköy | Çatalca, Silivri | Gaziosmanpaşa | Büyükçekmece | DEPARTURES% |
| Ümraniye                                  | 52,6    | 15,8      | 0,0      | 0,0       | 5,3  | 0,0              | 5,3           | 21,1         | 100         |
| Kartal, Tuzla, Şile                       | 2,2     | 55,6      | 0,0      | 0,0       | 31,1   | 2,2              | 0,0           | 8,9          | 100         |
| Pendik                                    | 7,1     | 28,6      | 35,7     | 0,0       | 0,0  | 0,0              | 14,3          | 14,3         | 100         |
| Beşiktaş                                  | 0,0     | 16,7      | 0,0      | 33,3      | 33,3   | 0,0              | 0,0           | 16,7         | 100         |
| Gaziosmanpaşa, Silivri                    | 0,0     | 36,4      | 0,0      | 0,0       | 13,6   | 31,8             | 0,0           | 18,2         | 100         |
| Beykoz, Sarıyer, Büyükçekmece,<br>Çatalca | 0,0     | 3,3       | 3,3      | 0,0       | 30,0   | 23,3             | 3,3           | 36,7         | 100         |
| Eyüp                                      | 0,0     | 0,0       | 0,0      | 0,0       | 0,0  | 25,0             | 75,0          | 0,0          | 100         |
| Küçükçekmece                              | 0,0     | 0,0       | 0,0      | 0,0       | 9,1  | 10,9             | 9,1           | 70,9         | 100         |
| ARRIVALS%                                 | 6,2     | 21,5      | 3,1      | 1,0       | 17,4   | 11,3             | 6,2           | 33,3         | 100         |
| Source: Derived from the 5% Public U      | Jse Sam | ple of th | e 2000 C | ensus, T  | SI   |                  |               |              |             |

Ümraniye sent 52.6% of all its movers to Kartal which generates 6.2% of all arrivals. Kartal, Tuzla and Şile sent 55.6% of all its movers Gebze which generates 21.5% of all arrivals.

Pendik sent 35.7% of all its movers to Tuzla which generates 3.1% of all arrivals.

Beşiktaş sent 33.3% of all its movers to Sarıyer which generates 1.0% of all arrivals.

Gaziosmanpaşa and Silivri sent 36.4% of all its movers to Gebze, and also 31.8% of all its movers to Çatalca and Silivri which generates 11.3% of all arrivals.

Beykoz, Sarıyer, Büyükçekmece and Çatalca sent 30.0% of all its movers to Beykoz, Eyüp, Ümraniye, Şile and Tekirdağ Şarköy which generates 17.4% of all arrivals, and also 23.3% of all its movers to Çatalca and Silivri.

Eyüp sent 75.0% of all its movers to Gaziosmanpaşa which generates 6.2% of all arrivals.

Küçükçekmece sent 70.9% of all its movers Büyükçekmece which generates 33.3% of all arrivals.

#### 3.8 Analyses of Movers' Profiles

In this part of the study, the economic activities and the educational levels of the individuals have been analyzed. Only the individuals who carried out the over-represented mobility are selected and analyzed. The movers who moved from the urban settlements to the urban settlements, from the urban settlements to the rural settlements, from the rural settlements and from the rural settlements to the rural settlements have been analyzed respectively for both the 1985-1990 and the 1995-2000 periods.

#### 3.8.1 The individuals that moved from urban to urban area

#### 3.8.1.1 The individuals that moved from urban to urban area between 1985-1990

The individuals who moved from the urban settlements of Gaziosmanpaşa, significantly moved to 3 groups of destinations. The first one of these groups includes only Bakırköy, the second one includes Beykoz, Eminönü, Eyüp, Fatih, Gaziosmanpaşa, Şişli, Zeytinburnu, Büyükçekmece, Çatalca, Silivri, Şile, Yalova Çanakkale Gelibolu and Edirne Süleoğlu, and the third one includes only Bayrampaşa. The individuals, who carried out all these mobility flows, worked significantly in manufacturing and had the lowest educational levels (see Table 3.59 and Table 3.60).

From the urban settlements of Eyüp, the individuals significantly move to 2 groups of destinations. One of these groups includes only Bakırköy and the other one is

generated from only Bayrampaşa. The individuals who moved from the urban settlements of Eyüp worked significantly in manufacturing and had the lowest educational levels.

| GROUPS                                     | Electricity, Gas and<br>Water, Housewives | Manufacturing | Wholesale and Retail<br>Trade | Agriculture, Mining,<br>Transport&Communica<br>tion, Students | Activities not<br>adequately defined | Community, Social and<br>Personal Services | Rentier, Others | Construction | Pensioners, Unemployed | Financing, Insurance,<br>Real Estate | %    |
|--|---|---------------|-------------------------------|---|--------------------------------------|--|-----------------|--------------|------------------------|--------------------------------------|------|
| 1, 2, 3, 4, 5                              | 3,4                                       | 51,8          | -11,5                         | -3,3  | 0,6                                  | -23,6                                      | -0,8            | -0,3         | 7,6                    | -48,2                                | 30,6 |
| 6, 7, 8                                    | 0,0                                       | 29,4          | 17,9                          | -7,3  | -3,7                                 | -0,2                                       | 0,2             | -5,4         | -21,4                  | -3,6                                 | 17,9 |
| 9  | 0,0                                       | -1,4          | -10,7                         | 17,2  | -1,1                                 | -0,5                                       | 0,3             | 0,5          | 0,0                    | 0,0                                  | 5,7  |
| 10, 11, 12, 13,                            |   |               |                               |   |                                      |  |                 |              |                        |                                      |      |
| 14, 15, 16                                 | -1,9                                      | -32,9         | 9,2                           | 9,3   | 0,3                                  | 13,9                                       | 0,0             | -0,2         | -5,2                   | 5,7                                  | 28,5 |
| 17   | 0,0                                       | -4,5          | -4,8                          | -0,1  | 7,7                                  | 23,5                                       | 0,3             | 4,0          | -8,9                   | 3,1                                  | 1,0  |
| 18   | 0,8                                       | -1,5          | -3,4                          | -0,6  | 0,8                                  | 0,2  | -3,9            | 0,9          | 5,0                    | 0,1                                  | 3,2  |
| 19, 20, 21                                 | -1,0                                      | -47,7         | -0,4                          | -0,7  | -0,1                                 | 1,9  | 1,4             | 7,2          | 17,3                   | 76,2                                 | 13,2 |
| Source: Derived from See Table 3.61 for th |   |               |                               | of the 1990 (   | Census, T                            | TSI  |                 |              |                        | ·                                    |      |

**Table 3.59:** The economic activities of the individuals that moved from the urbansettlements to the urban settlements between 1985-1990

**Table 3.60:** The educational levels of the individuals that moved from the urbansettlements to the urban settlements between 1985-1990

| GROUPS  | Illeterate | Primary School | Primary School Drop-<br>out | Graduation Unknown | Junior High School | Vocational High School | High School | Vocational Junior High<br>School | Faculty and Collage | %    |
|---|------------|----------------|-----------------------------|--------------------|--------------------|------------------------|-------------|----------------------------------|---------------------|------|
| 4, 5, 9   | 38,6       | 51,5           | 1,6                         | 0,0                | -2,7               | -4,5                   | -<br>80,4   | -0,7                             | -<br>157,3          | 33,0 |
| 1, 2, 3, 6, 7, 8  | -1,7       | 15,0           | 3,1                         | -1,0               | -3,7               | -3,7                   | -<br>10,6   | 1,5                              | -13,5               | 21,6 |
| 17  | 1,8        | -2,4           | 5,6                         | -0,1               | -0,3               | -0,1                   | 5,6         | -0,1                             | -6,7                | 1,1  |
| 11, 12, 19  | 1,3        | -0,2           | 2,7                         | 5,5                | -0,4               | -11,0                  | 0,0         | -0,8                             | 0,1                 | 11,0 |
| 18  | 0,1        | -1,5           | 0,2                         | 6,7                | -3,0               | 7,1                    | 0,0         | -0,2                             | 6,3                 | 3,2  |
| 10, 13, 14,<br>15, 16, 20   | -27,1      | -<br>61,4      | -13,8                       | -1,4               | 15,1               | 12,2                   | 94,4        | 0,0                              | 146,6               | 25,4 |
| 21  | -17,9      | -<br>43,1      | -6,5                        | -0,6               | 4,1                | 21,2                   | 42,5        | 1,3                              | 134,6               | 4,8  |
| Source: Derived from the 5% Public Use Sample of the 1990 Census, TSI |            |                |                             |                    |                    |                        |             |                                  |                     |      |
| See Table 3.61 for the content of groups.                             |            |                |                             |                    |                    |                        |             |                                  |                     |      |

From the urban settlements of Bakırköy individuals that substantially moved to the urban settlements of Küçükçekmece worked significantly in manufacturing and had the lowest educational levels.

The individuals from the urban settlements of Bayrampaşa, Eminönü, Fatih, Küçükçekmece and Zeytinburnu substantially moved to 2 groups of destinations. One of these groups includes only Bakırköy and the other group includes Beykoz, Eminönü, Eyüp, Fatih, Gaziosmanpaşa, Şişli, Zeytinburnu, Büyükçekmece, Çatalca, Silivri, Şile, Yalova Çanakkale Gelibolu and Edirne Süleoğlu. . The individuals who moved from the urban settlements of Bayrampaşa, Eminönü, Fatih, Küçükçekmece and Zeytinburnu worked significantly in manufacturing and wholesale and retail trade, and had the lowest educational level.

From the urban settlements of Beykoz, Kağıthane, Sarıyer and Üsküdar the individuals substantially moved to the urban settlements of 2 groups. The individuals who moved to Ümraniye worked in agriculture, mining, transport and communication or they were students. The individuals who moved to the urban settlements of Kadıköy, Pendik and Kocaeli Gebze significantly worked in community, social and personal services and had the highest educational levels.

The individuals who moved from the urban settlements of Şişli substantially moved to the urban settlements of 2 groups. The first one of these groups includes only Ümraniye and the second one includes Adalar, Beşiktaş, Beyoğlu, Kağıthane and Sarıyer. The individuals, who carried out all these mobility flows, worked significantly in community, social and personal services and their graduation was unknown or they had the lowest educational levels.

The individuals from the urban settlements of Adalar, Beşiktaş, Beyoğlu, Pendik, Ümraniye, Büyükçekmece, Çatalca, Silivri, Şile, Yalova, Edirne Merkez and Central Tekirdağ substantially moved to 5 groups. The individuals that moved from the urban settlements of this group of origins to the urban settlements of Kartal, Üsküdar, Bakırköy, Adalar, Beşiktaş, Beyoğlu, Kağıthane, Sarıyer, Beykoz, Eminönü, Eyüp, Fatih, Gaziosmanpaşa, Şişli, Zeytinburnu, Büyükçekmece, Çatalca, Silivri, Şile, Yalova Çanakkale Gelibolu and Edirne Süleoğlu worked significantly in community, social and personal services and had the highest educational level. The individuals that moved from the urban settlements of this group of origins to the urban settlements of Kadıköy, Pendik and Kocaeli Gebze worked in compisite economic activites and had the highest educational levels (see Table 3.61).

|    | District of Origin  | District of Destination   | Economic Activity   | Education  |  |  |
|----|---|---|---|--|--|--|
| 1  | Gaziosmanpaşa   | Bakırköy<br>Gelibolu, Süleoğlu, Beykoz,<br>Eminönü, Eyüp, Fatih,  | <u>Manufacturing,</u>   | Primary School,  |  |  |
| 2  | Gaziosmanpaşa   | Gaziosmanpaşa, Şişli,<br>Zeytinburnu, Büyükçekmece,<br>Çatalca, Silivri, Şile, Yalova   | Pensioners,<br>Unemployed,  | Primary School Drop<br>out   |  |  |
| 3  | Eyüp  | Bakırköy  | Electricity, Gas and  |  |  |  |
| 4  | Eyüp<br>Bakırköy  | Bayrampaşa<br>Küçükçekmece  | Water, Housewives   | Primary School,<br><u>Illeterate</u> , Primary<br>School Drop out                    |  |  |
| 6  | Bayrampaşa, Eminönü,<br>Fatih, Küçükçekmece,<br>Zeytinburnu   | Bakırköy  |   |  |  |  |
| 7  | Bayrampaşa, Eminönü,<br>Fatih, Küçükçekmece,<br>Zeytinburnu   | Gelibolu, Süleoğlu, Beykoz,<br>Eminönü, Eyüp, Fatih,<br>Gaziosmanpaşa, Şişli,<br>Zeytinburnu, Büyükçekmece,<br>Çatalca, Silivri, Şile, Yalova | <u>Manufacturing,</u><br><u>Wholesale and Retail</u><br><u>Trade</u>                                | Primary School,<br>Primary School Drop<br>out  |  |  |
| 8  | Gaziosmanpaşa   | Bayrampaşa  |   |  |  |  |
| 9  | Beykoz, Kağıthane, Sarıyer,<br>Üsküdar  | Ümraniye  | Agriculture, Mining,<br><u>Transport&amp;Communi</u><br>cation, Students                            | Primary School,<br><u>Illeterate</u> , Primary<br>School Drop out                    |  |  |
| 10 | Beykoz, Kağıthane, Sarıyer,<br>Üsküdar  | Kadıköy, Pendik, Gebze  |   | Faculty and Collage,<br>High School,<br>Vocational High School<br>Junior High School |  |  |
| 11 | Şişli   | Ümraniye  |   | Graduation Unknown,  |  |  |
| 12 | Şişli   | Adalar, Beşiktaş, Beyoğlu,<br>Kağıthane, Sarıyer  | -   | Primary School Drop<br>out, Illeterate   |  |  |
| 13 | Adalar, Beşiktaş, Beyoğlu,<br>Pendik, Ümraniye,<br>Büyükçekmece, Çatalca,<br>Silivri, Şile, Yalova, Edirne<br>Merkez, Tekirdağ Merkez | Kartal, Üsküdar   | Community, Social<br>and Personal Services,   |  |  |  |
| 14 | Adalar, Beşiktaş, Beyoğlu,<br>Pendik, Ümraniye,<br>Büyükçekmece, Çatalca,<br>Silivri, Şile, Yalova, Edirne<br>Merkez, Tekirdağ Merkez | Bakırköy  | Agriculture, Mining,<br>Transport&Communicat<br>ion, Students,<br>Wholesale and Retail              | Faculty and Collage,<br>High School,   |  |  |
| 15 | Adalar, Beşiktaş, Beyoğlu,<br>Pendik, Ümraniye,<br>Büyükçekmece, Çatalca,<br>Silivri, Şile, Yalova, Edirne<br>Merkez, Tekirdağ Merkez | Adalar, Beşiktaş, Beyoğlu,<br>Kağıthane, Sarıyer  | Trade   | Vocational High School<br>Junior High School   |  |  |
| 16 | Adalar, Beşiktaş, Beyoğlu,<br>Pendik, Ümraniye,<br>Büyükçekmece, Çatalca,<br>Silivri, Şile, Yalova, Edirne<br>Merkez, Tekirdağ Merkez | Gelibolu, Süleoğlu, Beykoz,<br>Eminönü, Eyüp, Fatih,<br>Gaziosmanpaşa, Şişli,<br>Zeytinburnu, Büyükçekmece,<br>Çatalca, Silivri, Şile, Yalova |   |  |  |  |
| 17 | Kartal  | Ümraniye  | Community, Social<br>and Personal Services,<br>Activities not<br>Adequately Defined<br>Construction | Primary School Drop<br>out, High School,<br>Illeterate                               |  |  |
|    |   |   | Financing, Insurance,<br>Real Estate  |  |  |  |

**Table 3.61:** The economic activities and the educational levels of the individuals thatmoved from the urban settlements to the urban settlements between 1985-1990

**Table 3.61:** The economic activities and the educational levels of the individuals thatmoved from the urban settlements to the urban settlements between 1985-1990 (continued)

|    | District of Origin  | District of Destination | Economic Activity  | Education  |
|----|---|-------------------------|--|--|
| 18 | Kartal  | Kadıköy, Pendik, Gebze  | Pensioners,<br>Unemployed  | Vocational High<br>School, Graduation<br>Unknown, Faculty and<br>Collage   |
| 19 | Kadıköy   | Ümraniye                | Financing, Insurance,<br>Real Estate   | Graduation Unknown,<br>Primary School Drop<br>out, Illeterate  |
| 20 | Kadıköy   | Kartal, Üsküdar         | Pensioners,<br>Unemployed,   | Faculty and Collage,<br>High School,<br>Vocational High School<br>Junior High School                                     |
| 21 | Adalar, Beşiktaş, Beyoğlu,<br>Pendik, Ümraniye,<br>Büyükçekmece, Çatalca,<br>Silivri, Şile, Yalova, Edirne<br>Merkez, Tekirdağ Merkez | Kadıköy, Pendik, Gebze  | Construction<br>Community, Social and<br>Personal Services,<br>Rentier, Others | Faculty and Collage,<br>High School,<br>Vocational High School<br>Junior High School<br>Vocational Junior High<br>School |

# 3.8.1.2 The individuals that moved from urban to urban area between 1995-2000

In the 1995-2000 period, the individuals who moved from the urban settlements of a group of origins including Bahçelievler, Esenler and Güngören substantially moved to the urban settlements of 4 groups of destinations. The individuals who moved to the urban settlements of Bağcılar, Bayrampaşa and Eyüp significantly worked in manufacturing or were housewives, and they had the lowest educational levels. The individuals who moved to the urban settlements of Bahçelievler, Güngören and Küçükçekmece significantly worked in agriculture and had lower-middle educational levels. The individuals who moved to the urban settlements of Adalar, Avcılar, Bakırköy, Beykoz, Eminönü, Esenler, Fatih, Zeytinburnu, Büyükçekmece, Çatalca, Silivri, Şile, Pehlivanköy, Gebze, Kandıra, Marmara Ereğlisi and Şarköy significantly worked in agriculture and graduated junior high school (see Table 3.62 and Table 3.63).

The individuals who moved from the urban settlements of a group including Bayrampaşa and Eyüp substantially moved to the urban settlements of 2 groups. The first one of these groups includes only Gaziosmanpaşa and the second one includes Adalar, Avcılar, Bakırköy, Beykoz, Eminönü, Esenler, Fatih, Zeytinburnu, Büyükçekmece, Çatalca, Silivri, Şile, Pehlivanköy, Gebze, Kandıra, Marmara Ereğlisi and Şarköy. The individuals who carried out both mobility flows worked significantly in manufacturing or were housewives, and they had the lowest educational levels.

| GROUPS   | Manufacturing | Housewives | Construction | Agriculture, Others | Mining, Electricity, Gas<br>and Water, Transport<br>& Communication,<br>Undefined | Students, Pensioners | Wholesale and Retail<br>Trade, Community,<br>Social and Personal<br>Services | Financing, Insurance,<br>Real Estate | %    |
|----------|---------------|------------|--------------|---------------------|---|----------------------|--|--------------------------------------|------|
| 1-7      | 95,8          | 18,1       | 0,2          | -2,0                | 0,1   | -10,8                | -42,8  | -55,6                                | 27,9 |
| 8, 9, 10 | -2,9          | 2,0        | 24,5         | 0,0                 | 2,0   | -0,6                 | -0,9   | -4,1                                 | 3,3  |
| 11, 12   | -0,9          | 4,8        | -0,6         | 5,8                 | 2,1   | -0,8                 | 0,0  | -15,0                                | 9,5  |
| 13-19    | 0,0           | 1,0        | -0,3         | 5,0                 | -1,3  | -0,1                 | 1,5  | -7,1                                 | 23,4 |
| 20       | -0,5          | -1,1       | 0,6          | -1,4                | -1,9  | 19,6                 | -0,1   | -1,6                                 | 3,4  |
| 21, 22   | -17,3         | -7,1       | -3,0         | 1,6                 | -0,1  | 30,9                 | 1,8  | 3,3                                  | 3,9  |

**Table 3.62:** The economic activities of the individuals that moved from the urbansettlements to the urban settlements between 1995-2000

**Table 3.63:** The educational levels of the individuals that moved from the urban settlements to the urban settlements between 1995-2000

0,0

0,4

28.8

28,6

155.7

23-30 -44,5 -30,1 -0,7 -4,1

See Table 3.64 for the content of groups.

Source: Derived from the 5% Public Use Sample of the 2000 Census, TSI

| GROUPS  | Primary School | Illeterate | Primary School Drop-out | Vocational Junior High<br>School | Junior High School 2 | Junior High School 1 | Vocational High School | High School | Collage | Faculty | Masters & Phd | %    |
|---|----------------|------------|-------------------------|----------------------------------|----------------------|----------------------|------------------------|-------------|---------|---------|---------------|------|
| 1, 3, 4, 6, 7   | 125,5          | 7,1        | 7,2                     | -2,7                             | -0,5                 | 0,0                  | -6,5                   | -45,7       | -22,7   | -134,7  | -22,1         | 16,2 |
| 2, 12   | 17,0           | 1,6        | -3,6                    | 17,7                             | 1,4                  | 0,0                  | -2,7                   | -4,9        | -0,5    | -10,0   | -5,4          | 2,8  |
| 5   | 2,8            | 5,1        | 3,4                     | 0,1                              | 2,0                  | 0,1                  | -4,2                   | -2,7        | 0,0     | -20,8   | -9,7          | 11,0 |
| 11, 13  | 3,1            | -0,2       | 3,4                     | 0,6                              | 0,0                  | 1,8                  | -0,9                   | -0,2        | -6,2    | -7,9    | -12,5         | 13,4 |
| 8, 18   | -0,9           | 0,0        | 2,5                     | 10,2                             | -4,1                 | 0,0                  | 0,4                    | -0,1        | 0,7     | 0,1     | 0,1           | 1,8  |
| 9, 14, 15   | -0,2           | 0,2        | 0,0                     | -1,8                             | 8,7                  | -3,2                 | 0,0                    | 0,8         | -1,1    | -3,0    | 0,0           | 16,2 |
| 10, 16, 19  | 11,3           | 0,3        | -0,6                    | 0,0                              | -1,1                 | 2,1                  | 13,1                   | -5,3        | -3,5    | -11,1   | -0,7          | 2,5  |
| 17, 20  | -2,6           | 0,8        | -0,8                    | -1,3                             | -1,0                 | 3,6                  | 2,9                    | 23,7        | -0,2    | -8,8    | -2,0          | 4,1  |
| 21-24, 26,<br>27, 29  | -47,9          | -6,2       | -4,6                    | 0,3                              | -0,5                 | -0,1                 | 2,2                    | 10,5        | 10,1    | 99,8    | 36,0          | 20,6 |
| 25, 28, 30  | -88,0          | -12,5      | -8,2                    | -1,2                             | -4,1                 | -1,0                 | 4,2                    | 16,7        | 44,3    | 218,9   | 46,8          | 11,3 |
| Source: Derived from the 5% Public Use Sample of the 2000 Census, TSI |                |            |                         |                                  |                      |                      |                        |             |         |         |               |      |
| See Table 3.64 for the content of groups.                             |                |            |                         |                                  |                      |                      |                        |             |         |         |               |      |

The individuals from the urban settlements of Avcılar, Bağcılar, Bakırköy and Zeytinburnu substantially moved to the urban settlements of 2 groups. The individuals who moved to the urban settlements of Bahçelievler, Güngören and Küçükçekmece significantly worked in manufacturing or were housewives, and they had the lowest educational levels. The individuals who moved to the urban settlements of Adalar, Avcılar, Bakırköy, Beykoz, Eminönü, Esenler, Fatih, Zeytinburnu, Büyükçekmece, Çatalca, Silivri, Şile, Pehlivanköy, Gebze, Kandıra, Marmara Ereğlisi and Şarköy significantly worked in agriculture, mining, infrastructure, transport & communication or were housewives, and had low educational levels.

From the urban settlements of Gaziosmanpaşa, the individuals substantially moved to the urban settlements of two groups of destinations. The individuals who moved to the urban settlements of Bayrampaşa and Eyüp significantly worked in manufacturing or were housewives, and they had the lowest educational levels. The individuals who moved to the urban settlements of Adalar, Avcılar, Bakırköy, Beykoz, Eminönü, Esenler, Fatih, Zeytinburnu, Büyükçekmece, Çatalca, Silivri, Şile, Pehlivanköy, Gebze, Kandıra, Marmara Ereğlisi and Şarköy significantly worked in agriculture, mining, infrastructure, transport & communication or they were housewives, and had lower-middle educational levels.

From the urban settlements of Beykoz, Eminönü, Fatih, Küçükçekmece, Tuzla, Ümraniye, Büyükçekmece, Çatalca, Silivri, Sultanbeyli, Şile, Marmara and Marmara Ereğlisi, the individuals substantially moved to the urban settlements of 2 groups of destinations. The individuals who moved to the urban settlements of Gaziosmanpaşa significantly worked in manufacturing or were housewives, and they had the lowest educational levels. The individuals who moved to the urban settlements of Adalar, Avcılar, Bakırköy, Beykoz, Eminönü, Esenler, Fatih, Zeytinburnu, Büyükçekmece, Çatalca, Silivri, Şile, Pehlivanköy, Gebze, Kandıra, Marmara Ereğlisi and Şarköy significantly worked in agriculture and graduated junior high school.

The individuals who moved from the urban settlements of Kadıköy to the urban settlements of the other districts substantially moved to 3 groups of destinations. The individuals who moved to the urban settlements of Pendik significantly worked in construction, and had lower-middle educational levels. The individuals who moved to the urban settlements of Kartal and Tuzla were significantly pensioners or students, and had the highest educational levels. The individuals who moved to the urban settlements of Maltepe, Üsküdar and Sultanbeyli significantly worked in white collar jobs and had the highest educational levels.

From the urban settlements of Kartal, the individuals substantially moved to the urban settlements of 3 groups. The individuals who moved to the urban settlements of Maltepe, Üsküdar and Sultanbeyli significantly worked in construction and graduated junior high school. The individuals who moved to the urban settlements of a group including Kadıköy and Ümraniye and to another group including only Pendik significantly worked in agriculture and had low educational levels.

The individuals who moved from the urban settlements of Adalar, Maltepe and Pendik substantially moved to the urban settlements of 3 groups. The individuals who moved to the urban settlements of Pendik significantly worked in construction and had middle educational levels. The individuals who moved to the urban settlements of Kartal and Tuzla were significantly students or pensioners and had upper-middle educational levels. The individuals who moved to the urban settlements of Kartal and Tuzla were significantly students or pensioners and had had upper-middle educational levels. The individuals who moved to the urban settlements of Kadıköy and Ümraniye worked in white collar jobs and had the highest educational levels.

From the urban settlements of Üsküdar, the individuals substantially moved to the urban settlements of 3 groups. The individuals who moved to the urban settlements of Pendik significantly worked in agriculture and had lower-middle educational levels. The individuals who moved to the urban settlements of Kartal and Tuzla significantly worked in agriculture and had middle educational levels. The individuals who moved to the urban settlements of Kartal and Tuzla significantly worked in agriculture and had middle educational levels. The individuals who moved to the urban settlements of Kadıköy and Ümraniye worked in white collar jobs and had the highest educational levels.

From the urban settlements of Beşiktaş, Beyoğlu and Kağıthane, the individuals substantially moved to the urban settlements of 4 groups. The individuals who moved to the urban settlements of Maltepe, Üsküdar and Sultanbeyli were significantly students or pensioners, and had the highest educational levels. The individuals who moved to the urban settlements of Şişli, Beşiktaş, Beyoğlu, Kağıthane, Sarıyer, Kadıköy and Ümraniye worked in white collar jobs and had the highest educational levels.

The individuals who moved from the urban settlements of Sarıyer and Şişli substantially moved to the urban settlements of Beşiktaş, Beyoğlu, Kağıthane, Sarıyer, Kadıköy and Ümraniye, and worked in white collar jobs and had the highest educational levels (see Table 3.63).

**Table 3.64:** The economic activities and the educational levels of the individuals thatmoved from the urban settlements to the urban settlements between 1995-2000

|    | District of Origin   | District of Destination  | Economic Activity   | Education  |
|----|--|--|---|--|
| 1  | Bahçelievler, Esenler,<br>Güngören   | Bağcılar   |   | Primary School<br>Primary School Drop-<br>out<br>Illeterate                              |
| 2  | Bahçelievler, Esenler,<br>Güngören   | Bayrampaşa, Eyüp   |   | Vocational Junior<br>High School<br>Primary School<br>Illeterate<br>Junior High School 2 |
| 3  | Bayrampaşa, Eyüp   | Gaziosmanpaşa  |   | Junior High School 2   |
| 4  | Bayrampaşa, Eyüp   | Adalar, Avcılar, Bakırköy,<br>Beykoz, Eminönü, Esenler,<br>Fatih, Zeytinburnu,<br>Büyükçekmece, Çatalca,<br>Silivri, Şile, Pehlivanköy,<br>Gebze, Kandıra, Marmara<br>Ereğlisi, Sarköy | Manufacturing<br>Housewives   | Primary School<br>Primary School Drop-<br>out<br>Illeterate                              |
| 5  | Avcılar, Bağcılar,<br>Bakırköy, Zeyinburnu   | Bahçelievler, Güngören,<br>Küçükçekmece  |   | Illeterate<br>Primary School Drop-<br>out<br>Primary School<br>Junior High School 2      |
| 6  | Gaziosmanpașa  | Bayrampaşa, Eyüp   |   | 0  |
| 7  | Beykoz, Eminönü,<br>Fatih, Küçükçekmece,<br>Tuzla, Ümraniye,<br>Büyükçekmece,<br>Çatalca, Silivri,<br>Sultanbeyli, Şile,<br>Marmara, Marmara<br>Ereğlisi | Gaziosmanpaşa  |   | Primary School<br>Primary School Drop-<br>out<br>Illeterate                              |
| 8  | Kadıköy  | Pendik   | <b>Construction</b><br>Mining, Electricity, Gas                                   | Vocational Junior<br>High School<br>Primary School Drop-<br>out                          |
| 9  | Kartal   | Maltepe, Üsküdar, Sultanbeyli  | and Water, Transport & Communication,   | Junior High School 2   |
| 10 | Adalar, Maltepe, Pendik  | Pendik   | Undefined<br>Housewives   | Vocational High<br>School<br>Primary School<br>Junior High School 1                      |
| 11 | Avcılar, Bağcılar,<br>Bakırköy, Zeytinburnu  | Adalar, Avcılar, Bakırköy,<br>Beykoz, Eminönü, Esenler,<br>Fatih, Zeytinburnu,<br>Büyükçekmece, Çatalca,<br>Silivri, Şile, Pehlivanköy,<br>Gebze, Kandıra, Marmara<br>Ereğlisi, Sarköy | Agriculture, Others<br>Housewives   | Primary School Drop-<br>out<br>Primary School<br>Junior High School 1                    |
| 12 | Gaziosmanpașa  | Adalar, Avcılar, Bakırköy,<br>Beykoz, Eminönü, Esenler,<br>Fatih, Zeytinburnu,<br>Büyükçekmece, Çatalca,<br>Silivri, Şile, Pehlivanköy,<br>Gebze, Kandıra, Marmara<br>Ereğlisi, Sarköy | Mining, Electricity, Gas<br>and Water, Transport &<br>Communication,<br>Undefined | Vocational Junior<br>High School<br>Primary School<br>Illeterate<br>Junior High School 2 |
| 13 | Bahçelievler, Esenler,<br>Güngören   | Bahçelievler, Güngören,<br>Küçükçekmece  |   | Primary School Drop-<br>out<br>Primary School<br>Junior High School 1                    |
| 14 | Bahçelievler, Esenler,<br>Güngören   | Adalar, Avcılar, Bakırköy,<br>Beykoz, Eminönü, Esenler,<br>Fatih, Zeytinburnu,<br>Büyükçekmece, Çatalca,<br>Silivri, Şile, Pehlivanköy,<br>Gebze, Kandıra, Marmara<br>Ereğlisi, Sarköy | Agriculture, Others   | Junior High School 2   |

## **Table 3.64:** The economic activities and the educational levels of the individuals thatmoved from the urban settlements to the urban settlements between 1995-2000 (continued)

| 15 | Beykoz, Eminönü,<br>Fatih, Küçükçekmece,<br>Tuzla, Ümraniye,<br>Büyükçekmece,<br>Çatalca, Silivri,<br>Sultanbeyli, Şile,<br>Marmara, Marmara | Adalar, Avcılar, Bakırköy,<br>Beykoz, Eminönü, Esenler,<br>Fatih, Zeytinburnu,<br>Büyükçekmece, Çatalca,<br>Silivri, Şile, Pehlivanköy,<br>Gebze, Kandıra, Marmara<br>Ereğlisi, Sarköy | Agriculture, Others  | Junior High School 2  |
|----|--|--|--|---|
| 16 | Ereğlisi<br>Üsküdar  | Pendik   |  | Vocational High<br>School<br>Primary School<br>Junior High School 1             |
| 17 | Üsküdar  | Kartal, Tuzla  |  | High School<br>Junior High School 1<br>Vocational High<br>School                |
| 18 | Kartal   | Kadıköy, Ümraniye  | Agriculture, Others  | Vocational Junior<br>High School<br>Primary School Drop-<br>out                 |
| 19 | Kartal   | Pendik   |  | Vocational High<br>School<br>Primary School<br>Junior High School 1             |
| 20 | Adalar, Maltepe, Pendik  | Kartal, Tuzla  | Students, Pensioners   | High School<br>Junior High School 1<br>Vocational High<br>School                |
| 21 | Beşiktaş, Beyoğlu,<br>Kağıthane  | Maltepe, Üsküdar, Sultanbeyli  | Students, Pensioners   |   |
| 22 | Kadıköy  | Kartal, Tuzla  | Financing, Insurance,<br>Real Estate<br>Wholesale and Retail<br>Trade, Community,<br>Social and Personal | Faculty<br>Masters & Phd<br>High School<br>Collage<br>Vocational High           |
| 23 | Beşiktaş, Beyoğlu,<br>Kağıthane  | Şişli  | Services   | - School  |
| 24 | Beşiktaş, Beyoğlu,<br>Kağıthane  | Beşiktaş, Beyoğlu, Kağıthane,<br>Sarıyer   | -  |   |
| 25 | Beşiktaş, Beyoğlu,<br>Kağıthane  | Kadıköy, Ümraniye  |  | Faculty<br>Masters & Phd<br>Collage<br>High School<br>Vocational High<br>School |
| 26 | Sarıyer, Şişli   | Beşiktaş, Beyoğlu, Kağıthane,<br>Sarıyer   | -  | Faculty<br>Masters & Phd  |
| 27 | Sarıyer, Şişli   | Kadıköy, Ümraniye  | Financing, Insurance,<br>Real Estate   | High School<br>Collage<br>Vocational High<br>School                             |
| 28 | Kadıköy  | Maltepe, Üsküdar, Sultanbeyli  | Wholesale and Retail<br>Trade, Community,<br>Social and Personal<br>Services                             | Faculty<br>Masters & Phd<br>Collage<br>High School<br>Vocational High<br>School |
| 29 | Üsküdar  | Kadıköy, Ümraniye  |  | Faculty<br>Masters & Phd<br>High School<br>Collage<br>Vocational High<br>School |
| 30 | Adalar, Maltepe, Pendik  | Kadıköy, Ümraniye  |  | Faculty<br>Masters & Phd<br>Collage<br>High School<br>Vocational High Schl.     |

#### 3.8.2 The individuals that moved from urban to rural area

**3.8.2.1 The individuals that moved from urban to rural area between 1985-1990** The individuals from the urban settlements of Kadıköy substantially moved to the rural settlements of 5 groups of destinations. The individuals who moved to the rural settlements of Kartal and Şile significantly worked in agriculture and had the lowest educational levels. The individuals who moved to the rural settlements of Ümraniye were significantly unemployed and they dropped out primary school. The individuals who moved to the rural settlements of Kadıköy worked in white collar jobs, transport & communication or were housewives and had the upper-middle educational levels. The individuals of Gebze worked in white collar jobs, transport & communication or were housewives, and had the lowest educational levels (see Table 3.65 and Table 3.66).

From the urban settlements of Üsküdar, the individuals substantially moved to the rural settlements of a group of destinations including Kartal and Şile. The individuals that carried out this mobility flow significantly worked in agriculture and graduated primary school.

From the urban settlements of Beşiktaş, Şişli, Silivri, Şile, Central Edirne and Central Tekirdağ, the individuals substantially moved to 3 groups of destinations. The individuals who moved tor the rural settlements of Kartal and Şile significantly worked in agriculture and had low educational levels. The individuals who moved to the rural settlements of Ümraniye worked in white collar jobs, transport & communication or were housewives, and had the lowest educational levels. The individuals who moved to the rural settlements of Beşiktaş, Beykoz, Beyoğlu, Eyüp, Fatih, Pendik, Sarıyer, Şişli, Üsküdar, Zeytinburnu, Çatalca, Silivri, Çanakkale Gelibolu and Edirne Süleoğlu worked significantly in wholesale and retail trade or were pensioners, and had upper-middle educational levels.

The individuals from the urban settlements of Yalova substantially moved to the rural settlements of the same district. The individuals that carried out this mobility flow significantly worked in agriculture, infrastructure, construction or were students, and had the lowest educational levels.

From the urban settlements of Adalar, Kartal and Pendik, the individuals substantially moved to the rural settlements of Kocaeli Gebze. The individuals that

carried out this mobility flow significantly worked in agriculture, infrastructure, construction or were students, and had the lowest educational levels.

|             | Agriculture  | Electricity, Gas and<br>Water, Construction,<br>Students, Undefined | Unemployed | Rentier | Community, Social and<br>Personal Services | Transport &<br>Communication,<br>Financing, Insurance,<br>Real Estate, Housewives | Other | Manufacturing | Mining | Wholesale and Retail<br>Trade, Pensioners | %    |
|-------------|--|---|------------|---------|--|---|-------|---------------|--------|---|------|
| 1, 2, 3     | 75,1   | 0,0   | -1,5       | -2,2    | 0,1  | -4,9  | -0,9  | -9,2          | -0,9   | -1,7                                      | 21,6 |
| 4, 5, 6, 7  | 12,5   | 6,4   | 0,2        | -0,8    | -0,7                                       | -3,3  | -0,5  | -1,1          | -0,3   | -2,9                                      | 8,2  |
| 8,9         | 0,0  | 0,3   | 49,3       | -0,2    | 0,0  | 0,0   | -0,5  | -3,4          | -0,1   | -0,1                                      | 2,1  |
| 10          | 6,9  | -0,8  | -0,3       | 33,9    | -0,3                                       | -2,5  | -0,3  | 0,8           | 0,0    | -0,3                                      | 1,1  |
| 11-20       | -0,4   | -2,4  | 0,0        | 0,4     | 5,5  | 2,9   | 1,9   | 0,0           | -0,8   | -6,6                                      | 20,5 |
| 21, 22      | -52,4  | 0,3   | 0,0        | 0,0     | -0,3                                       | 2,6   | -0,1  | 16,2          | -0,1   | 0,6                                       | 32,7 |
| 23          | 0,5  | -2,3  | -0,2       | -0,1    | 0,0  | -2,7  | 52,3  | 7,5           | 0,0    | -1,7                                      | 0,6  |
| 24, 25      | 0,2  | -0,2  | -0,3       | 0,3     | -0,6                                       | 0,0   | -1,4  | 0,0           | 32,4   | 0,1                                       | 5,9  |
| 26, 27      | -13,8  | 0,0   | -2,1       | 0,1     | -1,9                                       | 0,1   | 0,0   | -4,8          | -0,3   | 52,2                                      | 7,4  |
| Source: Der | Source: Derived from the 5% Public Use Sample of the 1990 Census, TSI<br>See Table 3.67 for the content of groups. |   |            |         |  |   |       |               |        |   |      |

**Table 3.65:** The economic activities of the individuals that moved from the urbansettlements to the rural settlements between 1985-1990

**Table 3.66:** The educational levels of the individuals that moved from the urbansettlements to the rural settlements between 1985-1990

|  | Faculty and Collage | High School | Vocational High School | Junior High<br>School&Vocational<br>Junior High School | Primary School | Primary School Drop-<br>out | Illeterate | %    |
|--|---------------------|-------------|------------------------|--|----------------|-----------------------------|------------|------|
| 12, 26, 27   | 79,0                | 36,0        | 5,4                    | 6,2  | -4,5           | -16,6                       | -7,6       | 7,9  |
| 17   | -0,1                | 6,3         | 0,0                    | -0,2   | 0,0            | -0,3                        | -0,2       | 0,1  |
| 25   | 0,1                 | 1,8         | 7,7                    | 0,0  | -0,1           | 0,0                         | -3,5       | 4,1  |
| 3. 10, 23  | -0,4                | -0,1        | -4,1                   | 3,1  | 1,7            | -0,3                        | -6,4       | 10,7 |
| 2, 22  | -9,0                | 0,2         | -0,4                   | 0,1  | 0,9            | -0,2                        | -0,1       | 32,3 |
| 1, 4, 11, 18, 20, 24   | -0,2                | -0,7        | -2,6                   | -1,9   | 1,8            | -1,2                        | 1,4        | 11,6 |
| 5, 8, 19   | -1,2                | -2,2        | 0,1                    | 0,0  | -0,4           | 8,7                         | -0,2       | 6,8  |
| 7, 9, 13, 14, 15, 16, 21   | -0,1                | -7,9        | 0,4                    | -3,0   | -1,1           | 5,4                         | 10,0       | 26,3 |
| 6  | -0,2                | -0,5        | -0,1                   | -0,7   | -1,2           | -0,1                        | 20,6       | 0,3  |
| Source: Derived from the 5% Public Use Sample of the 1990 Census, TSI<br>See Table 3.67 for the content of groups. |                     |             |                        |  |                |                             |            |      |

The individuals who moved from the urban settlements of Eminönü to the rural settlements of the other districts substantially moved to 3 groups of destinations. The individuals who moved to the rural settlements of Gebze significantly worked in agriculture, infrastructure, construction or were students, and had the lowest educational levels. The individuals who moved to the rural settlements of Kartal and Şile were significantly unemployed and had the lowest educational levels. The individuals who moved to the rural settlements of Eminönü worked in white collar jobs, transport & communication or were housewives, and graduated high school.

The individuals from the urban settlements of Eyüp, Fatih, Büyükçekmece and Çatalca substantially moved to the rural settlements of 3 districts. The individuals who moved to the rural settlements of Gaziosmanpaşa significantly worked in agriculture, infrastructure, construction or were students, and had the lowest educational levels. The individuals who moved to the rural settlements of Adalar, Bakırköy, Küçükçekmece and Büyükçekmece significantly worked in manufacturing and had the lowest educational levels. The individuals who moved to the rural settlements of Beşiktaş, Beykoz, Beyoğlu, Eyüp, Fatih, Pendik, Sarıyer, Şişli, Üsküdar, Zeytinburnu, Çatalca, Silivri, Çanakkale Gelibolu and Edirne Süleoğlu significantly worked in mining and had middle educational levels.

The individuals who moved from the urban settlements of Bayrampaşa to the rural settlements of the other districts substantially moved to 3 groups of destinations. The individuals who moved to the rural settlements of Beşiktaş, Beykoz, Beyoğlu, Eyüp, Fatih, Pendik, Sarıyer, Şişli, Üsküdar, Zeytinburnu, Çatalca, Silivri, Çanakkale Gelibolu and Edirne Süleoğlu were significantly rentiers or worked in agriculture, and had lower-middle educational levels. The individuals who moved to the rural settlements of Bayrampaşa and Gaziosmanpaşa significantly worked in white collar jobs, transport & communication or were housewives and had the lowest educational levels.

From the urban settlements of Kağıthane, the individuals substantially moved to the rural settlements of 2 groups. The individuals that moved to the rural settlements of Kağıthane significantly worked in white collar jobs, transport & communication or were housewives and had the lowest educational levels. The individuals who moved to the rural settlements of Kartal and Şile worked significantly in mining and had the lowest educational levels.

**Table 3.67:** The economic activities and the educational levels of the individuals thatmoved from the urban settlements to the rural settlements between 1985-1990

|    | District of Origin   | <b>District of Destination</b>   | Economic Activity   | Education   |
|----|--|--|---|---|
| 1  | Kadıköy  | Kartal, Şile   |   | Primary School,<br>Illeterate   |
| 2  | Üsküdar  | Kartal, Şile   |   | Primary School  |
| 3  | Beşiktaş, Şişli, Silivri,<br>Şile, Central Edirne,<br>Central Tekirdağ | Kartal, Şile   | Agriculture   | Junior High<br>School&Vocational<br>Junior High School,<br>Primary School                         |
| 4  | Yalova   | Yalova   |   | Primary School,<br>Illeterate   |
| 5  | Adalar, Kartal, Pendik   | Gebze  | Agriculture Electricity, Gas<br>and Water, Construction,  | Primary School Drop-<br>out   |
| 6  | Eminönü  | Gebze  | Students, Undefined                                       | Illeterate  |
| 7  | Eyüp, Fatih,<br>Büyükçekmece, Çatalca                                  | Gaziosmanpaşa  |   | Illeterate, Primary<br>School Drop-out  |
| 8  | Kadıköy  | Ümraniye   | Unemployed  | Primary School Drop-<br>out   |
| 9  | Eminönü  | Kartal, Şile   | Unemployed  | Illeterate, Primary<br>School Drop-out  |
| 10 | Bayrampaşa   | Beşiktaş, Beykoz, Beyoğlu,<br>Eyüp, Fatih, Pendik, Sarıyer,<br>Şişli, Üsküdar, Zeytinburnu,<br>Çatalca, Silivri, Gelibolu,<br>Süleoğlu | Rentier<br>Agriculture                                    | Junior High<br>School&Vocational<br>Junior High School,<br>Primary School                         |
| 11 | Kağıthane  | Kağıthane  |   | Primary School,<br>Illeterate   |
| 12 | Kadıköy  | Kadıköy  |   | Faculty and Collage,<br>High School, Junior<br>High   |
| 13 | Kadıköy  | Gebze  | Community, Social and                                     | Illeterate, Primary<br>School Drop-out  |
| 14 | Beşiktaş, Şişli, Silivri,<br>Şile, Central Edirne,<br>Central Tekirdağ | Ümraniye   | Personal Services<br>Transport &                          | Illeterate, Primary<br>School Drop-out  |
| 15 | Beykoz, Beyoğlu,<br>Sarıyer, Ümraniye                                  | Ümraniye   | Communication, Financing,<br>Insurance, Real Estate,      | Illeterate, Primary<br>School Drop-out  |
| 16 | Beykoz, Beyoğlu,<br>Sarıyer, Ümraniye                                  | Kartal, Şile   | Housewives  | Illeterate, Primary<br>School Drop-out  |
| 17 | Eminönü  | Eminönü  | Other   | High School   |
| 18 | Gaziosmanpaşa  | Gaziosmanpașa  |   | Primary School,<br>Illeterate   |
| 19 | Bayrampaşa   | Bayrampaşa   |   | Primary School Drop-<br>out   |
| 20 | Bayrampaşa   | Gaziosmanpaşa  |   | Primary School,<br>Illeterate   |
| 21 | Eyüp, Fatih,<br>Büyükçekmece, Çatalca                                  | Adalar, Bakırköy,<br>Küçükçekmece,<br>Büyükçekmece   | Manufacturing<br>Transport &<br>Communication, Financing, | Illeterate, Primary<br>School Drop-out  |
| 22 | Bakırköy,<br>Küçükçekmece,<br>Zeytinburnu                              | Adalar, Bakırköy,<br>Küçükçekmece,<br>Büyükçekmece   | Insurance, Real Estate,<br>Housewives                     | Primary School  |
| 23 | Gaziosmanpaşa  | Gebze  | Other<br>Manufacturing                                    | Junior High<br>School&Vocational<br>Junior High School,<br>Primary School                         |
| 24 | Kağıthane  | Kartal, Şile   |   | Primary School,<br>Illeterate   |
| 25 | Eyüp, Fatih,<br>Büyükçekmece, Çatalca                                  | Beşiktaş, Beykoz, Beyoğlu,<br>Eyüp, Fatih, Pendik, Sarıyer,<br>Şişli, Üsküdar, Zeytinburnu,<br>Çatalca, Silivri, Gelibolu              | Mining  | Vocational High School,<br>High School  |
| 26 | Kadıköy  | Yalova   |   | Faculty and Collage,  |
| 27 | Beşiktaş, Şişli, Silivri,<br>Şile, Central Edirne,<br>Central Tekirdağ | Beşiktaş, Beykoz, Beyoğlu,<br>Eyüp, Fatih, Pendik, Sarıyer,<br>Şişli, Üsküdar, Zeytinburnu,<br>Çatalca, Silivri, Gelibolu,<br>Süleoğlu | Wholesale and Retail Trade,<br>Pensioners                 | High School, Junior<br>High<br>School&Vocational<br>Junior High School,<br>Vocational High School |

From the urban settlements of Beykoz, Beyoğlu, Sarıyer and Ümraniye, the individuals substantially moved to the rural settlements of 2 groups of destinations. The individuals that moved to the rural settlements of Ümraniye, Kartal and Şile significantly worked in white collar jobs, transport & communication or were housewives and had the lowest educational levels.

The individuals moved from the urban settlements of Gaziosmanpaşa substantially moved to the rural settlements of 2 groups of destinations. The individuals who moved to the rural settlements of Gaziosmanpaşa significantly worked in white collar jobs, transport & communication or were housewives and had the lowest educational levels. The individuals who moved to the rural settlements of Kocaeli Gebze significantly worked in manufacturing, and had lower-middle educational levels (see Table 3.67).

#### 3.8.2.2 The individuals that moved from urban to rural area between 1995-2000

In the 1995-2000 period, the individuals who moved from the urban settlements of Bahçelievler, Bakırköy, Fatih, Güngören and Küçükçekmece substantially moved to the rural settlements of only a group including Büyükçekmece. The individuals who carried out this mobility flow significantly worked in white collar jobs or were students, and had high educational levels (see Table 3.68 and Table 3.69).

From the urban settlements of Beykoz, the individuals substantially moved to the rural settlements of Ümraniye and Beykoz. The economic activities of these individuals were concentrated in wholesale and retail trade, infrastructure, financing, insurance and real estate, or the individuals were students or housewives. The individuals who moved to the rural settlements of Beykoz graduated faculty. The individuals who moved to the rural settlements of Ümraniye had lower-middle educational levels.

From the urban settlements of Avcılar and Büyükçekmece the individuals substantially moved to the rural settlements of Büyükçekmece. The individuals who carried out this mobility flow significantly worked in white collar jobs or were students, and graduated faculty or dropped out of primary school.

The individuals, who moved from the urban settlements of Beşiktaş and Sarıyer to the rural settlements of the other districts, substantially moved to 2 groups of destinations. The individuals who moved to the rural settlements of Sarıyer worked in community, social and personal services or were pensioners, and had high educational levels. The individuals who moved to the rural settlements of Beykoz, significantly worked in agriculture and mining, and had high educational levels.

|           | Financing, Insurance,<br>Real Estate                                  | Community, Social and<br>Personal Services,<br>Pensioners | Transport, Storage and<br>Communication,<br>Undefined | Students | Wholesale and Retail<br>Trade, Infrastructure,<br>Housewives | Manufacturing | Rentier, Others | Agriculture, Mining | Construction | %    |
|-----------|---|---|---|----------|--|---------------|-----------------|---------------------|--------------|------|
| 1         | 14,3  | 4,7   | 2,5   | 2,7      | 0,6  | 0,0           | -0,4            | -<br>17,0           | -7,5         | 28,2 |
| 2, 3, 4   | 1,0   | 0,0   | 0,4   | 1,9      | 2,6  | 0,2           | 0,9             | -6,7                | -4,1         | 22,6 |
| 5,6       | -0,1  | 15,5  | -2,2  | -1,4     | 0,0  | -1,3          | -0,3            | 0,1                 | -0,5         | 3,0  |
| 7         | -0,9  | -1,9  | -0,3  | -0,4     | -0,3   | 10,4          | 0,3             | 0,1                 | -1,3         | 5,2  |
| 8-14      | 0,0   | -0,2  | -0,1  | -1,4     | 0,0  | -5,1          | 7,8             | 6,3                 | -0,1         | 9,9  |
| 15, 16    | -1,4  | -0,3  | 2,9   | -5,0     | -0,7   | -2,3          | -0,2            | 11,6                | -0,4         | 1,6  |
| 17        | -0,9  | 0,1   | 0,3   | 0,0      | -0,2   | -1,0          | -0,8            | 0,0                 | 18,8         | 7,6  |
| 18-23     | -13,9   | -8,4  | -4,9  | -1,2     | -3,6   | 1,0           | -2,4            | 20,6                | 14,2         | 22,0 |
| Source: I | Source: Derived from the 5% Public Use Sample of the 2000 Census, TSI |   |   |          |  |               |                 |                     |              |      |
| See Table | 3.70 for the  | content of grou   | ıps.  |          |  |               |                 |                     |              |      |

**Table 3.68:** The economic activities of the individuals that moved from the urbansettlements to the rural settlements between 1995-2000

**Table 3.69:** The educational levels of the individuals that moved from the urban settlements to the rural settlements between 1995-2000

|  | Illeterate  | Primary School | Junior High School 1 | Primary School Drop-out | Junior High School 2 &<br>Vocational Junior High<br>School | Vocational High School | High School | Faculty | Collage | Masters & Phd | %    |
|--|---|----------------|----------------------|-------------------------|--|------------------------|-------------|---------|---------|---------------|------|
| 17, 18, 21, 22   | 8,4   | 57,0           | 0,3                  | 0,1                     | -1,0   | -3,4                   | -27,8       | -32,3   | -13,5   | -6,3          | 13,6 |
| 6, 9, 10, 13, 14,<br>15, 19, 20, 23                              | 6,6   | 42,3           | 0,7                  | 0,9                     | -3,7   | -5,7                   | -19,0       | -23,6   | -7,9    | -4,9          | 21,8 |
| 12   | 0,4   | 3,1            | -2,5                 | -7,0                    | 9,9  | -0,1                   | -0,7        | -0,1    | -0,5    | -1,6          | 3,5  |
| 11   | -0,7  | 0,8            | 6,9                  | 0,4                     | -1,5   | -0,5                   | -0,1        | -1,1    | -0,5    | -0,1          | 0,3  |
| 2,7  | -0,5  | 0,5            | -0,7                 | 0,9                     | 0,9  | 0,4                    | -0,2        | -4,4    | -0,3    | -1,1          | 5,9  |
| 4  | 0,1   | -5,2           | 0,0                  | 1,4                     | 0,5  | 0,5                    | 0,0         | 4,3     | -1,1    | -0,3          | 20,8 |
| 3, 8, 16   | -0,1  | 0,0            | -2,8                 | 0,1                     | -0,8   | -1,7                   | 0,1         | 2,8     | 0,5     | 0,0           | 3,8  |
| <b>1,5</b> -16,4 -94,1 0,0 -3,0 0,4 9,1 56,3 45,7 36,2 23,5 30,2 |   |                |                      |                         |  |                        |             |         |         |               |      |
| Source: Derived from   | Source: Derived from the 5% Public Use Sample of the 2000 Census, TSI |                |                      |                         |  |                        |             |         |         |               |      |
| See Table 3.70 for the   | e content   | t of grou      | ps.                  |                         |  |                        |             |         |         |               |      |

The individuals, who moved from the urban settlements of Çatalca, substantially moved to the rural settlements of the same districts. They significantly worked in community, social and personal services or were pensioners, and had the lowest educational levels.

The individuals from the urban settlements of Bağcılar, Bayrampaşa and Eyüp substantially moved to the rural settlements of 3 groups. The individuals who moved to the rural settlements of Büyükçekmece significantly worked in manufacturing and had lower-middle educational levels. The individuals who moved to the rural settlements of Çatalca were significantly rentiers, or worked in agriculture and mining, and had the lowest educational levels. The individuals who moved to the rural settlements of Gaziosmanpaşa significantly worked in agriculture and mining, and had the lowest educational levels.

The individuals, who moved from the urban settlements of Kadıköy, Kağıthane, Kartal, Üsküdar and Sultanbeyli, substantially moved to the rural settlements of 3 groups of destinations. The individuals who moved to the rural settlements of Beykoz were rentiers, or worked in agriculture and mining, and graduated faculty. The individuals who moved to the rural settlements of Ümraniye, Eyüp, Kartal, Küçükçekmece, Pendik, Silivri, Şile, Gebze, Kandıra, Marmara Ereğlisi and Şarköy significantly worked in agriculture and mining, and had the lowest educational levels.

The individuals who moved from the urban settlements of Adalar, Beyoğlu, Eminönü, Maltepe, Şişli, Zeytinburnu, Silivri, Şile and Marmara Ereğlisi substantially moved to the rural settlements of 4 groups. The individuals who moved to the rural settlements of Ümraniye, Beykoz, Tuzla, Eyüp, Kartal, Küçükçekmece, Pendik, Silivri, Şile, Gebze, Kandıra, Marmara Ereğlisi and Şarköy were significantly rentiers, or worked in agriculture and mining. The individuals who moved to the rural settlements of Ümraniye and Beykoz had the lowest educational levels. The individuals who moved to the rural settlements of Tuzla graduated junior high school.

From the urban settlements of Esenler and Gaziosmanpaşa, the individuals substantially moved to the rural settlements of 3 groups of destinations. The individuals who moved to the rural settlements of Çatalca significantly were rentiers or worked in agriculture and mining, and had the lowest educational levels.

**Table 3.70:** The economic activities and the educational levels of the individuals thatmoved from the urban settlements to the rural settlements between 1995-2000

|          | District of Origin   | District of Destination  | Economic Activity  | Education   |
|----------|--|--|--|---|
| 1        | Bahçelievler, Bakırköy,<br>Fatih, Güngören,<br>Küçükçekmece  | Büyükçekmece   | Financing, Insurance,<br>Real Estate<br>Community, Social and<br>Personal Services,<br>Pensioners<br>Students<br>Transport, Storage and<br>Communication,<br>Undefined | High School<br>Faculty<br>Collage<br>Masters & Phd<br>Vocational High<br>School                         |
| 2        | Beykoz   | Ümraniye   | Wholesale and Retail<br>Trade, Infrastructure,<br>Housewives<br>Students   | Primary School Drop-<br>out<br>Junior High School 2<br>& Vocational Junior<br>High School               |
| 3        | Beykoz   | Beykoz   | Financing, Insurance,  | Faculty   |
| 4        | Avcılar, Büyükçekmece  | Büyükçekmece   | Real Estate  | Faculty,<br>Primary School Drop-<br>out   |
| 5        | Beşiktaş, Sarıyer  | Sarıyer  | Community, Social and<br>Personal Services,<br>Pensioners  | High School<br>Faculty<br>Collage<br>Masters & Phd<br>Vocational High<br>School                         |
| 6        | Çatalca  | Çatalca  |  | Primary School  |
| 7        | Bağcılar, Bayrampaşa,<br>Eyüp  | Büyükçekmece   | Manufacturing  | Illeterate<br>Primary School Drop-<br>out<br>Junior High School 2<br>& Vocational Junior<br>High School |
| 8        | Kadıköy, Kağıthane,<br>Kartal, Üsküdar,<br>Sultanbeyli   | Beykoz   |  | Faculty   |
| 9        | Adalar, Beyoğlu,<br>Eminönü, Maltepe,<br>Şişli, Zeytinburnu,<br>Silivri, Şile, Marmara<br>Ereğlisi | Ümraniye   |  | Primary School  |
| 10       | Adalar, Beyoğlu,<br>Eminönü, Maltepe,<br>Şişli, Zeytinburnu,<br>Silivri, Şile, Marmara<br>Ereğlisi | Beykoz   | Rentier, Others  | Illeterate  |
| 11       | Adalar, Beyoğlu,<br>Eminönü, Maltepe,<br>Şişli, Zeytinburnu,<br>Silivri, Şile, Marmara<br>Ereğlisi | Tuzla  | Agriculture, Mining  | Junior High School 1  |
| 12       | Adalar, Beyoğlu,<br>Eminönü, Maltepe,<br>Şişli, Zeytinburnu,<br>Silivri, Şile, Marmara<br>Ereğlisi | Eyüp, Kartal, Küçükçekmece,<br>Pendik, Silivri, Şile, Gebze,<br>Kandıra, Marmara Ereğlisi,<br>Sarköy |  | Junior High School 2<br>& Vocational Junior<br>High School<br>Primary School                            |
| 13       | Esenler, Gaziosmanpaşa   | Çatalca  | 4  |   |
| 14       | Bağcılar, Bayrampaşa,<br>Eyüp  | Çatalca  |  |   |
| 15       | Pendik, Tuzla  | Eyüp, Kartal, Küçükçekmece,<br>Pendik, Silivri, Şile, Gebze,<br>Kandıra, Marmara Ereğlisi,<br>Sarköy | Agriculture, Mining  | Primary School<br>Illeterate  |
| 16       | Beşiktaş, Sarıyer  | Beykoz   |  | Faculty   |
| 17<br>18 | Ümraniye<br>Pendik, Tuzla  | Ümraniye<br>Tuzla  | Construction   | Primary School<br>Illeterate  |
| 19       | Kadıköy, Kağıthane,<br>Kartal, Üsküdar,<br>Sultanbeyli   | Ümraniye   | Agriculture, Mining<br>Construction<br>Manufacturing   | Primary School<br>Illeterate  |

**Table 3.70:** The economic activities and the educational levels of the individuals thatmoved from the urban settlements to the rural settlements between 1995-2000 (continued)

|    | District of Origin                                     | <b>District of Destination</b>   | <b>Economic Activity</b> | Education                           |
|----|--|--|--------------------------|-------------------------------------|
| 20 | Kadıköy, Kağıthane,<br>Kartal, Üsküdar,<br>Sultanbeyli | Eyüp, Kartal, Küçükçekmece,<br>Pendik, Silivri, Şile, Gebze,<br>Kandıra, Marmara Ereğlisi,<br>Sarköy |                          |                                     |
| 21 | Esenler, Gaziosmanpaşa                                 | Eyüp, Kartal, Küçükçekmece,<br>Pendik, Silivri, Şile, Gebze,<br>Kandıra, Marmara Ereğlisi,<br>Sarköy |                          | <b>Primary School</b><br>Illeterate |
| 22 | Esenler, Gaziosmanpaşa                                 | Gaziosmanpaşa  |                          |                                     |
| 23 | Bağcılar, Bayrampaşa,<br>Eyüp                          | Gaziosmanpaşa  |                          | Primary School<br>Illeterate        |

The individuals who moved to the rural settlements of Gaziosmanpaşa, Eyüp, Kartal, Küçükçekmece, Pendik, Silivri, Şile, Gebze, Kandıra, Marmara Ereğlisi significantly worked in agriculture and mining, and had the lowest educational levels.

From the urban settlements of Pendik and Tuzla, the individuals substantially moved to the rural settlements of 2 groups of destinations. The individuals who moved to the rural settlements of Tuzla, Eyüp, Kartal, Küçükçekmece, Pendik, Silivri, Şile, Gebze, Kandıra, Marmara Ereğlisi and Şarköy significantly worked in agriculture and mining, and had the lowest educational levels.

From the urban settlements of Ümraniye, the individuals substantially moved to the rural settlements of the same district. They significantly worked in construction, and had the lowest educational levels (see Table 3.70).

#### 3.8.3 The individuals that moved from rural to urban area

#### 3.8.3.1 The individuals that moved from rural to urban area between 1985-1990

The individuals, who moved from the rural settlements of Adalar, Beykoz, Beyoğlu, Eminönü, Eyüp, Fatih, Şişli, Zeytinburnu, Şile and Central Edirne, substantially moved to the urban settlements of 3 groups of destinations. The individuals who moved to the urban settlements of Şile and Edirne Süleoğlu significantly worked in agriculture, and graduated vocational junior high school, faculty and collage. The individuals who moved to the urban settlements of Bayrampaşa and Beykoz significantly worked in infrastructure, financing, insurance and real estate and were rentiers, and graduated junior high school. The individuals who moved to the urban settlements of Adalar, Bakırköy, Beşiktaş, Beyoğlu, Eminönü, Eyüp, Fatih, Şişli, Üsküdar and Kocaeli Gebze were significantly housewives or unemployed, and graduated vocational junior high school (see Table 3.71 and Table 3.72).

From the rural settlements of Gaziosmanpaşa, the individuals substantially moved to the urban settlements of the same district. They significantly worked in agriculture and graduated primary school.

|  | Agriculture | Electricity, Gas and<br>Water, Financing,<br>Insurance, Real Estate,<br>Rentier | Construction | Students, Others | Housewives,<br>Unemployed, Undefined | Wholesale and Retail<br>Trade, Transport &<br>Communication,<br>Pensioners | Manufacturing | Community, Social and<br>Personal Services | %    |
|--|-------------|---|--------------|------------------|--------------------------------------|--|---------------|--|------|
| 1, 2, 3  | 26,1        | 0,1   | 0,0          | -1,9             | -0,8                                 | -0,4   | -0,4          | 0,0  | 12,6 |
| 4  | 0,0         | 20,6  | -0,7         | -0,2             | 0,2                                  | -1,1   | 0,0           | -1,5                                       | 4,4  |
| 5  | -0,6        | -0,7  | 6,7          | 0,2              | -0,4                                 | 1,2  | -0,1          | -0,3                                       | 5,0  |
| 6  | 0,2         | 0,0   | 1,2          | 3,7              | 0,0                                  | -0,5   | -2,2          | -0,7                                       | 20,7 |
| 7, 8, 9  | -0,7        | -1,1  | -0,1         | 8,1              | -1,8                                 | 0,0  | 2,5           | -1,3                                       | 8,6  |
| 10   | -3,8        | -0,3  | 0,5          | -0,7             | 2,2                                  | 0,0  | 0,0           | 0,0  | 13,4 |
| 11, 12, 13, 14   | -0,2        | 0,0   | -1,0         | -0,1             | 0,1                                  | 2,0  | -1,4          | 0,7  | 17,2 |
| 15   | -1,7        | 0,0   | -1,2         | -1,9             | 0,8                                  | -0,8   | 9,0           | -1,2                                       | 8,2  |
| 16, 17   | -1,2        | -1,3  | -1,5         | -1,7             | -0,2                                 | 0,6  | 0,5           | 12,0                                       | 10,0 |
| Source: Derived from the 5% Public Use Sample of the 1990 Census, TSI<br>See Table 3.73 for the content of groups. |             |   |              |                  |                                      |  |               |  |      |

**Table 3.71:** The economic activities of the individuals that moved from the ruralsettlements to the urban settlements between 1985-1990

**Table 3.72:** The educational levels of the individuals that moved from the ruralsettlements to the urban settlements between 1985-1990

|  | Illeterate | High School | Junior High School | Primary School | Primary School Drop-<br>out | Faculty and Collage | Vocational Junior High<br>School | %    |
|--|------------|-------------|--------------------|----------------|-----------------------------|---------------------|----------------------------------|------|
| 14, 15   | 1,5        | -1,0        | -3,5               | 0,8            | 0,1                         | -0,1                | -2,1                             | 21,4 |
| 16   | 7,0        | 2,6         | -1,8               | 0,0            | -0,7                        | -1,0                | -1,1                             | 5,9  |
| 3, 4, 6, 11, 17  | -1,8       | 0,3         | 12,8               | -0,9           | 0,0                         | 0,1                 | -1,0                             | 36,3 |
| 2, 7, 8, 12  | -0,5       | -0,2        | -0,8               | 3,0            | -1,0                        | -2,1                | 0,0                              | 12,5 |
| 13   | -0,8       | -0,4        | -0,8               | -0,4           | 6,9                         | -0,2                | 2,2                              | 1,4  |
| 5,9  | -0,9       | -0,7        | -1,2               | 0,3            | 0,2                         | 2,6                 | -0,1                             | 7,1  |
| 10   | 0,8        | 0,7         | -0,1               | -1,6           | 0,1                         | 0,2                 | 5,1                              | 13,7 |
| 1  | -1,0       | -0,6        | -1,0               | 0,0            | -0,1                        | 1,6                 | 22,4                             | 1,8  |
| Source: Derived from the 5% Public Use Sample of the 1990 Census, TSI<br>See Table 3.73 for the content of groups. |            |             |                    |                |                             |                     |                                  |      |

From the urban settlements of Kartal, the individuals substantially moved to the urban settlements of the same district. They significantly worked in agriculture and graduated junior high school.

The individuals from the rural settlements of Kadıköy and Central Tekirdağ substantially moved to the urban settlements of Kadıköy and Zeytinburnu. They significantly worked in construction, and graduated faculty and collage.

The individuals, who moved from the rural settlements of Büyükçekmece and Çatalca, substantially moved to the urban settlements of the same districts. They were significantly students or worked in construction, and graduated junior high school.

The individuals from the rural settlements of Bayrampaşa substantially moved to the urban settlements of Bayrampaşa and Beykoz. They were significantly students or worked in economical activities which are cited as "others" and manufacturing, and graduated primary school.

The individuals from the rural settlements of Sarıyer substantially moved to the urban settlements of the same district. They were significantly students or worked in economical activities which are cited as "others" and manufacturing, and graduated primary school.

The individuals from the rural settlements of Kağıthane substantially moved to the urban settlements of the same district. They were significantly students or worked in economical activities which are cited as "others" and manufacturing, and graduated faculty and collage.

The individuals from the rural settlements of Silivri substantially moved to the urban settlements of Silivri or the urban settlements of Adalar, Bakırköy, Beşiktaş, Beyoğlu, Eminönü, Eyüp, Fatih, Şişli, Üsküdar and Kocaeli Gebze. The individuals who carried out both mobility flows significantly worked in wholesale and retail trade, transport and communication, or were pensioners. The individuals who moved to the urban settlements of Silivri significantly graduated junior high school. The individuals who moved to the urban settlements of Adalar, Bakırköy, Beşiktaş, Beyoğlu, Eminönü, Eyüp, Fatih, Şişli, Üsküdar and Kocaeli Gebze significantly graduated primary school.

From the rural settlements of Pendik, the individuals substantially moved to the urban settlements of the same district. They significantly worked in wholesale and retail trade, transport and communication, or were pensioners, and had lower-middle educational levels.

| Table |                    | nic activities and the ed<br>the rural settlements to |                   |           |
|-------|--------------------|---|-------------------|-----------|
|       | District of Origin | District of Destination                               | Economic Activity | Education |

|    | District of Origin  | <b>District of Destination</b>   | <b>Economic Activity</b>  | Education   |
|----|---|--|---|---|
| 1  | Adalar, Beykoz,<br>Beyoğlu, Eminönü,<br>Eyüp, Fatih, Şişli,<br>Zeytinburnu, Şile,<br>Central Edirne | Şile, Süleoğlu*  | Agriculture   | Vocational Junior High<br>School, Faculty and<br>Collage        |
| 2  | Gaziosmanpaşa   | Gaziosmanpaşa  |   | Primary School  |
| 3  | Kartal  | Kartal   |   |   |
| 4  | Adalar, Beykoz,<br>Beyoğlu, Eminönü,<br>Eyüp, Fatih, Şişli,<br>Zeytinburnu, Şile,<br>Central Edirne | Bayrampaşa, Beykoz   | Electricity, Gas and<br>Water, Financing,<br>Insurance, Real Estate,<br>Rentier           | Junior High School  |
| 5  | Kadıköy, Central<br>Tekirdağ  | Kadıköy, Zeytinburnu   | Construction<br>Wholesale and Retail<br>Trade, Transport &<br>Communication,<br>Pensioner | Faculty and Collage   |
| 6  | Büyükçekmece, Çatalca   | Büyükçekmece, Çatalca  | Students, Others<br>Construction  | Junior High School  |
| 7  | Bayrampaşa  | Bayrampaşa, Beykoz   | Students, Others  | Primary School  |
| 8  | Sarıyer   | Sariyer  |   | Timary School   |
| 9  | Kağıthane   | Kağıthane  | Manufacturing   | Faculty and Collage   |
| 10 | Adalar, Beykoz,<br>Beyoğlu, Eminönü,<br>Eyüp, Fatih, Şişli,<br>Zeytinburnu, Şile,<br>Central Edirne | Adalar, Bakırköy, Beşiktaş,<br>Beyoğlu, Eminönü, Eyüp,<br>Fatih, Şişli, Üsküdar, Gebze | Housewives,<br>Unemployed, Undefined  | Vocational Junior High<br>School                                |
| 11 | Silivri   | Silivri  |   | Junior High School  |
| 12 | Silivri   | Adalar, Bakırköy, Beşiktaş,<br>Beyoğlu, Eminönü, Eyüp,<br>Fatih, Şişli, Üsküdar, Gebze | Wholesale and Retail  | Primary School  |
| 13 | Pendik  | Pendik   | Trade, Transport &<br>Communication,<br>Pensioners  | Primary School Drop-<br>out<br>Vocational Junior High<br>School |
| 14 | Beşiktaş, Üsküdar,<br>Ümraniye  | Ümraniye   |   | Illeterate  |
| 15 | Bakırköy,<br>Küçükçekmece   | Küçükçekmece   | Manufacturing   |   |
| 16 | Bakırköy,<br>Küçükçekmece   | Adalar, Bakırköy, Beşiktaş,<br>Beyoğlu, Eminönü, Eyüp,<br>Fatih, Şişli, Üsküdar, Gebze | Community, Social and<br>Personal Services  | Illeterate, High School   |
| 17 | Yalova  | Yalova   |   | Junior High School  |

The individuals, who moved from the rural settlements of Beşiktaş, Üsküdar and Ümraniye, substantially moved to the urban settlements of Ümraniye. They significantly worked in wholesale and retail trade, transport and communication, or were pensioners, and illiterate.

From the rural settlements of Bakırköy and Küçükçekmece, the individuals substantially moved to the urban settlements of 2 groups of destinations. The

individuals who moved to the urban settlements of Küçükçekmece significantly worked in manufacturing and were illiterate. The individuals who moved to the urban settlements of Adalar, Bakırköy, Beşiktaş, Beyoğlu, Eminönü, Eyüp, Fatih, Şişli, Üsküdar and Kocaeli Gebze significantly worked in community, social and personal services, and graduated high school or were illiterate.

From the rural settlements of Pendik, the individuals substantially moved to the urban settlements of the same district. They significantly worked in community, social and personal services, and graduated junior high school (see Table 3.73).

#### 3.8.3.2 The individuals that moved from rural to urban area between 1995-2000

From the rural settlements of Kartal, the individuals substantially moved to the urban settlements of the same district. They significantly worked in infrastructure or were pensioners, and had high educational levels (see Table 3.74 and Table 3.75).

The individuals, who moved from the rural settlements of Küçükçekmece, substantially moved to the urban settlements of the same district. They significantly worked in manufacturing, and had low educational levels.

From the rural settlements of Sarıyer, the individuals substantially moved to the rural settlements of 2 groups of destinations. The individuals who moved to the urban settlements of Bağcılar, Bahçelievler, Bakırköy, Bayrampaşa, Esenler, Güngören, Kadıköy, Kağıthane, Maltepe, Şişli, Zeytinburnu, Sultanbeyli and Kocaeli Gebze significantly found employment commencing at a future date, and had middle educational levels. The individuals who moved to the urban settlements of Sarıyer significantly worked in white collar jobs or were pensioners, and had upper-middle educational levels.

The individuals, who moved from the rural settlements of Pendik, substantially moved to the urban settlements of the same district. They significantly found employment commencing at a future date, and had the lowest educational levels.

The individuals, who moved from the rural settlements of Tuzla, substantially moved to the urban settlements of Tuzla or Pendik. The individuals who moved to the urban settlements of Tuzla significantly worked in the activities not adequately defined, and had high educational levels. The individuals who moved to the urban settlements of Pendik significantly were pensioners, rentiers or worked in agriculture and wholesale and retail trade, and had middle educational levels. From the rural settlements of Ümraniye, the individuals substantially moved to the urban settlements of 2 groups of destinations. The individuals who moved to the urban settlements of Ümraniye significantly worked in construction or were students, and had low educational levels.

|  | Electricity, Gas and Water | Manufacturing | Found Employment,-waiting to work | Transport &<br>Communication, Housewives,<br>Others | Activities not adequately<br>defined | Construction, Students | Wholesale and Retail Trade | Agriculture, Rentier | Pensioners | Community, Social and<br>Personal Services | Financing, Insurance, Real<br>Estate | %    |
|--|----------------------------|---------------|-----------------------------------|---|--------------------------------------|------------------------|----------------------------|----------------------|------------|--|--------------------------------------|------|
| 1  | 14,1                       | 0,3           | -2,2                              | -0,2  | 0,5                                  | -0,8                   | 0,0                        | -2,8                 | 5,2        | 0,6  | -3,7                                 | 9,2  |
| 2  | -0,7                       | 11,7          | -0,7                              | -1,3  | 1,3                                  | -0,1                   | -0,9                       | -0,5                 | 0,0        | -0,2                                       | -4,1                                 | 14,9 |
| 3, 4   | 0,0                        | -0,6          | 11,9                              | 3,3   | -1,2                                 | 1,2                    | -6,2                       | 0,1                  | -2,1       | -0,5                                       | -0,3                                 | 23,9 |
| 5  | -0,1                       | 0,7           | -0,4                              | -0,4  | 6,1                                  | 0,0                    | -0,5                       | -0,5                 | -0,1       | -0,1                                       | -0,7                                 | 1,8  |
| 6,7  | -0,4                       | -0,9          | -1,8                              | -0,1  | -0,3                                 | 7,0                    | 0,0                        | -2,3                 | -3,9       | 2,4  | 0,3                                  | 7,5  |
| 8  | -0,5                       | 0,3           | -0,1                              | 0,3   | -0,2                                 | 0,0                    | 4,3                        | -0,4                 | -0,1       | -2,6                                       | -2,4                                 | 10,5 |
| 9-12   | -0,7                       | -0,4          | 0,2                               | 0,3   | -0,4                                 | -0,3                   | 0,9                        | 0,9                  | 1,3        | -1,0                                       | 0,0                                  | 13,6 |
| 13   | 0,4                        | -1,5          | -0,9                              | 0,0   | 0,1                                  | -0,9                   | 2,4                        | 11,2                 | -0,4       | 0,3  | 0,0                                  | 10,4 |
| 14-16         -0,4         -3,2         -0,5         -3,3         0,0         -1,0         0,3         -0,1         3,5         4,2         56,3         8,3           Source: Derived from the 5% Public Use Sample of the 2000 Census, TSI |                            |               |                                   |   |                                      |                        |                            |                      |            |  |                                      |      |
|  |                            |               | ent of groups.                    |   | uie 2000                             | 5 Consur               | , 101                      |                      |            |  |                                      |      |

**Table 3.74:** The economic activities of the individuals that moved from the ruralsettlements to the urban settlements between 1995-2000

| Table 3.75: The educational | levels  | of the  | individuals | that | moved | from | the | rural |
|-----------------------------|---------|---------|-------------|------|-------|------|-----|-------|
| settlements to the u        | urban s | ettleme | nts between | 1995 | -2000 |      |     |       |

|   | Faculty   | High School | Collage   | Junior High School 2%<br>Vocational Junior High<br>School | Vocational High School | Junior High School 1 | Illeterate | Primary School | Primary School Drop-<br>out | %    |
|---|-----------|-------------|-----------|---|------------------------|----------------------|------------|----------------|-----------------------------|------|
| 7, 10   | 13,7      | -0,1        | -1,4      | 0,2   | 0,0                    | 2,2                  | 0,0        | -0,4           | -0,4                        | 4,0  |
| 14, 16  | 15,3      | 36,4        | 2,7       | 3,2   | 0,0                    | -0,1                 | -1,2       | -8,3           | -5,9                        | 7,1  |
| 1, 11   | 2,9       | 4,4         | -0,3      | 0,0   | 0,3                    | 0,3                  | 0,0        | -2,5           | 0,0                         | 12,0 |
| 5, 13   | 0,0       | 2,7         | 1,1       | 0,3   | -0,3                   | -0,1                 | 0,0        | 0,1            | -4,1                        | 11,6 |
| 15  | -0,2      | -1,1        | 40,2      | 12,2  | -0,3                   | -0,3                 | -0,7       | -1,3           | -0,5                        | 0,6  |
| 3, 9, 12  | -0,7      | 0,3         | 0,8       | 1,7   | 1,3                    | -0,1                 | -0,4       | -0,9           | 0,1                         | 9,8  |
| 8   | -0,9      | -6,1        | -1,8      | -0,3  | 3,1                    | -3,2                 | 0,4        | 1,1            | 1,0                         | 10,5 |
| 4   | -3,5      | -5,7        | -1,0      | -2,4  | -2,4                   | -2,2                 | 0,0        | 7,8            | 0,5                         | 22,8 |
| 2,6   |           |             |           |   |                        |                      |            |                |                             |      |
| Source: Derived from the 5% Public Use Sample of the 2000 Census, TSI |           |             |           |   |                        |                      |            |                |                             |      |
| See Table 3.7   | 76 for th | e content   | t of grou | ps.   |                        |                      |            |                |                             |      |

# **Table 3.76:** The economic activities and the educational levels of the individuals thatmoved from the rural settlements to the urban settlements between 1995-2000

|    | District of Origin                            | District of Destination  | Economic Activity   | Education   |
|----|---|--|---|---|
| 1  | Kartal  | Kartal   | Electricity, Gas and<br>Water<br>Pensioners   | High School<br>Faculty  |
| 2  | Küçükçekmece                                  | Küçükçekmece   | Manufacturing<br>Activities not adequately<br>defined                                       | Junior High School 1<br>Primary School Drop-<br>out<br>Illeterate                               |
| 3  | Sarıyer                                       | Bağcılar, Bahçelievler,<br>Bakırköy, Bayrampaşa,<br>Esenler, Güngören, Kadıköy,<br>Kağıthane, Maltepe, Şişli,<br>Zeytinburnu, Sultanbeyli,<br>Gebze* | Found employment-<br>waiting to work<br>Transport &<br>Communication,<br>Housewives. Others | Junior High School<br>2% Vocational Junior<br>High School<br>Vocational High<br>School          |
| 4  | Pendik  | Pendik   | Construction, Students  | Primary School<br>Primary School Drop-<br>out   |
| 5  | Tuzla   | Tuzla  | Activities not<br>adequately defined  | High School<br>Collage  |
| 6  | Ümraniye                                      | Ümraniye   | - Construction, Students  | Junior High School 1<br>Primary School Drop-<br>out<br>Illeterate                               |
| 7  | Ümraniye                                      | Bağcılar, Bahçelievler,<br>Bakırköy, Bayrampaşa,<br>Esenler, Güngören, Kadıköy,<br>Kağıthane, Maltepe, Şişli,<br>Zeytinburnu, Sultanbeyli,<br>Gebze* | Community, Social and<br>Personal Services  | Faculty<br>Junior High School 1   |
| 8  | Gaziosmanpaşa                                 | Gaziosmanpaşa  | Wholesale and Retail<br>Trade   | Vocational High<br>School<br>Primary School<br>Primary School Drop-<br>out<br>Illeterate        |
| 9  | Beykoz  | Beykoz   |   | Junior High School<br>2% Vocational Junior<br>High School<br>Vocational High<br>School          |
| 10 | Eyüp, Büyükçekmece,<br>Çatalca, Silivri, Şile | Gaziosmanpaşa  |   | Faculty<br>Junior High School 1   |
| 11 | Eyüp, Büyükçekmece,<br>Çatalca, Silivri, Şile | Bağcılar, Bahçelievler,<br>Bakırköy, Bayrampaşa,<br>Esenler, Güngören, Kadıköy,<br>Kağıthane, Maltepe, Şişli,<br>Zeytinburnu, Sultanbeyli,<br>Gebze* | Pensioners<br>Agriculture, Rentier<br>Wholesale and Retail<br>Trade                         | High School<br>Faculty  |
| 12 | Tuzla   | Pendik   |   | Junior High School<br>2% Vocational Junior<br>High School<br>Vocational High<br>School          |
| 13 | Eyüp, Büyükçekmece,<br>Çatalca, Silivri, Şile | Avcılar, Beyoğlu, Eyüp, Fatih,<br>Üsküdar, Büyükçekmece,<br>Çatalca, Silivri, Şile   | Agriculture, Rentier<br>Wholesale and Retail<br>Trade                                       | High School<br>Collage  |
| 14 | Beşiktaş                                      | Beşiktaş   | Financing, Insurance,<br>Real Estate  | Faculty<br>High School<br>Junior High School 2<br>& Vocational Junior<br>High School<br>Collage |
| 15 | Beşiktaş                                      | Ümraniye   | Community, Social and<br>Personal Services<br>Pensioners                                    | Collage<br>Junior High School 2<br>& Vocational Junior<br>High School                           |
| 16 | Sarıyer                                       | Sarıyer  |   | Faculty<br>High School  |

The individuals, who moved from the rural settlements of Gaziosmanpaşa, substantially moved to the urban settlements of the same district. They significantly worked in wholesale and retail trade, and had low educational levels.

The individuals, who moved from the rural settlements of Beykoz, substantially moved to the urban settlements of the same district. They were significantly pensioners, rentiers or worked in agriculture, wholesale and retail trade, and had middle educational levels.

From the rural settlements of Eyüp, Büyükçekmece, Çatalca, Silivri and Şile, the individuals substantially moved to the urban settlements of 3 groups of destinations. The individuals who moved to the urban settlements of Gaziosmanpaşa, Bağcılar, Bahçelievler, Bakırköy, Bayrampaşa, Esenler, Güngören, Kadıköy, Kağıthane, Maltepe, Şişli, Zeytinburnu, Sultanbeyli and Kocaeli Gebze significantly were pensioners, rentiers or worked in agriculture, wholesale and retail trade, and graduated faculty, high school and junior high school. The individuals who moved to the urban settlements of Avcılar, Beyoğlu, Eyüp, Fatih, Üsküdar, Büyükçekmece, Çatalca, Silivri and Şile significantly worked in agriculture or were rentiers, and graduated high school and collage.

From the rural settlements of Beşiktaş, the individuals substantially moved to the rural settlements of 2 groups of destinations. The individuals who moved to the urban settlements of Beşiktaş significantly worked in white collar jobs or were pensioners, and had high educational levels. The individuals who moved to the urban settlements of Üsküdar significantly worked in white collar jobs or were pensioners, and had upper-middle educational levels (see Table 3.76).

#### 3.8.4 The individuals that moved from rural to rural area

#### 3.8.4.1 The individuals that moved from rural to rural area between 1985-1990

The individuals, who moved from the rural settlements of Central Tekirdağ to the rural settlements of Büyükçekmece, significantly worked in mining and manufacturing, and graduated primary school. The individuals, who moved from the rural settlements of Central Tekirdağ to the rural settlements of Adalar, Bakırköy, Bayrampaşa, Beykoz, Eyüp, Kadıköy, Sarıyer, Şişli, Çatalca, Bayrampaşa, Şile,

Yalova and Edirne Süleoğlu significantly worked in manufacturing, and graduated primary school (see Table 3.77 and Table 3.78).

|           | Mining  | Manufacturing | Transport &<br>Communication,<br>Housewives | Community, Social and<br>Personal Services | Students | Wholesale and Retail<br>Trade, Financing,<br>Insurance, Real Estate | Unemployed | Agriculture,<br>Construction | Others | Pensioners | %    |
|-----------|---|---------------|---|--|----------|---|------------|------------------------------|--------|------------|------|
| 1         | 82,5  | 0,7           | -0,5  | -0,1                                       | -0,1     | -0,1  | 0,0        | -0,6                         | 0,0    | 0,0        | 0,6  |
| 2         | 12,2  | 0,6           | 2,9   | -0,5                                       | -0,7     | -0,8  | -0,2       | -2,0                         | -0,1   | -0,1       | 3,6  |
| 3         | 0,0   | 0,7           | -0,5  | -0,1                                       | -0,1     | -0,1  | 0,0        | 0,2                          | 0,0    | 0,0        | 0,6  |
| 4         | -0,4  | 4,7           | 0,0   | 1,7  | 2,2      | 2,9   | -0,1       | -<br>12,3                    | -0,6   | -0,6       | 20,1 |
| 5         | -0,4  | 0,3           | 2,9   | 0,1  | 0,5      | -0,2  | 0,4        | -4,2                         | -0,5   | -0,5       | 18,0 |
| 6, 7      | -0,2  | 0,0           | 0,1   | 1,2  | -0,7     | -2,5  | 0,0        | 0,0                          | 1,2    | 1,2        | 11,5 |
| 8         | -0,2  | 0,4           | -5,5  | 0,2  | -0,6     | 0,2   | -0,7       | 4,2                          | -0,3   | -0,3       | 10,7 |
| 9, 10     | -0,6  | -8,1          | -0,4  | -2,6                                       | -0,2     | 0,2   | 0,3        | 14,0                         | -0,9   | 0,0        | 31,1 |
| 11        |   |               |   |  |          |   |            |                              |        |            |      |
| Source: I | Source: Derived from the 5% Public Use Sample of the 1990 Census, TSI |               |   |  |          |   |            |                              |        |            |      |
| See Table | e 3.79 for  | the conter    | nt of groups.                               |  |          |   |            |                              |        |            |      |

**Table 3.77:** The economic activities of the individuals that moved from the ruralsettlements to the rural settlements between 1985-1990

**Table 3.78:** The educational levels of the individuals that moved from the ruralsettlements to the rural settlements between 1985-1990

|   | Faculty and Collage | High School  | Primary School | Junior High School &<br>Vocational Junior High<br>School | Primary School Drop-<br>out | Illeterate | Vocational High School | %    |  |
|---|---------------------|--------------|----------------|--|-----------------------------|------------|------------------------|------|--|
| 7   | 7,1                 | 4,5          | 0,3            | -1,7   | -2,1                        | 0,0        | -0,2                   | 5,6  |  |
| 9   | -0,6                | 3,5          | 0,0            | -0,3   | 0,2                         | -0,6       | -0,9                   | 31,6 |  |
| 11  | -0,1                | 1,5          | 0,6            | 0,8  | -0,8                        | -2,4       | -0,1                   | 3,5  |  |
| 1, 2, 3   | -0,1                | -0,4         | 1,5            | -1,4   | -1,4                        | 0,0        | -0,1                   | 4,4  |  |
| 5   | 1,0                 | -1,8         | 0,0            | 2,6  | 0,2                         | -0,8       | -0,6                   | 19,5 |  |
| 6, 8  | -0,3                | -1,5         | -0,2           | -0,2   | 0,6                         | 1,3        | -0,5                   | 16,5 |  |
| 4, 10   | -0,4                | -1,7         | -1,0           | 0,2  | 0,0                         | 2,1        | 10,5                   | 18,8 |  |
| Source: Derived from the 5% Public Use Sample of the 1990 Census, TSI |                     |              |                |  |                             |            |                        |      |  |
| See Table   | 3.79 for th         | e content of | groups.        |  |                             |            |                        |      |  |

From the rural settlements of Adalar, Kağıthane and Central Edirne, the individuals substantially moved to the rural settlements of Adalar, Bakırköy, Bayrampaşa,

Beykoz, Eyüp, Kadıköy, Sarıyer, Şişli, Çatalca, Bayrampaşa, Şile, Yalova and Edirne Süleoğlu. They significantly worked in mining, transport & communication, or were housewives, and graduated primary school.

From the rural settlements of Küçükçekmece and Çatalca, the individuals substantially moved to the rural settlements of Büyükçekmece. They significantly worked in manufacturing, and graduated vocational high school, or were illiterate.

|    | District of Origin   | District of Destination  | <b>Economic Activity</b>   | Education   |
|----|--|--|--|---|
| 1  | Central Tekirdağ   | Büyükçekmece   | Mining<br>Manufacturing  |   |
| 2  | Adalar, Kağıthane, Central<br>Edirne   | Adalar, Bakırköy,<br>Bayrampaşa, Beykoz, Eyüp,<br>Kadıköy, Sarıyer, Şişli,<br>Çatalca, Bayrampaşa, Şile,<br>Yalova, Süleoğlu | Mining<br>Transport &<br>Communication,<br>Housewives<br>Manufacturing   | Primary School  |
| 3  | Central Tekirdağ   | Adalar, Bakırköy,<br>Bayrampaşa, Beykoz, Eyüp,<br>Kadıköy, Sarıyer, Şişli,<br>Çatalca, Bayrampaşa, Şile,<br>Yalova, Süleoğlu | Manufacturing  |   |
| 4  | Küçükçekmece, Çatalca  | Büyükçekmece   | Manufacturing<br>Wholesale and Retail<br>Trade, Financing,<br>Insurance, Real Estate<br>Students<br>Community, Social and<br>Personal Services | Vocational High<br>School<br>Illeterate   |
| 5  | Bakırköy, Bayrampaşa,<br>Zeytinburnu   | Gaziosmanpaşa,<br>Küçükçekmece   | Transport &<br>Communication,<br>Housewives<br>Students<br>Unemployed  | Junior High School<br>& Vocational Junior<br>High School                                  |
| 6  | Beşiktaş, Beykoz, Eminönü,<br>Eyüp, Fatih, Gaziosmanpaşa,<br>Kadıköy, Büyükçekmece,<br>Silivri, Yalova | Ümraniye   | Community, Social and<br>Personal Services   | Illeterate<br>Primary School<br>Drop-out  |
| 7  | Bakırköy, Bayrampaşa,<br>Zeytinburnu   | Adalar, Bakırköy,<br>Bayrampaşa, Beykoz, Eyüp,<br>Kadıköy, Sarıyer, Şişli,<br>Çatalca, Bayrampaşa, Şile,<br>Yalova, Süleoğlu | Pensioners<br>Others   | Faculty and Collage<br>High School  |
| 8  | Beyoğlu, Şişli, Üsküdar, Şile  | Ümraniye   | Agriculture,<br>Construction   | Illeterate<br>Primary School<br>Drop-out  |
| 9  | Pendik, Sarıyer, Ümraniye  | Kartal   |  | High School   |
| 10 | Central Tekirdağ   | Gelibolu   | Agriculture,<br>Construction   | Vocational High<br>School<br>Illeterate   |
| 11 | Kartal   | Pendik, Gebze  | Others<br>Pensioners   | High School<br>Junior High School<br>& Vocational Junior<br>High School<br>Primary School |

**Table 3.79:** The economic activities and the educational levels of the individuals thatmoved from the rural settlements to the rural settlements between 1985-1990

The individuals, who moved from the rural settlements of Bakırköy, Bayrampaşa and Zeytinburnu to the rural settlements of Gaziosmanpaşa and Küçükçekmece,

significantly worked in transport & communication, or were housewives, students or unemployed, and had lower-middle educational levels. The individuals, who moved from the rural settlements of Bakırköy, Bayrampaşa and Zeytinburnu to the rural settlements of Adalar, Bakırköy, Bayrampaşa, Beykoz, Eyüp, Kadıköy, Sarıyer, Şişli, Çatalca, Bayrampaşa, Şile, Yalova and Edirne Süleoğlu significantly worked in community, social and personal services, or were pensioners, and had high educational levels.

From the rural settlements of Beşiktaş, Beykoz, Eminönü, Eyüp, Fatih, Gazismanpaşa, Kadıköy, Büyükçekmece, Silivri and Yalova, the individuals substantially moved to the rural settlements of Ümraniye. They significantly worked in community, social and personal services, or were pensioners, and had the lowest educational levels.

The individuals, who moved from the rural settlements of Beyoğlu, Şişli, Üsküdar and Şile to the rural settlements of Ümraniye, significantly worked in agriculture and construction, and had the lowest educational levels.

The individuals, who moved from the rural settlements of Pendik, Sarıyer and Ümraniye to the rural settlements of Kartal, significantly worked in agriculture and construction, and graduated high school.

From the rural settlements of Kartal, the individuals substantially moved to the rural settlements of Pendik and Kocaeli Gebze. They significantly worked in the economical activities which are cited as "others" and had a middle educational level (see Table 3.79).

#### 3.8.4.2 The individuals that moved from rural to rural area between 1995-2000

The individuals, who moved from the rural settlements of Ümraniye to the rural settlements of Kartal, significantly worked in construction, agriculture or were pensioners and students, and dropped out of primary school (see Table 3.80 and Table 3.81).

From the rural settlements of Kartal, Tuzla and Şile, the individuals substantially moved to the rural settlements of Kocaeli Gebze. They significantly worked in construction, agriculture or were pensioners and students, and dropped out of primary school. The individuals, who moved from the rural settlements of Kartal, Tuzla and Şile to the rural settlements of Beykoz, Eyüp, Ümraniye, Şile and Tekirdağ Şarköy, were significantly housewives or worked in manufacturing and community, social and personal services, and graduated high school.

The individuals, who moved from the rural settlements of Gaziosmanpaşa and Silivri to the rural settlements of Kocaeli Gebze, significantly worked in financing, insurance & real estate, construction or were pensioners, and had low educational levels.

|  | Construction,<br>Pensioners | Students | Financing, Insurance,<br>Real Estate | Transport &<br>Communication | Wholesale and Retail<br>Trade | Agriculture | Manuacturing,<br>Community, Social and<br>Descond Commons | Housewives, Undefined | %    |
|--|-----------------------------|----------|--------------------------------------|------------------------------|-------------------------------|-------------|---|-----------------------|------|
| 1, 2   | 4,3                         | 2,2      | -0,7                                 | -0,7                         | -0,3                          | 0,9         | -3,0  | -0,8                  | 24,0 |
| 3  | 2,0                         | -0,5     | 3,2                                  | -0,2                         | -0,5                          | 0,1         | -0,1  | -0,7                  | 6,7  |
| 4, 5   | -1,5                        | 0,0      | 0,7                                  | 3,3                          | 0,8                           | 0,0         | 0,1   | -3,7                  | 36,5 |
| 6  | -0,3                        | -0,5     | -0,2                                 | -0,2                         | 0,6                           | 2,2         | -1,3  | -0,7                  | 6,7  |
| 7,8  | -0,5                        | -0,9     | -0,3                                 | -0,3                         | -0,8                          | -0,1        | 3,1   | 0,6                   | 11,5 |
| 9, 10  | -0,6                        | 0,0      | -0,4                                 | -0,4                         | 0,0                           | -5,2        | 1,6   | 21,4                  | 14,4 |
| Source: Derived from the 5% Public Use Sample of the 2000 Census, TSI<br>See Table 3.82 for the content of groups. |                             |          |                                      |                              |                               |             |   |                       |      |

**Table 3.80:** The economic activities of the individuals that moved from the ruralsettlements to the rural settlements between 1995-2000

**Table 3.81:** The educational levels of the individuals that moved from the rural settlements to the rural settlements between 1995-2000

|           | Illeterate  | Faculty      | Primary School | High School | Vocational High School | Jumior High School 2 &<br>Vocational Junior High<br>School | Primary School Drop-out | %    |  |  |  |
|-----------|---|--------------|----------------|-------------|------------------------|--|-------------------------|------|--|--|--|
| 6         | 5,4   | -0,1         | 0,1            | -0,7        | 2,7                    | -0,5   | -1,7                    | 5,6  |  |  |  |
| 8         | 0,7   | 7,1          | 0,1            | 0,2         | -0,2                   | -0,5   | -1,7                    | 5,6  |  |  |  |
| 4, 7, 10  | 0,0   | -0,3         | 5,6            | -0,2        | -0,5                   | -1,2   | -4,0                    | 13,5 |  |  |  |
| 9         | 0,0   | -0,2         | 0,0            | 5,3         | -0,4                   | -1,0   | -0,5                    | 11,1 |  |  |  |
| 5         | -0,8  | 0,3          | -2,2           | 0,5         | 2,7                    | 0,6  | 1,0                     | 30,2 |  |  |  |
| 3         | 0,5   | -0,1         | -0,2           | 0,1         | -0,3                   | 3,6  | -0,4                    | 6,3  |  |  |  |
| 1, 2      | -0,7  | -0,6         | -0,1           | -3,3        | -1,1                   | 0,1  | 5,3                     | 27,8 |  |  |  |
| Source: D | Source: Derived from the 5% Public Use Sample of the 2000 Census, TSI |              |                |             |                        |  |                         |      |  |  |  |
| See Table | 3.82 for the  | e content of | groups.        |             |                        |  |                         |      |  |  |  |

The individuals, who moved from the rural settlements of Beykoz, Sarıyer, Büyükçekmece and Çatalca to the rural settlements of Beykoz, Eyüp, Ümraniye, Şile and Tekirdağ Şarköy significantly worked in transport & communication, wholesale and retail trade and financing, insurance & real estate, and graduated primary school.

|    | District of Origin                        | District of Destination                   | Economic Activity   | Education   |
|----|---|---|---|---|
| 1  | Ümraniye                                  | Kartal                                    | Construction, Pensioners  | Primary School Drop-  |
| 2  | Kartal, Tuzla, Şile                       | Gebze*                                    | Students<br>Agriculture   | out   |
| 3  | Gaziosmanpaşa, Silivri                    | Gebze                                     | Financing, Insurance,<br>Real Estate<br>Construction, Pensioners      | Junior High School 2 &<br>Vocational Junior High<br>School<br>Illeterate  |
| 4  | Beykoz, Sarıyer,<br>Büyükçekmece, Çatalca | Beykoz, Eyüp, Ümraniye,<br>Şile, Sarköy** | Transport &<br>Communication  | Primary School  |
| 5  | Küçükçekmece                              | Büyükçekmece                              | Wholesale and Retail<br>Trade<br>Financing, Insurance,<br>Real Estate | Vocational High School<br>Primary School Drop-<br>out<br>Junior High School 2 &<br>Vocational Junior High<br>School |
| 6  | Gaziosmanpașa, Silivri                    | Çatalca, Silivri                          | Agriculture<br>Wholesale and Retail<br>Trade                          | Illeterate<br>Vocational High School  |
| 7  | Pendik                                    | Tuzla                                     | Manufacturing,  | Primary School  |
| 8  | Beykoz, Sarıyer,<br>Büyükçekmece, Çatalca | Çatalca, Silivri                          | Community, Social and<br>Personal Services<br>Housewives, Undefined   | Faculty<br>Illeterate<br>High School  |
| 9  | Kartal, Tuzla, Şile                       | Beykoz, Eyüp, Ümraniye,<br>Şile, Sarköy** | Housewives, Undefined<br>Manufacturing,                               | High School   |
| 10 | Eyüp                                      | Gaziosmanpaşa                             | Community, Social and<br>Personal Services                            | Primary School  |

**Table 3.82:** The economic activities and the educational levels of the individuals thatmoved from the rural settlements to the rural settlements between 1995-2000

From the rural settlements of Küçükçekmece, the individuals substantially moved to the rural settlements of Büyükçekmece. They significantly worked in transport & communication, wholesale and retail trade and financing, insurance & real estate, and had lower-middle educational levels.

The individuals, who moved from the rural settlements of Pendik to the rural settlements of Tuzla, significantly worked in manufacturing, community, social and personal services or were housewives, and graduated primary school.

The individuals, who moved from the rural settlements of Eyüp to the rural settlements of Gaziosmanpaşa, were significantly housewives or worked in manufacturing and community, social and personal services, and graduated primary school (see Table 3.82).

#### **3.9 Results of the Empirical Study**

#### 3.9.1 Evaluation of residential mobility in Marmara Region

In the 1985-1990 period, mobility from Bakırköy, which generates 15, 5% of all departures in Marmara Region, to Küçükçekmece which generates 11,1% of all arrivals, is extremely over-represented. According to Özbay (1997), the most popular district for the movers was Küçükçekmece; about one fifth of the movers went there. The data suggest that mass housing complexes constructed in these districts in the 1980's were one of the causes of attraction (Tekeli, 1992).

Mobility from a group of origins including Bayrampaşa, Eminönü, Eyüp, Fatih, Gaziosmanpaşa, Küçükçekmece, Zeytinburnu, Büyükçekmece, Çatalca, Silivri) and TEKİRDAĞ (Centre), which generates 20% all departures in Marmara Region, to a destination group which generates 11,1% of all arrivals and including Adalar, Bakırköy, Beşiktaş, Beykoz, Beyoğlu, Eminönü, Eyüp, Fatih, Gaziosmanpaşa, Kadıköy, Kağıthane, Kartal, Pendik, Sarıyer, Şişli, Ümraniye, Üsküdar, Zeytinburnu, Büyükçekmece, Çatalca, Silivri, Şile, Yalova), BURSA (Büyükorhan, İnegöl), ÇANAKKALE (Gelibolu), EDİRNE (Lalapaşa, Süleoğlu), KOCAELİ (Gebze) and SAKARYA (Sapanca) is significantly over-represented. Mobility from the same origin group to Bayrampaşa which generates 3,3% of all arrivals is also over-represented.

Mobility from a group of origins including Adalar, Beşiktaş, Beykoz, Beyoğlu, Kadıköy, Kağıthane, Kartal, Pendik, Sarıyer, Şişli, Ümraniye, Üsküdar, Şile, Yalova), BALIKESİR (Marmara), BOLU (Centre, Dörtdivan, Gerede, Göynük), BURSA (Kestel), ESKİŞEHİR (Günyüzü), KOCAELİ (Centre, Gebze, Gölcük, Kandıra, Karamürsel, Körfez), SAKARYA (Centre, Akyazı, Ferizli, Geyve, Hendek, Karapürçek, Karasu, Kaynarca, Kocaali, Pamukova, Sapanca, Söğütlü) and generating 40,4% of all departures to a group of destinations including Adalar, Bakırköy, Beşiktaş, Beykoz, Beyoğlu, Eminönü, Eyüp, Fatih, Gaziosmanpaşa, Kadıköy, Kağıthane, Kartal, Pendik, Sarıyer, Şişli, Ümraniye, Üsküdar, Zeytinburnu, Büyükçekmece, Çatalca, Silivri, Şile, Yalova), BURSA (Büyükorhan, İnegöl), ÇANAKKALE (Gelibolu), EDİRNE (Lalapaşa, Süleoğlu), KOCAELİ (Gebze) and SAKARYA (Sapanca) is significantly over-represented. Thus, from the same group of origins the mobility to a group including BİLECİK (Gölpazarı), BOLU (Centre,

Akçakoca, Dörtdivan, Düzce, Gerede, Göynük, Mengen, Seben, Yeniçağa, Yığılca), KOCAELİ (Centre, Gölcük, Kandıra, Karamürsel, Körfez), SAKARYA (Centre, Akyazı, Ferizli, Geyve, Hendek, Karapürçek, Karasu, Kaynarca, Kocaali, Pamukova, Söğütlü, Taraklı) is also over-represented (see Table 3.83).

| Districts of Origins   | Departures% | Districts of Destinations  | Arrivals% |
|--|-------------|--|-----------|
| Bakırköy   | 15,5%       | Küçükçekmece   | 11,1%     |
| Bayrampaşa, Eminönü, Eyüp,<br>Fatih, Gaziosmanpaşa,<br>Küçükçekmece, Zeytinburnu,<br>Büyükçekmece, Çatalca,<br>Silivri) and TEKİRDAĞ<br>(Centre)   | 20,0%       | Adalar, Bakırköy, Beşiktaş,<br>Beykoz, Beyoğlu, Eminönü, Eyüp,<br>Fatih, Gaziosmanpaşa, Kadıköy,<br>Kağıthane, Kartal, Pendik, Sarıyer,<br>Şişli, Ümraniye, Üsküdar,<br>Zeytinburnu, Büyükçekmece,<br>Çatalca, Silivri, Şile, Yalova),<br>BURSA (Büyükorhan, İnegöl),<br>ÇANAKKALE (Gelibolu),<br>EDİRNE (Lalapaşa, Süleoğlu),<br>KOCAELİ (Gebze) and<br>SAKARYA (Sapanca) | 56,9%     |
|  |             | Bayrampaşa   | 3,3%      |
| Adalar, Beşiktaş, Beykoz,<br>Beyoğlu, Kadıköy, Kağıthane,<br>Kartal, Pendik, Sarıyer, Şişli,<br>Ümraniye, Üsküdar, Şile,<br>Yalova), BALIKESİR<br>(Marmara), BOLU (Centre,<br>Dörtdivan, Gerede, Göynük),                                      |             | Adalar, Bakırköy, Beşiktaş,<br>Beykoz, Beyoğlu, Eminönü, Eyüp,<br>Fatih, Gaziosmanpaşa, Kadıköy,<br>Kağıthane, Kartal, Pendik, Sarıyer,<br>Şişli, Ümraniye, Üsküdar,<br>Zeytinburnu, Büyükçekmece,<br>Çatalca, Silivri, Şile, Yalova),<br>BURSA (Büyükorhan, İnegöl),<br>ÇANAKKALE (Gelibolu),<br>EDİRNE (Lalapaşa, Süleoğlu),<br>KOCAELİ (Gebze) and<br>SAKARYA (Sapanca) | 56,9%     |
| BURSA (Kestel), ESKİŞEHİR<br>(Günyüzü), KOCAELİ (Centre,<br>Gebze, Gölcük, Kandıra,<br>Karamürsel, Körfez),<br>SAKARYA (Centre, Akyazı,<br>Ferizli, Geyve, Hendek,<br>Karapürçek, Karasu, Kaynarca,<br>Kocaali, Pamukova, Sapanca,<br>Söğütlü) | 40,4%       | BİLECİK (Gölpazarı), BOLU<br>(Centre, Akçakoca, Dörtdivan,<br>Düzce, Gerede, Göynük, Mengen,<br>Seben, Yeniçağa, Yığılca),<br>KOCAELİ (Centre, Gölcük,<br>Kandıra, Karamürsel, Körfez),<br>SAKARYA (Centre, Akyazı,<br>Ferizli, Geyve, Hendek,<br>Karapürçek, Karasu, Kaynarca,<br>Kocaali, Pamukova, Söğütlü,<br>Taraklı)   | 6,4%      |
| DEPARTURES TOTAL%  | 75,9%       | ARRIVALS TOTAL%  | 66,6%     |

**Table 3.83:** The over-represented mobility flows in Marmara Region in the 1985-1990 period

In the 1995-2000 period, mobility from a group of origins including Adalar, Beşiktaş, Beykoz, Beyoğlu, Kadıköy, Kağıthane, Kartal, Maltepe, Pendik, Sarıyer, Şişli, Tuzla, Ümraniye, Üsküdar, Çatalca, Sultanbeyli, Şile), BALIKESİR (Marmara) and TEKİRDAĞ (Marmara Ereğlisi) which generates 37,2% of all departures and

from another group of origins including Avcılar, Bağcılar, Bahçelievler, Bakırköy, Bayrampaşa, Eminönü, Esenler, Eyüp, Fatih, Gaziosmanpaşa, Güngören, Küçükçekmece, Zeytinburnu and Büyükçekmece which generates 28,1% of all departures, to a group of destinations including all districts of Istanbul and BURSA (Harmancık), KIRKLARELİ (Pehlivanköy), KOCAELİ (Gebze, Kandıra), TEKİRDAĞ (Marmara Ereğlisi, Şarköy) which generates 67,5% of all arrivals is significantly over-represented (see Table 3.84).

**Table 3.84:** The over-represented mobility flows in Marmara Region in the 1995-2000 period

| Districts of Origins  | Departures% | Districts of Destinations  | Arrivals% |
|---|-------------|--|-----------|
| Adalar, Beşiktaş, Beykoz,<br>Beyoğlu, Kadıköy, Kağıthane,<br>Kartal, Maltepe, Pendik,<br>Sarıyer, Şişli, Tuzla, Ümraniye,<br>Üsküdar, Çatalca, Sultanbeyli,<br>Şile), BALIKESİR (Marmara)<br>and TEKİRDAĞ (Marmara<br>Ereğlisi) | 37,2%       | ISTANBUL (Adalar, Avcılar,<br>Bağcılar, Bahçelievler, Bakırköy,<br>Bayrampaşa, Beşiktaş, Beykoz,<br>Beyoğlu Eminönü Esenler Eyün   |           |
| Avcılar, Bağcılar, Bahçelievler,<br>Bakırköy, Bayrampaşa,<br>Eminönü, Esenler, Eyüp, Fatih,<br>Gaziosmanpaşa, Güngören,<br>Küçükçekmece, Zeytinburnu<br>and Büyükçekmece  | 28,1%       | Üsküdar, Zeytinburnu,<br>Büyükçekmece, Çatalca, Silivri,<br>Sultanbeyli, Şile), BURSA<br>(Harmancık), KIRKLARELİ<br>(Pehlivanköy), KOCAELİ (Gebze,<br>Kandıra), TEKİRDAĞ (Marmara<br>Ereğlisi, Şarköy) | 67,5%     |
| DEPARTURES TOTAL%   | 65,3%       | ARRIVALS TOTAL%  | 67,5%     |

In the 1985-1990 period, 3 groups of origins, which sent movers to the groups of destinations including all the districs of Istanbul, is generated from all the districts of Istanbul and TEKİRDAĞ (Centre), BALIKESİR (Marmara), BOLU (Centre, Dörtdivan, Gerede, Göynük), BURSA (Kestel), ESKİŞEHİR (Günyüzü), KOCAELİ (Centre, Gebze, Gölcük, Kandıra, Karamürsel, Körfez), SAKARYA (Centre, Akyazı, Ferizli, Geyve, Hendek, Karapürçek, Karasu, Kaynarca, Kocaali, Pamukova, Sapanca, Söğütlü). There are 155 districts in all Marmara Region from which the individuals moved to the other districts, and 25 district of Istanbul and 26 districs from other provinces have over-represented mobility to the destination groups which include all the districts of Istanbul. These mobilites generate 75,9% of all departures in the mobility between the districts of all Marmara Region.

4 groups of destinations, which received movers from the groups of origins including all the districts of Istanbul, is generated from all the districts of Istanbul and BURSA (Büyükorhan, İnegöl), ÇANAKKALE (Gelibolu), EDİRNE (Lalapaşa, Süleoğlu), KOCAELİ (Gebze) and SAKARYA (Sapanca), BİLECİK (Gölpazarı), BOLU (Centre, Akçakoca, Dörtdivan, Düzce, Gerede, Göynük, Mengen, Seben, Yeniçağa, Yığılca), KOCAELİ (Centre, Gölcük, Kandıra, Karamürsel, Körfez), SAKARYA (Centre, Akyazı, Ferizli, Geyve, Hendek, Karapürçek, Karasu, Kaynarca, Kocaali, Pamukova, Söğütlü, Taraklı). There are 155 districts in all Marmara Region as destination units, and 25 district of Istanbul and 35 districs from other provinces have over-represented mobility from the origin groups which include all the districts of Istanbul. These mobilites generate 66,6% of all arrivals in the mobility between the districts of all Marmara Region.

In the 1995-2000 period, the most remarkable thing is that all the districts of Istanbul are placed in one group as destination units. Only a few districts from other groups are placed with the districts of Istanbul.

Similarly, as origin units all the districts of Istanbul are placed in 2 groups and again a few districts take place with them. As their destination profiles, these 2 groups are similar. Additionally, the only difference between these 2 groups is their signed chi square values which means that there is a difference of degree with respect to their mobility to the destination group.

When 1985-1990 and the 1995-2000 periods are compared with respect to their mobility flows, it is clear that in both periods the mobility from/to the districts of Istanbul have significant portion (see Table 3.85). In both periods, there are few numbers of districts in Marmara Region which have over-represented mobility between the districts of Istanbul. Nevertheless, in the 1995-2000 period, the districts which have interaction with the districts of Istanbul as both origins and destinations are less than the previous period.

**Table 3.85:** Mobility from / to the districts of Istanbul in all Marmara Region in the1985-1990 and the 1995-2000 periods

|  | 1985-1990                |                           | 1995-2000                |                           |
|--|--------------------------|---------------------------|--------------------------|---------------------------|
|  | Number of<br>Individuals | % in<br>Marmara<br>Region | Number of<br>Individuals | % in<br>Marmara<br>Region |
| TOTAL<br>MOBILITY in<br>Marmara Region | 64.943                   | 100                       | 81.848                   | 100                       |
| from the districts of<br>ISTANBUL      | 43.310                   | 66,7%                     | 53.681                   | 65,6%                     |
| to the districts of<br>ISTANBUL        | 44.509                   | 68,6%                     | 53.500                   | 65,4%                     |

#### 3.9.2 Evaluation of intra-metropolitan mobility in Istanbul Interaction Field

In the 1985-1990 period, when the analysis is focused on the Istanbul interaction area, 5 groups of origins emerge, which sent movers to the groups of destinations including all the districs of Istanbul. The other groups of origins don't have over-represented mobility flows to the disticts of Istanbul. Only Central Tekirdağ and Central Edirne are placed in the groups of origins which sent movers to all the districts of Istanbul.

7 groups of destinations, which received movers from the groups of origins including all the districs of Istanbul, are generated from all the districts of Istanbul and also ÇANAKKALE (Gelibolu), KOCAELİ (Gebze) and EDİRNE (Süleoğlu).

**Table 3.86:** The over-represented mobility flows in Istanbul Interaction Field in the 1985-1990 period

| Districts of Origins   | Departures % | Districts of Destinations   | Arrivals<br>% |       |
|--|--------------|---|---------------|-------|
|  |              | ISTANBUL (Kartal, Ümraniye,<br>Üsküdar, Şile)   |               | 23.2% |
| ISTANBUL (Adalar, Beşiktaş,<br>Beykoz, Beyoğlu, Kadıköy,                                     |              | ISTANBUL (Adalar, Beşiktaş,<br>Beyoğlu, Kağıthane, Sarıyer)   | 7,9%          |       |
| Kağıthane, Pendik, Sarıyer, Şişli,<br>Ümraniye, Üsküdar, Şile, Yalova),<br>TEKİRDAĞ (Centre) | 40,4%        | ISTANBUL (Beykoz, Eminönü,<br>Eyüp, Fatih, Kadıköy, Pendik,<br>Şişli, Çatalca, Yalova),<br>ÇANAKKALE (Gelibolu),<br>KOCAELİ (Gebze) | 21,8%         |       |
| ISTANBUL (Kartal)  | 3,7%         | ISTANBUL (Beykoz, Eminönü,<br>Eyüp, Fatih, Kadıköy, Pendik,<br>Şişli, Çatalca, Yalova),<br>ÇANAKKALE (Gelibolu),<br>KOCAELİ (Gebze) | 21,8%         |       |
| ISTANBUL (Bayrampaşa,  | 25,5%        | ISTANBUL (Bakırköy), EDİRNE<br>(Süleoğlu)   | 12,4%         |       |
| Eminönü, Eyüp, Fatih,<br>Gaziosmanpaşa, Küçükçekmece,  |              | ISTANBUL (Bayrampaşa)   | 4,4%          |       |
| Zeytinburnu, Büyükçekmece,<br>Silivri), EDİRNE (Centre)                                      |              | ISTANBUL (Gaziosmanpaşa,<br>Zeytinburnu, Büyükçekmece,<br>Silivri)  | 11,7%         |       |
| ISTANBUL (Çatalca)   | 0,6%         | ISTANBUL (Gaziosmanpaşa,<br>Zeytinburnu, Büyükçekmece,<br>Silivri)  | 11,7%         |       |
| ISTANBUL (Bakırköy)  | 20,0%        | ISTANBUL (Gaziosmanpaşa,<br>Zeytinburnu, Büyükçekmece,<br>Silivri)  | 11,7%         |       |
| DEDADTUDES TOTAL 8/  | 00.20/       | ISTANBUL (Küçükçekmece)<br>ARRIVALS TOTAL%  | 15,3%         |       |
| DEPARTURES TOTAL%  | 90,2%        | ANNIVALO IVIAL70  | 96,7%         |       |

As origin units, Kartal, Çatalca and Bakırköy districts from Istanbul have unique destination profiles. As destination units, Bayrampaşa and Küçükçekmece have unique origin profiles. From Bakırköy to Küçükçekmece there is an extremely significant mobility and these districts have high portions as origin and destination

units respectively. According to Özbay (1997), the most popular district for the movers was Küçükçekmece; about one fifth of the movers went there. The data suggest that mass housing complexes constructed in these districts in the 1980's were one of the causes of attraction (Tekeli, 1992).

In the 1985-1990 period, the mobility between the districts in Istanbul Interaction Field is quite distinctive. There are distinctive mobility flows from particular districts to particular ones (see Table 3.86).

According to Özbay (1997), the number of in-movers and out-movers in each district, the net mover rates can be estimated. Net-mover rates gives an idea about the net effect of such movements on the population of each district. For example, the population sizes of Kadıköy and Yalova were not affected by the traffic of movers. Because they lost and received almost equal numbers of movers. Therefore, their net-mover rates was zero. Of course, the composition of their population changed depending on the selectivity of those who came and left. But, many others either lost or gained considerably through the traffic of the movers.

The analyses of this study does not show these net-mover rates. They show the overrepresented and under-represented mobility flows, so that the composition of the population of the districts can be perceptible. For example, even if the net-mover rate of Kadıköy was zero, it can be seen from the table that the most significant mobility flows to this district was from Adalar, Beşiktaş, Beykoz, Beyoğlu, Kadıköy, Kağıthane, Pendik, Sarıyer, Şişli, Ümraniye, Üsküdar, Şile, Yalova, Kartal and Central Tekirdağ. Thus, "the analyses of movers' profiles" show the educational levels and economic activities of the sent and received movers.

As it can be seen from the Table 3.78, the central districts of Eminönü, Eyüp and Fatih sent their movers to the peripheral districts. However, the other central districts like Beşiktaş, Beyoğlu, Kadıköy, Şişli and Üsküdar sent their movers both to the central and the peripheral districts.

In the 1995-2000 period, BALIKESİR (Marmara) and TEKİRDAĞ (Marmara Ereğlisi) districts are placed with the districts of Istanbul as origin units which sent movers to all the districts of Istanbul. TEKİRDAĞ (Marmara Ereğlisi), TEKİRDAĞ (Şarköy, and KOCAELİ (Gebze) districts are placed with the districts of Istanbul as

destination units which received movers from all the districts of Istanbul (see Table 3.87).

| Districts of Origins  | Departures% | Districts of Destinations   | Arrivals% |
|---|-------------|---|-----------|
| ISTANBUL (Avcılar,<br>Bahçelievler, Bakırköy,   |             | ISTANBUL (Büyükçekmece,<br>Çatalca, Silivri)  | 9,6%      |
|   | 14,6%       | ISTANBUL (Bahçelievler,<br>Bakırköy, Eminönü, Fatih,<br>Güngören, Küçükçekmece,                 | 20,7%     |
| Küçükçekmece)   |             | Zeytinburnu)<br>ISTANBUL (Avcılar),<br>TEKİRDAĞ (Marmara Ereğlisi)                              | 3,2%      |
|   |             | ISTANBUL (Bağcılar),<br>TEKİRDAĞ (Şarköy)   | 4,7%      |
| ISTANBUL (Bağcılar,   |             | ISTANBUL (Bahçelievler,<br>Bakırköy, Eminönü, Fatih,<br>Güngören, Küçükçekmece,<br>Zeytinburnu) | 20,7%     |
| Zeytinburnu)  | 6,2%        | ISTANBUL (Avcılar),<br>TEKİRDAĞ (Marmara Ereğlisi)  | 3,2%      |
|   |             | ISTANBUL (Esenler,<br>Gaziosmanpaşa)  | 9,0%      |
| ISTANBUL (Eminönü, Esenler,   | 35,0%       | ISTANBUL (Bahçelievler,<br>Bakırköy, Eminönü, Fatih,<br>Güngören, Küçükçekmece,<br>Zeytinburnu) | 20,7%     |
| Fatih, Güngören,<br>Büyükçekmece)   |             | ISTANBUL (Esenler,<br>Gaziosmanpaşa   | 9,0%      |
|   |             | ISTANBUL (Bağcılar),<br>TEKİRDAĞ (Şarköy)   | 4,7%      |
| ISTANBUL (Bayrampaşa, Eyüp)   | 4,6%        | ISTANBUL (Esenler,<br>Gaziosmanpaşa)  | 9,0%      |
| ISTANBUL (Gaziosmanpaşa)  | 3,1%        | ISTANBUL (Bayrampaşa,<br>Eyüp)  | 3,9%      |
| ISTANBUL (Beşiktaş, Beyoğlu,<br>Kağıthane, Sarıyer, Şişli)  | 12,6%       | ISTANBUL (Beşiktaş, Beyoğlu,<br>Kadıköy, Kağıthane, Sarıyer,<br>Şişli)                          | 18,3%     |
| ISTANBUL (Beykoz, Üsküdar,<br>Çatalca, Sultanbeyli, Şile),<br>BALIKESİR (Marmara),<br>TEKİRDAĞ (Marmara Ereğlisi) | 6,6%        | ISTANBUL (Adalar, Beykoz,<br>Maltepe, Ümraniye, Üsküdar,<br>Sultanbeyli, Şile)                  | 20,0%     |
| ISTANBUL (Kadıköy, Kartal,<br>Tuzla, Ümraniye)  | 12,3%       | ISTANBUL (Adalar, Beykoz,<br>Maltepe, Ümraniye, Üsküdar,<br>Sultanbeyli, Şile)                  | 20,0%     |
|   |             | ISTANBUL (Kartal, Pendik,<br>Tuzla), KOCAELİ (Gebze)  | 10,2%     |
| ISTANBUL (Adalar, Maltepe, Pendik)  | 5,0%        | ISTANBUL (Kartal, Pendik,<br>Tuzla), KOCAELİ (Gebze)  | 10,2%     |
| DEPARTURES TOTAL%   | 100%        | ARRIVALS TOTAL%   | 99,6%     |

| Table 3.87: The over-represented | mobility flow | vs in Istanbu | l Interaction Field in the |
|----------------------------------|---------------|---------------|----------------------------|
| 1995-2000 period                 |               |               |                            |

As an origin unit, Gaziosmanpaşa from Istanbul has a unique destination profile. From this district, the individuals substantially moved to Bayrampaşa and Eyüp. From Beşiktaş, Beyoğlu, Kağıthane, Şişli and Sarıyer, the individuals substantially moved to the same districts and Kadıköy.

In both periods, the mobility from/to the districts of Istanbul have significant portion in all mobility flows (see Table 3.88).

| Table 3.88: Mobility from / to the districts of Istanbul in all Istanbul Interaction |  |
|--|--|
| Field in the 1985-1990 and the 1995-2000 periods                                     |  |

|                             | 1985-1990   |             | 1995-2000   |             |
|-----------------------------|-------------|-------------|-------------|-------------|
|                             | Number of   | % in        | Number of   | % in        |
|                             | Individuals | Istanbul    | Individuals | Istanbul    |
|                             |             | Interaction |             | Interaction |
|                             |             | Field       |             | Field       |
| TOTAL                       | 45.284      | 100         | 47.228      | 100         |
| MOBILITY in                 |             |             |             |             |
| <b>Istanbul Interaction</b> |             |             |             |             |
| Field                       |             |             |             |             |
| from the districts of       | 40.344      | 89,1%       | 47.215      | 99,97%      |
| ISTANBUL                    |             |             |             |             |
| to the districts of         | 40.747      | 90,0%       | 46.123      | 97,7%       |
| ISTANBUL                    |             |             |             |             |

In the 1995-2000 period, unlike the previous period, there is a more composite structure with respect to the mobilites between the districts.

Therefore, in the 1995-2000 period, the mobility between the districts is separated into 2 parts. The first part contains the groups of origins including Avcılar, Bahçelievler, Bakırköy, Küçükçekmece, Bağcılar, Zeytinburnu, Eminönü, Esenler, Fatih, Güngören, Büyükçekmece, Bayrampaşa and Eyüp and the group of destinations including Büyükçekmece, Çatalca, Silivri, Bahçelievler, Bakırköy, Eminönü, Fatih, Güngören, Küçükçekmece, Zeytinburnu, Avcılar, Esenler, Bağcılar, TEKİRDAĞ (Marmara Ereğlisi and Şarköy). These districts have more composite mobility flows between each other.

The second part contains the groups of origins including Gaziosmanpaşa, Beşiktaş, Beyoğlu, Kağıthane, Sarıyer, Şişli, Beykoz, Üsküdar, Çatalca, Sultanbeyli, Şile, Kadıköy, Kartal, Tuzla, Ümraniye, Adalar, Maltepe, Pendik, BALIKESİR (Marmara) and TEKİRDAĞ (Marmara Ereğlisi) and the groups of destinations including Bayrampaşa, Eyüp, Beşiktaş, Beyoğlu, Kadıköy, Kağıthane, Sarıyer, Şişli, Adalar, Beykoz, Maltepe, Ümraniye, Üsküdar, Sultanbeyli, Şile, Kartal, Pendik, Tuzla and KOCAELİ (Gebze). Although these districts also have a composite

mobility flow between each other, they have more distinctive mobility characteristics when they are compared to the other districts.

### 3.9.3 Evaluation of intra-metropolitan mobility from urban to urban area in Istanbul Interaction Field

Mobility from an urban area to another urban area in both 1985-1990 and the 1995-2000 periods, has a significant percentage in all mobility flows. In the 1985-1990 period mobility from an urban settlement from another urban settlement generates 86,8% of all mobility in Istanbul. In the 1995-2000 period, mobility from an urban settlement to another urban settlement generates 77,6% of all mobility in Istanbul. Although the urban-urban mobility still comprised a high percentage, it decreased when is compared to the previous period.

In both 1985-1990 and the 1995-2000 periods, mobility shows distinctive characteristics. The origin and destination groups of districts generally send and receive from/to one group or few numbers of groups. However, the groups which are cited as "other districts of origins" and "other districts of destinations" have transition profiles which means they sent and received from/to all groups. In the 1985-1990 period, "other districts of origins" include Adalar, Beşiktaş, Beyoğlu, Pendik, Ümraniye, Büyükçekmece, Çatalca, Silivri, Şile, Yalova, Central Edirne and Central Tekirdağ, and "other districts of destinations" include Beykoz, Eminönü, Eyüp, Fatih, Gaziosmanpaşa, Şişli, Zeytinburnu, Büyükçekmece, Çatalca, Silivri, Sile, Yalova, Çanakkale Gelibolu and Edirne Süleoğlu. In the 1995-2000 period, "other districts of origins" include Beykoz, Eminönü, Fatih, Küçükçekmece, Tuzla, Ümraniye, Büyükçekmece, Çatalca, Silivri, Sultanbeyli, Şile, Balıkesir Marmara and Tekirdağ Marmara Ereğlisi, and "other districts of destinations" include Adalar, Avcılar, Bakırköy, Beykoz, Eminönü, Esenler, Fatih, Zeytinburnu, Büyükçekmece, Çatalca, Silivri, Şile, Pehlivanköy, Kocaeli Gebze, Kocaeli Kandıra, Kırklareli Pehlivanköy, Tekirdağ Marmara Ereğlisi and Tekirdağ Şarköy.

The districts which have distinctive origin and destination profiles are different from each other in 1985-1990 and the 1995-2000 periods.

In the 1985-1990 period, Beykoz, Kağıthane, Sarıyer and Üsküdar generates a group from which the individuals substantially moved to Ümraniye. In the 1995-2000 period, Beykoz takes place in a group that sent movers to many districts. Kağıthane

takes place in a group with Beşiktaş and Beyoğlu and sent movers to Şişli. Sarıyer generates a group with Şişli and sent movers to Beşiktaş, Beyoğlu, Kağıthane and Sarıyer. Üsküdar, as a unique profile, sent movers to Kadıköy and Ümraniye (see Table 3.89 and Table 3.90).

**Table 3.89:** The most distinctive mobility flows from the urban settlements to the urban settlements in the 1985-1990 period

| Districts of Origins        | Districts of Destination       |
|-----------------------------|--------------------------------|
| Beykoz, Kağıthane, Sarıyer, | Ümraniye                       |
| Üsküdar                     |                                |
| Kadıköy                     | Ümraniye, Kartal, Üsküdar      |
| Bayrampaşa, Eminönü, Fatih, | Bakırköy                       |
| Küçükçemece, Zeytinburnu    |                                |
| Kartal                      | Kadıköy, Pendik, Kocaeli Gebze |
| Şişli                       | Adalar, Beşiktaş, Beyoğlu,     |
|                             | Kağıthane, Sarıyer             |
| Gaziosmanpaşa               | Bayrampaşa                     |
| Eyüp                        | Bayrampaşa                     |
| Bakırköy                    | Küçükçekmece                   |

**Table 3.90:** The most distinctive mobility flows from the urban settlements to the urban settlements in the 1995-2000 period

| Districts of Origins            | Districts of Destination      |
|---------------------------------|-------------------------------|
| Bahçelievler, Esenler, Güngören | Bağcılar                      |
| Bayrampaşa, Eyüp                | Gaziosmanpaşa                 |
| Avcılar, Bağcılar, Bakırköy,    | Bahçelievler, Güngören,       |
| Zeytinburnu                     | Küçükçekmece                  |
| Gaziosmanpaşa                   | Bayrampaşa, Eyüp              |
| Beşiktaş, Beyoğlu, Kağıthane    | Şişli                         |
| Sarıyer, Şişli                  | Beşiktaş, Beyoğlu, Kağıthane, |
|                                 | Sarıyer                       |
| Kadıköy                         | Maltepe, Üsküdar, Sultanbeyli |
| Üsküdar                         | Kadıköy, Ümraniye             |
| Kartal                          | Pendik                        |
| Adalar, Maltepe, Pendik         | Kartal, Tuzla                 |

In the 1985-1990 period, Kadıköy substantially sent movers to Ümraniye, Kartal and Üsküdar. In the 1995-2000 period, it sent movers to Maltepe, Üsküdar and Sultanbeyli.

In the 1985-1990 period, Bayrampaşa, Eminönü, Fatih, Küçükçemece and Zeytinburnu generates a group which sent movers to Bakırköy. In the 1995-2000 period, Bayrampaşa generates a groupg with Eyüp and substantially sent movers to Gaziosmanpaşa. Eminönü, Fatih and Küçükçekmece districts take place in a group

including many districts which sent movers to several districts. Zeytinburnu generates a group with Avcılar, Bağcılar and Bakırköy and sent movers to Bahçelievler, Güngören and Küçükçekmece. Avcılar and Bağcılar emerges as new distinctive origin units.

In the 1985-1990 period, Kartal significantly sent movers to Kadıköy, Pendik and Kocaeli Gebze. In the 1995-2000 period, again as having a unique destination profile, it sent movers significantly to Pendik.

In the 1985-1990 period, Şişli sent movers to Adalar, Beşiktaş, Beyoğlu, Kağıthane and Sarıyer. In the 1995-2000 period, it generates a group with Sarıyer and significantly sent movers to Beşiktaş, Beyoğlu, Kağıthane and Sarıyer.

In the 1985-1990 period, Gaziosmanpaşa substantially sent movers to Bayrampaşa. In the 1995-2000 period, it significantly sent movers to Bayrampaşa and Eyüp.

In the 1985-1990 period, Eyüp substantially sent movers to Bayrampaşa. In the 1995-2000 period, it generates a group with many districts which sent movers to several districts.

In the 1985-1990 period, Bakırköy significantly sent movers to Küçükçekmece. In the 1995-2000 period, it generates a group with Avcılar, Bağcılar and Zeytinburnu and substantially sent movers to Bahçelievler, Güngören and Küçükçekmece.

In the 1985-1990 period, Ümraniye substantially received movers from Beykoz, Kağıthane, Sarıyer, Üsküdar and Kadıköy. In the 1995-2000 period, it generates a group with Kadıköy and substantially received movers from only Üsküdar.

In the 1985-1990 period, Kartal and Üsküdar received movers significantly from Kadıköy. In the 1995-2000 period, Kartal generates a group with Tuzla and significantly received movers from Adalar, Maltepe and Pendik. Üsküdar generates a group with Maltepe and Sultanbeyli and continued to receive movers significantly from Kadıköy.

In the 1985-1990 period, Bakırköy substantially received movers from Bayrampaşa, Eminönü, Fatih, Küçükçemece and Zeytinburnu. In the 1995-2000 period it takes place in a group that received movers from many districts.

In the 1985-1990 period, Kadıköy, Pendik and Kocaeli Gebze substantially received movers from Kartal. In the 1995-2000 period, Kadıköy generates a group with

Ümraniye and substantially received movers from Üsküdar. Pendik has a unique origin profile and continiued to receive movers from Kartal. Kocaeli takes place in a group that received movers from several disricts.

In the 1985-1990 period, Adalar, Beşiktaş, Beyoğlu, Kağıthane and Sarıyer generate a group and substantially received movers from Şişli. In the 1995-2000 period the same districts generate a group except Adalar and substantially received movers from Sarıyer and Şişli.

In the 1985-1990 period, Bayrampaşa significantly received movers from Gaziosmanpaşa and Eyüp. In the 1995-2000 period it generates a group with Eyüp and significantly received movers from Gaziosmanpaşa.

In the 1985-1990 period, Küçükçekmece substantially received movers from only Bakırköy. In the 1995-2000 period, it generates a group with Bahçelievler and Güngören and substantially received movers from Avcılar, Bağcılar, Bakırköy and Zeytinburnu. Bahçelievler and Güngören emerges as new distinctive destination units.

In the 1995-2000 period, differently from the previous one, Bağcılar emerges as a new distinctive destination unit and received movers from Bahçelievler, Esenler and Güngören which are new origin units as well (see Table 3.89 and Table 3.90).

### **3.9.4** Evaluation of intra-metropolitan mobility from urban to rural area in Istanbul Interaction Field

Mobility from an urban area to a rural area in both 1985-1990 and the 1995-2000 periods, has the second important share in all mobility flows. In the 1985-1990 period mobility from an urban settlement to a rural settlement generates 9,3% of all mobility in Istanbul. In the 1995-2000 period, mobility from an urban settlement to a rural settlement generates 16,6% of all mobility in Istanbul that in this period there is a considerably increase in mobility from rural to urban.

In both the 1985-1990 and the 1995-2000 periods, mobility shows distinctive characteristics. The origin and destination groups of districts generally send and receive from/to one group or few numbers of groups. However, in the 1995-2000 period the groups which are cited as "other districts of origins" and "other districts of destinations" have transition profiles which means they sent and received from/to

almost all groups. In the 1995-2000 period, "other districts of origins" include Adalar, Beyoğlu, Eminönü, Maltepe, Şişli, Zeytinburnu, Silivri, Şile and Tekirdağ Marmara Ereğlisi, and "other districts of destinations" include Eyüp, Kartal, Küçükçekmece, Pendik, Silivri, Şile, Kocaeli Gebze, Kocaeli Kandıra, Tekirdağ Marmara Ereğlisi and Tekirdağ Şarköy (see Table 3.91 and Table 3.92).

| Districts of Origins             | Districts of Destination        |
|----------------------------------|---------------------------------|
| Kağıthane                        | Kağıthane                       |
| Kadıköy                          | Kadıköy, Yalova                 |
| Yalova                           | Yalova                          |
| Adalar, Kartal, Pendik           | Kocaeli Gebze                   |
| Üsküdar                          | Kartal, Şile                    |
| Beşiktaş, Şişli, Silivri, Şile,  | Kartal, Şile                    |
| Central Edirne, Central Tekirdağ |                                 |
| Beykoz, Beyoğlu, Sarıyer,        | Ümraniye                        |
| Ümraniye                         |                                 |
| Eminönü                          | Eminönü                         |
| Eyüp, Fatih, Büyükçekmece,       | Gaziosmanpaşa                   |
| Çatalca                          |                                 |
| Gaziosmanpaşa                    | Gaziosmanpaşa                   |
| Bakırköy, Küçükçekmece,          | Adalar, Bakırköy, Küçükçekmece, |
| Zeytinburnu                      | Büyükçekmece                    |
| Bayrampaşa                       | Bayrampaşa                      |

**Table 3.91:** The most distinctive mobility flows from the urban settlements to the rural settlements in the 1985-1990 period

**Table 3.92:** The most distinctive mobility flows from the urban settlements to the rural settlements in the 1995-2000 period

| Districts of Origins           | Districts of Destination |
|--------------------------------|--------------------------|
| Ümraniye                       | Ümraniye                 |
| Baykoz                         | Beykoz                   |
| Pendik, Tuzla                  | Tuzla                    |
| Kadıköy, Kağıthane, Kartal,    | OTHER DISTRICTS of       |
| Üsküdar, Sultanbeyli           | DESTINATIONS, Ümraniye   |
| Beşiktaş, Sarıyer              | Sarıyer                  |
| Esenler, Gaziosmanpaşa         | Gaziosmanpaşa            |
| Bağcılar, Bayrampaşa, Eyüp     | Gaziosmanpaşa            |
| Çatalca                        | Çatalca                  |
| Bahçelievler, Bakırköy, Fatih, | Büyükçekmece             |
| Güngören, Küçükçekmece         |                          |
| Avcılar, Büyükçekmece          | Büyükçekmece             |

Eyüp, Kartal, Küçükçekmece, Pendik, Silivri, Şile, Kocaeli Gebze, Kocaeli Kandıra, Tekirdağ Marmara Ereğlisi and Tekirdağ Şarköy. The districts, which have distinctive origin and destination profiles, are different from each other in the 1985-1990 and the 1995-2000 periods.

In both periods, the individuals generally moved to a rural settlement of a district in which they used to live in the urban settlement thereof.

In the 1985-1990 period, from the urban settlement of Kağıthane, the individuals substantially moved to the rural settlements of the same district. In the 1995-2000 period, Kağıthane takes place in a group with Kadıköy, Kartal, Üsküdar and Sultanbeyli and sent movers to a group including several districts and to Ümraniye.

In the 1985-1990 period, Kadıköy, as a unique origin unit, sent movers to the rural settlements of Kadıköy and Yalova. In the 1995-2000 period it generates a group with Kağıthane, Kartal, Üsküdar and Sultanbeyli.

In the 1985-1990 period, from the urban settlement of Yalova, the individuals substantially moved to the rural settlements of the same district. In the 1995-2000 period, Yalova had already been a province and the interaction of its districts were not significant enough to be analyzed.

In the 1985-1990 period, Adalar, Kartal and Pendik generates a group sending their movers to Kocaeli Gebze. In the 1995-2000 period Adalar takes place in a group sending its movers to several groups. Kartal generates a group with Kadıköy, Kağıthane, Üsküdar and Sultanbeyli. Pendik generates a group with Tuzla and sent its movers to the rural settlements of Tuzla.

In the 1985-1990 period, Üsküdar sent its movers to the rural settlements of Kartal and Şile. In the 1995-2000 period, it generates a group with Kadıköy, Kağıthane, Kartal, and Sultanbeyli and sent its movers to a group including several districts and to Ümraniye.

In the 1985-1990 period, Beşiktaş, Şişli, Silivri, Şile, Central Edirne and Central Tekirdağ generates a group and sent it movers to Kartal and Şile. In the 1995-2000 period, Beşiktaş generates a group with Sarıyer and sent its movers substantially to the rural settlements of Sarıyer. Şişli, Silivri and Şile takes place in a group including many districts and sent their movers to several districts. Central Edirne and Central Tekirdağ did not have a significant interaction so they have not been analyzed in this period.

In the 1985-1990 period, Beykoz, Beyoğlu, Sarıyer and Ümraniye generates a group and sent their movers substantially to the rural settlements of Ümraniye. In the 1995-2000 period, Beykoz, as a unique origin unit, sent its movers to the rural settlements of itself. Sarıyer generates a group with Beşiktaş and significantly sent its mover to the rural settlements of Sarıyer. Ümraniye, as a unique origin unit, substantially sent its movers to the rural settlements of Ümraniye.

In the 1985-1990 period, Eyüp, Fatih, Büyükçekmece and Çatalca generates a group and significantly sent its movers to the rural settlements of Gaziosmanpaşa. In the 1995-2000 period, Eyüp generates a group with Bağcılar and Bayrampaşa and significantly sent its movers to Gaziosmanpaşa. In this period, Bağcılar emerges as a new distinctive origin unit. Büyükçekmece generates a group with Avcılar and sent its movers significantly to the rural settlements of Büyükçekmece. Çatalca, as a unique origin unit, significantly sent its movers to the rural settlements of Çatalca.

In the 1985-1990 period, Gaziosmanpaşa which has a unique destination profile, sent its movers to the rural settlements of the same district. In the 1995-2000 period, it generates a group with Esenler and continued to send its movers to the same district.

In the 1985-1990 period, Bakırköy, Küçükçekmece and Zeytinburnu generates a group and significantly sent their movers to the rural settlement of Adalar, Bakırköy, Küçükçekmece and Büyükçekmece. In the 1995-2000 period, Bakırköy and Küçükçekmece generate a group with Bahçelievler, Fatih and Güngören, and substantially sent their movers to the rural settlements of Büyükçekmece. Zeytinburnu takes place in a group including many district which sent movers to several groups.

In the 1985-1990 period, from the urban settlements of Bayrampaşa, the individuals significantly moved to the rural areas of the same district. In the 1995-2000 period, Bayrampaşa generates a group with Bağcılar and Eyüp, and they sent their movers to the rural settlements of Gaziosmanpaşa.

In the 1985-1990 period, Kağıthane as a distinctive destination unit, significantly received its movers from the urban settlements of the same district. In the 1995-2000 period, the rural settlements of the district did not receive any movers from any urban settlements.

In the 1985-1990 period, Kadıköy as a distinctive destination unit, significantly received its movers from the urban settlements of the same district. In the 1995-2000 period, the rural settlements of it did not receive any movers from any urban settlements.

In the 1985-1990 period, the rural settlements of Yalova substantially received movers from the urban settlements of Yalova and Kadıköy. In the 1995-2000 period, it had already become another province and the interaction of its districts were not that significant to be analyzed.

In the 1985-1990 period, Kocaeli Gebze significantly received movers from Adalar, Kartal and Pendik. In the 1995-2000 period it takes place in a group which includes several districts and received the movers especially from Kadıköy, Kağıthane, Kartal, Üsküdar and Sultanbeyli.

In the 1985-1990 period, Kartal and Şile significantly received movers from Üsküdar, Beşiktaş, Şişli, Silivri, Şile, Central Edirne and Central Tekirdağ. In the 1995-2000 period, they take place in a group including many districts that received movers especially from Kadıköy, Kağıthane, Kartal, Üsküdar and Sultanbeyli.

In the 1985-1990 period, Ümraniye, as a unique destination unit, substantially received movers from the urban settlements of the same district. In the 1995-2000 period, again as having a unique origin profile, it significantly received movers from the urban settlements of Ümraniye, Kadıköy, Kağıthane, Kartal, Üsküdar and Sultanbeyli.

In the 1985-1990 period, Gaziosmanpaşa significantly received movers from the urban settlements of Gaziosmanpaşa, Eyüp, Fatih, Büyükçekmece and Çatalca. In the 1995-2000 period, again as a unique destination unit, it significantly received movers from the urban settlements of Gaziosmanpaşa, Esenler, Bağcılar, Bayrampaşa and Eyüp.

In the 1985-1990 period, Adalar, Bakırköy, Küçükçekmece and Büyükçekmece generates a group of destinations and substantially received movers from the urban settlements of Bakırköy, Küçükçekmece and Zeytinburnu. In the 1995-2000 period, the rural settlements of Adalar, Bakırköy and Küçükçekmece did not receive any movers from any urban settlements. Büyükçekmece, which has a unique origin

profile, significantly received its movers from the urban settlements of Bahçelievler, Bakırköy, Fatih, Güngören, Küçükçekmece, Avcılar and Büyükçekmece.

In the 1985-1990 period, Bayrampaşa substantially received its movers from the urban settlements of the same district. In the 1995-2000 period, the rural settlements of it did not receive any mover from any urban settlements (see Table 3.91 and Table 3.92).

# **3.9.5 Evaluation of intra-metropolitan mobility from rural to urban area in** Istanbul Interaction Field

Mobility from a rural area to an urban area in the 1985-1990 period comprises 1.9% of all mobility in Istanbul. In the 1995-2000 period, it increases to 5.3%.

In both 1985-1990 and the 1995-2000 periods, mobility shows distinctive characteristics. The origin and destination groups of districts generally sent and received from/to one group or few numbers of groups. However, in the 1985-1990 period there are origin and destination groups which don't have distinctive profiles. These districts of origins, which generate one group, include Adalar, Beykoz, Beyoğlu, Eminönü, Eyüp, Fatih, Şişli, Zeytinburnu, Şile and Central Edirne. The districts of destinations that do not have distinctive profiles in the 1985-1990 period are Adalar, Bakırköy, Beşiktaş, Beyoğlu, Eminönü, Eyüp, Fatih, Şişli, Üsküdar and Kocaeli Gebze. In the 1995-2000 period the districts of destinations are listed as Bağcılar, Bahçelievler, Bakırköy, Bayrampaşa, Esenler, Güngören, Kadıköy, Kağıthane, Maltepe, Şişli, Zeytinburnu, Sultanbeli and Kocaeli Gebze. In this period, all the districts of origins have distinctive destination profiles (see Table 3.93 and Table 3.94).

In both periods, the individuals generally moved to an urban settlement of a district in which they used to live in the rural settlement of.

In the 1985-1990 period, Büyükçekmece and Çatalca significantly sent their movers to the urban settlements of the same districts. In the 1995-2000 period, both of them generate a group with Eyüp, Silivri and Şile, and significantly sent their movers to the urban settlements of Avcılar, Beyoğlu, Eyüp, Fatih, Üsküdar, Büyükçekmece, Çatalca, Silivri and Şile.

In the 1985-1990 period, the individuals from the rural settlements of Silivri, Pendik, Sarıyer, Gaziosmanpaşa, Kağıthane, Yalova and Kartal significantly moved to the urban settlements of the districts in which they used to live. In the 1995-2000 period, from Pendik, Sarıyer, Gaziosmanpaşa and Kartal, the individuals continued to move to the urban settlements of the same districts. Silivri generates a group with Eyüp, Büyükçekmece, Çatalca and Şile. From the rural settlements of Kağıthane there is no movement to any urban settlements. Yalova became a province and it did not have a significant interactions with any of Istanbul's districts.

**Table 3.93:** The most distinctive mobility flows from the rural settlements to the urban settlements in the 1985-1990 period

| Districts of Origins        | Districts of Destination |
|-----------------------------|--------------------------|
| Büyükçekmece, Çatalca       | Büyükçekmece, Çatalca    |
| Silivri                     | Silivri                  |
| Bakırköy, Küçükçekmece      | Küçükçekmece             |
| Pendik                      | Pendik                   |
| Bayrampaşa                  | Bayrampaşa, Beykoz       |
| Sarıyer                     | Sarıyer                  |
| Gaziosmanpaşa               | Gaziosmanpaşa            |
| Kadıköy, Central Tekirdağ   | Kadıköy, Zeytinburnu     |
| Kağıthane                   | Kağıthane                |
| Yalova                      | Yalova                   |
| Beşiktaş, Ümraniye, Üsküdar | Ümraniye                 |
| Kartal                      | Kartal                   |

**Table 3.94:** The most distinctive mobility flows from the rural settlements to the urban settlements in the 1995-2000 period

| Districts of Origins         | Districts of Destination        |
|------------------------------|---------------------------------|
| Küçükçekmece                 | Küçükçekmece                    |
| Beykoz                       | Beykoz                          |
| Beşiktaş                     | Beşiktaş                        |
| Eyüp, Büyükçekmece, Çatalca, | Avcılar, Beyoğlu, Eyüp, Fatih,  |
| Silivri, Şile                | Üsküdar, Büyükçekmece, Çatalca, |
|                              | Silivri, Şile                   |
| Ümraniye                     | Ümraniye                        |
| Sarıyer                      | Sarıyer                         |
| Gaziosmanpaşa                | Gaziosmanpaşa                   |
| Kartal                       | Kartal                          |
| Tuzla                        | Tuzla                           |
| Pendik                       | Pendik                          |

In the 1985-1990 period, the individuals from Bakırköy and Küçükçekmece substantially moved to the urban settlements of Küçükçekmece. In the 1995-2000

period, there is no movement from the rural settlements of Bakırköy to any urban settlements. Küçükçekmece, as a unique origin unit, continued to send its movers significantly to the urban settlements of Küçükçekmece.

In the 1985-1990 period, Bayrampaşa significantly sent its movers to the urban settlements of Bayrampaşa and Beykoz. In the 1995-2000 period, none of the individuals moved from the rural settlements of Bayrampaşa to any of the urban settlements.

In the 1985-1990 period, the individuals from the rural settlements of Kadıköy and Central Tekirdağ substantially moved to the urban settlements of Kadıköy. In the 1995-2000 period, none of the individuals moved to any urban settlements.

In the 1985-1990 period, Beşiktaş, Ümraniye and Üsküdar generates a group of origins and sent their movers to the urban settlements of Ümraniye. In the 1995-2000 period, Beşiktaş significantly sent its movers to the urban settlements of Beşiktaş. Ümraniye, as a unique origin unit, continued to send its movers to the urban settlements of Ümraniye. From the rural settlements of Üsküdar there is no movement to any urban settlements.

In the 1995-2000 period, Tuzla and Beykoz emerge as new divstinctive origin units from which the individuals significantly moved to the urban settlements of the districts that they used to live.

In the 1995-2000 period, although the percentage of mobility from rural settlements to urban settlements increased, the number of districts which sent movers to the urban settlements from their rural settlements decreased (see Table 3.93 and Table 3.94).

# **3.9.6 Evaluation of intra-metropolitan mobility from rural to rural area in** Istanbul Interaction Field

Mobility from a rural area to another rural area in the 1985-1990 period comprises 2.0% of all mobility in Istanbul. In the 1995-2000 period, it decreases to 0.5%.

In both 1985-1990 and the 1995-2000 periods, mobility shows distinctive characteristics. The origin and destination groups of districts generally sent and received from/to one group or few numbers of groups (see Table 3.95 and Table 3.96).

**Table 3.95:** The most distinctive mobility flows from the rural settlements to the rural settlements in the 1985-1990 period

| Districts of Origins          | Districts of Destination    |
|-------------------------------|-----------------------------|
| Pendik, Sarıyer, Ümraniye     | Kartal                      |
| Beyoğlu, Şişli, Üsküdar, Şile | Ümraniye                    |
| Kartal                        | Pendik, Kocaeli Gebze       |
| Bakırköy, Bayrampaşa,         | Gaziosmanpaşa, Küçükçekmece |
| Zeytinburnu                   |                             |
| Küçükçekmece, Çatalca         | Büyükçekmece                |

**Table 3.96:** The most distinctive mobility flows from the rural settlements to the rural settlements in the 1995-2000 period

| Districts of Origins | Districts of Destination |
|----------------------|--------------------------|
| Ümraniye             | Kartal                   |
| Kartal, Tuzla, Şile  | Kocaeli, Gebze           |
| Pendik               | Tuzla                    |
| Beşiktaş             | Sarıyer                  |
| Eyüp                 | Gaziosmanpaşa            |
| Küçükçekmece         | Büyükçekmece             |

In the 1985-1990 period, Pendik, Sarıyer and Ümraniye generates a group and sent their movers to the rural settlements of Kartal. In the 1995-2000 period, Pendik, as a unique origin unit, significantly sent its movers to the rural settlements of Tuzla.

In the 1985-1990 period, the individuals from the rural settlements of Beyoğlu, Şişli, Üsküdar and Şile substantially moved to the rural settlements of Ümraniye. In the 1995-2000 period, only Şile generates a group with Kartal and Tuzla, and the individuals from the rural settlements of these districts significantly moved to the rural settlements of Kocaeli Gebze.

In the 1985-1990 period, Kartal significantly sent its movers to the rural settlements of Pendik and Kocaeli Gebze. In the 1995-2000 period, it generates a group of origins with Tuzla and Sile.

In the 1985-1990 period, from Bakırköy, Bayrampaşa and Zeytinburnu, the individuals significantly moved to the rural settlements of Gaziosmanpaşa and Küçükçekmece. In the 1995-2000 period, none of the indviduals moved from the rural settlements of these districts to the rural settlements of other districts.

In the 1985-1990 period, Küçükçekemece and Çatalca generates a group of origins and sent movers to the rural settlements of Büyükçekmece. In the 1995-2000 period,

Küçükçekemece continued to send movers significantly to Büyükçekmece (see Table 3.95 and Table 3.96).

### 3.9.7 Evaluation of Movers' Profiles

In both periods, the movers who moved from an urban settlement of a district to an urban settlement of another district generally show distinctive characteristics according to their origin units. The individuals who moved from some of the districts significantly worked in white collar jobs and had high educational levels. The individuals who moved from some of the districts significantly worked in blue collar jobs and had the lowest educational levels. The individuals that moved from some of the districts worked in several economical activities and their educational levels were assemblaged.

According to their destination units, the individuals who moved from the urban settlements to the other urban settlements show less distinctive characteristics. The destination units received the movers who worked in different economical activities and had different educational levels. However, there were still some districts which only significantly received the movers from same kind of jobs or economical activities.

According to both their origin and destination units, there is a high correlation between the economical activities and the educational levels of the individuals who moved from the urban settlements to the other urban settlements in both periods.

According to Öncü (1997), during the last decade, middle and upper classes in Istanbul increasingly complained about social and cultural pollution in the city and have to create a "clean" environment for themselves. This may be one of the reasons why the individuals who have the higher educational levels and white collar jobs generally follow the similar mobility behaviours. For example in the 1985-1990 period, middle and upper classes left the urban settlements of Beykoz, Kağıthane, Sarıyer and Üsküdar and substantially moved to the urban settlements of Kadıköy, Pendik and Gebze. In the 1995-2000 period, from the urban settlements of Kadıköy and Ümraniye.

Güvenç (1992), studied the development of business in Istanbul and its reflection on the city geography in 1988. According to his findings, business on the three sides of the city, namely Istanbul, Beyoğlu and Anadolu, had different paths of development and hence residential areas basically evolved in response to the varying nature of business on these sides (Özbay, 1997). The former center of the city, Eminönü, continued to welcome small scale, labor intensive production activities which necessitated the coexistence of residential units for the workers. According to the analyses of this study, in both the 1985-1990 and 1995-2000 periods, the individuals who moved from/to Eminönü used to work in manufacturing.

#### 4. CONCLUSION AND RECOMMENDATIONS

Residential mobility may be defined as the movement of residents from one house to another, or from one neighbourhood/part of a town/city to another (Gbakeji and Rilwani, 2009). In Simmel's terms mobility is part of a 'world in flux, whose substantive contents are themselves dissolved in motion' (Frisby, 2002). Mobility is the product of the intense commodification of social relations fuelled by industrial development and entwined with the sharply increasing division of labour and the spatial concentration of diversified activities in the modern metropolis. (Maloutas, 2004).

This study aims to figure out the intra-metropolitan mobility in Istanbul by considering its metropolitan field within Marmara Region. Istanbul, the demographic and economic heart of Turkey, has gone through enormous changes over the past century. Having a very crucial position in its region and the whole country, Istanbul, has gone through a continuous and very rapid change in metropolitanisation process while being in ceaseless interaction with its hinterland and having its own urbanization Dynamics.

Therefore, first of all residential mobility of the individuals has been analyzed and evaluated within Marmara Region to see the interaction between the districts of Istanbul and the other districts of Marmara Region. The reason why mobility from/to the districts of Istanbul is studied district-based is that the province-based analyses are not enough to examine the complex relationships within the regions. Understanding the dynamics of the demographics and sociospatial transformations of the metropolitan area is merely possible by examining the multi-dimenaional relations.

The results of the empirical study provide detailed interpretations about the mobility patterns in the analyzed regions. When the analyses of mobility in Marmara Region between the 1985-1990 and the 1995-2000 periods are compared with respect to their mobility flows, it is clear that in both periods the mobility from/to the districts of Istanbul have significant portion. In both periods, there are few numbers of districts

in Marmara Region which have over-represented mobility between the districts of Istanbul. Neverthless, in the 1995-2000 period, the districts which have interaction with the districts of Istanbul as both origins and destinations are less than the previous period. In both periods, the mobility in between the districts of Istanbul is more significant than the mobility between the districts of Istanbul and the districts of other provinces. The interaction between the districts of Istanbul and the district of the other provinces of Marmara Region with respect to the individuals' mobility is more significant in the 1985-1990 period then in the 1995-2000 period.

According to the analyses of the mobility in Istanbul Interaction Filed in the 1985-1990 period, the mobility between the districts is quite distinctive. There are distinctive mobility flows from particular districts to particular ones. In the 1995-2000 period, unlike the previous period, there is a more composite structure with respect to the mobilites between the districts. In both periods, the mobility from/to the districts of Istanbul have significant portion in all mobility flows.

According to the analyses of the mobility between the urban and the rural settlements of Istanbul Interaction Field, the mobility behaviours show different characteristics when they are evaluated according to the origins and destinations are rural and/or urban areas. In both the 1985-1990 and the 1995-2000 periods, mobility show distinctive characteristics. In both periods, the analyses of the mobility from the rural settlements to urban settlements or from the urban settlements to the rural settlements show that the individuals generally moved to a rural or urban settlement of a district in which they used to live.

The individuals, who have same mobility profiles regarding their educational level and economical activity, generally have similar features.

All these results of the empirical study show that the mobility patterns of the individuals have distinctive characteristics as the individuals from the same group of origins substantially moved to the same group of destinations. Moreover, the economic activities and the educational levels of these individuals also show similar characteristics.

According to Bourdieu (1999), if the habitat shapes the habitus, the habitus also shapes the habitat, through the more or less adequate social usages that it tends to make of it. This certainly throws doubt on the belief that bringing together in the same physical space agents who are far apart in social space might, in itself, bring them closer socialy: in fact, socially distanced people find nothing more intorelable than physical proximity (experienced as promiscuity). When the permuted correspondence tables of the analyses are examined, it can clearly be seen that the over-represented and the under-represented mobility patterns are different from each other in every row. Furthermore, when the economic activities and the educational levels of the individuals have been analyzed, there is a great separation within the individual groups with respect to their mobility patterns. The mobility patterns of the individuals who work in white collar jobs and have high educational levels are completely different than the mobility patterns of the individuals who work in blue collar jobs and have low educational levels.

At the risk of feeling themselves *out of place*, individuals who move into a new space must fulfill the conditions that space tacitly requires of its occupants. This may be the possession of a certain cultural capital the lack of which can prevent the real appropriation of supposedly public goods or even the intention of appropriating them (Bourdieu, 1999).

This study has been made to examine the mobility patterns in between the districts of Istanbul and between the districts of Istanbul and the other districts of Marmara Region. Various studies, which relate the mobility patterns with the individual-level, inter-personal and/or socio-spatial issues of residential mobility, can be made with the findings of this study. The relationships between these mobility patterns and metropolitanization /urbans sprawl / decentralization / suburbanization processes of Istabul can be studied. Residential segregation and the social networks of the individuals can be also studied with the findings of this study.

#### REFERENCES

- Alba, R., D. and Logan, J., R., 1993: Minority Proximity to Whites in Suburbs: An Individual-Level Analysis of Segregation, American Journal of Sociology, 98, 1388-427.
- Alba, R.D., Logan, J., R., and Bellair, P., E., 1994: Living with Crime: The Implications of Racial/Ethnic Differences in Suburban Location, *Social Forces*, 73, 395-434.
- Albig, W., 1933: The Mobility of the Urban Population, Social Forces, 11, 351-67
- Baccaïni, B. and Dutreuilh, C., 2007: Inter-Regional Migration Flows in France over the Last Fifty Years, *Population (English Edition)*, Vol. 62, No. 1, pp. 139-155.
- Brown, L., A., and Moore, E., G., 1971: The Intra-urban Migration Process: A Perspective, in *Internal Structure of the City: Readings on Space and Environment*, Eds. Bourne, L. S., New York, pp. 200-209.
- Bolt, G. and van Kempen, R., 2010: Ethnic Segregation and Residential Mobility: Relocations of Minority Ethnic Groups in the Netherlands, *Journal of Ethnic and Migration Studies*, **36**, 2, pp. 333-354.
- Bourdieu, P., 1999: Site Effects in *The Weight of the World: Social Suffering in Contemporary Society*, Stanford University Press, pp. 123-129.
- Cadwallader, M., T., 1979a: Neighborhood Evaluation in Residential Mobility, *Environmental Planning* **11**, pp. 393-401.
- Cadwallader, M., T., 1979b: The Process of Neighborhood Choice, Paper Presented at the International Conference on Environmental Psychology, University of Surrey.
- Cadwallader, M., 1982: Urban Residential Mobility: A Simultaneous Equations Approach, Transactions of the Institute of British Geographers, *New Series*, Vol. 7, no. 4, pp. 458-473.
- Cadwallader, M., 1992: Migration and Residential Mobility: Macro and Micro Approaches, Madison, WI: University of Wisconsin Press.
- Charney, A. H., 1993: Migration and the Public Sector: A survey, *Regional Studies* 27, 4, pp. 313-326.
- Clark, W.A., 1987: Theory and Practice in Housing Market Research, in *Between State and Market: Housing in the Post-industrial Era*, Stockholm, Almqvist & Wiksell International, Eds. Turner, B., Kemeny, J. and Lundqvist, L.
- Clark, W.A.V. and Cadwallader, M. T., 1973: Locational Stress and Residential Mobility, *Environmental Behaviour*, 5, pp. 29-41.

- Clark, W.A.V., and Huff, J., 0., 1977: Some Empirical Tests of Duration-of-stay Effects in Intraurban Migration, *Environmental Planning A*, 9, pp. 1357-1374.
- Clark, W.A.V., 1978: Population Mobility and Residential Change, Evanston, Illinois.
- Clark, W.A.V. and Smith, T., R., 1979: Modelling Information Use in a Spatial Context, Ann. Ass. Am. Geogr. 69, pp. 575-88.
- Clausen, J.A., 1986: The Life Course: A Sociological Perspective. Englewood Cliffs, NJ: Prentice-Hall.
- Conway, D., 1985: Changing Perspectives on Squatter Settlements, Intraurban Mobility, and Constraints on Housing Choice of the Third World Urban Poor, Urban Geography, 6, pp. 170–192.
- Crowder, K. and South, S., J. and Chavez, E., 2006: Wealth, Race, and Inter-Neighborhood Migration, *American Sociological Review*, Vol. **71**, no. 1, pp. 72-94, Feb.
- **Elordui-Zapaterietxe, A.F. and Cladera, J.R.,** 2006: Residential mobility and Foreign Immigration Settlement in the Metropolitan Area of Barcelona. *Sixth European Urban and Regional Studies Conference,* University of Durham, UK, 21–24 September.
- **Esping-Andersen, C.,** 1990: The Three Worlds of Welfare Capitalism, Cambridge: Polity Press.
- Flowerdew, R., 1976: Search Strategies and Stopping Rules in Residential Mobility, *Trans. Inst. Br. Geogr.*, N.S. 1, pp. 47-57.
- Frey, W.H. and Kobrin, F.E., 1982: Changing Families and Changing Mobility: Their Impact on the Central City, *Demography*, **19**, pp. 261-277.
- Frisby, D., 2002: Georg Simmel, London: Routledge.
- Fuguitt, G.V. and Brown, D.L., 1990: Residential Preferences and Population Redistribution: 1972-1988. *Demography*, 27, pp. 589-600.
- Gbakeji, J.O. and Rilwani, M. L., 2009: Residents' Socio-economic Characteristics and the Residential Mobility Process in an Urban Space: The Example of the Warri Metropolis, Delta State, Nigeria, *Journal of Human Ecology*, 27(1), pp. 45-52.
- Gilbert, A. and Varley, A., 1990: Renting a Home in a Third World City: Choice or Constraint?, *International Journal of Urban and Regional Research*, 14, pp. 89–108.
- Gober, P., McHugh, K.E. and Reid. N., 1991: Household Instability, Residential Mobility, and Neighborhood Change, *Annals of the Association of American Geographers*, Vol. 81, no. 1, pp. 80-88.
- Goldstein, S., 1954: Repeated Migration as a Factor in High Mobility Rates, Am. Sociol. Rev., 19, 536-541.

- Güvenç, M., 1992: General Industrial Geography of Greater Istanbul Metropolitan Area: An Exploratory Analysis, in Development of Istanbul Metropolitan Area and Low Cost Housing, Eds. Tekeli, İ., Şenyapılı, T., Türel, A., Güvenç, M., Acar, E., Turkish Social Science Association, Municipality of Greater Istanbul, IULA-EME. Istanbul: pp. 112-160.
- **Güvenç, M. and Kirmanlıoğlu, H.,** 2009: Electoral Atlas of Turkey 1950-2009 Continuities and Changes in Turkey's Politics, İstanbul Bilgi University Press.
- Hanushek, E.A., and Quigley, J.M., 1978: An Explicit Model of Intra-Metropolitan Mobility, *Land Economics*, Vol. 54, no. 4, pp. 411-429 Published by: University of Wisconsin Press.
- Huang, Y. and Clark, W.A. V., 2002: Housing Tenure Choice in Transitional Urban China: A Multilevel Analysis, *Urban Studies*, **39**, pp. 7–32.
- Huff, J.O., and Clark, W.A. V., 1978: Cumulative Stress and Cumulative Inertia: A Behavioral Model of the Decision to Move, *Environmental Planning A*, 10, pp. 1101-1119.
- John, P., Dowding, K. And Biggs, S., 1995: Residential Mobility in London: A Micro-Level Test of the Behavioural Assumptions of the Tiebout Model, *British Journal of Political Science*, Vol. 25, no. 3, pp. 379-397.
- Johnston, R.J., 1971: Urban Residential Patterns: An Introductory Review (London).
- Johnston, R.J. 1973: Spatial Patterns in Suburban Evaluations, *Environmental Planning*, 5, pp. 385-395.
- Kährik, A. and Tiit, T., 2008: Population Composition in New Suburban Settlements of the Tallinn Metropolitan Area, *Urban Studies*, 45, 1055.
- Kan, K., 2007: Residential Mobility and Social Capital, Journal of Urban Economics, 61, pp. 436–457.
- Kasarda, J.D., 1988: Jobs, Migration, and Emerging Urban Mis- matches, in *Urban Change and Poverty*, Eds. McGeary M.G.H. and Lynn. L.E., Washington, DC: National Academy Press, pp. 148-198.
- Kim, J.H., 1994: Residential Mobility Intention by Tenure Type in Korea, *Journal* of Social Science, **4**, no. 2, pp. 1–22.
- Kim, J.H. and Pagliara, F. and Preston, J., 2005: The Intention to Move and Residential Location Choice Behaviour, *Urban Studies*, **42**, 1621.
- Klak, T. and Holtzclaw, M., 1993: The Housing, Geography, and Mobility of Latin American Urban Poor: The Prevailing Model and the Case of Quito, Ecuador, *Growth and Change*, 24, pp. 247–276.
- Knox, P. and Pinch, S., 2000: Urban Social Geography: An Introduction. Englewood Cliffs, NJ: Prentice-Hall.
- Knox, P., 1995: Urban Social Geography. An Introduction, 3rd edn. London: Longman.

- Lewis, G.J., 1982: Human Migration, New York: St. Martins Press (Geographical Perspective).
- Logan, J.R., and Alba., R.D., 1993: Locational Returns to Human Capital: Minority Access to Suburban Community Resources, *Demography*, **30**, 243-68.
- Long, L., 1988: Migration and Residential Mobility in the United States, New York: Russell Sage Foundation.
- Maloutas, T., 2004: Segregation and Residential Mobility: Spatially Entrapped Social Mobility and Its Impact on Segregation in Athens, *European Urban and Regional Studies*, **11**, 195.
- Mandić, S., 2001: Residential Mobility versus 'In-place' Adjustments in Slovenia: Viewpoint from a Society 'in Transition', *Housing Studies*, Vol. 16, no. 1, pp. 53–73.
- Margulis, H.L., 2001: Statistical Area Household Mobility, Housing Traits, Public Goods, and School Quality in Cleveland's Metropolitan, Urban Affairs Review.
- Massey, D., 1986: The Settlement Process among Mexican Migrants to the United States, *American Sociological Review*, **51**, pp. 670-684.
- Massey, D. and Espana, F.G., 1987: The Social Process of International Migration, *Science* 237, pp. 733-738.
- Mcdonald, J.F. and Bowman, H.W., 1976: Some Tests of Alternative Urban Population Density Functions, J. Urban Econ., 3, pp. 242-252.
- Miraftab, F., 1997: Revisiting Informal-sector Home Ownership: The Relevance of Household Composition for Housing Options of the Poor, International Journal of Urban and Regional Research, 21, pp. 303– 322.
- Módenes, J.A., 1998: Flujos Espaciales e Itinerarios Biograficos. La Movilidad Residencial en el Area de Barcelona, Universitat Autonoma de Barcelona.
- Moore, E.G., 1971: Comments on the Use of Ecological Models in the Study of Residential Mobility in the City, *Econ. Geogr.*, **47**, pp. 73-85.
- Moore, E.G., 1969: The Structure of Intra-urban Movement Rates: An Ecological Model, *Urban Studies*, **6**, pp. 17-33.
- Nelson, K.P., 1988: Gentrification and Distressed Cities: An Assess- ment of Trends in Intrametropolitan Migration, Madison, WI: University of Wisconsin Press.
- Nelson, K.P. and Edwards, J., G., 1993: Intra-Urban Mobility and Location Choice in the 1980s, in Housing Markets and Residential Mobility, Eds. Kingsley, G.T. and Turner, M.A., Washington, DC: Urban Institute Press, pp. 53-95.
- Öncü, A., 1997: The Myth of the 'Ideal Home' Travels Across Cultural Borders to Istanbul, in *Space, Culture and Power – New Identities in Globalizing Cities, Eds.* Öncü, A. and Weyland P., New York: Zed.

- Özbay, F., 1997: Migration and Intra-provincial Movements in Istanbul between 1985-1990, Boğaziçi Journal: Review of Social, Economic and Administrative Studies, Vol. 11, no. 1-2, pp. 115-150.
- Painter, G., 1997: Does Variation in Public Housing Waiting Lists Induce Intra-Urban Mobility?, *Journal of Housing Economics*, 6, 248–276.
- Park, R.E., 1957a: The City: Suggestions for the Investigation of Human Behaviour in the Urban Environment, in *Human Communities. The City and Human Ecology*, Eds. Park R.E., pp. 13–51. Glencoe, IL: The Free Press.
- Park, R.E., 1957b: The Urban Community as a Spatial Pattern and a Moral Order, in *Human Communities. The City and Human Ecology*, Eds. Park R.E., pp. 165–77. Glencoe, IL: The Free Press.
- **Pettit, B.,** 1999: Cultural Capital and Residential Mobility: A model of Impersistence in Place, Princeton University, Department of Sociology and Office of Population Research.
- **Portes, A. and Castells, M.,** 1989: World Underneath: The Origins, Dynamics, and Effects of the Informal Economy, in *The informal economy: Studies in advance and less developed countries*, Eds. Portes, A., Castells, M. and Benton, L., pp. 11-37, Baltimore, MD: Johns Hopkins University Press.
- Portes, A. and Shauffler, R., 1993: Competing Perspectives on the Latin American Informal Sector, *Population and Development Review*, **19**, pp. 33-60.
- Rossi, P.H., 1980: Why Families Move, 2nd edn (Beverly Hills, California)
- Schneider, M. and Phelan, T., 1993: Black Suburbanization in the 1980s, Demography, 30, pp. 269-79.
- Scott, A.J., 2001: Globalization and the Rise of City-regions, *European Planning Studies*, Vol. 9, no. 7, pp. 813-826.
- Selier, F. and Klare, I., 1991: Are Thresholds of Migrant-consolidation Changing? Family and Low-income Housing in Karachi, in *Karachi: Migrants, Housing and Housing Policy*, Eds. van der Linden, J. & Selier, F., Lahore, Pakistan: Vanguard.
- Short, J.R., 1978: Residential Mobility, Prog. Hum. Geogr., 2, pp. 419-47.
- South, S.J., and Crowder, K., D., 1997: Residential Mobility Between Cities and Suburbs: Race, Suburbanization, and Back-to-the-City Moves, *Demography*, Vol. 34, no. 4 pp. 525-538, Nov.
- Speare, A.Jr., 1974: Residential Satisfaction as an Intervening Variable in Residential Mobility, *Demography*, **11**, 173-188.
- Sudra, T., 1982: Mexican shanty towns: costs, benefits, and policy options, *Habitat International*, 6, pp. 189–196.
- Stapleton, C.M., 1980: Reformulation of the Family Life-cycle Concept: Implications for Residential Mobility, *Environment and Planning A*, 12, pp. 1103-1118.

- Tekeli, İ., 1992: Development of Urban Administration and Planning in the Formation of Istanbul Metropolitan Area" in Development of Istanbul Metropolitan Area and Low Cost Housing, Eds. Tekeli, İ., Şenyapılı, T., Türel, A., Güvenç, M., Acar, E., Turkish Social Science Association, Municipality of Greater Istanbul, IULA-EME. Istanbul: pp. 1-111.
- Turner, J.F.C., 1968: Housing Patterns, Settlement Patterns, and Urban Development in Modernizing Countries, *Journal of the American Planning Association*, 34, pp. 354–363.
- **Turner, J.,** 1991: The Structure of Sociological Theory, Belmont, CA, Wardsworth Publishing Company.
- United Nations Center for Human Settlements (UNCHS), 1982: Survey of Slum and Squatter Settlements, Dublin: Tycooly International Publishing Limited.
- Wu, F., 2004: Intraurban Residential Relocation in Shanghai: Modes and Stratification, *Environment and Planning A*, 36, pp. 7–25.
- Wu, W., 2006: Migrant Intra-urban Residential Mobility in Urban China, *Housing Studies*, Vol. 21, No. 5, pp. 745–765, September.

### CURRICULUM VITA



| Candidate's full name:   | Bürge Elvan Erginli  |
|--------------------------|--|
| Place and date of birth: | İzmir, 04.08.1985  |
| Universities attended:   | Istanbul Technical University, Faculty of Architecture,<br>Department of Urban and Regional Planning |