

## The Impact of Local Government Policies on Internal Migration: The Case of TR1 Region \*

Yerel Yönetim Politikalarının İç göçe Etkisi: TR1 Örneği

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### Abstract

This study, which has two interrelated sub-aims, examines the effect of local government policies on internal migration. The first is to find the answer to the question of ‘What is the effect of the components of local government policy on internal migration?’. The second is to create a policy package on internal migration management by obtaining insights based on primary data. In this context, the main aim of this study is to reveal the effect of local government policies on residents’ intent to migrate by examining the residents who desire to migrate in Turkey. The primary data are obtained by surveys from residents in the region with the highest in- and out-migration (TR1 region). The impact of local government policies on migration potential was estimated by using discrete choice models with primary data. The findings show that the local government’s planning and settlement policies, social security policies, and security policies have the greatest impact on the migration decision. These findings imply that local governments should focus on basic human needs while creating expenditure components within the scope of optimal population size in urban area.

**Keywords:** Internal Migration, Internal Migration Management, Local Government, TR 1 Region, Probit, Logit

### Öz

Birbiriyle ilişkili iki alt amacı olan bu çalışma, yerel yönetim politikalarının iç göç üzerindeki etkisini incelemektedir. Bu amaçlardan ilki, ‘Yerel yönetim politikası bileşenlerinin iç göçe etkisi nedir?’ sorusunun cevabını bulmaktır. İkincisi ise, birincil verilere dayalı iç görümler elde ederek iç göç yönetimine ilişkin bir politika paketi oluşturmaktır. Bu bağlamda temel amaç, Türkiye’de göç etme niyeti/planı/isteği olan bireyleri inceleyerek; yerel yönetim politikalarının bölge sakinlerinin göç niyeti üzerindeki etkisini ortaya koymaktır. Birincil veriler, iç ve dış göçün en yüksek olduğu bölgede (TR1 bölgesi) yaşayanlar ile yapılan anketlerle elde edilmiştir. Yerel yönetim politikalarının göç potansiyeli üzerindeki etkisi kesikli seçim modelleri kullanılarak tahmin edilmiştir. Bulgular, yerel yönetimlerin iskân politikalarının, sosyal güvenlik politikalarının ve güvenlik politikalarının göç kararında en fazla etkiye sahip politikalar olduğunu göstermektedir. Bu bulgular, yerel yönetimlerin kentsel alanda optimal nüfus büyüklüğü kapsamında harcama bileşenleri oluştururken temel insani ihtiyaçlara odaklanması gerektiğine işaret etmektedir.

**Anahtar Kelimeler:** İç göç, İç Göç Yönetimi, Yerel Yönetimler, TR 1 bölgesi, Probit, Logit

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## Introduction

Internal migration is the movement of people within the borders of a country resulting in a new residence regardless of duration, structure or cause (IOM, 2015). Since 2008, the migrating population in Turkey has been between 3% and 3.5% (TurkSTAT, 2018). This indicator means that a population of approximately 2.25 million moved every year in the last 10 years in Turkey. Compared to other countries in the world, Turkey's rate of internal migration is quite high with respect to its population (Bell & Charles-Edwards, 2014: 8; Özbay, 2017). The internal migration in Turkey can be analyzed in four periods. The first period is the first phase of the spatial distribution of the population in the geography of the country, which started with the foundation of the republic and lasted until between 1945 and the 1950s. Between 1927 and 1945, the distribution of the population between provinces-districts and towns-villages followed a stable course, and approximately 70% of the population lived in rural areas. The second period is from between 1945 and the 1950s to the 1980s, when import substitution policies were adopted economically. This period constitutes the second period in which rural-urban migration started, reached its highest level and then slowed down (Akşit, 1998: 25). In this period of the Republic, uncontrolled migration was tolerated for some economic goals, and these influxes caused both social and economic problems in the following periods (Tekeli, 2008: 189). The third period is from the 1980s until 2008. After 1985, the phenomenon of rural-urban migration slowed down compared to the period before 1985, and the process of urban-urban migration showed a significant increase. According to TurkStat data, approximately 50% of the population that migrated between 1975 and 2000 migrated from urban to urban area (TurkStat, 2018)<sup>1</sup>. The main reason for this is that migration turned into urban-urban migration after the urbanization process began in the country, as is the case in the world (Tekeli, 2008:43-44). The last period is the period after 2008 until today (Özer, 2012:55-56). After 2008, with the introduction of the address-based population registration system in Turkey, the rural-urban distribution and the spatial distribution of the population can be monitored more accurately.

This study aims to describe the effect of local government policy components on internal migration and to develop a policy package on internal migration. Since 2008, the rate of internal migration compared to the population of Turkey has been quite high. In this context, to reveal the effect of local government policies directly on residents, a survey has been conducted for residents with the intention of migrating. In this field study, residents were classified according to their intentions to migrate. In this sense, the study differs from other studies in the literature in that the policy basket is formed by obtaining feedback on public services from residents with migration intentions.

The paper proceeds as follows: The next section presents a literature review on the relationship between internal migration and local government policies consisting of a theoretical framework and the impact of local government on internal migration. The third section provides policy implementation in Turkey. The fourth section includes details about the methodology and data used in the paper. In the following sections, we present the findings. The paper ends with a discussion, policy implications, and suggestions for further research.

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1 In TURKSTAT migration statistics, urban-to-urban migration includes migration from provincial center to district center, from district center to provincial center, from district center to district center, and from provincial center to provincial center.

## **The Relationship between Internal Migration and Local Government Policies Theoretical Framework**

Internal migration management is one of the issues that prompts public authorities to develop policies. Current experiences and studies show that globally, policies regarding internal migration management are mostly developed and implemented by local governments. Studies show that internal migration policies implemented by local governments are more effective than those implemented by central governments (ECLAC, 2008: 230; Afsar, 2003: 10; Ecevit, 1997: 501).

Migration arises from the fact that individuals attribute different meanings to different factors between provinces/regions/geographies. Buchanan, a prominent public choice theorist, argues that differences in economic systems lead to migration and that the difference between regions stems from qualified labor and capital not being equally available in every region. The outward migration of relatively abundant resources and the inward migration of relatively scarce resources is expected to reduce the differences between regions (Buchanan, 1952, s. 209). Thus, subsequent market disruptions can be prevented, and efficiency can be ensured. This distribution is made possible by the differentiation of taxes and expenditure policies by local governments, that is, by providing services tailored to regions. Trying to determine the extent of the state, the public choice school aimed to find the optimum distribution of public goods, thus public expenditures and revenues, in order to determine policies related to immigration (Maddox, 1960). Local governments not only develop policies to “adapt” to the preferences of their voters (consumers) but they must also put forward policies appropriate to the preferences of the optimum number of households (Tiebout, 1956: 420). This situation, which is referred to as the *Tiebout effect* in the literature, is the tendency of individuals to migrate to regions governed by the public income and expenditure structure, where they benefit the most with the least payment. According to Tullock, individuals can consume public goods by residing in the region most compatible with their preferences, and public revenues/taxes are more effective than expenditure policies in the immigration decision (Cebula, 1978: 705). Cebula, who has proven both models empirically, states at the end of the analysis that the welfare system may not end the effects of migration and that real benefit standardization will be needed to end such migration effects (Cebula, 1978: 710). Given that the decision to migrate is a cost-benefit relationship, the relationship between private and social costs and benefits depends on market structure, resource mobility, and the policies of state and local governments (Sjaastad, 1962: 93).

### **The Impact of Local Government Policies on Internal Migration**

While studies on the relationship between public expenditures and internal migration first focused on unemployment, wages, and economic differences between geographical units, later studies dealt with other factors such as education, health, and the environment. Studies carried out in countries other than Turkey have focused more on public policies carried out by local governments, whereas in Turkey, studies in this area have been limited due to data limitations on local governments.

In the analyses made for Canada for the period between 1974 and 1996, Day & Winer (2006) proved the effect of unemployment on internal migration and revealed that it

was not more effective than other factors. The authors also noted that in the long run, it was impossible to eliminate wage differences between regions due to migration (Day & Winer, 2006: 560). In addition, some studies have put forward limited findings that interregional inequalities would disappear with internal migration (Borozan, 2015: 20). Another study conducted in Croatia between 2000 and 2011 focused on the relationship between internal migration, the elimination of regional differences, and growth. The study revealed that although the effect of migration on growth was positive and consistent with theory, migration was mainly related to the characteristics and behaviors of immigrants. In another study that explored the relationship between internal migration and internal migration policies in Tanzania, it was revealed that gender, wage differences, educational background, marital status, and age were key factors affecting internal migration. The most important finding of the study was the emphasis on the regulation of immigration with policies for nonimmigrants, not for immigrants (Msigwa & Bwana, 2014: 44). The literature is abundant with such studies, the common output of which is that national policies on internal migration are affected by social and economic factors. (Cebula, 2005: 267).

Cebula and Nair-Reichert (2012) tested the direct Tiebout effect in the USA. The authors found that the differences in the income tax burden, low property tax, and public education at the primary and middle levels, besides the economic factors within the scope of public policies, were effective on internal migration. Due to the federal government structure of the USA, many studies examine the relationship between the differences in public revenues and expenditures and immigration (Cebula, 1978). Studies have also investigated whether the migration flows in the countryside were affected by tax and expenditure policies in Canada (Day M. K., 1992). The hypothesis tested by developing a migration model in which individuals choose to live in the region where their own benefits would be highest was estimated using the least squares method for the period 1962-1981. The model proved that income tax rates, transfer payments, and average unemployment insurance premiums at the provincial level had a significant impact on migration. The results showed that immigration could be affected by state spending. However, the size and direction of the effect varies according to the type of expenditure (Day M. K., 1992:123). These studies show that if local governments are authorized, they can effectively regulate the spatial distribution of the population in their areas of responsibility.

### **The Impact of Local Government Policies on Internal Migration in Turkey**

There are many empirical analyses of internal migration in Turkey as well. These studies differ at the provincial and regional levels and can be divided into analyses of push and pull factors and determinants of internal migration. The studies commonly question how internal migration correlates to variables such as employment, unemployment, public expenditures, the number of terrorist incidents, private/public hospital beds, convicts, and private/public classrooms.

One of the most comprehensive internal migration studies mostly referenced in the literature is the “Turkey Migration and Internally Displaced Persons Survey” conducted by the Hacettepe University Institute of Population Studies in 2006. In the empirical

part of the research covering the years 2004 – 2006, 6,000 households were surveyed, and comprehensive data, especially on forced migration, were collected. The research also presented policy recommendations, such as ‘Removal of Barriers to Return’ and ‘Integration of Those Who Do Not Want to Return,’ for the problems that arise in the implementation of the ‘Return to Village and Rehabilitation Project and Compensation Law (Act.5233)’ (Hacettepe Üniversitesi Nüfus Etütleri Enstitüsü, 2006).

The first group of studies on migration in Turkey aimed to identify push and pull factors based on differences between provinces or regions. Munro (1974) was one of the first to investigate push and pull factors. A study investigating push and pull factors of internal migration in Turkey for the period between 1968 and 1972 concluded that push factors were used as a development strategy for the period in question (Munro, 1974). Later, Gedik (1997) examined internal migration for the period between 1965 and 1985 in terms of push and pull factors and reported that push factors had a significant effect on migration from village to city. Country-specific macro factors and sociopsychological factors also affected different types of migration, however the distance factor did not, as expected in theory. On the contrary, the distance factors effect was lower. Çelik (2006), in his study covering the years 1990-2000, concluded that in addition to driving factors such as mechanization in agriculture, lack of soil, and security problems; attractive factors such as employment opportunities, education, and health services and the effect of relatives in the city were effective on internal migration.

Pazarlioglu (2007), on the other hand, found that push and pull factors differed depending on the settlement area of the individuals in İzmir. Another comprehensive study dealing with push and pull factors was carried out by Doğan (2010), who sought to explore the factors causing internal migration in Turkey for the 1980-2000 period. Based on fixed effects panel estimation results, the author determined that the main factors were health services, agricultural and industrial employment rates, public investments, and the degree of agricultural mechanization. Push and pull factors were also researched with a focus on the relationship between neighboring provinces and exit-arrival provinces. In his analysis of spatial econometrics, Abar (2011) found that the education and income levels of provinces were effective in migration in 2009 (Abar, 2011). Another study conducted in 2011 found a positive spatial autocorrelation in Turkey and concluded that agricultural lands and crime rates had a negative effect, while education levels, wealth, industry, tourism, and trade had a positive effect on internal migration (Anavatan, 2017).

The second group of studies on the factors affecting migration in Turkey generally focuses on the gravity model and the determinants of migration. The studies were carried out at the provincial level, sometimes covering whole regions and sometimes only certain provinces. In studies where regional differences were analyzed, regression models were generally employed. Those covering the Marmara region concluded that the security and economic characteristics of the region affected the direction of internal migration (Yakar, 2013; Gezeici & Keskin, 2005; Bülbül & Köse, 2010; Evcil, Dökmeci, & Gülay, 2006; Çatalbaş & Yazar, 2015).

The studies using the gravity model tested the correlations among age, occupation, education, income differences, unemployment rate, security, kinship, etc., to explore the push and pull factors. The studies concluded that in addition to economic factors, social

factors such as social networks, schooling rate, and the number of hospitals were also effective (Filiztekin & Gökhan, 2008; Gökhan, 2008; Filiz, 2008). Bindak (2015:118) calculated the attraction coefficient for the provinces, tested it with the gravity model, and investigated the effects of the attraction coefficient on a provincial basis, as well as the population and distance variables.

There are studies in the literature that test whether different variables are effective in internal migration. The relationships between variables in Turkey were tested with different methods and with a focus on different time intervals from 1985 to 2005. Some studies in Turkey prove that as the GDP per capita increases at the provincial level covering the years 1985-1990, internal migration increases. Some studies also found that unemployment was one of the determinants of migration (Güleç, 2009; Kocaman, 1998: p. 80). The study carried out by Dökmeci & Korkmaz (2007: 31) covering the years between 1995 and 2000 found that the increase in the number of workers in the industry and services sector affected interprovincial migration positively. However, the study also reported that no consistent relationship was found between per capita income and migration. In the analysis performed by Topbaş (2007) for the 2000 census at the provincial level using the least squares method, it was determined that the main determinants of internal migration were public investments, migration stock, distance, and unemployment. The analysis also showed that income and wage variables did not statistically significantly differ between provinces. Another study concluded that among the components of the GDP of provinces, the type of local services with the highest level of sensitivity of immigrants is public services (Çiftçi & Şengezer, 2017, p. 146). As a result of the analyses made in many studies throughout Turkey, it has been determined that the variables of public investments, unemployment, per capita income, and migration stock are the main determinants of internal migration movements. Wandering & Sharp (2005), however, explored the relationship between regional inequalities and migration for the period between 1985 and 2000 and stated that the effect of social factors, such as public investments, the number of higher education institutions, literacy rates, and the number of doctors, on internal migration was insignificant. However, in a study on investment incentives covering the years 2001-2015, descriptive statistics revealed that although the number of investment incentives increased every year for the TR33 region, they could not prevent migration in the region (Dayar & Sandalcı, 2016). In another study using provincial-level TurkStat data as determinants of internal migration, the internal migration rate was estimated for the years between 2008 and 2015. It was concluded that internal migration rates were affected by divorce, literacy, and suicide rates (Yüksel, Eroğlu, & Özsarı, 2016).

Another variable found to be effective in internal migration in recent years is immigrants' connections in receiving regions. The presence of a previous acquaintance or relative in the receiving city greatly increases the probability of choosing the city (Çiftçi & Şengezer, 2017: 146; Ercilasun, Gencer, & Ersin, 2011:323).

There are also studies in the literature that conclude that social factors are more effective than economic factors such as income and unemployment. These results show that although employment differences between provinces and regions are a determining variable for migration, the effect of per capita income becomes ambiguous. Furthermore,



people who migrate within Turkey prefer to migrate not only for their own welfare but also to enable future generations to enjoy advanced opportunities. Therefore, not every study found a consistent relationship between per capita income and migration.

Finally, studies on migration management in Turkey must be mentioned. Çelik and Murat's paper (2014) on internal migration management emphasizes the necessity of managing internal migration and the need to handle internal migration management from a strategic management perspective. The study also introduces the concept of strategic internal migration management into the relevant literature. Dulkadir (2010), however, aimed to reveal the feasibility of future predictions with Markov Chains models regarding internal migration management. With the internal migration data obtained from the general population censuses conducted between 1980 and 2000, the current situation was explained and the future evolution was estimated in the study. Also, the study concluded that while the Marmara and Central Anatolia regions would continue to receive immigrants, the Southeastern Anatolia and East Anatolia regions would receive the least immigration. These studies are important in that they are interdisciplinary studies that question the operability of management theories in migration management and offer solutions to policymakers.

### **Internal Migration and Local Government Policy Implementation**

Every migration movement has its own dynamics and story, so it should be evaluated with a focus on specific geographical conditions and reasons. This is because it is impossible to determine a general policy without knowing the governing elements (Ecevit, 1997: 501). While 60% of those living in sample rural areas considered migrating to urban areas in 2000, more than half of those who considered migrating declared that they would prefer to live in villages if the opportunities in rural and urban areas were equalized (Kurt, 2006).

In studies carried out in developing countries on the relationship between internal migration and local governments, the results focus mainly on the effectiveness of local governments. A study conducted in Bangladesh emphasized that key decision-making authorities should be politically decentralized to provide infrastructure and communication, improve transportation efficiency and safety, and ensure that basic social services are provided to a good standard in small and medium-sized cities (Afsar, 2003: 10). In some regions where the population density has decreased rapidly in recent years, local governments can sometimes resort to direct payment policies. These policies are usually implemented when the population of a small and medium-sized city drops to a level where the division of labor required by living in a city cannot be realized.

In Turkey, local governments' internal migration policies are generally defined as a 'social municipality.' Municipal activities, which are evaluated within the scope of a social municipality, are directly related to internal migration. The vast majority of 1,391 municipalities in Turkey carry out activities for social infrastructure, such as free language education, home health care, family health centers, vocational training courses, technical training courses, cultural and artistic centers, theaters, and disability services. In addition to these services, various projects are implemented with the support of national or international organizations. Both social services and national/international projects

greatly impact migration due to their contribution to education and employment, which are the two main causes of migration in Turkey (Karal Önder, 2018). Furthermore, social services make great contributions to the social integration of migrating people.

From time to time, central governments in Turkey carry out locally coordinated projects. The most striking of these projects is the “Multi-Purpose Community Centers” (ÇATOMs) established in 1995 as part of the Southeastern Anatolia Project (GAP). The most important reason why we consider ÇATOMs in this context is their management principle, which stipulates that they are managed by the ÇATOM Boards elected by participants (GAP ÇATOM, 2018). In other words, they are managed by local partners who know the dynamics of the local community and can provide the right services for the community, with the support of national and international institutions, which is the main reason for their success. In addition to this successful example, there are also projects carried out under the coordination of central governments, such as KÖYDES to support the infrastructure of villages, SUKAP to provide financial support for drinking water and sewerage projects of municipalities, and BELDES to meet the infrastructure needs of municipalities (İçişleri Bakanlığı, 2017; Kalkınma Bakanlığı, 2007; Kalkınma Bakanlığı, 2017:23). Nearly 1,000 practices have been completed within the scope of these projects (İLBANK, 2018).

Another important point about local governments and migration policies in Turkey is that migration is not taken into account when determining local governments’ budgets. This is one of the main causes of resource shortages in regions receiving heavy migration, which gets worse with seasonal migration. For example, in the most popular tourist destinations, such as Bodrum, there are significant differences between the summer and winter populations, so services are provided effectively in the winter, while disruptions may arise in the summer. Also, shuttle migration is frequently observed in Turkey, so this type of migration should not be ignored when transferring resources to local governments. Hence, since Turkey is a country of internal migration, migration needs to be managed through long-term migration management practices to be developed by central governments taking into account local and national factors rather than prioritizing economic goals, which hinders the effective implementation of policies.

### **Methodology**

In the study, the effect of local government policies on internal migration was examined using discrete choice models (Probit and/or Logit). The primary data used in the analysis was obtained through a field study (survey) conducted with TR1 residents. According to the Statistical Regional Unit Classification, the TR1 Istanbul region is the most popular region for migrants in Turkey (TurkStat, 2018). Ethical approval was obtained from the Ethics Committee of Anadolu University

University (Date: 27.11.2019, Decision No: 27/33) before the commencement of the data collection. Informed consent form was obtained from the participants for the study.

Probit/Logit probability models are used in qualitative response regression estimations where the dependent variable is dichotomous and takes the value 1 if an attribute is present and 0 if it is absent (Gujarati, 2015:246; Greene, 1997; Madalla, 1983). In the



literature, probability models with qualitative variables are frequently used in migration studies (K. Reddy Sai Sravanth & N. Sundaram, 2023; Tam & Grimes, 2023, Gavonel, 2023; Howard. & Shao, 2022). In Probit and/or Logit models, the dependent variable will be 1 if the person has the intention/plan/will to migrate, and 0 if otherwise. The difference between the two models is mainly due to the difference in the distribution of the error term. In the Logit model, the error term is assumed to have a logistic distribution, while in the Probit model, it is assumed to have a normal distribution (Greene, 1997). In general, discrete choice models are modeled as follows, with  $y$  being the dependent variable and  $x$  being the vector of independent variables (Madalla, 1983):

$$y_i^* = \beta'x_i + \varepsilon_i \quad (1)$$

$$y = 1 \text{ if intention/plan/will to migrate } y = 0 \text{ if otherwise}$$

The possibility that a person with an intention/plan/will to migrate will migrate is affected by local government policies, according to the functional classification. In the literature, potential determinants of internal migration are schooling rates, the number of hospital beds, the number of prisoners, tax revenues collected, investment incentives, local government budgets, electricity capacity, labor force participation rates, and the number of public hospitals. This study uses the functional classification of local public expenditures as explanatory variables for internal migration potential. Two different sets of explanatory variables obtained from primary data will be used in the model: individual-specific characteristics and views on local government services. The specification errors in such estimations ignore the relationship between independent variables (Gujarati & Porter, 2009: 470). Interaction among variables may cause a biasing effect due to the multiplicative effect (Güneri & Durmuş, 2020: Gujarati & Porter, 2009: 470). This effect is a specification problem that arises when independent variables affect the dependent variable individually and multiplicatively. Policies can affect migration intention both alone and through a multiplier effect. For this reason, the local government services variables were added to the model one by one in the estimation of the estimation of the probability model, as seen in Equation 2.

$$im_i = \beta_0 + \beta_1sex_i + \beta_2education_i + \beta_3employment_i + \beta_4lincome_i + \beta_5age_i + \left\{ \begin{array}{l} \beta_6poss_i \\ \beta_7public\_eco_i \\ \beta_8environment_i \\ \beta_9settlement_i \\ \beta_{10}health_i \\ \beta_{11}culture_i \\ \beta_{12}public\_edu_i \\ \beta_{13}ssps_i \\ \beta_{14}gps_i \\ \beta_{15}defence_i \end{array} \right\} \quad (2)$$

In the model above,  $im_i$  is the dependent variable expressing the intention to migrate by taking the value “1” if the participant has an intention to migrate, and “0” if not. As stated above, independent variables were collected in two groups. The independent variables showing the demographic characteristics of the first group are as follows, respectively:  $sex_i$  indicates the gender of the participant<sup>2</sup>, “1” for women.  $education_i$

2 This variable is based on the education period (years spent on education), “2” for primary school dropouts, “4” for primary school graduates, “8” for secondary school graduates, “12” for high school graduates, “14” for associate degree holders, and “14” for undergraduates, “16” for graduates, “18” for a master’s degree holders, and “22” for PhD holders.

indicates the education level of the participant. The  $employment_i$  is the employment status of the participants and takes the value “1” if the participant is employed and “0” if not.  $lnincome_i$  is the logarithm of the income declared by the participants.  $age_i$  is the age of the individuals. The second group of independent variables was generated based on the functional classification of local government expenditures and represented as follows:

·  $poss_i$  is the activities of the functional classification under the title of “Public Order and Security Services”;

·  $public\_eco_i$  is the variable representing the activities of the functional classification under the title of “Activities related to Economic Affairs”;

·  $environment_i$  is for the activities of the functional classification under the title of “Environmental Protection Services”;

·  $settlement_i$  is the activities of the functional classification under the title of “Settlement and Community Welfare Services”;

·  $health_i$  is the activities of the functional classification under the title of “Health Services”;

·  $culture_i$  is the activities of the functional classification under the title of “Resting, Culture and Religious Services”;

·  $public\_edu_i$  is the activities of the functional classification under the title of “Educational Services”;

·  $ssps_i$  is the activities of the functional classification under the title of “Social Security and Social Assistance Services”;

·  $gps_i$  is the activities of the functional classification under the title of “General Public Services”; and

·  $defence_i$  is the activities of the functional classification under the title of “Defense Services”.

During the field studies, the statements regarding the services in the second-level codes of the budget functional classification were simplified and directed at the participants, and they were asked to express their opinions about the services as “positive,” “negative,” or “I have no idea.” A positive expression means satisfaction with the service, a negative expression means dissatisfaction with the service, and the expression “I have no idea” means that they have not experienced the service before. An index was calculated from the participants’ opinions on local government services and included in the model. The index for each functional expenditure item was calculated as 1 for “positive” responses, 0 for “negative” responses, and no value for “I have no idea”, and it was calculated by taking the arithmetic mean for 10 main functional classification items separately and including them in the model.

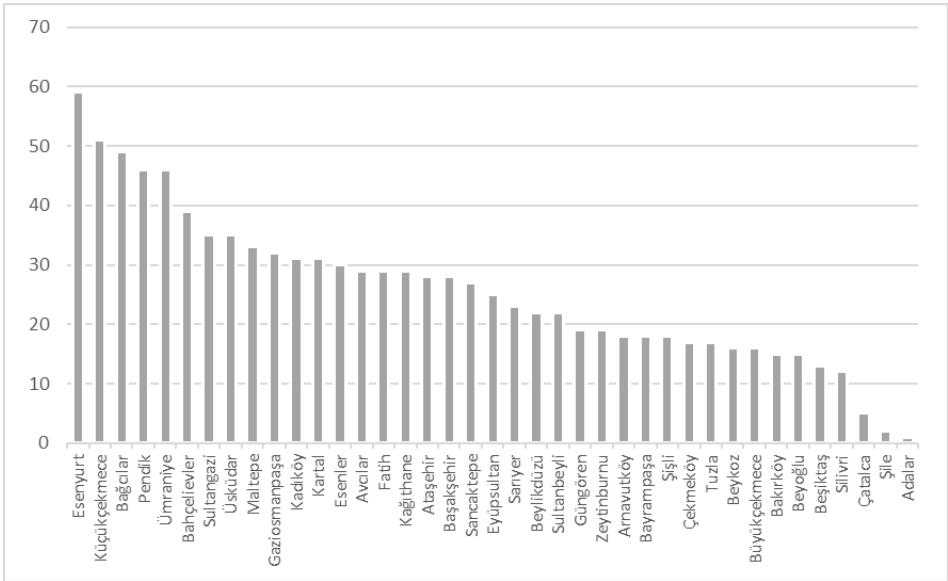
### **Data and Descriptive Statistics**

Between 2008 and 2019, the share of local government expenditures in GDP in Turkey followed a stable course between 3% and 4.5% (TurkSTAT, 2018). Likewise, the share of local government expenditures in general government expenditures also followed a stable

course between 10% and 12% (TurkSTAT, 2018). These indicators can be interpreted in two ways: First, in the last 10 years, no policy has been implemented in Turkey on the sharing of authority and resources between the central government and local governments, and the current situation has been preserved. During this period, some policy documents, such as Development Plans and Special Specialization Commission Reports, set policy targets for resource allocation by transferring authority to local governments, which have remained unrealized. The second is that when we interpret both variables simultaneously, the increase and decrease in the share of local government expenditures are directly caused by GDP.

*1.1. Descriptive Statistics of TR1 Region*

The primary data used in this study was obtained from a survey conducted in Istanbul in March 2020. The sample was designed by non-random quota sampling and by considering the district population distribution of Istanbul in 2019. Likewise, to reflect the whole Istanbul population, gender and age constraints were determined by randomly stratified sampling. Within the framework of these constraints, 1,000 people participated in the field survey. The distribution sample by districts is shown in Figure 1.



**Figure 1.** District distribution of observations.  
**Source:** The primary data collected by the authors.

Of the respondents, 58% were female and 42% male. 33% were in the age range of 25-35, 29% 15-25, 28% 36-49, and 10% over 50. Furthermore, 55% were married and 40% single. 45% were university graduates, 23% high school graduates, 14% vocational school/college graduates, and 13% postgraduates. According to the results of the field study, although it is controversial whether or not the level of education is compatible with the general distribution, conducting the survey online caused the levels of education of the participants to converge at a certain point. It is normal for the fieldwork to be

randomly distributed since there was no constraint on this subject at the beginning of the study.

One of the important reasons for migration is the employment status of people. When we examine the participants' employment status, a significant proportion (60%) were employed, while 15% were unemployed. Furthermore, 15% of the participants were students, 7% housewives, and 3% retirees.

Considering the employment data, 63% of the participants earned an income from current or past employment, while 37% did not. In studies conducted in Turkey, employment appears to be the second main reason for migration in general.

When the participants' professions according to the ISCO 08 occupational classification are examined, it is seen that 40% had a professional occupation, 24% worked in jobs that do not require qualifications, 11% were managers, and 10% technicians or assistant professionals.

The participants' income levels are as important as their employment status. The employment data show that 63% of the participants had a regular income. However, regarding the participants' monthly income, nearly half (42%) had a monthly income between 2,000 and 4,999 TL<sup>3</sup>. This group was followed by 27% of participants with a monthly income between 5,000 and 9,999 TL. 19% of the participants stated that they had a monthly income between 0 and 1,999 TL. The rate of participants whose monthly income was between 10,000 and 14,999 TL was 7%, and the rate of participants with a monthly income of more than 15,000 TL was 5%. The number of participants whose monthly income was close to 0 TL was only 19%. The reason for this stems from the passive income that people get from family members, scholarships, uninsured/daily/flexible/short-term work, or investments such as real estate, without being employed.

The descriptive statistics on internal migration are given in Appx-Table 1. One of the most critical questions regarding immigration is whether the participants migrated before. Studies in the literature reported that people who migrated once can make migration decisions more easily. The descriptive statistics show that more than 50% of the participants experienced migration before (see Table 1). When causes of migration are examined, it is seen that continuing education (27%) takes the first place. What followed were better job opportunities and working conditions (18%), students who have completed school, migrated to a new place or returned to their hometowns (11%), a new job offer/appointment, or compulsory service (8%). The rate of those who migrated due to marriage and those who migrated to increase their living standards and enjoy the opportunities provided by the city was 8%. This result is in perfect harmony with other studies on the causes of migration in Turkey. The information and experience sources regarding the migration location provides us with critical information about the migration process of the migrating participants. 24% of the participants stated that they migrated to the city where their family, relatives, or friends live, 25% to a city they had visited before, and 25% to a city where they had lived before. 4% of the participants stated that they obtained information about their new city from the media. 68% of the respondents stated that they had an acquaintance, relative, or friend living in the receiving city. The

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3 The minimum wage was 2,050 TL in Turkey when the survey was conducted.

probability of starting the migration process without information was very low. Similarly, very few people decided to migrate without a social connection in the receiving city. Another descriptive question asked respondents whether they experienced the migration process alone. It is known that family migration occupies a large place among immigrants in Turkey, as pointed out in many studies presented in the literature review (TurkSTAT, 201; Gökhan, 2008). 63% of the participants declared that they had migrated alone. These data contradict Turkey's general migration path. Finally, concerning the question about the intention to migrate, 56% of the respondents stated that they did not intend to migrate from their current cities, while 44% stated that they intended to migrate to another place. Another point that should be mentioned about this question is the similarity between migration experience and migration intention. While the rate of those who migrated at least once before was 53%, the rate of those who intend to migrate again was 43%. Furthermore, the rate of those who answered yes to both questions was 26%.

### Estimation Results and Findings

The estimation results of the Probit and Logit models are presented in Tables 2 and 3, respectively.

Table 2

*The Effect of Public Expenditures on Internal Migration (Probit Model)*

Variables	Basic M.	Poss M.	Public_eco M.	Environment M.	Settlement M.
Sex	<b>-0.208+</b> (-0.106)	-0,185 (-0.123)	<b>-0.201+</b> (-0.108)	<b>-0.198*</b> (-0.101)	<b>-0.188+</b> (-0.1)
Education	<b>0.043*</b> (-0.021)	<b>0.041*</b> (-0.02)	<b>0.042*</b> (-0.021)	<b>0.045*</b> (-0.019)	<b>0.040*</b> (-0.02)
Employment	<b>-0.069+</b> (-0.038)	-0,068 (-0.046)	<b>-0.097**</b> (-0.035)	<b>-0.090*</b> (-0.044)	<b>-0.084+</b> (-0.045)
Lincome	0.057 (-0.061)	0.027 (-0.066)	0.046 (-0.071)	0.054 (-0.07)	0.052 (-0.067)
Lage	-0.005 (-0.004)	-0.004 (-0.003)	-0.004 (-0.004)	-0.005 (-0.004)	-0.005 (-0.004)
Poss		<b>-0.492**</b> (-0.11)			
Public_eco			<b>-0.321**</b> (-0.077)		
Environment				<b>-0.422**</b> (-0.133)	
Settlement					<b>-0.578**</b> (-0.138)
Constant	-0.899* (-0.447)	-0.344 (-0.551)	-0.638 (-0.544)	-0.651 (-0.55)	-0.499 (-0.546)
Observation	922	839	909	914	912
LR chi2(6)	36.68	220.4	68.45	162.3	489.1
Prob > chi2	0,00	0	0	0	0
Pseudo R2:	0.014	0.0268	0.02	0.0232	0.0311

Robust standard errors in parentheses

\*\* p<0.01, \* p<0.05, + p<0.1

Table 2  
*The Effect of Public Expenditures on Internal Migration (Probit Model) (countinue)*

Variables	Health M.	Culture M.	Public_edu M.	SSPS M.	GPS M.	Defence M.
Sex	<b>-0.319**</b> (-0.116)	<b>-0.191+</b> (-0.109)	-0.176 (-0.122)	<b>-0.223**</b> (-0.074)	<b>-0.205+</b> (-0.122)	-0.159 (-0.173)
Education	<b>0.047+</b> (-0.025)	<b>0.042+</b> (-0.023)	<b>0.035+</b> (-0.019)	<b>0.033+</b> (-0.02)	<b>0.040+</b> (-0.022)	<b>0.038+</b> (-0.02)
Employment	-0.047 (-0.05)	<b>-0.093+</b> (-0.049)	<b>-0.093+</b> (-0.05)	-0.088 (-0.055)	-0.054 (-0.064)	<b>-0.085*</b> (-0.042)
Lincome	-0.03 (-0.058)	0.051 (-0.072)	0.053 (-0.062)	0.064 (-0.098)	0.072 (-0.064)	-0.012 (-0.111)
Lage	<b>-0.006+</b> (-0.003)	-0.004 (-0.003)	-0.002 (-0.003)	-0.003 (-0.005)	-0.004 (-0.004)	0.003 (-0.003)
Health	<b>-0.308**</b> (-0.116)					
Culture		<b>-0.429**</b> (-0.067)				
Public_edu			<b>-0.309*</b> (-0.125)			
SSPS				<b>-0.448**</b> (-0.072)		
GPS					<b>-0.248*</b> (-0.1)	
Defence						<b>-0.350**</b> (-0.131)
Constant	-0.005 (-0.397)	-0.566 (-0.574)	-0.657 (-0.568)	-0.61 (-0.708)	-0.878+ (-0.514)	-0.266 (-1.004)
Observation	695	891	840	725	859	600
LR chi2(6)	280.7	133.4	70.56	299.8	815.7	97.7
Prob > chi2	0	0	0	0	0	0
Pseudo R2:	0.0279	0.0267	0.0178	0.03	0.0203	0.0241

Robust standard errors in parentheses

\*\* p<0.01, \* p<0.05, + p<0.1

According to the results, men are more likely to migrate. Also, the higher the education level, the higher the probability of migration. In both estimated models, the education level appears as the most critical variable that is likely to affect the migration plan.

Another critical indicator of the descriptive characteristics of participants is their employment status. As expected, being employed reduces the probability of migration. The estimation results of the Probit and Logit models revealed that the effects of income and age variables on the intention to migrate were not significant. Surprisingly, the variables of income and age did not affect the intention to migrate.

The second part of the estimation results shows the effect of direct local government expenditures on the migration decision. The participants' opinions for each functional expenditure item were included in the models separately to avoid the multiplicative effect. According to both the Probit and Logit model estimations, as residents' satisfaction with the services provided by the local government increased, their intention to migrate decreased. There is only one exception to this inference. When the Logit model estimation



results are examined, it is seen that the model estimated for the public order and security service is insignificant.

Table 3

*The Effect of Functional Classification of Public Expenditures on Internal Migration (Logit Model)*

Variables	Basic M.	Poss M.	Public_eco M.	Environment M.	Settlement M.
Sex	<b>-0.335+</b>	-0.298	<b>-0.324+</b>	<b>-0.320+</b>	<b>-0.305+</b>
	(-0.173)	-0.199	(-0.174)	(-0.163)	(-0.161)
Education	<b>0.072*</b>	<b>0.066*</b>	<b>0.069*</b>	<b>0.075*</b>	<b>0.066*</b>
	(-0.035)	-0.033	(-0.035)	(-0.032)	(-0.033)
Employment	<b>-0.116+</b>	-0.11	<b>-0.158**</b>	<b>-0.147*</b>	<b>-0.135+</b>
	(-0.061)	-0.074	(-0.057)	(-0.071)	(-0.074)
Lincome	0.093	0.045	0.076	0.089	0.085
	(-0.098)	-0.107	(-0.115)	(-0.114)	(-0.109)
Lage	-0.009	-0.006	-0.007	-0.008	-0.009
	(-0.006)	-0.005	(-0.006)	(-0.006)	(-0.006)
Poss		-0.784**			
		-0.176			
Public_eco			<b>-0.514**</b>		
			(-0.124)		
Environment				<b>-0.677**</b>	
				(-0.214)	
Settlement					<b>-0.927**</b>
					(-0.221)
Constant	-1.480*	-0.565	-1.058	-1.086	-0.823
	(-0.73)	-0.895	(-0.886)	(-0.896)	(-0.889)
Observation	922	839	909	914	912
LR chi2(6)	38.53		68.08	158.9	452.1
Prob > chi2	2.95E-07		0	0	0
Pseudo R2:	0.0142		0.0202	0.0233	0.0311

Robust standard errors in parentheses

\*\* p<0.01, \* p<0.05, + p<0.1

When we look at the effect of local government expenditures on migration intention at the functional classification level, the expenditure items that are likely to affect migration behavior are “Settlement and Community Services” and “Public Order and Security” services. In the Logit model, it is “Settlement and Community Services” and “Social Security and Social Assistance Services.” The functional expenditure with the lowest observation out of 1,000 samples is “Health Services” and “Defence Services.” Most of these services are provided by local governments in a very limited framework. It has been observed that even though these services are offered within their jurisdiction, they do not reach 60% of the citizens.

As a result, the basic model estimation made for the TR1 region is compatible with the literature. Additionally, the functional government expenditure models provide the opportunity for local governments to choose among functional-level expenditure alternatives. Thus, local governments predict the effects of their policies. This research provides a critical contribution to the literature using an indicator of internal migration policies.

Table 3

*The Effect of Functional Classification of Public Expenditures on Internal Migration ( Logit Model)  
(continue)*

Variables	Health M.	Culture M.	Public_edu M.	SSPS M.	GPS M.	Defence M.
Sex	<b>-0.514**</b> (-0.189)	<b>-0.309+</b> (-0.176)	-0.283 (-0.197)	<b>-0.360**</b> (-0.119)	<b>-0.330+</b> (-0.196)	-0.254 (-0.28)
Education	<b>0.080+</b> (-0.042)	<b>0.069+</b> (-0.038)	<b>0.057+</b> (-0.032)	0.053 (-0.033)	<b>0.066+</b> (-0.036)	<b>0.062+</b> (-0.033)
Employment	-0.081 (-0.08)	<b>-0.152+</b> (-0.079)	<b>-0.150+</b> (-0.082)	-0.14 (-0.092)	-0.089 (-0.104)	<b>-0.136*</b> (-0.068)
Lincome	-0.047 (-0.095)	0.083 (-0.115)	0.085 (-0.099)	0.104 (-0.159)	0.118 (-0.103)	-0.02 (-0.182)
Lage	<b>-0.009+</b> (-0.005)	-0.007 (-0.005)	-0.004 (-0.005)	-0.005 (-0.008)	-0.007 (-0.006)	0.005 (-0.004)
Health	<b>-0.492**</b> (-0.185)					
Culture		<b>-0.687**</b> (-0.108)				
Public_edu			<b>-0.491*</b> (-0.2)			
SSPS				<b>-0.716**</b> (-0.116)		
GPS					<b>-0.394*</b> (-0.16)	
Defence						<b>-0.561**</b> (-0.211)
Constant	-0.052 (-0.655)	-0.941 (-0.931)	-1.07 (-0.923)	-0.991 (-1.153)	-1.443+ (-0.838)	-0.442 (-1.63)
Observation	695	891	840	725	859	600
LR chi2(6)	294.2	134.3	72.9	290.9	763.8	99.99
Prob > chi2	0	0	0	0	0	0
Pseudo R2:	0.0281	0.0268	0.0178	0.03	0.0204	0.0241

Robust standard errors in parentheses

\*\* p<0.01, \* p<0.05, + p<0.1

## Discussion

In both estimated models, the level of education appears as the most critical variable that is likely to affect the migration plan. There are three reasons why participants' preferences for living spaces differ as their education level increases. First of all, the theoretical framework shows that semipublic goods affect migration decisions (Buchanan & Wagner, 1970:150; Maddox, 1960:400-401). The second is that people with higher education levels have more employment opportunities (Rempel, 1981:171; Msigwa & Bwana, 2014; Çelik, 2006; Abar, 2011; Anavatan, 2017). The last is that education improves knowledge, manners, and mental horizons, which play a critical role in the world today and affect individuals' preferences for living spaces (The World Bank, 2009:155; ECLAC, 2008:232).

The second point is about more visible services. 'Settlement and Community Services,' 'Public Order and Security,' and 'Social Security and Social Assistance Services' are more

visible as services carried out by local governments. These services have more effect than other services for both those in need and residents living in the same area (Çiftçi & Şengezer, 2017). The most important reason for this result is that every migration movement has its own path. In these processes, it should be carried out by institutions established within the scope of the principle of decentralization that know the strengths and weaknesses of the geography and has a command of its characteristics (Pınar, 2017: 131). At the same time, local governments must support collaboration with local partners (Afsar, 2003:10). Studies show that internal migration policies implemented by local governments are more effective than those implemented by central governments (ECLAC, 2008: 230; Afsar, 2003: 10; Ecevit, 1997: 501). -

### Policy Implications and Conclusions

The spatial distribution of the population in a country is important for the establishment of a balanced economic and social system. A balanced population distribution in geography ensures economic efficiency and a balanced formation of social classes. However, disturbances in the spatial distribution of the population may cause economic and social problems, such as rapid urbanization and population concentration, rural population decline, problems in urban management, slums, and the emergence of displaced persons. The current study investigated the effect of local government policies on internal migration using data obtained in the TR1 region in Turkey to explore the impact of local government services on internal migration. The aim here is to present policy alternatives on migration that local governments can implement.

As a result of the analyses, it has been concluded that each functional expenditure item has an impact on internal migration. The most critical result of the research is its emphasis on the most effective functional expenditure item. This result determines the policy preferences of local governments. When we examine the results of both descriptive and econometric analysis, we argue that local governments should focus on the most basic human needs while forming their expenditure components within the scope of their targets of having the optimum population size in their jurisdiction. The priority of local governments to settlement, social security, and security policies is the policy package that most affects people's migration decision.

The second important result of the study is that if local governments are authorized and do not have any problems with resource allocation, local government policies can affect the residents. They can provide limited services to residents in areas where they have limited authority.

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## APPENDIX

<b>Appx-Table 1. Descriptive statistics on internal migration activity</b>			
<b>How many times have you immigrated so far?</b>			
I have not migrated before			47%
I have migrated once			22%
I have migrated twice			15%
I have migrated 3 times			8%
I have migrated 4 times or more			8%
<b>Your reason for migration</b>			
I migrated to continue my education (high school/university etc.).			27.1%
I migrated for better job opportunities and better working conditions.			17.7%
I finished school and migrated to a new place or to my family.			10.8%
I got an offer for a job or found a job where I migrated.			8.1%
I migrated because of marriage.			7.6%
I migrated to benefit my social life, to increase the vitality of social life/opportunities.			7.6%
I migrated because I could not find a job at my previous place of residence.			4.8%
I migrated to go to my relatives.			3.6%
I migrated to start a new business.			2.3%
I migrated for the future of my children and for them to receive a better education.			1.7%
I migrated for a better environment (water supply, air cleanliness...etc).			1.6%
I migrated due to a family member's appointment/appointment/marriage/military service, etc.			1.6%
I migrated to get better healthcare.			1.6%
I migrated to rest.			1.5%
Other			1.4%
I migrated to escape violence/terrorism.			0.5%
I migrated to do agricultural production.			0.3%
<b>Did you have any idea about this place before you migrated to where you live today?</b>			
I have lived here before.			25%
I have visited before			25%
My family/relatives/friends have lived or lived here			24%
I had no idea			22%
I had knowledge of the media (including social media)			4%
Other			one%
<b>Did you know relatives, friends, or someone who helped you in the place you migrated?</b>			
Yes	68%	No	32%
<b>Did you migrate alone?</b>			
Yes	63%	No	37%
<b>Do you intend to immigrate from where you currently live?</b>			
Yes	45%	No	56%

