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Abstract

The purpose of this study is to identify the urbanization–related determinants of two key political outcomes in Turkey, namely the election turnout rate and the vote share of the Justice and Development Party (AKP) which has been in power since 2002. We estimate regressions that include the outcomes as dependent variables and several socio-demographic indicators as explanatory variables. Making use of data available at both the province and district levels, we are able to observe nationwide patterns as well as those that apply in the province of Istanbul. The findings from the province level analysis reveal that the available indicators are reasonably good predictors of the dependent variables. It turns out that the urbanization rate was positively related with both of the outcomes. The findings in the vote share equation are in line with the hypothesis that the AKP has benefited from the existing living conditions of the urban population, especially in the metropolitan areas. The party has been particularly successful in identifying the worldviews and addressing the needs of conservative and generally-underprivileged masses of voters many of whom are first or second generation migrants. The district level analysis also yields results that are in line with our expectations regarding the socio-economic and cultural factors behind the AKP's success. The high level of support for the party in parts of the province where lower-class native and migrant populations are concentrated is among the key findings of the econometric work. As previously argued in the literature, we attribute this success in part to the party's prioritization of the provision of public services to the lower-class neighborhoods.

ملخص

الغرض من هذه الدراسة هو التعرف على المحددات المتعلقة بالتحضر من اثنين من النتائج السياسية الرئيسية في تركيا ، وهي نسبة المشاركة الانتخابية و حصة تصويت من حزب العدالة و التنمية (AKP) الذي كان في السلطة منذ عام 2002 . نقوم بتقدير الانحدارات التي تشمل النتائج و المتغيرات التابعة و العديد من المؤشرات الاجتماعية والديمغرافية و المتغيرات التفسيرية. وبالاستفادة من البيانات المتاحة في كل محافظة و على مستوى المقاطعات ، نستطيع مراقبة أنماط البلاد فضلا عن تلك التي تنطبق في محافظة إسطنبول . النتائج المستخلصة من تحليل مستوى المقاطعة تكشف عن أن المؤشرات المتوفرة جيدة وتتنبأ إلى حد معقول بالمتغيرات التابعة . وتبين أن معدل التحضر مرتبطا بشكل إيجابي مع كل من النتائج. هذه النتائج في المعادلة و منهاحصة تصويت تتماشى مع الفرضية القائلة بأن حزب العدالة والتنمية قد استفاد من الظروف المعيشية الحالية من السكان في المناطق الحضرية ، ولا سيما في المناطق الحضرية . فقد كان الحزب ناجحا بصفة خاصة في تحديد وجهات النظر العالمية و تلبية احتياجات الجماهير و المحافظ عموما ـ والمحرومين من الناخبين وكثير منهم من المهاجرين من الجيل الأول أو الثاني . أيضا تعطي النتائج تحليل على مستوى المقاطعات والتي تتماشى مع توقعاتنا بشأن العوامل الاجتماعية والاقتصادية والثقافية وراء نجاح حزب العدالة والتنمية . هناك مستوى عال من الدعم للحزب في أجزاء من المحافظة حيث تتركز الطبقة الدنيا من السكان الأصليين و المهاجرين وهذا يتضح من بين النتائج الرئيسية لعمل الاقتصاد القياسي . وكما ناقشنا سابقا في الأدب ، نعزو هذا النجاح في جزء منه إلى أولويات الحزب من توفير الخدمات العامة لأحياء الطبقة الدنيا .

1. Introduction

During the last sixty years, the urbanization rate in Turkey has increased from about 25 to 75 percent due to the more-than-three-fold population increase and the massive migration from rural to urban areas. The movement has mainly been from the east and north towards the west and south, that is, from the less developed and poorer parts of the country to the more industrialized and richer regions. According to the 2000 population census, twenty-eight percent of Turkey's population of – then – 68 million resided in a province other than the one they were born in. As can be observed in Figure 1, this ratio is the highest in provinces surrounding the western, northern and eastern shores of the Marmara Sea and those lying across the southern Aegean and the Mediterranean coastline between Izmir and Adana, as well as the three inland ones between the Marmara Sea and Ankara in the center. These sixteen provinces, where one-fourth of the population are migrants, incorporate 45 percent of Turkey's population and 75 percent of those living outside their birth provinces. Migrants make up 47 percent of their aggregate population. In the Istanbul province, this ratio is even higher at 61 percent. With such large numbers, it is natural to expect that the urbanization process has been a challenging one in many respects and that they have had a strong influence on the country's political-economic affairs.

Migration from rural to urban areas in Turkey has been the subject of a large body of research in many areas of social sciences. While economists have focused on socio-economic implications from a macro perspective, sociologists have mainly examined the life styles of internal migrants, their patterns of integration, as well as their influence on the cultural structure of the recipient localities. Political scientists, on the other hand, have devoted much of their attention to political implications such as the impact of migrants on election outcomes and the political economy of the urbanization process. A common theme of these studies is that the political assimilation of internal migrants is hardly ever complete since they who hold on to much of the cultural values acquired in their origins, and they differ from the 'natives' in terms of their socio-demographic characteristics, economic endowments, and - in many cases - ethnic backgrounds.[1] It is this distinction that has made it difficult for political parties to strike a balance between the needs and wishes of the native and migrant populations. In fact, their skillfulness in appealing to the underprivileged and conservative urban masses has been seen as one of the main reasons behind the dramatic rise of the pro-Islamist parties in Turkey during the past two decades.

The main purpose of this study is to carry out descriptive and econometric analyses (at the province and district levels) to identify the urbanization–related determinants of two key political outcomes, namely the election turnout rate (which is meant to proxy for the general level of political participation of the urban population) and the electoral success of the currently-ruling Justice and Development Party (Adalet ve Kalkınma Partisi, AKP). The reason for the choice of focusing on the AKP is that it has been the dominant party in the Turkish party system since 2002, and also that it is the latest to come in the line of pro-Islamist parties that are believed to have benefited the most from the existing living conditions of the urban population, especially in the metropolitan areas. Our ultimate goal is to produce empirical findings that provide foresight on future political outcomes under various assumptions regarding education levels, birth rates, and migration patterns.

What makes this analysis valuable from an economic perspective is the presence of a bi-directional relationship between the economic and political outcomes under examination. From a

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[1] Inglehart and Baker (2000) deal with the persistence of cultural values.

short-term perspective, economic conditions are known to have a significant effect on the electoral success of incumbent parties, and periods of political instability usually lead to problems on the economic front. These, however, are not the kinds of links we will primarily have in mind when interpreting the findings of this study. The reason is that education levels, birth rates, and migration patterns - which our analysis will be explicitly dealing with - can be viewed as the consequences of *long-term* economic policies. If the politicians in power are conscious of the links between socio-economic conditions in urban settings and political outcomes, they are likely to be inclined to form their urbanization policies in such a way that maximizes the likelihood of their future success. If, for example, the perception of social mobility opportunities is a key determinant of the party choices of low-income voters, then politicians will continue to generate economic rents for land-owners through generous building permits at the expense putting the urban infrastructure under further strain.

Regarding the long-term economic implications of the continued dominance of the currently-ruling party (that is, if this is what our findings suggest), it would probably be safe to assume that Turkey will continue to be led by neo-liberal economic policies that facilitate the activities of foreign and local investors, but do not prioritize the solution of the problem of high unemployment in urban areas. In short, the examination of the links between political outcomes and urbanization patterns in Turkey promises to be an interesting exercise that will provide valuable insights not only for social scientists, but also for politicians, policy makers, and investors.

2. Background Information on Turkish Politics

Turkey is a large country that exhibits a great deal of diversity in terms of demographic, economic, social, and cultural characteristics, and consequently, in terms of political tendencies. Commonly referred to as "a bridge between the East and the West" and "a cradle of civilizations", it borders European Union countries Greece and Bulgaria on one end and Iran, Iraq, and Syria on the other. Present-day Turkey was at the center of the Ottoman Empire and is its successor state. Consequently, it houses people with various ethnic roots. For example, its southeastern region is home to a majority of Kurds and some Arabs. The Marmara region is where those who migrated from the Balkans and Crimea during the decay of the Ottoman Empire are concentrated, whereas the eastern Black Sea region is where those arriving from the Caucasus settled heavily. While the religion of the overwhelming majority of Turkish people is Islam, not all belong to the same sect, and the degree of their religiosity and the emphasis they place on religious freedoms and secularism vary. The provinces lying around the northern, eastern and southern shores of Marmara are heavily industrialized, whereas those along the Aegean and Mediterranean rely heavily on tourism and light industry based on agricultural crops. In the mountainous east, animal husbandry is important. With this much diversity, it is natural to expect people in different parts of the country to have different economic interests and ideologies, and consequently, to vote differently.

A recent study by Akarca and Başlevent (2011) is very useful in demonstrating the regional patterns in political outcomes in Turkey as well as the association between party choices and the disparities in socio-economic indicators across the country. Making use of results from the five nationwide elections that took place between 1999 and 2009, Akarca and Başlevent (2011) use cluster analysis to identify the provinces that have similar voting patterns in terms of the vote shares of the main political parties. They find that, for each of the five elections between 1999 and 2009, a 3-way partition of the provinces captures much of the variation in voter behavior

across the country and also that many of the provinces remain in the same cluster election after election, in a period of major political turmoil. In view of this finding, the authors come up with composite clusters that aim to capture the persistent patterns in Turkey's political geography.[2]

Going from west to east, the first cluster, which is painted black in Figure 2, follows the Mediterranean, Aegean, and Marmara coasts. It also includes provinces which are adjacent to the coastal ones along the Aegean. The second cluster, painted dark gray, covers much of the rest of the nation apart from the mid-eastern and south eastern Anatolia. The third cluster, painted light gray, covers a triangular region made up of south-eastern and mid-eastern Anatolian provinces. This region is populated heavily by ethnic Kurds. In terms of political tendencies, Akarca and Başlevent report that right-wing parties receive the majority of votes in all regions of the 3-way partition, but they receive a significant challenge from left-wing parties in cluster 1 and the Kurdish-nationalist parties in cluster 3.

The averages of province level data on socio-demographic indicators provided in Table 1 reveal that the three clusters are distinct from each other not only in terms of political outcomes, but also socio-economic characteristics. The first cluster in the 3-way partition is the most urbanized, most densely populated, richest, most educated, and most modern (as indicated by the median age, the proportion of non-agricultural employment and women's share in it) of the three regions. It has a positive net migration rate as opposed to negative ones for the other two. It also incorporates more mobile and more cosmopolitan segments of the population with close to half of its population born in another province than the one they were born in. Cluster 3 lies at the other extreme and cluster 2 lies somewhere in between, but is closer to the third cluster than the first. The second cluster is not that different from the first in median age and education level but differ significantly in all other areas. On the other hand, the second cluster is similar to the third in urbanization and proportion of non-agricultural employment but differ from it considerably in income, net migration, education, median age, and share of females in the non-agricultural employment.

The observed link between political outcomes and the socio-demographic characteristics presented above strongly suggests that there could be much to learn from a multivariate examination of these characteristics with a focus on indicators that capture the influence of urbanization.

2.1 The Rise of the Justice and Development Party

The general elections of November 2002 were branded as a political earthquake in Turkey. With thirty-four percent of the votes, the Justice and Development Party (*Adalet ve Kalkınma Partisi*, AKP) won nearly two-thirds of the seats in the parliament owing in part to the election system that imposes a ten percent national threshold for representation.[3] The rapid rise of the AKP, which was only founded a year earlier following the dissolution of the pro-Islamist Virtue Party (*Fazilet Partisi*) by the Constitutional Court of Turkey, was seen as "another step in the electoral collapse of centrist politics in the country" (Çarkoğlu, 2002a). Nevertheless, the AKP, considered by many as a pro-Islamist party until the elections, was known to have received votes

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[2] Çarkoğlu and Avcı (2002), Dulupçu (2005), West (2005), Tüzün (2007), Güvenç and Kirmanoğlu (2009), and Tezcür (2012) are some of the other studies that deal with the geographical patterns observed in election outcomes in Turkey.

[3] For detailed analyses of the 2002 elections, see also Açıkel (2003), Özel (2003), Tosun (2003), Bacik (2004), Turan (2004), Akarca (2008), and Başlevent and Akarca (2009).

from other sections of the constituency, especially the center-right, at a time when the existing center-right parties were highly unpopular as a result of widely-believed allegations of corruption and poor performances when in power. The AKP has also been the recipient of a substantial amount of protest votes by large masses who have been adversely affected by the dismal economic conditions that prevailed in Turkey after the former ruling coalition led the country into its worst ever economic crisis. The AKP leader Recep Tayyip Erdoğan's successful image since his days as the mayor of Istanbul (1994-1998) and his moderate, non-confrontational rhetoric also made the AKP attractive to a "diverse array of voters ranging from Islamists to rural nationalists and moderate urban voters" (Çagaptay, 2002). While the center-left Republican People's Party became the only party other than the AKP to enter the parliament, members of the former coalition suffered the heaviest losses as their combined vote share dropped by about 39 percentage points (to 14.7 percent) within the three and a half years following the April 1999 elections. This was the first time in Turkey that ruling parties were totally wiped out of the parliament. Since 2002, there have been many unprecedented developments in Turkish politics not the least of which is that the AKP has managed to increase its vote share further in the two subsequent general elections with shares of around 47 and 50 percent in 2007 and 2011, respectively.[4]

3. Literature on the Politics of Internal Migration

There is a large body of sociology literature which offers a specific and comprehensive description of the web of relations that account for the political behavior of Turkey's internal migrants in urban locations. Although primarily theoretical or anecdotal in nature, these studies provide convincing explanations as to why the political assimilation of migrants is especially unlikely in the Turkish context (Pınarcıoğlu and Işık, 2009). Many of these studies examine economic and political outcomes by focusing on the concept of *hemşehrilik*, a term used to describe the links between *hemşehri*s, i.e. people who are originally from the same town or region (Kurtoğlu, 2005). Their basic argument is that people who have the same roots of origin engage in collective political behavior to pursue their common economic interests in both the origin and the destination. For most groups of migrants, the informal links between them have been formalized in the shape of 'hometown associations' which probably exist in greater numbers in Turkey than anywhere else in the world. The mere existence of these associations can be seen as a reflection of Turkish migrants' need for not only an expression of identity, but also economic survival. According to Hersant and Toumarkine (2005), these associations are "not so much meeting places publicizing pre-existing community solidarity", but rather "the points at which political and social networks fuse giving rise to a means of communication with the political-institutional system."

Also drawing attention to the clientelistic chain of relations between political organizations, hometown associations, and their members, Narlı (2002) argues that the failure of certain political parties to 'mobilize' the voters has to do with their disregard for the 'primordial' ties between the *hemşehri*s. She claims that these informal and formal networks have provided the

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suitable setting for the grassroots politics that pro-Islamist parties have engaged in to great electoral success during the past two decades. As discussed in Kalaycıoğlu (2007), the AKP owes its success not only to its ability to appeal to the value systems of conservative masses, but also to "providing for rapid improvement in socio-economic welfare" to those who otherwise would have a much smaller chance of upward social mobility. Öniş (2000) also notes that such informal networks provide a rudimentary form of welfare provision, and that they are crucial to the understanding of the volatile electoral politics in Turkey.

According to Narlı (2002), it is mainly through the above-mentioned links that people are able to make economic gains ranging from finding jobs to obtaining construction permits or title deeds to the pieces of land that they illicitly occupy. Ayata (2008) also argues that the place of origin plays a significant role in community formation and land occupation around the city especially in the early stages of migration. Assuming that the majority of internal migrants lack the financial means to purchase proper housing at the time of their arrival at the destination, it makes sense that their political choices are likely to be affected by their prospects of becoming a part of this redistributive process.

Given the prevalence of squatter housing in Turkey especially in densely-populated urban areas, the last point made could be more relevant to political outcomes than it might at first seem. The political-economy behind illegal housing has attracted attention from different fields as Turkey witnessed the increasing influence of the *gecekondu* (literally meaning 'built (or landed) overnight') neighborhoods in political and cultural life (e.g. Erman, 2001). Focusing on electoral outcomes, Özler (2000) finds that the pro-Islamist Welfare Party fared better in the 1995 national elections in neighborhoods with larger shares of squatter voters. Yalçıntan and Erbaş (2003) also carry out an extensive study demonstrating the strong link between the *gecekondu*s and election outcomes in İstanbul. Buğra (1998) points to the economic consequences of squatting and refers to this phenomenon as the "immoral economy of housing in Turkey". Finally, Başlevent and Dayıoğlu (2005) and Dayıoğlu and Başlevent (2006) address the illegal housing issue from an income distribution perspective and find empirical evidence suggesting that *gecekondu*s have a sizeable equalizing effect on income inequality which is larger in metropolitan areas.

The empirical literature dealing specifically with the political preferences of internal migrants in Turkey is rather sparse. Shmuelevitz (1996) brings province level results from three elections together with provincial in- and out-migration rates to uncover the potential link between internal migration and voting behavior in Turkey. The author's main argument is that migrants are likely to turn to extremist parties in response to the adverse socio-economic conditions they encounter at their destinations. However, his attempt to verify the paper's basic premise that migration from villages to cities contributed to the strengthening of the extreme and religious right in Turkish politics does not prove to be conclusive. Considering that this study does not cover any elections after 1991 and relies only on a simple descriptive examination of election results, it is not unlikely that the currently-proposed project will produce results that are of statistical and economic significance.

A more recent paper by Akarca and Başlevent (2010) examines the relative importance of the origins and destinations of Turkey's internal migrants on their voting behavior. Using a pre-election survey from 2007, the authors first demonstrate that migrants vote differently than non-migrants. Subsequently, province-level election data is brought into the analysis to determine whether migrants' political tendencies are associated more with the voting patterns prevailing in

their host provinces or the provinces they are originally from. According to the results of the econometric models estimated, a positive and significant 'origin' effect exists for most migrants, and it implies that if the vote share of a party exceeds its nationwide average by 10 percentage points in a given province, then the probability that this party will be chosen by a migrant born in that province increases by about 5 percentage points. This finding is attributed to continued cultural and economic ties of the migrants with their origins and with fellow migrants from their hometowns at their destinations.[5]

As the literature review above suggests, in the Turkish context, the concept of urbanization is closely related with internal migration which has been a major driving force behind the steep rise in Turkey's urban population as well as the socio-political developments in those areas. This is why the current study considers inter-province migration as an indicator of the type of urbanization that poses the greatest challenge for policy makers and, thus, is the most relevant in the political-economic sense. Our hope is to be able to complement the theoretical claims and empirical findings in the existing literature using information and techniques that have not been previously utilized in this context in a comprehensive manner.

4. Conceptual Framework and Research Methodology

Our empirical examinations rely on the premise that political preferences reflect the decisions made by utility maximizing individuals. Voters decide to participate in political processes and vote for a given party based on their current socio-economic conditions as well as their expectations for the future. They are also likely to take into account the conditions that affect the general population. Additionally, they are less likely to participate in political processes when they are disillusioned by most candidates or unable to make a choice between them, or when they feel alienated from the society. We argue that both the level of participation and the support for the ruling AKP are influenced by the urbanization patterns in Turkey's provinces as these patterns have been a major determinant of the existing social, economic, and cultural conditions prevailing in each province.

In the absence of individual level data from a comprehensive nationwide survey designed specifically for the purpose of examining the relationships in question, the best alternative is to work with official socio-demographic and election data available at the levels of the major administrative units in Turkey. Our preliminary observations suggest that the sample of 81 provinces exhibits plenty of heterogeneity in terms of the indicators we will be working with. Working with samples where there is enough variation across the units is likely to be the key to producing statistically significant results that uncover the potential link between our indicators of urbanization and the political outcomes of interest. Another reason why the provinces are the ideal unit of analysis for our work is that each province constitutes a single election district both in parliamentary and provincial council elections held in Turkey.

In addition to the province level analysis, our empirical work will also comprise a district level analysis which will be restricted to the province of Istanbul. Districts are smaller administrative units that have municipalities run by elected mayors. With 39 districts that exhibit a considerable amount of variation with respect to education levels and migrant and vote shares, Istanbul appears to be an ideal setting for testing hypotheses relating to the relationships between the

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[5] In a follow-up paper, Başlevent (2012) provides additional insights regarding the importance of personal characteristics such as the level of education and the age at which migration takes place.

indicators at hand. It remains to be seen whether the province or district level estimations yield more significant or insightful results.

5. The Data

In preparing our data sets, the main sources of information have been two databases available at the website of the Turkish Statistical Institute (TurkStat). These databases will be used interactively to generate the province and district level indicators to be used in the empirical work. One of these databases contains the results of the 2010 census of the Address Based Population Registration System, which allowed us to compute urbanization rates, migrant shares, in- and out-migration rates, etc. This database also contains information on the number of people in various age groups as well as those who have completed a given level of education. Since these figures are available by gender, they have allowed us to compute an indicator for the gender gap in educational attainment which is likely to perform well as a control variable in our empirical work. We expect this variable to proxy for the 'conservativeness' of the cultural environment. The other database on the TurkStat website contains the results of 2011 General Elections at the province and district levels. Participation rates as well as party vote shares are available from this database.

In addition to the examination of general patterns by computing means and variances and using graphical tools, the empirical work will involve the estimation of econometric models where election turnout rates and the AKP vote share will appear as dependent variables. As mentioned earlier, levels of education by gender, in- and out-migration rates will accompany urbanization rates as explanatory variables. We plan to utilize the mean age in each province as a proxy for the fertility rate which is known to vary significantly across socio-economic classes. We will also consider using the population shares of certain age groups as an additional indicator of migration patterns.

In the empirical work that follows, the **urbanization rate** of a province is defined as the percentage share of the population residing in the province centers or the center of one of the districts of the province. The **population registration rate** of a province is the percentage of residents who are listed in the population registry of that province. We expect this variable to serve as a measure of the stock of internal migrants in the provinces. Although technically it is possible not to be registered in the province of current residence despite having lived there throughout one's lifetime, the distribution of this variable in the data suggests that it is a good indicator of long-run migration patterns. In preliminary estimations, we also considered using the **net rate of migration** into the provinces as an indicator of recent migration patterns. However, possibly since the available information pertains to the movements only during the past one year, this variable turned out to be uncorrelated with the outcomes of interest.

The **mean years of education** measures the average years of schooling received by the 15+ year old population of a province. Since the available information in the population census provides only the number of people who have completed a certain level of education, the average figures are obtained by a scheme that converts this information to years of schooling (See Footnote #1). To allow for the possibility of a non-linear relationship between education and the outcomes of interest, the square of the mean years of education is also included as a regressor in the regression models.

The **mean age** in the province is also obtained by using information on the number of people in different age groups. We utilize this variable to capture the variation across provinces in the

fertility rates under the assumption that the mean age would be lower in provinces where families typically have a larger number of children. The reason we expect the fertility rate to be relevant to our analysis is that – in a predominantly Muslim society – it reflects the degree of adherence to a traditional life-style where contraception is frowned upon and 'quality vs. quantity of children' considerations are largely ignored. Since the relationship between mean age and the outcomes of interest need not be linear, the square of the mean age is also included as a regressor in the regression models.

The availability of educational attainment figures by gender allows us to construct a variable that serves as a measure of gender inequality not only in education, but also in other domains of social life.[6] This variable, which we call the **gender gap in education**, is computed as the difference between the mean years of education for males and females expressed as a percentage share of the overall mean years of education in the province.

The **formal employment rate** is defined as the percentage share in a province's total population of those registered as an active worker with the Social Security Institution of Turkey. In a country where the share of formal employment is only around 60 percent, we expect this variable to capture the political influence of the socialization process that takes place in the workplace. Our reasoning is that engaging in formal employment endows an individual with knowledge and consciousness on socio-economic and political matters, thus making political participation more likely.

6. Province Level Analysis

We begin the province level descriptive analysis with a visual examination of the dispersion in the two dependent variables we will work with. The scatter diagram where the AKP vote share is plotted against the turnout rate is meant to demonstrate the degree of variation in these variables and also whether they are highly correlated with each other. In case there is a strong correlation between the two variables, it would be appropriate to try to uncover the reasons behind such a pattern.

The scatter plot of 81 provinces does not point to a clear association between the provincial AKP vote shares and the turnout rates, suggesting that the urbanization-related explanatory variables we will be working with are likely to impact them in different ways (See Figure 3). In terms of the variation in the values taken on by each variable, we observe that the AKP vote share ranges between 15 and 70 percent which means that there is a lot of variation that can be explained provided that the right set of variables are put together. The variation in the turnout rate is smaller with many provinces having rates close to 90 percent. However, it remains to be seen whether the explanatory variables at hand have statistically significant impacts on this indicator as well.

6.1. Binary relationships with the AKP vote share

Next, we look at the binary relationships between the AKP vote share and the potential explanatory variables (See Figures 4a – 4f). Our first observation is that, in many of the scatter diagrams, it appears that provinces in the southeast of the country are outliers. It might therefore be argued that regression results can be misleading if the working sample includes those provinces that stand out from the rest in terms of not only the political environment, but also many indicators being utilized here. Therefore, as a robustness check of the results obtained on

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[6] As discussed in Scott (2006), there are connections between gender inequality in one domain and that in another, such as the link between political representation and laws that aim to narrow the gender pay gap.

the full sample of provinces, the province level regressions will also be carried out on a sample of 74 provinces which excludes 7 provinces in which the independent candidates fielded by the Kurdish-nationalist Peace and Democracy Party received a combined vote share that was higher than the vote share of any of the other parties. This criterion seems reasonable as these 7 provinces - namely Diyarbakır, Hakkari, Mardin, Muş, Van, Batman, and Şırnak - where this condition is satisfied, form a contiguous region in the southeast.

Generally speaking, the scatter diagrams do not reveal very clear associations between the AKP vote share and the variables in hand. However, the visual evidence can still be summarized as follows:

Variable	Simple correlation with the AKP vote share
a) Urbanization rate	near zero
b) Population registration rate	positive
c) Mean age	negative
d) Mean years of education	negative
e) Gender gap in education	positive
f) Formal employment rate	negative

In terms of binary associations, the strongest links are observed in the case of the last two variables considered, namely the gender gap in education and the formal employment rate. It remains to be seen which relationships turn out to be more relevant in the multivariate setting.

6.2. Binary relationships with the turnout rate

We now look at the binary relationships between the turnout rate and the potential explanatory variables (See Figures 5a – 5f). Compared with those examined in the previous subsection, the scatter diagrams reveal clearer associations between the turnout rate and the variables in hand. We find that the turnout rate is the most strongly associated with the mean age, the mean years of education, and the formal employment rate. This time, the visual evidence can be summarized as follows:

Variable	Simple correlation with the turnout rate
a) Urbanization rate	positive
b) Population registration rate	negative
c) Mean age	positive
d) Mean years of education	positive
e) Gender gap in education	negative
f) Formal employment rate	positive

6.3. Province level regression results

The province level regression results are summarized in Tables 2 and 3. Table 2 contains the estimates obtained from the full sample of 81 provinces, while those in Table 3 are based on the sample that excludes 7 southeastern provinces.

In the regression of the AKP vote share on the available indicators, we observe that the exclusion of seven southeastern provinces does not have a major effect on the estimates except that the mean years of education becomes insignificant in the smaller sample. According to the estimates from the larger sample, a one-percentage point increase in the urbanization rate leads to a 0.42 percentage point increase in the AKP vote share. The population registration rate has a comparable effect such that a one-percentage point increase leads to a 0.53 percentage point increase in the AKP vote share. This finding is at odds with the hypothesis that the AKP is stronger in provinces with large migrant populations. Apparently, province level averages – when other factors are controlled for – capture a phenomenon which differs from the patterns observed at the individual level. The formal employment rate has a significant influence such that a one-percentage point increase leads to a 1.45 percentage point increase. The coefficient on the gender gap in education has the expected positive sign meaning that the AKP has stronger support in conservative provinces where men typically receive more education than women. The coefficients on age and its square imply that the vote share of AKP is maximized when the mean age in the province is around 31. This result probably is due to the fact that the party has relatively less support in the parts of the country where the fertility rates are the highest (i.e. the southeast) and lowest (i.e. the western coast). Even though the coefficient estimate on the mean years of education is negative, the magnitude of the positive coefficient on the square of this variable is large enough to imply that the party's vote share is minimized when the mean years of education in the province is around 8. However, since there are a very small number of provinces exceeding this value, we can make the generalization that, in effect, the vote share is inversely related with education.

In the regression of the turnout rate on the province-level indicators, we observe that the exclusion of seven southeastern provinces does not have a major effect on the estimates except that the mean age is insignificant in the smaller sample. The coefficients in the turnout rate regression are smaller in magnitude which is probably because this variable has a substantially smaller variance than the AKP vote share. However, the two regressions are similar in terms of goodness of fit with R-squared values of around 0.55 in both the large and small samples. Despite the similarity in the goodness of fit, two of the explanatory variables (namely the population registration rate and the gender gap in education) are statistically insignificant in the determination of the turnout rate. The urbanization rate, on the other hand, has a positive influence on the turnout rate such that a two-percentage points increase leads to about a one percentage point increase in the turnout rate. The mean years of education is also positively related with the turnout rate. Finally, the positive effect of the formal employment rate is a finding in the expected direction.

7. District Level Analysis
According to the 2010 population census figures, Turkey has a population of 73.7 million 76 percent of which lives in urban locations, i.e. province and district centers, while the rest resides in villages and rural municipalities. The 1.1 million increase in the population from 2009 to 2010 points to a growth rate of 15.9 per thousand. With an official population of 13.2 million, Istanbul is not only Turkey's most populated province, but it also stands out from the rest of the provinces with an urbanization rate of 99% and a population density of 2,551 people per square kilometers. During the past six decades, Istanbul – like many western provinces of Turkey – has received millions of internal migrants from the rest of the country, especially from the North and East where employment opportunities have been more limited. Although up-to-date figures on the share of those born outside the province are unavailable, the share of those whose population

registration records are in another province gives a rough idea of the predominance of the migrant population. According to 2010 figures, only 17 percent of Istanbul residents are listed in the Istanbul population registry. Due to its unique characteristics, Istanbul is likely to turn out to be an appropriate setting to observe whether political outcomes are dependent on quantifiable characteristics of the different areas that make up the province. We attempt to do this by taking advantage of the variation among the 39 districts of Istanbul with regard to their various socio-demographic characteristics.

We proceed with the district-level analysis in the same way as we did with the province-level analysis, i.e. by first observing the binary association between the variables and then estimating the econometric model. The urbanization rate is excluded from the upcoming analysis since most of Istanbul's districts have an urbanization rate of 100%. The formal employment rate is also missing from the models because that information is not available at the district level.

The scatter plot of 39 districts suggests that the two political outcomes we are interested in, i.e. the AKP vote shares and the election turnout rates, are positively associated (See Figure 6). As in province-level data, we find that the AKP vote share, which ranges between 20 and 70 percent, has a much larger variation than the turnout rate, which in many districts is close to 90 percent. A closer look at the figure reveals that the positive association may be due to AKP's success in mobilizing voters in the outskirts of the city where the level of socio-economic development is considerably lower. In contrast, the party has less support in central districts such as Bakırköy, Beşiktaş, and Kadıköy which happen to have lower turnout rates.

7.1. Binary relationships with the AKP vote share

The binary relationships between the AKP vote share and the explanatory variables are depicted in Figures 7a – 7d. Generally speaking, the scatter diagrams do not reveal very clear associations between the AKP vote share and the variables in hand. However, the visual evidence can still be summarized as follows:

Variable	Simple correlation with the AKP vote share
a) Population registration rate	**positive**
b) Mean age	**negative**
c) Mean years of education	**negative**
d) Gender gap in education	**positive**

In terms of binary associations, the strongest links are observed in the case of the last two variables considered, namely the gender gap in education and the formal employment rate. It remains to be seen whether this pattern continues to hold in the multivariate setting where all potential determinants are considered simultaneously.

7.2. Binary relationships with the turnout rate

We now look at the binary relationships between the turnout rate and the potential explanatory variables (See Figures 5a – 5f). Compared with those examined in the previous subsection, the scatter diagrams reveal clearer associations between the turnout rate and the variables in hand. We find that the turnout rate is the most strongly associated with the mean age, the mean years of education, and the formal employment rate. This time, the visual evidence can be summarized as follows:

Variable	Simple correlation with the turnout rate
a) Population registration rate	positive
b) Mean age	negative
c) Mean years of education	negative
d) Gender gap in education	positive

7.3. District level regression results

The district level regression results are summarized in Table 4. Based on the results obtained from preliminary estimations, it has been decided that the mean years of education should enter both regressions linearly (rather than quadratically) and also that the square of the mean age should be excluded from the turnout rate equation. An initial general comment which we can make is that the district level estimations yield better fits than the province level with R-squares figures of 0.87 and 0.65 for the AKP vote share and turnout rate regressions, respectively.

In the regression of the AKP vote share on the available indicators, we find that the population registration rate and the years of education are inversely related with the dependent variable while the gender gap in education has the opposite effect. The coefficients on age and its square imply that the vote share of AKP is maximized when the mean age in the district is around 34. According to our estimates, a one-percentage point increase in the population registration rate leads to a 0.25 percentage point decrease in the AKP vote share. This finding, which is the opposite of what we found in the earlier section, is in accordance with the hypothesis that the AKP is stronger in areas with large migrant populations. The coefficient on the gender gap in education also has the expected positive sign meaning that the AKP has stronger support in conservative provinces where men typically receive more education than women. A one unit increase in the value of this variable increases the vote share of the AKP by 1.6 percentage points. This estimate implies that the AKP vote share in a district where men have 10 percent more years of education than women is expected to be 16 percentage points more than a district where men and women have equal schooling levels.

In the regression of the turnout rate on the available indicators, we find that all four explanatory variables are statistically significant. With the exception of the gender gap in education, their effect on the turnout rate is in the opposite direction as the one they had on the AKP vote share. This finding is interesting particularly because our earlier observation was that the two dependent variables move in the same direction (Figure 6). Apparently, the complex relationships between the variables at hand can only be uncovered through a multivariate analysis. The finding regarding the gender gap in education supports the argument that part of the AKP's success is due to its ability to mobilize conservative voters who are very likely to vote for that party. The positive impact of mean years of education on the turnout rate is in line with the general belief that political participation goes up with schooling. In the district level analysis, the population registration rate is also positively related with the turnout rate. This result can be interpreted as a reflection of the link between the level of identification with the place of settlement (which we expect to be higher among natives) and taking an interest in political affairs.

8. Conclusion

The purpose of this study was to identify the urbanization–related determinants of two key political outcomes in Turkey, namely the election turnout rate and the vote share of the Justice

and Development Party (AKP) which has been in power since 2002. Following visual inspections of the bilateral relationships between the two outcomes and several socio-demographic indicators, we estimated regressions that included the outcomes as dependent variables and the indicators as explanatory variables. Making use of data available at both the province and district levels, we were able to observe nationwide patterns as well as those that apply in the province of Istanbul.

The findings from the province level analysis revealed that the available indicators were reasonably good predictors of the dependent variables. It turned out that the urbanization rate was positively related with both of the outcomes. The finding in the vote share equation was in line with the hypothesis that the AKP has benefited the most from the existing living conditions of the urban population, especially in the metropolitan areas. To be more specific, the party has been particularly successful in identifying the worldviews and addressing the needs of conservative and generally-underprivileged masses of voters many of whom are first or second generation migrants. The finding that the election turnout rate, which is a commonly-used measure of political participation, is positively related with the urbanization rate can be viewed as a favorable consequence of urbanization under the presumption that higher levels of political participation contribute to a more efficient functioning of the political and in return, economic and judicial systems.

The district level analysis was carried out using data for the province of Istanbul which has received millions of internal migrants from all around the country since the 1950's. This analysis not only yielded results that were in line with our expectations regarding the socio-economic and cultural factors behind the AKP's success, but also ones that could be interpreted confidently due to the high goodness-of-fit figures for the estimated regressions. The high level of support for the party in parts of the province where lower-class native and migrant populations are concentrated was among the key findings of the econometric work. As previously argued in the literature, we attributed this success in part to the party's prioritization of the provision of public services to the lower-class neighborhoods. For example, housing projects undertaken by the Housing Development Administration of Turkey ("Toplu Konut İdaresi Başkanlığı" or TOKI for short in Turkish) have allowed many families to purchase their own homes and saved them from having to pay monthly rents.

In addition to gaining access to affordable housing units, many lower-income families have also had the opportunity to sign contracts with construction companies and build larger and more modern housing units on the property that they have been occupying. Such projects, initiated within the framework of what is known as the urban transformation ("kentsel dönüşüm" in Turkish) of many districts and neighborhoods of Istanbul, are among the prime examples of how local administrations provide the underprivileged masses with social mobility opportunities that they have been pursuing for a long time, even though much of the profits are nowadays taken in by the construction companies. The extension of public transportation services to the suburbs and improvements in access to health services have also made life easier for the residents of peripheral districts.

The discussion presented so far may not have given many clues as to whether or how the AKP's success has to do with its pro-Islamist roots. We must therefore point out that many services provided by local AKP officials continue to have a religious aspect to them, and since Islamic conservatism is much more common among low-income families living in poorer districts, such actions have repeatedly paid off at the ballot box as reflected by our findings at the district level.

Among the many ways of catering to the religious sentiments of the people are the provision of food stamps and free meals in Ramadan, social activities and free public transportation during religious holidays, and mass circumcision ceremonies for male children. Local politicians also take the initiative in the construction and restoration of mosques which they themselves visit every week for Friday noon prayers. Funeral and burial services are provided for free to all residents, and if the family of the deceased wishes the burial to take place in their original hometown, the transportation of the body is also done free of charge.

Over the years, party officials have become experts in not only providing these services, but also in using them as public relations activities that aim to reinforce the positive images of the party leaders in the eyes of their constituencies. A striking example of this occurred just recently after the death of a well-known Turkish folk singer who was laid to rest in his hometown of Kırşehir. The most memorable image from the funeral, which was attended by many politicians, including Prime Minister Erdoğan, was the coffin that had "The Municipality of Kırşehir" ("Kırşehir Belediyesi" in Turkish) written on it in large capital letters (See Figure 9). This picture probably says more about the way conservative politics works in Turkey than any academic article could ever do.

In summing up this paper, we can argue without much doubt that urbanization has had a non-negligible impact on political outcomes in Turkey through various channels. While the local administrations, led by centrist-parties (mostly until the mid-90's), were overwhelmed with or reluctant to address the needs of the rapidly growing urban populations, pro-Islamist political parties have proven to be much more adept in serving especially the lower class segments of the population. In a country where ethnic and religious identities play important roles in shaping people's political preferences, these parties have also portrayed themselves as organizations that bring together "good Muslims" who will do only what is in the best interest of the people. Declining fertility rates provide some hope that in a decade or so, Turkey will have a reasonably-sized young population, implying that those young people will have the opportunity to receive a high-quality education and get a decent job which, in turn, will allow them to make more informed political choices. One can't help but wonder if this is one reason why current political leaders are encouraging at least three children per family and also taking steps toward making abortion illegal.

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Figure 1: Proportion of Migrants in Turkey's Provinces
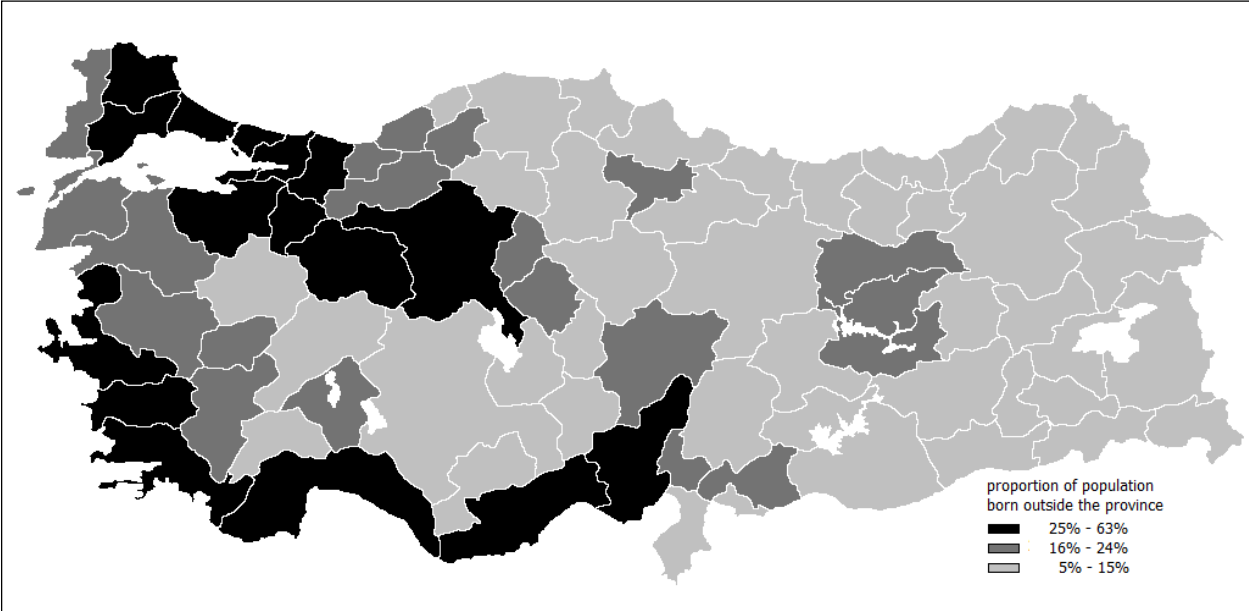
Source: Akarca and Başlevent (2010).

Figure 2: Composite Voting Clusters (1999-2009)

Source: Akarca and Başlevent (2011).

Figure 3: AKP Vote Share vs. the Turnout Rate in 81 Provinces

Figure 4a: AKP Vote Share vs. the Urbanization Rate of 81 Provinces
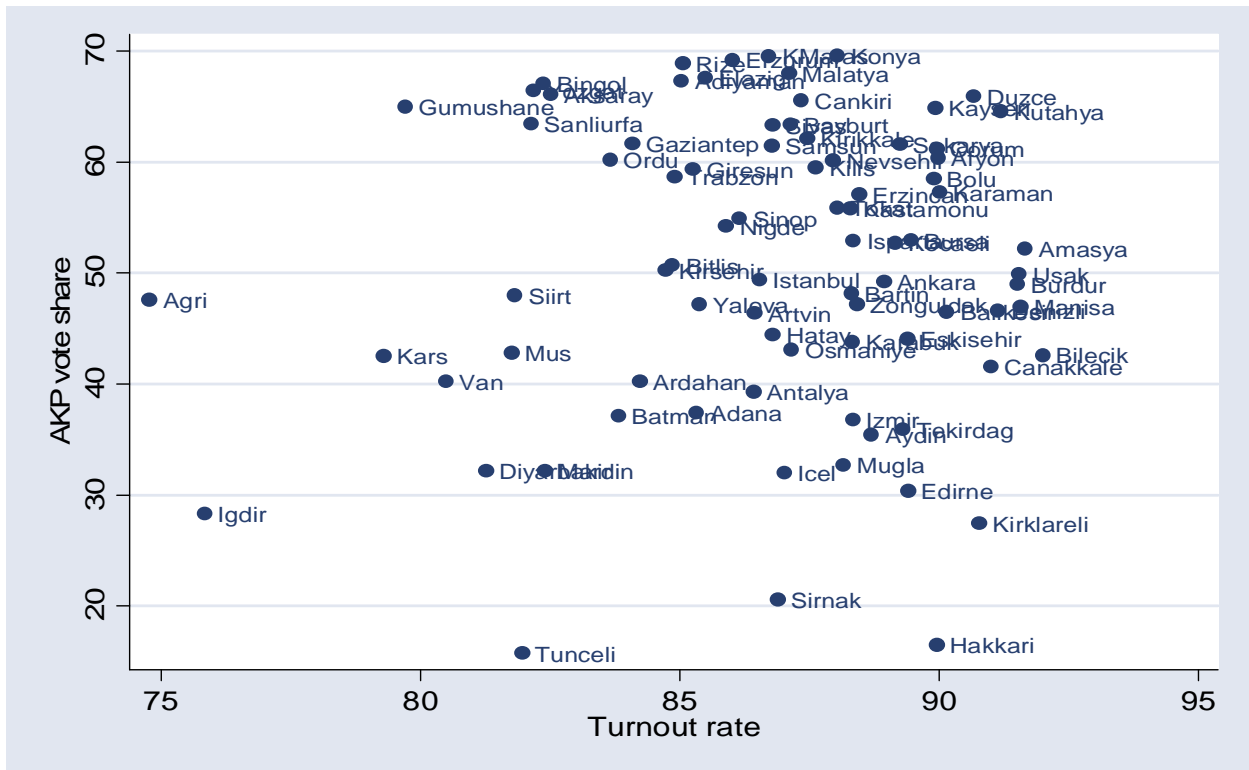
Figure 4b: AKP Vote Share vs. the Population Registration Rate in 81 Provinces
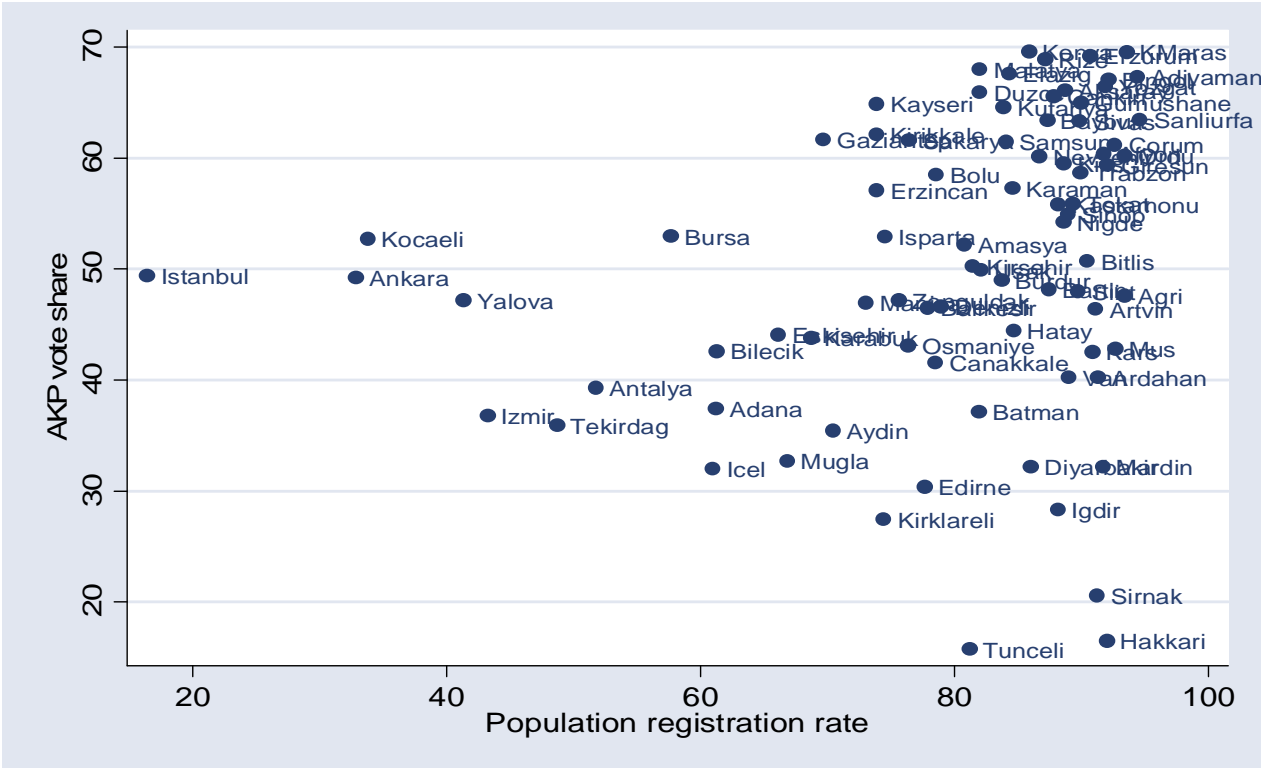
Figure 4c: AKP Vote Share vs. the Mean Age in 81 Provinces
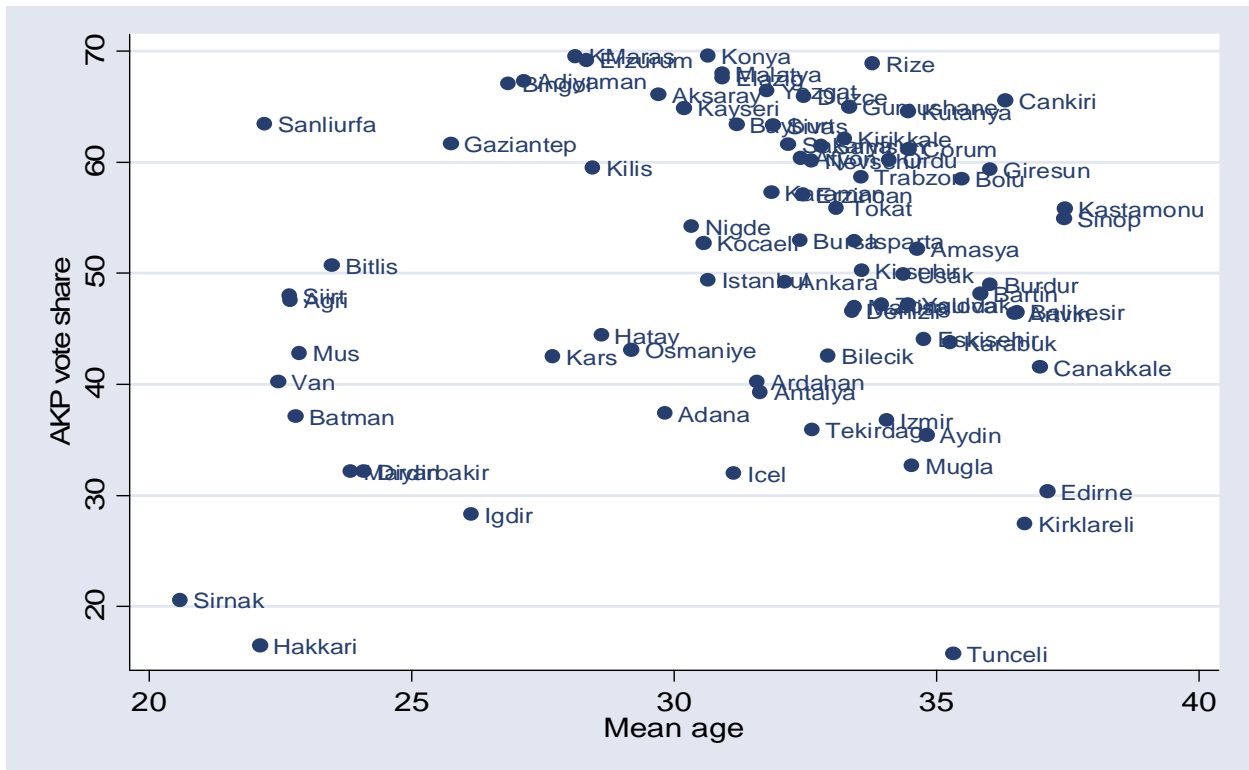
Figure 4d: AKP Vote Share vs. the Mean Years of Education in 81 Provinces
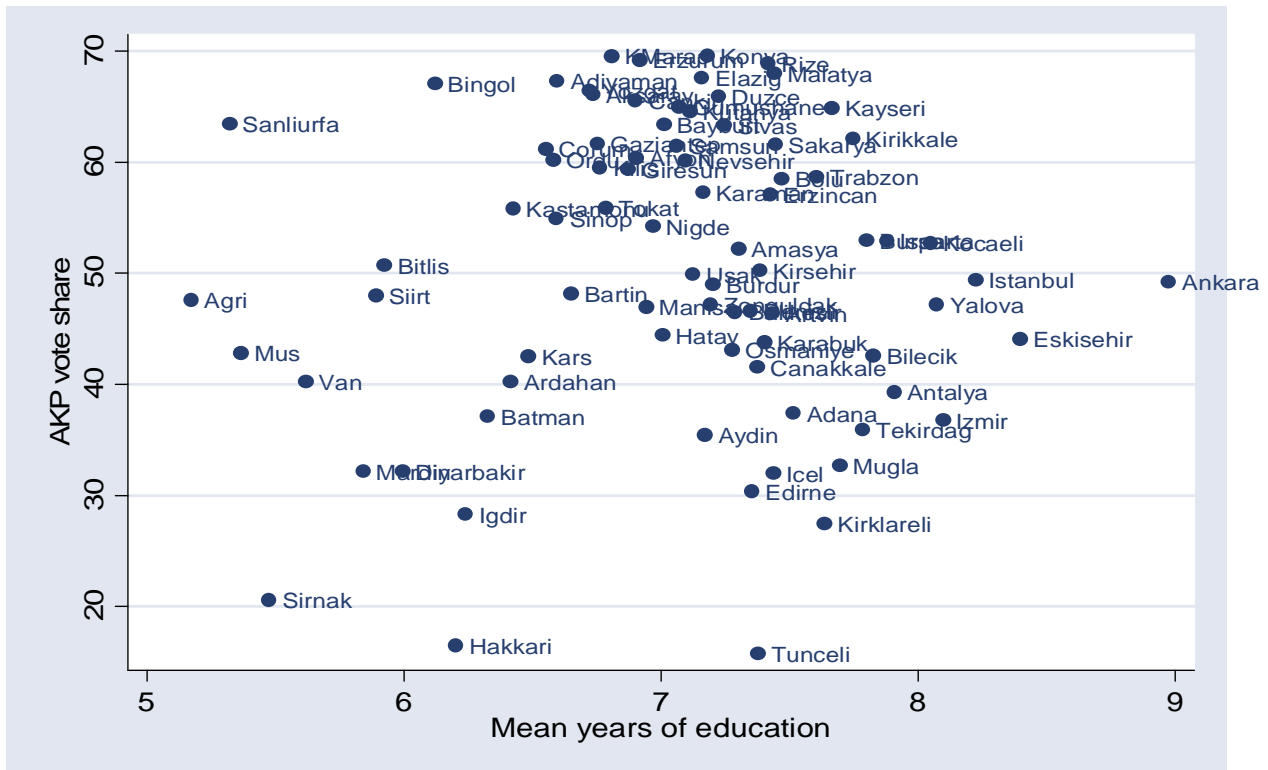
Figure 4e: AKP Vote Share vs. the Gender Gap in Education in 81 Provinces

Figure 4f: AKP Vote Share vs. the Formal Employment Rate in 81 Provinces
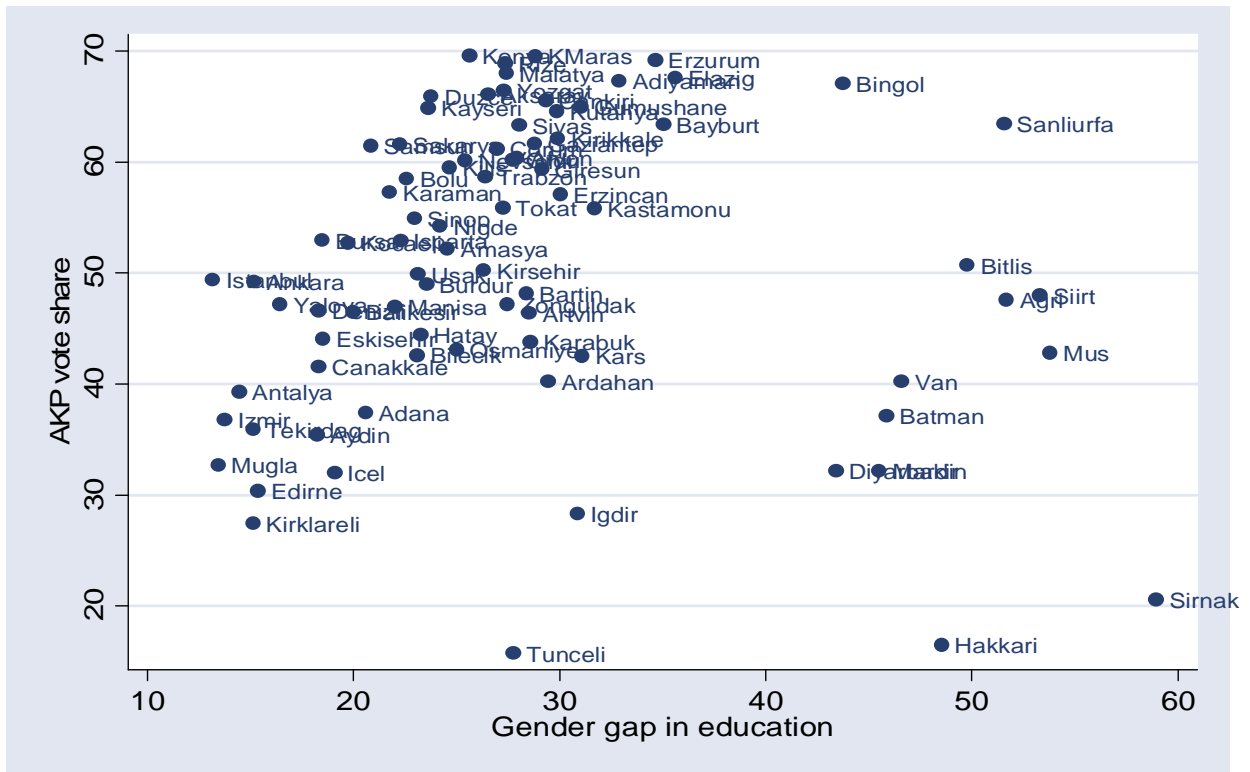
Figure 5a: Turnout Rate vs. the Urbanization Rate of 81 Provinces

Figure 5b: Turnout Rate vs. the Population Registration Rate in 81 Provinces
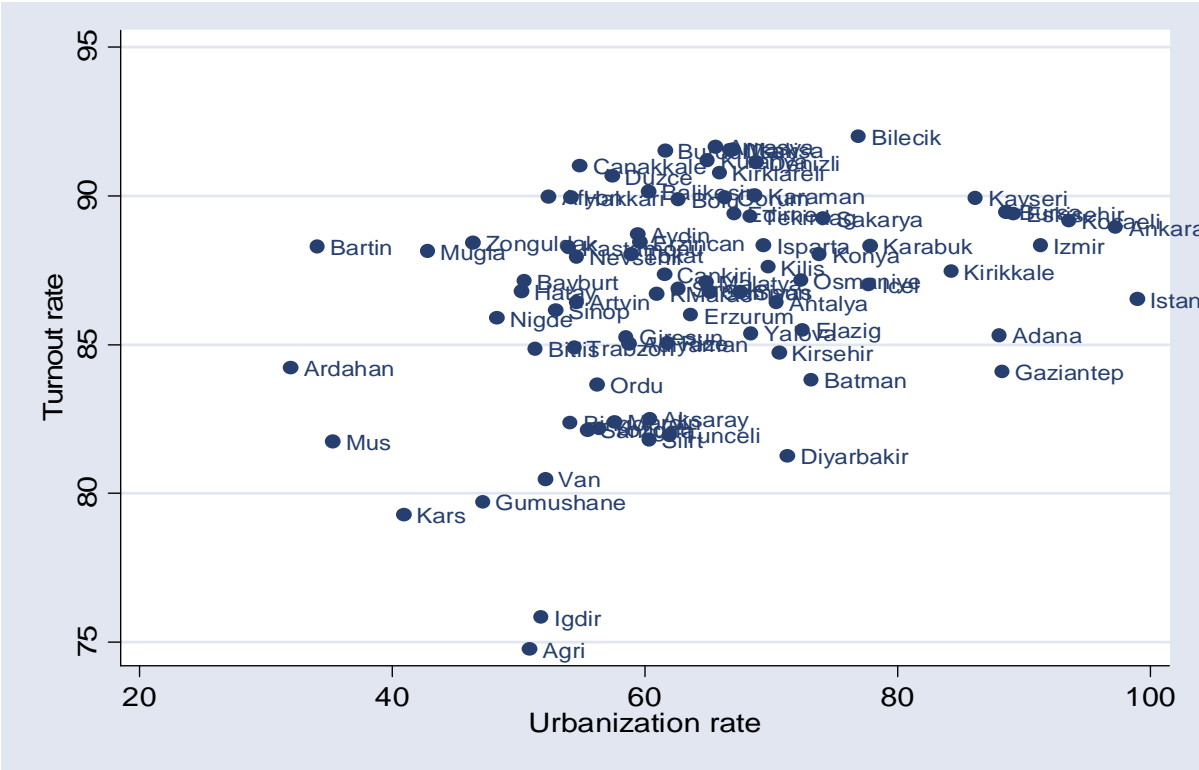
Figure 5c: Turnout Rate vs. the Mean Age in 81 Provinces

Figure 5d: Turnout Rate vs. the Mean Years of Education in 81 Provinces
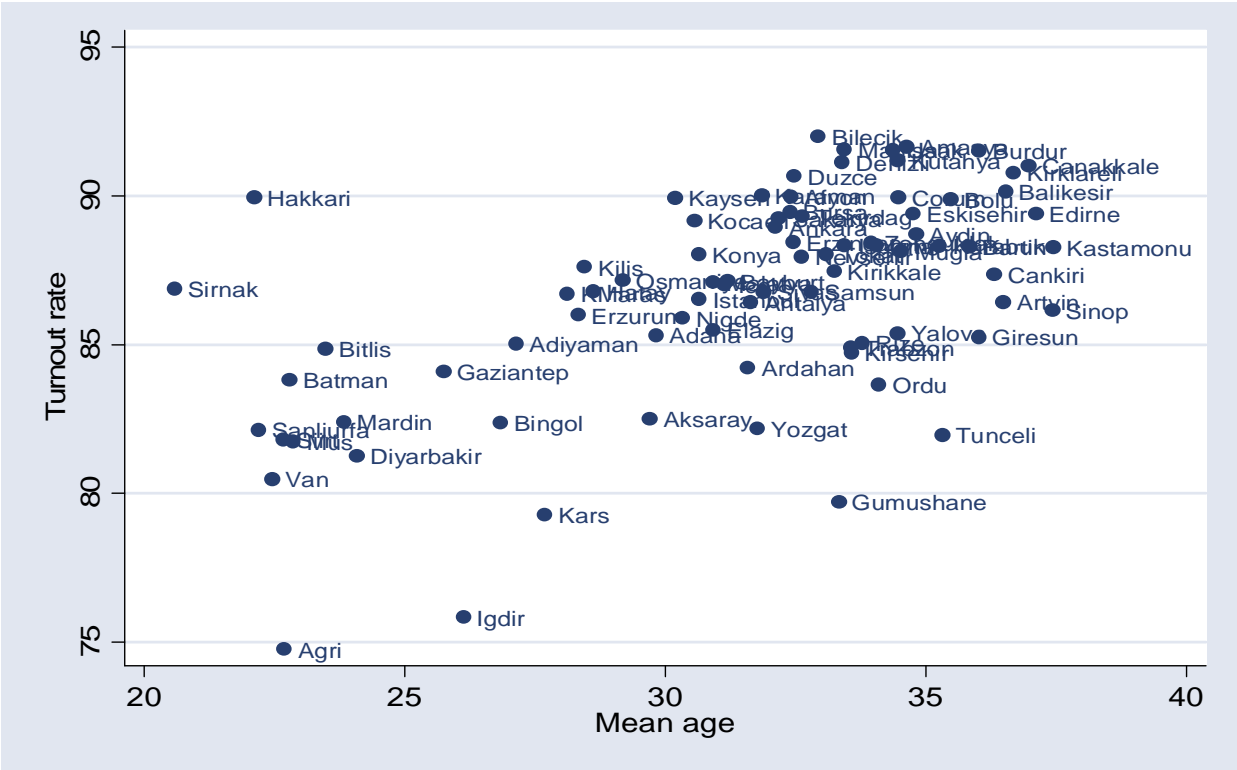
Figure 5e: Turnout Rate vs. the Gender Gap in Education in 81 Provinces
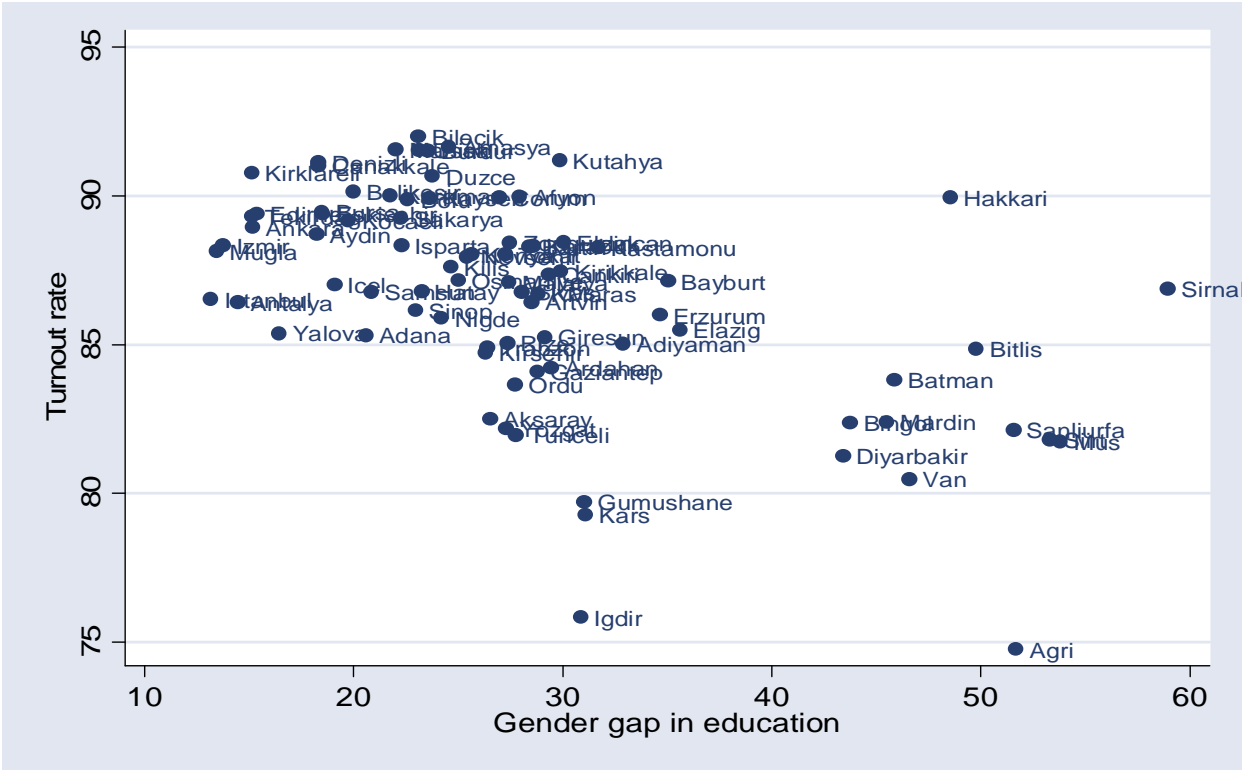
Figure 5f: Turnout Rate vs. the Formal Employment Rate in 81 Provinces
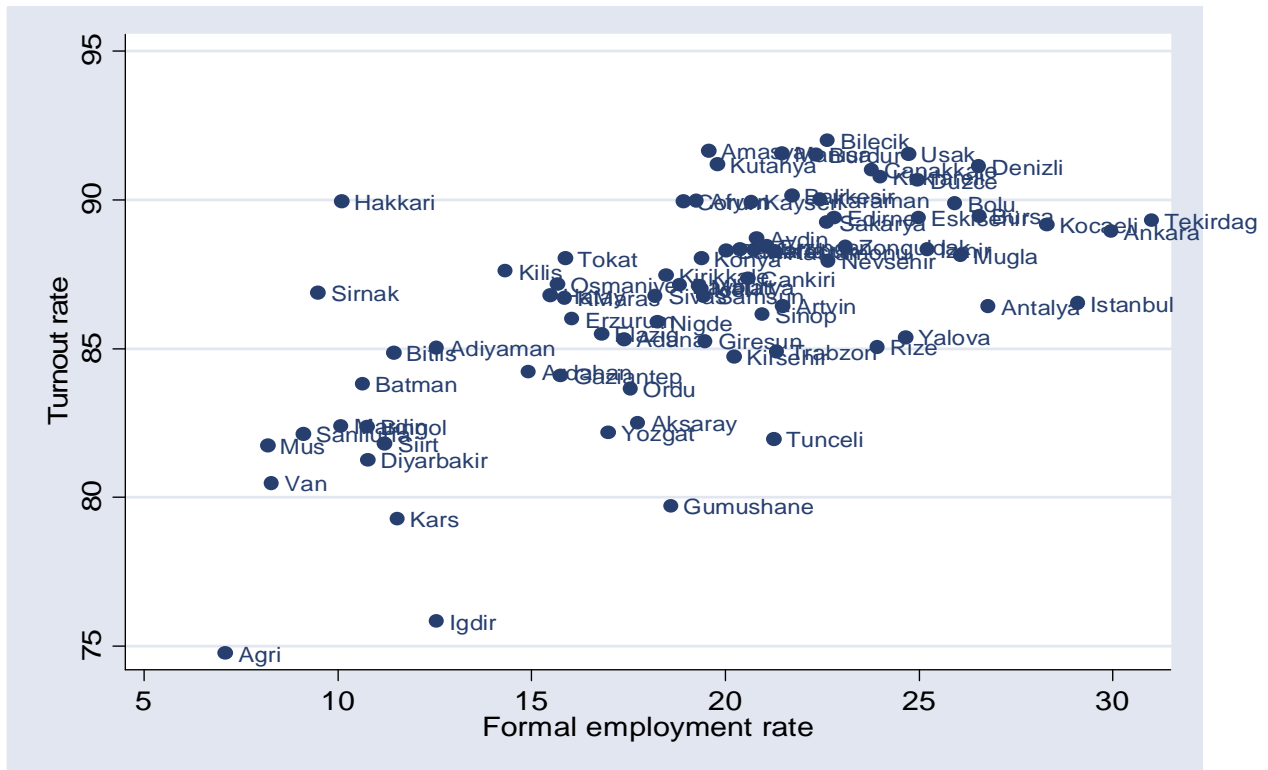
Figure 6: AKP Vote Share vs. the Turnout Rate in 39 Districts

Figure 7a: AKP Vote Share vs. the Population Registration Rate in 39 Districts
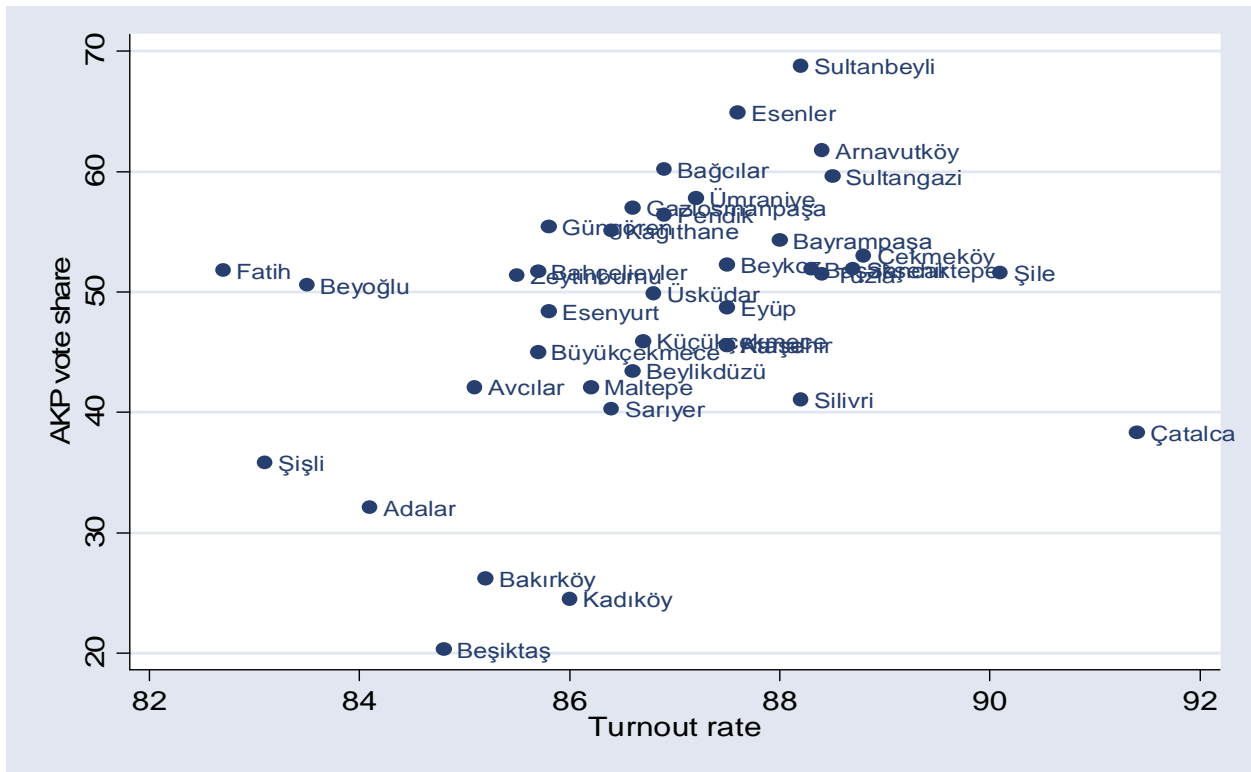
Figure 7b: AKP Vote Share vs. the Mean Age in 39 Districts

Figure 7c: AKP Vote Share vs. the Mean Years of Education in 39 Districts
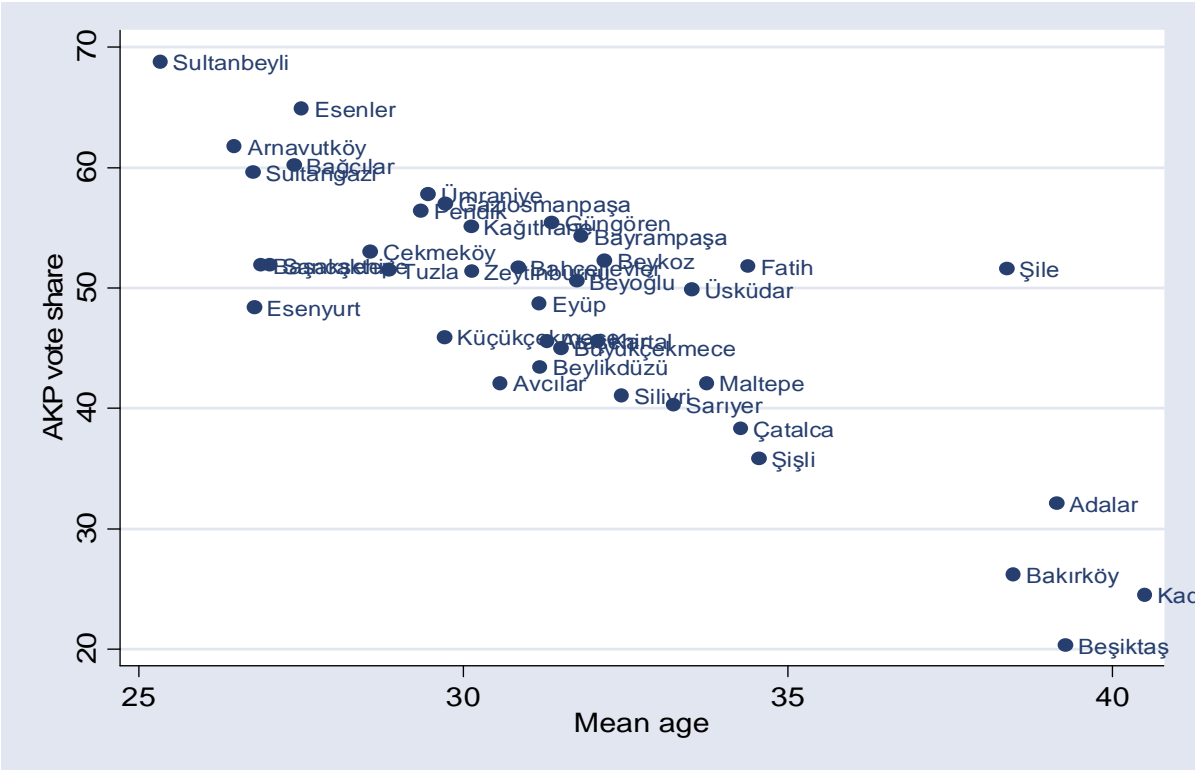
Figure 7d: AKP Vote Share vs. the Gender Gap in Education in 39 Districts
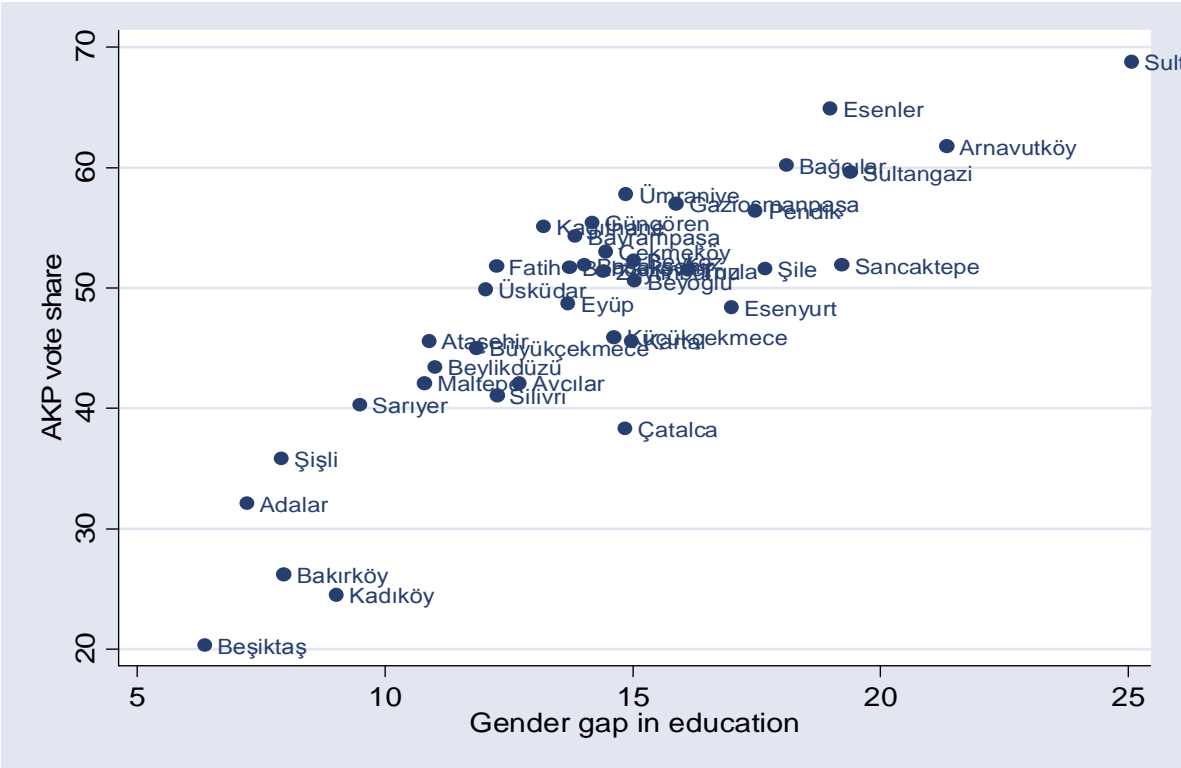
Figure 8a: Turnout Rate vs. the Population Registration Rate in 39 Districts
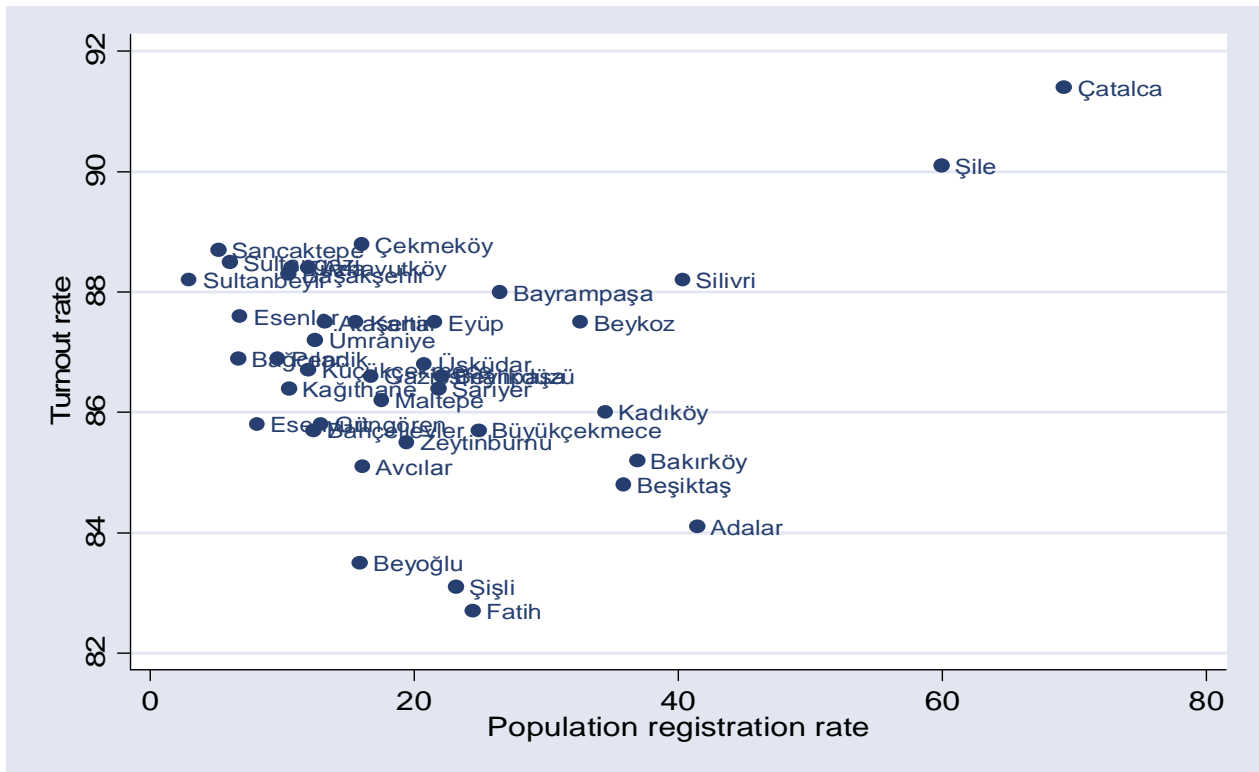
Figure 8b: Turnout Rate vs. the Mean Age in 39 Districts
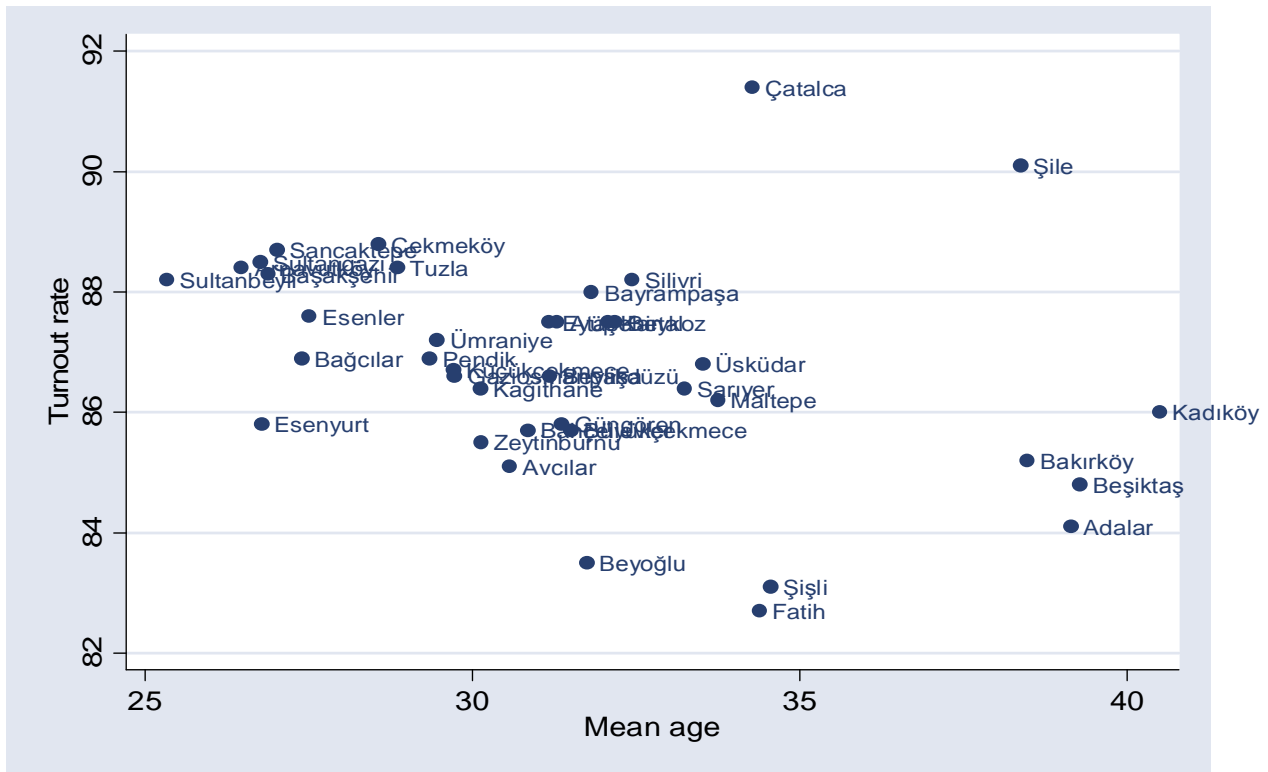
Figure 8c: Turnout Rate vs. the Mean Years of Education in 39 Districts
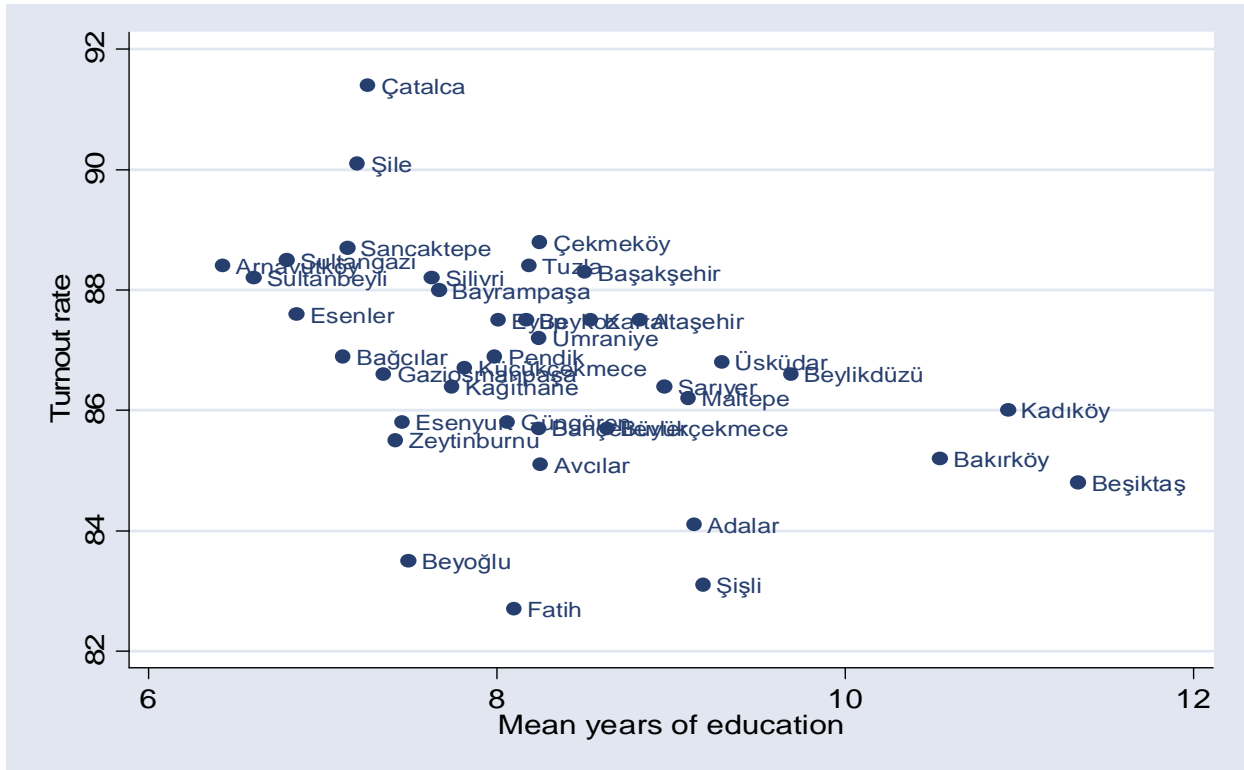
Figure 8d: Turnout Rate vs. the Gender Gap in Education in 39 Districts
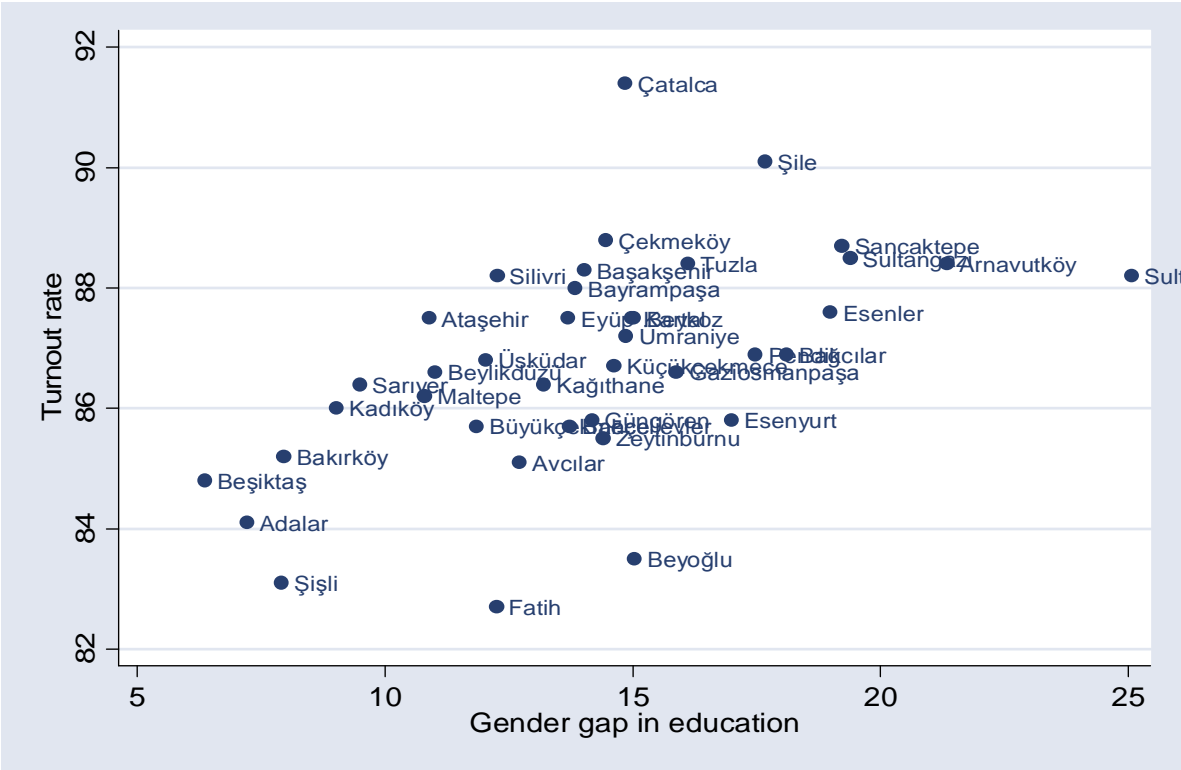
Figure 9: The Coffin That Reads "The Municipality of Kırşehir"

Table 1: The socio-Economic and Demographic Characteristics of Composite Clusters: Means of Various Indicators in The Year 2000

	Cluster 1	Cluster 2	Cluster 3	Turkey
Proportion of population residing in urban areas (%)	72.0	57.7	55.3	64.9
Population density (persons per square km)	138.0	65.1	57.2	88.0
Proportion of non-agricultural employment (%)	66.2	39.6	32.7	52.7
Female share in non-agricultural employment (%)	19.3	12.0	6.8	15.2
Per Capita GDP in 2000 (thousand TL's)	2.3	1.3	0.7	1.8
Net migration rate between 1995-2000 (per 1000)	22.8	-17.9	-41.6	0.7
Prop. of population born in another province (%)	41.0	15.0	8.8	27.8
Average years of schooling	5.9	5.1	3.6	5.3
Median age (years)	27.1	24.6	17.3	25.1

Notes: The cluster means given are the averages of provincial means weighted with the 2000 population figures with the exception of population density which is weighted with the surface area of the province. In the computation of mean years of schooling for each province, 15, 11, 8, and 5 years of schooling are attributed, respectively, to university, high school, middle school, and primary school graduates in the province. Two years worth of schooling is attributed to those who are literate but not a graduate of any school. Children under age six are omitted in computing the mean.
Source: Akarca and Başlevent (2011) computations using the data provided by the Statistical Institute of Turkey (TUIK).

Table 2: Province Level Regressions (All provinces)

	AKP vote share	Turnout rate
Urbanization rate	0.418	0.056
	(0.001)	(0.085)
Population registration rate	0.528	0.064
	(0.001)	(0.137)
Mean age	36.072	-3.546
	(0.000)	(0.016)
Mean age^2/100	-57.385	5.643
	(0.000)	(0.014)
Mean years of education	-58.533	20.324
	(0.048)	(0.013)
Mean years of educ.^{2}/100	354.050	-135.915
	(0.084)	(0.017)
Gender gap in education	0.854	-0.000
	(0.003)	(0.999)
Formal employment rate	1.451	0.463
	(0.008)	(0.002)
Constant	-391.073	48.761
	(0.000)	(0.080)
No. of observations	81	81
R-squared	0.551	0.539

Table 3: Province Level Regressions (74 provinces)

	AKP vote share	Turnout rate
Urbanization rate	**0.433**	**0.080**
	(0.000)	**(0.019)**
Population registration rate	**0.539**	**0.061**
	(0.000)	**(0.149)**
Mean age	**26.012**	**-1.189**
	(0.000)	**(0.521)**
Mean age^2/100	**-42.132**	**2.066**
	(0.000)	**(0.471)**
Mean years of education	**-30.563**	**15.606**
	(0.349)	**(0.096)**
Mean years of educ.^2/100	**173.205**	**-110.323**
	(0.436)	**(0.084)**
Gender gap in education	**0.954**	**-0.025**
	(0.001)	**(0.743)**
Formal employment rate	**1.578**	**0.434**
	(0.003)	**(0.004)**
Constant	**-340.525**	**30.881**
	(0.001)	**(0.284)**
No. of observations	**74**	**74**
R-squared	**0.530**	**0.547**

Table 4: District level regressions (39 districts of Istanbul)

	AKP vote share	Turnout rate
Population registration rate	-0.247	0.137
	(0.008)	(0.000)
Mean age	8.762	-0.500
	(0.012)	(0.000)
Mean age^2/100	-12.883	
	(0.012)	
Mean years of education	-2.867	1.065
	(0.060)	(0.007)
Mean years of educ.^2/100		
Gender gap in education	1.581	0.355
	(0.001)	(0.001)
Constant	-91.627	85.931
	(0.172)	(0.000)
No. of observations	39	39
R-squared	0.869	0.648

Table A1: Province-level data

Province code	Province name	Population	Participation rate	AKP vote share	Urbanization rate	Population registration rate	Mean age	Mean years of education	Gender gap in education	Formal employment rate
1	Adana	2,085,225	85.3	37.4	88.1	61.3	29.8	7.5	20.6	17.4
2	Adiyaman	590,935	85.0	67.3	58.8	94.4	27.1	6.6	32.9	12.5
3	Afyon	697,559	90.0	60.4	52.4	91.8	32.4	6.9	27.9	19.3
4	Agri	542,022	74.8	47.6	50.9	93.4	22.7	5.2	51.7	7.1
5	Amasya	334,786	91.7	52.2	65.6	80.8	34.6	7.3	24.6	19.6
6	Ankara	4,771,716	88.9	49.2	97.3	32.9	32.1	9.0	15.2	29.9
7	Antalya	1,978,333	86.4	39.3	70.4	51.8	31.6	7.9	14.4	26.8
8	Artvin	164,759	86.4	46.4	54.6	91.2	36.5	7.4	28.5	21.5
9	Aydin	989,862	88.7	35.5	59.5	70.5	34.8	7.2	18.2	20.8
10	Balikesir	1,152,323	90.2	46.5	60.3	77.9	36.5	7.3	20.0	21.7
11	Bilecik	225,381	92.0	42.6	76.9	61.3	32.9	7.8	23.1	22.6
12	Bingol	255,170	82.4	67.1	54.1	92.2	26.8	6.1	43.8	10.8
13	Bitlis	328,767	84.9	50.7	51.3	90.5	23.5	5.9	49.8	11.4
14	Bolu	271,208	89.9	58.5	62.7	78.6	35.5	7.5	22.6	25.9
15	Burdur	258,868	91.5	49.0	61.6	83.7	36.0	7.2	23.5	22.3
16	Bursa	2,605,495	89.5	53.0	88.6	57.7	32.4	7.8	18.5	26.6
17	Canakkale	490,397	91.0	41.6	54.9	78.5	37.0	7.4	18.3	23.8
18	Cankiri	179,067	87.3	65.6	61.6	87.8	36.3	6.9	29.3	20.6
19	Corum	535,405	90.0	61.2	66.3	92.7	34.5	6.6	26.9	18.9
20	Denizli	931,823	91.1	46.6	68.8	79.0	33.4	7.3	18.3	26.5
21	Diyarbakir	1,528,958	81.3	32.2	71.3	86.0	24.1	6.0	43.4	10.8
22	Edirne	390,428	89.4	30.4	67.1	77.7	37.1	7.4	15.4	22.8
23	Elazig	552,646	85.5	67.6	72.5	84.3	30.9	7.2	35.6	16.8
24	Erzincan	224,949	88.5	57.1	59.6	73.9	32.5	7.4	30.0	21.1
25	Erzurum	769,085	86.0	69.2	63.6	90.7	28.3	6.9	34.6	16.0
26	Eskisehir	764,584	89.4	44.1	89.2	66.2	34.8	8.4	18.5	25.0
27	Gaziantep	1,700,763	84.1	61.7	88.3	69.7	25.7	6.8	28.8	15.7
28	Giresun	419,256	85.2	59.4	58.5	92.1	36.0	6.9	29.1	19.5
29	Gumushane	129,618	79.7	65.0	47.2	90.0	33.3	7.1	31.0	18.6
30	Hakkari	251,302	90.0	16.5	54.1	92.0	22.1	6.2	48.5	10.1
31	Hatay	1,480,571	86.8	44.4	50.2	84.7	28.6	7.0	23.3	15.5
32	Isparta	448,298	88.3	52.9	69.4	74.5	33.4	7.9	22.3	20.4
33	Icel	1,647,899	87.0	32.0	77.7	61.0	31.1	7.4	19.1	19.4
34	Istanbul	13,255,685	86.5	49.4	99.0	16.4	30.7	8.2	13.2	29.1
35	Izmir	3,948,848	88.3	36.8	91.3	43.2	34.1	8.1	13.7	25.2
36	Kars	301,766	79.3	42.6	40.9	90.9	27.7	6.5	31.1	11.5
37	Kastamonu	361,222	88.3	55.8	54.0	88.2	37.5	6.4	31.7	21.3
38	Kayseri	1,234,651	89.9	64.9	86.2	73.9	30.2	7.7	23.6	20.7
39	Kirklareli	332,791	90.8	27.4	65.9	74.5	36.7	7.6	15.1	24.0
40	Kirsehir	221,876	84.7	50.2	70.6	81.5	33.6	7.4	26.3	20.2
41	Kocaeli	1,560,138	89.2	52.7	93.6	33.8	30.6	8.0	19.7	28.3
42	Konya	2,013,845	88.0	69.6	73.8	85.9	30.6	7.2	25.6	19.4
43	Kutahya	590,496	91.2	64.6	65.0	83.9	34.5	7.1	29.9	19.8
44	Malatya	740,643	87.1	68.0	64.8	82.0	30.9	7.4	27.4	19.3

Table A1: Continued

Province code	Province name	Population	Participation rate	AKP vote share	Urbanization rate	Population registration rate	Mean age	Mean years of education	Gender gap in education	Formal employment rate
45	Manisa	1,379,484	91.6	47.0	67.0	73.1	33.4	6.9	22.0	21.4
46	KMaras	1,044,816	86.7	69.6	61.0	93.6	28.1	6.8	28.8	15.9
47	Mardin	744,606	82.4	32.2	57.6	91.7	23.8	5.8	45.5	10.1
48	Mugla	817,503	88.2	32.7	42.8	66.8	34.5	7.7	13.4	26.1
49	Mus	406,886	81.8	42.8	35.3	92.7	22.9	5.4	53.8	8.2
50	Nevsehir	282,337	88.0	60.2	54.6	86.7	32.6	7.1	25.4	22.7
51	Nigde	337,931	85.9	54.2	48.3	88.6	30.3	7.0	24.2	18.2
52	Ordu	719,183	83.7	60.2	56.2	93.4	34.1	6.6	27.7	17.5
53	Rize	319,637	85.1	68.9	61.8	87.2	33.8	7.4	27.3	23.9
54	Sakarya	872,872	89.2	61.6	74.1	76.4	32.2	7.4	22.2	22.6
55	Samsun	1,252,693	86.8	61.5	65.2	84.1	32.8	7.1	20.8	19.4
56	Siirt	300,695	81.8	48.0	60.3	89.8	22.7	5.9	53.3	11.2
57	Sinop	202,740	86.2	54.9	52.9	88.9	37.4	6.6	23.0	21.0
58	Sivas	642,224	86.8	63.3	67.6	89.9	31.9	7.2	28.0	18.2
59	Tekirdag	798,109	89.3	35.9	68.3	48.7	32.6	7.8	15.1	31.0
60	Tokat	617,802	88.0	55.9	58.9	89.4	33.1	6.8	27.2	15.9
61	Trabzon	763,714	84.9	58.7	54.4	89.9	33.6	7.6	26.4	21.3
62	Tunceli	76,699	82.0	15.8	62.0	81.2	35.3	7.4	27.8	21.2
63	Sanliurfa	1,663,371	82.1	63.5	55.5	94.6	22.2	5.3	51.6	9.1
64	Usak	338,019	91.5	49.9	66.7	82.1	34.4	7.1	23.1	24.7
65	Van	1,035,418	80.5	40.2	52.1	89.0	22.4	5.6	46.6	8.3
66	Yozgat	476,096	82.2	66.4	56.4	91.9	31.8	6.7	27.3	17.0
67	Zonguldak	619,703	88.4	47.2	46.4	75.6	34.0	7.2	27.5	23.1
68	Aksaray	377,505	82.5	66.1	60.4	88.7	29.7	6.7	26.5	17.7
69	Bayburt	74,412	87.1	63.4	50.4	87.3	31.2	7.0	35.0	18.8
70	Karaman	232,633	90.0	57.3	68.7	84.6	31.8	7.2	21.8	22.4
71	Kirikkale	276,647	87.5	62.1	84.2	73.9	33.2	7.7	29.9	18.5
72	Batman	510,200	83.8	37.1	73.2	82.0	22.8	6.3	45.9	10.6
73	Sirnak	430,109	86.9	20.6	62.7	91.3	20.6	5.5	58.9	9.5
74	Bartin	187,758	88.3	48.2	34.1	87.5	35.8	6.7	28.4	20.0
75	Ardahan	105,454	84.2	40.2	32.0	91.3	31.6	6.4	29.4	14.9
76	Igdir	184,418	75.8	28.3	51.8	88.2	26.1	6.2	30.9	12.5
77	Yalova	203,741	85.4	47.2	68.4	41.4	34.5	8.1	16.4	24.6
78	Karabuk	227,610	88.3	43.8	77.8	68.7	35.3	7.4	28.6	20.8
79	Kilis	123,135	87.6	59.5	69.8	88.6	28.5	6.8	24.6	14.3
80	Osmaniye	479,221	87.2	43.1	72.3	76.4	29.2	7.3	25.0	15.7
81	Duzce	338,188	90.7	65.9	57.4	82.0	32.5	7.2	23.8	25.0

Table A2: District-Level Data (Istanbul Province)

District	Population	Participation rate	AKP vote share	Population registration rate	Mean age	Mean years of education	Gender gap in education
Adalar	14,221	84.1	32.1	41.4	39.1	9.1	7.2
Bakırköy	219,145	85.2	26.2	36.9	38.5	10.5	8.0
Beşiktaş	184,390	84.8	20.3	35.9	39.3	11.3	6.4
Beykoz	246,136	87.5	52.3	32.6	32.2	8.2	15.0
Beyoğlu	248,084	83.5	50.6	15.9	31.7	7.5	15.0
Çatalca	62,001	91.4	38.3	69.2	34.3	7.3	14.9
Eyüp	338,329	87.5	48.7	21.5	31.2	8.0	13.7
Fatih	431,147	82.7	51.8	24.5	34.4	8.1	12.3
Gaziosmanpaşa	474,259	86.6	57	16.7	29.7	7.3	15.9
Kadıköy	532,835	86	24.5	34.5	40.5	10.9	9.0
Kartal	432,199	87.5	45.6	15.6	32.1	8.5	15.0
Sarıyer	280,802	86.4	40.3	21.8	33.2	9.0	9.5
Silivri	138,797	88.2	41.1	40.3	32.4	7.6	12.3
Şile	28,119	90.1	51.6	59.9	38.4	7.2	17.7
Şişli	317,337	83.1	35.8	23.1	34.6	9.2	7.9
Üsküdar	526,947	86.8	49.9	20.8	33.5	9.3	12.0
Zeytinburnu	292,430	85.5	51.4	19.4	30.1	7.4	14.4
Büyükçekmece	182,017	85.7	45	24.9	31.5	8.6	11.9
Kağıthane	416,515	86.4	55.1	10.5	30.1	7.7	13.2
Küçükçekmece	695,988	86.7	45.9	12.0	29.7	7.8	14.6
Pendik	585,196	86.9	56.4	9.7	29.3	8.0	17.5
Ümraniye	603,431	87.2	57.8	12.5	29.5	8.2	14.9
Bayrampaşa	269,481	88	54.3	26.5	31.8	7.7	13.8
Avcılar	364,682	85.1	42.1	16.1	30.6	8.3	12.7
Bağcılar	738,809	86.9	60.2	6.7	27.4	7.1	18.1
Bahçelievler	590,063	85.7	51.7	12.4	30.8	8.2	13.7
Güngören	309,624	85.8	55.4	12.9	31.4	8.1	14.2
Maltepe	438,257	86.2	42.1	17.5	33.8	9.1	10.8
Sultanbeyli	291,063	88.2	68.8	3.0	25.3	6.6	25.1
Tuzla	185,819	88.4	51.5	10.7	28.9	8.2	16.1
Esenler	461,072	87.6	64.9	6.8	27.5	6.9	19.0
Arnavutköy	188,011	88.4	61.8	12.0	26.5	6.4	21.3
Ataşehir	375,208	87.5	45.6	13.2	31.3	8.8	10.9
Başakşehir	248,467	88.3	51.9	10.5	26.9	8.5	14.0
Beylikdüzü	204,873	86.6	43.4	22.1	31.2	9.7	11.0
Çekmeköy	168,438	88.8	53	16.0	28.6	8.2	14.5
Esenyurt	446,777	85.8	48.4	8.1	26.8	7.5	17.0
Sancaktepe	256,442	88.7	51.9	5.1	27.0	7.1	19.2
Sultangazi	468,274	88.5	59.6	6.0	26.8	6.8	19.4