RESEARCH BRIEFING

Evaluation of the Potential for Districts/ Counties to Become Provinces with Respect to the Level of Urbanization in Turkey

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ABSTRACT *This paper presents the political, socio-economic, spatial and demographic aspects for the changing administrative status of districts/counties in Turkey in the last two decades (1990s and 2000s) with respect to urbanization and development levels. There has been a rapid increase in the number of provinces in Turkey recently. Fourteen districts/counties have been announced as new provinces in years between 1989 and 1999. There were attempts and applications for the other 129 districts, till the present day to become a "province". In fact, attempts and requests to become a province for districts create pressures on policy makers, central government bureaucrats and members of the Parliament and prevent adequate formulation of urbanization and administrative subdivision. In this study, it is aimed to take a picture of the urbanization levels of districts by using the multivariate statistical analysis and to develop some proposals for the applications of changing the administrative status of settlements as well.*

1. Introduction

There has been a rapid increase in the number of provinces in Turkey in the last decades. While the number of provinces was 74 when the Republic was established (1923), it was decreased to 57 in 1933, reached 67 in 1957, gradually increased after 1989 and has reached 81 as of 2010. The same process was observed in the number of districts. They rose from 315 to 892 between 1925 and 2010.[1] (The number of districts was 570, while the number of provinces was 67 in 1957 and it reached 696 in 1988 when the number of provinces was still 67.)

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The increasing trend in the number of districts and provinces has forced many politicians to promise changing administrative status of settlements in order to attract votes. In today's Turkey, attempts, wishes and requests created by highly populated districts to become provinces are one of the main urbanization and administrative-geographical subdivision problems on the governor's agenda (Kılınç, 2006). Moreover, promises of the politicians to increase the number of provinces to 100 were one of the huge debates that appeared in the media for days just before the 2007 national elections in Turkey. This is because of the convenience of attaining public utilities and the psychological well-being of living in city centres. These factors are classified as factors that accelerate the level of urbanization. However, without other economic, social and cultural components which cause urbanization, such a process would not bring consistent and healthy development. The speculative applications and the lack of any criteria for changing the administrative status of settlements in Turkey have triggered the expectations in many cities. The only criterion for granting a province status to a group of districts/counties is derived from an article of the Constitution. According to that article, "Turkey is divided into provinces, and provinces to the districts with respect to their geographies, economic conditions and public service needs". Although this clause does not directly indicate more urbanized areas, the urbanization levels of these types of central settlements is expected to be high due to the nature of administration.

As administrative units, provincial centres generally, however not necessarily always, refer to more urbanized, more developed and more centralized areas in relation to the settlements around. From this point of view, theoretically, the increase in the number of provinces must reflect the increase in the level of urbanization and development. Technically, urbanization has a dual structure. While the first one represents the increase in the number of cities quantitatively, the second one indicates the qualitative development in urban life and in socio-cultural structure.

Urbanization in Turkey is generally handled with regard to economic and regional development projects, which have been generated for the development of underdeveloped regions. However, the policies about the administrative changes of urban areas do not fit with the aims of those regional development projects. In other words, the regional policies and plans prepared according to scientific methods and socio-cultural, economic and spatial realities become ineffective due to those speculative policies of granting new provincial status. In addition, the lack of comprehensive and well-formulated criteria in constituting districts and provinces and in determining urban development levels has caused speculative implementations.

It is not easy to determine well-defined and certain urbanization criteria due to many demographic, economic and socio-cultural dimensions which are so much intermingled. The complexity and difficulty in determining criteria become evident when other countries around the world are examined. It is possible to see definitions that consider several criteria such as population, size, economic and administrative structure, urban functions and the combination of two or more.

Within this framework, this research examines the urbanization in Turkey with a comprehensive statistical analysis of data obtained from each district for the period between 1990 and 2005. Besides, it aims to test urbanization and development levels of districts in order to determine whether a major district/county and its neighbouring counties have the potential to form and obtain provincial status. This brings up the issue of the

changes in the level of urbanization and development for the districts that have become provincial centres in the last couple of decades.

2. Theoretical Background

2.1 *Conceptual Framework about Urbanization*

Although there is no globally accepted common definition for urbanization, it has been expressed that any definition should be holistic; so it includes several indicators and parameters selected from economic, social, geographical and cultural factors (SPO, 1998). From the viewpoint of social approach, urbanization is defined as the concentration of population in big cities due to social evolution. It is also indicated that social development should be the first condition of urbanization (Durkheim, 1964). According to Wirth (1938), it is a social and geographic process whereby human settlements acquire high levels of size, density, heterogeneity, specialization and interdependence. Moreover, social scientists agree on the fact that the urbanization process mostly depends on the economic development process (Bairoch, 1988).

According to economists, the concentration of people in the cities is the reflection of several economic forces (Weber, 1899). From their viewpoint, urbanization can be defined as "the method of using the sources for the needs of community" (Goodall, 1972). On the other hand, urbanization is characterized by the extension of urban economy to rural areas and its recombination with urban industry (Huapu, 2002). Planners, as the actors who are concerned with ordering healthy and livable locations, generally perceive urbanization as the appropriate mix of activities and elements (houses, roads, factories, offices, hospitals, water and sewage systems, etc.) in space. In agreement with Mumford (1961), Wirth and Jacobs, cities are the "nerve centers for the economic, social, cultural and political life of society, as centers for innovation, exchange and communication and as living environments for people" (Harvey, 1996). Keleş (2008) explains the urbanization due to economical, technological, political and socio-physiological reasons with respect to their centripetal and centrifugal impacts. While population, improvements in communication and transportation, opportunities in finding jobs and ease of reaching public utilities are claimed as the attractive forces of urban areas, the lack of those advantages and decline in agriculture are the pushing forces of rural areas (Keleş, 2008).

In a limited and simple sense, urbanization indicates population and quantitative increase of cities. Essentially, it has economical, social and political meanings since it is arisen from the socio-economic transformations of the society (Wirth, 1938; Brunn & Williams, 1993; Carter, 1995; Montgomery *et al.*, 2003; Keleş, 2008).

2.2 *Studies for Defining Urban Areas and Urbanization in the World*

The measurement of urbanization is not so easy and involves some problems in it. These problems can be grouped into two: the first one refers to the definition of "urban" and the second refers to its measurement (Arriaga, 1970). Arriaga proposed three indices to measure the urbanization: (1) the degree of urbanization, (2) the concentration of population and (3) the speed of urbanization. Although he put forward these criteria, he also noted that these indices are based on the size of cities and do not include social and economic characteristics of urbanism. From this point of view, some researchers have tried to determine the optimum city size through some economic externalities (urban costs,

optimal taxation, etc.) and political subdivisions (Henderson, 1974; Singell, 1974; Blair, 1975). However, they have not reached a conclusion on a fixed determination. In the further studies that have been conducted in the last decades, it was pointed out that the development levels were differentiated due to social, economic and spatial factors of countries and thus, determining global criteria for urbanization is not possible (Hornby & Jones, 1990; Carter, 1995; Cohen, 2006).

In addition to these studies, some researchers tried to classify urban areas with reference to their administrative status. For instance, Soja (1971) defined the administrative areas as the spatial units which observe a hierarchical order, perform specific functions at different levels and have evolved and organized in a variety of ways. The developments in computer technologies, transportation and communication have not only changed lifestyles and spatial movements in the settlements, but also made some bureaucratic organizations pointless. With respect to these contemporary improvements, some states necessitated to revise their structures again and reduced administrative areas.

At the global level, changing of central and local government units was discussed in terms of "administrative area reform". Krishan (1988) pointed out that while first world countries redesigned their administrative structures by consolidating the lowest level administrative units into bigger and fewer ones, the Second World (socialist) countries invariably replaced their traditional structures by new ones and the Third World countries have generally been guided by considerations of convenience in subdividing the bigger units into smaller ones. He also grouped the considerations for administrative reforms into three: (1) a measure for improvement in service provision, (2) an instrument for political/ideological control and (3) a condition for economic development. However, in general, the matters of political ideology influence the administrative area reforms than the development levels (Krishan, 1988).

On the other hand, in practice, the studies on defining urban areas are mainly performed by UN. Those studies generally focus on determining common standards and criteria to ensure healthy international comparisons and evaluations for the cities all over the world. UN has collected data from the State Statistics Bureaus of all countries since 1950s. However, after recognizing that it is not possible to adopt common standardized criteria to distinguish urban areas, instead of determining common standards, UN preferred classifying the definitions and countries through certain properties (United Nations, 1967, 1969). Also, the studies for increasing the urbanization levels of the countries are executed according to local problems and properties. Table 1 shows the classification results of an analysis done by United Nations (2001) with the data obtained from 228 countries or areas.

As it can be seen from the Table 1, the urban areas are mostly defined according to population, size and administrative criteria all over the world. In terms of population criterion, the limits in some countries are shown in Table 2.

Derived from these assessments, determining the administrative area of the settlements should be handled with the specific criteria, including the level of urbanization, which changes according to political, economic and social structure of countries.

2.3 *Urban Studies and Urban Criteria in Turkey*

In this paper, urban studies about urbanization and development in Turkey were analysed by grouping them into two: (1) regional development studies for increasing the develop-

Table 1. Distribution of countries according to the criteria used in defining urban areas

Criterion	Sole use	Used in conjunction with other criteria	Percentage according to sole use	Percentage according to use in conjunction with other criteria
Administrative	89	109	39.0	47.8
Size	46	98	20.2	43.0
Functional	5	24	2.2	10.5
Economic	0	27	0.0	11.8
Entire population	6	6	2.6	2.6
Economic and size	23	–	10.1	–
Functional and size	15	–	6.6	–
Administrative and size	12	–	5.3	–
Administrative and functional	4	–	1.8	–
Administrative and economic	2	–	0.9	–
Administrative, economic and size	2	–	0.9	–
No definition	24	24	10.5	10.5
Total number of countries and areas	228	228	100.0	–

Source: United Nations (2001)

ment level of settlements and (2) academic and administrative studies for determining the urbanization level of settlements. Both of these studies are related to each other in terms of their strategies and the data used in. Demographic, economic and social variables used in them were gathered by Turkish Statistical Institute (TÜİK (in Turkish)–TurkStat) on the basis of administrative areas TÜİK (1990, 2000, 2001, 2004).

In Turkey, State Planning Organization (SPO) has been the main actor for preparing, organizing and applying the regional development plans which is mentioned in the first

Table 2. Urban population limits in different countries in the world

Countries	Urban population limits
Denmark, Sweden	200
Albania	400
Canada, England	1000
Ireland, Colombia, Panama, Australia	1500
France, Israel, Argentina, Bolivia	2000
US, Mexico, Venezuela, Puerto Rico	2500
Belgium, Ghana, India, Jamaica, Iran, Turkey	5000
Netherlands	6000
Nepal	9000
Greece, Senegal, Spain, Switzerland	10,000
Japan, New Zealand	30,000
Korea	40,000

Source: (Schwab, 1992; Bhagat, 2005; General Directorate of Provinces Administration, 2005; U.S. Census Bureau, 2002; University of Manitoba, 2002; Statistics New Zealand, 2004; ODPM, 2001; CEPAL, 1999.

group of urban studies, since 1960s. In the reports of the SPO, the economic dimension of urbanization is strongly emphasized and structural and spatial differences of urbanization between "developed" and "underdeveloped" countries are expressed (Dinçer, 1996; SPO, 2005). Urban studies are tried to be formulated by SPO with 5-year development plans which are prepared for the aim of diminishing interregional inequalities in the country since 1963. The 9th one has been executed up till now and many plans, projects and programmes are prepared or applied through the main strategies claimed in them.

Since the plans[2] which were prepared in the 1st, 2nd and 5th development plan periods have not been implemented and the ones[3] in the 7th, 8th and 9th development plan periods have not been completed yet, it is not possible to evaluate the results of those plans, projects and programmes, unfortunately. The main reasons for the unenforceability of those plans can be summarized as the lack of guiding strategies for private investors, lack of administrative and political support, lack of specific implementation tools for each plans, insufficient financial support and financial crisis in Turkey (Mutlu, 2008).

Besides these studies, there has been another initiative for the development of underdeveloped provinces which is called "Development Privileged Provinces" since 1968. According to that initiative, several economic incentives have been provided to those underdeveloped provinces. Nevertheless, the regional inequality could not be eliminated until the recent day. In addition to these governmental studies, of course, many academic research studies, which analyses the interregional inequalities, have been conducted for years. Among those, it may be necessary to mention a recent study which analyses the regional inequalities at interprovincial level with reference to three different regional definitions: geographical, functional and coastal-interior. According to the results of this study, interconnections between provinces have been increasing over time and spatial dependence is increasing among richer provinces more rapidly in Turkey (Gezici & Hewings, 2007).

The academic and administrative urban studies, which are mentioned in the second group, have commonly focused on determining urbanization levels of settlements. Through these studies, the most noticeable one was done by Çezik in 1980. In this research, the minimum population limit of 10,000 for urban areas, which SPO affirmed, was criticized with reference to some administrative, social and economic variables, and as a concluding remark, it is reached that the population limit for urban areas should be 20,000 for Turkey (Çezik, 1982). Özçağlar (1996, pp. 20–21) also accepted the 20,000 population limit for urban areas. In terms of demographic criterion, many of the geographers widely agree on 10,000 population limit for describing urban areas since 1940s in Turkey (Selen, 1945; Tümertekin, 1965; Doğanay, 1995; Avcı, 2004). In order to understand the actual circumstances in urban system, the studies for determining the levels of urbanization and development of districts and provinces were also supported by SPO in 1990s. These studies analysed districts and provinces according to many social, economic and demographic variables and put forward the factors which accelerate the development level in the country (Dinçer, 1996; Dinçer *et al.*, 1996; Özaslan *et al.*, 2006). In another research, which was done recently by Yüceşahin and Özgür (2008), it is pointed out that the general urbanization level in Turkey depends mainly on the economic and the social factors rather than the demographic factors. Even though many other academic studies which emphasize the importance of functional and geographical properties of settlements in urbanization levels (Yücel, 1961; Tümertekin, 1965; Darkot, 1967; Tanoğlu, 1969), it is understood that the structure of urbanization in Turkey is basically shaped through demographic and economic factors.

2.3.1 *Urban studies for changing administrative status of districts in Turkey.* The urban studies related to the changes in administrative status of districts in Turkey are executed by General Directorate of Province Administration in Ministry of Civil Affairs. The changes can be done through the Acts put in order according to Article 126 of the Constitution. In this paper, it is mentioned that for granting a new province, the authorities should consider geographical situation, economic development and the necessity of the public services.

Owing to the lack of any other clause for granting a new province or a new district, some criteria had been tried to be determined by some scientific and administrative research, especially in the 1940s and 1960s. Some criteria related to the size and the population of settlements were put forward. For example, it was proposed that the province area should not be smaller than 24,000 km^2, the population of the province centre should not be less than 45,000 and the total province population should be more than 210,000. In another research, the minimum district centre population was determined as 2000 and the total district population was determined as 25,000. They tried to limit the area of provinces between 4000 and 24,000 km^2 (Ministry of Interior Affairs, 1972). Even those specific researches that stated a certain criteria for administrative status of settlements, the majority of the researchers agreed on the idea that without considering the economies of scale of urban areas, granting a new province or a district would be a mistake (Gürsoy, 2008, p. 89). Another important issue, which has been especially indicated in recent studies, is the fact that granting a new district or a province in Turkey is a political decision rather than a scientific implementation (Aydın & Uran, 2004; Çimen, 2007; Gürsoy, 2008).
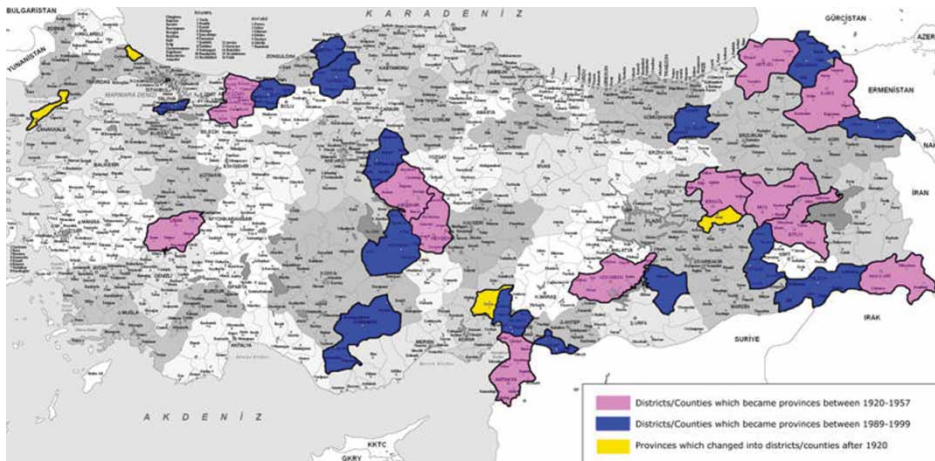
The changes in the number of provinces since 1920 are shown in Table 3 and Figure 1. As it is seen from the table, after 1989, there has been a rapid increase in the number of provinces. This trend has given way to many districts to apply to the related directorate to become a province. Among those districts, there exist not only the developed ones which have the potential to become a province, but also underdeveloped ones with very low development/urbanization levels (General Directorate of Provinces Administration, 2005).

The main reasons declared in the official reports for changing administrative status of those 14 districts which have become provinces after 1989 are summarized in Table 4. When the reasons which were mainly justified by economic development or decline and supported by the population density are investigated, it will be seen that all of these components are common in the other locations of Turkey. The promotion of districts to provinces supported by extremely general and simple reasons and without any scientific and comprehensive justification by detailed analysis and data support fortifies the conclusion that these decisions were made by political reasons rather than economic, social or other bases.

Those studies which were prepared all around the country for the determination of "development privileged provinces", provision of economic initiatives, transfer of economic sources to underdeveloped regions and execution of big scale regional projects, granting new provinces have not been sufficient to prevent regional disequilibrium. Moreover, the decisions of granting new provinces have caused a huge economic burden on the national economy[4] (Ministry of Interior Affairs, 2002, p. 100; Gürsoy, 2008, p. 86). These policies executed by the central government can be considered as an argument for decreasing the influence of political decisions on urbanization and development as they were before. It is essential to analyse all these decisions and

Table 3. Changes in the number of provinces in Turkey

Year	Number of provinces	Provinces changed into districts	Districts changed into provinces
1920	71		
1924	74		Artvin, Kars, Ardahan
1926	63	Üsküdar, Beyoğlu, Çatalca, Gelibolu, Ardahan, Muş, Dersim, Genç, Siverek, Ergani, Kozan	
1929	63	Bitlis	Muş
1933	57	Aksaray, Cebelibereket, Artvin, Şebinkarahisar, Hakkari	İçel (by the colligation of Mersin and Silifke provinces)
1936	62		Artvin, Hakkari, Bitlis, Bingöl, Tunceli
1939	63		Hatay
1953	63	Kırşehir	Uşak
1954	66		Adıyaman, Sakarya, Nevşehir
1957	67		Kırşehir
1989	71		Aksaray, Bayburt, Karaman, Kırıkkale
1990	73		Batman, Şırnak
1991	74		Bartın
1992	76		Ardahan, Iğdır
1995	79		Yalova, Kilis, Karabük
1996	80		Osmaniye
1999	81		Düzce

Figure 1. Changes in the number of provinces in Turkey since 1920

results with concrete data to set them on a rational base. In this sense, this research also determines the development potential and urbanization level of districts by using statistical data.

Table 4. Main reasons for changing administrative status in official reports

Province	Economic	Socio-demographic	Physical	Historical
Aksaray	Economic development		Geographical location	
Kirikkale	Economic development			
Bayburt	Economic underdevelopment			Historical background
Karaman			Geographical location	Historical background
Batman	Economic development	Population density		
Şirnak	Economic underdevelopment	Security		
Bartin	Economic development			
Ardahan	Economic underdevelopment	Out-migration		
Iğdir	Economic development		Geographical location	
Karabük	Economic development	Population density		
Kilis		Out-migration		
Yalova		Population density	Geographical location	
Osmaniye		Population density	Geographical location	
Düzce			Earthquake disaster	

3. Methodology

In this study, urbanization and development level of districts in Turkey are examined by using several demographic, economic and socio-cultural data. The complexity of variables necessitates using multi-variable statistical analysis methods such as correlation, regression and clustering analysis. At the beginning of the research, 73 indicators were determined according to literature survey and urbanization concepts which are explained in detail in the theoretical part. It has been decided to obtain those 73 indicators for the years 1990s and 2000s for each district in Turkey (851 districts in 1990 and 947 in 2004) and to prepare data matrices. However, because of the lack of sufficient and reliable databases in Turkey, only 45% of the anticipated data could be obtained. Additionally, more detailed data about education and agriculture were supplied in the scope of this research. The 48 raw variables for the year 1990 and 53 raw variables for 2000s are listed in Tables 5–9.

Eight different demographic variables were used in this study in order to explain the level of urbanization and development of the districts in Turkey (see Table 5). These variables indicate the size of the population, the rate of urbanization and locational distribution. Relatively developed districts with high urbanization rates get more attraction due to their conveniences and opportunities in the economical and the social life. Increasing population of these kinds of cities also causes an increase in the density of

Table 5. Demographic variables for 1990 and 2000s

No.	Demographic variables
1	Total population ($D1$)
2	Urban population ($D2$)
3	Rural population ($D3$)
4	Urbanization rate ($D4$)
5	Population density ($D5$)
6	Annual population increase rate ($D6$)
7	Total number of households ($D7$)
8	Total resident population ($D8$)

Table 6. Education variables for 1990 and 2000s

No.	Education variables
1	Ratio of illiterate population ($S1$)
2	Ratio of primary schools graduates ($S2$)
3	Ratio of high schools graduates ($S3$)
4	Ratio of higher education institution graduates ($S4$)
5	Number of preschools ($S5$)
6	Number of preschool students ($S6$)
7	Number of preschool teachers ($S7$)
8	Number of primary schools ($S8$)
9	Number of primary school students ($S9$)
10	Number of primary school teachers ($S10$)
11	Number of high schools ($S11$)
12	Number of high school students ($S12$)
13	Number of high school teachers ($S13$)

Table 7. Elective variables for 1990 and 2000s

No.	Elective variables
1	Voting rate in local elections ($V1$)
2	Voting rate in general elections ($V2$)

the population. In Turkey, while there has been an increase in the population due to the developments in some cities, a decrease can be seen in some other cities due to their security and economic problems. These centrifugal and centripetal factors cause rapid changes in the populations and the urbanization rates of the cities. The values of variables shown in Table 5 were obtained from TurkStat. Total population ($D1$) demonstrates the population of the province. Urban population ($D2$) shows the population that only live in the border of the municipal authorities, while the rural population ($D3$) shows the population that only live in the rural areas and outside of the border of the municipal authority. Also, population density ($D5$) denotes the ratio of the total population and the total area of the province.

Educational variables which were shown in Table 6 were also provided by TurkStat. There are three educational steps in the Turkish educational system. These educational

Table 8. Economic and sectoral variables for 1990 and 2000s

No.	Economic and sectoral variables
1	Working population in Agriculture, hunting, forestry and fishing ($E1$)
2	Working population in mining and quarrying ($E2$)
3	Working population in construction ($E3$)
4	Working population in electricity, gas and water services ($E4$)
5	Working population in wholesale and retail trade, restaurants and hotels ($E5$)
6	Working population in transport, communication and storages ($E6$)
7	Working population in finance, insurance, real estate and business services ($E7$)
8	Working population in community, social and personal services ($E8$)
9	Working population in manufacturing industry ($E9$)
10	Working places in manufacturing industry ($E10$)
11	Manufacturing industry added value *per capita* ($E11$)
12	Electricity consumption *per capita* in manufacturing industry ($E12$)
13	Waged population ($E13$)
14	Economically active population (obtained only for 1990) ($E14$)
15	Economically inactive population ($E15$)
16	Number of bank offices ($E16$)
17	Number of incentive certificated investment ($E17$)
18	Amount (cost) of incentive certified investments ($E18$)
19	Employment of incentive certified investments ($E19$)
20	General income budget *per capita* (TL) (obtained only for 2003) ($E20$)
21	General cost of budget *per capita* (TL) (obtained only for 2003) ($E21$)
22	Corporation tax *per capita* (TL) (obtained only for 2003) ($E22$)
23	Income tax *per capita* (TL) (obtained only for 2003) ($E23$)
24	Amount of fruit production ($E24$)
25	Amount of vegetable production ($E25$)
26	Amount of field product ($E26$)
27	Cultivated area ($E27$)

Table 9. Other variables for 1990 and 2000s

No.	Other variables
1	Number of health foundations (obtained only for 2005) ($O1$)
2	Number of tourism foundations (obtained only for 2003) ($O2$)
3	Number of beds in tourism foundations (obtained only for 2003) ($O3$)
4	Area ($O4$)

steps are preschool education, mandatory 8 years' "elementary and middle school education" and 4 years' high school education, respectively. Preschool education has been becoming more common recently in Turkey and it is still not very common in small cities and rural areas. Young population can go to universities or colleges for higher education approximately after 12–13 years of education and after taking a centralized nationwide examination. Management or auditing of the main educational institutions is one of the responsibilities of Turkish government. There is a strong relationship between the level of socio-cultural development and the level of the general education of the individuals in the society from the cause and effect point of view. One of the most essential tools to maintain the economic and the social development is education of the required

number of quality manpower. The literacy rate is a crucial factor that shows the general educational level of the societies and it is recognized as the minimum requirement for the improvement of knowledge and ability of the individuals, and their participation to the social life. The number of elementary, middle and high schools also indicates the level of the participation and penetration of the education. Furthermore, cities that have various socio-cultural activities attract quality manpower with higher education levels. As a result, when the level of socio-cultural development increases, in parallel, the increase in the population rate of the higher educated people is also expected.

The other group of data which was used in this study is the rate of the participation to the elections. The election participation rate is recognized as an important index of social development and urbanization as a component of socialization and organization of the society. Therefore, the variables in Table 7 were added to the analysis in this study and these variables show the rate of the participation in general and local elections.

The variables shown in Table 8 have an essential importance due to the effectiveness to explain the urbanization and the development of a district. Since the urbanization cannot be independent from the economic development, during the analysis of this study, it is thought that the more economy related data are analysed the more accurate results could be achieved.

The distribution of the manpower in different sectors (agriculture, industry, services) ($E1$, $E2$, $E3$, $E4$, $E5$, $E6$, $E7$, $E8$, $E9$, $E10$) has an important role due to its ability to show the main economic activities in the districts. The number of agricultural workers in the total number of workers is expected to be high in the less urbanized settlements, where agricultural productivities are low, since the modern agricultural manufacturing techniques are not used. As the level of socio-economical development increases, the number of agricultural employment ratio in the total number of employment decreases and working population in industrial and business services increases, respectively.

Banks in the developed economies are heavily used in the economic services for use, savings or loaning of income. From this perspective, number of bank offices ($E16$) in a location can be accepted as an index or a variable that exhibits the commonness of trade services.

Level of income, capital savings, financial indices related to the tax due to conversion of capital to the investments ($E20$, $E21$, $E22$, $E23$) are variables that also reflect the development level of a city. Moreover, the variables that are related to incentive certificated investments ($E17$, $E18$, $E19$) are also important variables as they reflect the contribution of the private sector to the reconstruction activities, the potential of entrepreneurship and investment dynamics. When the fact that migration from rural areas to the developed cities due to the unemployment in Turkey is considered employment due to the incentive certified investments can be accepted as a variable that shows the growth rate and development level of locations.

Furthermore, the health establishment data ($O1$), which show the development of health services, tourism (as an important part of services sector)-related data ($O2$ and $O3$) and the area of the districts ($O4$) are used as an input in analysis of this study (see Table 9).

4. The Urbanization/Development Level of Districts/Counties in Turkey

4.1 *Properties of Provincial Centres*

While determining the districts which have the potential to become a province, it is necessary to define the structure of urbanization in general. Therefore, the properties of all the

province centres are to be determined at first. When the data for the year 1990 is analysed, it is observed that the values vary widely. For instance, urban population changes between 33,000 and 550,000 (except the metropolitan cities), urbanization rate is between 31% and 99%, working population in economic activities are as follows: 1%–40% in agriculture, 10%–51% in industry and 45%–80% in services, the added value *per capita* in manufacturing industry is US$ 0–492,173 (in 2003 dollars), the ratio of agricultural product in Turkey is 0%–7%, the number of persons per bank offices is 5500–48,000, the number of investments with the encouragement certificate is 0–5000, household size is 4–8 persons and illiteracy rate is 2%–23%.

When the same analysis is performed with the data obtained for the year 2000 and the following years, the results are such that urban population is between 30,000 and 730,000 (except the metropolitan cities), urbanization rate is between 27% and 99%, working population in economic activities are as follows: in agriculture 1%–20%, in industry 6%–49% and in services 47%–92%, the added value *per capita* in the manufacturing industry is US$ 0–16,957 (in 2003 dollars), the ratio of agricultural product in Turkey is 0%–6.5%, the number of persons per bank office is 5500–34,000, the number of investments with an encouragement certificate is 0–9850, household size is 3–7 persons and illiteracy rate is 2%–18%.

All of these values for the year 1990 and 2000s show that the properties of existing province centres are not homogeneous enough to distinguish them from the other districts (the districts which are not province centres). Exclusively, the values for household size, illiteracy rate, student per teacher and the voters' rate in local and general electives have quite a homogeneous distribution. All these results indicate that it is very difficult or almost impossible to determine common criteria for province centres in Turkey. This fact also points out not only the lack of scientific approach (demographic, economic, socio-cultural approaches) in constituting province centres, but also a casual and speculative approach. Despite these weaknesses and complexities, the analysis of all the province centres provides some clues for the direction of urbanization in Turkey. According to these values, it can be concluded that with the increase in the population and the number of economic investments, the decrease in the ratio of agriculture and household size are the main variables which accelerate urbanization.

4.2 *Differentiations in New Provinces*

The results of the performed analysis for determining the differentiations in new provinces were summarized by grouping them into two with reference to the date they were announced as provinces. In this sense, while Aksaray, Kırıkkale, Bayburt, Karaman and Şırnak which became provinces in 1989 and 1990 took place in the first group, the remains, Bartın, Ardahan, Iğdır, Karabük, Kilis, Yalova, Osmaniye and Düzce, which were granted provincial status between 1991 and 1999, were analysed in the second group.

The results show that in the first group of provinces, while there is an increase in populations and in the rate of high school and higher education graduates, no significant differences in the urbanization rate and in the rate of agricultural products were obtained. On the other hand, it is observed that there is a remarkable increase in the number of investments with the encouragement certificate in Karaman, which means that the governmental economic incentives accelerate economic development only in Karaman. The main reason for this situation is not directly related with it being a province; it mostly depends on the

geographical advantages of the settlement. Karaman is located between the two metropolitan cities, Konya and Mersin, and also has the advantages of transportation connections (for instance, very close to Mersin seaport) at global and national levels. Owing to these conditions, the highest value in corporation tax *per capita* was also observed in Karaman.

According to the results for the 2nd group of provinces, a remarkable increase in the number of total population was seen only in Osmaniye due to the governmental economic incentives. While the working population in services increases in general, it decreases in the industries in Bartın, Karabük and Yalova, and in agriculture in Iğdır, Kilis and Ardahan. There is no significant difference in the number of high schools, colleges and university graduates. The urbanization rates only increased in Iğdır, Osmaniye and Yalova. According to these results, for the second group of provinces, it can be concluded that among all these provinces, Osmaniye shows a notable development in terms of economic variables as Karaman. The economic incentives have the main role in this development. In addition, geographically, it is settled down—as the same with Karaman—between two metropolitan cities, Adana and Gaziantep.

In general, it can be said that these differentiations in new provinces between 1990 and 2000 are parallel to the development trends in the whole country. The population increase cannot be identified with the changes in their administrative status. Because, in that period, while the amount of population increase is 2.68%, it is 0.42% in rural areas in Turkey (TÜİK, 2004). The most notable point in those results is the fact that there is nearly no significant difference in economic activities in the first group of provinces (except Karaman). That can be caused by two reasons; first, because of their becoming provinces in 1990 when the census of population was taken, in this sense, the employment figures added by the central government institutions cannot be recognized between 1990 and 2000 and secondly, the increase in the service sector in the second group of provinces is directly related to the employment of central government institutions. Then, the increase in the economic activities does not depend on urbanization or development, it can be considered as an artificial development stimulated by the government.

4.3 *Determining the Significance of Variables by Regression Analysis*

In this phase of research, determining the criteria to select a district to become a province and composing a model for urbanization and development is aimed. When the properties which define a city are considered as "outputs", it is necessary to define "inputs" that ensure urban development and urbanization; in other words, independent and the dependent variables are needed to be determined at the beginning. According to the results of theoretical research and data obtained, the features of a city can be described as certain population, the high working population rate in industry and services, high urbanization rate, high income, high educational level, specialization and low household size.

Besides those features, the variables which have a high correlation with each other in the correlation analysis are taken into consideration in regression analysis. Only one of the parameters that has the same physical meaning is included in the analysis. Finally, a graph, showing the impact of each parameter on the output parameter, is attained. If R^2 is so high (near to 1.00), it means that the model is successful. In this research, nearly 10 models were developed for explaining the structure of urbanization in the administrative areas (districts) in Turkey according to the theoretical and conceptual explanations about urbanization, but only two of them for the urban population and urbanization

rates as outputs showed high significance. This fact can also be evaluated as an indication of nonstandardization in granting a province or a district status to an administrative area or a region.

The significant models based on the correlation matrix can be formulated as below. Some variables were eliminated since they were largely reflected with the other variables in the models.

$F(x) = [y1, y2, y3\cdot]$,

$F(D2) = [(E3 + E9), (E4 + E5 + E6 + E7 + E8), E18, S1, S4, S3, E16]$,

$F(D4) = [(E3 + E9), (E4 + E5 + E6 + E7 + E8), (E1 + E2), E18, S1, S4, O1, E16,$
$(E24 + E25 + E26), E22, E23, O2, O3]$.

At the next step of the analysis, the relative contributions of each parameter were determined. The results are hereunder:

$F(D2) = 2\%(E3 + E9) + 2\%(E4 + E5 + E6 + E7 + E8) + 80\%E18 + 2\%S1 + 4\%S4$
$+ 1\%S3 + 2\%E16 + 7\%$ unexplained, $F(D4) = 10\%(E3 + E9) + 7\%(E4 + E5 + E6$
$+ E7 + E8) + 0\%(E1 + E2) + 2\%E18 + 26\%S1 + 35\%S3 + 1\%O1 + 6\%E16$
$+ 1\%(E24 + E25 + E26) + 0\%E22 + 2\%E23 + 0\%O2 + 10\%$ unexplained

The first model indicates that there is a strong relationship between population and some economic (industry and service sectors, incentive certified investments, banking) and social (high education and illiterate population) factors. According to the second model, it is determined that the urbanization rate is strongly related to industry and service sectors, incentive certified investment banking, income taxes, agricultural production, high school education and illiterate population. The structure of urbanization can also be observed in the second model. The large contribution of illiterate person expresses the migration from rural to urban areas due to economic reasons (deprivations of rural areas and driving forces in urban areas). Thus, the most urbanized settlements in Turkey are characterized by an unskilled migrated population.

4.4 Grouping the Districts According to Urbanization Levels by Clustering Analysis

Clustering analysis is applied in the last phase of this analysis. Many variables are used in this research. These variables do not have a linear correlation with each other and the values show great prevalence. They do not form specific groups. Furthermore, there is no criterion/output for comparison. Under these circumstances, clustering analysis can give the most meaningful results for the research. In clustering analysis, observations which form significant groups and those that are at a certain distance to the average value are placed in the same clusters.

By this analysis, all the districts in Turkey are grouped in six levels according to their similarities. The significant indicators used in the clustering analysis are $D1, D4, E1 + E2, E3 + E9, E19, S1, S3$. The list of the districts (except metropolitan cities) for the year 1990 from developed to underdeveloped groups and their average values are shown in Tables 10 and 11.

Table 10. Distribution of districts according to their urbanization/development levels (1990)

Development levels	Groups	Number of districts in the group	Number of provincial centres in the group
1. (most developed)	6th group	12	11
2.	5th group	38	26
3.	1st group	98	20
4.	2nd group	255	5
5.	4th group	116	3
6. (underdeveloped)	3rd group	331	0

Table 11. Average values in the groups (1990)

Average values							
Group	$D1$	$D3$	$E1 + E2$	$E3 + E9$	$E19$	$S1$	$S3$
6	373763.9	71.6	5.4	33.4	14796.2	9.8	6.5
5	155452.1	65.1	6.7	30.6	7291.9	7.5	7.1
1	56489.2	59.1	14.1	25.9	1054.6	6.2	6.8
2	49059.7	34.1	18.5	28.1	537.9	4.5	2.6
4	35484.5	50.9	50.1	14.5	244.7	11.4	2.4
3	26953.3	23.3	42.2	13.3	87.8	3.6	1.6

In the 6th group which involves the most developed districts, 11 of 12 districts are central districts and some of those are also categorized as metropolitan cities (such as Antalya, Mersin, Kocaeli and Diyarbakır) in 1993 by the government. Twenty-six districts in the second-degree developed districts group (i.e. fifth group) are also in central district status and the rest of the 12 districts are those which were distinguished by either their industrial or tourism-related incomes such as Bodrum, Marmaris, Çorlu, Çerkezköy and İskenderun. Similarly, 20% of the locations in the first group of districts (3rd degree developed) are central districts and the rest in this group are those with significant income due to either industrial or tourism-related activities now. The districts in the second group and the fourth group are those whose economies generally depend on agriculture and agricultural industry. The underdeveloped districts, which constitute the third group, show rural properties and their economies mostly depend on agricultural productions. Figure 2 also points out the geographical distribution of districts according to their levels of development in 1990.

Results obtained after implementing the same analysis for 2000 data are shown in Tables 12 and 13.

In Figure 3, the geographical distribution of the districts according to their development levels in 2000 is shown. Properties of the urbanization levels in 2000 were explained previously. However, it should be pointed out that there is a development trend in Turkey generally in 2000s when compared with 1990. This can be seen by 50% reduction in the least developed group of districts from 331 to 171 between 1991 and 2000.
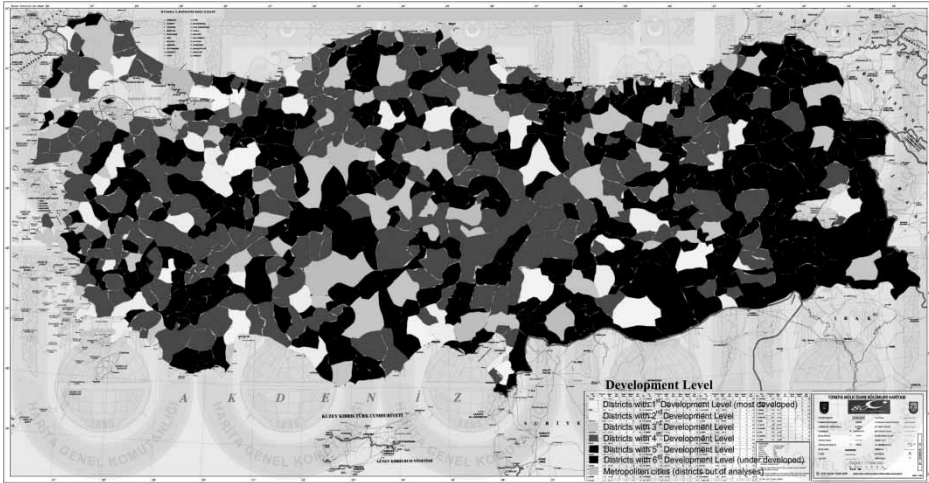
Figure 2. Distribution of districts according to their development levels for the year 1990

Table 12. Distribution of districts according to their urbanization/development levels (2000)

Development levels	Groups	Number of districts in the group	Number of provincial centres in the group
1. (most developed)	5th group	7	4
2.	4th group	38	32
3.	1st group	4	0
4.	6th group	222	31
5.	3rd group	425	4
6. (underdeveloped)	2nd group	171	3

Table 13. Average values in the groups (2000)

Average values

Group	$D1$	$D3$	$E1 + E2$	$E3 + E9$	$E19$	$S1$	$S3$
5	397638.6	72.2	2.3	43.8	54346.7	4.4	11.5
4	293018.2	69.1	3.9	27.4	16128.0	6.1	10.6
1	52065.5	55.5	5.1	39.4	1516.5	3.1	8.7
6	58048.5	58.7	8.6	28.0	2076.3	4.6	9.4
3	35446.3	29.6	15.8	19.8	378.3	2.9	3.7
2	34163.4	52.2	32.5	14.9	146.6	7.5	5.2

According to the results in Tables 12 and 13, the districts which have development/urbanization potential are determined (see Table 14).

The fastest developed (urbanized) districts between 1990 and 2000s are Manavgat (Antalya) and Büyükçekmece (İstanbul) (Table 14). The most effective factors for the

Figure 3. Distribution of districts according to their development levels for the year 2000s

Table 14. Changes in the development levels of districts which have high urbanization/ development potential between 1990 and 2000

Districts	Urbanization/ development level (1990)	Urbanization/ development level (2000)	Distance between the district and provincial centre (km)
Kocaeli-Gebze	1	1	51
Hatay-İskenderun	2	2	59
Mersin-Tarsus	2	2	27
Tekirdağ-Çorlu	2	1	38
Tekirdağ-Çerkezköy	2	1	62
Antalya-Alanya	2	2	138
Antalya-Manavgat	4	2	78
Bursa-İnegöl	2	2	45
Kırklareli-Lüleburgaz	3	2	58
İstanbul-Büyükçekmece	4	2	33

development in these districts are the increase in their population and number of incentive certified investments. The results also show that although there is a relative development in all of Turkey's locations between the years 1990 and 2000s, some of the districts show a decreased trend compared with their previous level.

The changes in the development level of the provincial centres which show decline between 1990 and 2000 are in Table 15.

The entire provincial centres shown in Table 15 did not show any developmental progress even though they were included in the content of "Top Priority Locations for the Development" during all periods (between 1968 and 1999). According to the data of TurkStat for 2001, gross domestic product *per capita* is below $1500 in these provincial centres.

Table 15. Changes in the development levels of provincial centres which show decline between 1990 and 2000

Provincial centres	Urbanization/development level (1990)	Urbanization/development level (2000)
Bitlis	5	6
Siirt	5	6
Şırnak	5	6
Muş	4	5
Bayburt	4	5
Bartın	4	5

Table 16 shows the changes in the development levels of districts after they became provinces in 1989.

Kırıkkale (No: 2) and Batman (No: 5) are the most developed districts among those which were granted to provinces after 1989, as it is shown in Table 16. They are located in the second-degree development level both in 1990 and 2000. This result shows that these districts had developmental trend while they were districts and the change in their administrative status did not create a significant change.

It can be concluded that the employment provided by new units in central government and the increase in the number of incentive certified investments had impacts on the developments in those districts which are in developmental trend, such as Aksaray, Karaman, Osmaniye, Ardahan, Iğdır and Kilis. However, in some of the provincial centres, such as Bayburt, Şırnak, Bartın, Karabük and Yalova, the developmental levels are decreased to one lower level. Even though Bayburt and Şırnak were granted to provincial centres in order to prevent their economic failures, the results point out that the progress anticipated by conversion could not be obtained.

Table 16. Change in the urbanization/development levels in new provinces between 1990 and 2000

No.	New provinces	Urbanization/development level (1990)	Urbanization/development level (2000)
1	Aksaray	4	2
2	Kırıkkale	2	2
3	Bayburt	4	5
4	Karaman	3	2
5	Batman	2	2
6	Şırnak	5	6
7	Bartın	4	5
8	Ardahan	6	5
9	Iğdır	5	4
10	Karabük	3	4
11	Kilis	5	4
12	Yalova	3	4
13	Osmaniye	3	2
14	Düzce	4	4

Table 17. Urbanization/development levels of some districts which request to become a province

Districts	Urbanization/ development level (1990)	Urbanization/ development level (2000)	Distance between the district and provincial centre (km)
Kocaeli-Gebze	1	1	51
Antalya-Alanya	2	2	138
Bilecik-Bozüyük	2	4	34
Bursa-İnegöl	2	2	45
Hatay-İskenderun	2	2	59
İçel-Tarsus	2	2	27
Ankara-Ş.Koçhisar	3	4	147
Aydin-Nazilli	3	4	45
Balikesir-Ayvalık	3	4	130
Giresun-Ş.Karahisar	3	4	116
Konya-Akşehir	3	4	131
Konya-Ereğli	3	4	155
Malatya-Arapkir	3	4	120
Erzurum-Oltu	4	4	129
Isparta-Ş.Karaağaç	4	4	118
İçel-Silifke	4	5	83
Kütahya-Tavşanlı	4	5	50
K.Maraş-Elbistan	4	4	158
Gaziantep-Islahiye	5	6	90

Promotion of a district to a provincial centre is generally desired by the people of Turkey due to the fact that additional occupation provided by the units of central government and easy access to some of the services. For this reason, 129 districts were applied to Department of Internal Affairs in order to be granted to provincial centre as of 2006. Some of those districts make political pressure on the politicians for their demand of granting to provincial centres due to their economic developments and demographical distinctions or central roles they undertook in the historical continuum. The development level and the distance to the provincial centre of some of those cited 129 districts are shown in Table 17.

As it can be seen in Table 17, the distance between the districts and the provincial centres of the districts are quite short for those districts which have high urbanization/ development levels and potential to become a province. This shows that the request to become a provincial centre in order to get an easy access to the services is irrelevant. It also confirms that the districts which were located in the hinterland of urban areas and metropolitan cities exhibit high potential for urbanization.

5. Conclusions

This paper tries to show that political/administrative decisions to increase the urbanization level and to provide more developed settlements are not effective tools in the case of Turkey. It is inferred as a result of the theoretical base that economic and demographic variables play a much more important role in determining the level of urbanization. Moreover, it is realized that the cities are generally defined all around the world in terms of

administrative, economic and functional criteria or the ones related to size. It is nearly impossible to determine common universal criteria that would fit into a majority of the countries, so it is suggested that the most possible definition is better done in each country by their own statistical bureaus.

Even though there is no criterion behind changing the administrative status of the settlements, not only the numbers of provinces and districts have increased continuously, but also it has become a speculative application for the politicians for receiving votes.

In this respect, the present paper proposes to measure the level of urbanization of the districts in Turkey that have been granted as provinces recently, to investigate the districts that have the potential to become provinces in the future and finally determines developments and changes in recent years that have come into the picture in those of the 14 districts which have become provinces with mostly political concerns.

With reference to the evaluation made throughout the theoretical base and the statistical analysis of data obtained for the years 1990 and 2000s, the level of urbanization for each district in Turkey was put forward. Then, the districts that have potential on the way to become province and the ones that follow a trend towards less urbanization were determined. Furthermore, the changes realized in the districts that have become provinces between 1989 and 1999 and the districts which might have a potential to become a province were evaluated. According to the results of the statistical analysis, it is interesting to see that the urbanization in Turkey mostly depends on the industry sector, while the service sector (except flagship cities on tourism) or certain socio-cultural figures are still far from contributing to urban development. It also shows that, despite the increase in the urbanization level in general, the administrative centres have not reflected the properties of contemporary urbanized settlements yet.

It is also clear now that the districts with a high level of urbanization in Turkey are located within the hinterlands of metropolitan areas as means of urban expansion rather than type of nodal urbanization. The districts with high potential to become provinces have considerably close proximity to the provincial centre to which they are connected and the interconnections between the provinces have been increased over time; hence it will not be beneficial to grant those as new provinces. On the other hand, the districts that have become less urbanized are generally located in the least developed regions of Turkey. Especially three of six new provinces with decreasing developmental trends, Şırnak, Bayburt and Bartın, show that changing the administrative status of a district does not support the development of a district itself. Therefore, it is worth mentioning at this point that in order to diminish the inequalities between the settlements, political/administrative arrangements would not be effective than strengthening the communication and the transportation facilities.

This paper also indicates that the districts that have been granted to provinces in 1989 and 1990 have better trends in the development progress when compared with the ones granted in later years, showing that the previous decisions taken for the granting of new provinces have more rational reasons behind. In Turkey, many districts have been granted the status of a province without reference to any reasonable criteria until now, which gave way to increasing requests to become provinces of other districts with a certain population. Some of those districts are considerably underdeveloped, while some are much more developed already than many provincial centres, but the latter group could not become provinces because of their geographical proximity to metropolitan areas.

By this research, it becomes clear again in parallel to the other studies about the appropriate scale of administrative areas in Turkey, granting a district as a province is not only a considerably costly process for the national economy, but also a potential political tool which may increase the demands for the other districts to unnecessarily become a province in the future. As it can be seen from the results of the analysis, changing the administrative status of a settlement does not provide the aimed developments. Moreover, new administrative facilities, technical equipments and staff working in those units have necessitated a large amount of governmental financial source. Also as the last but not the least important concluding remark, it is not convenient to define urbanization in Turkey simply according to the population criterion; rather, it is essential to formulate a standard which is composed of certain economic, demographic, spatial and administrative parameters.

This research provides an opportunity not only to see the uselessness of changing administrative status of settlements for increasing their urbanization levels but also the importance of economic incentives to decrease the interprovincial/interregional inequalities.

Notes

1. In Turkish administrative system, the settlements are classified as provinces, districts, *bucaks* and villages hierarchically. Province centers are also the districts within the provinces.
2. Keban Regional Plan (in the 1st Development Plan period), Zonguldak Province Plan, East Marmara, Çukurova, Antalya Regional Plans (in the 2nd Development Plan period), Çukurova Urban Development Project, South-East Anatolia Project (in the 5th Development Plan period).
3. Zonguldak-Bartın-Karabük Regional Development Project, Yeşilırmak Regional Development Project, East Black Sea Region Development project, East Anatolia Project (in the 7th Development Plan period), Level 2 Regional Development programs (in the 8th and 9th Development Plan periods).
4. According to 2006's unit prices, the cost of constituting a province is US$ 48,432,163 and constituting a district is US$ 12,053,050 (General Directorate of Provinces Administration, 2005).

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