UNITED NATIONS ECONOMIC COMMISSION FOR EUROPE
CONFERENCE OF EUROPEAN STATISTICIANS

UNECE Work Session on Gender Statistics
(Geneva, Switzerland, 26-28 April 2010)

Working paper 17
21 April 2010

Session II.A of the provisional agenda

UNECE EXPERIENCE IN PRODUCING TWO MEASURES OF GENDER PAY GAP

Note by the secretariat

Supporting paper

I. INDICATORS ON GENDER PAY GAP IN THE UNECE GENDER DATABASE

1. The statistical indicator "Gender Pay Gap" (GPG) was introduced in the UNECE Gender Database a few years ago to measure gender inequalities in earnings.

2. The GPG can provide information on the differences between the earnings of men and earnings of women from three different perspectives, as follows:

(a) Gender gap in take-home pay – indicates the difference in men's and women's average earnings from work over a period of time (usually a month);

(b) Gender gap in average hourly earnings of men and women – indicates the difference in the overall position of women and men in the job market, regardless of number of hours worked;

(c) Equal pay for work of equal value – compares earnings from employment of men and women in similar jobs (within classes of jobs deemed to be of equal value).

3. The GPG is related to gender segregation, discrimination and participation in the labor market. Therefore, more disaggregated data on earnings is needed to be able to understand what causes the differences in GPG estimates.

4. UNECE sent out a questionnaire in May 2009 to compile data for GPG based on monthly and hourly earnings (the first two perspectives mentioned above). Equal pay for work of equal value is difficult to measure as it requires very detailed data on women's and men's earnings, taking into account many characteristics such as the kind of job, occupation, industrial sector, seniority and educational attainment. The UNECE did not attempt to collect data on this indicator.

5. The aim of the GPG questionnaire was to:

(a) Update the existing gender pay gap data in UNECE Gender database;

(b) Examine whether the GPG data in the database could be extended using the information from the questionnaire to meet the need for more detailed data analysis.

6. The paper provides a summary of findings from the replies to the GPG questionnaire received from 35 countries.

II. GPG QUESTIONNAIRE

7. The GPG questionnaire for the 2009 data collection was designed based on the results from the UNECE gender pay gap survey carried out in November 2007[1]. This survey explored issues related to the calculation of GPG among 12 national statistical offices from the region. The survey analysed the availability and comparability of data on income from employment, sources of data used, and the effects of hourly, monthly and annual income measurement on the GPG.

8. The survey showed that there are many differences in gender pay gap estimates, depending on sources and methods used. Therefore, the GPG questionnaire sent out in May 2009 included two tables: one on average hourly earnings by gender and pay type (gross and net earnings) and one on average monthly earnings by gender and pay type.

9. Five additional questions were asked to understand the nature and coverage of earnings statistics in countries:

(a) Question 1 – Compliance with the given definition of earnings: countries were asked to provide information on any variations in the data coverage from the "standard" definition. Countries were also asked to specify whether the data covered both paid employees and self-employed and inclusion of other components in the earnings definition, such as irregular bonuses;

(b) Question 2 – Type of employment covered: whether the data cover full-time and part-time employees for both indicators;

(c) Question 3 – Breaks in data series: to ensure data comparability over time, countries were asked to provide information on any changes in methodology or data source used and data coverage over the years;

(d) Question 4 – Additional comments;

(e) Question 5 – Countries were asked to specify availability of sex-disaggregated data (additional breakdowns) on earnings by seniority (years in employment), public/private sector, educational attainment, occupation, sector of industry and ethnicity.

[1] ECE/CES/GE.30/2008/13

III. RESPONSES TO UNECE GENDER PAY GAP QUESTIONNAIRE

10. Questionnaire on gender pay gap was sent to 52 UNECE member countries in May 2009. 39 replies were received. However, some of the countries were not able to provide the detailed data for different reasons (e.g. no sex-disaggregated data available, covering only specific sectors in economy, etc.). In total, complete questionnaires were received from 35 countries.

III.1 Data sources

11. Household surveys were indicated in the questionnaire as a preferred source for data on average monthly earnings as this source usually covers both full-time and part-time workers. Establishment surveys (such as the Structure of Earnings Survey) were indicated as a second priority. Although in most cases these surveys cover only paid employees, they still have a broad sample coverage. In case no data were available from either of these sources, countries were asked to provide data from any available source (administrative records or other surveys), clearly indicating the source of compilation.

12. From the responding countries, most countries use establishment surveys as their main source to produce earnings statistics. Only a few countries (Armenia, Canada, Estonia, Israel and Moldova) use household survey as their main source for hourly data. Administrative sources are used to collect hourly earnings data in Luxembourg (Social security files) and Slovenia (Tax Register and Statistical Register of Employment).

III.2 Definitions of earnings used by countries

13. The questionnaire is based on the definition of earnings adopted by the 16th International Conference on Labor Statistics. Earnings in the questionnaire are defined as:

> "remuneration in cash and in kind paid to employees, as a rule at regular intervals, for time worked or work done together with remuneration for time not worked, such as for annual vacation, other paid leave or holidays. Earnings should include:
>
> (a) Direct wages and salaries;
>
> (b) Remuneration for time not worked (excluding severance and termination pay);
>
> (c) Bonuses and gratuities and housing and family allowances paid by the employer directly to his employee.
>
> Earnings exclude employers' contributions in respect of their employees paid to social security and pension schemes and also the benefits received by employees under these schemes. Earnings also exclude severance and termination pay."

14. To be able to assess data comparability, countries were asked to indicate whether their definition deviates from the one given in the questionnaire.

15. Concerning the first component of earnings data, direct wages and salaries, the main concern is whether remuneration in kind is included. These are usually goods and services provided from employer to employee that serve as a payment (other than money) for the work done. Furthermore, it would be important to know the proportion of persons who receive remuneration in kind. If the proportion is significant, it may have an impact on earnings data. Some countries reported that they include this category in earnings data.

16. Most countries reported variation from definitions concerning the third component. Many countries do not include irregular bonuses (bonuses that are not paid regularly at each pay period) in their earnings statistics. If irregular bonuses, like end-of-year bonuses, premiums or other additional payments, are excluded when producing gender pay gap data, this may affect the gender pay gap in monthly earnings and lead to misleading results in analyzing gender differences in take home pay.

17. In addition, many countries exclude family allowances from their earnings data. Family allowances constitute a component of earnings and their distribution between women and men may have an impact on the estimated value of GPG. Family allowances are not included in earnings statistics for Croatia, Finland, Kazakhstan, Poland and Switzerland.

18. Norway reported that their data are composed of the first and third component, excluding remuneration for time not worked and housing and family allowances.The Netherlands do not include any of the components listed under point three (bonuses, gratuities, family allowances) in their monthly earnings data.

III.3 Data coverage

Data are provided mostly for paid employees

19. In order to produce data as accurately as possible on GPG, it is important that not only all components of income are included but also that all types of employment are covered. Unfortunately, the majority of countries could submit data only on paid employees. Azerbaijan and Slovenia collect data for both paid employees and self-employed for hourly earnings statistics.

20. Most of the European Union countries are using the 4-yearly European Union Structure of Earnings Survey (SES) and their national sources follow the SES methodology in between those four years. Structure of Earnings Survey covers only paid employees and enterprises with 10 and more employees.

21. In general, from 1980 to 2008, in most European Union countries less than 15% of all employed persons were self-employed. Therefore, including or excluding self-employment for these countries could have a relatively small impact on gender pay gap estimates. However, there are countries where the share of self-employment from total employment is very high. For example in Georgia, in 2007, 62.2 % of total employed persons were self-employed. The self-employment rate is also high for Kazakhstan and Kyrgyzstan. Excluding the self-employment category from compiling earnings data may significantly affect the GPG data for these countries.

Data are available only for full time employees

22. In some countries, monthly earnings data are available only for full-time employees (Finland, Hungary, Luxembourg, Norway, Poland, Slovenia and Switzerland). Part-time workers are considered to be one of the main reasons for the differences between monthly and hourly GPG. For example, in Switzerland, where part-time workers are excluded from monthly earnings, the GPG calculated from monthly and hourly earnings is the same. However, for some other countries there still remain some differences between the two measures of GPG when the monthly data cover only full-time employees.

Gross or net earnings?

23. The monthly take-home pay is relevant when GPG is used to measure the income as a tool for economic welfare and empowerment. In this context, the use of net instead of gross earnings is considered preferable. Unfortunately, most of the reporting countries could provide data only on gross monthly/hourly earnings. Eight countries out of 35 could provide net figures for monthly data. Therefore, it was decided to use gross instead of net earnings to calculate GPG as a difference in monthly earnings.

IV. FINDINGS FROM THE GPG DATA

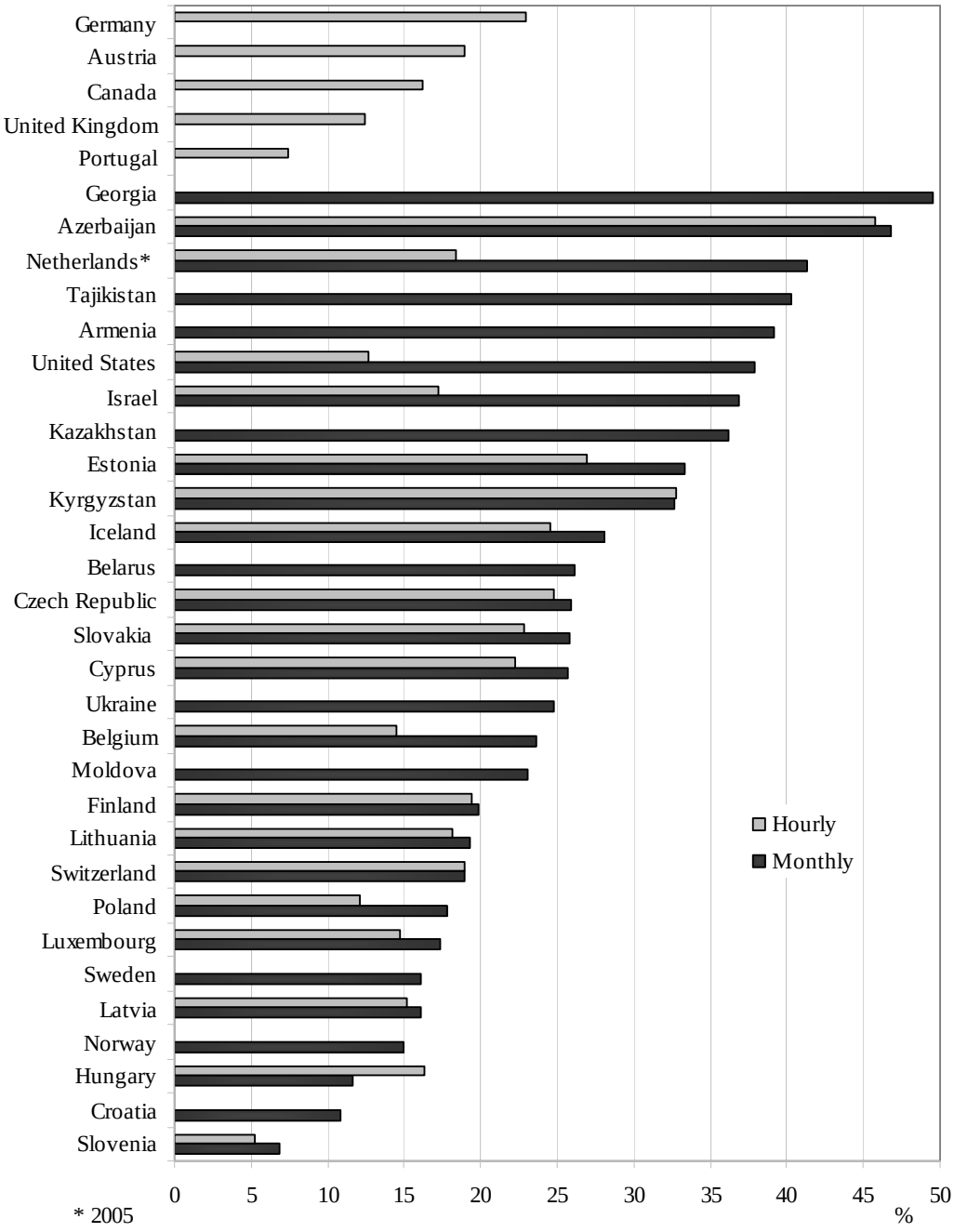
IV.1 GPG based on monthly versus hourly data

24. In most cases, the GPG computed from monthly earnings is greater than the one computed from hourly data (see Figure 1). Depending on the country, it can be explained by different reasons. The main reason is that hourly data do not capture the gender differences in duration of working time. Therefore, if in a country a larger proportion of women are working part-time compared to men, these differences will result in a bigger GPG in monthly earnings.

25. Looking at the data from the GPG questionnaire, the widest gap in GPG monthly and hourly estimates can be seen in the United States. One possible explanation could be that the United States' average hourly earnings data do not include self-employed workers, while data on average monthly earnings includes both paid employees and self-employed. As there are no data available on self-employment by gender in the United States, it is hard to pinpoint the reason that results in broad differences in gender pay gap estimates.

26. Moreover, the gap between monthly and hourly data could be eventually explained by the two different sources used to obtain earnings data. Average hourly earnings are combined by the United States Bureau of Labor Statistics from annual Current Population Survey Reports, while average monthly figures have been obtained from the United States Census Bureau Historical Income Table.

Figure 1. GPG from hourly and monthly average earnings in latest available year (2006-2008)



* 2005

Source: UNECE Gender Database

IV.2 GPG trends in a few countries

27. Comparing the GPG data throughout the years, it can be seen that for some countries, like Iceland, Ukraine, United Kingdom and United States, the gap is decreasing, while for others, like Belarus, Georgia and Lithuania, it is slightly increasing (see Figures 2 and 3) In the case of most countries, however (for example Kyrgyzstan in Figure 3), there is no clear trend visible in the GPG data. As the reasons for the differences in women's and men's earnings are manifold, ranging from direct discrimination to traditional gender roles and stereotypes in society that influence personal choices, significant changes in GPG can not be expected to happen over a short time period.

Figure 2. The GPG in monthly earnings, 2000-2007

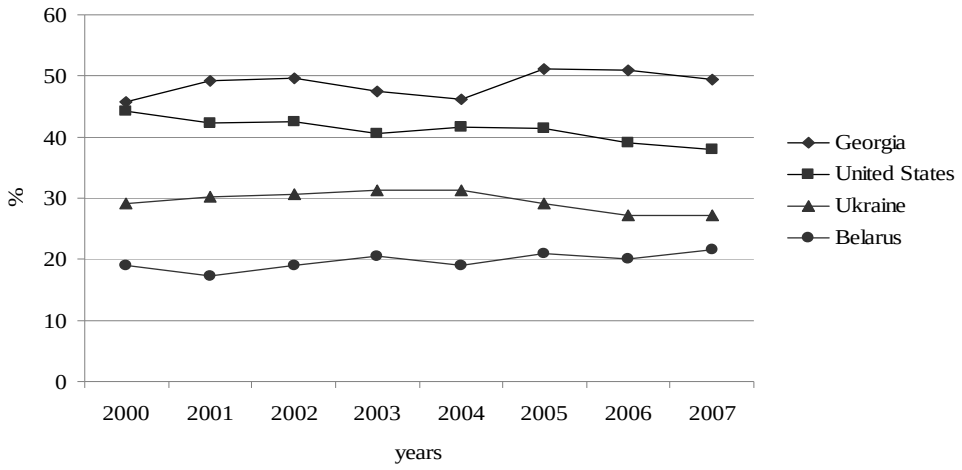
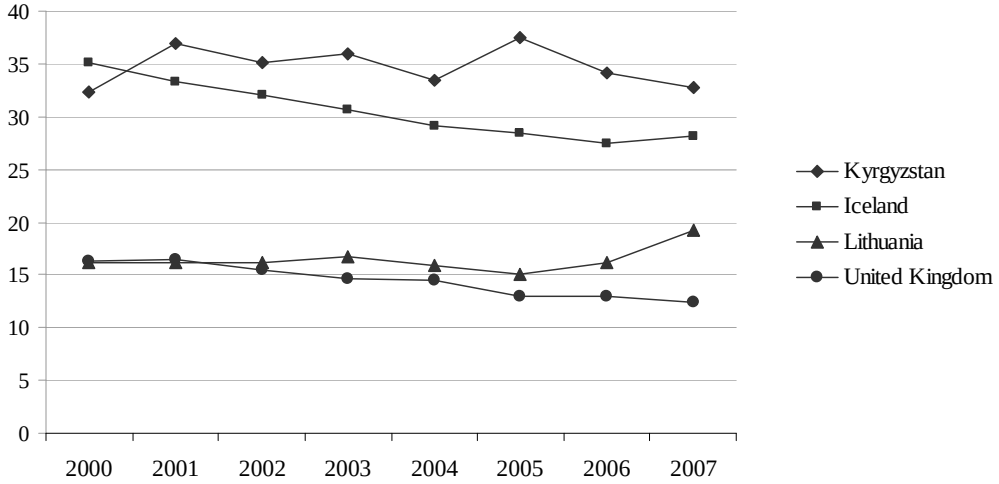


Figure 3. The GPG in hourly earnings, 2000-2007



28. Concerning comparability of data between countries, it should be taken into account that not all the countries use the same data source to obtain earnings statistics and, as mentioned above, the data do not always include the same components.

V. FUTURE WORK

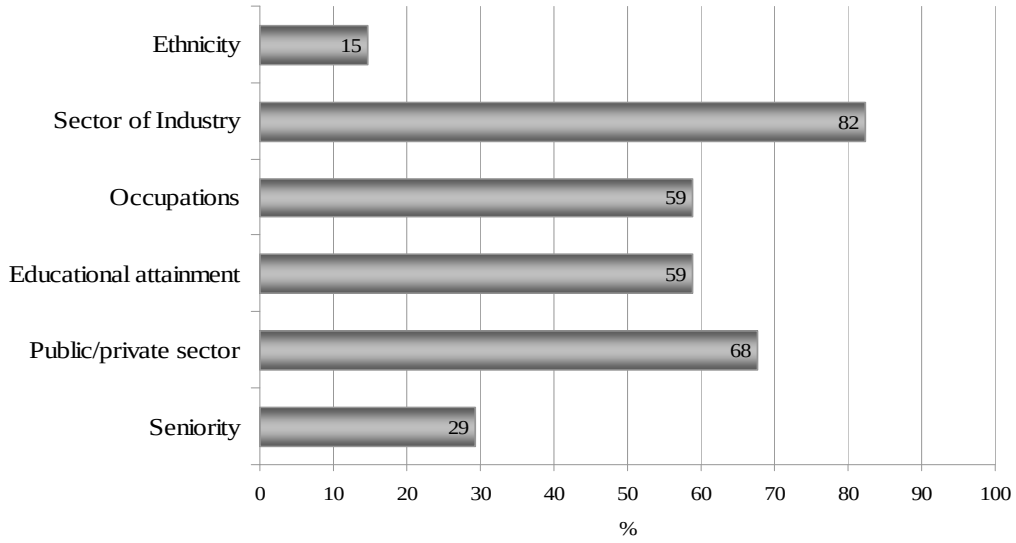
V.1 Additional data on earnings availability in the countries. Future possibilities to extend GPG data by additional categories.

29. To extend the comparability and improve quality of GPG data, it is important to explore whether there are sex-disaggregated earnings data available with more detailed breakdown in National Statistical Offices.

30. In the UNECE gender pay gap questionnaire, an additional question was asked on sex-disaggregated earnings data availability by categories. From 35 responding countries, 82% collect earnings data by sector of industry (see Figure 4). This is the category that countries reported as the most available. Earnings data by sector of industry would permit us to see whether there are sectors where the gender differences in income from employment are more evident. This could be a new avenue to explore in the next GPG questionnaire.

31. The second most commonly available breakdown is by private/public sector (68% from the responding countries). 59% of the countries have earnings data available by Occupations and Educational attainment. There is less possibility to explore gender differences in income from employment by seniority (29%) and ethnicity (15%).

Figure 4. Percentage of additional gender disaggregated data availability on earnings by different breakdowns in National Statistical Offices



VI. CONCLUSION

32. In December 2009, the results from GPG questionnaire were released in the UNECE Gender Database, based on monthly and hourly earnings data. Up to this time, UNECE published GPG from monthly earnings only based on data from other international sources. Introducing the two measures in GPG has broadened the scope and understanding of some of the main reasons behind the existing gaps.

33. However, to better understand and analyse different reasons for gender difference in pay, it would be important to obtain more sex-disaggregated data on earnings with breakdown by categories.

34. It is planned to make the GPG questionnaire part of the regular data collection exercise for the UNECE Gender Database (carried out every two years).

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