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ACADEMIC APPOINTMENTS

Department of Economics, Ankara University
Associate Professor (2015 - Present)
Assistant Professor (2010 - 2015)
Lecturer and Research Fellow (2005 - 2010)

FIELDS OF INTEREST

Microeconomics Theory, Game Theory, Economics of Education, Analytical Political Economy

DOCTORAL STUDIES

Ph.D. in Economics, Boston University, Boston, MA.
Dissertation: "Political Moral Hazard"
Committee Chair: Christophe Chamley
Date of Completion: August 2005

PRE-DOCTORAL STUDIES

M.A. in Political Economics, Boston University, Boston, MA, 2004.
B.S. in Industrial Engineering, Boğaziçi University, Istanbul, Turkey, 2000.

PUBLICATIONS

1. Doğan, M. K. (2009). "Matching with restricted preferences." *Sosyoekonomi* **5**(10): 109-120.

This paper examines the effects of the introduction of restrictions on the statement of preferences in a two-sided matching model with incomplete information. The model is similar to the process used for college admissions in Turkey. Colleges have unanimous preferences – students with higher ranking in the national examinations are always preferred. We show that the introduction of the restrictions on statement of students' preferences can result in unstable matching between colleges and students.

2. Dogan, M. K. (2010). "Transparency and political moral hazard." *Public Choice* **142**(1-2): 215-235. DOI: 10.1007/s11127-009-9485-0.

This paper analyzes the effects of asymmetric information on the public control of politicians in a world where the politicians' pre-election promises are not credible. We study a model with identical politicians and a representative voter whose interests conflict with those of the politicians'. The voter's decision to reelect the politician depends on both observable policies of the politician and the outcome of the unobservable policies. In equilibrium, either optimal decisions for the voter are not taken by the politician or if taken, the politician would extract more rent. In the latter case, politicians are also replaced more frequently.

3. Doğan, M. K. ve T. Yuret (2010). "The effects of the restriction on statement of preference in college admission system." *Ankara Üniversitesi SBF Dergisi* **65**(2): 59-88. (in Turkish)

The college admission system of Turkey is an example of two – sided matching models. In this system, the candidates can choose at most twenty four programs when they declare their preferences over the programs. The matching formed under the restriction on statement of preference is not fair. The aim of this paper is to determine the scale of effect due to restriction on statement of preference by estimating the number of candidates who have justified envy in the unfair matching that formed under the restriction on statement of preferences. We used the data of college admission system of year 2005 in this paper. 22.6 percent of the candidates, who had stated preferences, filled all of the choices. This ratio shows that the restriction on statement of preference is quite significant. We predicted the preferences that candidates declare when there is no restriction on stating preference by two different models, and placed them to the programs by the matching algorithm that we had developed. Results of those models show that presence of restriction on statement of preference causes to the placement of candidates to programs with an unfair matching, and unjustified envy on at least 2% of the candidates.

4. Yuret, T. ve M. K. Doğan (2011). "Comparative advantage and preferences in college admissions in Turkey." *Procedia-Social and Behavioral Sciences* **15**: 1862-1865. DOI: 10.1016/j.sbspro.2011.04.016.

Each year, approximately 2 million students compete for 200 thousand seats in Turkish colleges. The central authority takes students' preferences and test scores into account and place students to the limited seats of majors in the colleges. Balinski and Sonmez (1999) note that the algorithm used in this process is college optimal and propose a student optimal algorithm to overcome some deficiencies. We use 2005 data-set and show that both algorithms generate almost the same results. This reveals the simple truth in student preferences: the students want to be in majors where their comparative advantages lay.

5. Doğan, M. K. ve T. Yuret (2011). "The causes of gender inequality in college education in Turkey." *Procedia-Social and Behavioral Sciences* **15**: 691-695. DOI: 10.1016/j.sbspro.2011.03.166.

Participation in college education is lower for women than men in many developing countries including Turkey. This paper investigates the causes of this fact by using the student selection and placement system (ÖSYS) data for the year 2005. We show that seven factors are effective in unequal participation in college education. We point out the issues that policies should focus on in order to increase the participation of women in college education.

6. Dogan, M. K. (2011). "A theory on political stability and provincial size." *Proceedings of the Thirty Eighth Annual Meeting of Northeast of Business & Economics Association*, 549-553.

This paper analyzes the relation between political stability and the size of provinces. We study a model in which the signal to the electorate about the politician's decision is noisier in more highly populated provinces. The model implies that both the equilibrium reelection probabilities of politicians and political stability are lower in highly populated provinces.

7. Doğan, M. K. (2012). "Encryption claims in transition to higher education exam and a method proposal to determine whether the candidates used the encryption." *Eğitim Ve Bilim-Education and Science* **37**(166): 206-218. (in Turkish)

It is claimed that the questions were encrypted in the transition to higher education exam of year 2011, and thus the correct answers can be found by using just the choices. The aim of this study is to test this claim statistically. The circular mode encryption method is applicable to 31 questions in math section and its expected success rate is %58.7 (18.2 correct answers). It is determined that the exam was encrypted with a probability of error less than one millionth and concluded that any method cannot reach such high success rate without any encryption. Also, it is not possible that encryption arises as a result of shifting the choices of questions inadvertently when forming the new choices. The study also proposes a method to determine whether the encryption is used by candidates or not, and if used, the method states the candidates using it.

8. Doğan, M. K. ve T. Yuret (2013). "Publication performance and student quality of Turkish economics departments." *Sosyoekonomi* **9**(19): 71-86.

We have two objectives in this paper. First, we rank the economics departments in Turkey according to the publication records of their faculty members. Second, we explore the determinants of the student quality in the undergraduate economics programs. There are 96 economics departments which offer 212 economics programs in Turkey. We find that the programs which attract academically strong students are offered in the departments with good publication records. We also show that credit constraints are very effective in students' decisions. In both private and state colleges, the students are highly sensitive to differences in tuition fees.

9. Doğan, M. K. (2014). "Matching theory and market design." *Ankara Üniversitesi SBF Dergisi* **69**(2): 379-405. DOI: 10.16987/ausbf.33509. (in Turkish)

During the past 30 years, matching theory has become a rapidly growing branch of microeconomics that analyzes the allocation, exchange and matching of indivisible resources while using the tools of game theory and mechanism design. The 2012 Nobel Prize in Economics was awarded to two economists, Alvin E. Roth and Lloyd S. Shapley, for their contributions to matching theory and market design, highlighting the importance of these paradigms. On the other hand, the field of matching theory is not known well in Turkey. The purpose of this article is to contribute to the recognition of matching theory and market design by introducing some of the fundamental models and results in this field. Therefore, two-sided and one-sided matching markets, school choice problem, student placement problem and market design for kidney exchange are examined in this study.

10. Doğan, M. K. (2014). "Environmental pollution and labor supply in Turkey." *The Empirical Economics Letters* **13**(4): 459-465.

This paper discusses the impacts of pollution on the labor supply in Turkey. First, a theoretical model is presented to demonstrate the relationship between pollution and the labor supply. Then the impacts of pollution on labor supply are empirically investigated by using a panel data set from 81 Turkish provinces. Contrary to the previous studies which showed that pollution impacts negatively on labor supply, our results demonstrate that pollution does not have significant effect on labor supply in Turkey.

- 11.** Dođan, M. K. ve G. Bozdemir (2014). "The effects of credibility on interest rates in Turkey." *Eurasian Journal of Business and Economics* **7**(14): 71-90. DOI: 10.17015/ejbe.2014.014.05.

Credibility is crucial for managing inflation expectations in countries adopting inflation targeting. This study focuses on measurement of credibility and its relation with the interest rates. It aims to determine which measures of credibility best predict the variations of interest rates by using monthly data from Turkey in 2004–2012 period which adopted inflation targeting in 2002. Nine credibility indices are considered in the analysis. We find empirical evidence supporting the claim that higher credibility will lead to lower variations in interest rates of both monetary policy and the market. We also demonstrated that CI_{CK} (proposed by Cecchetti and Krause, 2002) is the best credibility index in explaining the variations in both monetary policy interest rate and market interest rate.

- 12.** Dođan, M. K. ve T. Yuret (2015). "The effects of implementing different coefficients in college admissions." *Ankara Üniversitesi SBF Dergisi* **70**(1): 193-218. DOI: 10.16987/ausbf.56446. (in Turkish)

In the college admission system, the placement scores of the students were computed by using different coefficients for different high school types and graduation fields between 1999-2011 years. The aim of this policy was to direct the students to the college programs related to their high school education. The objective of this paper is to determine the effects of different coefficients policy on placement results. College admissions data of year 2005 is used in the analysis. We compare the policy applying different coefficients to the policy which applies the same coefficients. We find that general and religious high school graduates will benefit, and teacher training and vocational high school graduates will lose under the policy with equal coefficients. This is because, the ratio between the number of high school graduates from a certain field and the capacity of college programs related to this field differs significantly among fields.

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