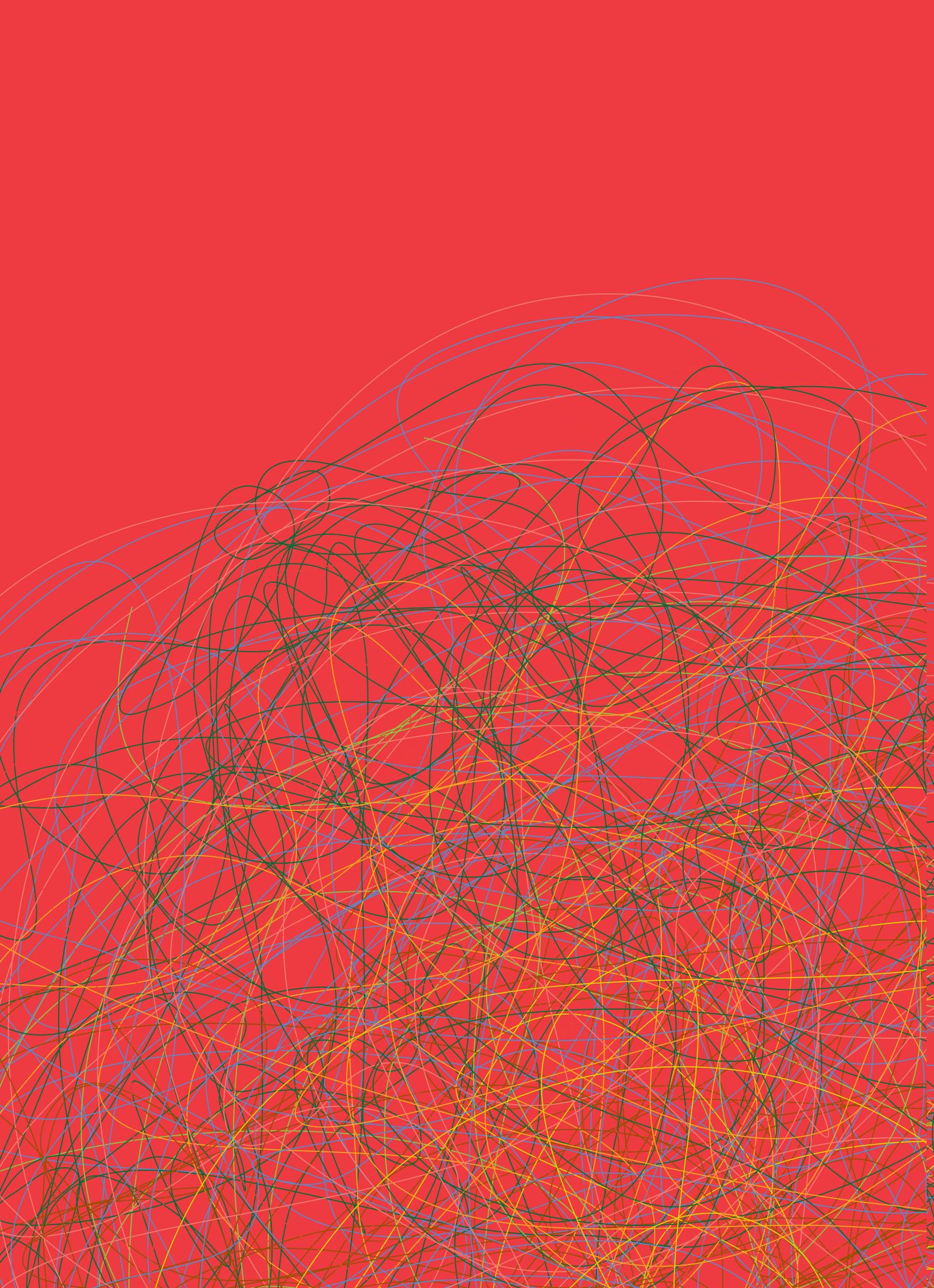
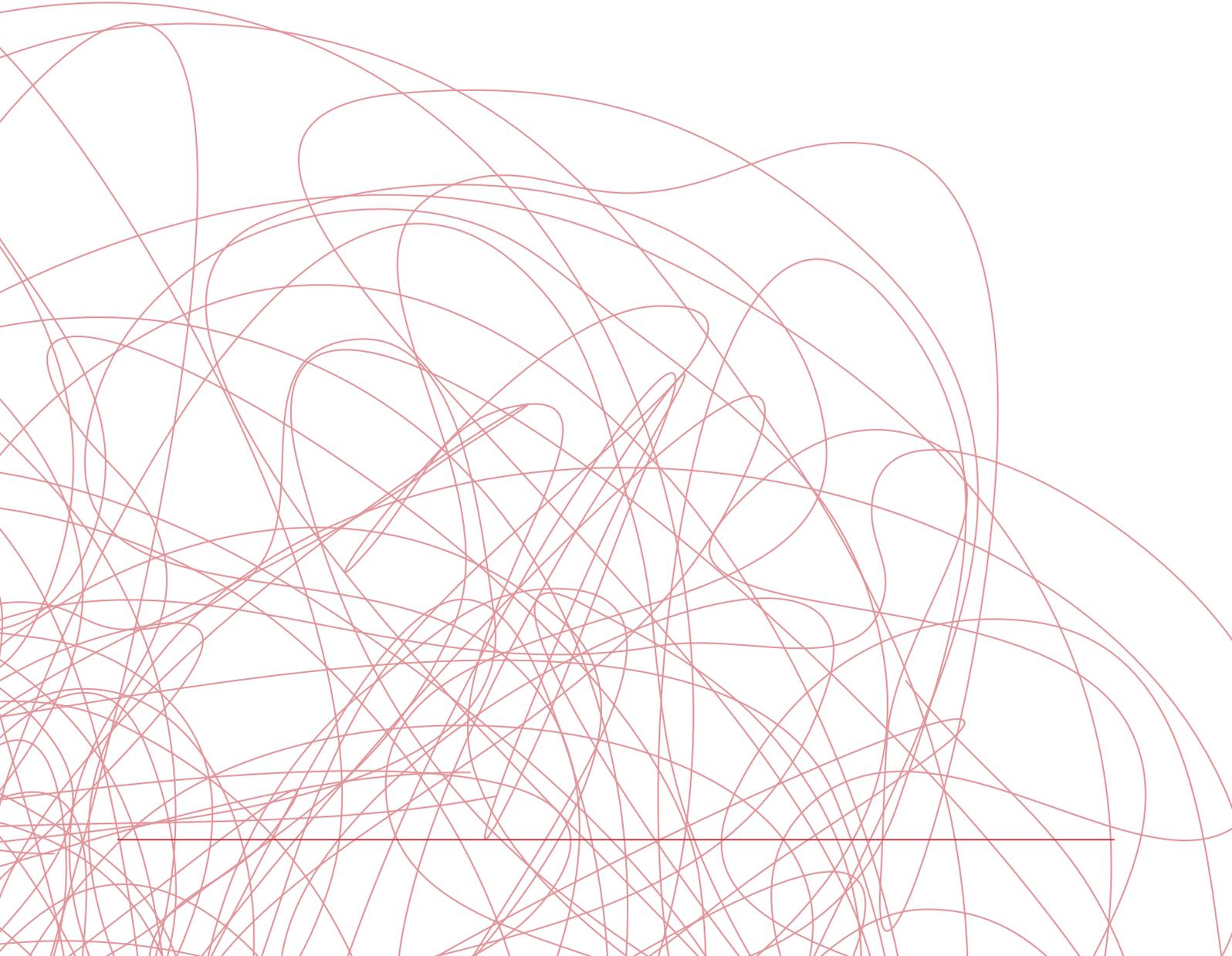


**THE WINDOW OF OPPORTUNITY
AWAITING TURKEY:
DEMOGRAPHICS, EDUCATION AND
NEW PERSPECTIVES TOWARDS 2025**



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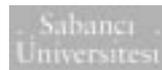




Education Reform Initiative (ERI), is a project launched within the Istanbul Policy Center at Sabancı University to improve education policy and decision making through research, advocacy and monitoring. ERI is committed to quality education for all.

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CONTENTS

Foreword	1
Introduction	5
Summary	7
<hr/>	
Chapter 1: How Did We Get Here?	
Short Term Demographic Trends and Educational Indicators	
Introduction	13
I.1 Short Term Demographic and Population Trends	13
I.1.1 Demographic Trends in Turkey	13
I.1.2 Absolute Population and Population at the Age of Education	14
I.1.3 Gender and Urban-Rural Distribution of the Total Population	15
I.2 Basic Educational Indicators	16
I.2.1 Educational Profile of Turkey	16
I.2.2 Schooling Levels in Turkey	16
<hr/>	
Chapter 2: Where We Are Headed?	
Demographic and Education Age	
Population Forecasts	
Regional Developments	
Introduction	21
II.1 Demographic and Education Age Population Forecasts	21
II.1.1 Demographic Forecasts 2025	21
II.1.2 Forecasts about the Population at the Education Age in 2025	23
II.2 Demographic Trends and Educational Indicators In Groups and Cities	25
<hr/>	
Chapter 3: Europe and Turkey: Demographic Forecasts For The European Union and Turkey	
Introduction	33
III.1 Demography and Population Forecasts in the European Union	33
III.1.1 The Demographic Trends in Europe	34
III.1.2 Absolute Population Developments in Europe	35
III.1.3 Absolute Developments Among the Age Groups of Turkey	36
III.2 Comparison of Europe and Turkey	37

Chapter 4: Educated Work Force: Education Level Forecasts of the Working Age Population

Introduction	43
IV.1 Methodology and Assumptions	43
IV.2 Scenarios and Outcomes	45

Chapter 5: The Window of Opportunity: Educational Policies; the Basic Diagnosis to be Used for Decision Processes and Assessments

Introduction	49
V.1 General Outlook	49
V.2 Regional Demographic Observations	50
V.3 The European Union and Turkey	52
V.4 Population at the Age of Education and Work	53

Appendix 1

Appendix 2

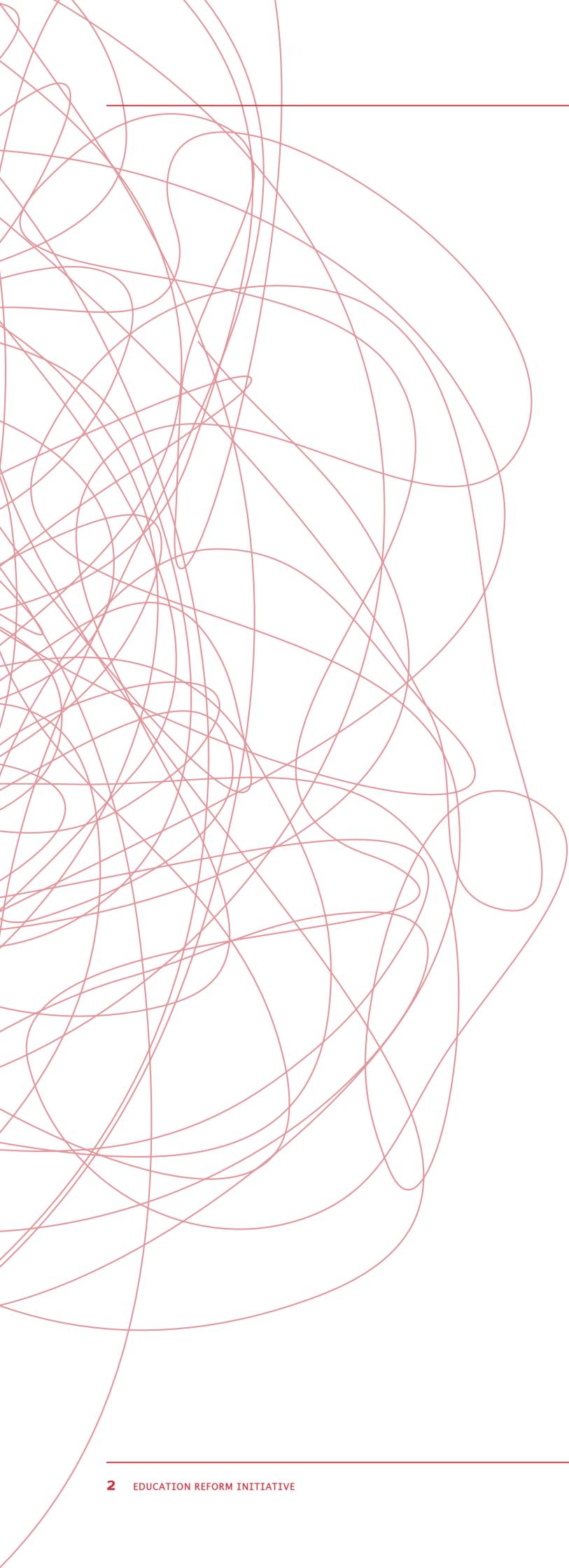
FOREWORD

Turkey's demographic "gift" has been a burning issue in domestic politics in the last few years. Debates, reports and articles abound on the subject in our local media and governmental agenda. In short, it has been suggested that the youthful population of Turkey is a "gift" that will confer our country an upper hand within the European Union perspective in the next quarter century. The rapidly aging population of the current enlarged EU member states and future candidates accounts for the rationale behind this assertion.

The Istanbul Policy Center supported this observation when presenting the Education Reform Initiative Project to various institutions in 2002. The center also highlighted the fact that our demographic structure, with its large young population, might be a Trojan horse since it represents a potential danger of cardinal significance in the near future. The main point of this project is that if we cannot educate our youth in the coming years, its presence will cease to be a gift for us. In addition, this project emphasizes both social justice in education, while stating that we should better educate our population, and stresses that we should be able to raise a more pluralistic, democratic and self-sufficient Turkish citizen for the ever-globalizing world. The key issue that this project brings out is that we can be turning our "young population" into a demographic "gift" through reforms conducted with these aims in mind.

For this endeavor, we asked Dr. Can Fuat Gürlelel to prepare a report on the demographic structure of Turkey, what this structure means for our educational system in the coming years, what challenges it presents, and what kinds of opportunities it opens up. Our belief was that it would be difficult to assess the whole issue considering all of its aspects without having concrete and detailed data. With only very rough statistical information it is possible to state that Turkey has a young population and to derive a set of tasks out of this proposition, but this is insufficient. This report addresses an issue which looms over the domestic agenda and which everyone seems to agree on as well as giving detailed insights with projections aimed towards the future.

PROF. ÜSTÜN ERGÜDER
PROJECT DIRECTOR
EDUCATION REFORM INITIATIVE



INTRODUCTION

If we could travel in time and have a glimpse of Turkey in the year 2025, what would we see? What would we change, what would we redo? What would we regret? What issues would we say “if we only knew” about?

Unfortunately, there is no time machine to take us into the future; however science can help us to make predictions about the future. Scientific evidence helps us make forecasts. In a way, science gives us the means to prepare for the future through forecasts.

It is important that we use forecasts when planning Turkey’s future. This study aims to present background material in an effort to devise viable future policies for education.

A better Turkey is only possible with well-educated citizens. Educational planning is one of the main features in the planning of the future of a country. Analyses and forecasts relying on scientific evidence should be used as guidelines when devising educational policies. It is our hope that this report will serve such a purpose.

Educational reforms and policies are directly related to a country’s population. Therefore, understanding demographic tendencies of a society before engaging in long-term policy planning is of utmost importance.

This report, namely, “The Window of Opportunity Awaiting Turkey” has been prepared with the aim of interpreting demographics for educational reforms and policy planning in mind. The study makes assessments and predictions about the period between 2000 and 2025. It evaluates the dynamics of both the recent past and present through the perspective of education and predicts what will happen in the coming 20 years.

This report is divided into five main parts. In the first part, the demographic trends and educational indicators since 1970 are evaluated. By evaluating this information, we can understand our current state of affairs.

In the second part, demography and population forecasts until 2025 are made and the possible changes that need to be made among the education age population are presented. Demographic trends are analyzed according to cities and city groups as well.

In the third part, the demographic changes taking place within the European Union are reviewed. In this section the demographic processes experienced by Turkey are compared and contrasted with those processes experienced by EU countries, which Turkey seeks to join. In accordance, the opportunities and challenges facing Turkey are discussed.

In the fourth part, scenarios relating to the education level of the work force, based on schooling rate assumptions, are debated.

The last section presents a general analysis of the overall picture we obtained through the data at hand.

Our foremost wish is that this report contributes to the formulation of policies that will save Turkey from regretting inaction in the future. It is our hope that this modest ‘trip in time’ proves fruitful.

Kind regards,

DR. CAN FUAT GÜRLESEL



SUMMARY

Turkey is undergoing a silent revolution as a complete renewal in society is unfolding. This change is not only due to the European Union membership process. First of all, the profile of the population and the fundamental dynamics of the society are changing. The process of change is focused on youth and education. **For the first time in Turkish history, the population growth rate is decreasing, thus, improving the quality of education is truly feasible.**

If we can understand the societal changes Turkey is undergoing and devise suitable educational policies; in other words, take a leap forward by increasing the quality of education on a mass scale, Turkey can become a land of opportunity.

This report consists of five parts. First, we will assess the contemporary educational level of Turkey and describe the possible changes lying ahead for Turkey in the short term. This part presents a bird's eye view of the educational profile of Turkey in the recent past, the present, and the near future. In the second part, we will provide insights on the expected demographic changes and the educational potential of Turkey up to the year 2025. In the third part, we will depict what kinds of changes await the European Union's population. Here we present a comparison between the demographic changes the EU countries and Turkey are undergoing. In the final part, an analysis of the overall picture is offered.

THE PRESENT AND NEAR FUTURE:

WHAT KINDS OF CHANGES IS TURKEY EXPERIENCING?

All societies experience demographic evolutions over a span of 100-300 years. In the field of demography, this cyclic change referred to as the "demographic transitional process", takes place in three stages, and in every stage, the population takes on diverse qualities. **Turkey has been in the second stage of a demographic transition process for some time now.** The seeds of the current stage were planted in the last 30 years, yet it is the last fifteen years that have had the most significant influence on this stage.

The general perception is that the population of Turkey is increasing at a very fast pace, causing the country to rapidly approach the "100 million people" margin. Nevertheless, scientific evidence demonstrates this perception to be false. On the contrary, **data indicates that Turkey's population growth is slowing down faster than expected.**

In addition to this, due to economic and social reasons, the rate of fertility and births are decreasing. In 1970, the birth rate was 3.5%. In 2003, this rate dropped to 2.1%. Likewise, the fertility rate has decreased by more than half in the same period, falling from 5.1% to 2.4%.

In sum, the rate of population increase dropped to 1.53%. Moreover, we are living longer as the death rate decreased from 2.7% to 0.7%.

The decline in population growth does not readily mean that the population of Turkey is diminishing in size. While the population of Turkey was 35.6 million in 1970, it increased to 67.8 million in 2000. In the future, there will be population growth in Turkey, but the pace of increase will not be as fast as before.

The change in the demographic makeup of Turkey is not only about the rate of population increase. The ratios of different age groups in the population are changing too, as indicated below:

- **The number of children is decreasing:** The number of children aged 0-14 in 1970 was 14.88 million; and this figure escalated to 18.65 million in 2000. In other words, the ratio of this age group vis-à-vis the whole population, decreased from 41.8% to 26.4%. Meanwhile, the 0-24 age group increased from 22 million to 34.1 million during the same period. Hence, this age group's ratio to the whole of the population decreased from 62.85 % to 50%.
- **The number of adults is increasing:** The most significant increase that took place between 1970 and 2000 was within the group of people aged 15-64, whose share of the population expanded from 53.8% to 65.6%. This increase stresses the fact that Turkey is moving towards a population made up mostly of youth and adults. Naturally, as a result of the second phase of demographic transition that Turkey is experiencing, the number of adults in the population will grow at the expense of the youth.

In addition to the demographic changes, there is also a sociological evolution taking place. Turkey has been experiencing rapid urbanization over the last 40 years. Nonetheless, in 2000, 33.1% of the population, amounting to 23.8 million people, lived in rural areas. Deductively, the process of urbanization has not stopped in Turkey, and it will continue on for a long time to come.

The level of education is rapidly changing in Turkey, alongside many other aspects of social life. However, this change is not enough and there is still much territory to be covered. Following is data about the current level of education in Turkey:

- **The education level of 25 year olds and above is very low.** In 2000, 17.2% of the 25 year old and above age segment of the population was illiterate. Within this age group, 6.4% were literate, but acquired reading and writing skills without finishing any formal schooling. 47.8% of the people in this age group are merely primary school graduates. **In other words, 71.8% of the people in the 25 and over age group belong to one of these three groups: primary school graduates, literate without any formal schooling or certificates, illiterate.** This grim picture is even darker if only girls are taken into account.
- **Schooling is increasing:** In the 6-24 age group, which is referred to as the population at education age, the level of schooling is increasing. However, a considerable number of the students do not continue with their education after primary school. The primary victims of this negative trend are girls.
- **To achieve lasting results, continuity is necessary:** increased education levels of the population aged 6 to 24 will produce a better educated group of people aged 25 and over. Nevertheless, for this upswing to have any considerable impact, the increase in schooling levels must continue for 25 years.

THE FUTURE: WHAT WILL TURKEY EXPERIENCE?

Our study shows that Turkey will experience a demographic period **termed** the '**Window of Opportunity**' from 2000 to 2025. During this period, the working age population will peak. As the number of potential workers increases during these years, the most suitable conditions for economic growth will appear, hence the name 'Window of Opportunity'.

The population growth rate will continue to decrease in Turkey during the period from 2000 to 2025 period. The population growth rate was 1.66% in 2000 and indicators show that it will decrease to 0.81% in 2025. A lower birth rate is the prime reason for the decrease in growth. As mentioned previously, fewer births does not necessarily mean that Turkey's population will not continue to grow. **Demographic forecasts indicate that the total population of Turkey in 2025 will reach 90.2 million.**

The net growth of the youth will stop during the years from 2000 to 2025. After a while, both the net number of young people and their ratio to the whole of the population will decrease. After 2025 **Turkey will cease to be a country with a predominantly young population.** Policies aimed at the youth will be replaced by others directed at the adult and aging populations.

As far as the numeric data is concerned, the ratio of people at education age, that is, aged 3 to 22, to the total population in 2000 was 40.8% and this ratio will decrease to 27.7% in 2025. Since the number of people at education age is decreasing, Turkey has the opportunity to raise a more educated, more qualified population. **Accordingly, Turkey can prioritize quality, rather than quantity in education for the first time.**

Making the best use of the 'Window of Opportunity' that lies ahead for Turkey in 2000-2025 is possible with qualified education of the population of education age. **Due to this fact, educational reforms and policies are of vital importance in the years to come.**

There are obstacles in the path of the realization of deep-rooted reforms in education. Urbanization, internal immigration and population movements are at the top of the list of these obstacles as a result of which the pressure to emphasize quantity over quality in education will continue for a while. Immediate attention should be paid to Turkish society's traditionally low level of schooling and the lack of materials in Turkish schools.

Different demographic tendencies and education levels are demonstrated in every region of Turkey. We have assessed these diversities on a city basis. We have split the cities into 10 categories according to their urbanization, immigration and population movements, economic and social development scales, and schooling indicators. We have formulated forecasts for each city category and individually for the cities per se; inspected present schooling levels and status of the population at the age of education, and come up with analyses of the educational needs.



THE FUTURE: WHERE IS EUROPE HEADED?

Europe is experiencing a diverse evolution process in comparison to Turkey. This is due to the fact that the European countries are in the third and final stages of their demographic transition periods.

This means that:

- **The European population is not increasing:** In Europe, the 'net renewal rate' of the population fell under the 2.05-2.10% threshold; therefore, population growth stopped and the population started decreasing. Moreover, this trend will continue for at least 100 to 200 years.
- **Europe is getting old:** In all European countries, the population of youth and adults is decreasing and the number of elderly is increasing.
- **The European Union members' population is decreasing:** In 2002, the population of the 25 European Union member countries was 453.4 million. The population will increase to 456 million in 2025, but this figure will decrease to 399.7 million by 2050.

European countries will experience a wide-scale decrease in population and a general aging of their population in the coming 50 years. This demographic transition will affect the political, economic, social, and security structures.

Turkey is behind Europe with a 50-year gap as far as the demographic processes are concerned. This lagging behind creates a distinct advantage for Turkey. Despite the fact that population growth is slowing in Turkey, the country will possess a young and adult, in other words 'working age' population. With this potential, **Turkey is in a position to respond to the demands of the European population trends for the coming 50 years.**

When Turkish and European population forecasts are compared, seven fundamental observations can be made:

- 1) Turkey is the only country that can compensate for the negative impact of population trends within Europe. Turkey could supply Europe with the work force it needs for the coming 50 years.
- 2) In Europe, the population needs net renewal. This can only be acquired with the immigration of youth from abroad. Turkey is the most suitable country in the region for meeting this immigration need.
- 3) In the EU, the working age population will decline from 165.2 million to 136.2 million in 2000-2025. Simultaneously, the working age population of Turkey will increase from 26.5 million to 33.7 million during the same period. Turkey can contribute to the shortcomings of European businesses with its well-educated, qualified and skilled work force.
- 4) Due to the rapid aging of its population and the decline in its working age population, Europe faces risks in its social security systems. In order to increase the potential contributions to the welfare system, the number of working people must be increased. Turkey can be vital to Europe's social security mechanism as well as its work force.
- 5) Fewer young people in Europe can threaten security, as well. Turkey can contribute to Europe's security with its own young and active population.

-
- 6) Its aging population might cause a decline in the domestic economic demand. Turkey's youth, whose consumption capacities are increasing, pose a remarkable potential. The Customs' Union enables the EU countries to take advantage of this potential even now.
 - 7) In 2025, the EU population will be 400 million, while Turkey's population will be 98 million. If Turkey becomes a full-member of the EU, in 2050, out of every 5 EU citizens one will be from Turkey. Moreover, if the internal administrative and legislative structures of the EU remain as they are now, Turkey will wield great political power. It can be said that this possibility frightens Europe.

Overall, it can be concluded that;

- The demographic dynamics in place in Turkey now paves the way for great opportunities, and opens the door to a brighter future.
- The present demographic dynamics that exist in Europe boost Turkey's opportunities even more.
- In order to make use of the 'Window of Opportunity' that lies ahead, Turkey needs to take some measures. Foremost is to offer a more qualified education to its citizens.
- A more qualified education can be achieved only through realistic and long term educational policies. A thorough reform in the educational system is essential.



CHAPTER 1

HOW DID WE GET HERE? SHORT TERM DEMOGRAPHIC TRENDS AND EDUCATIONAL INDICATORS



INTRODUCTION

Turkey clearly needs deep-down and long-term educational reforms. In planning these reforms, naturally, many factors must be taken into account, and all the steps to be taken, all the decisions to be made, should be calculated in detail. Otherwise, resources will be wasted, and unexpected or even adverse effects can occur.

When designing a successful educational reform policy for Turkey, the most significant factors that need to be taken into account are its demographic qualities and structure. Demographic changes that are observed and predicted in this structure must also be taken into consideration. Moreover, it is essential to look at the demographic structure with the educational dimension in mind and then to profile the quantitative indicators.

The first part of this study aims to answer the aforementioned questions. In this section, Turkey's short-term population structure and demographic tendencies will be inspected, and then the education indicators will be presented.

I.1 SHORT TERM DEMOGRAPHIC AND POPULATION TRENDS

The demographic transition process consists of three stages that are experienced by all societies in relation to their fertility, birth and death rate indicators.

Naturally, the target audience of educational reform projects is the population at education age. Due to this, when designating both the short-term and the long-term forecasts, the indicators for the population at education age are taken as the focal point.

The developments observed among the population at education age are certainly under the influence of the general characteristics and tendencies of the population at large. Consequently, the first step is to examine the general characteristics and tendencies affecting the population of education age.

I.1.1. THE DEMOGRAPHIC TRENDS IN TURKEY

The changes and tendencies taking place in the demographic structure of a society are not probabilistic in nature. The population tendencies observed in various societies display certain common features. Many societies show the tendency to fix their populations numerically in a process called the demographic transition.

In general, the process that produces the quantitative stabilization of the population of a country, in other words the demographic transition process, consists of **three stages**. In each of these stages, the population at the age of education shows diverse qualities.

- The foremost quality of the **first stage** is a rapid increase in the population. As a result of this, the number of youth (0 to 24 year olds) and their ratio in the general population is high. Likewise, there is an increase among the population at the age of education.

- In the **second stage**, the population increase tends to slow down. In this stage, the working age population (15 to 64 or 24 to 55 year olds) has the biggest quantitative share and the absolute majority among the general population. The population at the age of education remains at the same level in absolute terms, or starts decreasing. The ratio of this group to the general population starts descending.
- In the **third stage**, the rate of population increase stops and begins to decrease. In other words, the population starts to shrink and get older. Simultaneously, the population at the age of education continues to decline in absolute terms.

The demographic transition process that each society naturally experiences varies in length from country to country. However, this process lasts approximately 100 to 200 years.

If the period since the founding of the Republic is taken into consideration, it can be seen that Turkey is in the second stage of the demographic transition process. According to calculations, this process will take place in the years 2000 to 2025. Starting in 2025, Turkey will enter the third and the last phase of the demographic transition process. As demographic transition processes develop in long interludes, the forecasts made for Turkey can only change under extraordinary circumstances.

Turkey is in the second stage of its demographic transition process. In comparison with the West, this phase, which is predicted to end in 25 to 30 years, is moving rapidly. It is expected that the population of Turkey will stabilize after the year 2050.

The fundamental qualities that are observed in diverse stages of the population transition process will take place in Turkey as well. This process will affect many components of the social fabric. As a result, important elements that must be taken into consideration for educational planning will surface. Among these, the most important supposition is as follows: **In the period from 2000 to 2025, the size of the population at the age of education will stabilize in absolute terms at first, and then start diminishing in part¹.**

In order to understand and explain the current situation and the developments that are to take place until 2025, the demographic indicators of the recent past must be examined. The basic population indicators that are recorded for 1945 to 2003 are as follows:

- Since 1945, the **rough birth rate** has diminished rapidly, and spiraled down to 21 in 1000 in 2003.
- Likewise, **the total fertility rate** has decreased swiftly during this period. In 2003, this rate stood at 2.4.
- The **rough death rate** has diminished quickly, and this rate of decrease has slowed down over time and has stabilized in the last 15 years. This rate was 7 in 1000 in 2003.
- As a result of the developments taking place within these three indicators, the population growth rate has slowed down rapidly, and this deceleration process continues. **In 2003, the population growth rate was calculated at 1.53%.**

► For demographic indicators of Turkey since 1945, see table 1. ►

¹ The population at the age of education is taken as the 3-24 year olds. Even if the 6-24, 0-15 and 0-24 age groups are used in calculations, the outcome is identical.

I.1.2. ABSOLUTE POPULATION AND POPULATION AT THE AGE OF EDUCATION

The ratios of diverse age groups among the total population and the changes taking place in these ratios over time are data that must be closely observed when conducting educational planning.

When the indicators recorded since 1970 are scrutinized, the direction that Turkey's population structure is taking can be observed clearly.

- The **absolute population increase** has continued, albeit slower than before. The population, which had been 35.6 million in 1970, reached 67.8 million in 2000. According to 2003 population registration data, this figure stands at 70.8 million.
- When observing the **ratio of the population at the age of education** to the population in general, two different indicators can be employed:
 - o First, taking the 0-14 age group as basis, we observe that this group increases in absolute terms, but its share has been diminishing quickly among the total population.
 - o Another approach is taking the 0-24 age group as the population at the age of education. The absolute size of this group has also been increasing, but its share among the general public has been decreasing more slowly than the 0-14 age group.
- Another observation to be made regarding this period regards the **15-64 age group**. While the absolute size of this group has been increasing, its share in the total population was also growing.
- Lastly, the **age group over 65** has been increasing in both absolute and net terms.

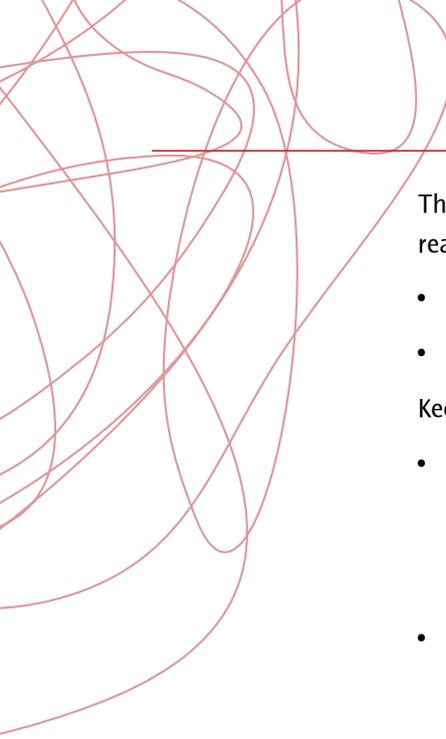
I.1.3. GENDER AND URBAN-RURAL DISTRIBUTION OF THE TOTAL POPULATION

Alongside the age distribution among the population, the specificities of the populace regarding gender and urban-rural distribution carries great importance in educational planning. These data provide crucial information about prioritized issues, such as the education level of girls and the education possibilities in rural areas, when educational reform policies are developed. In light of these indicators, it is possible to see that:

- The quantitative distribution of men and women among the population of Turkey remains almost the same since 1970. Nevertheless, **the male population is slightly higher than the female population** with a coefficient of 1.02. According to this ratio, the number of males in the total population is 50.62%.
- **Turkey is urbanizing rapidly**. In 1970, the urban population was 13.7 million. This figure rose to 44 million in 2000. The ratio of the urban population to the total population was 38.5% in 1970, becoming more than 50% in 1987 and 64.9% in 2000.
- **The rural population increased in absolute terms**, but its share compared to the whole population decreased dramatically.

► For the ratios of age groups in the total population, see table 2. ►

► For the gender and urban-rural distribution of population see table 3. ►



The rise observed in quantitative terms regarding the urban population is striking. Two reasons can be shown for the alterations in the rural-urban population balance:

- The urban population increased within itself.
- Immigration from rural areas to the cities continues to take place.

Keeping these data in mind, we can come to the following assertions and suggestions:

- Changes in population structure carry great significance for educational planning. When educational needs are being diagnosed, the abandonment of rural areas and the aggregation of people in cities as well as the rapid increase of the urban population must be taken into consideration.
- It is incorrect to assume that the general slowing down of the population increase and the halting in numeric terms of the population at the age of education will lead to less demand for educational infrastructure resources (such as schools and numbers of classrooms, more teachers, educational tools) and the possibility of investing in quality instead of quantity will promptly appear. The urbanization and the dynamism of the population at the age of education require more opportunities in education.

I.2 BASIC EDUCATIONAL INDICATORS

In addition to the changes in demographic indicators and population structure, information about the basic educational indicators is a fundamental requirement for designating education centered policies. In this study, the educational indicators are presented in two groupings. The first of these is Turkey's literacy and educational profile. This profile is based on data acquired from population censuses. The second grouping is Turkey's schooling indicators.

I.2.1. EDUCATIONAL PROFILE OF TURKEY

When assessing the educational profile of Turkey, the population at the age of education is excluded. As a result, only educational attributes of the population aged 25 and over are taken into consideration. It is also important to evaluate the characteristics of the male and female populations separately. With the data at hand, it can be determined that:

- **There is a constant improvement in the education and literacy level of the 25 year old and above population.** Nonetheless, this progress is very inadequate.
- While the **proportion of illiterates** among the population was 47.2% in 1975, this figure went down to 17.2% in 2000. Among females, this percentage regressed from 65.6% to 27.4%.
- The **proportion of people who finished primary school or are literate without a certificate** escalated from 43.9% in 1975 to 54.2% in 2000. The rates for this group are roughly the same for men and women.
- While the proportion of secondary or equivalent, high school or equivalent and university graduates was 9.2% in 1975, this ratio rose to 28.5% in 2000. When gender based data is observed, it is seen that this proportion rose from 13.1% to 37.4% among men and from 5.2% to 19.9% among women.

► For literacy and educational level data, see table 4 and 5. ►

Based on these data, we can assess that:

- Every year, among the 25 year old and above population, there are more people with higher degrees of education. We can predict that literacy and educational levels will continue to improve as a result of this.
- Nevertheless, the pace of progress is slow. The level of education of Turkish people as a whole is unsatisfactory.

I.2.2. SCHOOLING LEVELS IN TURKEY

The most crucial element in determining a society's future levels of education is the contemporary schooling levels.

The figures presented in this study regarding schooling levels enclose primary and secondary education levels. These numbers refer to the short term, meaning the 1990-2003 period. In 1997, compulsory education was extended from five to eight years with the result that primary school is now eight years hence the diversification of primary and secondary schools in the tables.

Gross and net schooling rates: The gross schooling rate is obtained by dividing the number of those actively attending primary school by the total population at primary school age.

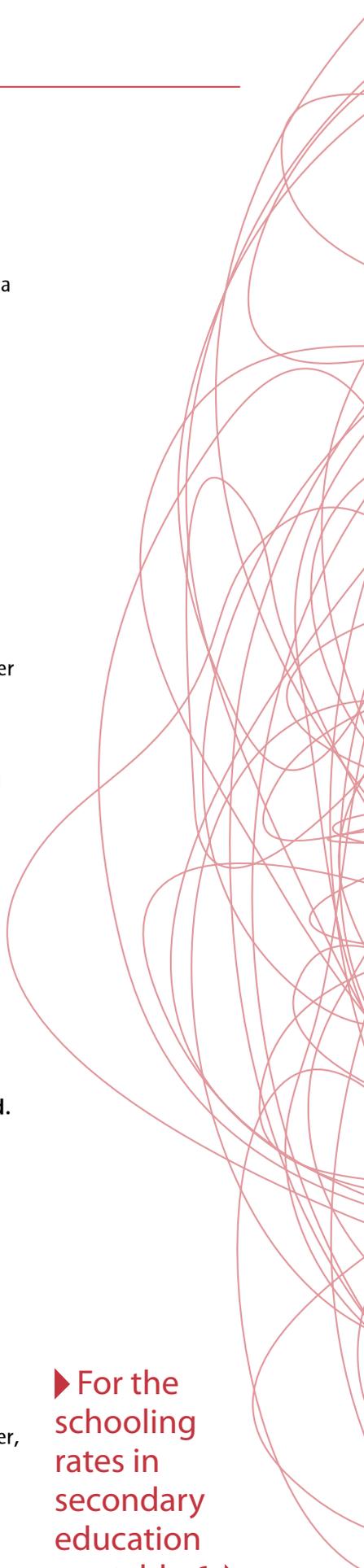
On the other hand, the net schooling rate is obtained by dividing the number of those actively attending primary schools who are of primary school age by the total population at primary school age.

Based on these data and calculations, we can deduct the following about primary and secondary schooling levels:

- **Turkey adopted 8 years of compulsory education in 1997.** In 1996, which was the last year of five year mandatory schooling, the gross schooling rate was 96.7% and the net schooling rate was 89.4%. Among males, the gross and net schooling rates are higher than among females. In 1996, 100% schooling could not be achieved at the primary school level.
- **In 1997, when the 8 year compulsory education began, schooling levels dropped.** This was because old habits are hard to break. Even though the records for schooling started to be kept for 8 years, the habit of sending children to school for only 5 years persisted among parents.
- Nonetheless, this habit has started to change. The rate of gross schooling for 8 years of primary education increased rapidly, and reached 96.6% in 2001. This proportion is 100% among males and 93% among females.
- Meanwhile, the net schooling levels reached 89.8% in 2001. This ratio is 92.4% among males and 87% among females.
- The target of 100% schooling at the primary level was almost realized in 2001. However, it has not been fulfilled yet.

Like the primary schooling rates, the secondary schooling proportions increased in the 1990-2001 period. We can assert that the overall picture is generally very bright:

- There has been a **20 point increase in the gross and net schooling ratios**, from 1990 to 2001.



► For the schooling rates in secondary education see table 6. ►

-
- Despite the improvement in the last 11 years, **the schooling levels are low** regarding secondary education.
 - In 2001, **the gross schooling level in secondary education remained at 60.9%**. This figure is 68.6% for males, and 52.7% for females.
 - A grimmer picture arises when the net schooling rates are observed. In secondary education, the **net schooling rate is 43.2%**. This proportion is 47.3% for males and 38.8% for females.
 - These data show that, **out of every 100 students, 39 of them do not continue with their education after primary school**. Out of every 100 children, 32 boys and 43 girls are leaving school after primary education.

According to data above, when the schooling levels in primary and secondary schooling levels are observed in accordance with gender based criterion, it is seen that:

- When the schooling levels are taken into consideration, the male-female discrepancy is evident. **The net schooling levels of girls are lagging behind boys in every way.**
- The schooling levels of girls are increasing, however inadequately. **As the education time span lengthens, the schooling rate of girls is decreasing.**

CHAPTER 2

WHERE ARE WE HEADED?

- **DEMOGRAPHIC AND EDUCATION
AGE POPULATION FORECASTS**
- **REGIONAL DEVELOPMENTS**

INTRODUCTION

It is impossible to designate educational planning without making demographic forecasts.

For designating educational reform policies, we need data collected from the recent past and present. However, formulating educational planning is impossible without including future predictions. Such forecasting is essential not only for allocating resources wisely, but also for setting realistic targets.

In the second part of this study, forecasts are formulated regarding demography and the education age population for the period from 2000 to 2025 to be used in designing educational reform policies. After general assessments, the demographic tendencies and educational indicators will be analyzed for regions and cities within Turkey, and groups will be formed accordingly.

The societal structure in Turkey may vary greatly from region to region and even from city to city. This conjecture is also true for the general demographic and educational trends and indicators. As a result of this, the region and city based analyses are crucial for educational reform and education policies to be successful.

II.1 DEMOGRAPHIC AND EDUCATION AGE POPULATION FORECASTS

As shown previously, Turkey has entered the second stage of the demographic transition process. According to forecasts, this process will last until 2025 and then the third stage will begin.

It is expected that the typical symptoms of the second stage will also be observed in Turkey. According to demographic studies, the symptoms observed in every society will shape qualities of the general population, as well as the population of education age.

II.1.1 DEMOGRAPHIC FORECASTS FOR 2025

Unless extraordinary circumstances occur, the changes and tendencies concerning features of the general population show continuity. In other words, the forecasts concur with current demographic trends.

When assessing the future educational needs of a society and formulating policies accordingly, general demographic forecasts must first be made. The forecasts about the period up to 2025 indicate how these changes will influence the general and the age group based population structure, as well as the education age population of Turkey. These forecasts are made with regard to concurrent demographic trends.

Demographic trends in Turkey that took place between 1990 and 2003 give us clues that lay the base for predictions about the future. Contemporary trends point to the following observations:

► For short term demographic trends in Turkey see table 7. ►

- **The population growth rate in Turkey is falling rapidly.** In the last 13 years, there has been an unexpected slowdown in population growth. While the population growth rate was 1.97% in 1990, this figure shrank to 1.53% in 2003.
- There are two underlying reasons for this fall:
 - o First, the rough birth rate has slackened. While the rough birth rate was 2.48% in 1990, it went down to 2.09 % in 2003.
 - o Second, fertility rates have slowed down. In fact, the drop in the fertility rate can explain the deceleration of the rough birth rate. This rate fell from 3 children to 2.43 children in 2003.
- **The infant mortality rate is decreasing; the death rate among children under 5 years old is also slowing down and improving.** The rough death rate has been 6.9-7.1 in 1000 live births in the last 13 years.

These data, summarized above and demonstrated in detail in Table 7, lay the foundation for the predictions made about Turkey's demographic trends through to 2025.

In the demographic forecasts made for Turkey, The State Statistical Institute (Devlet İstatistik Enstitüsü) and the United Nations studies are used as the basis. Both studies show that Turkey will be undergoing the second stage of the demographic transition process in the period between 2000 and 2025.

TURKEY IN 2025

The demographic forecasts that give important clues about what kind of a society Turkey will be in 2025 indicate that:

► For the demographic forecasts of Turkey see table 8. ►

- **The population growth will slow down:** The population growth rate will continue falling until 2025. The population growth rate has been falling steadily since 1995. Until 2010, this rate will remain almost the same, and after 2010 the rate will decelerate even more. However, in absolute terms, the population growth rate will continue falling. It is expected that the population growth rate will be close to developed countries' levels at 1.23% in 2010, and falling to 1.1% in 2015. By 2025, the population growth rate will fall to as low as 0.81%.
- **The rough birth rate will decline:** The main basis of the forecasts regarding the decrease in population growth rates is the drop in rough birth rates. Rough birth rates have been falling quickly since 1995. It is predicted that the socio-economic and demographic instigators of this fall will continue to exist and hence, the slowing of the rough birth rate will be sustained. In 2000, the rough birth rate stood at 2.22%. This figure will drop down to 1.8% in 2010 and to 1.51% in 2025.
- **The number of children born will decrease:** The rough birth rate is very important for the formation of the young population. Currently, the annual birth rate is 1.4 million. However, this figure will decrease to 1.3 million in 2025. Until 2025, the number of infants in the 0 age group will stabilize at around 1.25-1.3 million annually. (doesn't make sense)
- **The young population will decrease:** One of the outcomes of the deceleration of the birth rate will affect the young population as the absolute number of youth will start to decrease.

- **The rough death rate will increase:** It is predicted that the rough death rate will stabilize around 0.71% until 2010. Beginning in 2010, this rate will start to increase and reach 0.78% in 2025. The primary reason behind this rise is the increase of the 25 year old and above age group in both absolute terms and proportionately among the general population. In other words, the population will start to get older.
- **The death rate of children under age 5 will decline:** The death rate among babies and children under 5 years of age will start to fall quickly in relation to the economic and social development estimates. Nevertheless, the indicators obtained in 2025 will stay below those of developed countries.
- **The number of females among the general population will increase:** The male and the female population will decrease with similar rates. However, the ratio between the number of men and women, which stood at 1.06 in 2000, will drop to 1.04 in 2025. In other words, the number of females among the general population will increase versus the number of males.

In 2025 the population will reach 90 million

The demographic forecasts for 2000-2025 tell us about the future population of Turkey. According to the data available, Turkey's total population will reach 90.2 million in 2025. The same year, the population growth rate will have dropped to 0.81%.

II.1.2. FORECASTS ABOUT THE POPULATION AT THE EDUCATION AGE IN 2025

Aside from the tendencies of the general population, forecasts about the population at the age of education can be made, also. For educational planning purposes, it is very important to know how the population at the age of education will be developing and what kinds of attributes this group will possess.

II.1.2.1 'SINGLE AGE' FORECASTS ABOUT THE POPULATION AT THE AGE OF EDUCATION

In this study, the criterion of 'single age' is used in the forecasts for the population at the age of education. In other words, the age span from 3 to 22 is treated as the basis for the population at the age of education. The threshold for this group starts at 3 years of age since pre-school education carries great importance and ends at 22 years of age since it includes four years of higher education.

Population forecasts for the world and Turkey are generally formulated for age groups of five and its coefficients, while single age group predictions are employed less frequently. Even though the trends are the same for single age and the coefficients of five groups, the employment of different assumptions for every age group instead of the coefficients of all five might result in diversifications in the total data.

It is imperative that the starting year data and the records in general are sound in single age calculations. In our study, the year 2000 is used as the starting year and the data is acquired from the 2000 census. However, especially for the 0 and 1 age groups, corrections were made for data that does not reflect the outcomes of general demographic trends. Moreover, the verification of single age data through cross-checking from the population

► See table 9-10-11 for forecasts about the population at the age of education. ►



registration records has shown serious flaws. For example, according to the population registration records of 2003, the 0 to 1 age group population seems very low in number. The primary reason behind this is the late registration of newborns, being delayed to as late as the age of primary schooling. Hence, such children become included as a part of the population when they are 6 or 7 years old.

Since the fundamental data used in our study retains such flaws, there exists the potential, albeit minor, that the margin of error widens.

After these notes of precaution, the general features of the forecasts on educational tendencies can be shown as follows:

- **The population at the age of education will fall:** Until 2025, there will be a deceleration among the population at the age of education. The primary reason behind this decrease is the falling of the rate of population increase. Compared to the year 2000, in 2025, there will be fewer people in every age group from 3 to 22 years of age.
- **The number of females among the general population will increase:** The male and the female population will decrease with similar rates. However, the ratio between the number of men and women, which stood at 1.06 in 2000, will drop to 1.04 in 2025. In other words, the number of females among the general population will increase versus the number of males.

The population receiving education will decrease

The 3 to 22 year old age group, which consisted of 27.7 million people in 2000, will decrease to 24.9 million in 2025. Among the same age group, the male population will drop to 12.7 million from 14.3 million, and the female population will dwindle to 12.3 million from 13.4 million.

► For the 2000-2025 forecasts about the population at the age of education, see tables 12 and 13. ►

II.1.2.2 THE DISTRIBUTION OF THE POPULATION AT THE AGE OF EDUCATION AMONG AGE GROUPS:

After presenting the general characteristics of the population at the age of education or 3 to 22 year olds, it is important to examine the diverse layers that constitute this bloc in order to come up with more detailed and precise data. For this purpose, the 3 to 22 year old group is divided into the subsequent subgroups: pre-school, primary education, secondary education and higher education. The postulations for these subgroups for the 2000 to 2025 period are as follows:

- **Pre-school age group** is the 3 to 5 year old age group. While the number of children making up this group was 4,133,000 million in 2000, in 2025 this number will be reduced to 3,665,000.
- **Primary education age group** is assumed to consist of 6-14 year olds. The age to begin primary education is generally 7, but as the number of children starting school at the age of 6 is high, this age is used as the threshold for beginning primary school. It is generally believed that the 8 years of compulsory education will be sustained in the coming years, so 14 years of age marks the end of this group. According to estimates, the primary education age group will decrease from 5,742,000 in 2000, to 4,956,000 in 2025.

- **Secondary education age group** includes the 15 to 18 year olds. Presently, secondary school lasts three years. However, due to the possible extension of compulsory education to 12 years and the yearly losses of students for various reasons, the secondary education age group consists of those aged 15 to 18. The number of individuals comprising this age group was 5,722,000 in 2000, and is estimated to drop to 5,077,000 in 2025.
- **The threshold age for starting higher education is 19 years old.** While the number of those at the age of university education was 1,428,000 in 2000, according to estimates this figure will descend to 1,258,000 in 2025.
- **For higher education,** people aged 19 to 22 is assumed as the basis for this group and the forecasts are made for 4 years of higher education. As graduate education is facultative, the 23 to 24 year old age group is not taken into consideration. While the number of the higher education age group was 5,648,000 in 2000, this figure will drop to 5,077,000 in 2025.

The number of students will decrease

In the period between 2000 and 2025 there will be a general decrease of students in the preschool to university age in all the segments of the educational scale. Consequently, Turkey will be freed from the pressures of the population at the age of education.

II.1.2.3 THE RATIO OF THE POPULATION AT THE AGE OF EDUCATION TO THE GENERAL POPULATION

In the period from 2000 to 2025, the number of students will be declining in Turkey. For the first time, the quantitative pressure stemming from the population at the age of education will lessen.

- The population at education age, namely the 3 to 22 year olds will decrease in number in absolute terms.
- When this absolute decrease observed among the population at the age of education is coupled with the slowing down of the population increase, the share of the education age population among the general population will drop off.

II.2 DEMOGRAPHIC TRENDS AND EDUCATIONAL INDICATORS IN GROUPS AND CITIES

The population features show inconsistency from region to region, and even from city to city. These discrepancies will continue to exist in the short and mid-term. For sound, effective and fruitful educational planning, these differences must be taken into account and policies must be developed in light of this data.

The forecasts denote that during the years up to 2025, the population at the age of education will decrease in absolute terms and the proportion of this group to the whole population will shrink. However, the same trends will not take place in all regions and cities of Turkey, the quantitative needs of education will subsist in regional and other sublevels.

► For the ratios of the population at the age of education to the population in general for 2000 to 2025, see table 15 ►

The demographic trends are different from city to city. For achieving successful educational planning, these discrepancies must be assessed. Such assessment is also necessary for determining disparate needs.

Let's first take a look at the reasons behind the divergence observed among cities:

AMONG CITIES, FERTILITY RATES DIFFER.
IN SOME CITIES, POPULATION GROWTH IS VERY RAPID.
IMMIGRATION FROM ONE CITY TO ANOTHER PERSISTS AND WILL CONTINUE TO EXIST.
IN SOME CITIES THE POPULATION SHOWS A STRONG TENDENCY TO DECREASE.
AMONG CITIES, URBANIZATION PROPORTIONS ARE VERY DIFFERENT. URBANIZATION AND IMMIGRATION TO CITIES WILL CONTINUE.
THE SCHOOLING RATES VARY AND THE RISE IN THESE SCHOOLING RATES DIRECTLY INCREASES QUANTITATIVE NEEDS.

Making city based population and education age forecasts require an expansive study. For every city, alongside indicators such as fertility, rough birth and death rates, variables such as migration and immigration as well as urbanization rates must also be taken into consideration. Due to such complications, the city based population and educational forecasts cannot go beyond indicating general tendencies.

In this study, due to the data flaws mentioned above, the forecasts that are formulated do not give quantitative results, but profile general trends.

- First of all, the demographic and population trends of 81 cities of Turkey are analyzed based on the outcome of the 2000 census.
- As a result, 10 different city groups are formed:
 - 1) **Cities with High Fertility Rates and High Population Increase Rates**
 - 2) Cities with High Fertility Rates and Normal Population Increase Rates
 - 3) **Cities with High Fertility Rates and Low Population Increase Rates**
 - 4) Cities with High Fertility Rates and Negative Population Increase Rates
 - 5) **Cities with Normal Fertility Rates and Very High Population Increase Rates**
 - 6) Cities with Normal Fertility Rates and High Population Increase Rates
 - 7) **Cities with Normal Fertility Rates and Low Population Increase Rates**
 - 8) Cities with Normal Fertility Rates and Very Low Population Increase Rates
 - 9) **Cities with Normal Fertility Rates and Negative Population Increase Rates**
 - 10) Cities with Normal Fertility Rates and Normal Population Increase Rates
- The schooling levels in the cities and the socio-economic development levels are also evaluated. As a result, the probable population and educational tendencies to be observed in the coming future are foretold.
- Moreover, for the ten groups, the population aged 0 to 19 of the cities for the year 2000 is also presented. This age group will become the education age population in the coming 25 years.

► See tables
16 and 17. ►

Let's have a closer look at the characteristics of these 10 city groups.

1. Cities with High Fertility Rates and High Population Increase Rates

(Mersin, Konya, Gaziantep, Batman, Mardin, Şanlıurfa, Şırnak, Hakkari, Van)

- The high increase rates of the population of these cities are due to the high birth rates.
- The fertility rates are very high.
- Of these cities, three (Mersin, Konya and Gaziantep) are receiving immigration in part.
- In these cities, the quantitative needs for education will continue to mount.
- The remaining six cities that make up this group (Batman, Mardin, Şanlıurfa, Şırnak, Hakkari and Van) are geographically very close and they exhibit the same typical characteristics.
- These six cities have limited emigration. The fertility rates are well above the former three cities, and are among the highest in Turkey.
- Despite the limited emigration from these cities, the quantitative needs for education in these cities will persist.
- The schooling rates in these six cities are very low. Due to the schooling levels, the educational needs will be high.
- These six cities are in the lowest strata of the economic and social development scales in Turkey.

► See tables
18 and 19. ►

2. Cities with High Fertility Rates and Normal Population Increase Rates

(Osmaniye, Aksaray, Yozgat, Adıyaman, Diyarbakır, Ağrı, Ardahan, Iğdır, Muş)

- In all these cities, the fertility rates are high.
- However, the population increase rates are approximately at the same level as the averages for Turkey.
- The underlying reason behind the average population increase rate, despite the high fertility rate is the emigration from these cities. The economic and social development of these cities is on the lower side of the socio-economic scale. This is the main reason for emigration.
- These cities are Central, Eastern and Southeastern Anatolian cities, and are in close range geographically.
- It is predicted that fertility rates will remain high in these cities and the emigration flow will continue, albeit at a slower pace.
- The quantitative needs for education will endure in this group particularly because schooling levels after primary education are low.

3. Cities with High Fertility Rates and Low Population Increase Rates

(Erzurum, Erzincan, Bingöl, Siirt, Sivas, Niğde, Hatay, Nevşehir, Kahramanmaraş, Ordu, Gümüşhane, Tokat, Afyon, Karaman, Kayseri)

► See tables
20 and 21. ►

- The main feature of these cities is that they have a high emigration rate.
- Even though the fertility rates are quite high in these cities, the population increase rates are lower than the previous groups because of the strong emigration trend.
- Except for Kayseri, Kahramanmaraş and Karaman, the cities in this group are at the lower end of the development scale.
- In the short term, fertility rates will drop in part, and the emigration trend will continue. Due to this, the quantitative needs will be limited.
- The scope of quantitative needs will be determined in relation to the schooling proportions.

4. Cities with High Fertility Rates and Negative Population Increase Rates

(Bayburt, Kilis)

► See tables
22 and 23. ►

- Despite high fertility rates, the populations of Bayburt and Kilis are decreasing.
- Both of these cities have high numbers of emigrants.
- In relation to the economic and social developmental factors, it is predicted that this emigration will continue.
- The total population and the young population will decrease. Hence, educational needs will only be tied to schooling rates.

5. Cities with Normal Fertility Rates and Very High Population Growth Rates

(İstanbul, Antalya)

► See tables
24 and 25. ►

- İstanbul and Antalya are the two cities in Turkey that possess the highest rates of immigration.
- The fertility rates of the urban population are normal, and even below the averages of Turkey.
- Yet, the population growth rate is extremely high.
- It is predicted that immigration to these cities will persist.
- Nonetheless, the immigration rate will decelerate. Therefore, the quantitative needs in education will lessen over time.

6. Cities with Normal Fertility Rates and High Population Growth Rates

(Bursa, Kocaeli, Tekirdağ, Tunceli)

► See tables
26 and 27. ►

- Bursa, Kocaeli, Tekirdağ act as economic and social epicenters attracting immigration. This trend will continue.
- The fertility rates are below the averages of Turkey in these cities. Conversely, the population increase rates are high.
- The physical boundaries of Bursa and Kocaeli cannot be extended much more. Thus, the immigration rates will remain limited and will stop after a while.

7. Cities with Normal Fertility Rates and Low Population Growth Rates

(Kütahya, Manisa, Uşak, Çankırı, Eskişehir, Kırıkkale, Sakarya, Kırklareli, Düzce, Aydın, Balıkesir, Denizli, Bilecik, Çanakkale)

- The majority of these cities are in the Aegean region or neighbors on it.
- Demographic indicators have stabilized in this group.
- In all these cities, the fertility rates are normalized, and as a result of this, the population growth rates have slowed down.
- In these cities, it is predicted that the population increase rate will protect the current rates.
- These cities will probably neither account for much immigration nor emigration. Population numbers will be determined due to the internal demographic dynamics of the cities.
- In relation to the schooling levels, there will be quantitative educational needs in these cities. As a result of the limited scale of population increase, the needs will also be restricted.

▶ See tables
28 and 29. ▶

8. Cities with Normal Fertility Rates and Very Low Population Growth Rates

(Burdur, Amasya, Bolu, Giresun, Rize, Samsun, Kırşehir)

- In all of these cities, the population growth rates have neared normal standards.
- However, population growth rates in these cities are low due to high rates of emigration.
- In the coming years, the emigration trend will continue, albeit at a slower pace.
- It is predicted that, for the most part, the youth will emigrate from these cities. As a result, the fertility rates will drop.
- The quantitative educational needs will be determined according to schooling rates in these cities.

▶ See tables
30 and 31. ▶

9. Cities with Normal Fertility Rates and Negative Population Growth Rates

(Artvin, Bartın, Çorum, Karabük, Kastamonu, Sinop, Zonguldak, Edirne)

- Even though the fertility rates are in normal standards in these cities, the populations are decreasing.
- All the cities in this group, except for Edirne, have considerable emigration.
- In Edirne, the net population decrease rate is in the process of decelerating.
- The populations of the other cities in this group are quite small. For economic and social reasons, the emigration trend will continue.
- In relation to the diminishing size of the population, the quantitative educational needs will only be connected to schooling rates and will remain very limited.

▶ See tables
32 and 33. ▶

10. Cities with Normal Fertility Rates and Normal Population Growth Rates

(Adana, Trabzon, Yalova, İzmir, Muğla, Ankara, Malatya, Isparta)

- The population growth rates of these cities are mostly due to the urban population's own growth rate.
- Both fertility and population growth rates are very close to normal standards.
- Population growth rates are stabilizing.
- Because of their economic and social development, it is apparent that these cities will become immigration epicenters.
- Nonetheless, these cities will receive limited immigration.
- The schooling rates are very high in this group, except for Isparta, Malatya and Trabzon.
- In these three cities, the quantitative educational needs will be determined in relation to the limited population growth and immigration rates.
- In the remainder of these cities, the schooling rates will be the determining factor.

► See tables
34 and 35. ►

CHAPTER 3

EUROPE AND TURKEY: DEMOGRAPHIC FORECASTS FOR THE EUROPEAN UNION AND TURKEY



INTRODUCTION

Turkey's aim to become a full member of the European Union has set into motion a series of structural adjustments in the economic, legal and social spheres. It is apparent that the EU will play an important role in forecasts and plans concerning the future of Turkey. Consequently, this part of the study is devoted to projections, comparisons and analyses regarding the EU.

For this purpose, our aim is to answer the following three questions:

- 1) What kind of changes will the EU population experience while Turkey is experiencing the demographic transition process?
- 2) If we compare the EU and Turkey's current and future population trends until 2025, what kind of a picture will we see?
- 3) In both the EU and Turkey, the two key population groups are the youth (the population at the age of education) and the working age population.

III.1 DEMOGRAPHY AND POPULATION FORECASTS IN THE EUROPEAN UNION

International organizations have statistical studies regarding demographic and population forecasts for the EU, the European countries that are not EU members, and the neighboring countries of Europe. When making predictions about the EU and its immediate environs, the studies made by these international organizations have been employed. The sources used, and the organizations they belong to, are the following:

- Eurostat regularly publishes both current and past demographic and population information, framed according to certain standards. However, there exists no institution that makes demographic forecasts and archives such information, neither in the EU nor Europe in general.
- The EU, whose primary focus is on the aging population and the social security system, frequently makes forecasts regarding these issues. The report *Active Ageing in Europe* prepared for the European Council is the most up to date and comprehensive study in this regard. The European Population Committee annually prepares *The Report: Demographic Developments in Europe*, which covers 45 member countries of the European Council. This report offers past and present data, but does not contain predictions about the future. The European Demographic Observatory, which is part of the EU, monitors the member countries' demography and population trends.
- The United Nations is the most important organization making forecasts for the world population in general as well as individual countries. Every two years the Population Office of the UN publishes a detailed, 50 year forecast for the world in general and all countries.

- Another important source is the United States Population Bureau of the US government. This government organization conducts annual studies on demographic forecasts that cover every country in the world. The findings of these studies are published annually as the Global Population Profile.

III.1.1. DEMOGRAPHIC TRENDS IN EUROPE

In issues related to population, we can see that Europe displays some general features. Almost all the countries in the geographic area termed as 'Europe' are experiencing demographic processes that display similar or identical attributes. In Europe as a whole, the third and the last stage of the demographic transition process can be seen. The traits typical of this stage can all be observed among the European population in general.

When we look at the common qualities of European populations, the following issues are noteworthy:

► For European demographic trends see table 36 ►

Europeans will lessen in number

In all countries of Europe, the pace of the population increase has stopped. After this halting process, the diminishing of the population will begin. In most of the European countries, the population decrease has already begun. Moreover, this decline is following a sharp curve that constitutes a historical first. The initiation of a new demographic process can only come about after 100-150 years.

- In all countries of Europe, the population growth rate is falling. This is because the indicator termed the 'net renewal rate' or the 'total fertility rate' has dropped below the 2.05-2.10 level needed for an increase of the population. After this indicator plummets below this level, the absolute population increase rate stops, and then assumes a negative value. For the population increase rate to gain its pace again, or in other words, for the net renewal rate to be increased to or over the 2.05-2.10 level, takes 100-150 years under normal circumstances.

Europeans are living longer, giving birth less and their populations are aging rapidly

As a result of medical innovations and the social security system, Europeans are living longer. Parallel to this, birth rates are falling. Nevertheless, death rates are also increasing because the European population is aging rapidly.

- In most of the European countries, populations have started shrinking in size already. The countries that have not yet experienced decline will be facing this process soon. As of the year 2002, throughout Europe and its neighbors, the population increase rate is at a negative level or barely above zero. With these figures falling below 2.05-2.10, which is deemed critical for the net renewal rate, the populations of these countries are already shrinking. Among the 32 countries that were analyzed for the study, even the country with the highest population growth rate, Luxembourg, is decreasing in number².

² The population increase rate of Luxembourg is 1.3%.

Luxembourg is followed up by France and Holland, each with 0.5% population increase rates.

- The two main indicators of the population increase rate are the rough birth and rough death rates.
- First we will have a look at the rough birth rate. In European countries this rate is at its lowest possible form of 8-10 in 1000, or very close to this level. The rough birth rates of the European continent are at their lowest ever, and it will take 100-150 years for this rate to start climbing again. Because of the rapidly aging population, the sum of women who are aged 15 to 49 is also diminishing. This decrease causes the rough birth rates to fall.
- Despite medical and technological advancements, as well as the positive effects of the social security system, the rough death rate is increasing all over Europe. The main reason behind this is the aging population of Europe. The rough death rate is continuously escalating and going above 10 in 1000 or even higher.
- In sum, the most striking demographic feature is the rapidly aging population. Moreover, this trend will persist. The chief cause of the aging population in Europe is that the countries in the region have all entered the third phase of their demographic transition process. According to forecasts, the population of Europe will continue to get older for at least another 50 years.

III.1.2. ABSOLUTE POPULATION DEVELOPMENTS IN EUROPE

When predictions about the populations of the 25 European Union members, 3 EU candidates, and 4 EU neighbors until 2050 are examined, we arrive at the following conclusion: all around Europe, especially within the EU, demographic trends that are taking place now will cause the population to decrease in the near to long term future. Due to this, out of the total population of Europe, the equivalent of almost a whole country's population will disappear. When the population trends in Europe are analyzed, the following conclusions are reached:

- In all 25 European Union countries, except for France and Ireland, the population will be decreasing in absolute terms. While the total EU population was 453.4 million in 2002, with a 53.3 million minus, this figure will become 399.8 million in 2050.
- In some countries, the population decline rate will climb to figures approaching 30%.
- Even in countries that are deemed to be populous in Europe, a population decrease will be perceived. The nine EU countries with the highest population (Germany, France, Italy, the United Kingdom, Spain, Poland), the total population was 338.9 million

Turkey will be the only country in Europe with a young population

All of the European Union countries, its new members, and surrounding countries are experiencing a decline in population. In Turkey, however, the population is still stabilizing. In other words, Turkey will be the only country that has a large young population.



► For the absolute population developments in Europe, see table 37 ►

in 2002. In 2050, their total population will fall to 301.9 million. The populations of Germany, Spain and Italy, in particular, will fall considerably.

- The enlargement process that the EU is going through will not save its population from diminishing in size. The populations of countries that are not in the EU currently, but are in the process of becoming members, namely Bulgaria, Croatia and Romania, are decreasing in absolute terms. The total population of these three countries was 34.3 million in 2002, and this figure will drop to 25.8 million in 2050.
- The population trends in the neighborhood of the EU display similar tendencies. In four important neighbors of the EU, namely Norway, Russia, Sweden and Ukraine, the population will be decreasing. In Europe, there is no country other than Turkey whose population is still growing.
- As a consequence of the mounting social security, pension and healthcare expenses and the decrease of the EU population in absolute terms, the need for an additional work force will be more pressing than ever. Meanwhile, the share of the 65 year old and above population will be escalating rapidly. In addition, it should not be forgotten that life expectancy is ever increasing. The demographic transition process and the growing life expectancies will make the population aged 65 and over 29% of the total population. This proportion amounts to 115.9 million people out of a total population of 399.8 million.
- The elderly, that is, people aged 65 and over, make up 37% of the population in Spain, and in some other European countries this figure is above 40%.

III.1.3. ABSOLUTE DEVELOPMENTS AMONG THE AGE GROUPS OF TURKEY

As mentioned above, Turkey and Europe are in different phases of the demographic process. In other words, Turkey is behind the European demographic transition process by about 50 years. As a result, the absolute developments among the age groups in Europe and Turkey are developing in diverse ways.

A look at the population developments within the European Union according to age group divisions may give Turkey keys to full EU membership. Such an analysis clarifies what kinds of options are at hand for Turkey, as well as pointing out the limitations.

Turkey's membership process into the EU is expected to take place during the period covered in this report, 2000-2025, and full membership is presumed to be granted. In this study, data from the Global Population Profile of the United States Census Bureau are used. The absolute population sizes of the twenty-five EU members, three member candidates and four neighboring countries are analyzed in detail and compared with each other.

Moreover, the distribution of the total population with respect to age groups in the twenty-five EU member countries can be seen. Through this assessment, the following outcomes are reached:

- **The population will increase very little:** In the twenty-five EU member countries, the total population will be growing very little in size. The total population figure of the EU current members was 453.4 million and will only rise to 456 million.
- **Births will decrease:** The number of newborns and children will decrease. The 0-4 age group, which is termed the pre-education age group, will both shrink in absolute terms and its share of the population will fall from 5.2% to 4.5%.

► For population developments in Europe, see tables 38 and 39. ►

-
- **The number of students will fall:** The number of the 5-15 year old group, in other words the group in the basic education age, is decreasing in absolute terms.
 - **The work force will meltdown:** There will be a serious decrease in the workforce of Europe. Of the people aged 20 to 44, which is the primary age group in the work force, there will be 30 million fewer people. In other words, this group's population will decrease from 165.2 million to 136.3 million people. The share of this group of the total population will drop from 36.4% to 25.9%.
 - **The middle-aged population group will grow:** The population of the people aged 45 to 64, which is termed the secondary age group in the work force and has different characteristics from the primary one, will be increasing in absolute terms. The population of this group will increase from 111.6 million to 132.4 million. Meanwhile, its share in the population will increase from 24.6% to 29%.
 - **Europe will age:** The main increase will be among the 65 year old and above population. The size of this group in absolute terms will increase from 73.2 million to 100 million in the year 2025.

Europe will witness a work force shortage

There will be an absolute shortage of and need for people at the age of education and work in Europe during the period from 2000 to 2025.

III.2 COMPARISON OF EUROPE AND TURKEY

When the issue of full membership of Turkey to the EU is discussed, the debate often centers on the current population of Turkey and its potential future size. Despite the frequent assertion that the population of Turkey constitutes a worrisome crowd, the kind of potential it presents can only be understood through comparative analysis. In other words, when Turkey's population potential is being evaluated, looking uniquely at data on Turkey paints an incomplete picture. Any evaluation of this kind must be done in a comparative manner, contrasting both the EU and Turkey's demography and population forecasts.

A comparative analysis reaches seven main conclusions:

Europe will need turkey because turkey is the only nearby country that can meet the work force requirements of the eu.

1. European countries need Turkey:

It is often stated that Turkey is lagging behind the European Union countries in various issues. It is true that Turkey is lagging behind the demographic transition process of Europe by about 50 years. However, the aforementioned 'backwardness' constitutes a positive occasion regarding the demographic transition processes. Even though the population increase rate is falling in Turkey, its population is still increasing. Statistics show that the total population of the twenty-five EU member countries will be 400 million in 2050. The same year, Turkey's population will be 98 million. Hence, Turkey will be the nearest and most appropriate country for meeting EU population needs in the first quarter of the 21st century.

2. Europe cannot renew itself, it needs immigration

Since the beginning of the 1960's, Europe has been experiencing a different demographic transition process compared to the previous period. Europe had been facing a labor force shortage in the 1960's, also. Today, a diverse population crisis is taking place. The fertile young who can enable the increase and renewal of the population are constantly decreasing in number. The net population renewal rate in the whole of Europe has fallen below the 2.05-2.10 rate, which is the threshold that makes population growth possible. This means that Europe can enter the net renewal process only after 200-300 years.

The European population can start to increase only after 200-300 years. thus, Europe needs immigration.

The only way to let the net renewal rate gain pace and enter a process of population increase is to take young immigrants from abroad. This practice will lead to a mixing of nationalities and races among the European population. When we leaf through the pages of European history, in which much blood has been shed for nationalist and even racist reasons, becoming an immigrant society is a tough choice. In this regard, Turkey is the closest country to Europe in terms of both geography and identity, possessing the most important young population potential.

3. Europeans must work harder

Europe plans to raise the pension age threshold to fill its work force gap.

As mentioned previously, Europe's population is aging. Until 2050, the absolute size of the population at the age of education will be decreasing. The EU aims to close the gap of the working age population through increasing the pension age threshold. According to estimates, the pension age will escalate to 65 years of age.

The work force immigrating to Europe might be met with resistance in the receiving countries.

However, even if the population of the EU countries works harder, the need for a young work force cannot be overcome. In contrast, Turkey will face the opposite reality. In 2025, its total population will become 90.2 million and the population between 20 to 44 years old will rise to 33.7 million. It is notable that this figure was 26.5 million in 2000, and there will be a hike of 7.2 million. It can be better understood why Turkey is the only country with the potential to close the young work force gap of Europe when the decreasing populations of all European countries is taken into consideration.

Nevertheless, it would be a mistake to assume that the tight border controls and strict visa procedures that have created the draconian imagery of the 'Fortress Europe' will be abandoned in favor of an inviting Europe. The economic stagnation, swelling unemployment, integration problems of the immigrants and the like, will continue to bar Europe from embracing the prospect of taking in a work force from abroad. Nonetheless, Europe will move towards letting in a qualified work force with experience and a high level of education. Such a work force will most probably be coming from various parts of the world. Even so, it cannot be denied that Turkey poses an ideal work force because of its nearby geographical location and common identity features.

An aging population may lead to economic stagnation.

4. Reduced internal demand might lead to economic stagnation in Europe

The aging of the population in Europe brings economic stagnation in the EU. With the evaporation of the economic dynamism propelling the vibrancy of the domestic demand and entrepreneurship, the European economies will begin to falter. For this reason, Turkey happens to be a key target audience for Europe with its young population and ever-increasing purchasing power. However, the EU already exploits these potentials of Turkey with the Customs Union Agreement presently in force. Despite this agreement and the possibility that full membership is not granted, Turkey is in an indispensable position for Europe. Thus, with the strengthening of economic ties, the political and societal relations will also be reinforced.

The aging of the population may threaten the social security systems.

5. The social security system is at risk

One of the chief reasons that EU membership and citizenship becomes a source of attraction for other countries is the strength of its social security system. As a result of the aging EU population, the social security system will be facing a crisis. The decline in the size of the working force, in addition to the rapid expansion of the aged and retired population, social security funds will be depleted. European countries are aiming to solve this problem by increasing the threshold age for retirement. Nonetheless, it requires that the working group supporting the pension system must be increased in size. Turkey is in a position to help Europe support its social security system and its work force with its working age population potential.

6. Turkey's population may alarm Europe.

If Turkey becomes a full member of the EU, it will exert great leverage in the executive and legislative affairs of the EU.

The prospects that create social and economic potentials for Turkey are perceived as political threats for Europe. Forecasts such as Turkey becoming the country with the largest population in Europe after 2025, and constituting one fifth of the whole EU population are evaluated negatively within Europe. If Turkey's full membership aspirations bear fruit, and this becomes a reality under the current administrative structure of Europe, Turkey will be converted into a key player within the executive and legislative center of the EU. The fears stemming from the vision of Turkey, whose place in Europe has raised much controversy over the years, turning into a leading country of the EU all of a sudden should be viewed as a natural reaction.

7. Contribution to future security of Europe

Europe will require a young population for its security organs.

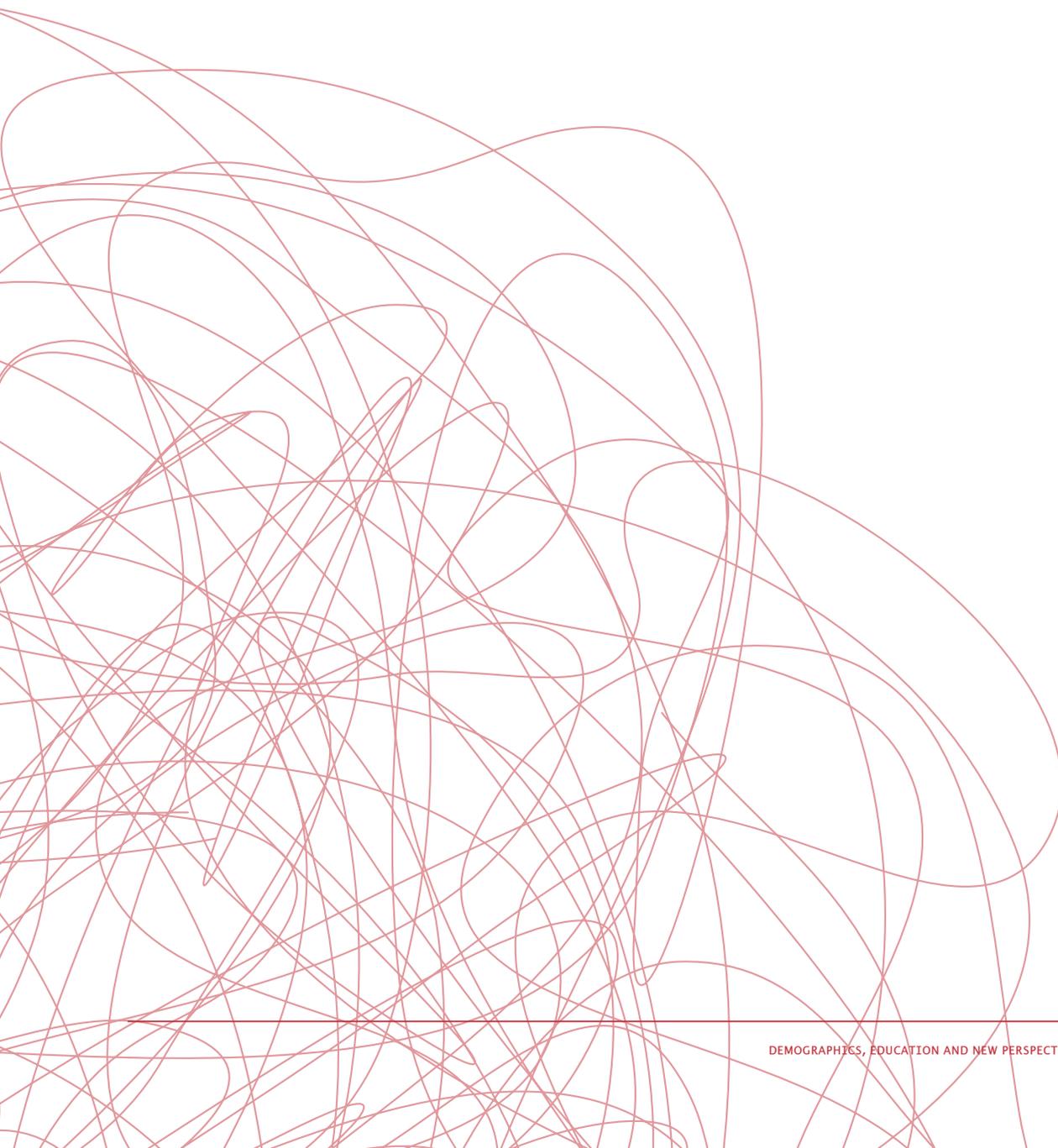
The dissolution of the Soviet Bloc did not cancel out Europe's security needs. Since the 1990's, Europe witnessed various wars fought both within itself and in close proximity. In addition to terror threats mounting in the aftermath of September 11th, Europe is also

under siege from organized crime infiltrating from neighboring countries. Europe's aging and shrinking population can hardly deal with the structural needs for its security. The need to support security issues from different channels arises.

While the creation of a European army and other security organizations are planned, the size of the population available to work in the security field is decreasing rapidly. Turkey is in a position to support Europe's future security with its young and dynamic population.

CHAPTER 4

EDUCATED WORK FORCE: EDUCATION LEVEL FORECASTS OF THE WORKING AGE POPULATION





INTRODUCTION

- The primary aim of this part of the study is to analyze and display Turkey's potential and the possibilities of creating an educated and qualified work force able to answer the needs of the European Union.
- As pointed out previously, Turkey has an important advantage with its young population over Europe, especially for filling the gap of work force needs. However, the most crucial issue here is raising the level of education to European Union standards.
- In this section, prepared in light of the assumptions above, it is observed how and to what extent the education level of the working population can be raised.

IV.1 METHODOLOGY AND ASSUMPTIONS

- When these forecasts were being prepared, the population segment whose level of education will be measured and raised was determined as the working age group of 25-44 year olds. There are several reasons for this:
 - This study makes predictions for the period between 2005 and 2025. In line with the 20-year time span, the age group with a 20-year time span (25-44 years olds) was chosen.
 - As a result of the rise in schooling rates during the years between 2005 and 2025, the student group whose education level is to be improved will constitute the working age group in 2025, that is, the 25 to 44 year olds.
- Raising schooling levels during the 2005 to 2025 term will not raise the education level of the current working age group, which will constitute the 45 year old and above group in 2025.
- Predictions are made by drawing a direct proportion between the schooling rate assumptions in 2005 to 2025 period and the level of education of the population which will be at the working age, namely those aged 25 to 44, in 2025.
- Forecasts regarding the education level of the population at the working age are concluded through making positive assumptions about the schooling rates of primary, secondary and higher education groups. In other words, some assumptions are made to formulate these forecasts.
 - Forecasts about the working age group are made only for the year 2025. This is because for the preceding years starting with 2005, the level of improvement is still too low, even until the year 2015. This is because the time span until 2025 is too short for any concrete improvement in schooling levels to be observed. For example, in the year 2015, the people aged 35 to 44 will continue to display low levels of education. Consequently, the forecasts are made for 2025, when the level of education will begin to rise.

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- In primary education, until 2010, the gross and net schooling rates for both boys and girls will be 100%. Likewise, it is assumed that all students will be attending eight years of mandatory schooling. Through this process, there will be a 0% proportion of those who are illiterate or have not finished primary school. This assumption naturally is an earnest desire, but it should also be set as a serious target. Otherwise, there will still be illiterates and people without any certificates among the 25-44 year old age group in the year 2025. There should be serious and steady campaigning conducted towards this goal.
 - Beginning in 2005, every five years, the schooling rate targets are being raised for secondary schools (high school and equivalent) and higher education. The improvement experienced in the schooling rates of these groups will become evident in five to ten years. As a result of this, the concrete effects will clearly be seen at the end of this term, in 2025.
 - The possibilities that secondary schooling will become mandatory or 12 years of schooling will become mandatory are taken into consideration when the prospects are formulated.
 - In practice, increasing schooling rates will be difficult and limited. Moreover, such an increase will become observable about ten years later.
 - Even if schooling rates escalate in a short period, their effect over the population at the working age will be noticeable only after 2015 because those who are past the age of secondary schooling are not able to return to complete their education. This improvement can only come about if we can assume that those who have completed their eight year mandatory schooling and are aged 14 will continue on to secondary school or its equivalent.
 - In consequence, among the scenarios under consideration, making education compulsory for twelve years is discarded. Nevertheless, the assumptions of the scenarios are formulated very much in line with the possible outcomes of the twelve year mandatory schooling conjecture.
 - In secondary schooling, the distinction between high schools and vocational high schools are also important. In our study, under the heading of secondary education, the school groups are evaluated together. What the distribution of students between these two types of secondary education requires another study.
 - Schooling rates in higher education have gone up. The formal and open universities are evaluated together.
 - In higher education, the number of graduates is relatively low and does not reflect the number of registered students due to university drop outs, or students who change departments, or those students who cannot complete their studies within the required time span and finally the students who consciously delay graduation (for reasons such as avoiding military service). This discrepancy weakens the connection between higher education schooling levels and the education level of the population at the education age.

In our study, it had to be assumed that this connection is strong. Regarding schooling rates, the numbers of those who graduate are increased without adding any loss expectancy. As a result of this increase, calculations are extended for graduates of higher education. Therefore, the result is a jump of the success rates in higher education.

- Pre-education schooling rate assumptions are presented for background information. There is no direct quantitative proportion between the assumptions regarding the pre-education age group (3 to 5 year olds) and the education level of the education age population, but a qualitative relationship is foreseen.

IV.2 SCENARIOS AND OUTCOMES

- Detailed tables demonstrating likely scenarios and outcomes are attached. In the framework of this study, primarily the educational level of the population at the working age, namely the 25-44 year olds, is being presented, as of 2025. For this purpose, the data obtained from the 2000 population census is taken as the basis, and these data are adopted until the year 2025. Table 40 displays predictions about the educational level of the population aged 25 to 44 in 2025, according to gender and age groups.

► For the education level of the working age population in the year 2025, see table 40 ►

In 2005, the population in the 25 to 44 year old age group will be made up of;

6.5% Illiterates

2.6% Without any formal education

48.3% Primary school graduates

10.8% Middle school or equivalent graduates

22.6% High school or equivalent graduates

10.2% University graduates

In 2005, 22.44 Million people aged 25 to 44 comprised the working age population

Upon reflection of the contemporary situation, two scenarios should be considered.

Scenario 1: The current improvement continues.

Scenario 2: Improvement rates gain pace.

• SCENARIO 1: THE SCHOOLING TARGETS

Net schooling expectations are displayed in Table 41. These numbers are given in five-year intervals from 2005 to 2025. They portray the schooling rate assumptions for every level of education.

The schooling rate assumptions foresee the continuation of the schooling rates attained in the last 10 years and their partial escalation.

• SCENARIO 1 – THE LEVEL OF EDUCATION

In relation to the net schooling rate assumptions, the education level forecasts made for the population aged 25 to 44 divided into 4 age groups and in total, are presented in Table

► For net schooling rate targets of scenario 1, see table 41 ►

► For the schooling rate forecasts of Scenario 1, see table 42

► For the net schooling targets of Scenario 2, see table 43

► For the education level forecasts of the work force in 2025, according to Scenario 2, see table 44

► For the comparison of the two scenarios, see table 45

42. In the coming years, due to the increase in the schooling levels, the younger segments of this population group will have higher education levels, while the older segments of this group will have lower education levels.

According to the assumptions of the scenario, the number of those who are illiterate or do not have schooling will be 1.3%, the number of the primary graduates will be 29.8%, the secondary school graduates will be 36.3% and the higher education graduates will be 32.6%.

• SCENARIO 2- THE SCHOOLING TARGETS

According to this scenario, the increase in the net schooling rate will be more rapid and higher in quantity. This scenario must be evaluated as a targeted and possible scenario. The targets are exhibited in Table 43.

The pre-education and primary schooling rate assumptions are the same as for SCENARIO 1. Schooling in secondary education increases rapidly after 2010 and is foreseen to reach 100% in 2025. The supposition of the attainment of the 100% level in the year 2025 will start affecting the educational level of the working age population from 2030.

• SCENARIO 2- THE SCHOOLING LEVELS

Table 44 shows the education level forecasts for the population aged 25 to 44 with respect to the scenario assumptions, where the net schooling rates have gained momentum or have increased.

The population aged 25 to 44 will display the following characteristics; 1.3% will be illiterate or without any certificate, 26.1 will be primary school graduates, 34.2 % will be secondary school graduates, and 38.3% will be higher education graduates in this scenario.

The population aged 25 to 44, who total 22.44 million in 2005 will climb to 26.78 million by 2025.

2005 data of Scenario 1 and 2 are compared in Table 45. Due to the diverse schooling assumptions in Scenario 1 and Scenario 2, the educational level forecasts obtained are also different.

CHAPTER 5

THE WINDOW OF OPPORTUNITY: EDUCATIONAL POLICIES; THE BASIC DIAGNOSES TO BE USED FOR DECISION PROCESSES AND ASSESSMENTS



INTRODUCTION

In this part of the study, considering the demographic findings of the earlier sections, fundamental observations that can be used in devising educational policies and decision processes are presented. This part also aims to present the highlights of the previous four parts.

V.1 GENERAL OUTLOOK

- Turkey is in the second phase of the demographic transition process of its Republican history. The demographic trends that have developed in the last 30 (especially 15) years have launched Turkey into the second phase.
- The population growth rate has fallen beyond expectations in the last 15 years. The main reasons for this decrease are decelerations of fertility and rough birth rates. The population increase rate has fallen to 1.53% in 2003
- Turkey can quit this demographic trend only through extraordinary developments.

The population increase will stop

The population will age

- Turkey will experience the second phase of the demographic transition process from 2000 to 2025 in an accelerated form.
- Turkey will reflect the typical qualities of the second phase of the demographic transition process. The foremost of these qualities can be listed as follows:
 - The young population will stop increasing and after a while start to decrease.
 - The adult population will reach its most sizeable form among the total population.
 - The population will be older
- **URBANIZATION**
- Turkey has experienced rapid urbanization in the last 40 years.
- In 2000, 33.1% of the population, in other words, 23.8 million people, lived in rural areas.
- Urbanization has not stopped in Turkey. This trend will continue in the long term.

- **EDUCATION**

- The education level of Turkey is showing swift improvement. However, this improvement is not enough.

Among those aged 25 and over, 71.8% are primary school graduates, illiterate, or merely literate without a diploma.

- The education level of the population aged 25 and over is very low. In 2000, this group was comprised of 71.8% primary school graduates, illiterates or merely literate without any schooling. (Of these people, 17.2% were illiterate, 6.4% were literate without any diploma, and 47.8% were primary school graduates).
- The schooling rates of the 6 to 24 year olds are rapidly increasing.
- However, the schooling rates are constantly falling after primary school and are at a dissatisfactory level. The gross schooling rate of primary education is 96.6% and 60.9% for secondary education.
- The schooling rates among girls are even lower. The gender ratio in primary schooling is 93% and for secondary schooling is 76.7%.
- The schooling needs in secondary education are very high. Efforts committed to 100% schooling in primary education need to be made.
- There will be an annual improvement in education levels of the 25 year old and over population as a direct result of the increase in the schooling rates of the 6 to 24 age group. However, this elevation must persist for 25 years.

V.2 REGIONAL DEMOGRAPHIC OBSERVATIONS

- **DEMOGRAPHY**

- Turkey will be experiencing the second stage of its demographic transition process. The share of the population at working age in the total population will peak. This time period carries the most suitable conditions for economic growth depending on the conditions created for employment, and is termed the 'Window of Opportunity' period.

Window of opportunity

In the 2000 to 2025 period, the workforce population will increase. The golden opportunity for economic growth will be seized. In order to succeed, qualified education is necessary.

- The demographic forecasts formulated for the period from 2000 to 2025 determine the developments regarding the population at the age of education.
- During the period from 2000 to 2025, the population growth rate will continue to drop. The growth rate, which was 1.66% in 2000, will decrease to 0.81% in 2025.

Towards 2025

- Births will fall
- The young population will stop growing
- Turkey will cease to be a country with a predominantly young population.

- The chief reasons behind the population decrease are the deceleration of the fertility and rough birth rates. The rough birth rate was 2.22% in 2000, and will be 1.51% in 2025.
- As a result, the number of newborns will decrease by 1,400,000 to 1,300,000 babies annually. Due to this decrease, the escalation of the number of children and youth in the population will cease.
- In 2025, the total population of Turkey will reach 90.2 million.
- **THE POPULATION AT THE AGE OF EDUCATION**
- In Turkey, the young population growth rate stops in the period from 2000 to 2025. After a while, the share of the young population will start decreasing both in absolute terms and so will its share of the total population.
- In 2025, Turkey will cease to be a country with a predominantly young population. The population policies aimed towards the youth will be replaced by policies aimed towards adults and the aging.
- For the 'Window of Opportunity' to be put to best use, there needs to be planning in various areas. One of the most fundamental steps to ensure success is qualified education of the education age population.
- The population at the age of education is assumed to be comprised of 3 to 22 year olds. The data for educational planning is shown as follows:
 - The population aged 3 to 22 amounted to 27.7 million individuals in 2000, will fall to 24.9 million in 2025. In the same group, the male population will decline from 14.3 million to 12.7 million, and the female population will go down from 13.4 million to 12.3 million.
 - As for the 3 to 22 age group, there will be a decrease in all ages for the next 25 years, in absolute terms. The share of the population at the age of education (aged 3 to 22) will go down from 40.8% in 2000, to 27.7% in 2025.
 - This absolute decrease among the 3 to 22 year old population will make quantitative needs in education to decline considerably with the result that Turkey can shift its educational policies to raising the quality of education.

- **REGIONAL DIFFERENCES**

- However, there are certain serious obstacles before these general trends and forecasts can be realized. These obstacles, which might cause the quantitative needs to persist, are as follows:
 - Urbanization, immigration and population movements
 - The low rates of schooling and the need for their increase
- Turkey is divided into 10 city groups according to urbanization, immigration and population movements as well as economic and social development and schooling indicators.
 - As every city group will indicate different demography and population trends, their quantitative needs will be different from Turkey in general as well as from each other.
 - In determining the quantitative needs in education around the country, rather than the indicators reflecting the average of Turkey, the indicators of the city groups will be more decisive.
 - Among the 10 city groups, for example, Istanbul and Ankara, which have normal fertility but high population growth rates, will continue to have quantitative education needs despite the high levels of schooling.

V.3 THE EUROPEAN UNION AND TURKEY

- Europe is in the third and the last phase of its demographic transition process. The qualities of the last phase are being experienced throughout the region.
- The net renewal rate has fallen below the 2.05-2.10 level, hence the population increase around the region has stopped and the decline trend begun. This trend will continue on for at least 100-200 years.
- While the share of the youth and adults are decreasing among the general population, the number of the aged population is increasing.
- The total population of the twenty-five EU member countries was 453.4 million in 2002. This figure will reach 456 million in 2025 and then, plunge to 399.7 million by 2050.

The 25 member European Union's total population will be 453 million in 2025, but will decrease to 399 million in 2050. This population reduction will have important political, economic and social consequences.

- The ratio of the 0 to 15 age group of the total population will be 19.2%, whereas that of the 20 to 44 age group will be 29.9% and the ratio of the 45 to 64 age group, 29%. The 65 and over age group will be 21.9% in 2025. This figure will escalate to 29% in 2050.
- Europe will experience an absolute decline in its population and will face an aging process in the coming 50 years. This will influence the economic, political, social and security spheres.

The advantage of 'backwardness'

Turkey is lagging 50 years behind Europe in the demographic process.

The population increase in Turkey has slowed.

Nevertheless, Turkey still retains a young and adult population that can fill the gaps left by an aging and declining population in Europe for the coming 50 years.

For this potential to be exploited, formulating policies that will raise the quality of education and planning in advance are essential.

When the demographic forecasts of Europe and Turkey are compared, seven fundamental observations are obtained:

- **Europe's savior:** Turkey is the only country, which can make up for the negative impacts of the demographic process in Europe. Turkey could meet Europe's needs for the next 50 years.
- **Immigration of youth:** The European population needs net renewal which can be realized only through the immigration of youth from abroad. For this purpose, Turkey is the only potential country in the region.
- **Educated work force:** In the EU, the total working age population will drop from 165.2 million to 136.3 million in the coming 25 years, while Turkey's working age population will increase from 26.5 million to 33.7 million in the same period.
- **Supporting the social security systems:** The risk factors in the social security systems are increasing in the EU, due to the rapid aging and the decrease of the working age population. In order to raise the potential support rate, more people must work. Turkey can support the labor market of Europe and the social security system in this regard.
- **Supporting Europe's security:** The decline in the young population poses a risk for the security and security institutions of Europe. Turkey is in a position to support the security of Europe with its young and dynamic population.
- **Purchasing power:** In contrast with the aging population of the Europe Union and the deceleration of internal demand, Turkey's young population, with increasing purchasing power, poses an important consumer potential. However, the EU is already making use of this potential through the Customs Union.
- **Europe's executive organs:** In 2050, the EU population will be 400 million and Turkey's, 98 million. The EU is alarmed by the possibility that Turkey may become the most important country in political decision making under its current administrative structure.

V.4 POPULATION AT THE AGE OF EDUCATION AND WORK

For the future working age population to achieve the desired educational level, the schooling levels must be increased now. Alongside this quantitative necessity, the quality of education must not be neglected. The level of education of the 2005-2025 working age population is closely related to the schooling levels of the same period.

Within the framework of this study, two scenarios are devised, based on the schooling levels of primary, secondary and higher education in the period from 2005 to 2025, to predict the level of education of the working age population in the year 2025.

- **First scenario:** Here there is a continued improvement of education levels. According to this scenario, of those aged 25 to 44, the proportion of illiterates or those lacking any diploma will be 1.3%; primary school graduates 29.8%; secondary school graduates 36.3%; and those who have higher education 32.6% in 2025.
 - **Second scenario:** In this scenario improvement gains pace. According to the schooling level assumptions of this scenario, of the people aged between 25 and 44 years old, the proportion of illiterates or those who do not have any diploma in 2025 will be 1.3%; primary school graduates 26.1%; secondary school graduates 34.2%; and those with higher education 38.3% in 2025.
- 1 The population at the age of education is taken as the 3-24 year olds. Even if the 6-24, 0-15 and 0-24 age groups are used in calculations, the outcome is identical.
 - 2 The population increase rate of Luxembourg is 1.3%.

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