# GENDER ASPECTS OF THE RESULTS OF THE ADMISSION EXAMINATIONS 

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Today education is regarded as one of the most important factors of social progress. It should be formed and used more efficiently and expediently in order to meet the demands of the society. From this point of view, it is one of the most actual problems to make substantive use of opportunities given the women by education. Education is the basis ensuring the equality of women with men. The guarantor of individual development is education as well. It is also the foundation for the intellectual and moral potential of the country. Article 42 of the Constitution of the Azerbaijan Republic and "The Law on Education" state that every citizen of the republic has the right to education. According to "The law on guarantees of gender equality" adopted by the Parliament of Azerbaijan in 2006, the women are ensured equal opportunities in all spheres including education. "The World Declaration on Higher Education for the Twenty-First Century: Vision and Action" adopted in 1998 states that higher education plays very important role in ensuring human rights, sustainable development, democracy and peace. The Declaration reaffirms the right of all people to education and the right of access to higher education based on individual merit and capacity.

The presented material reflects common and different aspects appearing in male and female applicants' specialty (profession) choice, the comparison of histograms of distribution of their scores, as well as their answers to test items and comparative analysis of their admission indexes.

This material is a part of general scientific-statistical analyses of students admission conducted by the State Students Admission Commission of the Azerbaijan Republic in the year 2006.

Figure 1 shows the information on the dynamics of the number of male and female applicants in the years 1993-2006. Statistic analyses showed that female applicants outnumbered male ones in the previous years, too. The greatest difference occurred in the years 1993 and 1994. In those years the female applicants outnumbered male ones by 1.7 times. It was connected with conducting admission campaign to higher and secondary education schools together. As a rule, female applicants to specialized secondary education schools prevail over male ones.

The total number of applicants applying for admission to higher schools has been increasing lately. It is sufficient to say that this growth reached 44 percent within the years 1999-2001. It was connected with the rise of interest in higher education and confidence in the fairness of admission to higher schools conducted by the SSAC.

In the year 2006104264 applicants applied to the documents reception commissions in order to take part in entrance examinations to higher schools. 48.39 percent of applicants were boys and 51.61 percent were girls.

THE DYNAMICS OF THE NUMBER OF APPLICATIONS PUT IN BY MALE AND FEMALE APPLICANTS FOR ADMISSION TO HIGHER SCHOOLS IN THE YEARS 1993-2006


Figure 1

Distinct differences show themselves also in the distribution of male and female applicants' preferences over the specialty groups. The boys are represented mostly in the I and II specialty groups (mathematics, physics, engineering, economy, management specialties), but the girls in the III, IV and V specialty groups (the humanities, medicine, pedagogy, psychology and sociology specialties). The girls compose 94.95 percent of the whole contingent of applicants in the V specialty group (pedagogy, psychology and sociology specialties).

Table 1

## DISTRIBUTION OF APPLICATIONS OF THE MALE AND FEMALE APPLICANTS OVER THE SPECIALTY GROUPS

| № | Specialty group | Applications submitted |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Boys |  | Girls |  |
|  |  | Number | Percent | Number | Percent |
| I | Mathematics, physics, engineering, chemical - technological, architecture and designing specialties | 20675 | 74.06 | 7243 | 25.94 |
| II | Economy, management and geography specialties | 12876 | 73.06 | 4747 | 26.94 |
| III | Humanities, arts and music specialties | 10977 | 35.57 | 19881 | 64.43 |
| IV | Medicine, chemistry, biology and sport specialties | 5178 | 39.34 | 7985 | 60.66 |
| V | Sociology, pedagogy and psychology specialties | 743 | 5.05 | 13959 | 94.95 |

By filling in "Application form of the entrant" young people reflect the concrete sequence of specialties they chose and in reality show their preference for and interest in this or that specialty subgroup. Taking this factor into consideration, quantitative indicators reflecting the applicants' preferences for specialty subgroups have been calculated. In this case it was taken into consideration how many times an applicant referred to that specialty group and in which positions the specialties chosen are placed in the application form of the applicant. On the basis of the indicators calculated for each applicant the preference of the average applicant representing all the applicants of the republic in every specialty subgroup has been determined in percentage. The tables reflect the results of those calculations.

Table 2

## DISTRIBUTION OF PREFERENCES OF THE AVERAGE MALE AND FEMALE APPLICANT OVER THE SPECIALTY SUBGROUPS

| No | MALE APPLICANT |  | FEMALE APPLICANT |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Subgroup | Preference <br> in <br> percentage | Subgroup | Preference <br> in <br> percentage |
| 1 | Mathematics, physics, <br> engineering, architecture and <br> designing specialties | 37.26 | Sociology, pedagogy and <br> psychology specialties | 28.05 |
| 2 | Economy, management and <br> geography specialties | 22.76 | Language, philology, history, <br> law, art and music specialties | 24.58 |
| 3 | Language, philology, history, <br> law, art and music specialties | 17.06 | Medicine, chemistry, biology <br> and sport specialties | 16.72 |
| 4 | Medicine, chemistry, biology <br> and sport specialties | 12.77 | Mathematics, physics, <br> engineering, architecture and <br> designing specialties | 13.63 |
| 5 | Chemical - technological <br> specialties | 4.32 | Foreign languages and <br> international relations <br> specialties | 10.12 |
| 6 | Foreign languages and <br> international relations <br> specialties | 4.1 | Economy, management and <br> geography specialties | 5.46 |
| 7 | Sociology, pedagogy and <br> psychology specialties | 1.74 | Chemical - technological <br> specialties | 1.45 |

As it is seen from the tables, preferences of male and female applicants for specialty subgroups differ distinctly. As in the previous years, the preferences of the average male applicant are mostly for mathematics, physics and engineering specialties. The boys' interest in this specialty subgroup is about 1.6 times greater than their interest in the specialty subgroup that comes in the second place. It shows that the male applicants' preference for technical specialties is great. It must be mentioned that this interest is growing year after year.

The average female applicant's preference is mostly for sociology, psychology and pedagogy specialties.

The applicants' interest in language, philology, history, law, art and music specialties is also great.

The average male applicant gave least preference to sociology, psychology and pedagogy and chemical - technological specialties subgroups and the average female applicant to chemical - technological specialties subgroup. As it is seen from the table, both the male and female applicants gave least preference to chemical technological specialties subgroup. It is the indicator of the low rating of these specialties among the youth.

On the other hand, there is a polarity in the distribution of male and female applicants' preferences for sociology, pedagogy and psychology and mathematics, physics, engineering specialties subgroups. It means that girls give least preference to specialty subgroups to which boys give more preference and vice versa. It is perhaps the manifestation of such conservative opinions that still survive in our society about "a man's profession" and "a woman's profession".

The comparison of histograms of distribution of male and female applicants' scores shows that the female applicants' average score indicators are higher than those of the male applicants. This overbalance shows itself in the I, IV and V specialty groups more obviously.

The graphs reflect the histograms of distribution of male and female applicants' scores over the I and III specialty groups. In addition to histograms, main statistical indicators of score distribution as well as distribution functions are reflected in the graphs, too.

The distribution histograms of the scores gained by the applicants in all the specialty groups are similar and have a right-wing asymmetry. It means that the applicants with lower scores outnumber the ones with higher scores.

The average score indicators of female applicants are higher than those of the male applicants. The mentioned histograms and the changing character of distribution function indicate that the female applicants outnumber the male ones in the range of high scores (above 300 scores). This overbalance is observed in the I, IV and V specialty groups more obviously. But the boys' and girls' results in the II and III specialty groups are similar.

Graph 1
Group: I
Gender: male
Expected value :
124.683

Mean square deviation :
120.73

Gender: female

Mode :
Median :
Minimal score :
Maximal score :
Number of applicants :
Expected value :
175.545

Mean square deviation :
133.46
82.10 Median :50
144.03
0.000 Minimal score :
0.000
689.286 Maximal score : 688.036

20424 Number of applicants :
7186


Group: III
Gender: male
Expected value :
Mean square deviation :
Mode :
Median :
Minimal score :
Maximal score :
Number of applicants :

Gender: female
220.316

Expected value :
244.274
162.78

Mean square deviation :
155.91

70
179.46

Mode :
Median :
Minimal score :
10864 Number of applicants :

As the result of the conducted research, the portraits of the average male and female applicants admitted to higher schools have been determined (table 3).

Table 3

| SUBJECTS | BOYS | GIRLS |
| :--- | :---: | :---: |
| Mother tongue | 58.53 | 69.02 |
| Literature | 47.60 | 58.55 |
| Mathematics | 61.96 | 54.43 |
| Physics | 47.49 | 57.16 |
| Chemistry | 38.13 | 50.15 |
| Biology | 42.24 | 65.86 |
| History | 77.93 | 61.31 |
| Geography | 73.20 | 64.95 |
| English | 55.03 | 58.46 |
| Average score | $\mathbf{3 6 9 . 6 7}$ | $\mathbf{3 9 1 . 9 9}$ |

The average indicators of the admitted male and female applicants' correct answers to test items are reflected in this table. As it is seen from the table, the boys and girls admitted to higher schools answered more than 38 percent of the test items on subjects correctly.

Analyses showed that the female applicants scored higher in the mother tongue and literature, physics, chemistry, English and biology whereas the male ones did better in mathematics, history and geography.

As it is seen from the table, the girls' indicators on exam subjects concerning medicine and biology specialties are higher. It is connected with the fact that most of the girls with higher level of preparation choose namely the specialties of medicine.
The number of the boys among those who were admitted to higher schools was higher than that of the girls. This can be explained mostly by the reason that girls' preference for technical specialties is low.

The number ratio of male and female applicants representing different regions of our republic is diverse and these indicators vary in a wide range. This can be explained by diverse participation of male and female applicants representing different regions of the republic taken separately in the admission campaign. The relative number of the girls among all the applicants from Yardimly, Lerik, Jalilabad and Masally regions which are situated in the south of our republic is only $9-32$ percent whereas the relative number of female applicants from Zagatala, Balakan and Gakh regions which are situated in the north-west of our republic is $59-66$ percent. Taken as a whole, the female applicants predominate in 54 percent of the regions of the republic.

The female applicants' exam results over the majority of regions are higher than those of the male ones.

The distribution of the quantity of the male and female applicants has been investigated within certain score intervals ( $0-100,100-200,200-300,300-500,500-$ 700) on the basis of the gained scores (see figures 3 and 4). Analyses show that the boys have relative prevalence over the girls both in the lowest $(0-100)$ and highest (500-700) score intervals. But the girls' relative number is greater in the other score intervals.


Figure 2

THE DIAGRAM OF THE DISTRIBUTION OF THE SCORES OBTAINED BY THE APPLICANTS PARTICIPATING AT THE ENTRANCE EXAMS


Figure 3
Figure 4

Graph 3 reflects the dynamics of male and female applicants' admission percentages over the years 1993-2006. Higher admission percentage of the male applicants is observed in the graph. The gap in the girls' and boys' indicators had been increasing since 1993 and reached the highest level in 1997.

THE DYNAMICS OF THE MALE AND FEMALE APPLICANTS’ ADMISSION INDICATORS OVER THE YEARS 1993-2006


Graph 3
Azerbaijan Teachers' Institute in the city of Baku and its branches in the regions of our republic were established for the purpose of training pedagogical personnel for preschool institutions and for primary classes of secondary schools by the decree of the President of the Azerbaijan Republic dated June 13, 2000. The increase in number of pedagogical higher schools and their planned allocation all over the territory of the republic have created wide perspectives for the girls with secondary education who live in the rural districts and wish to get higher education. This enactment yielded its results after a short period of time. The percentage of girls' admission to higher schools has been increasing rapidly and has approximated to that of the boys.

The dynamics of the number of male and female applicants admitted to higher schools in the years 1993-2006 is reflected in this figure. As the figure reflects, the boys outnumbered the girls in the admission campaigns of all those years excepting the years 1993, 1994 and 2002. The girls' overbalance among those who were admitted to higher schools in the years 1993, 1994 and 2002 was connected with the fact that the competitive condition in those years was relatively lower.

THE DYNAMICS OF THE NUMBER OF THE MALE AND FEMALE APPLICANTS ADMITTED TO HIGHER SCHOOLS OVER THE YEARS 1993-2006


Figure 5

Table 4 presents the distribution of the applicants admitted to higher schools over the specialty subgroups. Comparing distribution of the average male and female applicants' preferences over the specialty subgroups with distribution of the male and female applicants admitted to higher schools over specialty subgroups, we see that the distribution of the male applicants' preferences and admission results coincide on the whole. But the percentage of girls' admission to mathematics-physics (RF) subgroup exceeds their desires to be admitted to this subgroup: though only 13.63 percent of the girls desire to study the specialties of this subgroup, the girls compose 19.04 percent of those who were admitted to this subgroup. It is connected with the fact that the passing scores in that subgroup are comparatively lower.

Table 4
DISTRIBUTION OF THE MALE AND FEMALE APPLICANTS ADMITTED TO HIGHER SCHOOLS OVER SPECIALTY SUBGROUPS

| No | Subgroup | The boys admitted to <br> higher schools |  | Subgroup | The girls admitted to <br> higher schools |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Number | Percentage |  | Number | Percentage |
| 1 | IC (economy, geography) | 3906 | 32.51 | DT | 2766 | 23.44 |
| 2 | RF (mathematics, physics) | 3886 | 32.34 | RF | 2247 | 19.04 |
| 3 | TK (chemical-technological) | 1561 | 12.99 | XH | 1763 | 14.94 |
| 4 | DT (language-history) | 1546 | 12.87 | SP | 1687 | 14.30 |
| 5 | XH (foreign languages, law) | 665 | 5.53 | IC | 1565 | 13.26 |
| 6 | RK (mathematics, chemistry) | 408 | 3.40 | TK | 1549 | 13.13 |
| 7 | SP (sociology, psychology) | 44 | 0.37 | RK | 224 | 1.90 |

## ADMISSION CAMPAIGN OF 2007

The results of the admission campaign for the education year 2007-2008 have not been analyzed completely yet. But the primary analyses demonstrate the same tendency as a whole. This year 102418 applicants participated in the admission exams. 52163 of them ( 50.93 percent) were girls and 50255 ( 49.07 percent) were boys. The boys constitute 51.78 percent and the girls 48.22 percent of the applicants admitted to higher schools. It means that the boys admitted to higher schools outnumber the girls as in the previous years. But the gap in the admission indexes is insignificant.

The presented material affords us the opportunity to draw several conclusions and give some recommendations for further enhancement of the situation in the sphere of achieving gender equality in Azerbaijan:
$ß$ The possibilities of achieving gender equality have not been used to full extent though the situation in this sphere is encouraging.
B To overcome various socio-economic, cultural and political obstacles that impede the access of women to higher education remains an urgent priority for ensuring an equitable and non-discriminatory system of higher education based on the principle of merit
$B$ It is necessary to obliterate obsolete and patriarchal reflections and stereotypes still surviving in the society such as boys' getting higher education is more important than girls', because the boys are future bread-winners of the family, but the girls should be busy with housekeeping and family life. That is why parents are willing to pay for the education and training of their sons first of all.
B Informational and communication technologies should be highly available to wide access of women.
$ß$ It is necessary to increase budget expenditures for education so that it should result in admission of the most capable and well-trained boys and girls to pedagogical higher schools.
B It is required to obliterate disparity between education and labour market, make necessary amendments into the study programs for the purpose of coordinating them with the new requirements of market economy.
$ß$ It is necessary to carry out intensive educative work with parents for prevention of tendency of debarring of girls' from education (early marriages, socioeconomic reasons, etc.)
$ß$ It should be paid special attention to arrangement of new opportunities for gender education and gender researches and enhancement of gender awareness among parents, students and administrators.

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