

ANALYZING THE TRANSITION FROM PRIMARY TO SECONDARY EDUCATION

RESEARCH BRIEF

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Especially after compulsory education was extended to 8 years in 1997, Turkey's net enrollment rate in primary education witnessed a significant increase, reaching 98.4 % in the 2010-2011 academic year. At the same time, enrollment in secondary education gradually increased, reaching a net rate of 69.3 % and a gross rate of 93.3 % in the 2010-2011 academic year. The Ministry of National Education circular no. 2009/52 sets "100 % gross enrollment rate in secondary education by the 2012-2013 academic year" as a principal target. Achieving this target depends foremost on an increase in the number primary education graduates who move on to secondary education.

80.3 % of the 1,189,156 students that graduated from 8th grade in the 2009-2010 academic year moved on to secondary education in the 2010-2011 academic year. Increasing the number of students who enter secondary education would surely make it more likely to reach the gross enrollment rate target that the Ministry set for the 2012-2013 academic year. Therefore, it is crucial to understand the dynamics of transition to secondary education, and determine the factors that prevent students from enrolling in secondary education. This study lays the groundwork necessary to devise policies that could produce higher enrollment rates.



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The **Analyzing the Transition from Primary to Secondary Education** Research was undertaken in the framework of the Program Cooperation Agreement between UNICEF Turkey and the Education Reform Initiative, and in collaboration with the Directorate-General of Basic Education at the Ministry of National Education. The collaboration of these three institutions encompasses three research projects on the determinants of absenteeism in primary education, the transition from primary to secondary education and financial management of primary education institutions.

The findings and opinions expressed in this publication are solely based on authors' perspectives and do not necessarily reflect the official views of MoNE, UNICEF and ERI.

INTRODUCTION

The time that an individual spends in the education system is the outcome of a decision-making process. The field of economics investigates decision-making mechanisms of families and argues that the decision to invest in education stems from a cost-benefit comparison. In other words, the level of educational investment is determined by comparing the benefit to be incurred from the investment and the cost of the investment. Moreover, state policies directly or indirectly affect families and their decisions. In the case of compulsory education, the state presents cost-free education and holds families responsible for sending their children to school. This mechanism directly affects families' decision to invest in education. Since the 1980s, there have been attempts to identify and measure the factors which determine the investment in a child's education, using various econometric methods. Investment in education has been measured through various outcomes including the years of schooling, whether the student drops out of school, the student's academic success and teenage motherhood. The analyses conducted in this research focus on children's decision to continue on to secondary education after graduating from primary education. At the core, this decision is a reflection of the years of investment in the child's education.

This research relies on e-school data on all the students that graduated from primary education in the 2009-2010 academic year.¹ The data contains information on the academic and socioeconomic background of these students, and their enrollment status in secondary education for the 2010-2011 academic year. The research had two main objectives. First one was examining the transition from primary to secondary education in relation to students' socioeconomic backgrounds, academic backgrounds and regional factors through descriptive analyses. The second objective was to determine the impact of each factor, independently from all other factors, through econometric analyses.

The investigation of recent primary education graduates' background was based on their age, gender, number of siblings, their parents' ages, their educational and employment status, the income level of their families and whether the student is a recipient of conditional education aids. Another variable used in the descriptive analysis is the student's academic background which includes the student's grades, and the school type and characteristics (number of teachers and classrooms). Lastly, the distribution of primary school graduates according to regions and settlement types are presented.

The second component of the research explores the determinants of transition from primary to secondary education through econometric analyses. The dependent variable in these analyses is a dummy variable that reflects the transition to secondary education and takes on the value of 1 for those who made the transition and 0 for students who did not. The research uses logit analysis, employed in econometric analyses when the dependent variable is a dummy. The findings of the research can be summed up as follows:

¹ e-School is a web-based education management information system that is used by the MoNE to regulate registration processes and facilitate the reporting of academic success and attendance to students and parents.

SOCIOECONOMIC BACKGROUND VARIABLES

The analyses demonstrate that socioeconomic characteristics of the student impact the decision of whether or not to enroll immediately in secondary education. Being a female student or having a higher number of siblings negatively impacts the likelihood of continuing on to secondary education. Students whose parents have a higher level of education are more likely to enroll in secondary school right after primary education. The likelihood of transition to secondary education increases with a rise in the income level of the student's family. Additionally, in the Northeastern, Middle Eastern and Southeastern Anatolian regions, conditional education aids increase the probability of enrollment in secondary education. Conditional education aids have a significant impact on the transition to secondary education in the eastern parts of the country, highlighting an important policy option to promote enrollment in these regions.

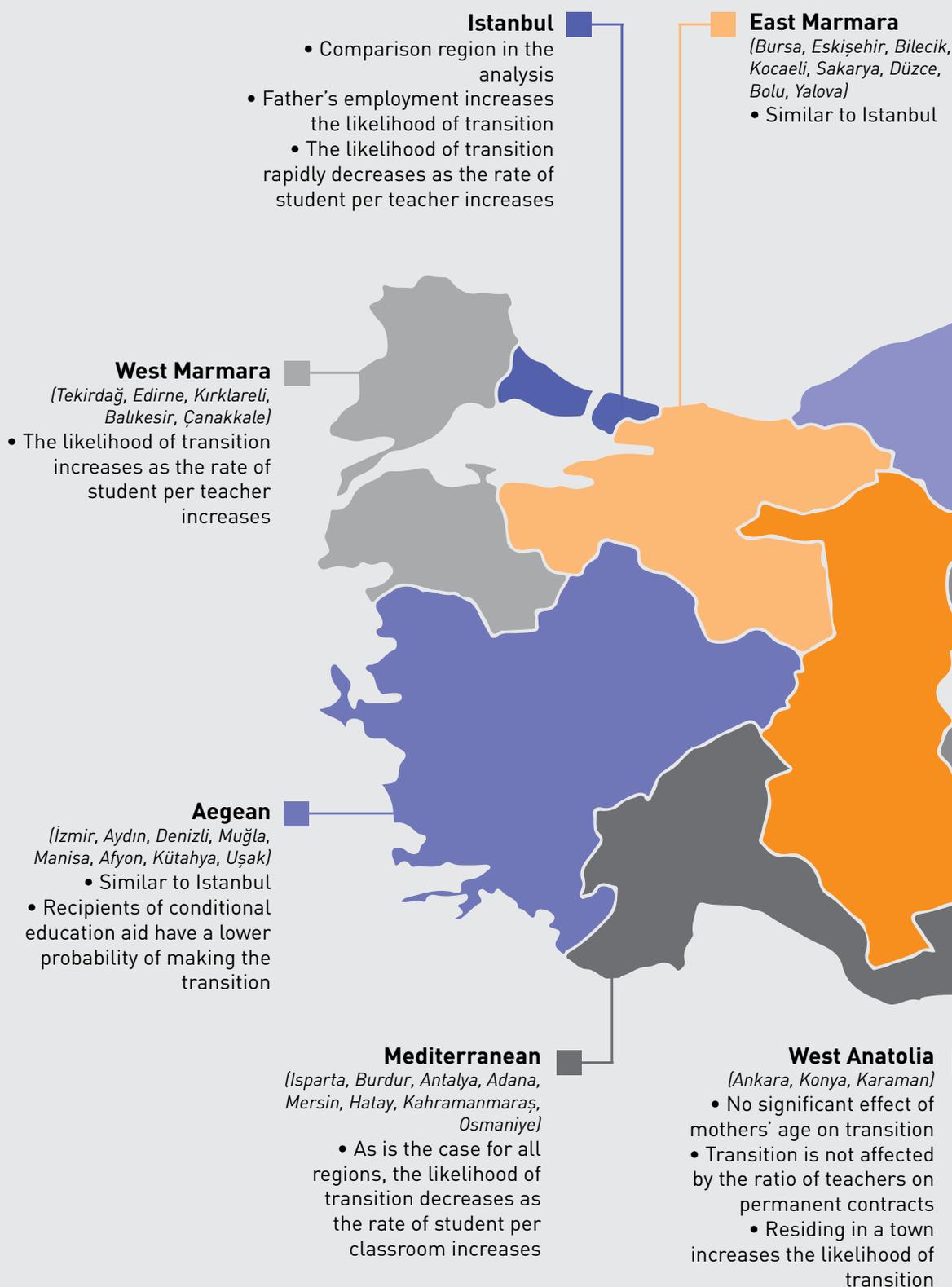
For female students, having an employed mother increases the likelihood of enrolling in secondary school. The econometric analyses demonstrate among girls with a similar socioeconomic background, those girls whose mothers are working have a higher probability of making the transition into secondary education.

ACADEMIC BACKGROUND VARIABLES

Students with higher weighted GPAs, particularly in science and technology, Turkish and math classes have a higher likelihood of continuing on to secondary education. The importance of a student's academic background for transition to secondary education cannot be denied. What is interesting in these findings is that the average grade for each particular course positively affects the possibility of enrolling in secondary education, independently from grades received in other courses.

The level of absenteeism is inversely correlated with the transition. The sample comprises students who completed eight years of primary education and earned a diploma. But it is striking that even within this sample, students who have a higher level of absences face a lower probability of continuing on to secondary education.

REGRESSION ANALYSIS RESULTS FOR NUTS 1 REGIONS





SCHOOL VARIABLES

Of all the determinants of transition from primary to secondary education, the characteristics of schools and classrooms are those that can be most easily transformed by policymakers. The regression analyses reveal that even when socioeconomic characteristics, academic backgrounds and school and classroom factors are similar, students who graduate from private primary schools have a higher likelihood of making the transition into secondary education. Therefore, it might be helpful to investigate the dynamics of quality education in private schools in order to better identify the factors that affect the decision for making the transition to secondary education.

For Ministry of National Education's (MoNE) regional boarding schools, the reverse is the case. Compared to students with similar socioeconomic and academic backgrounds, those who graduate from these schools face a lower likelihood of making the transition into secondary school.

The impact of the student-teacher ratio is indefinite. However, as the proportion of tenured teachers to all teachers in the school increases, it becomes more likely that the students continue on to secondary education.

The findings concerning school-related variables may easily lead to the conclusion that schools have a significant role in the provision of quality education. However, there are no obvious conclusions on what factors are connected to more effective policy tools in relation to schools. Therefore, it is important and necessary to examine the school-related factors in more detail.

CLASSROOM VARIABLES

Much like school-related variables, classroom-related variables have a determining role in the transition to secondary education. For instance, a greater number of female students in a classroom results in an equally greater probability for all the students in that classroom to continue on to secondary school. The regression analyses carried out with samples of male students and female students confirm this finding. Considering that the likelihood of transition into secondary education is weaker for female students, this finding has critical importance. The fact that co-ed education positively impacts the transition to secondary education is an important factor concerning gender norms and relations.

Peer effect is also striking once we focus on the classroom level. Students that are in classrooms where the proportion of students who take the SBS (academic level assessment exams that students can take if they want to continue their education in academically selective high schools) is higher are more likely to enroll in secondary education after primary education.

REGIONAL VARIABLES

The overall analysis reveals clear differences between regions. However, analyses based on regional samples imply that most of these differences arise from school-related variables. When school-related factors cannot be defined or measured properly, it is not possible to discern regional differences.

CONCLUSION

The findings provide important clues as to which students are less likely to continue on to secondary education, and the regression analyses reveal the factors that can be taken into account while identifying students at risk. Students who have low levels of academic success, who do not take the SBS exam and/or have high levels of absenteeism have a low probability of enrolling in secondary education. While transition to secondary education is related to many variables, these last three factors are especially highlighted since they can be objectively observed and more precisely measured for all students.

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