

**Summary of the research undertaken**

**for Work Package 1**

**For the European Union Project**

**WORK CHANGES GENDER**

**A report prepared by**

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## **Task 1: Labor force participation rates and part-time versus full-time work**

As indicated in the original research proposal, this task was meant to be “a relatively standard analysis of the changes that have taken place over time in the labor force participation rates of both genders and in the relative importance of part-time versus full time work for both men and women....our priority will be to focus on the countries represented in this project.... In particular we are thinking of using a new database presently under preparation in Israel where household data from the 1995 Census will be matched with data from the previous (1983) Census and coming from these same households. To this unique database will be added annual information on the earnings and labor status of these same individuals, that will be made available to us by Israel’s National Insurance Institute and Israel’s Central Bureau of Statistics, enabling us to take a close look at the labor history of individuals.” This summary of the findings of Task 1 will cover essentially three countries that participated in the project, Bulgaria, Israel and Spain.

A very detailed and quite fascinating study of the Bulgarian labor market is attached to this report. This study is entitled “General Characteristics and Analysis of the Situation in the Bulgarian Labor Market as regards Gender Equality” was prepared by Professor Margarita Atanassova and Professor Lalko Dulevski.. Following a retrospective survey of the macroeconomic conditions in Bulgaria during the period of transition that followed the fall of the communist government, the author of this study provides a very detailed analysis of the labor market conditions in Bulgaria. The latter were characterized in the 1990s by a constant decrease of the labor force and of employment. In fact there was a decrease in public sector employment and an increase in employment in the private sector, though the net effect, as indicated, was a decrease in overall employment. During this period many plants were closed. The almost constant rise in the official unemployment rate during the 1990s does not include the so-called “discouraged people” who gave up the hope of ever finding a paid job. This rising unemployment is however not uniform across the country as in some regions unemployment is decreasing while in

some others it increases. An important distinction should be made between short run unemployment (less than 11 months) and long term unemployment (12 months or more). It appears that during the 1990s the long run unemployment represented more than half the number of unemployed individuals. The highest rates of long run unemployment are evidently to be found among those aged 65 or more. Amongst the young (15 to 24 years old) the unemployment rate is (relatively) lower. Unemployment seems to be larger in urban than in rural areas. Not surprisingly the rate of unemployment decreases with the level of education. As far as gender differences are concerned, in the year 2000 the rate of employment of men was 8.5% higher than that of women while that of their economic activity was 10% higher. As expected there are more men employed in agriculture, fishing, forestry, building and other industries, transport and communication and state administration. Women's employment is more concentrated in the service sector such as in activities related to tourism, catering, banking, finance and insurance, education and health. It turns out that 75% of the employers are men, this percentage being equal to 65 for self employed. Women represent evidently the majority of unpaid family workers. The percentage of women not participating in the labor force is throughout the 1990s higher than that of men. This participation rate depends however on the marital status. It is also higher for married men than for married women. Gender however does not seem to have an impact on the unemployment rate.

The report on the Spanish labor market is entitled "The Spanish Labor Market, Flexibility and Conciliating Family Work" and was prepared by Dr Paco Abril. It starts by highlighting the main differences between the Spanish labor market and other labor markets in the European Union. First, in the year 2000, unemployment was much higher in Spain (an unemployment rate of 14.1% versus 8.4% on average for the European Union). Second this differential is not the same for men and women. Second the gap between the European Union and Spain is relatively small for men (7.3% versus 9.7%) but much higher for women (9.9% versus 20.5%). Third unemployment is particularly high among young individuals (less than 25 years old). Fourth in Spain one out of every three working individuals works under a labor contract with limited duration. Fifth and last the percentage of individuals working part time is much smaller (8%) in Spain than

in the European Union (18%). The report of Dr Abril offers also an interesting survey of recent reforms concerning the number of hours of work per week (towards 35 hours) as well as of some legislation that was passed to attempt to reconcile work and family. Fertility at present seems to be very low in Spain essentially for two reasons: a lack of job security and a shortage of housing.

The report on the Israeli labor market includes two studies. The first one, entitled “Gender Issues in the Israeli Workforce”, was prepared by Professor Shoshana Neuman of Bar-Ilan University. The second one, entitled “Work History Patterns of Israeli Men and Women”, was prepared by Professors Shoshana Neuman and Adrian Ziderman, both of Bar-Ilan University.

The first study starts by stressing that during the 1980s and 1990s the share of the labor force employed in agriculture declined, industrial growth decreased while the service sector expanded substantially, specially the public sector. In the late 1980s and early 1990s there was however an important growth of the High-Technology industries. The overall labor force participation rate rose from 51.5% in 1990 to 53.7%, the corresponding figures for men being 62.3 and 62.1% (a slight decline) and for women 41.1 and 45.7%. Women’s participation in the labor force is evidently higher, the younger the woman. Women work most frequently as clerks and in professional/technical jobs, often in fact in the public sector. The participation rate for single females is higher than that of single men (46% versus 40.3%), probably because of the length of the compulsory military service (3 years for men versus 2 for women). The opposite is true for married individuals (a participation rate of 59.7% for married women and of 73.8% for married men). The labor force participation rate rises evidently with the level of education of the individual. The participation rate of women declines with the number of children and is smaller, the younger the children. As far as status at work is concerned, the percentage of female managers is clearly higher, the younger the age group. Finally in Israel 23.3% of the workforce was employed part time while 14.5% of the Israeli workforce was employed part time on a regular basis. Note that 74% of all the individuals working part time are women. In Israel there is relatively quite a large mobility from part time to full time work and conversely.

The second study is based on a matching of the individual records of two Censuses, those of 1983 and 1995, this data set being later on merged with data on the working profile and the wages of these individuals, data that were gathered monthly by the National Insurance Institute. Such a unique combination of data sources allows one to take a very close look at the different types of work interruption, since there are differences in the timing of these interruptions, in their length and numbers. It appears that among those working, 19.4% of the men and 10.5% of the women worked continuously throughout this 12 years period. Among those who experienced work interruptions, 14.2% of the men and 9.6% of the women had only one interruption. Similarly 6.1% of the men and 6.0% of the women had only two interruptions. The total duration of these work interruptions is relatively small but note that 42.4% of the men and 53.4% of the women had more than two interruptions. Among the individuals not currently working, 22.8% of the men and 31.3% of the women have never worked. It appears that 77.3% of the men and 68.6% of the women not currently working have experienced work interruptions at some time in their life.

## **Task 2: Wage-earners versus self-employed**

As originally planned, the aim of this task was to focus on Switzerland and prepare an analysis based on the annual labor force surveys that have been conducted during the past decade in Switzerland. The study was conducted by Dr Jean-Marc Falter, a member of the Laboratoire d'économie Appliquée of the University of Geneva. This study entitled "Self-Employment Choice of Men in Switzerland" is attached to this report. Here is a summary of its findings.

As indicated by its title, this study focussed on the choices made by men. In Switzerland during the past decade male self-employment has grown at a faster rate than female self employment. Switzerland is quite an interesting case because it "discovered" high unemployment only in the 1990s. It is thus an ideal case for studying the impact of a

labor market shock on the occupational choice of individuals. In the first stage of the study an attempt was made to investigate the determinants of self employment propensity. It appears that the individuals who choose self employment are not more efficient in this kind of work than wage workers, had the latter decided to be self employed. Self-employment thus does not appear to require specific entrepreneurial skills. On the other hand wage workers seem to have an absolute advantage in their kind of work, this implying that the most efficient workers prefer to be wage earners. The study indicates also that income differentials are the most important factor governing sectorial choice so that any variation (e.g. higher personal tax rates) in the relative returns in wage work as compared to self employment could have an impact on the rate of self employment.

The study looked also at the transitions to self employment. It appears that unemployed individuals have a higher probability of becoming self employed than employees. However, once a distinction is made between different types of self employment, the story becomes more complex. The unemployed have in fact a lower probability of becoming self employed with employees but a higher probability of working on their own account. This raises evidently questions as to the quality of the self employment jobs created by individuals who had been formerly unemployed. As far as the transition from employment to self employment is concerned, the study shows that the characteristics of the firm in which the individual worked, such as its size, or the hierarchical position the individual held in this firm, have a sizeable impact on this transition.

A separate chapter is devoted to survival in self employment. It appears first that the probability of remaining self employed increases with duration. Secondly self employment can hardly be seen as a step between unemployment and wage work as previously unemployed individuals have a lower probability to leave self employment for wage work but a higher probability that their spells in self employment ends with unemployment or inactivity.

The final stage of the study compared the well-being of wage workers with that of self employed individuals. Most of the workers appear to wish to become their own boss and the results of the statistical analysis show indeed that they are not mistaken in so far as self employed report higher satisfaction at work. This greater satisfaction stems however

from non pecuniary benefits rather than from income. Self employed individuals report in fact a lower satisfaction with their pay so that income may be a factor preventing individuals from becoming self employed.

### **Task 3: Temporary versus permanent work contracts**

As stated in the original proposal the idea was to use panel data made available by the C.E.R.E.Q. (the French Centre for the Study of Qualifications) in Marseille. The study was prepared by Dr Said Hanchane, a researcher at the Laboratoire d'Economie et de Sociologie du Travail (LEST), a research center located in Aix-en-Provence, France, which is in close relationship with the CEREQ, the agency that collected these data. The detailed report of Dr Hanchane, entitled "The socio-demographic determinants of the professional insertion of youth in the labor market: a longitudinal analysis by gender, based on French data" is attached to this report. Here is a summary of the findings of this study.

Its aim was to analyze the diversity of the paths followed by the youth in its transition from school to employment, to attempt to formalize such a heterogeneity of individual experiences and to check whether there were gender specific profiles. The basic idea was that youth is not simply a characteristic of a given age group but really a stage in the biography of an individual. The study used a longitudinal approach to identify the temporal dependence between such factors as the family or the educational system and the insertion in the labor force. The analysis was based on a survey conducted in 1997-1998 which covered the first five years of active life of a cohort of young individuals who left the educational system in 1992, whatever their diploma. 27,000 individuals were surveyed by phone during an interview that lasted on average 35 minutes. The topics covered during the interview were the schooling cursus, the professional experience and the demographic and social background of the individual, as well as the characteristics of his/her workplace. A distinction was made between those individuals who worked under

a contract with fixed duration and those who were employed under a contract with undetermined duration. The information on the relationship of the individual with his/her parents and his/her decision to cohabit with another person was available only for the month in which the survey took place. The study used a probit model with random effects and the database was a rotating panel. The following conclusions were derived.

First it appears that the unobserved heterogeneity is significantly higher among females, whether they work under a contract with fixed or undetermined duration. There are also important gender differences as far as the impact of the diploma on the probability of working under a contract with fixed duration is concerned. Whereas the diploma, provided the individual holds at least a “baccalauréat”, has, for males, no effect on this probability, among women this probability rises with the level of the diploma. Two explanations have been put forth. Either one argues that this is a proof that women have more often precarious jobs since even their access to a less stable job depends on their diploma. Or one believes that working under a contract with fixed duration is in fact a strategy chosen by women to obtain a temporary job. This will allow them later on to benefit from good social conditions and be in a better material position to leave the labor market to take care of their family. Another interesting finding is that individuals who stated that they stopped studying because they wanted to work, have the highest probability of finding a job. It thus appears that individuals who make clear decisions as far as their professional life is concerned, seem to be more motivated and successful. On the other hand individuals leaving the schooling system because they are “fed up” with school seem to be detected by firms and are often left aside by them. This is also true of those individuals who leave school to “cover their needs”. Finally as far as the relationship between the individual and his/her family is concerned, it appears that individuals who stayed for a prolonged period of time in their parents’ home, started later and took more time to go through the various stages characterizing entrance into adult life. This was particularly true for those with a low level of education. Another finding is that women who are the most “disconnected” from the parental home have the highest probability of working under a contract with a fixed duration. In other words it seems that women first decide to leave their parents’ home, then to “live as a couple” and finally to find a job, even if it is a precarious one. This appears to be a specific female behavior. The decision to leave an

autonomous life is taken earlier by women and is also considered as a more serious step among them. Note also that the decision to leave one's parents' home has also a stronger positive effect on the probability to work under a contract with undetermined duration for women than for men. Having children decreases evidently the probability to work, whether it be under a contract with fixed or undetermined duration. It thus appears that women without children are more dynamic in looking for a stable job but also that employers are more open to offer them such a position when they have no children.

#### **Task 4: Unemployment rates**

Two main objectives have been covered: first, a comprehensive review of the flexible market literature related to unemployment duration at a EU level, and second, a first and very preliminary analysis of the BHPS data. The attached document presents a first overview of the relationship between market flexibility and unemployment duration both from a theoretical and empirical perspective. All this work has enabled us to:

- \* learn how temporary employment is used as a means to achieve greater market flexibility.
- \* characterize temporary workers and temporary jobs at micro level and answer the following questions: Who gets a temporary job? What are they worth? And where do they lead to?
- \* document which are the main macroeconomic implications of temporary employment
- \* analyze how and which household related factors affect the likelihood of getting a temporary job: by gender, and by age.

#### **Task 5: Occupational Segregation**

This report is probably one of the first attempts to make an international comparison of occupational segregation based on compatible occupational definitions. Occupational

classification varies often from one country to another. The Luxembourg Income Study Project, a pioneer in building data sets on income distribution that could be compared internationally, started in recent years to gather also data on employment so that it is now much safer to make international comparisons of segregation by gender, for example.

The second novelty of this study is that it borrows techniques from the income inequality literature that could help better understand what kind of segregation takes place. More precisely a normative approach to the measurement of segregation is proposed that gives the possibility to decide whether more attention should be given to “female-intensive” or “male-intensive” occupations and how much weight should be given to these extreme cases. The segregation index that is used is the Gini Segregation Index but, in addition, a generalized or normative Gini index of segregation is introduced that allows to derive additional insights from the rich data set that is used.

The study assumes that an occupation is considered as being essentially a “male occupation” if more than 90% of its workers are males. Similarly an occupation will be defined as essentially a “female occupation” if more than 90% of its workers are female. Although the cross section of data that were available do not cover the same year, they all refer to the same decade, that which covers the period 1989-1997. This decade will be called in short the 1990s and it was assumed that, as far as occupational segregation is concerned, changes occur slowly over time so that an international comparison of results was still possible. Naturally any firm conclusion should be drawn with care.

When the whole labor force, including employees and self-employed, is taken into account, there are four occupations that appear to be male occupations in the majority of the countries for which data were available. These are the armed forces, listed in six countries as “male occupation”, extraction and building trade workers, listed in all countries as “male occupation”, metal, machinery and related trade workers, listed in eight countries as “male occupations” and finally drivers and mobile plant operators listed in nine countries as “male occupations”. No occupation is listed in at least five countries as a “female occupation”.

However, if one takes a look at part time employees only, it appears that there is no occupation in which most of the part timers are men. There are however three

occupations in which most of the part timers are women. These are life science and health associate professionals, listed in seven countries, customer service clerks, listed in six countries and personal and protective service workers, listed in five countries.

When looking at the values of the Gini segregation indices, it appears that segregation is highest in Switzerland (first rank in the case of employees and self employed as well as in the case of employees only) and in Norway and the United Kingdom. Note however that for these two countries the data are those of 1990 and 1989 respectively while those of Switzerland are for the year 1997. The lowest levels of segregation are observed in France (eighth rank), Poland (ninth rank) and Spain (tenth rank). Among part timers (employees) segregation by gender is highest in Spain (first rank), Hungary and Switzerland (same rank) and lowest in Luxembourg (ninth rank) and Poland (eighth rank). One may want to note that the difference between the results obtained among employees working full time and those working part time is highest in Luxembourg (first rank) and Poland (second rank) and lowest in Spain (ninth rank, and here segregation is higher among part timers) and Hungary (eighth rank).

In this summary, as far as the estimations of the normative segregation index are concerned, we limit our analysis to the case where the parameter  $\delta$  is equal to 100. A systematic comparison was made between the case where the “prior distribution” is that of males and when it is that of females. The methodological Appendix in the complete report gives more details on this distinction. When both employees and self-employed are included in the sample, there is not much difference between the countries when the “prior distribution” is that of males. This implies that in all countries there are occupations that can be considered as essentially “male occupations”. On the contrary there are important differences between the countries when the “prior distribution” is that of females. Whereas in countries like Hungary, Norway and Luxembourg there are occupations that should be considered essentially as “female occupations”, this is not true for countries like Spain or France. The gap between the value taken by the normative segregation index in both cases (“prior distribution” is that of males or of females) is highest in Spain and lowest in Hungary and Norway.

When only employees working part time are considered, there is, here again, no important difference between the countries in the values taken by the normative

segregation index, when the “prior distribution” is that of males and this index is quite high. In other words, in all countries, there are occupations where part timers are essentially male workers. There are however big differences between the countries in the extent to which there are occupations where part timers are essentially female workers (the case where the prior distribution is that of females). Whereas in countries like Poland, Hungary or Norway there are occupations with essentially no male workers, this is not true for countries like Sweden or France. The gap between the value that the normative segregation index takes in these two extreme cases is highest in Sweden and France and lowest in Poland and Norway.

To conclude, the normative approach to segregation measurement that has been proposed in this study allows deciding first whether one concentrates one’s attention on occupations with a low females/males ratio or on those with low males/females ratio. But it gives also the flexibility to determine the weight one wishes to give to these extreme cases of very male- or female-intensive occupations. The empirical illustration, based on data for ten European countries during the last decade of the twentieth century confirmed that additional insights are indeed obtained when such a normative approach is adopted.

## **Task 6: Wage discrimination and life time learning and training**

As originally planned the database used here was the British Household Panel. Two reports are attached to this summary. Professor Xavier Ramos of the Universitat Autònoma de Barcelona, Spain, is the author of both studies. The first one is entitled “Domestic Work Time and Gender Differentials in Great Britain 1992-1998: How Do “New Men” Look Like?” Here is a summary of its findings.

Previous empirical studies of the allocation of time of husbands and wives in Great Britain show that gender differentials in domestic and paid work time decreased up to the mid 1980s, but remained substantial. Such a positive trend towards gender equality was explained by increases in market work for women that were offset by decreases in domestic work, and decreases in market work for men that were offset by increases in domestic work. Did this gender equality-fostering trend continue in the 1990s? Are women still doing much more housework? Do married (cohabiting) and single

individuals behave very differently? This study analyzes the intra-household distribution of domestic work time in Great Britain on the basis of the British Household Panel Survey (BHPS) covering the period 1992-1998. New evidence is thus provided about gender differentials in domestic work time, market work time and total work time.

This BHPS evidence has good and bad news for gender equality. The good news is that domestic and paid work time differentials are decreasing in Great Britain, albeit very slowly. The bad news are that, by the end of the 1990s, the differentials are still rather large, and that men show a much more stubborn behavior towards housework than women. In other words they appear to be less sensitive to household characteristics that do affect women's work time allocation decisions.

The picture that emerges from the BHPS data is in fact rather 'traditional' and well known. On average, women (whether married or single), as compared to men, work more at home and less in the labor market. As a result, men and women end up doing almost the same amount of total work hours. These average figures conceal however a much richer reality that points to a less gender equal division of total work time. For instance, conditional on labor market status, average total work time is larger for women than for men.

These results are coherent with some basic findings predicted by economic theory and well documented in the existing empirical literature. The findings of this study confirm that there is a negative relation between housework and paid work time. Women perform a greater amount of housework but men spend more time at work. It seems also that younger women spend less time in housework. These results indicate clearly that Britain is still far away from a gender equality situation. The comforting side of this pessimistic conclusion, is that the trends in domestic and paid work time over the 1990s show a narrowing in the gender differentials, thanks mainly to the changing behavior of women and not of men. We find that for men housework hours and paid work time remained rather constant during the 1990s. However, for women total work time decreased monotonically during this period. This reflects a reduction in housework hours that outweighs the observed increase in paid work time.

An important message that seems to emerge is that women are far more flexible than men. Men hardly react or change their behavior in front of (certain) situations that clearly

affect women's time allocation decisions. For instance, the housework time of women increases when children are present in the household whereas the impact of children on the husband's time is negligible. Similarly younger wives do much less housework than their older counterpart but younger men spend much the same amount of time on housework as their father's generation. The housework time of husbands depends mainly on the amount of time they spend in the labor market, the paid work time done by their wives and their relative contribution to total labor income.

Given this situation, who are the "New Men"? That is, who are the men who show a higher contribution to housework time, relative to their wives'? Our results suggest that we should be looking for a rather peculiar profile: young (born after 1951), highly educated blue collar employees, holding non-permanent contract, whose labor market time and income shares are relatively low and whose wives also possess high educational levels.

In other words certain characteristics seem to increase the probability of being a "New Man". As one would expect, the labor market time and income shares are important determinant factors. In particular, both shares are negatively correlated to the probability of being a "New Man". Education is another important factor that has a positive effect on this probability. The education level of the husband, however, is not as important as that of the wife in determining the probability of being a "New Man". This is because more educated wives spend less time doing housework, and not because their husbands spend more time on housework. It appears also that men belonging to younger birth cohorts contribute more at home in relative terms. This suggests the existence of some cohort effect. Finally, there are two job-related characteristics that also help explain the probability of being a 'New' man. The most important one is the type of contract of the husband. Non-standard contracts, that is, fixed-term or seasonal contracts, have a positive effect on the probability. Thus, new forms of work may help fostering greater gender equality.

The second study prepared by Professor Ramos is entitled "Intra-household Distribution of Household Chores and Childcare and its Relationship with Forms of Employment in Britain, 1991-1998: A First Exploratory Analysis". This report that includes numerous

but fascinating tables look first at the allocation of time to childcare. It appears that two thirds of the women are responsible for childcare while only 3% of the men respond that they are responsible. 50% of the men spend less than 4 hours per week caring for their children while a high percentage of women spend 10 to 19 hours per week on this task. In two thirds of the households it is also the woman who cares for ill children.

As far as grocery shopping, cooking, cleaning and washing/ironing is concerned, the distribution of household chores depends on the chore but in no case is the contribution of men greater than 10%.

The report looks also at the forms of employment. In 60% of the cases the standard form of employment is full time employment with a permanent contract. The second most common form of employment is part time employment with a permanent contract (13% of the cases). Self-employment concerns 11% of the active population while 5% of the workforce holds a fixed term or a temporary contract. Part time employment is much more common among women while self-employment is more common among men.

It appears that for males working full or part time does not matter very much for the allocation of household chores. The type of contract however has an impact since those with a permanent job help less at home. Not surprisingly, the proportion of women who are the main responsible for the different domestic tasks is higher for part time than for full time workers.

As a whole there is overwhelming evidence that women are far more flexible than men in the labor market to accommodate family requirements and commitments.