

Publication Performance and Student Quality of Turkish Economics Departments

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Türkiye’de İktisat Bölümlerinin Yayın Performansı ve Öğrenci Kalitesi

Abstract

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.

Keywords : Economics Departments, Student Quality, Publication Record, Tuition Fee.

JEL Classification Codes : A11, A22.

Özet

Bu makalede iki amacımız bulunmaktadır. Birincisi, öğretim üyelerinin yayınlarına göre Türkiye’deki iktisat bölümlerinin sıralamasını belirlemektir. İkinci amaç ise iktisat bölümlerinin lisans programlarındaki öğrenci kalitesini belirleyen faktörleri incelemektir. Türkiye’de 96 iktisat bölümü 212 lisans programı önermektedir. Akademik olarak iyi öğrencileri alan programların yayın performansı iyi olan bölümlere ait olduğu görülmektedir. Ayrıca öğrencilerin kararlarında parasal kısıtlar oldukça etkili olmaktadır. Hem kamu hem de vakıf üniversitelerinde öğrenim harç tutarlarındaki değişimler öğrencilerin seçimlerini oldukça etkilemektedir.

Anahtar Sözcükler : İktisat Bölümleri, Öğrenci Kalitesi, Yayın Performansı, Öğrenim Harcı.

1. Introduction

There are 96 economics departments which offer 212 undergraduate economics programs in Turkey¹. The admissions to the economics programs along with other types of programs are designed and implemented by a central authority. The central authority gives an annual centralized exam and ranks students according to their test scores. The capacities of the programs are announced and the students submit their preferences. The central authority places the students in the programs by considering the test scores and preferences of the students and the capacities of the programs.

73 economics departments are in state colleges and 23 economics departments are in non-profit private colleges. The economics departments offer 212 different programs. The programs within the same economics department differ in tuition fees and/or language of instruction. Full scholarship program students in the non-profit private colleges do not pay any tuition fee and get free dorm, stipend and other benefits. The rest pays either some portion or the full tuition fee. The tuition fee differs within the same state economics department as well. A regular program costs 200 dollars whereas an evening program costs 700 dollars in all state economics departments. 80 economics departments teach all programs in Turkish and 12 economics departments teach all programs in English. Three departments offer programs both in English and Turkish. Only one department has the language of instruction in French.²

We have two objectives in this paper. First we rank economics departments according to the publication records of their faculty members. Second we relate the student quality of the programs to the publication record of the faculty members and other factors such as location, language of instruction and the tuition fee.

In order to the rank economics departments according to the publications records, we follow the following steps. First, we find the faculty of the economics departments from the official web pages of these departments. Second, we individually search for each faculty member and find their publications indexed in Social Science Citation Index from the Web of Science database. Lastly, we weigh the publications by using the coefficients suggested by Kalaitzidakis et al. (2003).

¹ *The economics departments are in 91 colleges. Five colleges have two economics departments which differ in language of instruction of their programs.*

² *Some of the 80 departments which have Turkish as the language of instruction offer programs which include some classes in English. Some of these programs require students to take 30% of their courses in English in addition to one year of English preparatory class.*

There are many studies which rank the economics departments worldwide in terms of their publication records. These studies pick different number of journals into consideration while ranking the departments. For instance, Dusansky and Vernon (1998) use eight journals and Scott and Mitias (1996) use 36 journals to rank economics departments in United States. Lubrano et al. (2003) use 68 journals to rank economics departments in Europe and Kalaitzidakis et al. (2003) use 159 journals to rank economics departments both in Europe and worldwide. The number of publications in Turkey is relatively low and gets even tinier when we consider the top economics journals. Therefore, Kalaitzidakis et al. (2003)'s wide journal list is the most convenient list to rank Turkish economics departments.

Çokgezen (2006) also ranks Turkish economics departments in terms of publication records. However, he puts emphasis on the publication stocks of the departments whereas we focus on the publication stocks of the current faculty of the departments. For instance, if a faculty member publishes ten papers in department X and then moves to department Y, we attribute these ten papers to department Y but Çokgezen (2006) attributes them to department X. We use this approach because it is more relevant in measuring the present faculty quality.

We use the cut-off test scores as a measure of the student quality of a program. Cut-off test score of a program is the test score of the student who is placed in that program with the lowest test score. In other words, the higher cut-off test score implies that a higher OSS score is necessary to be placed in that program. Therefore, the programs with higher cut-off test scores are considered to have better student quality.

We find that the programs with high student quality are offered in departments with good publication records. Six of the top ten programs in terms of student quality are offered in the top ten most productive departments. The location and the language of instruction of the program also seem important. 33 out of 35 top programs are in the three most populated cities in Turkey. The instruction in six of top ten programs is in a foreign language.

We show that the credit constraint is important for both private and state programs. In the private programs, the tuition fees are high so it is not surprising that there is a huge difference between a full scholarship program and a non-scholarship program. The results confirm these expectations. The full scholarship programs are ranked above most of the state economics programs whereas most of the non-scholarship programs cannot even fill their capacity. In the state economics programs, the tuition difference between the regular and evening programs are relatively tiny. A student pays just 500 dollars more to study in an evening program. We find that the evening program of an economics department ranks substantially below the regular program of the same economics department.

These findings have important implications for the higher education policy. For example, the Turkish government recently pursues a policy to have at least one state college in every city. This policy may have benefited the economies of the small cities where the colleges are founded. However, we show that the students' demand to study outside the three largest cities is slim, and both the student and faculty quality in these newly founded universities are relatively poor. We also cast doubt to the popularity of the instruction in foreign language. Students may take the instruction in a foreign language as a signal of the quality of the program. We also show that the credit constraints cause a mismatch between the faculty and the student qualities. More credit channels should be provided to prevent the mismatch.

The data is introduced in section two. We give the rankings of the economics departments according to the publication records of their faculty members in section three. We discuss the determinants of the student quality in the economics programs in section four and present policy implications and concluding remarks in section five.

2. Data

The central authority (OSYM) designs and implements the undergraduate college admissions process in Turkey. OSYM conducts an annual examination (OSS) which is required for all the candidates. Following the announcement of OSS results, the students submit their preferences to OSYM. The properties of the programs – their tuitions, capacities etc. – are known to the students at this stage. Then, OSYM runs an algorithm to place students in the programs by using the OSS scores and preferences of the students and capacities of the programs. The OSS score and preference of each student is not publicly known. However, the cut-off test scores of the programs are announced after the placement and thus publicly known. Cut-off test score of a program is the OSS score of the student who is placed in that program with the lowest OSS score. The aim of releasing the cut-off test scores is twofold. First, the students can check whether the placement is fair. In this context, fairness requires that if a student is not placed in a program, either she is placed in a more favorite program of hers or her OSS score must be lower than the OSS scores of all of the students who are placed in that program (Balinski and Sönmez, 1999). Second, the cut-off test scores are used as a measure of student quality. The higher the cut-off test score is, the higher the minimum OSS test score in that program is. In other words, the higher cut-off test score implies that it is harder to be placed in that program. Therefore, a program with a higher cut-off test score is considered to have a better student quality.

We used the 2010 Turkish college admissions data for the properties of economics programs. In this year, 96 economics departments offer 212 programs. We take the following information on these programs from the OSYM's official web site: cut-off test score, capacity, language of instruction and tuition fees.

We collected the full faculty lists of the 96 economics departments by visiting their official websites in the last two weeks of 2010. We recorded 1060 full time faculty who hold at least a PhD in these departments. Then, we searched Web of Science database to find their publications that are indexed in SSCI and the number of citations that these publications get. Since the records of year 2010 were not complete, we only included the records before 2010. We considered the lifelong publication record of the faculty. We excluded conference proceedings both from publications and citations. Moreover, we excluded self citations. We only included publications that are indexed in the field of economics. We double checked the publication records from the resumes of the faculty and the Econlit database to avoid misrecording which can especially occur when a faculty member has a very common last name or more than one name.

3. Ranking the Economics Departments According to the Publication Records

We rank the 96 economics departments in Turkish colleges according to the publication records of their faculty members. We consider the life-long publications indexed in Social Science Citation Index (SSCI). Only 47 departments have at least one faculty member who publishes at least one paper indexed in SSCI. The faculty members of the remaining 49 departments do not have any SSCI publications. Even among the departments with publications, the number of papers indexed in SSCI is low. There are only ten economics departments which have more than ten SSCI papers published by their faculty members. This is not surprising since there were no economics journals published in Turkish or published in Turkey which is included in SSCI before 2009. Moreover, a faculty can be promoted to full professorship without any such publication in most state colleges. Nevertheless, publishing a paper in SSCI meets some international quality standard and thus we use this criterion in our rankings.

We weigh the publications by using the coefficients suggested by Kalaitzidakis et al. (2003). These coefficients are given for 159 journals and range from 0 to 100. For example, the coefficient is 100 for *American Economic Review*, 2.00 for *Applied Economics* and 0.16 for *Defence and Peace Economics*. A Kalaitzidakis score is assigned to each department by weighing the publications with these coefficients. We also count the citations to those papers by excluding the self-citations.³

Ranking of the Turkish economics departments according to their publication records is given in Table 1. The departments are sorted by their Kalaitzidakis scores. In

³ *If one of the co-authors cites a paper, we counted it as self-citation.*

case of equality, we break the tie by comparing the number of publications indexed in SSCI, the number of citations and the number of faculty members, respectively.

Table: 1
Ranking of the Turkish Economics Departments According to the Publication Records

Rank	College	Location	Ownership	Language of Instruction	Number of Faculty	Number of Papers	Number of Citations	Kalaitzidakis Score
1	Koç	Istanbul	Priv.	Eng.	15	61	329	1283,79
2	Bilkent	Ankara	Priv.	Eng.	21	126	665	950,78
3	Ortadoğu Teknik	Ankara	State	Eng.	32	87	154	217,72
4	Bilgi	Istanbul	Priv.	Tur.	17	21	32	161,66
5	TOBB	Ankara	Priv.	Tur.	13	29	36	65,94
6	Boğaziçi	Istanbul	State	Eng.	21	24	19	62,57
7	Yeditepe	Istanbul	Priv.	Eng.	16	5	14	57,03
8	Kadir Has	Istanbul	Priv.	Tur.	4	9	92	49,61
9	Atılım	Ankara	Priv.	Tur.	7	6	5	22,73
10	Çankaya	Ankara	Priv.	Eng.	6	3	0	20,89
11	Ege	Izmir	State	Tur.	15	4	2	20,73
12	Kocaeli	Kocaeli	State	Tur.	15	1	0	18,73
13	Hacettepe	Ankara	State	Tur./Eng.	29	39	43	16,58
14	Dokuz Eylül (Eng.)	Izmir	State	Eng.	10	20	10	16,28
15	Yıldız	Istanbul	State	Tur.	25	8	6	10,19
16	Izmir Ekonomi	Izmir	Priv.	Tur.	14	14	23	8,95
17	Ankara	Ankara	State	Tur.	22	18	5	8,56
18	Galatasaray	Istanbul	State	Fre.	9	3	0	6
19	Gazi	Ankara	State	Tur.	35	7	4	4,99
20	Gaziantep	Gaziantep	State	Tur.	15	3	10	4,05
21	Marmara (Tur.)	Istanbul	State	Tur.	43	2	1	3,22
22	Bahçeşehir	Istanbul	Priv.	Tur.	10	9	20	2,19
23	Dokuz Eylül (Tur.)	Izmir	State	Tur.	24	4	27	2,06
24	Ordu	Ordu	State	Tur.	5	1	2	2
25	Sakarya	Sakarya	State	Tur.	18	1	0	2
26	Dumlupınar	Kütahya	State	Tur.	17	1	0	2
27	Abant İzzet Baysal	Bolu	State	Tur.	13	3	2	1,6
28	Akdeniz	Antalya	State	Tur.	13	6	5	1,47
29	Başkent	Ankara	Priv.	Tur.	8	4	11	1,26
30	Melikşah	Kayseri	Priv.	Tur.	3	3	2	0,76
31	Balıkesir – Bandırma	Bandırma	State	Tur.	10	6	72	0,72
32	Çukurova	Adana	State	Tur./Eng.	18	7	8	0,51
33	19 Mayıs	Samsun	State	Tur.	10	2	6	0,48
34	Mustafa Kemal	Hatay	State	Tur.	5	4	0	0
35	Istanbul (Tur.)	Istanbul	State	Tur.	46	3	6	0
36	Işık	Istanbul	Priv.	Tur.	8	2	5	0
37	Anadolu (Tur.)	Eskişehir	State	Tur.	36	2	0	0
38	Muğla	Muğla	State	Tur.	16	2	0	0
39	Marmara (Eng.)	Istanbul	State	Eng.	14	2	0	0
40	Karadeniz Teknik	Trabzon	State	Tur.	13	2	0	0
41	Afyon Kocatepe	Afyon	State	Tur.	11	2	0	0
42	Zonguldak K.elmas	Zonguldak	State	Tur.	9	2	0	0
43	Uludağ	Bursa	State	Tur.	15	1	1	0
44	Atatürk	Erzurum	State	Tur.	18	1	0	0
45	Anadolu (Eng.)	Eskişehir	State	Eng.	13	1	0	0
46	Fatih	Istanbul	Priv.	Tur./Eng.	11	1	0	0
47	Osmangazi	Eskişehir	State	Tur.	11	1	0	0

We see from table 1 that the productive departments are likely to offer programs in foreign languages. Although only 15 of the 96 departments offer programs in English, six of these departments are in top ten in faculty productivity. Since the faculty productivity is hard to be observed, the departments may be using English as a signal of their high productivity.

We also observe that most private economics departments have productive faculty members. Although only 23 of the 96 economics departments are in private colleges, eight of these departments are in top ten. The reason is that private institutions are better to lure highly productive faculty members by giving monetary and other incentives. As we see in the next section, most of the non-scholarship private programs even cannot fill their capacity. As a result, the most productive faculty members teach academically weakest students.

Lastly we observe that productive faculty members prefer large cities. Although only 34 economics departments are in Istanbul, Ankara or Izmir, 18 of the top 20 departments are located in these three most populated cities of Turkey.

4. The Determinants of Student Quality in Turkish Economics Programs

The cut-off test score will be our measure of student quality. The cut-off test score is the test score of the student who is placed in that program with the minimum OSS score. Naturally, it is harder to be placed in a program with a higher cut-off test score. Therefore, it is generally accepted that the quality of students in a program is increasing in its cut-off test score.

96 economics departments offer 212 programs. Except for the few cases where a department offers more than one program with different languages of instruction, the reason of offering multiple programs is price discrimination. The private economics departments have four scholarship programs: Full, Half, Quarter and Non-Scholarship programs. Full scholarship students do not pay any tuition fee and get benefits such as free dorm and stipend. The half, quarter and non-scholarship students pay half, three quarters and the entire tuition fee respectively. All other aspects of the different scholarship programs are the same. They attend the same class and get the same diploma. The state economics departments have regular and evening programs. Except for the inconvenience of attending class in the evening and paying additional 500 dollars, all other aspects of the programs are the same. They have the same course load, taught by the same faculty members and get the same diploma as the regular students.

As a first step to analyze the student quality of the programs, we rank the “best programs” of the economics departments. That is, we pick the program with the highest

cut-off test score if an economics department offers multiple programs. Therefore, we have 96 best programs for the 96 departments. As expected, the best programs are the regular programs for the state economics departments and full-scholarship programs for the private economics departments. In few cases where the department offers programs both in English and Turkish, English program is the best program. Table: 2 lay out the ranking of the best programs and their properties.

Table: 2
The Ranking of the Best Programs

Rank	College	Location	Ownership	Language of Instruction	Capacity	Faculty Rank
1	Koç	Istanbul	Priv.	Eng.	15	1
2	TOBB	Ankara	Priv.	Tur.	8	5
3	Boğaziçi	Istanbul	State	Eng.	108	6
4	Bilkent	Ankara	Priv.	Eng.	20	2
5	Galatasaray	Istanbul	State	Fre.	21	18
6	Bahçeşehir	Istanbul	Priv.	Tur.	8	22
7	Ortaođu Teknik	Ankara	State	Eng.	108	3
8	Bilgi	Istanbul	Priv.	Tur.	9	4
9	Izmir Ekonomi	Izmir	Priv.	Tur.	10	16
10	Hacettepe	Ankara	State	Eng.	72	13
11	Marmara (Eng.)	Istanbul	State	Eng.	72	39
12	Ankara	Ankara	State	Tur.	88	17
13	Istanbul (Eng.)	Istanbul	State	Eng.	164	n/a
14	Yeditepe	Istanbul	Priv.	Eng.	10	7
15	Dokuz Eylül (Eng.)	Izmir	State	Eng.	77	14
16	Kadir Has	Istanbul	Priv.	Tur.	5	8
17	Fatih	Istanbul	Priv.	Eng.	10	46
18	Yıldız	Istanbul	State	Tur.	103	15
19	Anadolu (Eng.)	Eskişehir	State	Eng.	93	45
20	Yaşar	Istanbul	Priv.	Eng.	5	n/a
21	Ege	Izmir	State	Tur.	108	11
22	Istanbul (Tur.)	Istanbul	State	Tur.	246	35
23	Gazi	Ankara	State	Tur.	164	19
24	Istanbul Kültür	Istanbul	Priv.	Tur.	7	n/a
25	Gediz	Izmir	Priv.	Tur.	7	n/a
26	Çukurova	Adana	State	Eng.	36	32
27	Marmara (Tur.)	Istanbul	State	Tur.	185	21
28	Turgut Özal	Ankara	Priv.	Tur.	22	n/a
29	Beykent (Eng.)*	Istanbul	Priv.	Tur.	6	n/a
30	Işık	Istanbul	Priv.	Tur.	3	36
31	Maltepe	Istanbul	Priv.	Tur.	3	n/a
32	Çankaya	Ankara	Priv.	Eng.	10	10
33	Dokuz Eylül (Tur.)	Izmir	State	Tur.	226	23
34	Başkent	Ankara	Priv.	Tur.	6	29
35	Beykent(Tur.)	Istanbul	Priv.	Tur.	6	n/a
36	Melikşah	Kayseri	Priv.	Tur.	6	30
37	Zirve	Gaziantep	Priv.	Tur.	6	n/a
38	Anadolu (Tur.)	Eskişehir	State	Tur.	190	37
39	Kocaeli	Kocaeli	State	Tur.	123	12
40	Osmangazi	Eskişehir	State	Tur.	98	47
41	Uludağ	Bursa	State	Tur.	205	43
42	Akdeniz	Antalya	State	Tur.	103	28
43	Atılım	Ankara	Priv.	Tur.	2	9

44	19 Mayıs	Samsun	State	Tur.	57	33
45	Selçuk	Konya	State	Tur.	123	n/a
46	Sakarya	Sakarya	State	Tur.	93	25
47	Erciyes	Kayseri	State	Tur.	108	n/a
48	Abant İzzet Baysal	Bolu	State	Tur.	103	27
49	Balikesir	Balikesir	State	Tur.	52	n/a
50	Mersin	Mersin	State	Tur.	77	n/a
51	Kırıkkale	Kırıkkale	State	Tur.	88	n/a
52	Dicle	Diyarbakir	State	Tur.	52	n/a
53	Trakya	Edirne	State	Tur.	82	n/a
54	Gaziantep	Gaziantep	State	Tur.	88	20
55	Karadeniz Teknik	Trabzon	State	Tur.	185	40
56	Muğla	Muğla	State	Tur.	123	38
57	Celal Bayar	Manisa	State	Tur.	154	n/a
58	18 Mart	Biga	State	Tur.	88	n/a
59	Pamukkale	Denizli	State	Tur.	134	n/a
60	İnönü	Malatya	State	Tur.	88	n/a
61	Adnan Menderes	Aydın	State	Tur.	129	n/a
62	Süleyman Demirel	Isparta	State	Tur.	123	n/a
63	Mustafa Kemal	Hatay	State	Tur.	67	34
64	Afyon Kocatepe	Afyon	State	Tur.	98	41
65	Balikesir - Bandırma	Bandırma	State	Tur.	129	31
66	Dumlupınar	Kütahya	State	Tur.	205	26
67	Kırklareli	Kırklareli	State	Tur.	57	n/a
68	Cumhuriyet	Sivas	State	Tur.	82	n/a
69	Çankırı Karatekin	Çankırı	State	Tur.	57	n/a
70	Atatürk	Erzurum	State	Tur.	129	44
71	Bilecik	Bilecik	State	Tur.	118	n/a
72	Ahi Evran	Kırşehir	State	Tur.	52	n/a
73	Uşak	Uşak	State	Tur.	77	n/a
74	Nevşehir	Nevşehir	State	Tur.	77	n/a
75	Harran	Şanlıurfa	State	Tur.	72	n/a
76	Yüzüncü Yıl	Van	State	Tur.	67	n/a
77	Sütçü İmam	Kahramanmaraş	State	Tur.	103	n/a
78	Zonguldak Karaelmas	Zonguldak	State	Tur.	103	42
79	Bartın	Bartın	State	Tur.	62	n/a
80	Niğde	Niğde	State	Tur.	103	n/a
81	Adıyaman	Adıyaman	State	Tur.	57	n/a
82	Giresun	Giresun	State	Tur.	88	n/a
83	Gaziosmanpaşa	Tokat	State	Tur.	98	n/a
84	Bozok	Yozgat	State	Tur.	67	n/a
85	Kar. Mehmetbey	Karaman	State	Tur.	123	n/a
86	Hitit	Çorum	State	Tur.	88	n/a
87	Erzincan	Erzincan	State	Tur.	57	n/a
88	Ordu	Ordu	State	Tur.	88	24
89	Kilis 7 Aralık	Kilis	State	Tur.	57	n/a
90	Gümüşhane	Gümüşhane	State	Tur.	82	n/a
91	G. antep İslahiye	İslahiye	State	Tur.	62	n/a
92	Kafkas	Kars	State	Tur.	77	n/a
93	Tunceli	Tunceli	State	Tur.	52	n/a
94	Bayburt	Bayburt	State	Tur.	108	n/a
95	Toros	Mersin	Priv.	Eng.	9	n/a
96	Şırnak	Şırnak	State	Tur.	57	n/a

* Beykent University has two departments both offer programs in Turkish. The Beykent (Eng.) economics department has a program where students need to take 30% of the courses in English in addition to one year of English preparatory class.

We see from table 2 that location is very important on student choice. 33 of the 35 highest ranked programs are located in Istanbul, Ankara or Izmir which are the three most populated cities in Turkey. Among the remaining 61 programs, there is only one program which is located in these cities. From this evidence, we see that the student demand to study outside of these three cities is rather slim.

There is also evidence that the private economics programs attract very good students. Six of top ten programs and ten of top twenty programs are in the private economics departments. The best programs of the private economics departments are full-scholarship programs where the students do not pay any tuition but get benefits such as free dorm and stipend. Moreover, the capacities of these programs are much smaller than the programs in state economics programs. The monetary incentives, low capacity of the programs and high academic productivity of the faculty members are the possible candidates for the high ranking of the private programs. As we demonstrate in section 4.2, student quality is very low in the non-scholarship programs of private economics departments and most of them cannot even fill their capacity. Therefore, full-scholarship programs with small capacities attract very qualified students who are lured by the very productive faculty members and other advantages of private colleges despite the academically weak classmates from the non-scholarship programs.

Instruction in six of the highest ranked ten programs is in foreign languages although only 15 of the best 96 programs are offered in English. From this evidence we may think that instruction in a foreign language attracts good students. However, as we showed previously, the departments that teach in foreign languages also have the most productive faculty members. Therefore we cannot reach a definite conclusion on whether the students seek instruction in foreign languages or attracted to productive faculty members.

The last column of table 2 lays out the faculty rankings copied from table 1. There is a strong positive correlation between the ranking of the program and the faculty productivity of the department. The six of the top ten programs are in top ten most productive economics departments. Top 20 most productive departments teach 14 of the top 20 programs. The relationship between the student quality and the faculty quality seems to weaken outside the top 20. This may be because the faculty quality differences are small outside the top 20. For instance, Marmara University economics department is ranked 21st in faculty ranking by just two papers.

4.1. Evening Programs in State Colleges

The capacities of the regular and evening programs are exactly the same. So the cut-off test scores are even better indicators for student quality when we compare regular and evening programs. To illuminate more clearly, we give the rankings in terms of the best programs. The regular programs are also the best programs so their rankings are copied from table 2. An evening program which has a cut-off test score which falls between $(x-1)^{st}$ and x^{th} best program is ranked as x^{th} in table 3. Therefore an evening program which ranks x^{th} is better than the x^{th} best program but worse than the $(x-1)^{st}$ best program. For instance, regular program is 60^{th} and evening program is 90^{th} in Inonu University. This means that the regular program is 60^{th} best program and evening program's student quality lies between the 90^{th} and 91^{st} best program.

Table: 3
Ranking of the Regular and Evening Programs

College	Capacity	Rank Among Best Programs	
		Regular	Evening
Yıldız	103	18	26
Gazi	164	23	34
Istanbul (Tur.)	246	22	35
Marmara (Tur.)	185	27	37
Ege	108	21	37
Dokuz Eylül (Tur.)	226	33	42
Anadolu (Tur.)	190	38	48
Osmangazi	98	40	51
Kocaeli	123	39	51
Uludağ	205	41	53
Çukurova	123	45	60
Sakarya	93	46	61
Selçuk	123	45	62
Erciyes	108	47	67
Mersin	77	50	69
Balıkesir	52	49	69
Trakya	82	53	71
Muğla	123	56	73
Abant İzzet Baysal	103	48	74
Kırıkkale	88	51	74
18 Mart	88	58	76
Celal Bayar	154	57	77
Karadeniz Teknik	123	55	77
Pamukkale	134	59	81
Adnan Menderes	129	61	85
Dicle	52	52	85
Gaziantep	88	54	85
Süleyman Demirel	123	62	86
Balıkesir - Bandırma	129	65	89

Inönü	88	60	90
Afyon Kocatepe	98	64	90
Dumlupınar	205	66	90
Mustafa Kemal	67	63	90
Bilecik	118	71	91
Z. Karaelmas	103	78	92
Nevşehir	77	74	92
Cumhuriyet	82	68	92
Kırklareli	57	67	92
Ahi Evran	52	72	92
Atatürk	129	70	92
Giresun	88	82	93
Kar. Mehmetbey	185	85	93
Stütçü İmam	103	77	93
Gaziosmanpaşa	98	83	93
Çankırı Karatekin	57	69	93
Yüzüncü Yıl	67	76	93
Ordu	88	88	93
Bozok	67	84	93
Harran	72	75	94
Hitit	88	86	95
Adıyaman	57	81	95
Kilis 7 Aralık	57	89	95
Erzincan	57	87	95
Kafkas	77	92	95
Bartın	62	79	95
Gümüşhane	82	90	95
Bayburt	108	94	96
Tunceli	52	93	96

Table 3 shows that paying an additional 500 dollars and the inconvenience of taking courses in the evenings make a huge difference in ranking. The absolute difference of rankings of regular programs and the evening programs is 16.5 on average. The maximum absolute difference in ranking is 33 and occurs at Dicle University. The ranking of its regular program is 52nd whereas its evening program is ranked 85th.

The unpopularity of the evening programs is an indicator of credit constraints in Turkey. 500 dollars is just 5% of GDP per capita in Turkey. However, it appears to be a large amount for students due to lack of student credit markets.

4.2. Programs of Private Economics Departments

The rankings of the private economics programs are given in Table 4. The rankings are given in terms of best programs. Not surprisingly, the full scholarship programs are best programs of the private economics departments. Therefore their rankings are copied from table 2. For the rest of the scholarship programs, the rank is given as x^{th} if the cut-off test score of a program lies between the x^{th} and $(x-1)^{\text{st}}$ best program.

Table: 4
Rankings of the Private Economics Programs

College	Full-Scholarship		Half-Scholarship		Quarter-Scholarship		No-Scholarship		Tuition
	Capacity	Rank	Capacity	Rank	Capacity	Rank	Capacity	Rank	
Koç	15	1	12	7	22	25	45	70	29000
TOBB	8	2	18	34	-	-	55	96	17750
Bilkent	20	4	70	24	-	-	40	78	17900
Bahçeşehir	8	6	-	-	-	-	70	n/a	22900
Bilgi	9	8	5	21	41	n/a	35	n/a	21060
Izmir Ekonomi	10	9	15	51	-	-	75	n/a	10300
Yeditepe	10	14	30	67	-	-	20	n/a	17280
Kadir Has	5	16	5	48	15	97	15	n/a	19440
Fatih	10	17	15	65	-	-	35	n/a	16500
Yaşar	5	20	7	54	-	-	28	n/a	15000
İst. Kültür	7	24	23	67	20	97	15	n/a	18500
Gediz	7	25	8	75	-	-	55	n/a	12000
Turgut Özal	22	28	23	67	-	-	30	n/a	15000
Beykent(İng)	6	29	35	97	-	-	19	n/a	15100
Işık	3	30	15	97	-	-	5	97	18900
Maltepe	3	31	-	-	-	-	30	n/a	18650
Çankaya	10	32	-	-	30	n/a	20	n/a	17820
Başkent	6	34	-	-	4	53	50	97	16000
Beykent(Tur.)	6	35	35	97	-	-	19	n/a	15100
Melikşah	6	36	12	95	12	97	30	97	14000
Zirve	6	37	12	97	-	-	42	97	16000
Atılım	2	43	3	66	-	-	15	n/a	18000
Toros	9	95	-	-	-	-	81	n/a	15120

The last column of Table 4 shows the tuition fees of programs in Turkish Liras (TL). Since, the exchange rate in Turkey is around 1 USD=1.5 TL, we see that the full tuition fees range from 7,500 to 20,000 dollars. The difference between the student qualities of the different scholarship programs is huge. For example, Bilkent University economics department offers three types of programs. The full-scholarship program is ranked fourth, the half-scholarship program is ranked 47th and the non-scholarship program is ranked 78th. The difference can only be explained by credit constraints. This is because all other conditions except for the scholarship amounts are the same for all scholarship programs. The students take the same courses in the same classroom and evaluated in the same manner. In the end, they get the same diploma.

In general, the full scholarship programs are ranked above most state programs. On the contrary, most of the non-scholarship programs cannot fill their capacity. That is, all the students who prefer one of these non-scholarship programs are able to be placed in these programs. Naturally, there are no cut-off test scores for these programs. So we label their ranking as “n/a”. Since all the state programs fill their capacity, these non-scholarship programs are ranked below all the state programs in terms of student quality. For instance, the full scholarship programs of Bahçeşehir, Bilgi and Izmir Ekonomi Universities are

ranked in the top ten whereas their non-scholarship programs cannot even fill their capacity. The half scholarship programs and most of the quarter scholarship programs are able to fill their capacity. However, the student quality in these programs is substantially lower than the full scholarship programs.

5. Conclusion

A strong positive correlation between student quality of the economics programs and publication record of the economics departments exists. The publication records are high in departments which offer programs in foreign languages. Therefore it is not surprising that the student quality is also high in programs which are offered in foreign languages. There is a hot debate in Turkey on whether the language of instruction to be in a foreign language or not. Unlike Turkey, almost all of the prestigious colleges in Europe instruct in their native languages in undergraduate programs. One of the reasons why the foreign language instruction is so strong in Turkey may be its service as a signaling device. The departments may signal the quality of their programs and productivity of their faculty members by offering programs in a foreign language.

The location of the programs seems to be important in determining their student quality. Almost all the top programs are in three most populated cities of Turkey. One of the recent government policies is to have one college in every city. This may satisfy some distributional aims such as boosting the city economy. However, the programs in these cities are not able to attract academically strong students.

The tuitions of the economics programs seem to be very important in determining the student quality in state colleges. A merely 500 dollars of extra tuition makes a lot of difference. The students are willing to attend a much lower ranked program not to pay the higher fee. The difference in student quality is even starker in the different scholarship programs of the private economics programs. Although the full-scholarship programs attract the top students, most of the non-scholarship programs even cannot fill their capacity. Therefore there is a mismatch between the faculty and student quality in both state and private colleges. The government can overcome this problem by subsidizing the student loan market.

References

- Balinski M. and T. Sönmez (1999), “A Tale of Two Mechanisms: Student Placement”, *Journal of Economic Theory*, 84, 73-94.
- Çokgezen, M. (2006), “Publication Performance of the Economists and Economics Departments in Turkey (1999-2003)”, *Bulletin of Economic Research*, 58(3), 253-265.

Dusansky R. and C. Vernon (1999), “Rankings of U.S. Economics Departments” *The Journal of Economics Perspectives*, 12(1), 157-170.

Kalaizidakis P., Mamuneas, T and T. Stengos (2003), “Rankings of Academic Journals and Institutions in Economics”, *The Journal of European Economic Association*, 1(6), 1346-1366.

Lubrano M., Kirman A., Bauwens L. and C. Protopopescu (2003) “Ranking Economics Departments in Europe: A Statistical Approach” *The Journal of European Economic Association*, 1(6), 1367-1401.

OSYM, <www.osym.gov.tr>, 25.01.2011.

Scott L. and P. Mitias (1996), “Trends in the Rankings of the Economics Departments in the U.S.: An Update”, *Economic Inquiry*, 34, 378-400.