



Hilfen für die junge Generation

Youth Assistance in Big Cities

Statistik und Planung in der Großstadt Statistical and Research Results

Edition 2004

Die geschlechtsspezifische Dimension The Gender Dimension

herausgegeben von
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Vorwort

*Prof. Dr. Eckart Elsner
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Der vorliegende Band spiegelt Ergebnisse einer Tagung zum Thema „Statistik und Jugendhilfeplanung in der Großstadt“ wider. Diese Tagung war die siebente in der Reihe derartiger Treffen, die inzwischen schon eine gewisse Tradition haben. Organisiert werden sie in der Regel jährlich vom Statistischen Landesamt Berlin. Tagungsort ist die Sozialpädagogische Bildungsstätte „Haus am Rupenhorn“ des Senats von Berlin. Möglich wird derartiges nur durch eine gute Zusammenarbeit von vier Dienststellen: Das Statistische Bundesamt hat jeweils die Finanzierung der Dolmetscher übernommen, auch der Druck des Tagungsbandes der letzten Jahre ist ihm zu verdanken. Das Institut für angewandte Demographie hat dankenswerter Weise die Redaktion dieser Texte vom Statistischen Bundesamt übernommen. Das Haus am Rupenhorn ist Gastgeber der Veranstaltung, für die das Statistische Landesamt Berlin letztlich verantwortlich zeichnet.

Warum wird die Tagung veranstaltet? Vier parallele Ziele werden hier verfolgt:

1. Das Haus am Rupenhorn ist eine Fortbildungsstätte. Die Konferenz soll also sozialpädagogisch Tätigen Informationen und Analysen liefern, die auf Daten der Amtlichen Statistik basieren und deren Erkenntnisse für die jeweilige Arbeit von Nutzen sind.
2. Diejenigen, die an Forschungseinrichtungen tätig sind, kommen während der Konferenz mit denen zusammen, welche die Daten bereitstellen. Dies ist wichtig und notwendig, denn beide können hier ihre Probleme und Lösungsansätze vorstellen sowie Methodisches und Inhaltliches statistischer Analysen diskutieren.
3. Der Austausch internationaler Erfahrungen ist in Europa von zunehmender Bedeutung. Die an den Themen Interessierten aus vielen Ländern treffen hier zusammen, um Erkenntnisse auf statistischem und pädagogischem Gebiet auszutauschen. Man findet bei solchen Treffen in der Regel heraus, welche Daten von den Definitionen her oder aus ganz unterschiedlichen Gründen nicht vergleichbar sind; auf diese Weise bekommt man Informationen, die es erlauben, für eine internationale Harmonisierung einzutreten. Ohne solche Treffen hätte man das entsprechende Wissen einfach nicht, um die Situation in den einzelnen Ballungsräumen mit der Zeit immer besser vergleichen zu können.
4. Wenn man sich am Rupenhorn trifft, bietet sich die Möglichkeit, miteinander zu reden und zu prüfen, inwieweit über den engeren Rahmen der Konferenz hinaus eine internationale Arbeit möglich ist. Hier ist ein Ort, wo man eventuell eine gezielte Kritik anbringen oder gemeinsam Projekte entwickeln kann, auch über Grenzen hinweg.

The Gender Dimension and the Benefit Situation in the Welfare System of Berlin

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1. Background

Due to the economical emancipation of women in advanced industrial societies during the second half of the 20th century their chances at the employment market and their income situation improved distinctly. With it the economical dependence of women from the institution marriage declined. The increased economical independence raised the choices of women: living alone or together, getting married or divorced. And since the late 60s actually the quotas of marriage decreased, the age of getting married and the quotas of divorce increased.

There are several effects of this development: First more and more women have to supply themselves and their children on their own. Second a lot of the men are not longer responsible for earning the main part of the household income. Thus the man is more dependent on the income of other family members, especially of the wife's. In modern societies the economical position of women never became that close to that of the men. Despite the poverty risk for women is considerably higher then for men, a fact that seems not to match with the facts that were mentioned before.

The present discussion about the "feminisation of poverty" in advanced industrial societies started in the USA. Several researches came to the result that the gap between male and female poverty is growing and that poverty is dependent on the marital status and the type of the household. Especially single and single parent women are threatened by poverty.

In Europe the gender dimension of poverty has been rarely the subject of researches. But in international comparison several population groups with a high poverty risk were identified: single parents, children and old people, especially old women. Recent researches about poverty had to add two groups with a high poverty risk: the unemployed and migrants.

Our intention was to analyse the gender dimension of Berlin's welfare system. Subject of our research are the social aid recipients of two inner-city districts: Friedrichshain and Kreuzberg. In the scope of the municipal reform in 2001 they were joined into one

governmental area. Measured by the social aid quota Friedrichshain is the poorest district of the former East-Berlin and Kreuzberg the second poorest of the former western part. The main demographic difference between the districts is the proportion of foreigners, which is much more higher in Kreuzberg. A separate analysis of both districts showed that structural differences of the social aid recipients exist less between the population of two districts than between foreigners and Germans. Thus the following results are mostly separated by nationality and not by districts.

2. Social Aid in the German Welfare System

In the German welfare system social aid is the last stage of social support, it is the so called social security net. It is based on several principles. The most important one is that social aid is just given to a person that is not able to help him- or herself, that has no close relatives who can provide him or her and that is not getting support from other institutions of the welfare system. Social aid is seen as an aid to self aid.

3. Method and Data

The data base of the research are the PROSOZ data sets of the social welfare office of the district Friedrichshain-Kreuzberg. These electronic files arise at the processing of social aid cases thus they are a complete census of people that get social support in the district. The data set consists of several files with a dBase intersection. The IFAD fits these files together into two new SPSS files, a personal and a household data set. The personal file contains personal features of the recipients like age, gender, nationality, marital status and so on. The household set gives report about the features of the living situation of the households.

The calculation of the legitimisation for getting social support is based on the household income. The foundation is the assumption that the members of a household share all their resources and incomes. This thesis is a central one for our analysis: Men and women who build one household share by these definition the same economical well-being and thus they have the same poverty risk. Due to it the gender dimension of poverty risks in a society results from the different poverty quotas of men and women who do not live together in one household. There are some empirical evidences which support that thesis for wealthier societies. But if resources are distributed unequally among the households then poor households are probably especially affected by it. In case that women in poor households have less resources at their disposal than the men, the assumption of equal distribution leads to an underestimation of the female poverty quotas compared to the men. Due to that the following data should be seen as a minimum of gender related poverty risks.

4. Results

4.1 The district in general perspective

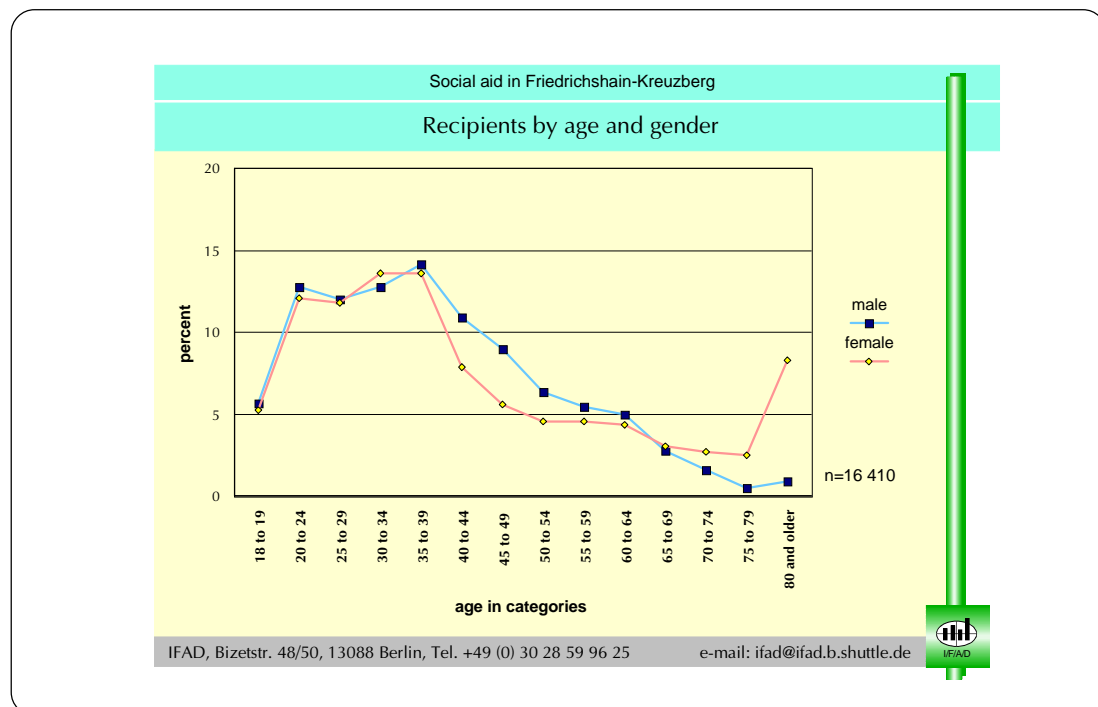
In 1999 the district Friedrichshain-Kreuzberg had about 250.000 inhabitants and about 33.000 recipients of social aid. This corresponds to a social aid quota of 13.2 percent. From a relative perspective the biggest lack of economic resources could be identified in the group of non-Germans and children. Corresponding to that children with a foreign nationality have the highest social aid quota. According to the total population recipients between the age of 18 and 44 and the group of very old women are over-represented.

4.2 Age and gender

According to the above-mentioned idea **the following results are just concerning single and single-parent households** to get a more differentiated view on the gender dimension of poverty.

Figure 1 provides a general idea of the distribution of social aid recipients in both districts by age and gender. In absolute numbers 52.3 percent of the recipients are women and 47.7 percent are man (total population of the district: male 51% ; female 49%). Related to the total population women are slightly over-represented among the group of adults living in single households.

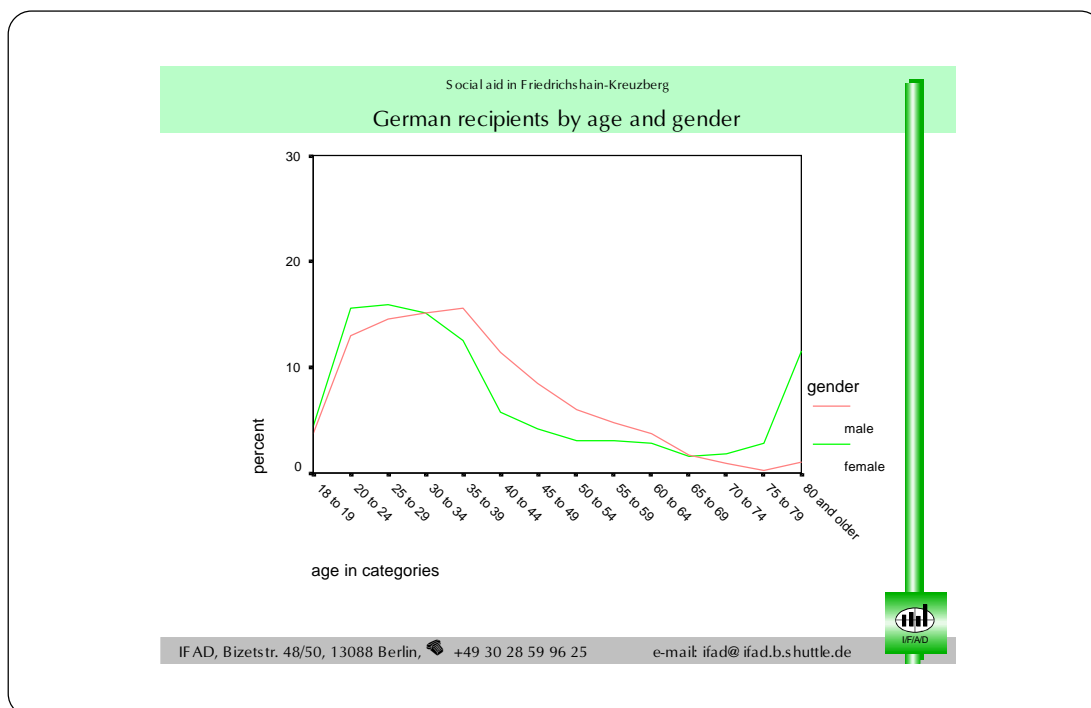
Figure 1:



More than half (51.4 percent) of the recipients are in the age of 20 to 39. So this seems to be the period of life when singles and single parents are most endangered to become

dependent on social aid. The striking gender differences we find among the older recipients. From 40 to 65 the men are more often dependent on social aid than women. From the age of 65 onwards there are much more women in social aid. The main reason is probably the higher life expectancy of women. A better picture we get by dividing the recipients of social aid by nationality (figure 2 and 3).

Figure 2:



Among the German recipients the women are especially endangered to become dependent on social aid in the age between 18 and 35 and as pensioners. Because they often spent less lifetime with paid work female pensioners often have smaller pensions than male pensioners and so they are dependent on additional social aid. The women between 18 and 35 are probably single mothers that had no secure position at the labour market at the time when they gave birth to their child or maybe they never entered the labour market. As a result they are dependent on social aid.

The living period when men are more endangered than women seems to be the age between 35 and 65. These men probably never had a work that were subject to compulsory insurance and consequently they have no right to unemployment benefit. Furthermore they are in an age when it is difficult to re-integrate them at the labour market.

Figure 3:

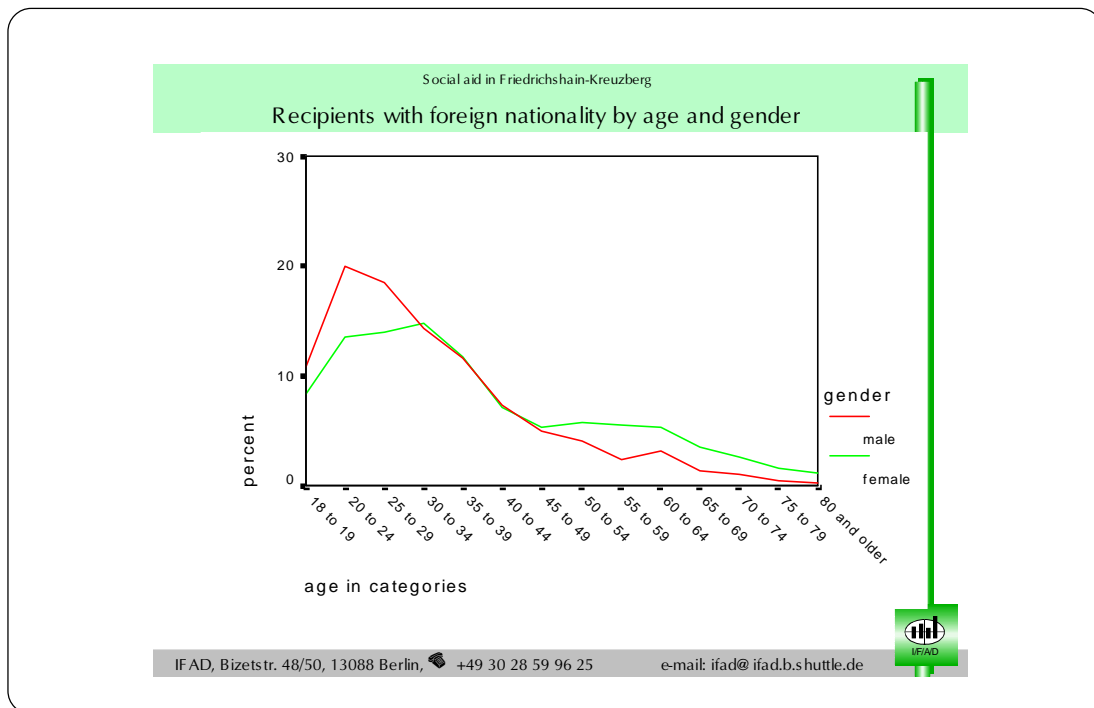


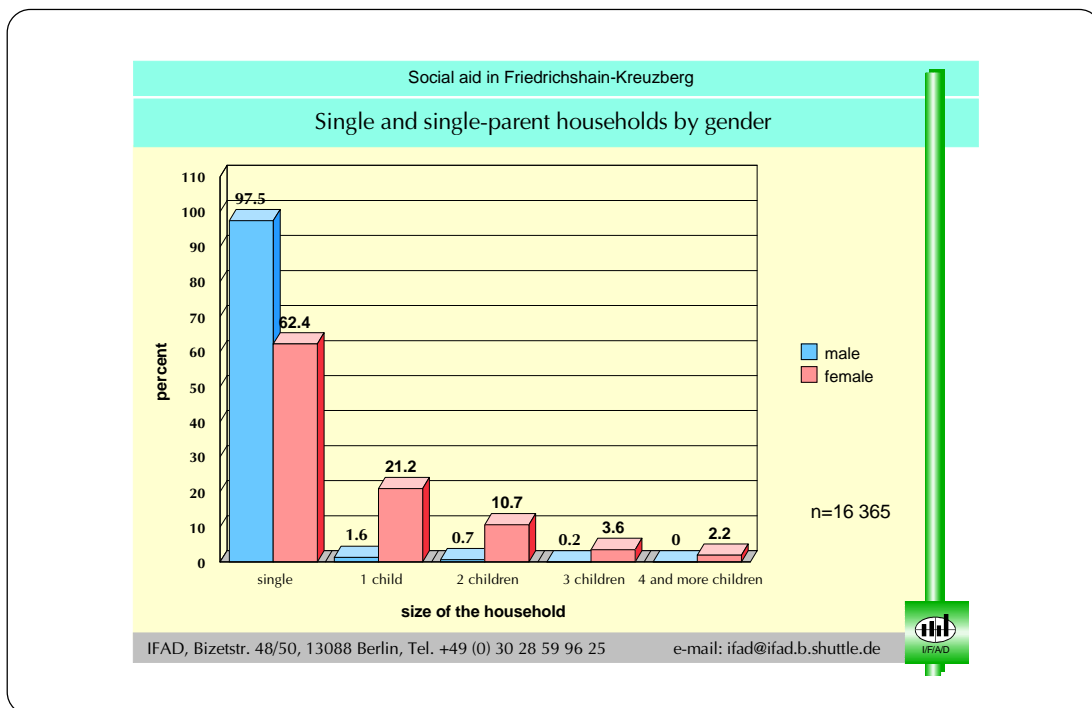
Figure 3 shows that the problematic group of the foreign population are the young men between 18 to 30 years. The figure reflects the general problem about young male foreigners which are often without school examination and low-skilled. The percentage of foreign pensioners in social aid is very low. That is because the most of the immigrants came to Germany as guest workers during the 1960s and thus the group of foreign pensioners at all is still very small. Probably it will grow very much during the next years and it will be interesting to keep this group under observation.

4.3 Household structure

A better picture on the gender dimension we get by analysing the household structure (figure 4). Altogether about 80 percent of the selected recipients live in single households and 20 percent are single-parents.

Divided by gender 97.5 percent of the men are singles compared to 62.4 percent of the women. Among the singles women are highly over-represented with 37.6 percent. And just 2.5 percent of the men (total 1.1 percent) are single parents. This represents first the overrepresentation of single mothers in general. Second it underlines the high poverty risk of single mothers. And third it might confirm research outcomes that getting social aid instead of working sometimes is a deliberate decision of single mothers in favour of taking care of the child.

Figure 4:

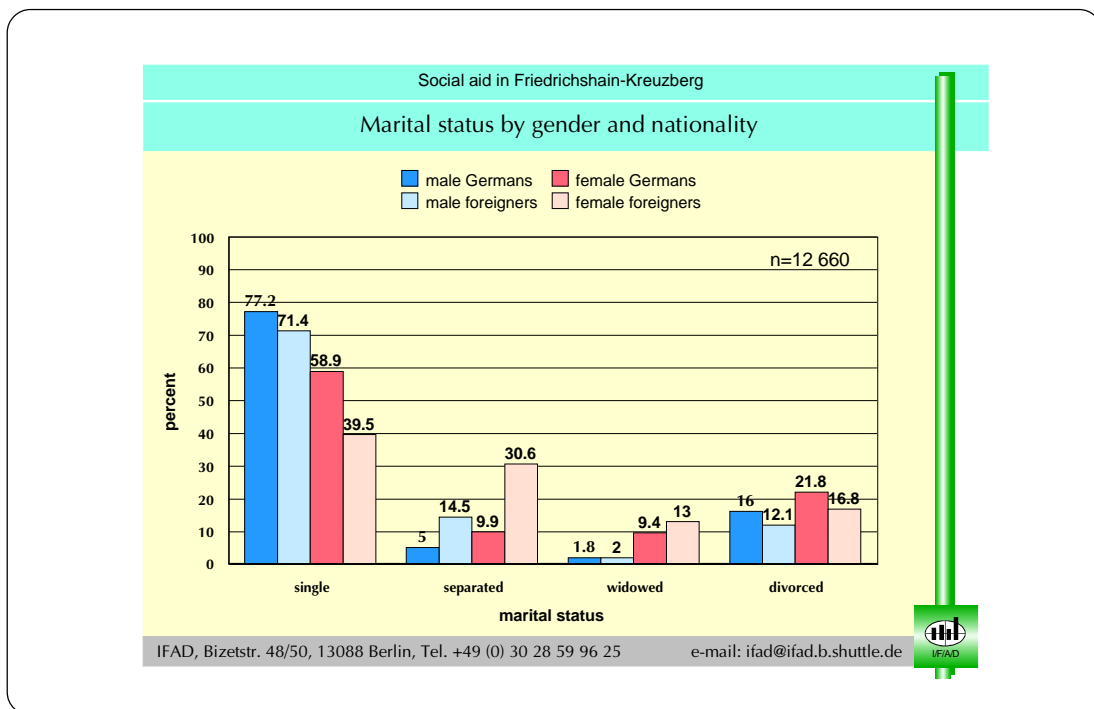


4.4 Marital status

Analysing the marital status shows that about 77% of the German men and 59% of the women are singles without children. 21% of the men and 32% of the women are separated or divorced from their partners.

Among the foreign recipients 71 percent of the men and 40 percent of the women are singles. 26.5 percent of the men and 47 percent of the women are separated or divorced. Apparently separation or divorce from the partner for women and especially for foreign women is a higher risk to become dependent on social aid then for men.

Figure 5:

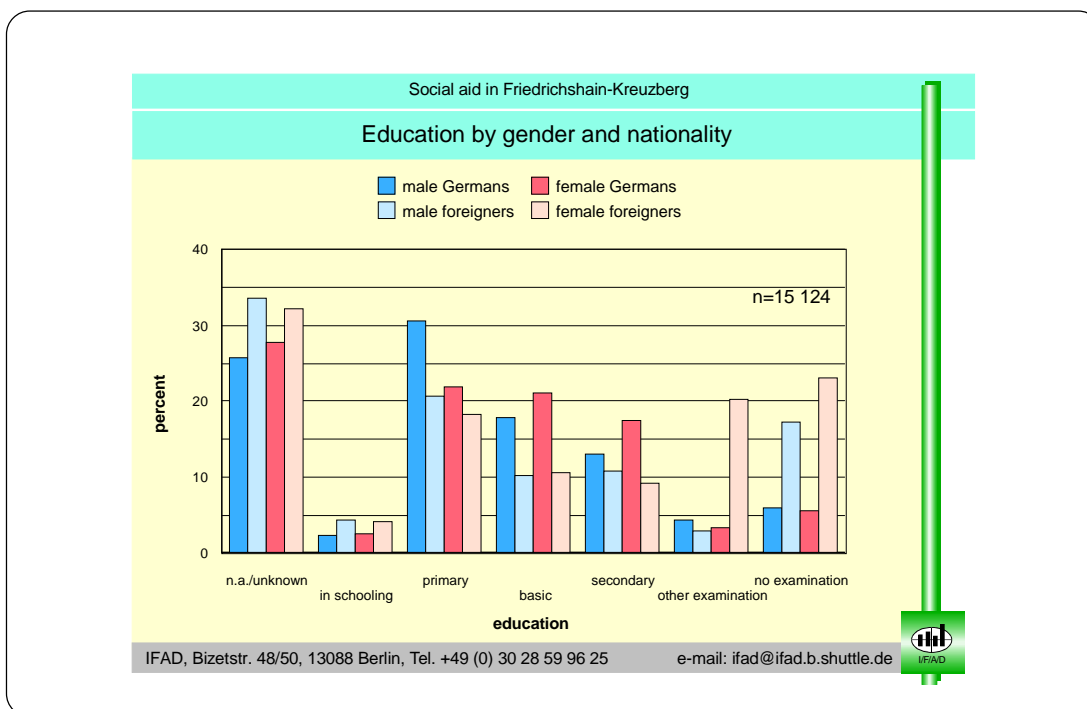


4.5 Education

Among the education the division line runs mainly between the nationalities. There is a big gap between the German and Non-German recipients. 61.5 percent of the German recipients have a final school examination compared to just 31 percent of the foreign recipients. Thus twice as much Germans than foreigners have a final school examination. This relation is the same after splitting the relation by gender (men: 64/29 percent; women 60.5/34 percent).

Unfortunately there is a high percentage of missing, a quarter of the Germans and more than half of the foreign single-adults gave no information about their final examination. Among the Germans the women have in the average the higher education. Among the foreigners the education level are nearly similar but foreign women have as well more often no final school examination as more often a final examination than the men. Altogether women have the higher education. Thus the gender dimension about the education is the examination level.

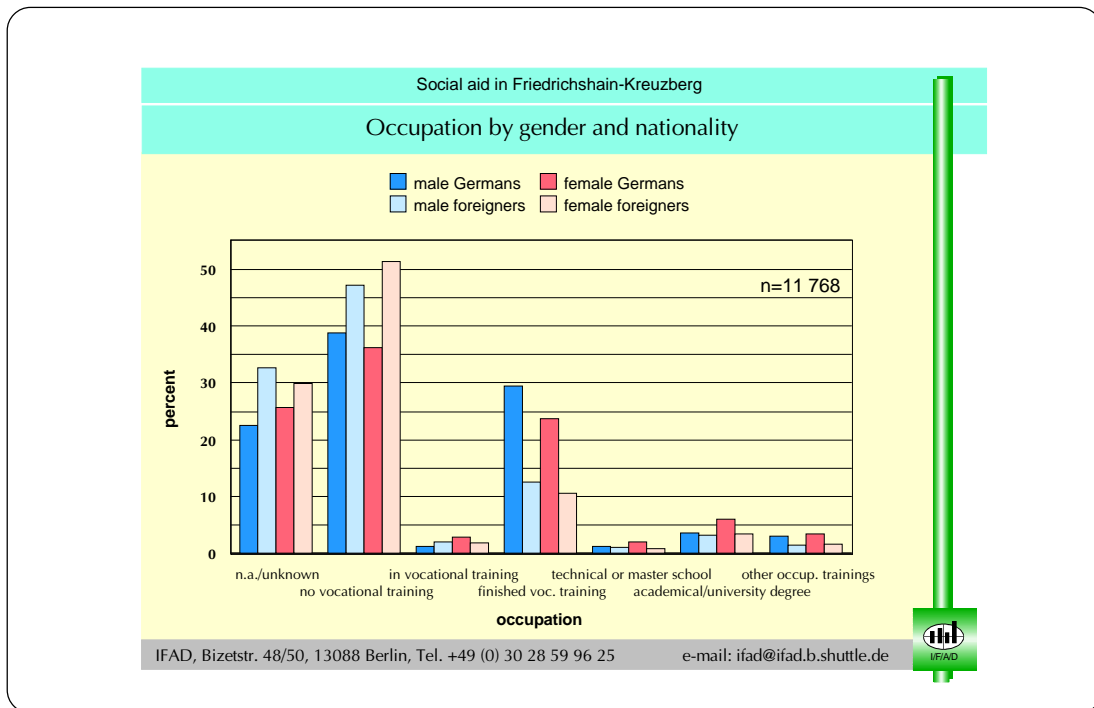
Figure 6:



4.6 Occupation

Among the occupation we have again a high number of missing. Almost one third of the single adults gave no information about their occupation at all (Germans 23 percent; foreigners 50 percent). More than one third (33.7 percent) of the recipients have no occupation, about 36 percent of the men and 32 percent of the women. Altogether men have on the one hand more often no vocational training as well as more often a finished vocational training as women. In opposition to that women went more often to a technical or master school or have an university degree.

Figure 7:



Among the Non-Germans more women than men have no occupation but 8.4 percent of them are in vocational training or have a master or university degree compared to just 3.3 percent of the men.

Among the German social aid recipients 11 percent of the women are still in vocational training or have a university degree and just 5.5 percent of the men.

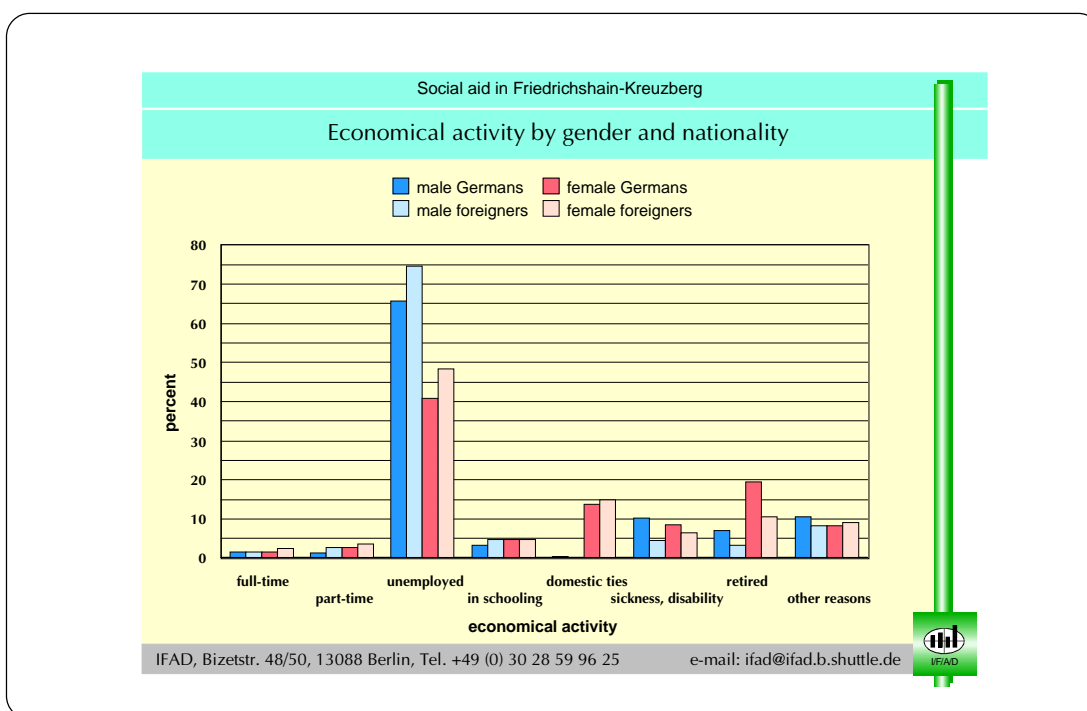
Apparently we have the same situation as among the school education: the male social aid recipients are lower skilled than the female recipients.

4.7 Economical Activity

Especially interesting is the gender dimension among the employment status of social aid recipients that are living in single or single-parent households. The majority of the recipients is unemployed, about three quarters (76.7 percent) of the men and half (48 percent) of the women have no job. The other main reason for women to be not economically active are domestic ties (12.8 percent) and age (16.4 percent).

Interesting is also the situation after splitting the nationality groups. 73 percent of the male German recipients but just 44 percent of the female Germans are unemployed. For the foreign recipients unemployment is the main reason for being not economically active, too. 88.5 percent of the foreign men and 73 percent of the women are unemployed.

Figure 8:



Domestic ties are just for 0.5 percent of the men but for 13 percent of the German women and for 10.4 of the foreign women the reason of getting social aid. These numbers correspond to the over-representation of female single parents. 18 percent of the German women are retired social aid recipients compared to 4 percent of the German men. These numbers also represent the demographic structure of the German population. Among the foreign recipients the numbers are 1 percent for the men and 5 percent for the women.

5. Conclusion

Our conclusion about the gender dimension is the following:

From a relative perspective the poverty risk became almost similar for men and women: we have almost the same number of male and female singles and single parents in social aid. The differences we find about the reasons that made them dependent on social aid:

The men that get social aid are mainly *unskilled or low-skilled singles in the age between 40 and 65 or young foreigners between 18 and 30*. They are mainly affected by *unemployment*.

The main reasons for women to become dependent on social aid are, besides *unemployment*, to be a *single parent* and due to that the *separation or divorce* from their partner, and *age*.

Whereas men become dependent on social aid because of socio-demographic reasons women are rather endangered by important biographic events as giving birth to a child, separation from the partner and unemployment.

Conditions for Youth Employment in Poland

An University Level Education Issue

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The goal of this paper is to identify, analyze and evaluate key competitiveness and growth factor of the Polish Small and Medium Sized Enterprises (SMEs). The stress is put on the human (managerial) issue as well as the quality of management. This in turn raises the problem of necessary conditions for youth employment in Polish SMEs. To guarantee the successful managerial career – a question of the university level education has to be formulated.

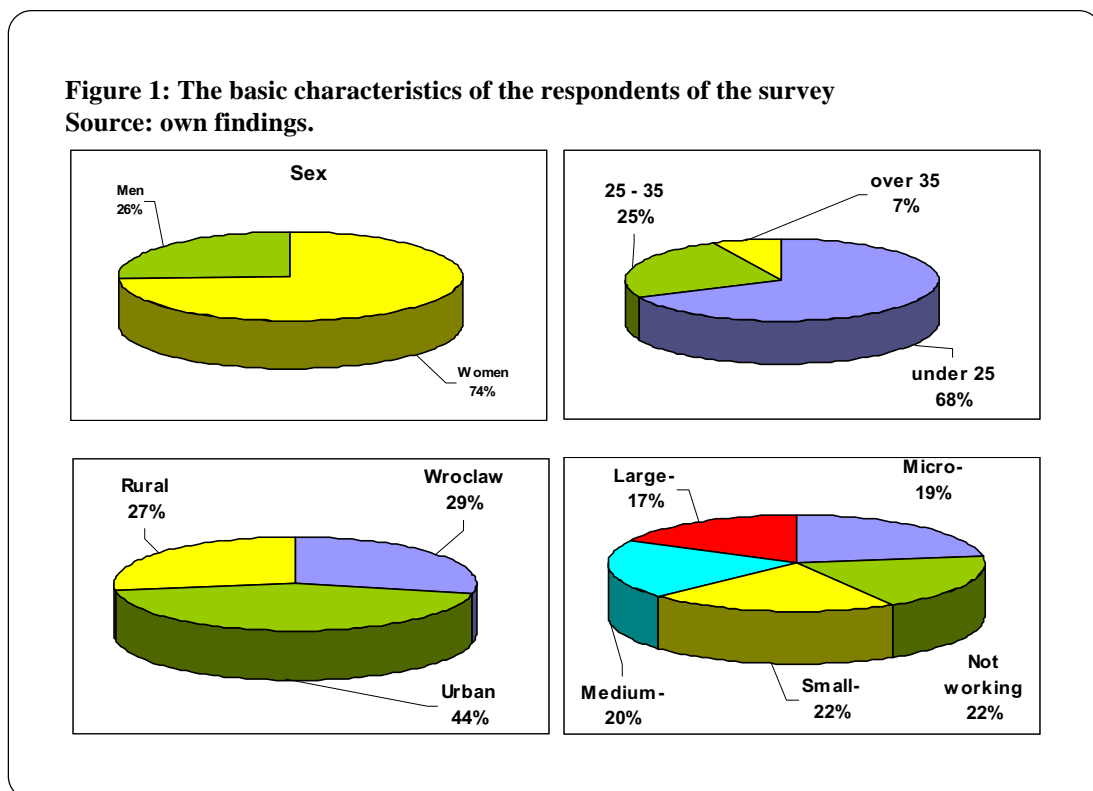
The perspective for Poland to join European Union raises a problem of ability of Polish enterprises to compete on common European market. This question is of great importance for SMEs. Alike in other countries, SME sector plays a role of an engine in the process of positive changes in Polish economy. Although in Poland, in comparison to developed countries, the role of SMEs is still less important – it is growing steadily. At present in Poland there are over 3 million registered businesses, but only 1.8 mln are active (it means about 60% of all registered). About 99% of active firms are small or medium sized enterprises. Most of them are one–man businesses. Over 64% of employed work force is working in the SME sector. The SME sector created over 70% of the GDP.

On the basis of authors' previous attempts to identify weaknesses of Polish SMEs authors were able to conclude that the most widespread weakness is the lack of capital. This is a source of a number of other problems, like old machines and equipment (it means old technology), and low level of innovation. These phenomena result in the market weakness, for example firms are strongly dependent on local and regional markets and they are not competitive on international markets. Additionally unsatisfactory domestic demand and credit unavailability are also very significant barriers for development firms. Since 1989, the cost of credit has been extremely high in real terms (in mid 2002 – the credit interest rate was around 20% while the inflation was at the level of 4%). The rate of unemployment is over 18% in the spring of 2003. It means over three million of unemployed potential consumers.

The results of the discussed investigation also show that one of the most important growth factors is the quality of labour force and managerial staff. In order to get better insight a survey focused on aspect of human resources in firms was prepared. The survey was designed to explore demand side for managerial staff – addressed both towards managers in enterprises and towards part time students considered as a kind of specific experts. The goal was to investigate areas where the shortage of high quality managerial staff may be observed in Polish enterprises. On the supply side business students played the respondents role. They assessed the quality of the university offer and the appropriateness of the curricula used. There were two main areas of interest:

1. The needs for managerial staff formulated by SMEs.
2. The quality of the educational system offer and its ability to provide current and future staff with adequate managerial skills.

The survey was called *Professional staff needs in enterprises* and was conducted in February 2002. A sample of 568 undergraduate (part time) business students in Wroclaw was asked to fill in the survey questionnaire. The basic characteristics of respondents are presented in figure 1.



The figure 1 shows that three quarters of the respondents were female, 68% of them were under 25 years old. Almost one third of them were living in Wroclaw, 44% come from smaller towns, 27% from rural area. Respondents were relatively evenly distributed between large firms (17%), medium and small (20 and 22%) respectively, 19% were working in micro firms (under 10 employees). One fifth of them were not working.

One of the key questions in the survey was attempt to find out *in which expertise area the enterprise is lacking the staff with appropriate knowledge and skills*. The list of answers is shown in table 1.

Table 1: The area where there is lacking staff with appropriate knowledge and skills

Source: own findings.

Area	Percentage	Area	Percentage
management	18	strategic management	9
operative management	4	accounting	6
managerial accounting	6	financial accounting	4
budgeting	7	controlling	8
market research	15	product management	4
negotiation	11	demand forecasting	8
production management	7	quality management	6
logistic management	7	inventory management	21
motivation	19	human resources management	22
conflict management	10	other	1

Human Resources Management specialists were most frequently indicated as looked for in the firms. Management was listed on the second place. The results shown in table 1 were confirmed in different survey (340 postgraduate, part time students). The most frequently the forecasting skills (38%), budgeting (31%) and negotiation (27%) were listed. The same respondents diagnosed that the weaknesses of the enterprises have their source in lacking staff – between 36% to 70% indications.

Next question raised on the demand side was: *in which expertise area, appropriate knowledge and skills promises the best possibility of finding good job*. The distribution of indications is illustrated in the table 2.

Table 2: The area where the appropriate knowledge and skills promises the best possibility of finding good job

Source: own findings.

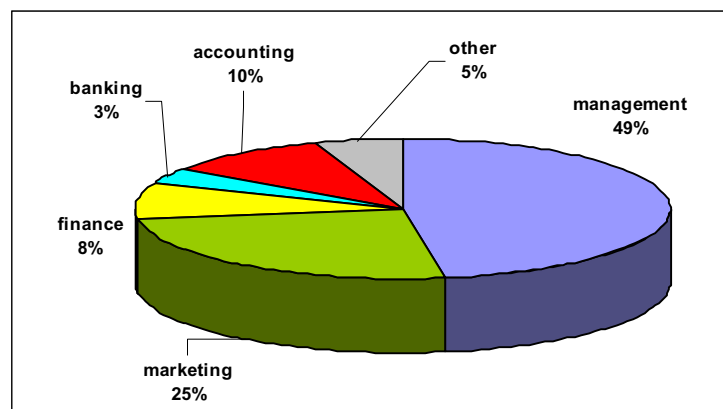
Area	Percentage	Area	Percentage
management	20	marketing	18
foreign trade	21	psychology of management	10
informatics	57	environment protection management	4
finance management	17	tourism and hotel management	9
accountancy	20	human resources management	7
public relations	10	banking and insurance	24
logistics management	14	other	1

The supply side for the managerial skills on the labor market is considered here as the University level education system. From this point of view – the university offer have to be assessed. Polish company's needs in the area of managerial staff assessed by conducting surveys among entrepreneurs, firms' managers and employees were confronted with the results of the surveys assessing the university offer. The goal of this comparison was to establish recommendation both for the university system as well for the job orientation activities. On the other hand it is clear that current assessment of the staff needs and job market preferences are strongly influenced by the present phenomena – fashion, current events, etc. To guarantee the realism, stability, and objectivism of needs formulation – the cross validation was done by conducting survey in different respondents groups.

The respondents were asked *in which expertise area they have acquired appropriate knowledge and skills*. The results are shown in figure 2.

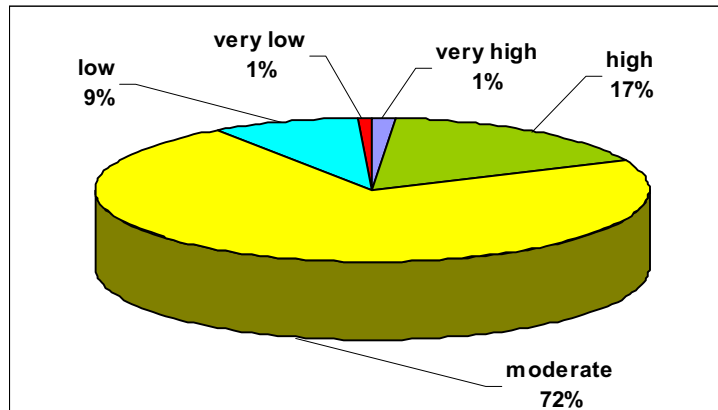
Figure 2: The expertise acquired during the University level education

Source: own findings.



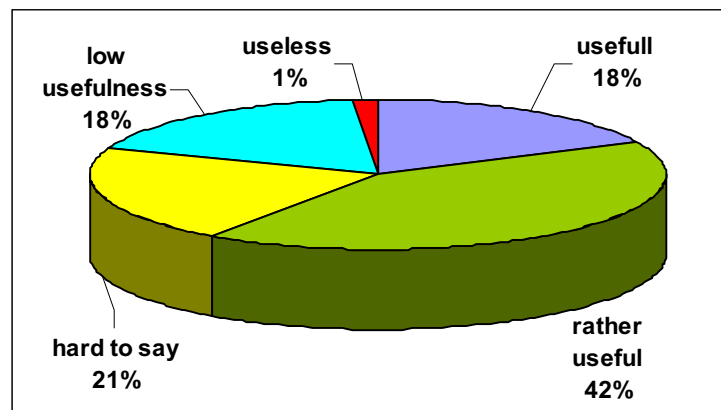
The above opinions were confronted with respondents' self-assessment. Respondents were asked to *qualify their job market attractiveness*. Less than 20% stated that their attractiveness is very high or high. On the other hand only one out of ten thinks her/his attractiveness is low or very low. The distribution of answers is shown in figure 3.

Figure 3: Self-assessment of the attractiveness on the job market
Source: own findings.



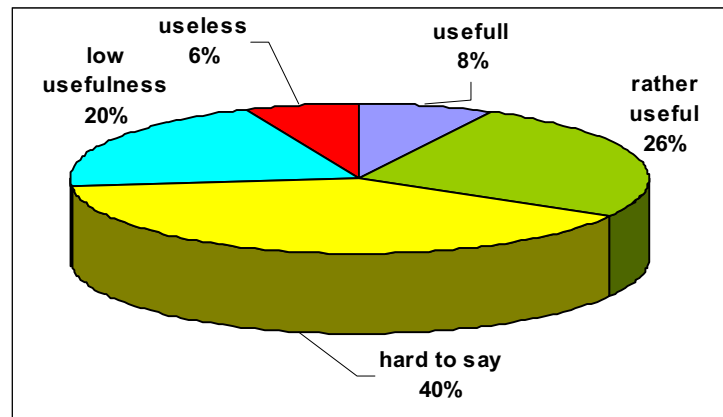
The reason for the fact that the prevailing category of self-assessment of respondents' attractiveness on the job market is stated as moderate may come from the inappropriate study curricula. To explore that problem – the question: *how do you assess the study curricula at your university from the point of view of the usefulness for your job* was formulated. Only 60% says that the university is offering useful or rather useful knowledge and skills. The distribution of answers is shown in figure 4.

Figure 4: The assessment of the university curricula
Source: own findings.



Next question focused on advantages of using quantitative methods: *do you consider the acquired quantitative knowledge and skills useful from the point of view of your job?* The distribution of answers is shown in figure 5.

Figure 5: Assessment of the usefulness of quantitative methods.
Source: own findings.



It is interesting that almost half of the respondents (40%) do not know whether the quantitative methods will be useful in their future professional functioning. Some 26% do not see need for learning quantitative methodology. One third of respondents appreciate the need for such a knowledge tools.

In order to get better insight into the distribution of the answers – the correlations between the respondents' characteristics and the type of answers they formulate were investigated. To check whether there is a correlation between the answer for particular question (X) and the respondents' characteristics (Y) – the null hypotheses of independence were verified. For that purpose the standard χ^2 (Pearson's) test was used. The empirical value of test statistics χ^2 was calculated according to the formula:

$$\chi^2 = \sum_{i=1}^k \sum_{j=1}^r \frac{(n_{ij} - \hat{n}_{ij})^2}{\hat{n}_{ij}},$$

where: k – number of answers variants for question X,
r – number of answers variants for respondents characteristics Y,
 n_{ij} – the quantity of respondents which while answering for question X have chosen answer variant X_i , and simultaneously characteristics Y had a variant Y_j ,

$$\hat{n}_{ij} = \frac{n_i \cdot n_j}{N} \text{ – expected frequency of simultaneous occurrence of } X_i \text{ and } Y_j,$$

$$n_i = \sum_{j=1}^r n_{ij} \text{ – empirical order distribution of X,}$$

$$n_j = \sum_{i=1}^k n_{ij} \text{ – empirical order distribution of Y,}$$

N – Sample size.

In which expertise area, in your opinion, you have acquired appropriate knowledge and skills?

Figure 6: The question *in which expertise area, in your opinion, you have acquired appropriate knowledge and skills?* correlated with respondents’ characteristics
 Source: own findings.

Sex		Age		Address	
chi test	p 0.005	chi test	p 0.072	chi test	p 0.02
	chi 16.711		chi 17.102		chi 20.837
Place of employment. Firms size		Place of employment. Firms activity type			
chi test	p 0.002	chi test	p 1.08E-05		
	chi 42.572		chi 5.88E+01		

Figure 7: The question *what is your assessment of your attractiveness on the job market?* correlated with respondents’ characteristics
 Source: own findings.

Sex		Age		Address	
chi test	p 0.223	chi test	p 0.055	chi test	p 0.01
	chi 5.699		chi 15.223		chi 20.452
Place of employment. Firms size		Place of employment. Firms activity type			
chi test	p 0.005	chi test	p 0.479		
	chi 34.029		chi 15.631		

Figure 8: The question *does the study major coincide with your personal, professional interests?* correlated with respondents' characteristics

Source: own findings.

Sex		Age		Address	
chi test	p	0.223	chi test	p	0.055
	chi	5.699		chi	15.223
Place of employment. Firms size		Place of employment. Firms activity type			
chi test	p	0.005	chi test	p	0.479
	chi	34.029		chi	15.631

Figure 9: The question *How do you assess the study curricula at your university from the point of view of the usefulness for your job?* ? correlated with respondents' characteristic

Source: own findings.

Sex		Age		Address	
chi test	p	0.480	chi test	p	0.421
	chi	1.466		chi	3.889
Place of employment. Firms size		Place of employment. Firms activity type			
chi test	p	0.653	chi test	p	0.674
	chi	5.945		chi	5.765

Conclusions

To guarantee the firm's excellent functioning, growth and the market competitiveness – the future staffs coming out from the educational system has to be prepared according to the needs observed in the enterprises – especially in SME sector. To predict whether the Polish education system is producing such a specialists with appropriate management skills several surveys and analyses were conducted. The results allow the formulation of recommendations for the curricula development and the teaching methods improvement. It is assumed that there are universal development patterns – so the

developing economies can learn from the experience of more advanced countries. This in turn implies the base for key growth factors identification may be the cross-national comparison of the development patterns in EU countries as well as in transition countries. It formulates the future direction of the research.

Additionally the in-depth analysis covering number of issues influencing students' performance including with the gender dimension, family background (parents' education level, professional activity type); sources of entrepreneurial patterns; territorial diversity (rural, small towns and urban) is planned for the future. The goal is to indicate where is the most intensive need and most promising area of curricula development for practical managerial training, re-training and in-depth training with emphasis on specific skills (IT, E-Business, E-Commerce, E-Marketing, Business Communication, etc.) and specific social groups – women, in particular those coming back from motherhood leave, rural area youth, unemployed, etc.

**Some Reflections about Structure Variations of the Number of
Students in Terms of Study System,
Kind of School for Higher Education and Sex in Poland in the Years 1995 – 2000**

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1. Introduction

The paper begins with some information about the number of students in Europe in the years 1995 – 2000 and also pays attention to students at state and non-state universities in Central and Eastern Europe in the 2000/2001 academic year.

The paper also presents considerations concerning the structure of the number of students in Poland in the years 1995 – 2000 with regard to the study system, type of higher education institution and sex. The basis for the research was statistical information included in *Statistical Yearbooks CSO* (Central Statistical Office) for years 1996 – 2001. This statistical information was used to estimate the linear function of the trend of overall number of students and the number of female students.

The paper also presents an examination of changes in the structure of students with regard to the study system, type of higher education institutions and sex.

The final part of the article puts forward a simple analysis of changes in the structure of persons with regard to sex, who were conferred a degree or an academic title of a professor. In order to achieve this aim it is suggested to use values of the average rate of change, where the average rate of change in time was calculated as the arithmetical average of absolute chain growth.

2. Analysis of changes in the number of students in Europe in the years 1995 – 2000

At the beginning we would like to write a few words about the number of students in Europe in the years 1995 – 2000 and pay attention as well to students of state and non-state universities in Central and Eastern Europe in the 2000/2001 academic year.

Table 1: Number of students in Europe in the years 1995 – 2000

Country	Number of students			
	1995	1998	1999	2000
Albania	29,048	35,902	38,502	40,125
Austria *	238,981	247,000	253,000	-
Belarus	313,800	224,500	243,500	277,000
Belgium *	352,630	357,000	352,000	-
Bulgaria	250,336	267,302	258,230	243,595
Croatia	86,357	91,874	96,798	118,851
Czech Republic	191,604	177,723	187,000	215,207
Denmark	166,545	183,000	190,000	202,821
Estonia	39,726	40,621	49,574	51,474
Finland	213,995	250,000	263,000	270,000
France	2,091,688	2,126,801	2,136,570	2,161,064
Germany	2,144,169	2,089,000	2,087,000	2,055,000
Greece *	329,185	374,000	388,000	-
Hungary	179,563	258,000	278,997	298,504
Iceland *	7,483	8,000	8,000	-
Ireland	128,284	143,000	151,000	161,000
Israel	198,766	150,000	180,000	198,985
Italy *	1,775,186	1,869,000	1,792,000	-
Latvia	44,064	76,653	89,509	89,509
Lithuania	75,559	107,419	94,792	99,140
Republic of Moldova	87,700	102,400	100,827	102,923
Netherlands	491,748	461,000	470,000	471,300
Norway	180,383	183,000	187,000	191,000
Poland	789,440	1,268,414	1,421,277	1,578,241
Portugal *	300,573	352,000	357,000	-
Romania	336,141	360,590	440,339	452,621
Russian Federation	4,458,363	3,597,200	4,073,000	4,741,400
Slovakia	91,553	110,707	118,848	125,896
Slovenia	47,908	74,642	80,615	67,889
Spain	1,591,863	1,746,000	1,787,000	1,540,596
Sweden	261,209	281,000	335,000	347,000
Macedonia	29,583	-	27,000	40,901
Ukraine	1,541,000	-	1,495,936	1,930,900
United Kingdom	1,820,843	1,938,000	2,081,000	2,024,000
USA	14,261,778	13,284,000	13,769,000	~14,500,000
Canada *	846,409	1,179,000	1,193,000	-

* - data not available or too uncertain to be used

Source: Data UNESCO-CEPES.

Table 1 shows that in the European Union Countries we observe on one hand, stagnation or marked decline of the number of students over the past period in the following countries: Austria, France, Germany, Italy, Belgium, the Netherlands, Spain. While on the other hand an increase in the number of students in the following countries: Denmark, Finland, Greece, Portugal and Sweden.

If we now take into consideration the countries that are planning to join the European Union we can observe considerable increases in the number of students in recent years. In this regard the leading role here play the following countries: Poland, Romania and Estonia. This tendency is positive.

Table 2: Students of state and non-state university in Central and Eastern Europe in the 2000/2001 academic year

Country	Number of students				
	state	in %	non- state	in %	total
Albania *	-	-	-	-	40,125
Belarus	241,100	87.0	35,900	13.0	277,000
Bulgaria	215,676	88.5	27,916	11.5	243,595
Croatia	117,205	98.6	1,646	1.4	118,851
Czech Republic	213,207	99.0	2,000	1.0	215,207
Estonia	38,511	74.8	12,963	25.2	51,474
Hungary	255,943	85.7	42,561	14.3	298,504
Latvia	78,156	87.3	11,353	12.7	89,509
Lithuania *	-	-	-	-	99,140
Macedonia *	36,000	-	-	-	36,000
Republic of Moldova	79,713	77.4	23,210	22.6	102,923
Poland	1,106,798	70.1	471,443	29.9	1,578,241
Romania	322,129	71.1	130,492	28.9	452,621
Russian Federation	4,270,800	90.0	470,600	10.0	4,741,400
Slovakia	125,054	99.3	842	0.7	125,896
Slovenia	64,989	95.7	2,900	4.3	67,889
Ukraine	1,770,900	91.7	160,000	8.3	1,930,900

* - data not available or too uncertain to be used

Source: Data UNESCO-CEPES

Figure1: Students of state and none-state university in Central and Eastern Europe in the 2000/2001 academic year

*- data not available or too uncertain to be used

Source: Table2, own research

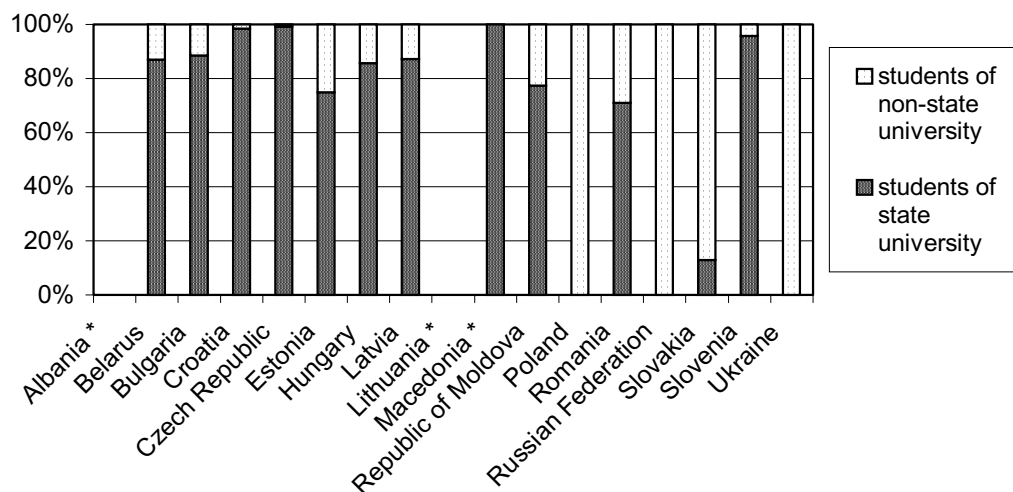


Table 2 and Fig. 1 show the data set concerning the number of students of state and non-state universities in Central and Eastern Europe in the 2000/2001 academic year.

These data inform as well that non-state higher education institutions in those countries have played a considerable role in the recent years.

3. Analysis of changes in the number of students in Poland in the years 1995 – 2000

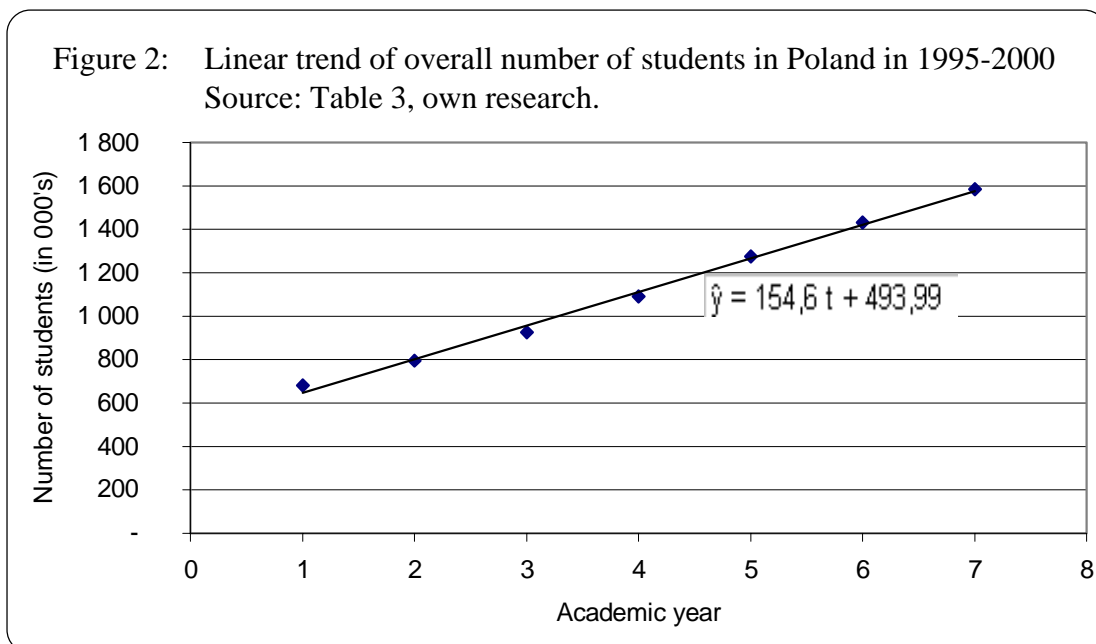
Whilst analysing the development of higher education in Poland¹ in 1995 – 2000, one will notice that young people have come to take a more serious interest in university education², as demonstrated by the increase in the number of students (see Table 3, column 2).

To compute the average increase in student numbers (in 1000's) in Poland during the period in question the authors have used the following estimation in the least-squares sense trend function:

$$\hat{y}_t = 493.99 + 154.60 \cdot t \quad (t = 1, \dots, 2) \quad (1)$$

(19.9084) (4.4517)

where n denotes the number of observations (in this instance $n = 6$). Considering that the least squares of these parameters are statistically significant³, at the 5 per cent level one may conclude that the number of students in Poland grew by an annual average of about 155 000 in 1995 – 2000. We note that the calculated positive slope of the trend function (1) is quite significant. The number of students and the estimated trend function are presented in Fig. 2.



¹ From academic year 1994/1995 to academic year 2000/2001.

² Poland has witnessed a dynamic development of non-state tertiary education since the 1990's.

³ The critical value of the t -statistic for significance level $\alpha = 0.05$ and 5 degrees of freedom stands at 2.571.

Table 3:

Table 3: Number of students in Poland (in 000's) in 1995-2000												
Description	Overall	Universities	Technical Universities	Agricultural Academies	Academies of Economics	Teacher Education Schools	Medical Academies	Merchant Marine Academies	Physical Academies	Fine Arts Academies	Theological Academies	Other
1	2	3	4	5	6	7	8	9	10	11	12	13
1994/1995	682.20	252.40	153.30	52.80	70.00	74.60	28.50	5.30	16.70	9.30	11.50	7.80
of which females	374.70	167.80	38.50	26.10	40.20	60.70	17.90	1.00	7.30	5.30	6.50	3.40
% of females	54.93	66.48	25.11	49.43	57.43	81.37	62.81	18.87	43.71	56.99	56.52	43.59
1995/1996	794.60	280.50	180.70	60.30	97.30	92.90	26.20	5.50	17.80	9.40	12.60	11.40
of which females	445.10	186.70	48.30	30.40	57.70	75.30	16.90	1.30	7.90	5.60	7.20	7.80
% of females	56.02	66.56	26.73	50.41	59.30	81.05	64.50	23.64	44.38	59.57	57.14	68.42
1996/1997	927.50	308.60	207.50	68.50	137.70	107.90	26.00	6.10	19.00	10.10	14.40	21.70
of which females	524.60	204.70	58.30	35.20	83.70	85.80	17.30	1.60	8.80	6.10	8.70	14.40
% of females	56.56	66.33	28.10	51.39	60.78	79.52	66.54	26.23	46.32	60.40	60.42	66.36
1997/1998	1 091.80	334.00	241.00	77.30	201.50	121.20	26.30	7.00	19.90	10.70	14.90	38.00
of which females	617.60	220.30	70.00	40.20	123.40	93.00	17.90	2.00	9.30	6.60	8.90	26.00
% of females	56.57	65.96	29.05	52.01	61.24	76.73	68.06	28.57	46.73	61.68	59.73	68.42
1998/1999	1 274.00	357.30	270.50	85.50	273.30	136.10	27.30	7.70	20.40	11.50	17.20	67.20 a
of which females	721.80	233.10	80.70	45.40	167.60	101.00	18.80	2.40	9.50	7.10	10.60	45.60 a
% of females	56.66	65.24	29.83	53.10	61.32	74.21	68.86	31.17	46.57	61.74	61.63	67.86
1999/2000	1 431.90	410.80	289.30	78.00	332.10	137.60	28.10	8.60	20.90	12.00	9.10	105.40 b
of which females	814.30	267.90	90.10	42.30	204.00	99.90	19.60	3.00	9.80	7.30	5.30	65.10 b
% of females	56.87	65.21	31.14	54.23	61.43	72.60	69.75	34.88	46.89	60.83	58.24	61.76
2000/2001	1 584.80	443.30	318.40	85.60	369.50	148.30	29.50	10.10	22.20	12.80	9.30	135.80 b
of which females	900.50	289.30	102.40	46.80	224.90	106.30	20.80	3.60	10.40	7.90	5.70	82.40 b
% of females	56.82	65.26	32.16	54.67	60.87	71.68	70.51	35.64	46.85	61.72	61.29	60.68

a - aggregated higher vocation schools and others

b - aggregated technical universities, academies of the Ministry of Nation Defence, Academies of the Ministry of the Interior and Administration and others

Source: Statistical Yearbook of Central Statistical Office for years 1995-2001, part I. Education, GUS, Warszawa.

The variance about the fitted trend function (see Equation (1) above) denoted by R^2 is estimated by the residuals e_t that are presented in Table 4, column 3. In this case, the R^2 is found to be 0.996. We note that this estimated multiple correlation coefficient in our study is very large (close to unity).

Table 4: Absolute and standardized residuals of a linear trend function of overall number of students in 1995-2000

Absolute and standardised residuals			
1	2	3	4
y_{1t}	\hat{y}_{1t}	e_{1t}	\tilde{e}_{1t}
682.20	648.59	33.61	1.56
794.60	803.19	-8.59	-0.40
927.50	957.80	-30.30	-1.41
1 091.80	1 112.40	-20.60	-0.96
1 274.00	1 267.00	7.00	0.33
1 431.90	1 421.61	10.29	0.48

Source: own research.

Using the data in Table 4, we can further calculate the standardized residuals (\tilde{e}_t) that we shall in the form

$$\tilde{e}_t = e_t / S_e \quad (2)$$

where S_e denotes the standard deviation of the residuals $e_t = y_t - \hat{y}_t$ ($t = 1, \dots, n$). The standard deviation of the residuals e_t is given by

$$S_e = \left[\frac{1}{n-2} \sum_{t=1}^n e_t^2 \right]^{0.5} \quad (3)$$

where $S_e \geq 0$ for every e_t .

The standardized residuals \tilde{e}_t are presented in Table 4, column 4.

The standard deviation of the standardized residuals \tilde{e}_t is calculated as

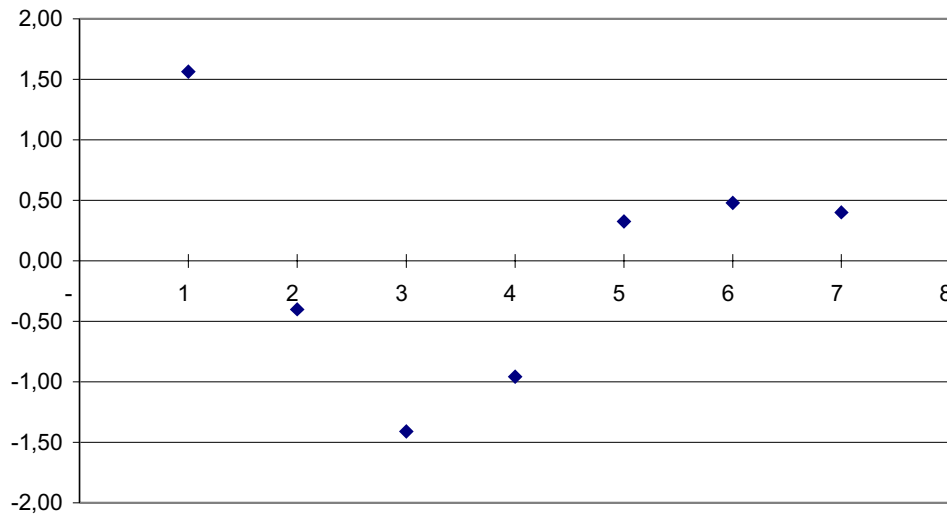
$$S_{\tilde{e}} = \left[\frac{1}{n-2} \sum_{t=1}^n \tilde{e}_t^2 \right]^{0.5} = 1. \quad (4)$$

It is obvious that the standardized residuals \tilde{e}_t must lie between $\langle \bar{\tilde{e}}_t - 3S_{\tilde{e}}, \bar{\tilde{e}}_t + 3S_{\tilde{e}} \rangle$, where $\bar{\tilde{e}}$ denotes the mean of the standardized residuals \tilde{e}_t . This mean is in fact zero. Using the fact that $S_{\tilde{e}} = 1$, this interval can be expressed in the form $\langle -3, +3 \rangle$.

The distribution of standardized residuals has been presented in Fig. 3.

³ The critical value of the t -statistic for significance level $\alpha = 0.05$ and 5 degrees of freedom stands at 2.571.

Figure 3: Distribution of standardized residuals of overall linear trend function of number of students in 1995 - 2000
Source: Table 4, own research



The points in Fig. 3 may be considered as random. They lie within the abovementioned interval. So we suggest that the standardized residuals in two-dimensional case are not outliers (they lie within a certain distance from one another).

The obtained results confirm that the short term forecasts⁴ can be calculated on the grounds of an estimated trend function.

Using Equation (1) with $t = 7$, $t = 8$ and $t = 9$, we obtain extrapolation forecasts concerning the number of polish students (in 000's.) for three years ahead. Thus we have:

2001	–	1,576.19
2002	–	1,730.79
2003	–	1,885.39

During the period under analysis, a growth in the overall number of students was accompanied by a parallel increase in the number of female students in institutions of higher education (see Table 3, column 2). The linear trend function estimated for female students (in 000's) yielded the following result:

$$\hat{y}_t^F = 269.37 + 89.75 \cdot t, \quad R^2 = 0.997 \quad (5)$$

(9.5070) (2.1258)

where \hat{y}_t^F stands for the fitted values of female students in Poland during the past period t .

⁴ In forecasting the number of students in Poland on the basis of an estimated linear trend function, one must bear in mind that the variable under analysis is subject to certain limitations, e.g. size of population, intellectual potential of student hopefuls, potential students' desire to continue schooling, their financial potential etc.

Unfortunately, the assessment of these parameters is not statistically significant⁵ at the 9 per cent level. Hence the average growth in the number of female students in Poland during the period in question was computed based on the following average rate of change⁶:

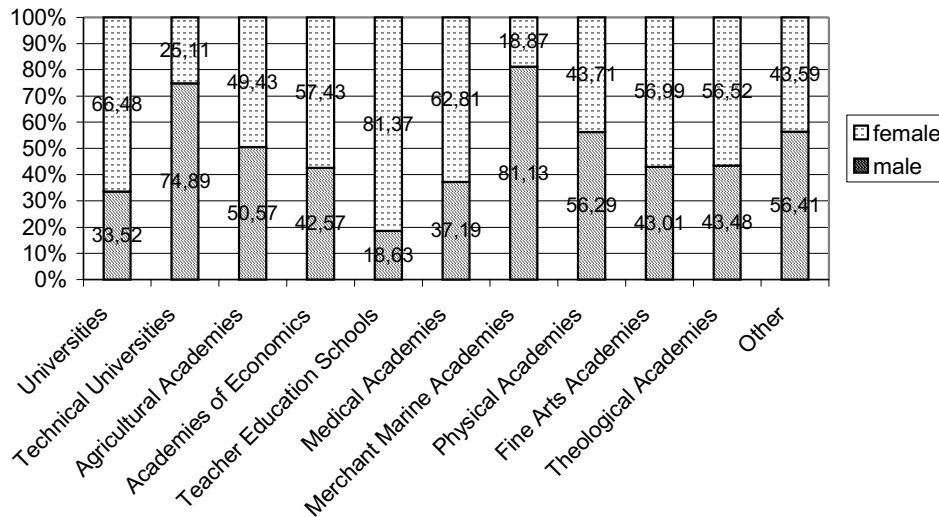
$$G_a^F = \frac{900.5 - 374.7}{6} \approx 87.633 \text{ in } 000\text{'s.}$$

which yielded an average annual growth of approximately 87 633 female students.

4. Research into changes in structure of students, by type of school for higher education and by sex

To research the structure of students by type of school for higher education and sex (see Table 3, columns 3 - 13) use was made of data relating to the beginning and end of the period, i.e. academic years 1994/1995 and 2000/2001, respectively. Figures 4 and 5 present the ratio of females and males in different types of schools of higher education.

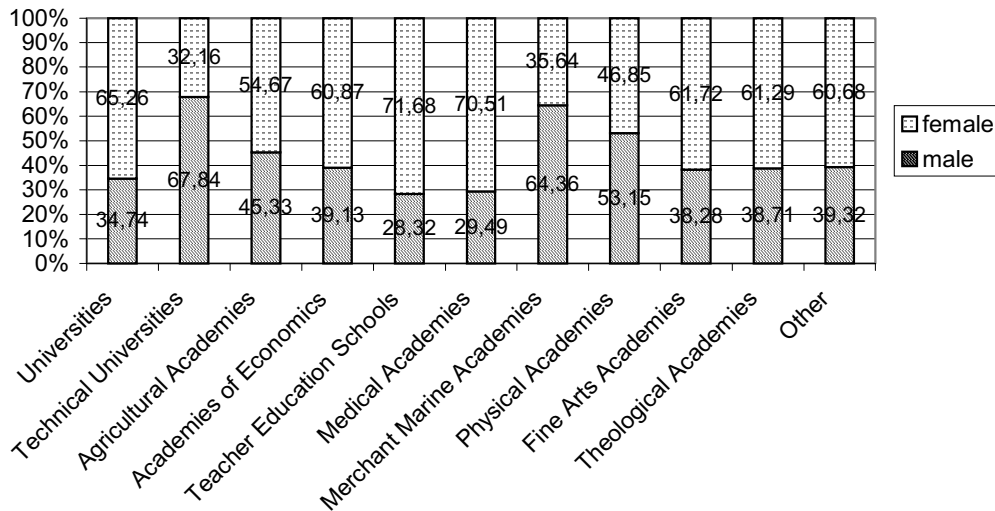
Figure 4: Females and males as a percentage of students, by type of higher education institution in Poland during academic year 1994/1995
Source: Table 3, own research.



⁵ The critical value of the t - statistic for significance level $\alpha = 0.09$ and 5 degrees of freedom stands at 2.098.

⁶ The annual increase in the number of female students (in 1000's of persons) in Poland was rather stable during the period in question. Thus the average rate of change over time was calculated as the arithmetic mean of absolute chain changes.

Figure 5: Females and males as a percentage of students, by type of higher education institution in Poland during academic year 2000/2001
Source: Table 3, own research



A comparative analysis of these years reveals that in 1995 females were in the minority in five types of higher institutions, namely in technical universities (25.11 %), agricultural academies (49.43%), merchant marine academies (18.87%), physical education academies (43.71%) and schools collectively called as „other”⁷ (43.59%). By contrast, in 2000 the ratio of females in the number of students overall was smaller than the ratio of males in merely three school types, namely in technical universities (32.16%), merchant marine academies (35.64%) and physical education academies (46.85%). But even in these, their share in 2000 was higher than in 1995. It can be assumed that if the trend in the period of observation holds, the number of female students in the above mentioned schools may eventually exceed the number of their male counterparts. In most other schools where female students enjoyed numerical superiority in 1995, the disproportion was further strengthened in 2000. Universities were something of an exception, as their ratio of female students in 2000 declined from 1995 (from 65.26% in 1995 to 66.48% in 2000). The same holds true for teacher training schools, where the ratio of female students fell from 81.37% (in 1995) to 71.68% (in 2000). Females and males as a percentage of students in Poland during academic year 1994-1995 and 2000/2001 are presented in Figures 4 and 5.

⁷ The „other” group includes, amongst others, non-state universities.

Figure 6: Higher Education institution preferences amongst females in the 1994/1995 academic year
Source: Table 3, own research

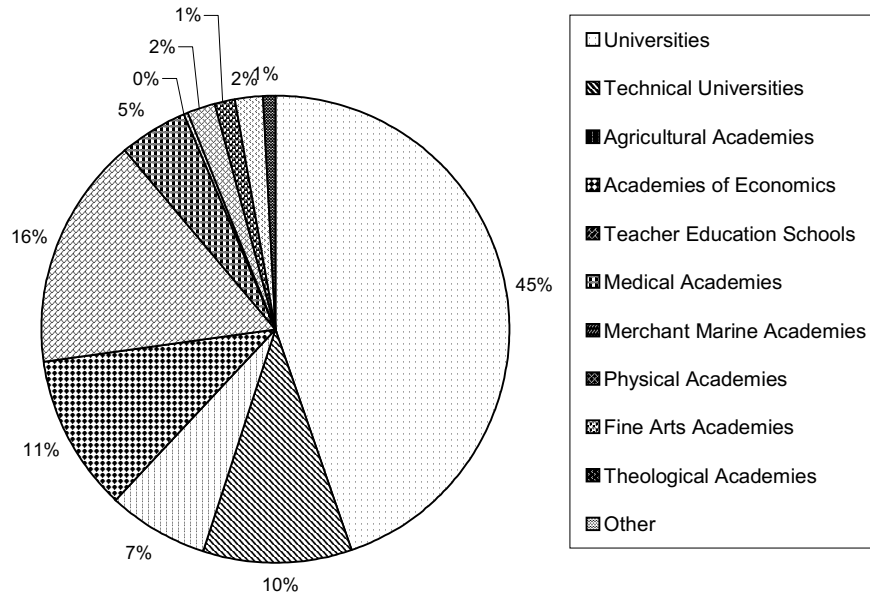
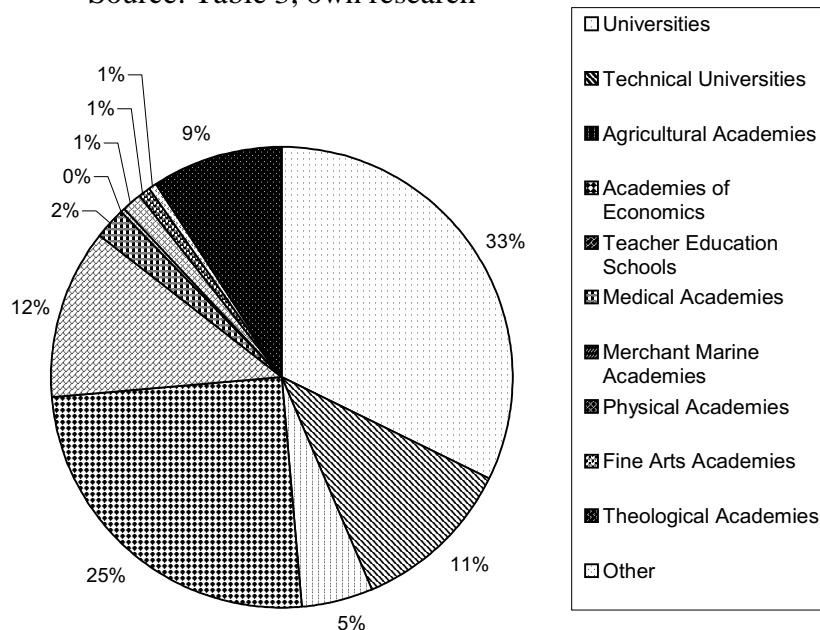


Figure 7: Higher education institution preferences amongst females in the 2000/2001 academic year
Source: Table 3, own research



The results of analyses of years 1995 and 2000 point also that males and females experienced a shift in their preference of type of school for higher education of their choice. Whilst females were primarily attracted to university studies (Figures 6 and 7), their superiority in percentage terms in these schools decreased from 45% of all female students in 1995 to 33% in 2000. Teacher training schools also tutored fewer female students in 2000 (12% of the number of female students overall) than in 1995 (16%). Compared to 1995, in 2000 the following schools were less appealing to females: agricultural academies (a fall from 7% to 5%), medical academies (from 5% to 2%), physical education academies (from 2% to 1%) and theological academies (from 2% to 1%). The change was occasioned chiefly by growing attractiveness, for female students, of academies of economics (a rise from 11% in 1995 to 25% in 2000). Also technical universities and “other” drew more female students in 2000 than in 1995 (a rise from 10% to 11% and from 1% to 9%, respectively)., In terms of the ratio of female students of these schools to the number of female students overall, A stable level of interest was achieved by merchant marine academies (under 1%) and fine arts academies (approximately 1%).

The direction of change in male student preferences (Figures 8 and 9) looked similar to that of female student preferences, however, qualitatively the change was dissimilar.

Figure 8: Higher education institution preferences amongst males in the 1994/1995 academic year
Source: Table 3, own research

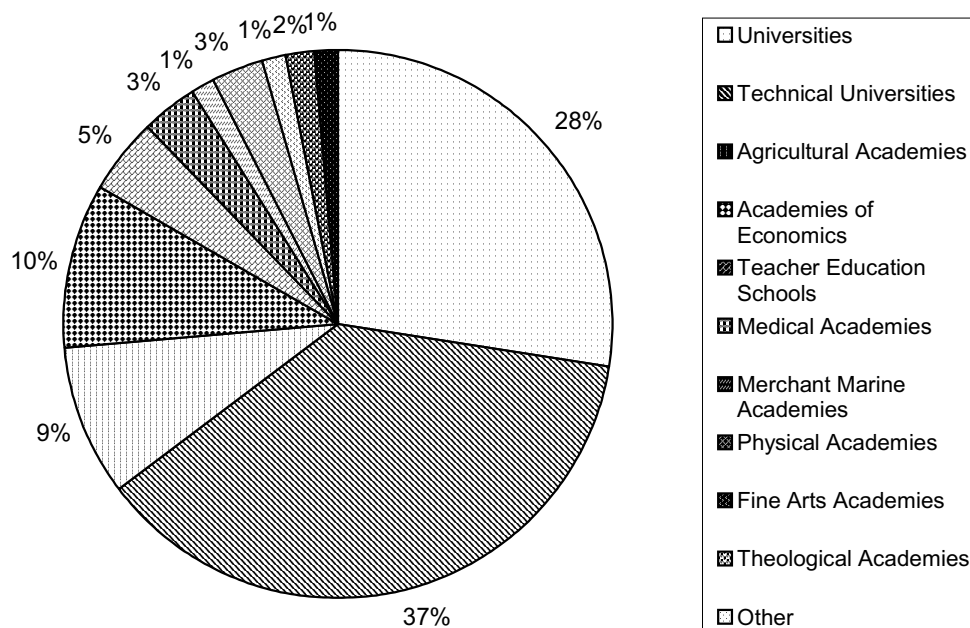
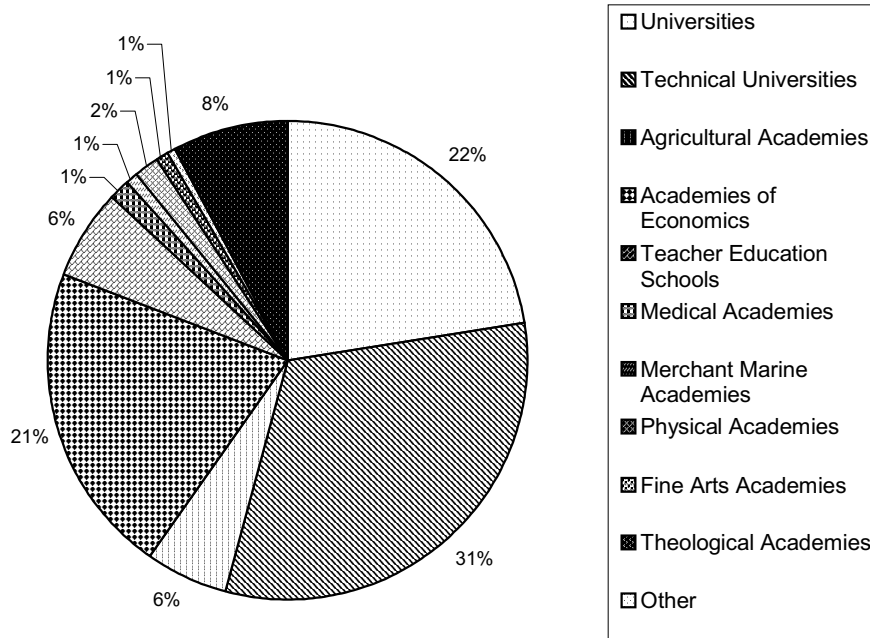


Figure 9: Higher education institution preferences amongst males in the 2000/2001 academic year

Source: Table 3, own research



Thus, in 2000 male students preferred higher schools of economics (rise from 10% to 21%), teacher education schools (from 5% to 6%) and „other” (rise from 1% to 8%). They showed lesser interest in universities (decline from 28% to 22%), technical universities (from 37% to 31%), agricultural academies (from 9% to 6%), medical academies (from 3% to 1%), physical academies (from 3% to 2%) and theological academies (from 2% to 1%). Marine academies (approximately 1%) and fine arts academies (approximately 1%) enjoyed stable interest amongst male students in the sense of the ratio of male students of a particular type of school to the number of male students overall.

5. Research into changes in the structure of students, by system of studies and sex

1995 – 2000 also witnessed changes in the structure of students in Poland by system of studies and sex (Table 5).

Table 5: Ratio of female in the overall number of Poland's student (in %) between 1995-2000

Academic year	Overall	Study system			
		Full-time	Evening	Weekend	Extramural
1	2	3	4	5	6
1994/1995	54.93	50.92	51.61	62.2	69.8
1995/1996	56.01	51.61	53.22	62.48	73.37
1996/1997	56.56	52.09	54.14	62.17	71.9
1997/1998	56.56	52.34	54.85	61.06	72.65
1998/1999	56.65	52.69	56.11	60.39	70.15
1999/2000	56.87	53.45	56.86	59.78	67.86
2000/2001	56.82	53.81	56.89	59.27	68.58

Source: Statistical Yearbook of Central Statistical Office for years 1995-2001, part I. Education, GUS, Warszawa.

The average rate of change over time⁸ has been computed on the basis of the following formulas:

$$G_t^F = \frac{56.82 - 54.93}{6} \approx 0.32, \quad G_d^F = \frac{53.81 - 50.92}{6} \approx 0.48, \quad G_e^F = \frac{56.89 - 51.61}{6} \approx 0.88,$$

$$G_w^F = \frac{59.27 - 62.20}{6} \approx -0.49, \quad G_{ex}^F = \frac{68.58 - 69.80}{6} \approx -0.20$$

where G_t^F , G_d^F , G_e^F , G_w^F and G_{ex}^F relate to the share of female students, respectively, to the overall number of students, to the number of students undergoing full-time, evening, weekend and extramural studies. The results indicate, amongst others, a rise (by an annual average of 0.32 per cent) in the number of female students in the overall number of students in Poland in 1995 – 2000. The ratio of female students in the overall number of students undergoing full-time and evening studies also rose year after year by an average of, respectively, 0.48% and 0.88%. By contrast, the ratio of female students in the overall number of students of weekend and extramural studies fell by an annual average of, respectively, 0.49% and 0.20%. Thus, the most significant change, in terms of sex, in the structure of students was reported in the evening studies group. The changes, in terms of sex, in the structure of students undergoing their studies within the existing systems of studies are shown in Figures 10 – 13.

⁸ Since the annual increase in the ratio of females (in %), respectively, in the number of students overall, in the overall number of students of day, evening, weekend and extramural studies during the period in question remained in Poland more or less stable, the average rate of change over time was computed as the average arithmetic mean of absolute chain change.

Figure 10: Ratio of female in full-time studies (in %) in Poland between 1995 - 2000
Source: Table 5, own research

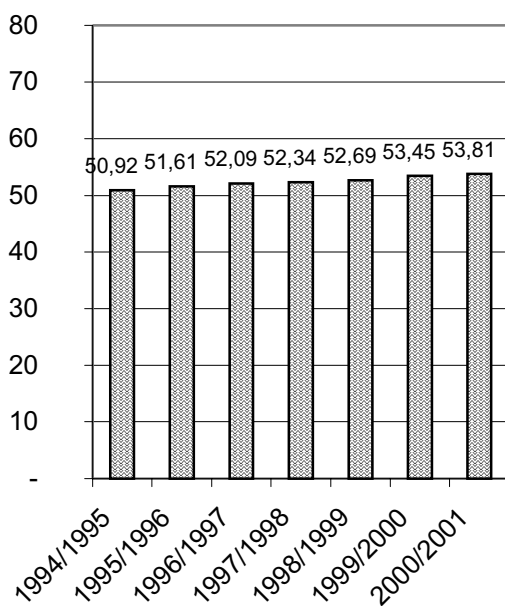


Figure 11: Ratio of female in evening studies (in %) in Poland between 1995 - 2000
Source: Table 5, own research

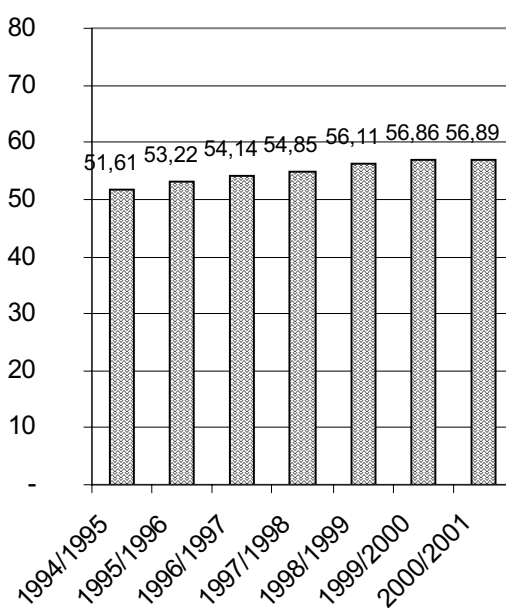


Figure 12: Ratio of female in weekend studies (in %) in Poland between 1995 - 2000
Source: Table 5, own research

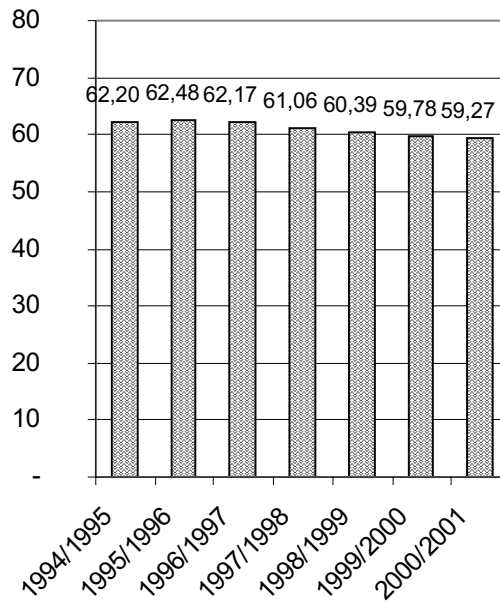
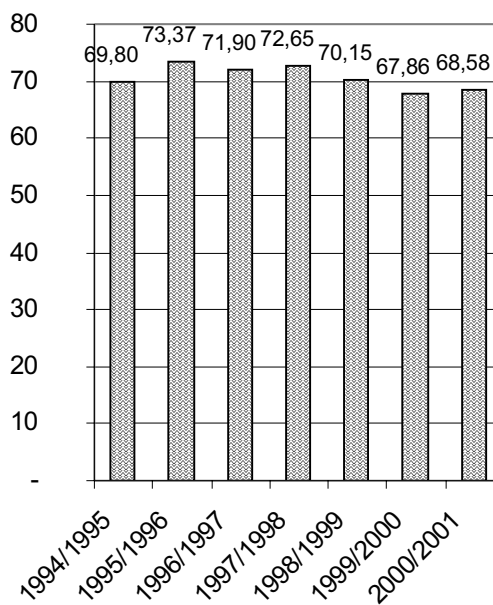


Figure 13: Ratio of female in extramural studies (in %) in Poland between 1995 - 2000
Source: Table 15, own research



6. Analysis of changes in the proportion of students in the 18-24 age group

Analysing an approximation of the structure of Poland's total and male/female population in the 18 – 24 age group⁹ during the 1995 – 2000 period in terms of higher education (Table 6) one may observe a positive tendency indicating a rise in the number of students as a ratio of the population in the 18 – 24 age group.

Table 6: Ratio of students in Poland (in %) in the overall population aged 18-24 in 1995-2000

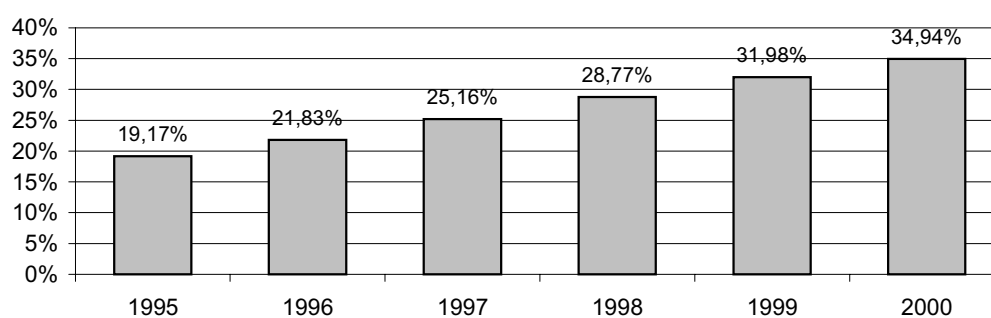
Academic year	Ratio (%)		
	Overall	Female	Male
1	2	3	4
1995	19.17	21.91	16.54
1996	21.83	25.18	18.61
1997	25.16	29.02	21.45
1998	28.77	33.21	24.49
1999	31.98	37.02	27.11
2000	34.94	40.43	29.65

Source: Statistical Yearbook of Central Statistical Office for years 1995-2001, GUS, Warszawa.

During the period in question, growth was also reported in the ratio of female students in the overall number of females in the 18 – 24 age group and in the ratio of male students in the overall number of males in the same age group (cf. Figures 14, 15 and 16).

Figure 14: Ratio of Polish students in (in %) in overall population ages 18 - 24 in 1995 - 2000

Source: Table 6, own research



⁹The Authors measure only approximate structures of persons in the 18 – 24 age group in Poland between 1995 – 2000 and focuses solely on those who continue education in schools of higher learning, but it must be borne in mind that students belong not only to the 18 – 24 age group because older people also supplement their education.

Figure 15: Ratio of Polish female students (in %) in the overall population ages 18 - 24 in 1995 - 2000

Source: Table 6, own research

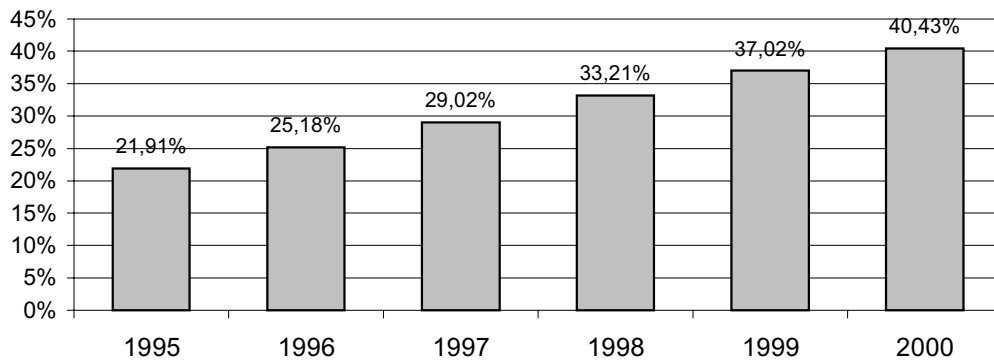
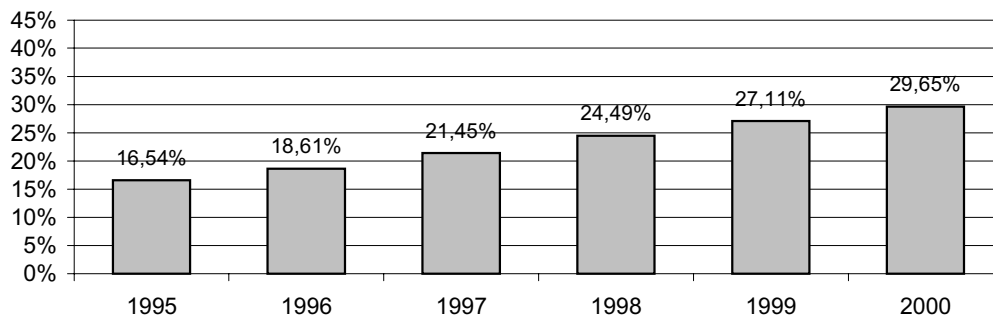


Figure 16: Ratio of Polish male students (in %) in the overall population ages 18 - 24 in 1995 - 2000

source: Table 6, own research



Calculating the average rate of change over time¹⁰, one obtains:

$$G_a = \frac{34.94 - 19.17}{5} = 3.154, \quad G_a^F = \frac{40.43 - 21.91}{5} = 3.704, \quad G_a^M = \frac{29.65 - 16.54}{5} = 2.622$$

where G_a , G_a^F , G_a^M relate to the ratio, respectively, of students, female students and male students in the overall population, females or males aged 18 - 24.

On the basis of these results, one can infer that in Poland during the period in question, the overall ratio of students and their ratio (by sex) in the population overall, females and males aged 18-24 grew by an annual average of, respectively, 3.15%, 3.70% and

¹⁰ As the annual increase in the ratio (in %), of, students, female students and male students, respectively, in the number of people overall, females and males aged 18 - 24 during the period in question remained more or less stable in Poland, the average rate of change over time was computed as the average arithmetic mean of absolute chain changes.

2.62%. Thus female students' share of the selected age group showed a higher growth annual rate.

7. Research into changes in the structure of people conferred an academic degree or academic title, by sex

Finally, let us take a look at the status quo in respect to academic degrees and academic titles awarded to females in Poland during the 1995 – 2000 period (Table 7).

Table 7: Number of academic degrees and titles conferred in Poland in 1995-2000

Year	Doctoral degree			Habilitated doctor degree			Professor title		
	Overall	Females	% of females	Overall	Females	% of females	Overall	Females	% of females
1	2	3	4	5	6	7	8	9	10
1995	2300	763	33.17	628	171	27.23	367	61	16.62
1996	2218	802	36.16	676	181	26.78	543	119	21.92
1997	2356	880	37.35	577	174	30.16	479	110	22.96
1998	3724	1521	40.84	787	228	28.97	524	126	24.05
1999	3172	1168	36.82	669	197	29.45	630	148	23.49
2000	4138	1723	41.64	700	202	28.86	470	111	23.62

Sources: Higher Education Institutions and their Finances for years 1995-2001, GUS, Warszawa.

The ratio of females in the overall number of people awarded the doctoral degree, the habilitated doctor's degree or the title of professor rose steadily over the years (Figures 17, 18 and 19).

Figure 17: Ratio of females in the overall number of person awarded the doctoral degree in Poland in 1995 - 2000

Source: Table 7, own research

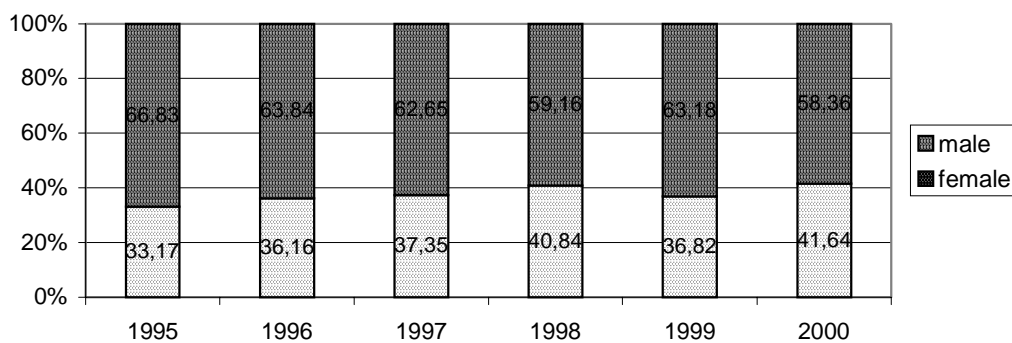


Figure 18: Ratio of females in the overall number of person awarded the habilitated doctor's degree in Poland in 1995 - 2000

Source: Table 7, own research

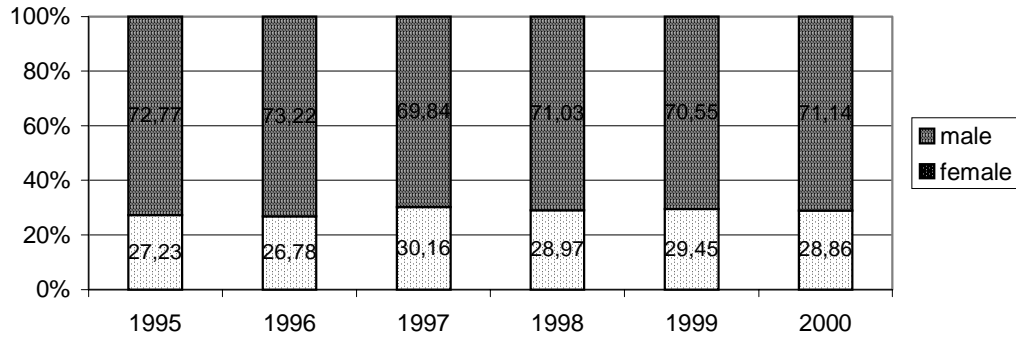
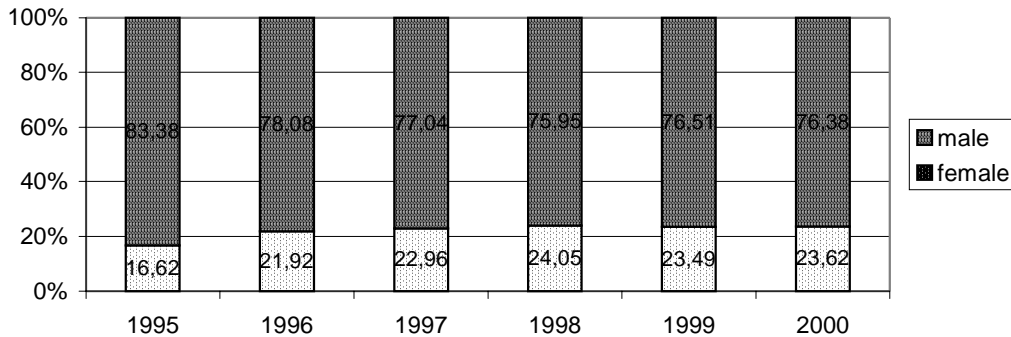


Figure 19: Ratio of females in the overall number of person awarded the academic title of professor in Poland in 1995 - 2000

Source: Table 7, own research



Despite that, even in 2000 it did not exceed the 50% mark in any of the above categories. The average rate of change¹¹ was respectively:

$$G_d^F = \frac{41.64 - 33.17}{5} = 1.694, \quad G_h^F = \frac{28.86 - 27.23}{5} = 0.326, \quad G_p^F = \frac{23.62 - 16.62}{5} = 1.400$$

where G_d^F , G_h^F , G_p^F relates to the ratio of females who were conferred, respectively, the degree of doctor or habilitated doctor or the academic title of professor in the overall

¹¹ The annual increase in the ratio of females (in %) conferred, respectively, the title of doctor, doctor habilitated and the title of professor in the number of persons overall who were conferred the degree or the title in Poland during the period in question remained more or less stable. Hence the average rate of change over time was computed as the average arithmetic mean of absolute chain changes.

number of persons who were awarded the title during a given year. The results lead to the conclusion that the structure of people who were awarded academic degrees or titles in Poland in 1995 – 2000 improved. What that means is that the ratio of females in the overall number of persons pursuing academic careers rose, year after year, by an average of approximately 1.69% in the case of doctors, 0.33% in the case of habilitated doctors and 1.40% in the case of professors. However, if the tendency continues, then to ensure approximately the same number of awards of higher academic degrees or titles to females and to males¹², the process would take approximately 5 years in the case of doctors, approximately 65 years in the case of habilitated doctors and some 19 years in the case of professors.

8. Concluding remarks

In this paper we have presented the results of a simple analysis of changes the structure of the number of students with regard to the study system, type of higher education institution and sex.

Our results lead us to conclude that in the European Union countries we observe in general stagnation or marked decline of the number of students in the years 1995-2000. On the other hand in the countries that are going to join the European Union we observe considerable increase in the number of students in the recent years. During the period of analysis, a growth in the overall number of students in Poland was accompanied by a parallel increase in the number of female students.

Additionally, we gave also an analysis of changes in the structure of person with regard to sex, who were conferred a degree or an academic title of a professor.

We hope to contribute to discussion and provide a stimulus for further study in this respect.

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Zelias, A., Pawelek, B., and Wanat, S. (2002) *Metody statystyczne. Zadania i sprawdziany (Statistical Methods. Problems and Test)*, PWE (PWE Polish Economics Publishing House), Warszawa.

¹² Obviously, in predicting the time needed for the number of females awarded academic degrees or titles to approximate the same for males, it is also necessary to take stock of the number of females holding specific academic degrees.

Characteristics of Women and Men in Hong Kong

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Introduction – About Hong Kong

Situated at the south-eastern tip of China, Hong Kong is a small but dynamic city which is famous for its energetic, cosmopolitan and fast-paced way of life. With a land area of only 1 098 square kilometers but a population of about 6.8 million, it is one of the world's most densely populated places.

Hong Kong has no natural resources, except a deep-water harbour and an industrious population. A hardworking, adaptable and well-educated workforce of some 3.5 million, coupled with entrepreneurial flair, is the bedrock of Hong Kong's productivity and creativity.

Hong Kong, with its strategic location at the heart of Asia and the entrance of the flourishing Pearl River Delta area in Southern China, has been the region's gateway port as well as the link between the East and West trading corridor. Described as a "barren rock" one and a half centuries ago, Hong Kong has since developed into an international centre for trade and commerce, finance, business, transport and tourism.

The Government of the People's Republic of China resumed its exercise of sovereignty over Hong Kong on 1 July 1997. On this date, the Hong Kong Special Administrative Region (HKSAR) was formed under the "One Country, Two Systems" principle. As stipulated in the Basic Law of the HKSAR, Hong Kong would exercise a high degree of autonomy. It would maintain its way of living after the Handover and would preserve a full range of elements underpinning Hong Kong's achievements in terms of prosperity and stability. In respect of statistical work, the HKSAR maintains its separate statistical systems and continues to compile and disseminate statistical data about the HKSAR.

As regards the Census and Statistics Department, it is responsible to the Government of the HKSAR only and there is no administrative relationship between it and the corresponding departments in the mainland of China. In manifestation of the provisions in the Basic Law, Hong Kong has its own, separate membership in international organizations and may use the name "Hong Kong, China" for participation in relevant

international organizations and conferences not limited to states. This model also applies to matters related to statistical work.

Characteristics of Women and Men in Hong Kong – An Overview

Background

Women and men have different life courses and experiences, roles, responsibilities and needs because of genetic and cultural factors. There is increasing awareness that because of the existence of such gender differences as socially constructed roles, behaviours and expectations, many policies may affect women and men differently. To ensure that women and men can have equitable access to, and benefit from, society's resources and opportunities, it is important for policy makers to factor in gender perspectives in the design, implementation, monitoring and evaluation of legislation, public policies and programmes. In this connection, gender-related statistics are considered very useful for illustrating the diversities of women and men in major economic and social spheres.

Statistics that are used to examine gender issues are collected in many different ways. Traditionally, one of the most useful sources of data is the population census which canvasses a wide range of topics such as age, sex, employment, education, etc.

In Hong Kong, the population census provides a wealth of data on the demographic and socio-economic characteristics of its population. It enables studies to be undertaken not only on various facets of the community but also on specific sub-groups of the population. Up-to-date population data are vital to government planning and policy formulation, particularly in a dynamic city like Hong Kong where the composition, distribution and other characteristics of the population are changing rapidly along with social and economic developments. The data are also widely used by the private sector for formulating business strategies and researchers for conducting social and economic studies. In line with international recommendations, it has been established practice in Hong Kong since 1961 to conduct a population census every ten years and a by-census in the middle of the intercensal period. The last round of the population census was conducted in mid-March 2001.

Given its sizable scale, the population census is able to provide statistics of very high precision, even for population sub-groups and small geographical areas. These benchmark data, taken together with statistical data obtained from administrative systems (such as birth, death and passenger movement records) and sample surveys, provide a population statistical database which serves a multitude of purposes.

The analyses presented below draw together sex disaggregated statistics/ indicators based on the results of the 2001 Population Census (*see Note*) and information on the components of population change obtained from various registration systems (including birth registration, death registration and marriage registration) with a view to depicting the position of women and men and gender equality in Hong Kong.

Demographic Characteristics

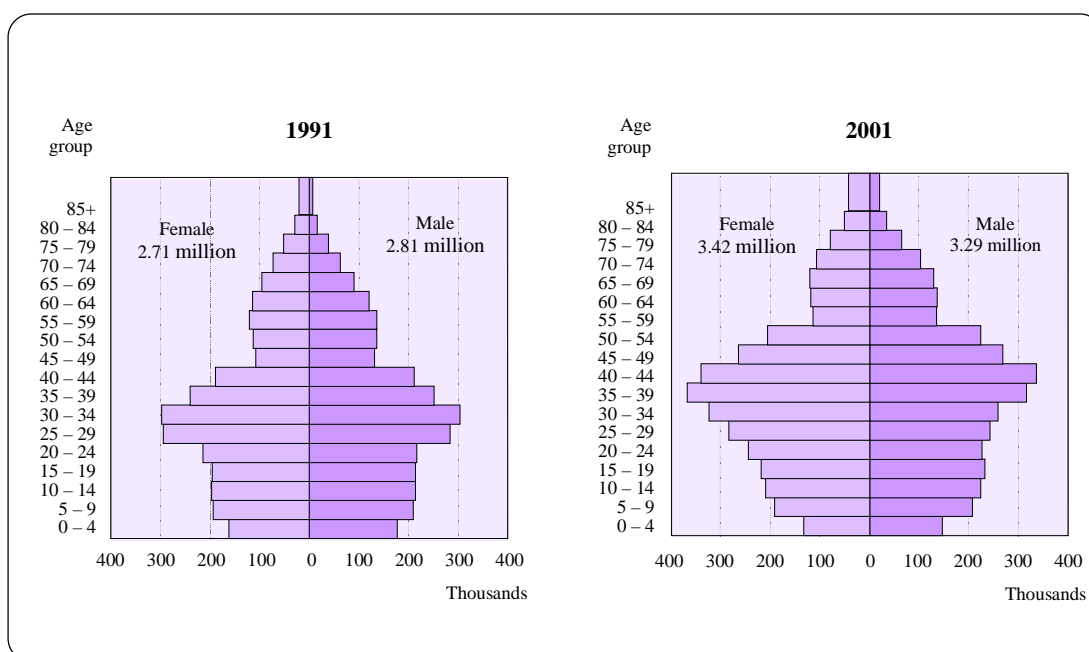
Population structure

The population of Hong Kong expanded in the past ten years, from 5.52 million in 1991 to 6.71 million in 2001. The population growth was accompanied by a continuing dejuvenation and aging trend. The median age rose from 31 in 1991 to 36 in 2001. Changes in the age structure for both males and females were more or less the same. [Table 1]

Table 1 Population by age group and sex

Age group	Number (Percentage ⁽¹⁾)			
	1991		2001	
	Female	Male	Female	Male
0 – 4	162 063 (6.0)	176 448 (6.3)	133 520 (3.9)	145 559 (4.4)
5 – 9	193 931 (7.2)	209 256 (7.4)	191 986 (5.6)	206 160 (6.3)
10 – 14	196 878 (7.3)	213 340 (7.6)	209 554 (6.1)	222 638 (6.8)
15 – 19	196 203 (7.2)	213 439 (7.6)	218 990 (6.4)	231 329 (7.0)
20 – 24	213 919 (7.9)	216 280 (7.7)	244 816 (7.2)	225 310 (6.9)
25 – 29	294 190 (10.9)	283 377 (10.1)	284 164 (8.3)	241 708 (7.4)
30 – 34	297 521 (11.0)	303 200 (10.8)	324 873 (9.5)	257 784 (7.8)
35 – 39	239 958 (8.9)	251 372 (8.9)	369 008 (10.8)	315 374 (9.6)
40 – 44	188 844 (7.0)	210 858 (7.5)	341 024 (10.0)	335 081 (10.2)
45 – 49	107 983 (4.0)	131 057 (4.7)	264 644 (7.7)	266 990 (8.1)
50 – 54	113 171 (4.2)	135 447 (4.8)	205 882 (6.0)	222 901 (6.8)
55 – 59	120 869 (4.5)	135 776 (4.8)	114 028 (3.3)	134 217 (4.1)
60 – 64	114 595 (4.2)	120 266 (4.3)	118 688 (3.5)	135 109 (4.1)
65+	270 165 (10.0)	211 875 (7.5)	401 868 (11.7)	345 184 (10.5)
Total	2 710 290 (100.0)	2 811 991 (100.0)	3 423 045 (100.0)	3 285 344 (100.0)
	31	31	36	36

Note : (1) Figures in brackets represent the percentages in respect of the corresponding sex groups.



The aging of the population was mainly attributable to mortality improvement and the persistent low level of fertility rate in Hong Kong, thus leading to a reduction in the proportion of children age under 15 and an increase in the population of older persons aged 65 and over. The total number of older persons increased continuously over the past ten years, from 0.48 million in 1991 to 0.75 million in 2001. The elderly dependency ratio, defined as the number of persons aged 65 and over per 1 000 persons aged between 15 and 64, increased from 124 in 1991 to 155 in 2001. As the baby-boomers born in the 1950's and 1960's will enter the older age group during the period 2010 to 2020, the proportion of older persons is expected to increase further in the coming two decades. [Table 1 and Table 2]

Table 2 Dependency ratio

	Year						
	1991	1996	1997	1998	1999	2000	2001
Child dependency ratio ⁽¹⁾	296	263	254	247	243	235	227
Elderly dependency ratio ⁽²⁾	124	143	145	147	150	152	155
Overall dependency ratio ⁽³⁾	420	406	399	394	393	386	382

Notes : (1) The number of persons aged under 15 per 1 000 persons aged between 15-64.
 (2) The number of persons aged 65 and over per 1 000 persons aged between 15-64.
 (3) The number of persons aged under 15 and 65 and over per 1 000 persons aged between 15-64.

Sex ratio

Sex ratio of the Hong Kong population decreased continuously over the past decade. The ratio dropped from 1 038 in 1991 to 960 in 2001. In particular, female population has outnumbered male population in the age group 20-39 since 1996. This was mainly due to the large inflow of female one-way permit holders from the mainland of China joining their husbands in Hong Kong and the admission of a large number of female foreign domestic helpers. After excluding the foreign domestic helpers, sex ratio of the population rose above parity to 1 012 in 2001, which was still lower than 1 058 in 1991. [Table 3]

Table 3 Sex ratios by age group

Age group	1991	1996	2001
0 – 4	1 089	1 091	1 090
5 – 9	1 079	1 072	1 074
10 – 14	1 084	1 065	1 062
15 – 19	1 088	1 069	1 056
20 – 24	1 011	991	920
25 – 29	963	864	851
30 – 34	1 019	899	793
35 – 39	1 048	993	855
40 – 44	1 117	1 026	983
45 – 49	1 214	1 114	1 009
50 – 54	1 197	1 225	1 083
55 – 59	1 123	1 163	1 177
60 – 64	1 049	1 085	1 138
65+	784	816	859
Overall	1 038	1 000	960
Population excluding foreign domestic helpers	1 058	1 037	1 012

Note : (1) Figures in brackets represent the percentages in respect of the corresponding sex groups.

Expectation of life at birth

With better provision of medical services for and greater health consciousness of the general public, people are now living longer than before. It is particularly noted that the annual numbers of female live births and deaths are consistently lower than their male counterparts. Also, females have a longer life expectancy at birth than males. In 1991, the life expectancy at birth for females and males were 80.7 years and 75.2 years respectively. By 2001, the corresponding figures increased to 84.6 years and 78.4 years, indicating a further improvement in mortality over the period. [Table 4]

Table 4 Expectation of life at birth by sex

Sex	Year						
	1991	1996	1997	1998	1999	2000	2001
Female	80.7	82.7	83.2	83.0	83.2	83.9	84.6
Male	75.2	76.7	77.2	77.4	77.7	78.0	78.4

Marriage and Family Conditions

Marriage

Fewer females aged 15 and over are now married when compared to their male counterparts. While the proportion of never married women rose slightly from 29% in 1991 to 30% in 2001, the proportion for men declined gradually from 37% to 34%. The largest increase in the proportion of never married was recorded for women aged 25-29 and men aged 30-34. [Table 5]

Table 5 Population aged 15 and over by marital status and sex

Marital status	Number (Percentage ⁽¹⁾)			
	1991		2001	
	Female	Male	Female	Male
Never married	626 554 (29.0)	807 443 (36.5)	868 797 (30.1)	918 722 (33.9)
Now married	1 290 860 (59.8)	1 333 049 (60.2)	1 651 696 (57.2)	1 673 786 (61.7)
Widowed	210 390 (9.8)	48 584 (2.2)	272 626 (9.4)	60 996 (2.2)
Divorced/Separated	29 614 (1.4)	23 871 (1.1)	94 866 (3.3)	57 483 (2.1)
Total	2 157 418 (100.0)	2 212 947 (100.0)	2 887 985 (100.0)	2 710 987 (100.0)

Note : (1) Figures in brackets represent the percentages in respect of the corresponding sex groups.

Generally speaking, the crude marriage rates for both females and males exhibited a continuous decline from 1991 to 2001. The crude marriage rates for females and males decreased from 14.1 and 13.6 per 1 000 population in 1991 to 9.5 and 9.9 in 2001. [Table 6]

Table 6 Crude marriage rate by sex

Sex	Number of marriages per 1 000 population						
	1991	1996	1997	1998	1999	2000	2001
Female	14.1	11.0	11.3	9.5	9.2	9.0	9.5
Male	13.6	11.0	11.4	9.6	9.4	9.3	9.9
Overall	6.9	5.5	5.7	4.8	4.7	4.6	4.8

As increasingly more women and men stay longer in education and start to work later, there is a tendency for both sexes to marry at a later age. The median age at first marriage for women was 26.2 in 1991 and 27.5 in 2001 while that for men was 29.1 in 1991 and 30.2 in 2001. Correspondingly, women were giving birth to their first child at an increasingly older age : 28.1 in 1991 and 29.4 in 2001. [Table 7 and Table 8]

Table 7 Median age at first marriage by sex

Sex	Age						
	1991	1996	1997	1998	1999	2000	2001
Female	26.2	26.9	26.8	26.9	27.0	27.3	27.5
Male	29.1	30.0	29.6	29.8	29.9	30.0	30.2

Table 8 Median age of women at first childbirth

	Age						
	1991	1996	1997	1998	1999	2000	2001
Median age of women at first childbirth	28.1	28.8	29.0	29.2	29.2	29.3	29.4

Divorce

The other major trend, and even more marked than delayed marriage phenomenon, was the significant increase in divorces in the past ten years. The number of divorces in 2001 was more than 13 400, which was more than double than that in 1991. [Table 9]

Table 9 Number of divorces

	Number						
	1991	1996	1997	1998	1999	2000	2001
Divorce decrees	6 295	9 473	10 492	13 129	13 408	13 247	13 425

Family conditions

The number of women living alone increased significantly to some 127 000 in 2001, a rise of 62% over 1991. Although the number of men living alone was higher than that of women, it only increased by 4% to just above 162 000 over the same period.

[Table 10]

Table 10 Persons living alone by sex

Sex	Number of persons	
	1991	2001
Female	78 581	127 001
Male	155 342	162 031
Total	233 923	289 032

The number of households with female single parents (i.e. persons who were widowed, divorced or separated, and living with children aged under 18) rose remarkably from some 23 100 in 1991 to 45 100 in 2001, while that of male single parents increased moderately from about 11 500 in 1991 to 13 400 in 2001. The median monthly household income for those households with female single parents rose 35% from HK\$7,700 in 1991 to HK\$10,400 in 2001, while the corresponding figures for those households with male single parents sharply increased by 65% from HK\$8,500 to HK\$14,000 over the same period. [Table 11]

Table 11 Households with single parents⁽¹⁾ by sex of the single parent

Marital status	1991		2001	
	Female single parent	Male single parent	Female single parent	Male single parent
Number of households	23 059	11 479	45 072	13 388
Median monthly household income ⁽²⁾ (HK\$)	7 700	8 500	10 400	14 000

Notes : (1) Single parents refer to persons who were widowed, divorced or separated, and living with child(ren) aged under 18.

(2) Monthly household income refers to the total cash income (including earnings from all jobs and other cash incomes) received in the last month by members of the household.

Educational Attainment

Along with the advancement in society and the expansion of education, the educational attainment of the Hong Kong population continued to improve in the last decade. Progressive involvement and attainment level of women were particularly remarkable.

The proportions of women and men having attended secondary and above education were 67% and 75% respectively in 2001. The corresponding proportions were 57% and 67% in 1991. Although the educational attainment of women is generally lower than that of men, the former has been catching up very fast over the past decade.

[Table 12]

Table 12 Population aged 15 and over by educational attainment (highest level attended) and sex

Educational attainment (highest level attended)	Number (Percentage ⁽¹⁾)			
	1991		2001	
	Female	Male	Female	Male
No schooling/Kindergarten	399 824 (18.5)	157 473 (7.1)	345 269 (12.0)	124 670 (4.6)
Primary	524 218 (24.3)	576 381 (26.1)	595 290 (20.6)	552 983 (20.4)
Lower Secondary	331 299 (15.4)	506 431 (22.9)	451 600 (15.6)	608 889 (22.5)
Upper Secondary	593 213 (27.5)	576 058 (26.1)	771 605 (26.7)	702 076 (25.9)
Matriculation	105 232 (4.9)	109 345 (4.9)	287 580 (10.0)	240 510 (8.9)
Tertiary				
Non-degree course	108 423 (5.0)	126 489 (5.7)	105 722 (3.7)	104 156 (3.8)
Degree course	95 209 (4.4)	160 770 (7.3)	330 919 (11.5)	377 703 (13.9)
Total	2 157 418 (100.0)	2 212 947 (100.0)	2 887 985 (100.0)	2 710 987 (100.0)

Note : (1) Figures in brackets represent the percentages in respect of the corresponding sex groups.

It is particularly worth-noting that, with the increase in tertiary education opportunities, more women attend tertiary education nowadays. In 1991, the proportion of women

(9%) with tertiary education was lower than that of men (13%). At the same time, 45% of all students (including full-time, part-time and distant learning courses) attending tertiary education was women. By 2001, 15% of women were with tertiary education, compared with 18% of men. Women also made up more than half (52%) of the students studying in tertiary institutions in 2001. [Table 12]

The most popular field of education of both women and men who had attended tertiary education was “Business and commercial studies”. The proportion of women having attended tertiary education in this field rose from 28% in 1991 to 34% in 2001 and that for men from 19% to 24%. “Textile, design and other industrial technology” and “Mechanical, electrical, electronic and marine engineering” were the least popular fields for women having attended tertiary education. For men, “Textile, design and industrial technology” and “Education” were the least popular fields. [Table 13]

Table 13 Population with tertiary education by field of education and sex

Year	Field of education	Male		Female		Total	
		Number	%	Number	%	Number	%
1991	Business and commercial studies	55 625	19.4	56 460	27.7	112 085	22.9
	Arts and social science	47 658	16.6	45 237	22.2	92 895	18.9
	Mechanical, electrical, electronic and marine engineering	58 352	20.3	8 800	4.3	67 152	13.7
	Computer studies	14 619	5.1	5 068	2.5	19 687	4.0
	Architecture and construction engineering	30 533	10.6	4 929	2.4	35 462	7.2
	Pure science	23 831	8.3	10 138	5.0	33 969	6.9
	Medical and health related studies	15 789	5.5	22 533	11.1	38 322	7.8
	Education	10 659	3.7	24 709	12.1	35 368	7.2
	Textile, design and other industrial	11 564	4.0	8 242	4.0	19 806	4.0
	Other fields	18 629	6.5	17 516	8.6	36 145	7.4
	Total	287 259	100.0	203 632	100.0	490 891	100.0
2001	Business and commercial studies	116 661	24.2	147 122	33.7	263 783	28.7
	Arts and social science	70 032	14.5	102 243	23.4	172 275	18.8
	Mechanical, electrical, electronic and marine engineering	73 742	15.3	8 177	1.9	81 919	8.9
	Computer studies	56 314	11.7	20 301	4.6	76 615	8.3
	Architecture and construction engineering	54 262	11.3	12 014	2.8	66 276	7.2
	Pure science	39 835	8.3	24 392	5.6	64 227	7.0
	Medical and health related studies	21 025	4.4	38 067	8.7	59 092	6.4
	Education	11 978	2.5	36 990	8.5	48 968	5.3
	Textile, design and other industrial	6 936	1.4	5 821	1.3	12 757	1.4
	Other fields	31 074	6.4	41 514	9.5	72 588	7.9
	Total	481 859	100.0	436 641	100.0	918 500	100.0

Hong Kong's education system has undergone a rapid expansion over the past few decades. Six years' primary education has been made compulsory since 1971. Nine years' free schooling has since then been introduced whereby every primary school-leaver has to proceed to another three years of secondary education in addition to six years' primary education. Such moves significantly increase the opportunities for the provision of education for females. They also mark a shift in the value attached to female education. Because of the male-bias inherent in the education system at earlier times, it could be argued that females have been prime beneficiaries of such an expansion. When comparing the educational attainment between females and males, it should be noted that old people, particularly the females, had fewer chances of receiving education when they were young. In 2001, some 59% of women aged 65 and over had no schooling or only kindergarten education, as compared to 23% of their male counterparts in the same age group. With the greater opportunity for education available to women, the gap had gradually narrowed. Of the females aged 15-24 and 25-34, 98% and 94% had secondary or higher education respectively. The corresponding proportions for males were 98% and 96%. [Table 14]

Table 14 Population aged 15 and over by sex, age group and educational attainment (highest level attended) in 2001

Sex and age group	Educational attainment (highest level attended)									
	No schooling/ Kindergarten		Primary		Secondary/ Matriculation		Tertiary		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%
Female										
15 – 24	1 220	0.3	9 442	2.0	358 165	77.2	94 979	20.5	463 806	100.0
25 – 34	5 026	0.8	34 105	5.6	395 396	64.9	174 510	28.7	609 037	100.0
35 – 44	18 143	2.6	141 189	19.9	445 541	62.7	105 159	14.8	710 032	100.0
45 – 54	31 693	6.7	190 490	40.5	212 365	45.1	35 978	7.6	470 526	100.0
55 – 64	52 429	22.5	98 350	42.3	64 017	27.5	17 920	7.7	232 716	100.0
65+	236 758	58.9	121 714	30.3	35 301	8.8	8 095	2.0	401 868	100.0
Total	345 269	12.0	595 290	20.6	1 510 785	52.3	436 641	15.1	2 887 985	100.0

Work and Employment

Participation in the labour force

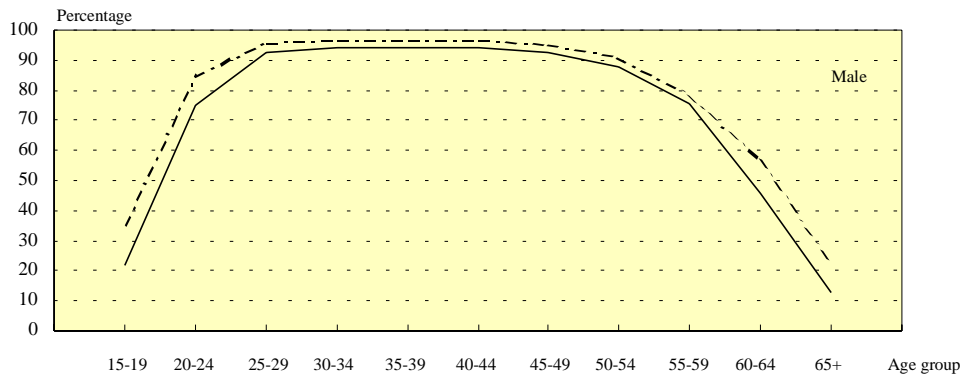
During the past ten years, the labour force increased by over one-fifth, from 2.8 million in 1991 to 3.4 million in 2001. Although the number of women in the working age (i.e.

15 years and over) was more or less the same as that of men, men constituted a greater proportion of the labour force (62% in 1991 and 57% in 2001). [Table 15]

Table 15 Population aged 15 and over, economically active population and labour force participation rates by sex

	1991		2001	
	Female	Male	Female	Male
Population aged 15 and over	2 157 418	2 212 947	2 887 985	2 710 987
Economically active population (or labour force)	1 068 731	1 742 271	1 489 016	1 948 976
Labour force participation rate (%)	49.5	78.7	51.6	71.9

Labour force participation rates by sex and age group



--- 1991 — 2001

The increase in labour force in the past decade, in both absolute and relative terms, was more significant for women than for men. The female labour force increased by some 420 300 (or 39%), while the male labour force increased by 206 700 (or 12%). However, it should be noted that a large portion of the growth in the female population was attributable to the increase in female foreign domestic helpers. If these foreign domestic helpers were excluded from the calculation, the female labour force still increased by 295 100 (or 29%) over the same period. [Table 15]

The labour force participation rate for females, which had always been significantly lower than that for males, gradually increased from 50% in 1991 to 52% in 2001. This rate was comparable to that of advanced countries like Japan, Singapore and the United Kingdom. On the contrary, the male labour force participation rate decreased from 79% in 1991 to 72% in 2001. [Table 15]

Analysis by age indicated that women aged 25-29 had the highest labour force participation rate in 2001. For men, the highest rate was recorded in the age group of 35-39. Over the past decade, female labour force participation rates decreased only in the young age group of 15-24 and the older age group of 60 and over, while the male labour force participation rates decreased for all age groups. For both women and men, the labour force participation rate in the age group of 15-24 was on a decline possibly due to the fact that an increasing number of people in this age group were still attending school. [Table 15]

Marital and family commitments have been a widely assumed rationale for limited female participation in the labour force. Be it social or spousal expectation, women tend to stay at home and take care of their families/children after marriage. It is noted that the labour force participation rate for never married women was 68% in 2001, which was significantly higher than that of the now married women (49%). On the other hand, the labour force participation rate for never married man (67%) was lower than that for now married man (77%). [Table 16]

Table 16 Labour force participation rates by marital status and sex

	Percentage			
	1991		2001	
	Female	Male	Female	Male
Never married	69.8	74.8	67.9	66.7
Now married	45.0	82.8	48.9	76.8
Widowed	15.0	30.2	11.5	15.0
Divorced/Separated	63.9	80.4	63.6	70.9
Overall	49.5	78.7	51.6	71.9

Nevertheless, the presence of foreign domestic helpers has freed many women from the household duties so that they could participate in the labour force. The availability of better educational opportunities and the increased prevalence of marriage postponement and spinsterhood also contribute to the continuous rise in the labour force participation rate among women.

Economic activity status, industry and occupation

Gender disparities are apparent when data on economic activity status, industry sector and occupation are examined.

Females had consistently lower unemployment and underemployment rates than males over the past decade. Unemployed women also had consistently shorter duration of unemployment than their male counterparts.

In 2001, working women were mostly engaged in the “Community, social and personal services” sector (37%), followed by the “Wholesale, retail and import/export trades, restaurants and hotels” sector (30%) and the “Financing, insurance, real estate and business services” sector (15%). For men, the largest proportion was engaged in the “Wholesale, retail and import/export trades, restaurants and hotels” sector (24%), followed by the “Financing, insurance, real estate and business services” sector (17%) and the “Community, social and personal services” sector (17%). [Table 17]

Table 17 Working population by industry and sex

Industry	Number (Percentage ⁽¹⁾)			
	1991		2001	
	Female	Male	Female	Male
Manufacturing	321 445 (31.2)	446 676 (26.5)	153 065 (10.7)	247 887 (13.6)
Construction	11 222 (1.1)	176 629 (10.5)	20 289 (1.4)	227 594 (12.5)
Wholesale, retail and import/export trades, restaurants and hotels	247 703 (24.1)	363 683 (21.6)	425 872 (29.7)	426 747 (23.5)
Transport, storage and communications	44 712 (4.3)	220 974 (13.1)	83 018 (5.8)	283 294 (15.6)
Financing, insurance, real estate and business services	115 550 (11.2)	171 618 (10.2)	213 604 (14.9)	309 218 (17.0)
Community, social and personal services	274 302 (26.7)	264 821 (15.7)	530 046 (37.0)	299 674 (16.5)
Others ⁽²⁾	13 803 (1.3)	41 965 (2.5)	7 409 (0.5)	24 989 (1.4)
Total	1 028 737 (100.0)	1 686 366 (100.0)	1 433 303 (100.0)	1 819 403 (100.0)

Notes : (1) Figures in brackets represent the percentages in respect of the corresponding sex groups.

(2) "Others" include such industries as "Agriculture and fishing", "Mining and quarrying", "Electricity, gas and water" and industrial activities inadequately described or not classifiable.

When analyzed by occupation, over half (53%) of the working women were engaged as clerks and workers in elementary occupations in 2001. Unlike their female counterparts, the occupational distribution of the men was more even. The largest proportion of men working population worked as craft and related workers (16%). Both the proportions of women and men working as "Managers and administrators" increased continuously during the last ten years, but the former (7%) was lower than that of the latter (14%). [Table 18]

Table 18 Working population by occupation and sex

Occupation	Number (Percentage ⁽¹⁾)			
	1991		2001	
	Female	Male	Female	Male
Managers and administrators	50 390 (4.9)	198 857 (11.8)	92 614 (6.5)	257 023 (14.1)
Professionals	30 815 (3.0)	68 516 (4.1)	65 485 (4.6)	114 340 (6.3)
Associate professionals	115 788 (11.3)	164 121 (9.7)	232 842 (16.2)	265 829 (14.6)
Clerks	295 986 (28.8)	135 665 (8.0)	381 346 (26.6)	148 646 (8.2)
Service workers and shop sales workers	128 496 (12.5)	230 823 (13.7)	224 495 (15.7)	264 466 (14.5)
Craft and related workers	45 728 (4.4)	352 264 (20.9)	26 964 (1.9)	294 036 (16.2)
Plant and machine operators and assemblers	130 897 (12.7)	234 929 (13.9)	31 665 (2.2)	207 001 (11.4)
Elementary occupations	223 398 (21.7)	280 434 (16.6)	375 056 (26.2)	260 337 (14.3)
Skilled agricultural and fishery workers; and occupations not classifiable	7 239 (0.7)	20 757 (1.2)	2 836 (0.2)	7 725 (0.4)
Total	1 028 737 (100.0)	1 686 366 (100.0)	1 433 303 (100.0)	1 819 403 (100.0)

Note : (1) Figures in brackets represent the percentages in respect of the corresponding sex groups.

Employment earnings

In general, the median monthly income from main employment of working women was lower than that of their male counterparts. In 2001, the median monthly employment earnings of the working females were HK\$8,900 while that for working males was HK\$12,000. The median monthly employment earnings of the never married women was marginally higher than that of the now married ones (HK\$9,000 versus HK\$8,500). On the contrary, the median monthly employment earnings of the never married men was considerably below that of the now married ones (HK\$10,000 versus HK\$13,000). [Table 19 and Table 20]

Table 19 Working population by monthly income from main employment and sex

Monthly income from main employment (HK\$)	Number (Percentage ⁽¹⁾)			
	1991		2001	
	Female	Male	Female	Male
< 3,000	214 260 (21.4)	160 920 (9.6)	59 508 (4.2)	48 971 (2.7)
3,000 – 3,999	194 571 (19.4)	170 230 (10.1)	197 690 (14.0)	29 479 (1.6)
4,000 – 4,999	189 907 (18.9)	245 659 (14.6)	80 657 (5.7)	36 330 (2.0)
5,000 – 5,999	115 133 (11.5)	244 263 (14.6)	83 691 (5.9)	65 909 (3.6)
6,000 – 6,999	70 150 (7.0)	203 342 (12.1)	102 004 (7.2)	94 589 (5.2)
7,000 – 7,999	45 551 (4.5)	141 960 (8.5)	92 374 (6.5)	108 932 (6.0)
8,000 – 8,999	35 193 (3.5)	111 259 (6.6)	93 046 (6.6)	133 301 (7.4)
9,000 – 9,999	21 684 (2.2)	53 390 (3.2)	69 337 (4.9)	99 792 (5.5)
10,000 – 14,999	67 782 (6.8)	175 214 (10.4)	269 514 (19.0)	473 519 (26.1)
15,000 – 19,999	23 210 (2.3)	60 944 (3.6)	128 035 (9.0)	242 946 (13.4)
20,000 – 29,999	14 923 (1.5)	52 294 (3.1)	129 904 (9.2)	232 451 (12.8)
≥ 30,000	10 671 (1.1)	59 073 (3.5)	110 096 (7.8)	247 032 (13.6)
Total	1 003 035 (100.0)	1 678 548 (100.0)	1 415 856 (100.0)	1 813 251 (100.0)
	Median monthly income from main employment (HK\$)			
	4,250	6,000	8,900	12,000

Note : (1) Figures in brackets represent the percentages in respect of the corresponding sex groups.

Table 20 Median monthly income from main employment by marital status and sex

Marital status	Sex	No.	Median monthly income from main employment (HK\$)
Never married	Male	548 723	10,000
	Female	555 477	9,000
	Sub-total	1 104 200	10,000
Now married	Male	1 219 852	13,000
	Female	778 834	8,500
	Sub-total	1 998 686	11,000
Divorced/separated/widowed	Male	44 676	10,000
	Female	81 545	7,500
	Sub-total	126 221	8,800
Total	Male	1 813 251	12,000
	Female	1 415 856	8,900
	Sub-total	3 229 107	10,000

The discrepancy could be attributed to a host of factors including the differences between employed females and males in industrial and occupational distributions, educational attainment and working experience. Also, there were a large number of female foreign domestic helpers working in Hong Kong whose monthly income was relatively low. If foreign domestic helpers were excluded, the median monthly earnings of employed females would be HK\$10,000.

Concluding Remarks

All societies experience gender asymmetries, that is, differences and disparities that can be traced to gender differences. While the magnitude of such differences and disparities varies between societies and over time, their content, direction and rate are influenced by both policy and socio-economic changes.

As in many other parts of the world in the modern era, the position, roles and status of women in Hong Kong, have undergone significant changes over the past decades. Traditional Chinese society has been strongly patriarchal and the position and status of

women have been radically circumscribed, and indeed proscribed, within male-dominated frameworks. With the socio-cultural, economic and political changes that have been gradually taken place within the Hong Kong society, the gender relations have entailed important shifts.

Women's contribution to the economic, political and social development of Hong Kong has been increasingly significant with the passage of time. Today, 47% of our undergraduates are women. About 44% of our workforce, or some 1.53 million people, are women. Many of them are successful in their trade or professions and are upwardly mobile. These statistics, of course, do not take into account women's considerable contribution to the community through unremunerated work. In short, women are now more active than before in various sectors serving the community, and women's role is no longer confined to home-making. Hong Kong women, as a Chinese saying put it, "shoulder half of the sky".

Despite the considerable progress made, there remains a number of obstacles to women's further development and enhancement (e.g. adaptation problems faced by newly arrived women). Deep-seated issue of gender stereotyping also create barriers to women's rightful participation in economic and social life. These issues straddle many policy areas. It is therefore important that a holistic view of various policies and initiatives that impinge on women is taken.

To this end, the HKSAR Government (HKSARG) has been earnestly deliberating on gender issues and incorporating gender consideration in the process of formulation and implementation of policies and legislation where appropriate. In fact, one of the Policy Objectives of the HKSARG is to promote the well-being and interests of women in Hong Kong so as to enable women to fully realize their due status, rights and opportunities in all aspects of life and to be better equipped them to meet the various challenges ahead.

Note:

The 2001 Population Census covers the Hong Kong Resident Population under the "resident population" approach. The "resident population" approach has been adopted to compile the population estimates of Hong Kong since August 2000. Such change is effected in view of the greater relevance of the "resident population" concept from a statistical theory standpoint in measuring the population size of a place. It is considered particularly appropriate to do so to take account of the changing residency and mobility patterns of the Hong Kong population in recent years.

The Hong Kong Resident Population at the 2001 Population Census moment (i.e. 3 a.m. on 14 March 2001) covers "Usual Residents" and "Mobile Residents". "Usual Residents" refer to two categories of people: (1) Hong Kong Permanent Residents who had stayed in Hong Kong for at least three months during the six months before or for at least three months during the six months after the census moment, regardless of whether they were in Hong Kong or not at the

census moment; and (2) Hong Kong Non-permanent Residents who were in Hong Kong at the census moment.

As for the “Mobile Residents”, they are Hong Kong Permanent Residents who had stayed in Hong Kong for at least one month but less than three months during the six months before or for at least one month but less than three months during the six months after the census moment, regardless of whether they were in Hong Kong or not at the census moment.

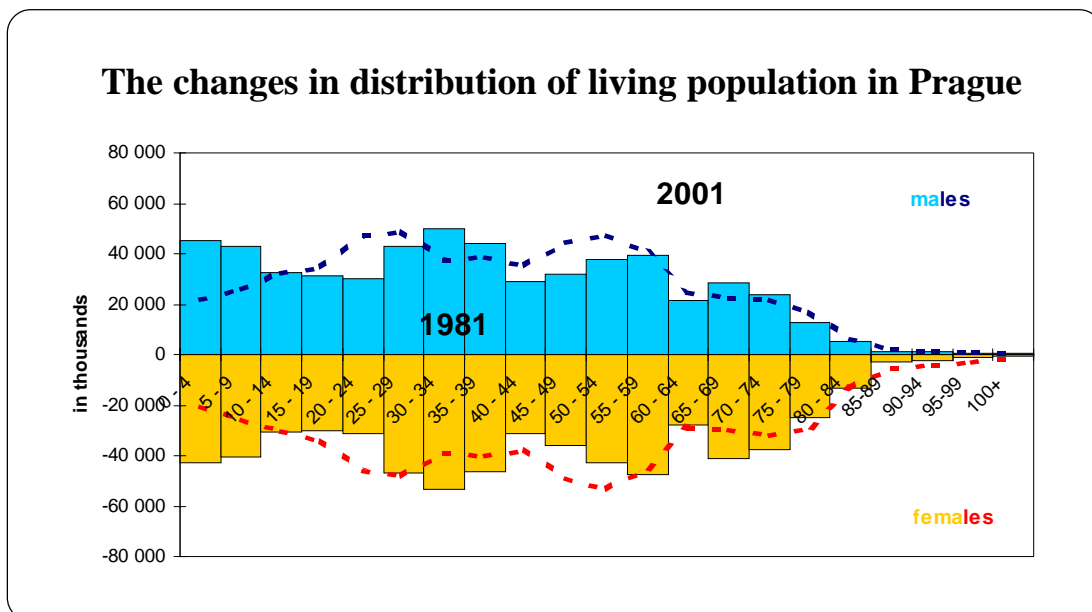
While the results of the 2001 Population Census refer to the Hong Kong Resident Population enumerated under the “resident population” approach, those of the 1991 Population Census and the 1996 Population By-census refer to the residents present in Hong Kong enumerated under the de facto enumeration approach and the resident population enumerated under the de jure enumeration approach respectively. Caution is required in making comparison. Notwithstanding the change, the 2001 Population Census figures are broadly comparable with those of the 1991 Population Census and the 1996 Population By-census.

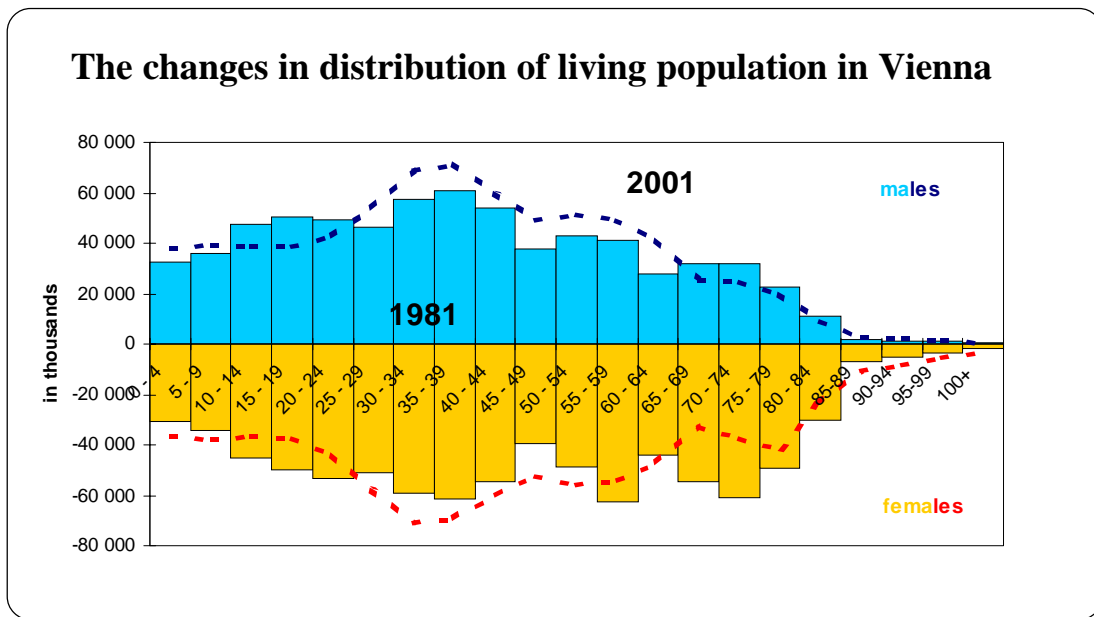
Some aspects of starting career in Vienna and Prague in last 20 years

Mrs. Eva Vojtová – chief of providing information in Prague city, Mrs. Zuzana Pavlickova – methodologist of Labour Force Survey

This lecture is focused on several aspects of starting career in Prague and Vienna. At the same time we tried to put together three views – gender, being young and living in the city. At the beginning there is the basic question. Why we are interested in the gender dimension? Why is this question in the centre of attention of all people who deals with various social views? Do we mind the obvious differences between men and women? Can we depict the injustice, oppression or violence in this basic biological and social relation to the larger extent than on other social levels? And how is it seen by young generations? We do not intend answer these questions but we would like to start walking for the long way of finding and discovering.

We would like to show you the reflection of these questions in the mirror of several statistical data on young people living in two large middle-European cities, Prague and Vienna. We chose the comparison of Prague and Vienna as we can use the figures of People and Housing Census, which are based on the same methodology (the first one took a place in 1869 in Empire of Austria). On the other hand the living style of the citizens was formed by the different social conditions and influenced the attitude of the young people as well. The pursued period presents 1981 and 2001.





The comparison of two basic figures, which depict stage and trends of population in the best way, informs about the fact that in Vienna the population development in last 20 years was influenced by more stable social-economical aspects than in Prague.

Historically both cities coincide in the decreases of number of living during the world war periods and subsequent certain increase in natality in 50s of last century. Otherwise the population development strongly differs in both cities.

For Prague population there are more obvious non-demographic influences, which resulted in an outstanding rise of natality during 1970-80 and current critical fall of live births. In 70s there was an efficient pro-population policy of government representation of that time that came simultaneously with the transition of strong post-war generation of women into the age of maximal fertility. Nowadays it represents the opposite impact of social-economic changes after 1989 despite the strong generation born in 70s has come to the age of maximal fertility too.

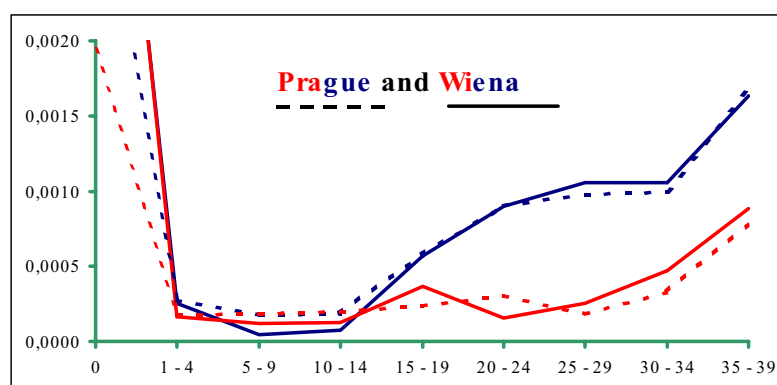
As against the trend in Prague, the population development in Vienna was more equal. Natality has stagnated on same level for last 20 years. Regarding the trends in Europe the figure for Vienna represent the ageing population by the influence of non-demographic factors, which led e.g. to regular immigration. Permanently the population in middle productive age prevails as the people come mainly for jobs. However, the more harmonic shape with smother deviations proves a quite stable state of socio-economic conditions of population life.

In the most of western countries the number of live births decreased. In Prague in comparison with 1980 this number sharply fell down although the strong groups of women have been coming into age of maximal fertility. The changes in Vienna were not as abrupt as in Prague, in the contrary the number of live births stayed at the same level although the number of women in fertile age had decreased.

The girls are being born with probability around 48%. The year-on-year deviations in this share are minimal. The share of genders is changing throughout the life. In both Prague and Vienna cities typically women starts to prevail in lower age than in other population (population of both states, countryside population etc.). It happens in age around 30 years and it is caused by positive balance of immigrating young women into the cities.

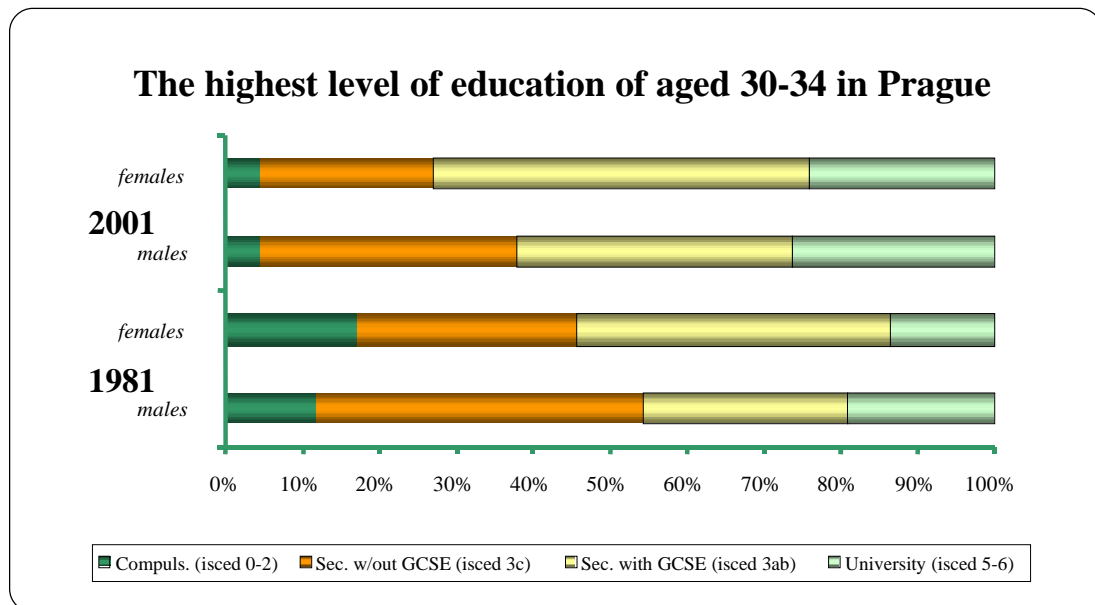
The decrease of men results from higher probability of death which starts to rise more early than for women. Especially, there is a gap for young people between 20-29 due to undergoing a high risk in riding car, dangerous sports etc. by men. The situation is almost identical in both cities. The shorter life expectancy of men is generally known. In both cities we can recognize the same trend of increase in this characteristic. Life expectancy of men rose higher. In 1981 the difference between sexes was at 6,5 years and it came to 5,5 years in 2001 in Prague (79 and 73,5 years, in Vienna 80,7 and 75 years). If it follows this trend then the life expectancy should be equal after 100 years.

The probability of death by age and sex (red line – women, blue line – men)



In the term of education the share of genders is approximately the same when entering school (for both cities). But from the offer of schools boys and girls chose in a different way. For comparison of highest level of education we chose the inhabitants of Prague

aged 30-34 years as they are expected to have already finished their study. The share of higher education increased more for women in last 20 years and the gender differences got smaller. The trends in Vienna are very similar but the absolute figures are hardly comparable.



When talking about economic activity of young people we consider the group 25-29 years old. Nowadays young people enter the labour market more educated matured than the previous generations as they do it in a higher age. The largest movement can be found in the group of youngest people where their participation rate fell down on half. For women the economic activity decreased in all age groups. It means that the difference in participation rate by sex increased, especially in group 25-29 from 10% to 16%. When comparing with 1981 one has take into account that in that time there was a concept of full employment. Therefore (after 1989-changes) in the group 30-34 the economic activity of women fell down to 4/5.

Participation rate of young people in Prague (%)

Source: Population and Houses Census

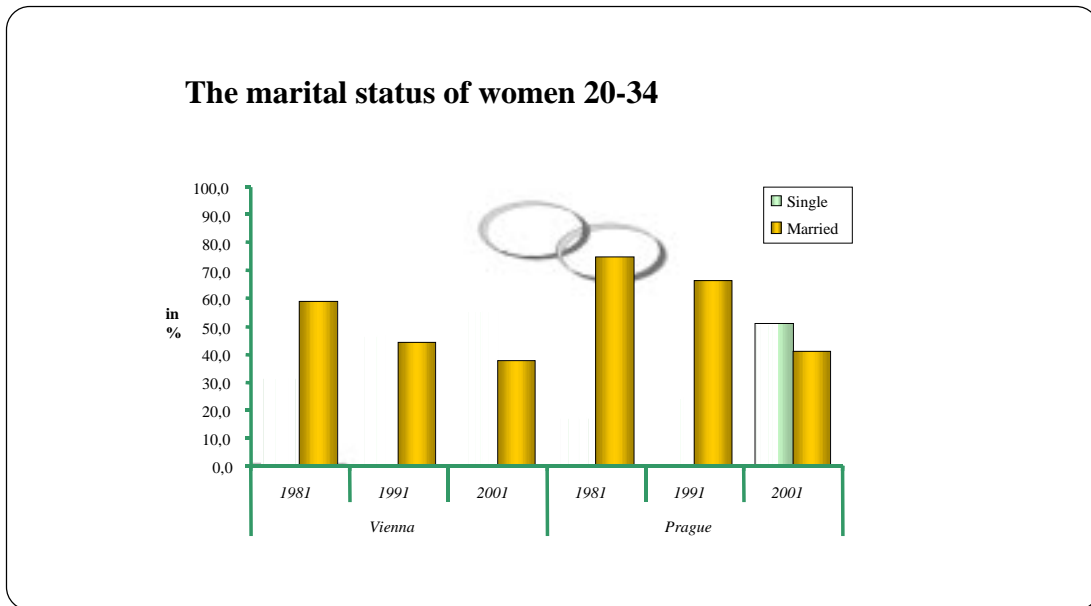
Age Group	Sex	1981	2001
15 - 19	male	19,9	11,2
	female	21,9	9,6
20 - 24	male	75,1	74
	female	76,4	67,7
25 - 29	male	97,2	92,9
	female	89,8	79,3

From the comparison of industry between young and older people and from the gender view we can say that the young people work more often in Trade and in Other community, social and personal services (cat. G,P of NACE) – 38% of all young employed against 21% of all older employed. In the opposite they work less often in Agriculture and Industry (cat. A-F of NACE) – 18% against 25%. Women work more often in Health and Education (cat. L,M of NACE) – 15% of all employed women against 3% of all employed men. In the term of occupation the young people work more often as Service workers, shop and markets workers (class. 5 of ISCO) – 23% of all young employed against 9% of all older employed, less often as Managers (class. 1 of ISCO) – 2% against 9%. Women work less often as Crafted workers (class. 7 of ISCO) – 4% of all employed women against 30% of all employed men and more often as Clerks (class. 4 of ISCO) 21% against 2%.

The share of self-employed of young people is lower than for older people (16,9% of young men against 27,1% of older men). Females enterprise to lower extent than males regardless their age 10,3% of young women and 15,5% of older women against 27,1% of older men).

The difference between salaries by sex is mentioned very often. The differences among young are smaller and they grow with the age (share of women on men's salary is 81,5% for young people and 73,6% for older). Totally the difference between younger and older represents 22,2%. This figure coincides for both cities.

The marital status of young people had dramatically changed throughout the period. It resulted in majority of singles in 2001 in both cities. The total number of weddings dropped by ¼ in the last 20 years. The wedding was postponed to higher ages or rejected at all. It is connected with the growing age of mother in time of bearing, this changes was more obvious in Vienna. The number of weddings fell more sharply than the number of live births. It resulted in increase of live birth outside the marriages (from 13% onto 27% in Vienna, from 7% onto 22% in Prague).



Finally we should summarise what have been said. Women have longer life expectancy and lower probability of death than men. But men attained higher level of education, have higher economic activity in all age groups, get higher salaries and enterprise more often than women.

It is necessary to mention that there are also differences among big cities and the other parts of countries. In cities there are higher: life expectancy, level of education, economic activity, share of self-employed and salaries, also the share of live births outside the marriage, age of mother and wedding age. In the opposite the cities have typically lower number of total live births and weddings. Beside the gender dimension there is a serious problem of geographical dimension, which is getting worse especially in post communist countries.

In this narrow view on young people we can find some signs of transition to more open and tolerant approach in relationships of male and female that is taking place among young people. The important point is that the differences between countries are less significant and thus the gender dimension is common problem without boundaries.

Changes in the householdtypes of Budapest

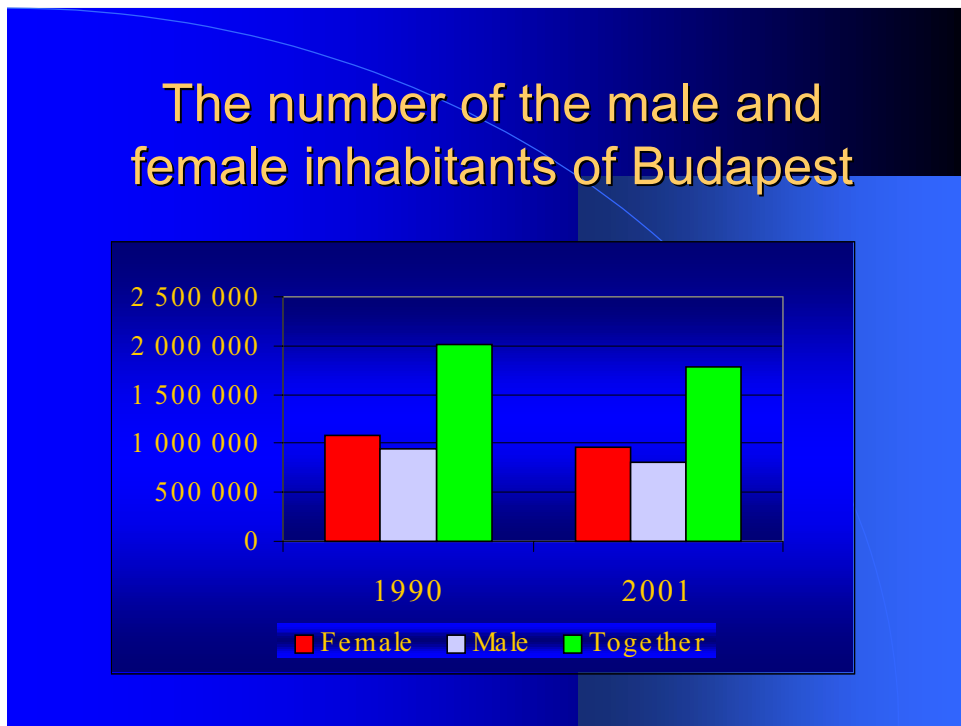
Norbert Bakos

Hungarian Central Statistical Office
Budapest and Pest County Directorate

1989 was the year of change in the Hungarian history: the planned economy has changed into market economy. In this year there was a big boom in the economic life of Budapest and the way of life of the inhabitants was radically changed. Budapest became a real metropolis with the same problems like other big cities: it became noisy, crowded and expensive. Hunting for better and comfortable life several people moved out to the towns next to Budapest, and the population started to reduce.

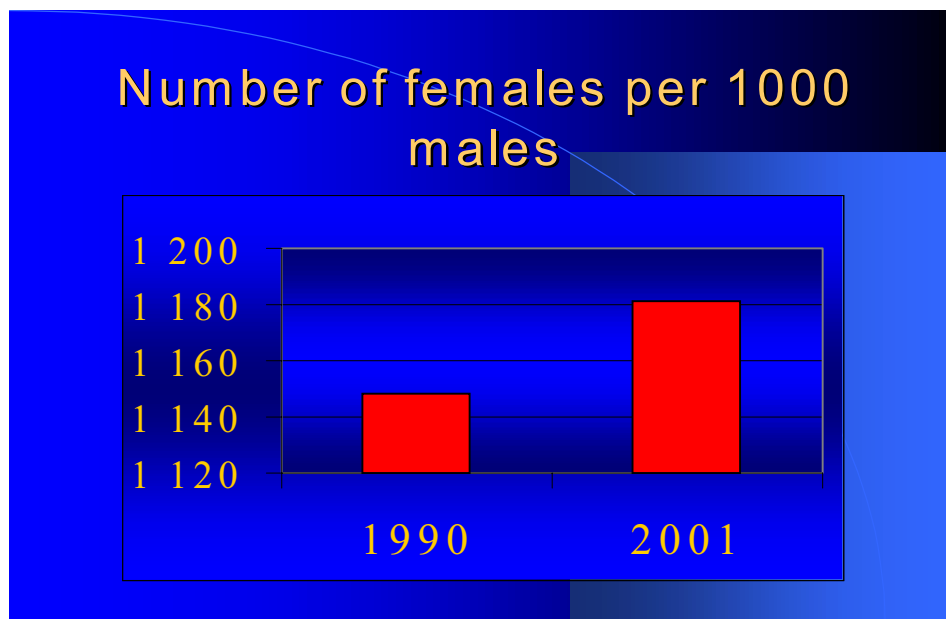
In 2001 the population of the city was 1,8 million, 12 per cent lower than in 1990. The main reason of the fall is the migration, but there was a cut in the number of children and bad mortality ratio in Budapest too. Both the number of males and females decreased. During the period the number of males reduced from 939 thousand to 815 thousand, the number of female inhabitants decreased from 1,1 million to 963 thousand.

Figure 1:



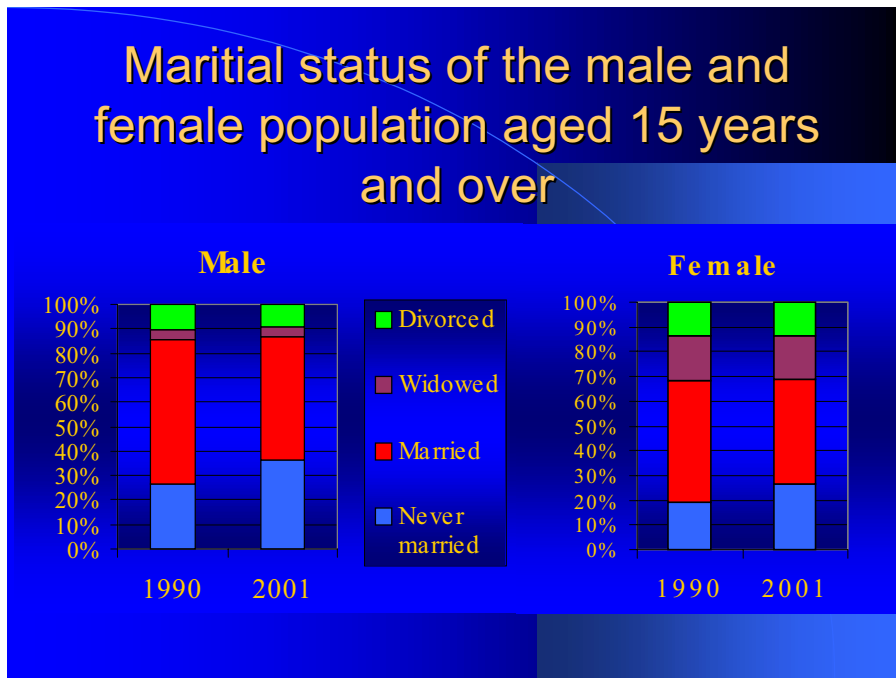
There were no radically changes in the sex ratio: 54% of the population was female in 2001, which meant only one percent increase since 1990. You can get a better picture of the gender dimension if you have a look at the number of females per 1000 males. In 1990 there were 1148 females per 1000 males in Budapest, 11 years later this indicator was 1181. The reason of the rise is the bad mortality ratio of males: there is a huge gap between the average age of males and females. (The difference is over 10 years in Hungary and in the EU only 4 years.)

Figure 2:



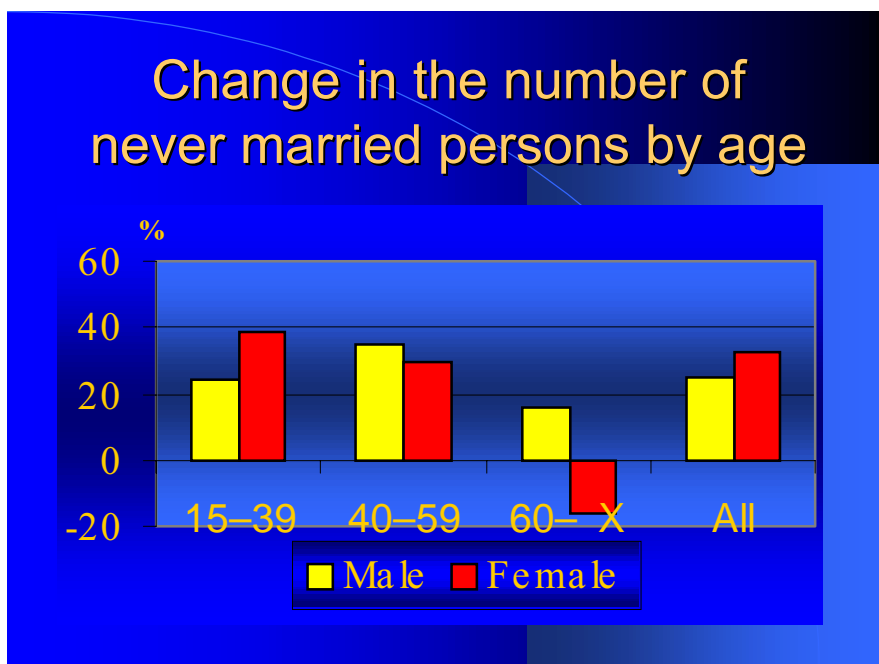
There were changes in marital status of the inhabitants in this period too, many of the males and females chose independency instead of marriage. Comparing the year 2001 to 1990 the number of never married males increased from 25 per cent to 35 per cent, while the number of married and divorced males decreased. There was no important change in the number of widowed males. You can see almost the same changes at females. The number of never married and divorced females increased, the married and widowed decreased between 1990 and 2001.

Figure 3:



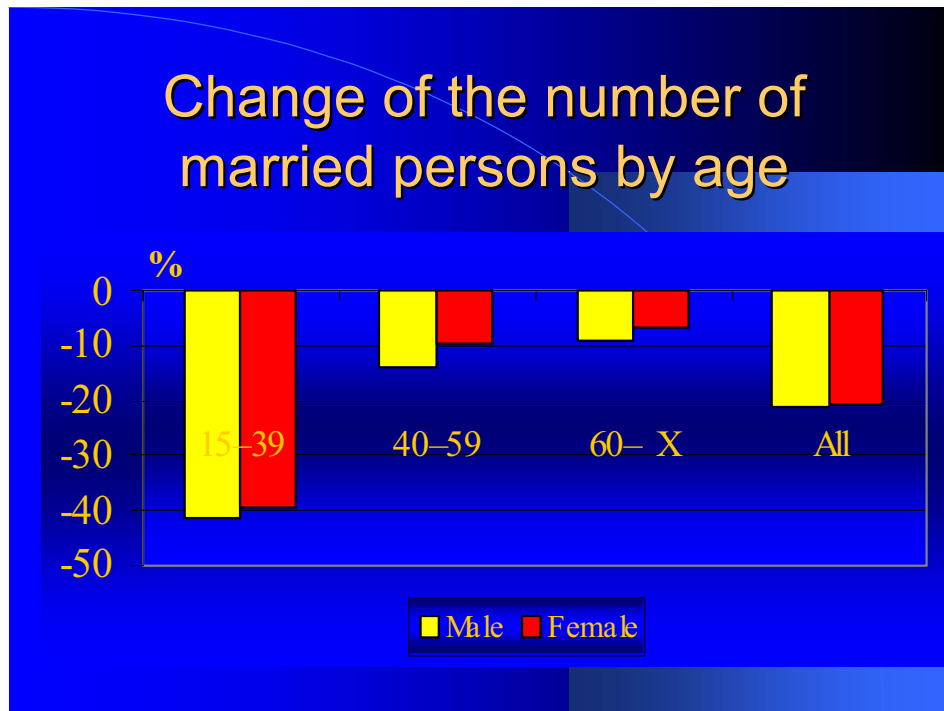
Analysing the marital status by age groups there is a rise in the number of never married males and females in almost each category. There is a 24-39 per cent rise in age groups 15-39 and 40-59 at males and females, but a decrease in age group 60 and over at females.

Figure 4:



Analysing the number of married persons, there's a fall in every age groups. The biggest fall was in age group 15-39 (nearly 40%) at both males and females, but the drop in number of married males was higher than of the females in each category.

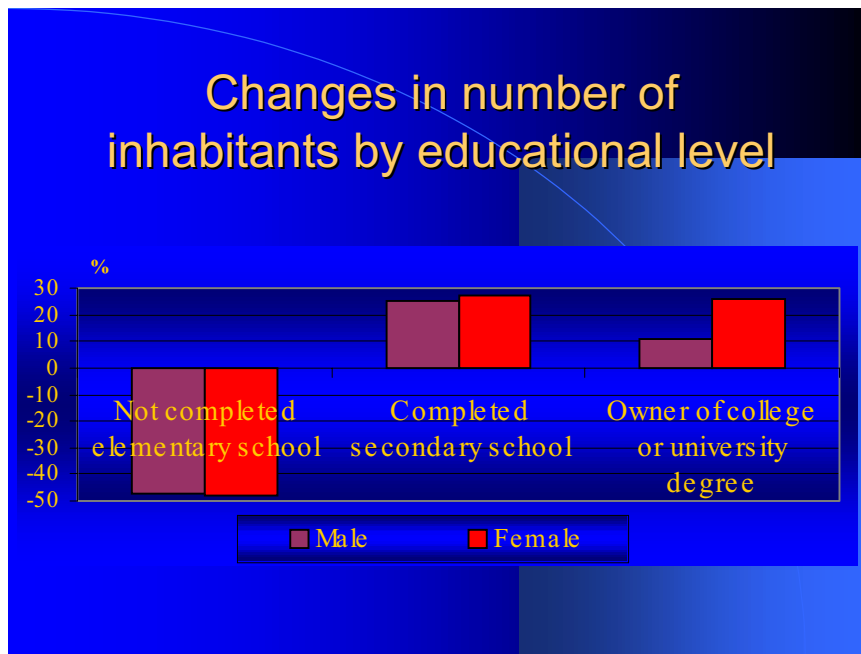
Figure 5:



There's a prosperous change in the educational level of the inhabitants of Budapest. The reason is on the one hand that we've got a very good educational system in Hungary (we're in the top 10 in the world) and on the other hand people realized that strong skills is a must to get a well-paying job nowadays.

The number of those males and females not completed primary school falled sharply: It's a 48 per cent decline from 1990 to 2001. The number of those male and female inhabitants who completed secondary school, or those being owners of college or university degree increased during this period. The rise at females was higher than at males especially in college of university degree owners, where the difference was 15 per cent.

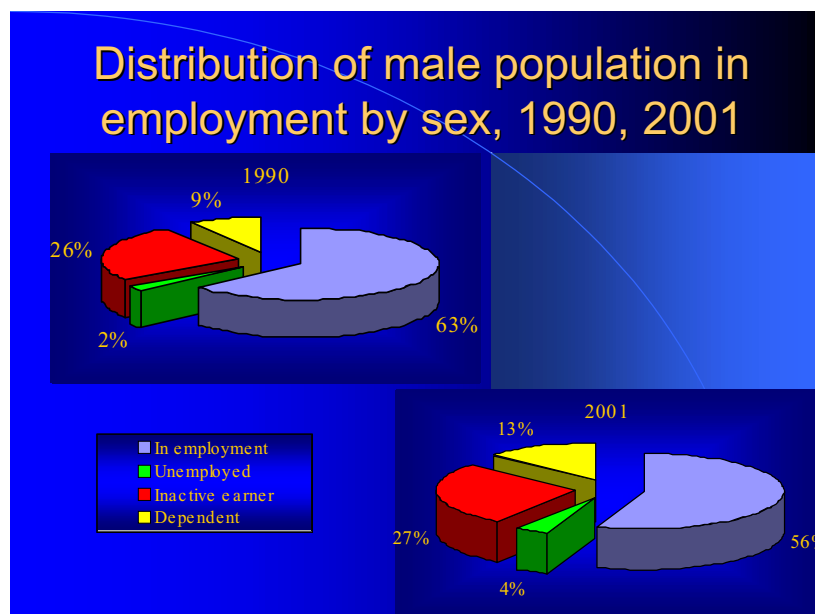
Figure 6:



Since 1990 the Hungarian labour market has radically changed. At the beginning of the decade a lot of multinational firms came to the country and employments meets new and more requirements.

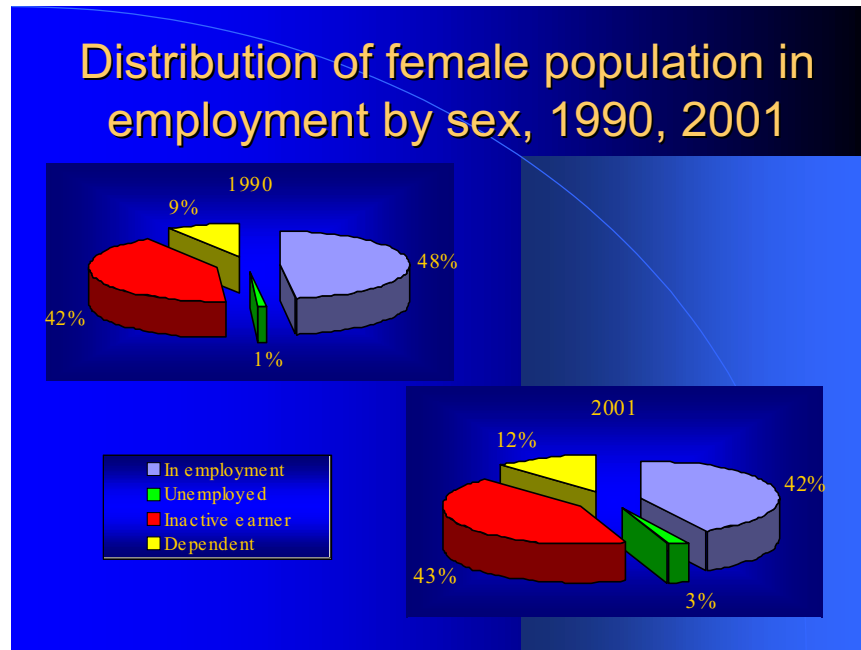
Before 1990 there was full-employment in Budapest, but in 1990 the ratio of the employed males diminished to 63 per cent. The falling tendency continued in 2001, and the ratio was only 56 per cent in that year. The ratio of the unemployed males doubled: it was only 2 per cent in 1990, and 4 per cent in 2001. There was a small rise in number of inactive earners (e.g. students), and dependents.

Figure 7:



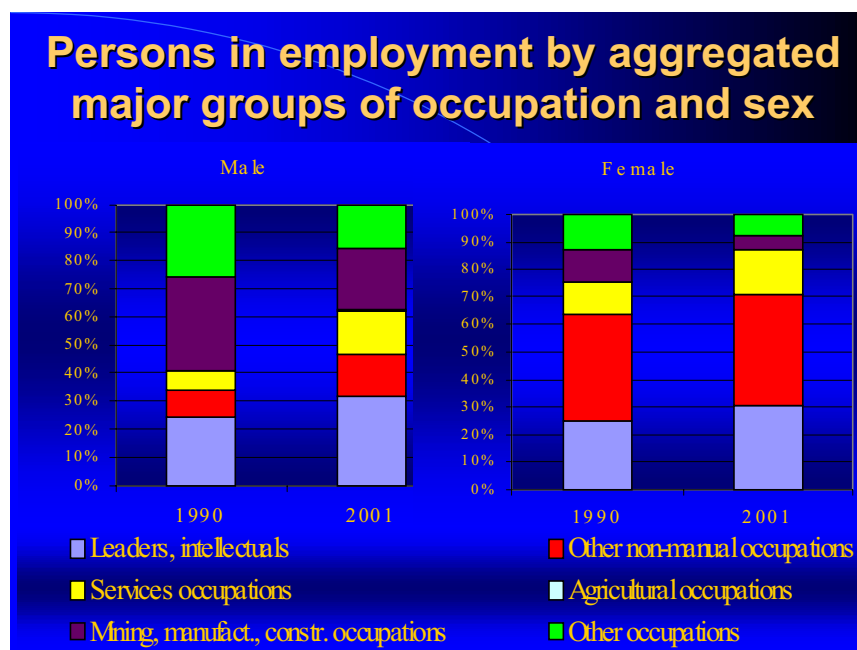
The situation in employment is almost the same at females. The ratio of employed females falled from 48 per cent to 42 per cent during the analysed period, and the ratio of the unemployed tripled (from 1 per cent to 3 per cent). The ratio of the inactive earners and dependents increased by 1 and 3 per cent.

Figure 8:



Analysing employment by aggregated major groups of occupation, it's almost the same process at category males and females. The ratio of leaders and intellectuals and other non-manual occupations rised sharply during the period. As you can see on the graph the services occupations started to go in and the industrial occupations started to go out from 1990 to 2001.

Figure 9:



Divergences in LifeStyles of Men and Women in TimeUse Surveys The Case of Hungary, France and Finland

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Questions, hypotheses

In this brief presentation, I would like to outline some divergences in time-use patterns of men and women. My question is, what global trends can we detect in the gender differences of the society according to time-use. Is it true for Budapest, what the sociologist Gershuny pointed out for many countries, namely that men's and women's social roles are increasingly coming near to each other?

The main hypothesis is that in Hungary, a former socialist country, the situation is more complex: the socialist era intermingled gender roles, but traditional role patterns were kept intact continuously during this period.

The actual development is at least two-dimensional: on the one hand, the „traditional family model” is reconstructed in some social contexts, while on the other hand, there is an arising „new family model”. This can be observed from the facts that the number of living together without marriage is increasing, both partners wish to develop their own personality and carrier and babies are coming later or they are not born at all. The causes of the transformation of the family model are diverse, and the traditional roles seem to be independent of technological growth.

For the test of some of these hypotheses I would like to examine the following issues:

1. The changing place of women and men in the space defined by domestic work, gainful work plus study and leisure.
2. Masculine and feminine (women-like) activities: are they approaching each other?
Sample:
 - a) key time-use indicators of the urban population in *France, Hungary* and *Budapest* aged 18-64
 - b) key time use indicators of the total population in *Finland* aged over 10, and in *Hungary* over 14
3. The gender dimension in the explanation of the variance of time-use
Sample: the population in Budapest aged 15-74
4. Results

The main groups of the activities in the time-use diaries are as follows:

- I. Work: gainful work (paid and non-paid work), learning and study, domestic work (traditional domestic work, maintenance, shopping and service, childcare), travel
- II. Physiology: sleep, meals, personal care, rest
- III. Leisure: socialising, church, entertainment, reading, listening to radio and music, watching TV and video, sports and recreational activities, hobbies

1. Gainful work and study, domestic work and leisure

Common characteristics of the French, Finnish and Hungarian time-use:

- The ratio of active population is decreasing, which is a major factor accounting for the fact that work time of the employed population is rising, and leisure time is approximately as long as it was 10 years ago.
- Unemployment rate is high in France and in Finland.
- The population is ageing in all examined three countries.
- The ratio of inactive population is increasing, their leisure has grown during the 1990s.
- The domestic work of men, especially that of retired and unemployed men is rising.
- The increase of leisure time was characteristic of the 1980s in France and Finland, but it is more common in Hungary between 1986 and 2000.

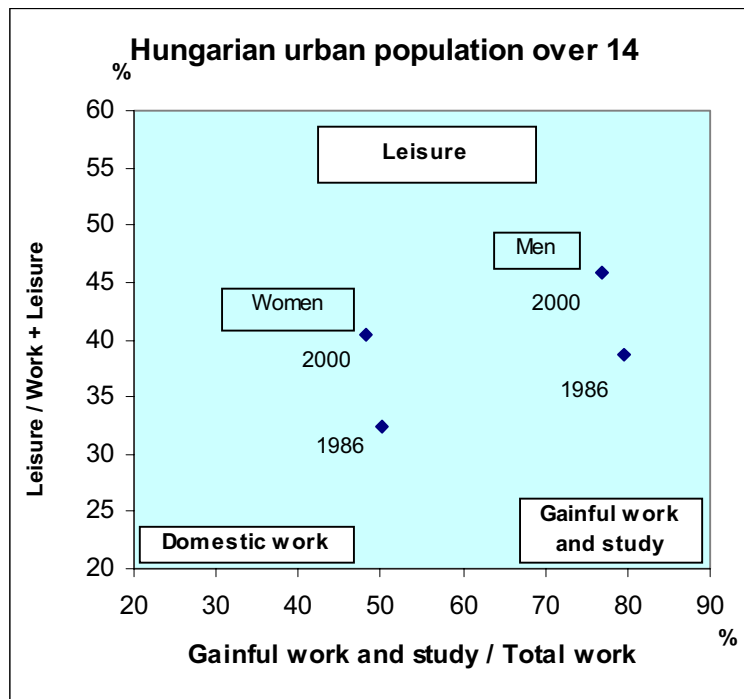
The examined key time-use indicators (Gershuny, 2000):

1. Ratio of leisure to the sum of leisure and total workload
2. Ratio of gainful work and study to total workload

In Hungary, there was full employment, a relatively balanced social care system and a lively cultural life in the mid-1980s. By 2000, the transformation of the economic structure has been terminated, and life of the society has changed as well. Differences between men and women gained new dimensions: the balanced life-style of the 1980s, characterised by a high degree of women's emancipation, and approaching gender roles, were followed in the 1990s by economic burdens and unemployment. As to our subject matter, among *the 18-64 aged Hungarian urban population there are signs of*

- a shift of both men and women in the direction of domestic work
- the modest growth of the duration of free time.

Graphic 1:

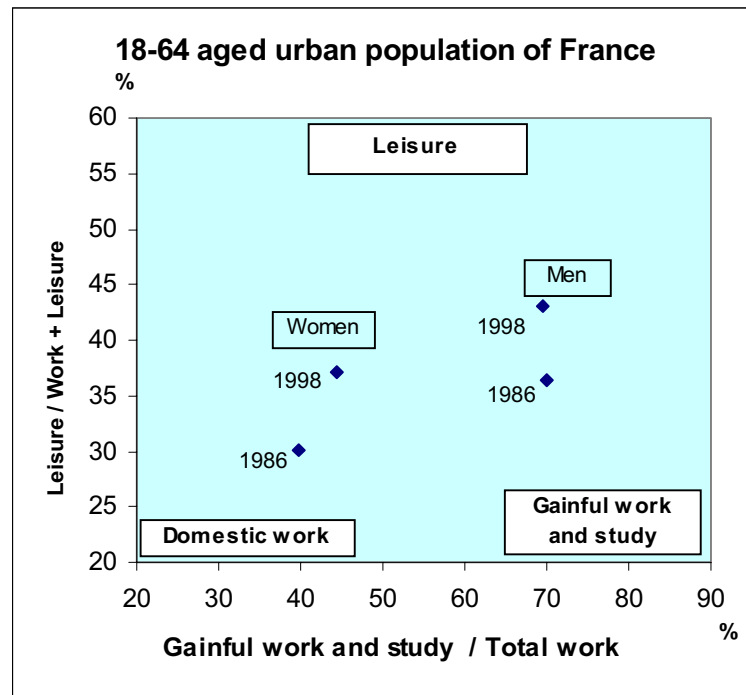


There are several underlying factors: the ratio of inactive groups, namely students and retired persons has grown in the Hungarian population, and unemployment, a completely new phenomenon appeared. Furthermore, the ageing of the work force also contributed to the conservation of gender roles. Similar tendencies (growth of the ratio of domestic work) are recorded in the Western European countries too, but mainly in case of man only.

The ratio of gainful work and study to the total workload:

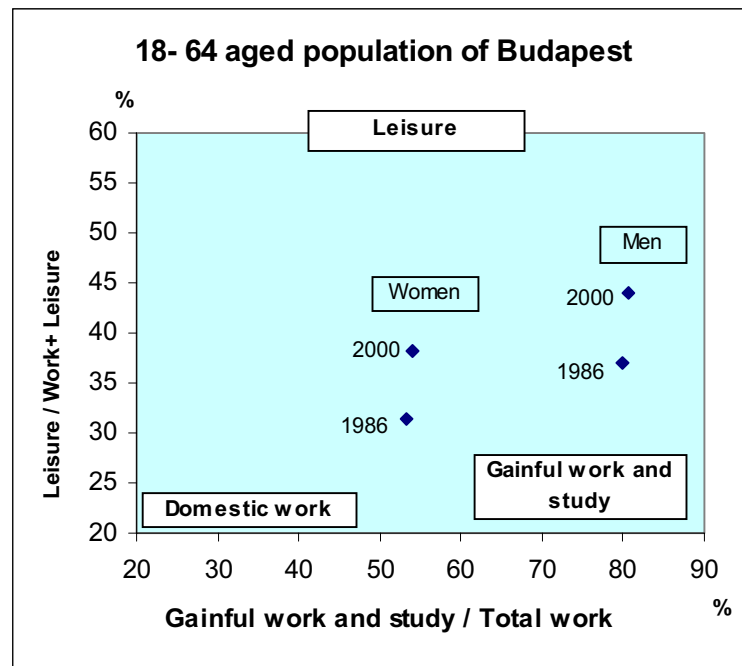
- The ratio of gainful work and study was very high among the urban population aged 18-64 of both *French and Hungarian men* 13 or 14 years ago, about 80%. However, by the end of the 1990s – due to the factors mentioned above – this ratio has fallen in France under 70%, and in Hungary under 80%. In the French case the diminishing trend characterised rather the years between 1974 and 1986, while in Hungary, it was more typical of the years between 1986 and 2000. Nevertheless, in France it was more pronounced than in Hungary.
- In 1986, the ratio of gainful work and study to total workload of French *women* aged 18-64 hardly reached 40% and in the next 12 years it fluctuated between 40% and 50%. The same indicator for Hungarian women was higher, almost 52% first, later to fall to 51% by 2000. Behind this fact there is a decrease in employment and an increase of study of women. As a result, French and Hungarian women positioned similarly in this space, apart from that French women are increasingly employed part-time.

Graphic 2:



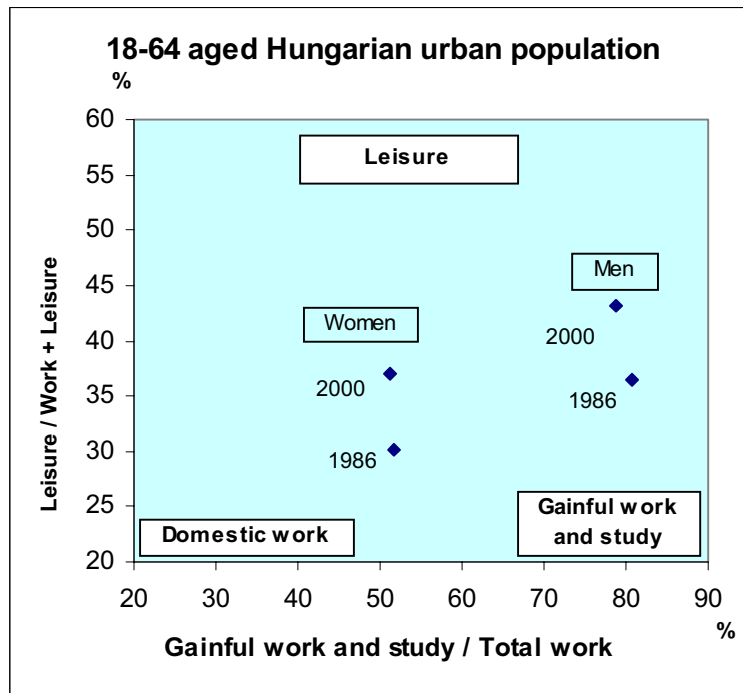
The case of the **French urban population** aged 18-64 shows how men and women were approaching each other between 1986 and 1998 mainly due to the growth of women's (part-time) employment.

Graphic 3:



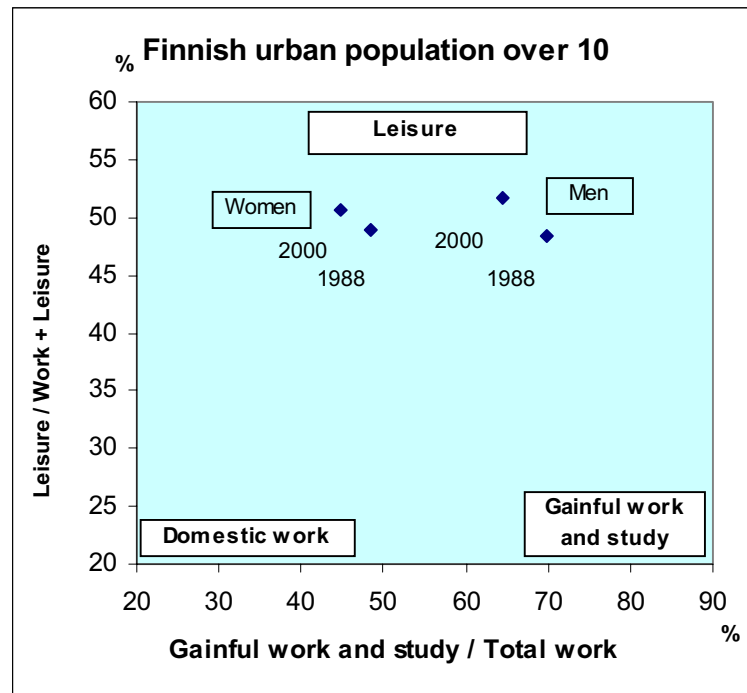
In *Budapest*, we can see a minor shift of both men and women in the direction of gainful work and study. This slight shift is accounted by the fact that women in Budapest fell behind more strongly in employment but they try to conserve their position by studying, whereas men dominate the labour market to a higher degree as 13 years earlier.

Graphic 4:



Contrary to the most developed countries, these two shifts related to *Hungarian* men and women are parallel to each other, therefore partly the changes left the gender differences untouched, and partly the position of men as working force has been strengthened during this period.

Graphic 5:



Due to the differences of the nature of the available data, we cannot contrast exactly the three countries, but the global trends can be compared. *Finland* diverges from France and Hungary as well in relation with the shift of the gender differences: the ratio of free time has grown only a little as compared with the other two countries between the examined years. However, this can be fully understood, because this ratio in Finland is equally very high (about 50%) among men and women. In contrast, among the same population in Hungary, this ratio was 46% for man, and 40% for women.

Among the three countries, gender differences are the smallest in Finland: in the ratio of leisure there is no difference between the two genders, and the gap in case of the other indicator is 20 percent points, whereas in Hungary the same difference is 29 percent points.

The ratio of gainful work and study to total workload shifted in Finland in case of both genders – for the women in a lower, for the men in a higher degree – in the direction of domestic work. This is more significant than in Hungary.

3. Masculine and feminine (women-like) activities: are they approaching each other?

Hypothesis: There are two main factors of the changing roles of men and women (Chenu-Herpin, 2002):

1. Modernisation of households, technological growth
2. Strive for a more equal distribution of men's and women's loads (burden)

For testing these hypotheses, I will compare activities among the urban population aged 18-64 and employed full-time in France and in Hungary as well as the total employed population over 10 in Finland, and that over 14 in Hungary. This population is highly interested in the „externalisation” (domestic technique) and in the distribution of domestic tasks (emancipation).

Table 1: FMI Index (Feminine-masculine index) of employed population in Finland over 10 and in Hungary over 14

Activities	Finland		Hungary	
	1988	2000	1986	2000
Gainful work	-12,5	-12,1	-11,3	-9,9
Traditional household care	70,5	54,9	67,5	60,0
Construction and repair	-42,9	-27,7	-69,4	-55,9
Child care	38,5	25,7	17,3	13,8
Shopping and services	16,7	15,4	30,7	27,4
Sleep	0,5	0,7	0,5	1,1
Eating and drinking	-3,5	-1,7	-2,2	-3,7
Physical hygiene	6,3	9,7	-1,0	0,4
School study	0,0	20,0	9,3	14,2
Self-study	0,0	-20,0	-10,1	-1,0
Religious and participative activities	0,0	-9,1	35,3	16,8
Sport and outdoor activities	-12,3	-4,3	-22,8	-17,8
Culture and entertainment	-9,1	0,0	-25,3	-7,8
Reading	0,0	6,5	-15,1	-12,3
Listening to radio and music	-12,5	0,0	-44,3	-39,8
Watching TV, video	-7,2	-18,4	-7,7	-7,1
Social life with familie	4,3	12,5	-5,0	-2,8
Social life with friends	30,8	7,1	-35,3	-35,5
Hobbies	17,6	-5,9	38,8	-38,0
Travel	-6,0	-0,7	-8,9	-4,9

Examined indicator: Feminine-masculine-index (FMI) (Chenu-Herpin, 2002):

Formula: $200 * (\text{Feminine time-use}) / (\text{masculine} + \text{feminine time-use}) - 100$

Interpretation: +100, if an activity is extremely feminine, -100, if it is extremely masculine,

+ 50, if women do something three times more, than men do

In **France**, the two genders have been approaching each other in case of several activities between 1986 and 1998: kitchen, cleaning, washing, outdoor activities, cultural entertainment and sport. However, some feminine activities (sewing, religious activities, reading) and masculine activities (watching TV, listening to radio and music, game, maintenance) are also typical.

Contrary to this, in **Hungary** working men hardly participate to any extent in domestic work and this has not changed since 1986. The whole population aged 15-74 of men increased their domestic work – which means cooking and washing up – during this period. Men do less cleaning than before, and in 1986 they devoted almost the same amount of time for playing with children and telling them stories as women do, what is more, men helped children by learning in the first place. By now the situation has changed, and activities of childcare have shifted more to the side of women.

Several masculine „privileges” have been conserved: more time for meals, rest, socialising with friends, outing, hobbies, reading newspapers, self-education and reading(!). This clearly shows that family and home care are responsibilities of women. Trends for the total 15-74 year old population strengthen the hypothesis that if men have less duty as employed (that means they are retired or unemployed), they undertake some pieces of domestic work. Domestic work is not really a typical home activity among young girls, and not at all that among young boys who are still living in their parent’s household.

The trend of developed countries towards the equalising of typical gender-bound activities is more pronounced in **Budapest**: during the examined period maintenance work and outing became more women-like activities than it used to be; whereas to arrange services and childcare are more typical for men in the Hungarian capital.

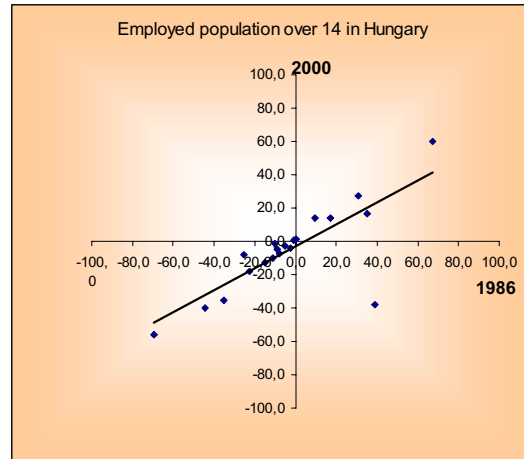
French and Hungarian trends are similar in two ways: now women are closer to men in sport activities and cultural entertainment than before. These, together with fact that inactive men take part in domestic work give us a hope for breaking with traditional gender roles. However, the diversities of these roles are significant in both countries, so we can conclude that the technical development of domestic work in the last decade did not have a great impact on this situation.

Comparison of Finnish employed population over 10 and of the Hungarian employed population over 14

Graphic 6:



Graphic 7:



A thoroughgoing investigation of gender diversities of feminine and masculine activities proves that the time-use of *Finnish men and women* is more balanced, gender diversities are smaller. In the graph the concentration of points around the origin shows this, the trend line is shorter and flat (that means there were not any considerable changes between 1986 and 2000). There are less outliers as typical feminine or masculine activities than in the Hungarian sample.

- In Finland, women caught up men especially in sports, the trend in Hungary is similar but not so significant.
- In Finland, the results of time-use survey show clearly on the one hand the movement of men toward women in the traditional women-like domestic work, and on the other hand the shift of women in the direction of men in maintenance work. This is more evident than in Hungary.

3. The gender dimension in the explanation of the variance of time-use

Finally, in case of the 15-74 aged population of *Budapest*, we searched for the statistical value of the gender dimension as an explanatory factor, also connecting to other variables.

Method: Regression Tree Method (CART, Classification and Regression Tree, Breiman et. al 1984).

- *Type*: multivariational method
- *Result*: system of relationships which can be described as a tree or shrub
- *Short interpretation*: the method explains the variance of the dependent variable with the best combination of the categories of the independent variables
- The *maximum number of the classes* can be defined in advance: in this case it is 7.

Dependent variables: average time spent on an activity by the population participating in this activity (min.)

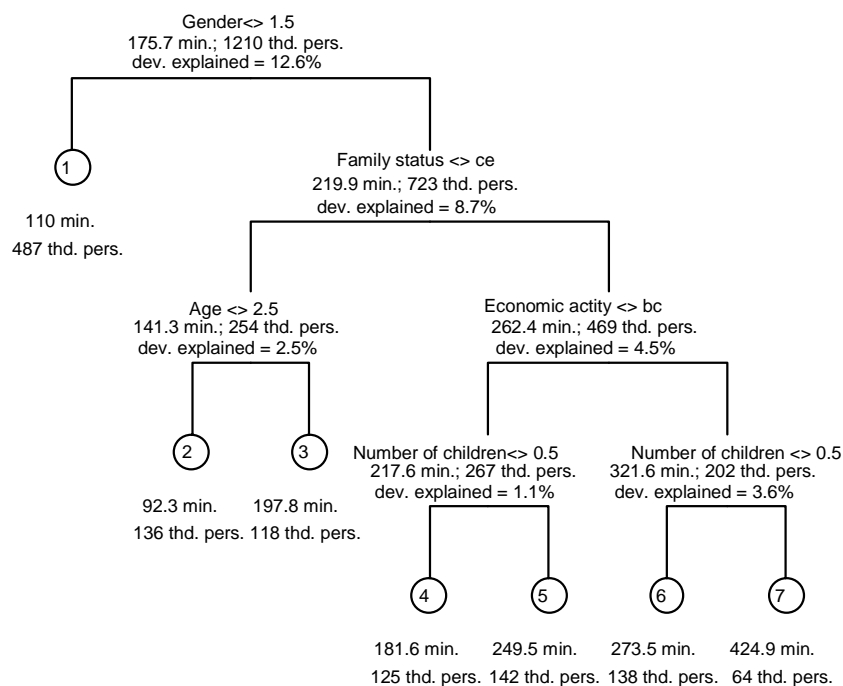
Independent variables: family status, economic activity status, age-group, education, gender, type of household, number of children under 18 living in the household.

In the case of the 15-74 aged population of Budapest, four activities have been revealed in the explanation of whose variance the gender dimension plays a significant role:

They are the following ones:

- domestic work
- childcare
- care for pets and plants
- listening to radio and music.

Regression tree: Time spent on domestic work by 15-74 aged participating population in Budapest 2000



Total deviance explained = 33 %

Interpretation of the Regression Tree of domestic work:

The diagram shows that in 2000 the gender dimension explained 13% of the total variation of time spent on domestic work. In 1986, the gender dimension was connected to an economical activity type (women who are on parental leave) and explained twice as much, 25% of the total variance. In 2000, men in Budapest spent 1 hour 50 minutes on domestic work, whereas women devoted twice as much time, 3 hours 40 minutes on home care. Three quarters of men participated in some way on an average day in domestic work: 57% spent some time on traditional women-like domestic activities, 6,4% dealt with maintenance. Besides this, 36% helped in shopping, 13% of men participated in childcare.

4. Interpretation of results: gainful work, roles related to homecare and childcare change in France, Finland and Hungary in different directions

In *Hungary*, the former balanced situation – which was characterised by women 's emancipation, traditional role patterns remaining in the background – was disturbed by several developments. Time spent on gainful work by employed women increased less than in case of men, therefore domestic work and childcare became more the responsibility of women. Contrary to the higher degree of gainful work by men, the value of home and children for a part of women has grown. The former „full employment” of the socialist era was replaced by more or less the same level of employment as in Western societies. It is to be feared that this development came to a deadlock at this point in the first place because of the lack of institutions.

However, the equalising trend in the division of domestic work is also there, men participate in higher degree in traditional women-like domestic work (cooking and washing up). In the foreground of these two contrary developments and due to the „domination” of the world and value of work, children aren't so important for another part of women. This last two trends are more pronounced in Budapest than in the whole urban part of country.

In *France*, the situation of the late 1980s was characterised by less activity of women in the labour market. The society the role of men (gainful work) offset to a high degree women's family centred role. This has been modified in the last decade by women's increasing participation in employment. Putting off the children is the price for the carrier paid by partly the women themselves and partly by the society. However, the situation is more complex. The role of women in the labour market is „needed” because of the ageing society. As a family with two employed parents is not so interested in childcare, the ageing process can intensify. The growth of free time has stopped. Contrary to the predictions made in the 1960s (by the sociologist Dumazedier, 1962, 1988)

Western societies have a rest now on the path to the „Leisure Paradise” (Chenu-Herpin, 2002). The dominating role of the world of work is partly a consequence that neutralises the negative effects of ageing (though there are other factors as well). It seems that family came to the second place also because this development is connected to the increasing wish of women to participate in this world.

In *Finland*, a North European country, divergences between the two genders are traditionally less significant than in other parts of Europe. In time use data this is most evident in the fact that the two genders have approximately the same amount of free time. Consequently, the two genders consume the same time for the total workload also. During the last 10 years, domestic work increased in case of both genders: men do more traditionally women-like activities and contrary to this, women deal more with maintenance and gardening. The two genders were approaching each other but some traditional diversities had been conserved during this period.

Common trends in *France* and *Finland* are that free time increased in the 1980s whereas in Hungary, this trend characterised also the 1990s. Finland’s peculiarity in the European Union is that gainful work didn’t increase in case of women during the last decade. The diminution of gainful work and the shift to the domestic work in *Hungary* is closer to Finland.

Methodological appendix:

Sample information

Sample	Urban population aged 18 - 64					
	France		Hungary		Budapest	
	1986	1998	1986	2000	1986	2000
N=	9975	8507	14651	22101	4125	6415

Sample	Urban population over 10		Urban population over 14	
	Finland		Hungary	
	1988	2000	1986	2000
N=	2274	5451	18286	28848

Sample	Employed urban population over 10		Employed urban population over 14	
	Finland		Hungary	
	1988	2000	1986	2000
N=	9230	5490	23165	20032

Literature:

Alain Chenu – Nicolas Herpin 2002: „Une pause dans la marche vers la civilisation des loisirs?” in: *L'évolution des temps sociaux au travers des enquetes 'Emplois du temps'*, Economie et statistique, Nr. 352-353, Paris, 15-37. p.

Jonathan Gershuny 2000: *Changing Times: Work and Leisure in Postindustrial Society*, Oxford.

Iiris Niemi – Hannu Pääkonen 2002: *Time Use Changes in Finland through the 1990s*, Statistics Finland, Helsinki.

Gender Problems in Post-Soviet Belarus

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The contemporary Belarussian demography is more and more actively involving the gender factor in the demographic analysis system. The principle of equal rights and opportunities for men and women is fixed in the Constitution of the Republic of Belarus. However, this provision is not supported in practice. Gender imbalance manifests itself in the process of the analysis of the social and economic status of women in the fields determining the level of providing them with basic opportunities. Therefore, the main attention in the report is paid to the following gender issues:

- access of women to educational services;
- employment and unemployment among women;
- women's participation in management;
- labour payment.

Aggravation of gender problems in Belarus takes place at the background of the complicated economic situation. Presently, a too long period of transition to market-oriented relations is typical for Belarus, and this adversely affects the standing of the population. The level of the officially registered unemployment is equal to 2,3%. Being so, partial unemployment and a high level of hidden unemployment may be called a typical feature of the economy. The average monthly amount of wages in the Republic fluctuates at the level of 100 US Dollars, and in agriculture this figure is almost twice lower. The specific indebtedness of wages payment in the monthly wages fund constituted 12.1% in November 2002, with 61% of this indebtedness belonging to agricultural enterprises. Presently, the monthly fee for an apartment reaches from 5 to 25 US Dollars.

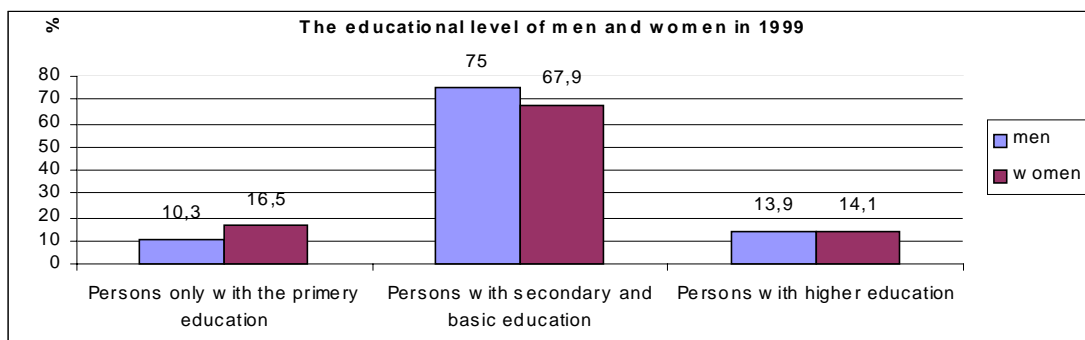
On the basis of the aforesaid data one can see a picture of annual incomes and expenditures of a woman having one child. With the total average income of 1200 US Dollars per year from 60 to 240 US Dollars are deducted for payment of the dwelling fee, the annual contribution for study at higher educational institutions makes up by 1000 US Dollars, and the cost of one medical consultation in institutions requiring payment reaches 5 US Dollars. Therefore, women have to refuse from many economic welfares, combine several working places, stay less with their children in order to secure normal existence of the family.

In 2001 in the Republic of Belarus women accounted for 53% of the whole population. Dynamics of changes in the women's population share is insignificant, during last 5 years it fluctuated on the same level approximately equal to 53%. Nevertheless, the total number of women in 2001 as compared with 1995 reduced by 2.4% along with reduction of the total number of the population of the country by 2.2% over the same period. This is a peculiar reaction of the population to the long economical crisis, reduced basic state social support, liberalization of prices and the active inflation process. The observed depopulation is a consequence of the mortality rate excess over the birth rate by many times, worsening of health of the population, reduction of the expected life duration. The average life duration of women did not practically change during this period and still it essentially exceeded the life duration of men (74.4 and 62.7 years, respectively).

Literacy is one of the main features typical for the educational level of the population. It makes it possible to consider Belarus to be the state of universal literacy of the population. According to the results of the last census of the population in 1999 a share of illiterate women in the total number of the population under 15 years and older is somewhat higher than the same share of illiterate men (0.6 and 0.4% respectively). This is because of predominance of the illiterate women older than 49 years old who studied during the World Wars I and II. The share of illiterate women and men in the age of 15-49 years in 1999 is the same and totals 0.2% of the total population of the given age. As compared with the results of the previous census of 1989 the share of illiterate women older than 50 years reduced by 5 times. This is due to reduction of the generation of pre-war and war years when it was unable to study.

The educational level of the population in the republic has continuously been changing during the last decade towards a higher proportion of the persons occupying a higher level of education. However, while in 1999 as compared with 1989 the share of men having only the primary education reduced by 3.1% and made up 10.3%, the women's same share remained on the firmer level - 16.5%. The share of men having the secondary and basic education in 1999 exceeded the same share of women (75% against 67.9%). At the same time, in 1999 13.9% of women and 14.1% of men had the higher education. As compared with the results of the 1989 census these indices became higher by 3.7% for women and by 2.7% for men. The highest educational level of women in 1999 related to the age 30-34 years, of men - 50-54 years. The similar tendency is observed among the urban population: 255 women of the age of 30-34 years and 249 men of the age of 50-54 years out of 1000 persons of the corresponding group have the higher education. These indices are by two times lower for the rural population and they relate to the age of 40-44 years for women and 45-49 years for men. It should be noted that a share of women who had the higher education in 1999 among the women living in the rural areas are by three times lower than the same index for the urban women's population.

The same tendency has been repeated since 1958. This is due to the territorial remoteness of rural settlements from higher educational institutions located in big cities, availability of the weak infrastructure, the low interest of residents in improvement of their educational skills.

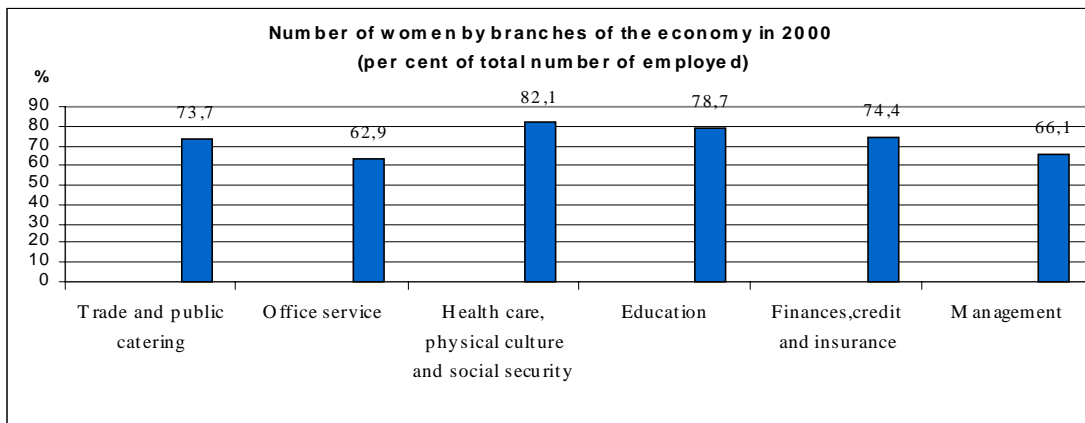


Opportunities of obtaining the education by women and their successful professional career in accordance with the obtained qualifications are also important in determining the woman's status in the society. The tendency of growing the proportion of student women along with the growing level of the educational establishment is typical for the Republic of Belarus. That is, 55.9% of students of secondary special educational institutions in 2000 were represented by women, and in higher educational institution this index reached 56.1%. However, its gradual reduction is noticeable at transition from higher educational institutions to post-graduate and Doctor's courses, i.e. the post-professional education. As the result, the women's share among the students of the Doctor's courses of the year 2000 amounted 36%. The situation is partially explained by the fact that by the moment of obtaining the higher education many women have married and borne children. The said circumstances in the republic prevent increase of the educational level.

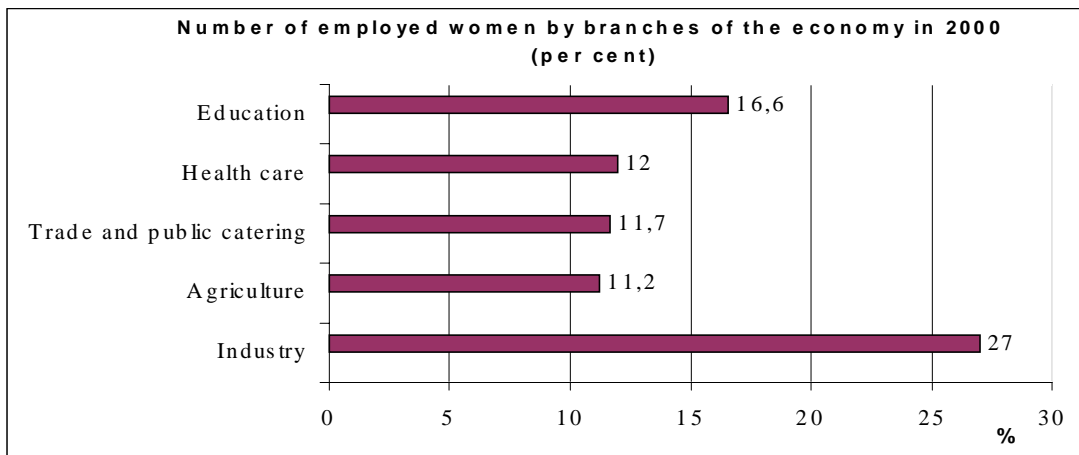
A tendency of recent years included distribution of non-state higher and secondary special educational institutions in the country. The same proportions as in the sphere of the state education are retained here: female students account for about 56%. It should be noted that the women's share is much higher among students of higher and special secondary educational institutions of the specialties of health care, economics and law, education. In 2000 at the state-owned higher educational institutions it amounted 68.6%, 74.5% and 73%, respectively.

Women occupied in the national economy of Belarus have a rather high educational potential: 57.2% of all women occupied in the national economy have the higher and secondary special education as compared with 42.3% for men. In 2000 women constituted a majority in such branches of the economy as trade and public catering

(73.7%), office service (62.9%), health care, physical culture and social security (82.1%), education (78.7%), finances, credit and insurance (74.4%), management (66.1%). As compared with 1995, these indices have not practically changed.. Being so, while representation of women in management is gradually increasing, the number of managing ladies is reducing along with transition to higher management levels. The Chamber of Representatives includes only 10% of women, and the Council of the Republic is represented with 31 % of women.



In 2000 most women were employed in industry (27%), agriculture (11.2%), trade and public catering (11.7%), health care (12%) and education (16.6%). While considering the women's educational level as far as the branches of economy are concerned/the biggest share of persons employed having the higher education falls onto the office service (47.7%), general commercial activity of ensuring the market functioning (61.6%), education (47.8%), science and scientific service (58.5%), management (53.9%).



Despite the high level of education women can not pretend for occupying the highest managing ranks. In 2000 male managers amounted 54.9%. The same position has been retained since 1995. As compared with 1995, in 2000 the share of female experts increased by 17.7% and constituted 55.9%. Women are still occupying the majority of posts of experts and other employees. Among the employees having the diplomas of high education men often occupy higher administrative posts, women are employed as experts. They occupy lower levels of the occupational career even in the spheres of the mental labour with the traditionally high proportion of the employed women. While women constituted 84% among the teachers of secondary schools in 2000, they amounted 47.5% of the heads of schools. The reasons still lie in existence of gender problems when the professional success is considered proper for men, but women has to stay the house keeper. An important reason here is the fact that the labour activity peak of women falls on the fertile period when efforts are spent for birth and upbringing of children.

By constituting the majority of the labour-capable population of the country women are most vulnerable in our conditions of economic instability. Although since 1997 the situation has improved the unemployment level in 2000 for both men and women has not reached the level of 1992, and respectively the number of unemployed women increased by 2.9 times, men - by 8.4 times. Starting from 1993 the level of the officially registered women's unemployment is 1.7-1.8 times higher, as compared with the level of the men's unemployment.

Women having the higher (67.9%) and the secondary special (71.4%) education have found themselves in the most complicated position. As compared with 1995 the said indices have somewhat reduced - by 2.4 and 4% , respectively. It should be noted that the educational level of unemployed women in 2000 is higher than of men: 25.6% of women have the higher and the secondary special education, as for men - only 16.8% have the higher and the secondary special education, but approximately 83.2% of unemployed men and 74.4% of women have the secondary general and basic education.

During the last decade men have been more mobile and decisive in change of places of work. In 2000 35.9% of unemployed men left their working places by their own accord. While in 1995 the main reason of dismissal was the staff reduction, in 2000 the dismissal on the own accord occupied the first place. There are qualitative differences between the men's and women's unemployment: most unemployed men manage to find the work much quicker. The average duration of the search of work in Belarus has slightly reduced over the recent time and is equal to 6.9 months for women and 5.6 months for men. These indices can be considered from both sides: on the one side, this certifies the bigger activity of men in searching the employment, and on the other hand - obstacles for women on the labour market. Many employers prefer to take on men believing that

they later have a higher labour productivity, they are more active in striving to improve their skills, to promote themselves, and women are more frequently absent at their working places after birth of a child and during sickness of children. That is, presently, women are less competitive at the labour market.

As the result women say in favour of housekeeping. In the given case one may speak on the problem of insufficient contributions to the national income at substitution of the professional labour with the parental one and with retention of the high level of women's unemployment. The higher women's qualification and the women's unemployment, the more sensitive losses are. At the same time numerous women having a high educational level fail to find employment in accordance with their qualifications and they are acquiring new specialties of secretaries-referents, office managers. Hence, the status loss is taking place

The industrial and professional differentiation between men and women greatly influences difference in the wages level. The world tendencies certify that women concentrate themselves to less profitable branches. As the rule, high level of labour payment in industries results in the increased employment among men and respectively exclusion of women to branches with the relatively low labour payment. Therefore, the ever increasing concentration of women on the budgetary branches of health care and education promote the difference increase in wages between men and women.

In the industry of the Republic of Belarus on the whole the wages of women constitutes only 81% of the Men's wages, and in a number of industries - even less. The biggest differentiation in labour payment of men and women in 2000 was fixed in industry - the average wages of women constituted 74.6% of the average wages of men, in geology and prospecting for mineral resources, geodesic and hydrometeorological service - 59.6%, science and technology - 78.1%, management - 76.1 %.

The labour payment level in some branches, wherein women are concentrated, is much lower than the average one in economy. So, the average wages of women employed in the education sphere in December 2000 is by 10.2 % lower than the average wages in the economy on the whole, in trade and public catering - by 13%.

The present situation in Belarus demonstrates the contradicting picture in the field of the gender equality of education: on the one side, it is a high proportion of educated women, on the other hand, the highly educated women constitute the majority among unemployed and those who acquire lower qualifications for facilitation of work searches. The second, the difference in labour payment of men and women takes place. The third, even because of high educational level women cannot get the higher managing ranks.

One of the proposed resolution of the gender problem in education of Belarus is enhancement of the maximum age of the possible free of charge higher education. Presently, 20% of women having the higher education have a chance to obtain it by the age of 30 years. In this case women are getting prospects for completion of education after the fertile age pretending for the working place without a long break in time. The specialty choice providing the high incomes is also possible. Mechanisms are necessary which would allow for women to work in the specialties traditionally occupied by men.

Training of experts for “the future”, introduction of the probation studies at enterprises, conductance of the intensive retraining and repeated qualifications will represent a possible option of resolution of employment among women. This will require the forecasted demand for certain specialists in future, establishment of new working places, as well as optimization of the appropriate working places.

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