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Theories of occupational segregation by sex: An overview

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Occupational segregation by sex is extensive in every region, at all economic development levels, under all political systems, and in diverse religious, social and cultural environments. It is one of the most important and enduring aspects of labour markets around the world.

There are several reasons to be concerned with occupational segregation. It is a major source of labour market rigidity and economic inefficiency. Excluding a majority of workers from a majority of occupations, as at present, is wasteful of human resources, increases labour market inflexibility, and reduces an economy's ability to adjust to change. With the globalization of production and intensified international competition, these factors have assumed greater importance.

Furthermore, occupational segregation by sex is detrimental to women. It has an important negative effect on how men view women and on how women view themselves. This in turn negatively affects women's status and income and, consequently, many social variables such as mortality and morbidity, poverty and income inequality. The persistence of gender stereotypes also has negative effects on education and training and thus causes gender-based inequalities to be perpetuated into future generations.

The segmentation of occupations on the basis of workers' sex is thus an important labour market phenomenon deserving greater attention from policy-makers and lay persons concerned about equality, efficiency and social justice. This is demonstrated in the major new study undertaken by the present author (Anker, forthcoming) — with international comparisons and experiences providing especially valuable insights. The purpose of this article, which is drawn from that study, is to review the principal explanations for the existence and persistence of occupational segregation by sex. That is a necessary first step towards understanding the phenomenon in order then to deal with it. This article concludes with some observations on the relative value of the various theories in explaining occupational segregation.

* ILO, Geneva.

Theories and explanations

Researchers usually distinguish between labour supply and labour demand factors when explaining occupational segregation by sex. Factors related to labour supply generally focus on why women "prefer" certain types of occupation — for example, women may "prefer" those with flexible hours in order to allow time for child care, and may also "prefer" occupations which are relatively easy to interrupt for a period of time to bear or rear children. Explanations related to labour demand focus on why employers generally "prefer" to hire women or men for particular occupations and why women and men have different opportunities for promotion and career development within firms.

The word "prefer" was put within quotation marks because, even when an individual chooses to accept work in a particular occupation or an employer chooses to employ either mainly men or mainly women, these decisions are influenced by learned cultural and social values that often discriminate against women (and sometimes against men) and stereotype occupations as "male" or "female". In other words, this "preference" is largely determined by learned, gender-related factors.

Theories explaining the existence of occupational segregation by sex can be classified into three broad categories: neo-classical and human capital theories; institutional and labour market segmentation theories; and non-economic and feminist or gender theories. Although these sets of theories overlap, this classification none the less provides a useful basis for discussion.

Before proceeding, it is important to point out that most of the research literature dealing with occupational segregation by sex is *not* concerned with occupational segregation *per se*, but with the effect it has on female-male pay differentials. For this reason, many theories and explanations treat the determinants of occupational segregation by sex and of male-female pay inequality as if these phenomena were the same. This is unfortunate, since female-male pay differentials have many sources and occupational segregation by sex is only one of them. Furthermore, sex segregation of occupations is an important topic in its own right.

The neo-classical, human capital model

Neo-classical economics assumes that workers and employers are rational and that labour markets function efficiently. According to this theory, workers seek out the best-paying jobs after taking into consideration their own personal endowments (e.g. education and experience), constraints (e.g. young child to take care of), and preferences (e.g. a pleasant work environment). Employers try to maximize profits by maximizing productivity and minimizing costs to the extent possible, but because of competition and efficient labour markets, employers pay workers their marginal product.

Labour supply

On the labour supply side, neo-classical/human capital theories stress the

lower levels of female human capital in terms both of what women bring to the labour market (e.g. less education and less relevant fields of study), as well as what they acquire after joining the labour market (e.g. less experience than men owing to intermittent or truncated labour market participation because of marriage and/or household/child-care responsibilities).[1] In short, according to these theories, women rightfully receive lower pay than men because of their lower productivity.

The productivity-related variables of education and labour market experience are believed also to affect women's choice of occupation. The effect of education on choice of occupation hardly needs comment. However, two observations are worth making here. First, in low-income countries with small formal/modern labour markets, there are often many more educated, qualified persons of both sexes than there are formal sector jobs (therefore much sought after). This implies, all else being equal, that women should be reasonably well represented in a wide range of occupations in the formal sector (and at least in proportion to female-male educational levels). When this is not the case, it probably implies the presence of discrimination. Second, the relationship between a woman's education and experience and her occupation is bi-directional in nature. While women may not choose or be offered work in particular occupations because they do not have the appropriate education or experience, it is also true that many parents decide to give their daughters less education (and in subjects less relevant to the labour market) than they give their sons, and that women accumulate less labour market experience than men partly because they do not have the same labour market opportunities as men. These are very important factors helping to determine occupational segregation in the labour market. This phenomenon of reinforcement is not generally considered by neo-classical theory, which typically represents a static rather than a dynamic, longitudinal perspective.

Neo-classical theories also stress the fact that women are almost exclusively responsible for housework and child care around the world (e.g. UNDP, 1995; United Nations, 1991).[2] These family responsibilities cause many women to gain less work experience than men owing either to early and permanent withdrawal from the labour force (e.g. because of marriage), or to temporary withdrawal from the labour force in order to care for young children. According to the theory, this implies that women would rationally choose occupations with relatively high starting pay, relatively low returns to experience, and relatively low penalties for temporary withdrawal from the labour force — including occupations which are flexible in terms of entry and working hours.

[1] A number of researchers have commented on the fact that female-male wage differentials are very small for single persons and that married persons account for almost all of the observed female-male wage differential (see for example, Blau and Khan, 1992, and World Bank, 1994, for general conclusions; Hakim, 1992, for the United Kingdom; Ogawa and Clark, 1995, for Japan).

[2] Even in Scandinavia, women continue to be mainly responsible for work and child care according to time use data (UNDP, 1995; United Nations, 1991).

However, several problems arise if this theory is adopted as the only explanation for occupational segregation by sex. First, women's labour force commitment has increased greatly in recent decades, as indicated by the disappearance of the double-humped (or m-shaped) age-specific labour force participation curve. Second, the amount of household and family-based work which needs to be done has fallen in many countries in recent years owing to increasing age at marriage and falling fertility almost everywhere, as well as to the use of household aids (washers, cookers, vacuum cleaners, etc.) in higher-income countries. Third, the increasing incidence of female-headed households all over the world (Buvini , 1995) implies that ever more women need to work continuously simply to earn a living. These various changes imply that women are gaining greater labour market experience which, according to neo-classical theory, should lead to major changes in the types of occupation women prefer and are offered. Despite all these changes, however, occupational segregation by sex remains very high all over the world (although it is true that in many countries it has fallen over the past two decades (see Anker, forthcoming)).

Fourth, amongst the most important occupations, many male-dominated ones (e.g. transport driver and auto mechanic) do not require more experience or continuity of employment than many female-dominated ones (e.g. secretary and other clerical worker). If anything, the opposite is true. Job evaluations based on comparable worth (see the section on pay differentials below) indicate that, for example, being a secretary (one of the most important "female" occupations in the world) requires considerably more knowledge and skills and makes more mental demands than being a delivery-truck driver (one of the most important "male" ones); yet secretaries receive lower pay.

Labour demand

According to neo-classical/human capital theory, many of the factors influencing women's and men's preferences for particular occupations also influence employers' preferences for male or female workers. Thus, jobs requiring a relatively high level of education are more likely to be offered to men than to women (although the relevance of this argument is somewhat questionable in the numerous countries where men and women have now achieved similar levels of education), as are jobs where experience and on-the-job training are relatively important (although, again, the relevance of this argument is decreasing in importance in many countries as women's labour force commitment increases).

In addition, women are often considered to be higher-cost workers (even when the same wage rate applies) because of a number of supposedly higher, indirect labour costs associated with women workers. According to the theory, this should affect the types of job employers offer women, depending on the relative importance of each of these factors for each occupation. For example, women are often said to have higher rates of absenteeism (probably in part because of family responsibilities which cause women to miss work in order to care for family members). Women are often said to be late to work more

frequently (again probably in part because of family responsibilities). Women are also often said to have higher labour turnover rates, which can be an important indirect cost for employers, who have to find and train new workers. This higher turnover rate is said to occur because many women leave jobs in order to take care of young children (and, in some countries, because of marriage). Women workers may require separate toilet facilities at the workplace for themselves [3] and crèches for their children, since they do not wish to leave the children at home unattended.[4] Women are sometimes said to be less flexible than men as regards being able to stay late or to work on official leave days.

It is important to question assumptions that higher direct and indirect labour costs are associated with female workers than with male workers, especially in view of the relative paucity of empirical evidence either way. In this regard, a series of empirical studies in Third World countries are informative (Anker and Hein, 1985 and 1986). A total of 423 employers, 2,517 women workers and 803 men workers were interviewed, in five developing countries (Cyprus, Ghana, India, Mauritius and Sri Lanka), by means of structured survey questionnaires. Results from these studies call into question a number of the assumptions described above. For example, while individual women were found to have higher absenteeism rates, and many employers stressed the importance of this factor, on average the difference between male and female absenteeism rates proved to be small. Study results also indicated similar labour turnover rates for women and men. This unexpected result was due to the greater likelihood of men leaving for another job, and of women leaving their jobs for family reasons.

Labour laws and regulations sometimes directly affect the demand for women workers. Protective legislation sometimes prohibits women from working in certain occupations and/or under certain conditions. For example, women may be prohibited from night work (see the provisions of the ILO's Night Work (Women) Convention, 1919 (No. 4)); from working underground in mines (see the Underground Work (Women) Convention, 1935 (No. 45)); or from carrying heavy loads (see the Maximum Weight Convention, 1967 (No. 127)). Although protective laws and Conventions were drawn up with the best of intentions to protect women, many observers now believe that these laws are no longer relevant and should be changed (see, for example, Lim, 1996). Indeed, many ILO Conventions dealing with protective legislation are currently under review.

Labour laws and regulations can also increase the comparative cost of employing female workers. For example, paid maternity leave increases the cost of women workers relative to men and so can become an indirect form of

[3] Papola (1986) reports that this was one of the most common reasons for not hiring women given by employers interviewed in his enterprise survey in Lucknow, India.

[4] In Bangladesh, for example, some women need to bring their children, even their older daughters, to work. Garment manufacturers there report that women workers are unwilling to leave their 11-13 year old daughters alone at home, because this would negatively affect the girls' reputations and, consequently, marriage prospects (Myers, personal communication).

sex discrimination if employers have to bear this cost.[5] Partly for this reason, and partly because the reproduction of subsequent generations is a concern for society as a whole, ILO Conventions on maternity leave recommend that maternity leave costs be borne by the State and not by employers. Another example sometimes mentioned in this connection is legislation requiring separate toilet facilities for men and women where the existing workforce and facilities are single sex.

Faced by the fact that the sex segregation of occupations and female-male pay differences persist and cannot be fully explained by different characteristics of men and women, neo-classical economists have developed complementary theories to explain the persistence of occupational segregation by sex, without abandoning their basic assumptions of rationality and efficient labour markets. Two of these theories (employers' taste for discrimination, and compensating differentials) are briefly described below. For the most part, these complementary theories focus on the demand side and on employers' motivation and behaviour. There are other complementary economic theories relating to labour market segmentation (such as dual labour markets, occupational overcrowding, statistical discrimination, and efficiency wages), the first three of which are described in the next section.

According to a model of employer behaviour developed by Becker (1971), employers — in common with many other citizens — are prejudiced against certain groups of workers. Usually, but not always, this prejudice — *a preference for discrimination* — is directed against persons who are different, because of visible characteristics such as race, disability, age or sex (Anker, 1995). Because of their prejudice, employers are said to sustain disutility (i.e. a cost) when they hire someone from the group discriminated against. Therefore, according to this theory, employers behave rationally when they hire fewer people from that group, since they can thus avoid such a "cost".

There are two main problems with Becker's model. First, it is unclear how this system can be sustained in a competitive economy. One would expect less prejudiced employers to hire more people from the group discriminated against in order to decrease costs and increase profits; this implies that over time the behaviour of unprejudiced employers would prevail because of competitive forces in the capitalist system. Second, even if one assumes that some employers are predisposed to discriminate, the great overlap in the skills, preferences, etc., of individual men and women should make it likely that both the sexes would be substantially represented in every occupation — but this is not the case. On the other hand, these problems could be explained by the

[5] It is possible, of course, to design maternity and child-care leave programmes as parental leave programmes. However, experience from countries which give new parents the choice of maternity or paternity leave indicates that relatively few fathers actually take paternity leave. An interesting policy to encourage men to take paternity leave is found in Norway where at least four weeks of a possible total of 52 weeks of parental leave must be taken by the father; if the father does not take up these four weeks of paternity leave, they are lost (Melkas and Anker, forthcoming).

existence of strongly held social values and stereotypes (see discussion below on feminist/gender theories) and by statistical discrimination theory (see discussion below on institutional and labour market segmentation theories).

The *compensating differentials model* is another neo-classically based economic theory sometimes mentioned as casting light on women's preference for certain occupations as well as on the lower pay in typical female occupations. According to this model, women prefer occupations with good working conditions as they wish to avoid unpleasant and dangerous working conditions and/or to have jobs with good fringe benefits, e.g. health insurance and crèches; the avoidance of unpleasant and dangerous conditions could be especially significant in cases where men are the chief breadwinners and women are secondary earners. In these circumstances, the lower monetary rewards in typical "female" occupations are said to be partly explained by some "pay" being taken in non-wage forms. While there may be some truth in this argument in countries where cultural values restrict the types of job women can do, it is much more difficult to accept in countries where a substantial percentage of women work and/or when women are the principal earners in the family. In any case, the explanation for the low pay in many typical "female" occupations (e.g. maids, salespersons and sewers) is unlikely to be the prevalence of pleasant working conditions.

In short, neo-classical economics and human capital theory make valuable contributions to understanding occupational segregation by sex and the typically lower pay of women workers. This theory highlights the important role played by systematic differences in the human capital accumulated by men and women.

All these factors negatively affect women's productivity and pay, and limit the occupations for which they qualify. For these reasons, neo-classical/human capital theories stress the need for policies to address non-labour market factors so as to reduce occupational segregation by sex. This implies that policy-makers should be concerned with non-labour-market variables such as education, family policy, family planning, and a more equal sharing between the sexes of child care and household work. As to labour market policies, these theories imply that policy-makers should seek to increase women's human capital, especially education and training in non-traditional occupations; to help women combine work and child care/housework, possibly through the provision of crèches, or the reorganization of worktime, or the removal of parental leave provisions that indirectly discriminate against female workers; and to eliminate labour law provisions that prohibit the employment of women in certain occupations.

Institutional and labour market segmentation theories

Institutional and labour market segmentation theories also rely on well-established economic thought and neo-classical logic. Their starting-point is the assumption that institutions, such as unions and large enterprises, play an important role in determining who is hired, fired and promoted, and how much

they are paid. Institutional theories also begin with the assumption that labour markets are segmented in certain ways. And while each labour market segment may function according to neo-classical theory, it is difficult for workers to pass from one segment to another.

The best-known is *dual labour market theory* which distinguishes between a "primary" and a "secondary" sector (Doeringer and Piore, 1971). Other labour market segmentation theories divide the labour market into "static" and "progressive" jobs (Standing, 1989) and "formal" and "informal" sectors (ILO, 1972). Jobs in the primary sector are relatively good in terms of pay, security, opportunities for advancement and working conditions. Secondary sector jobs tend to be relatively poor as regards pay, chances for promotion and working conditions, and to provide little protection or job security. These two labour markets are perceived as functioning independently of each other to a substantial degree, largely because firms in the primary sector have some market power which insulates them somewhat from competition, whereas those in the secondary sector face fierce competition. Although the distinction between primary and secondary sectors has become less marked in recent years in both industrialized and developing countries (because of increased subcontracting and the globalization of trade), it still retains a significant degree of relevance.

It is a relatively short step to adapt the concept of dual labour markets to occupational segregation by sex, with one labour market segment comprised of "female" occupations and another of "male" occupations. This segmentation implies relatively low wage rates in "female" occupations because many women workers are "overcrowded" into a small number of "female" occupations (Bergmann, 1974; Edgeworth, 1922). "Male" occupations, on the other hand, benefit from reduced competition within a wider set of occupations and, consequently, tend to enjoy relatively high wage rates.

The nature of the jobs available in the primary sector would lead one to expect an under-representation of women and, since such jobs are more secure, firms in this sector can be expected to accord a relatively high value to firm-specific experience and low labour turnover. Consequently, given their generally more continuous labour market experience, male workers should tend to be favoured by primary sector employers. Furthermore, since primary sector firms can pay higher wages, they are in a position to cream off the best-qualified workers; this again implies that primary sector firms should tend to prefer men, who tend to be better educated and more experienced than women.

Another economic theory related to labour market segmentation is *statistical discrimination theory*. This is based on the assumption that there are differences, on average, in the productivity, skills, experience, etc., of distinct groups of workers (such as men and women), and high search and information costs associated with recruitment and promotion decisions. In such circumstances, it is argued, it is rational for employers to discriminate against groups of workers (such as women) when differences, on average, between the abilities of persons from different groups (e.g. women and men) cost less to sustain than the decision-making costs associated with identifying suitable individual workers of either sex. Statistical discrimination theory thus provides an explanation for

how some occupations are almost entirely male even though many individual women have greater ability, more education, etc. than many individual men.[6]

One aspect ignored by statistical discrimination theory is the role played by occupational segregation by sex in perpetuating labour market discrimination into the next generation. Because women are generally discriminated against, they are likely to obtain less education than men and to pursue careers that reinforce the current segregation. A second problem with statistical discrimination theory is that it may be less relevant for explaining discrimination in promotion (as opposed to recruitment), since in many enterprises the information costs involved in the former may be less than those involved in the latter.

In summary, labour market segmentation theories are very useful for understanding sex inequality in the labour market, since they stress the existence of segregated labour markets and occupations. However, they do not explain *why* occupations are segmented by sex; after all, the same occupations are found in both primary and secondary labour markets. And, labour market segmentation theory is better at explaining vertical occupational segregation by sex (why men are more likely than women to have better-quality jobs in the same occupation), which is a major source of female-male wage differentials.

Despite the valuable contributions of neo-classical/human capital theory and institutional and labour market segmentation theories to the understanding of sex inequality in the labour market, they are less helpful in understanding occupational segregation by sex. In particular, they fail to consider adequately a number of critical, non-economic and non-labour market variables and forms of behaviour, mainly because these lie outside the competence (and often interest) of economists. Examples of such variables are: why women come to the labour market with lower levels of education and in less relevant subjects; why housework and child care are almost always the sole responsibility of women; why important labour market segregation based on sex persists despite a wide overlap in the abilities of individual men and women; why the sex stereotyping of women in society generally is reflected so consistently in stereotypically "female" occupations; and why occupational segregation by sex has persisted so strongly despite recent major increases in the education and labour force commitment of women. Yet explaining these types of non-economic issues is critical to understanding occupational segregation by sex. Feminist or gender theories address many of these issues.

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[6] Two interesting institutional aspects of Scandinavian labour markets arise from a strong public commitment to: (i) gender equity; and (ii) full employment for all citizens. Public commitment to these goals directly affects the sex segregation of occupations. It leads to the creation of many public sector jobs in order to help women combine their family and work responsibilities. For example, Melkas and Anker (forthcoming) estimate that in 1990 approximately 10 per cent of women non-agricultural workers in Finland and Norway and 19 per cent of women non-agricultural workers in Sweden were in one of the following, generally public sector, occupations: child day-care centre worker, social worker, municipal home-help, and assistant nurse/attendant. Since these occupations are highly feminized (96, 75, 96, 92 per cent female, respectively, in Sweden, for example), this substantially increases occupational segregation by sex in Scandinavia and in part explains why such segregation is higher than in other European countries.

Feminist/gender theories and related explanations

Feminist or gender theories[7] are mainly concerned with non-labour market variables which economists take as given. A basic premise of gender theories is that women's disadvantaged position in the labour market is caused by, and is a reflection of, patriarchy and women's subordinate position in society and the family. In all societies, household work and child care are seen as women's chief responsibility, while being the breadwinner is perceived as men's main responsibility. The fact that these societal norms and perceptions bear little relation to the daily lives of many women, men and families does not detract from their influence on people's behaviour and their contribution to gender-based discrimination against women.

This division of responsibilities and the patriarchal ordering of society are instrumental in determining why women usually accumulate less human capital compared with men before entering the labour market — that is, why girls receive less education than boys, and are less likely to pursue fields of study, such as sciences and crafts, of greater relevance to the labour market. Overall, women are perceived as having a lesser need for labour market skills. These same influences are also instrumental[8] in explaining why women acquire less labour market experience, on average, because many of them withdraw from the labour force early, and many others withdraw from the labour force temporarily.

Gender theory makes a valuable contribution to explaining occupational segregation by sex by showing how closely the characteristics of "female" occupations mirror the common stereotypes of women and their supposed abilities. To illustrate this, table 1 lists 13 characteristics commonly attributed to women which may have an effect on occupational segregation by sex. These are divided into three groups of stereotypes (positive, negative and other). This list is much more complete than the common observation that "female" occupations are merely an extension of household activities.

The five "positive" stereotypes presented are: a caring nature; skill and experience in household-related work; greater manual dexterity; greater honesty; and attractive physical appearance. It seems logical to hypothesize that these characteristics, if true, would help "qualify" women for the following ISCO

[7] This division of theories into three separate categories is done for heuristic purposes, as there is substantial overlap between them. For example, while the perpetuation of sex segregation in an occupation through sexual harassment by male workers is usually an issue only addressed by feminist theory, it could easily be incorporated into a neo-classical model of the labour market as an added expense for employers (since introduction of female workers in such a situation might disrupt the workplace and affect labour productivity).

[8] This point is illustrated by an experience of the author's during field work several years ago in Egypt. In response to a typical question on labour force participation ("What was your main activity in the past week?"), a female schoolteacher reported that she was a housewife. Upon being asked why she gave this answer when, in fact, she was a teacher, she responded by saying that teaching involved 20-30 hours of work per week, but that housework involved many more hours — and that the question had inquired about her "main activity" in terms of time.

Table 1. Stereotyped characteristics of women and their expected effect on occupational segregation by sex

Common stereotyped characteristics of woman [1]	Effect on occupational segregation	Examples of typical occupations affected [2]	Comments
Positive			
1. Caring nature	Helps qualify woman for occupations involving care for others, e.g. children, the sick, older people	Nurse Doctor Ayah Social worker Teacher Midwife	A characteristic often felt to be biologically determined, because women are mainly responsible for child care in all societies. This is, however, a learned, gender-based characteristic. Note that occupations which involve caring but also require greater authority (e.g. medical doctor), are often male-dominated.
2. Skill (and experience) in household-related work	Helps qualify women for occupations that are frequently home-based (and almost always carried out by women), often as unpaid household work	Maid Housekeeper Cleaner Cook Waiter Launderer Hairdresser Spinner Sewer Weaver Knitter Tailor/dressmaker	Skill easily acquired (therefore, women's greater experience of these skills before entering the labour market should not be very important).
3. Greater manual dexterity	Helps qualify women for occupations where finger dexterity is important.	Sewer Knitter Spinner Weaver Tailor/dressmaker Typist	Belief is based partly on biological difference (sex); and partly on experience difference (gender) acquired in the home before joining the labour market (see also stereotype 2). Skill easily acquired. Occupations often similar to those noted under household-related work activities (see stereotype 2).
4. Greater honesty	Helps qualify women for occupations where money is handled and/or trust is important.	Cashier/book-keeper Salesperson Accountant	Higher-paid and higher-status occupations (e.g. accountant which is a professional occupation) are often male-dominated.
5. Attractive physical appearance	Helps qualify women for occupations where physical appearance helps attract and/or please customers.	Receptionist Salesperson Shop assistant	This advantage is often thought to accompany a more pleasant and accommodating personality suited to, e.g., reception or sales work. In other situations, sex appeal is used to attract male customers (e.g. barmaid or prostitute). In certain cultures and countries where public interaction between men and women is frowned upon, this characteristic disqualifies or excludes women from certain occupations (e.g. salesperson in the Middle East).

Table 1. Stereotyped characteristics of women and their expected effect on occupational segregation by sex *(cont.)*

Negative			
6. Disinclination to supervise others	Helps disqualify women for all types of supervisory and managerial occupations.	Manager (general; production; trade, catering and lodging) Supervisor (clerical; sales; production) Government executive officer and administrator Legislative official	This is in many ways a parallel to willingness to take orders (see stereotype 11). This often affects vertical occupational segregation (with lower-level jobs for women).
7. Lesser physical (muscular) strength	Helps disqualify women for occupations requiring heavy lifting and/or other physical effort.	Construction worker Miner/quarrier Well driller	There is considerable overlap in the physical strength of individual women and men, which means that many women are physically capable of doing such work. Becoming less and less important in today's economy.
8. Lesser ability in science and mathematics	Helps disqualify women for occupations where high levels of scientific and mathematical knowledge are required.	Physical scientist (chemist/physicist) Architect Engineer Mathematician Statistician	In this case, gender discrimination begins at school where girls are discouraged from specializing in mathematics or science. Some believe that this difference is biologically determined. If so, it is a small average difference with a large overlap in the abilities of individual men and women.
9. Lesser willingness to travel	Helps disqualify women for occupations where considerable travel is required.	Aircraft officer and worker Ship officer and worker Transport equipment driver/operator	Many women are willing to travel, e.g. airline stewardeses (who were originally selected for their physical appearance –see stereotype 5). Many drivers do not travel overnight.
10. Lesser willingness to face physical danger and use physical force	Helps disqualify women for occupations where physical danger is relatively great.	Fire-fighter Police officer Security guard Miner/quarrier	This is a learned, gender difference. Many women are willing to be employed in these occupations.
Other			
11. Greater willingness to take orders Greater docility and lesser inclination to complain about work or working conditions Lesser inclination to join trade unions Greater willingness to do monotonous/ repetitive work	General characteristics which help qualify women for occupations and sectors of the economy where working conditions are poor, labour laws are not applied (e.g. the informal sector) and work is routinized.	Note: These general characteristics (11,12, 13) qualify women for many jobs which are low paid, unskilled, unprotected and repetitious in nature.	These stereotypes have been combined because of their similar implication of a subservient nature. These are archetypes of learned (gender) characteristics.

Table 1. Stereotyped characteristics of women and their expected effect on occupational segregation by sex *(cont.)*

12. Greater interest to accept lower wages Lesser need for income	General characteristics which help qualify women for low-paid occupations and sectors of the economy	Often related to (and justified by) the belief that women are secondary earners (i.e. not the main breadwinner). This is despite the increased incidence of female-headed households; and many families' need for more than one income. Often associated with occupations in highly competitive industries, where cost considerations are very important, notably those producing exports such as textiles.
13. Greater interest in working at home	Helps qualify women for occupations and sectors of the economy where work is organized in a home-based, "putting out" type of production system.	Usually poorly paid home-based work; often involves piecework. Home-based work is easy to combine with household/child care. "Putting out" production system is often set up specifically to make use of the available cheap female labour. Home-based work is increasing in importance.[3]

Notes: [1] Many of these stereotypes overlap in their effects. While some stereotypes help reinforce sex segregation of particular occupations (e.g. greater manual dexterity and skill at household-type work for sewer), the effects of other stereotypes counteract each other (e.g. physical appearance and disinclination to supervise others for sales supervisor). [2] Almost all examples of occupations are taken from two- and three-digit ISCO-68 occupational classifications. [3] *Bidi* making (local Indian cigarette), which is the largest non-agricultural occupation for women in India according to 1981 census data, is almost exclusively a home-based industry.

Source: Author's impressions; Anker and Hein, 1985 and 1986.

occupations: nurse, doctor, social worker, teacher, maid, housekeeper, cleaner, cook, waiter, launderer, hairdresser, spinner, weaver, knitter, tailor/dressmaker, midwife, sewer, typist, cashier/book-keeper, salesperson, accountant, receptionist, street vendor and shop assistant.

The five "negative" stereotypes presented are: disinclination to supervise others; lesser physical strength; lesser ability in science and mathematics; lesser willingness to travel; and lesser willingness to face physical danger and to use physical force. These characteristics negatively affect women's acceptability in various occupations — which consequently helps ensure that they become typical "male" occupations. These stereotypes, if true, would help "disqualify" women for the following types of ISCO occupation: manager, supervisor, government executive officer/administrator, legislative official, construction worker, miner/quarrier, well driller, physical scientist, architect, engineer, mathematician, statistician, aircraft officer and worker, ship officer and worker, transport equipment driver/operator, fire-fighter, police officer and security guard.

Finally, three other stereotypes are presented: greater willingness to take orders, greater docility and lesser inclination to complain about work or working conditions, lesser inclination to join trade unions, greater tolerance of monotonous/repetitive work; greater willingness to accept lower wages and less need for income; and greater interest in working at home. These stereotypes have a greater influence on the general characteristics typifying "female" occupations (such as low pay, high flexibility, low status, less decision-making authority) than on qualifying or disqualifying women for particular occupations.

The influence of such sex stereotyping on occupational segregation by sex was brought out very clearly in a series of enterprise surveys sponsored by the ILO in transition economies (Bulgaria, the Czech Republic, Hungary and Slovakia) and developing countries (India, Cyprus, Sri Lanka and Ghana). Employers were asked directly whether they preferred to employ men or women for certain occupations and types of work. Given the directness and bluntness of the questions, it seems reasonable to assume that responses admitting sex bias represent only the tip of the iceberg. Despite the nature of the questions, however, many employers indicated that a person's sex is an important consideration affecting hiring and promotion decisions. In surveys in 1992/1993 conducted in the Czech Republic, Hungary and Slovakia, roughly 90 per cent of the employers interviewed indicated that they preferred to employ men to do repair and maintenance work, whereas virtually none preferred women; 35 to 55 per cent preferred to employ men in professional occupations, in general production and skilled operative occupations, compared with only about 10 per cent who preferred to employ women in these occupations (Paukert, 1995). In other enterprise surveys conducted in Hungary and Bulgaria in 1991/1992, 55 to 65 per cent of the employers interviewed preferred men in production occupations compared with 15 to 25 per cent who preferred women (Sziraczki and Windell, 1992). In Cyprus (1981), when asked a general question about whether certain types of job are considered more suitable for women or for men, 85 per cent of employers indicated a preference for employing men in certain jobs and 89 per cent indicated a preference for women in certain (other) jobs (House, 1986). In Lucknow, India (1982), roughly 60 per cent of the employers interviewed reported that women were unsuitable or less suitable than men for sales, production, service and executive/supervisory occupations (Papola, 1986). In Accra, Ghana (1982), 21 per cent of the employers interviewed indicated that they sometimes refused to hire women for fear they would become pregnant (Date-Bah, 1986).

Masculine stereotypes also play a role in determining the occupations which become typically "male" (such as engineer, truck driver, police officer, construction worker). In order to break down the sex segregation of occupations, therefore, it is important to change both male and female stereotypes and to integrate men into "female" occupations as well as women into "male" occupations. However, integrating men into typical "female" occupations is a controversial issue, since most labour market discrimination is directed against women, not men; moreover, such measures would contribute to eliminating

one of the few labour market advantages women have. Yet breaking down the sex segregation of occupations is critical to improving women's labour market situation, and this goal cannot be accomplished without breaking down the sex stereotyping of men, women and occupations.

Why are "female" occupations flexible?

It seems clear that women's responsibility for housework and child care affects the types of job many women prefer, since job flexibility in terms of hours (or part-time jobs) and relatively easy entry/exit/re-entry enable women to combine work and family responsibilities more easily. On this, gender theories and neo-classical theories agree.

However, there are two possible reasons why "female" occupations tend to be flexible in terms of hours and labour turnover. It could be that women gravitate towards occupations with these characteristics (either because of women's preferences and characteristics and/or because employers prefer to employ women in these occupations), as explained by economic theory (see earlier discussion). Or it could be that occupations become "female", because of the sort of sex stereotyping just described — with flexible working conditions emerging as a consequence of the fact that these are "female" occupations.

Although neo-classical economic/human capital theory holds that the preferences of women and employers are responsible for the concentration of women in flexible occupations, feminist theory does not support such an unequivocal conclusion, since both the possibilities noted above are consistent with it. While family responsibilities can be expected to increase women's preferences for flexible occupations, the stereotyping of certain work as suitable for women can be expected to affect the types of occupation open to them.

The empirical analysis in Anker (forthcoming, Part III) provides some evidence indicating a high degree of consistency between the sex stereotyping of an occupation and the "feminine" stereotypes listed in table 1. It supports the conclusion that the flexibility and low pay associated with many typical "female" occupations are due, to a large extent, to the fact that these are "female" occupations. There is no reason to consider *any* occupation (regardless of sex stereotyping) as inherently either more or less flexible.[9]

Cultural restrictions on women's freedom

Gender theories also point out how cultural restrictions contribute to the establishment of what is acceptable work for women and how, in some countries, they effectively bar women from certain occupations. This is an extreme form of sex stereotyping. For example, in many Muslim countries, *purdah* effectively forbids women from interacting with unknown men in public. As a result,

[9] A similar conclusion was reached in a recent European Union report on the organization of teaching (Rubery and Fagan, 1993): "these characteristics of the profession [emphasis on caring role, convenient working hours, relatively low pay] may be a reflection of, and not a cause of, the dominance of women" (p. xv).

many Muslim women are strongly discouraged from taking sales jobs except in shops where the customers are all women; women are excluded from factory jobs except when the entire factory workforce is female.[10] Many other examples could be given. Cultural restrictions on women's freedom of movement are enforced through strong social sanctions, which often include sexual harassment or rude behaviour by men.

Female-male pay differentials and occupational segregation by sex

Women's earnings are lower than men's throughout the world. As indicated by the ILO data in table 2, this is true in all regions of the world, whether one is comparing pay computed on a daily, weekly or monthly basis, or whether one is comparing non-agricultural workers as a whole or only manufacturing workers. Average female-male pay ratios in the world are roughly 60-70 per cent, based on a monthly reference period; 70-75 per cent, based on daily and weekly reference periods; and 75-80 per cent, based on an hourly reference period; the averages for OECD and developing countries are reasonably similar. Ratios appear to be especially low in east and south-east Asian countries as well as in some European countries (with Japan, the Republic of Korea, Malaysia, Singapore, Luxembourg and Cyprus the only countries having a ratio below 0.60). Ratios appear to be relatively high in Scandinavian countries, as well as in some other OECD and Third World countries (with Denmark, Iceland, Norway, Sweden, Australia, Sri Lanka, Turkey and Swaziland the only countries with a ratio clearly above 0.80).

Gunderson (1994) identifies five sources of male-female pay differentials: (i) differences in human capital endowments such as education and experience (caused mainly by non-labour market factors); (ii) differences in pay within the same occupation (caused by direct discrimination and dual labour markets); (iii) differences in pay for work of "equal value" (caused by the relationship between pay level in an occupation and the degree to which it is feminized); (iv) differences in jobs desired; and (v) differences in the jobs available. Occupational segregation by sex plays an important direct role in determining the last three sources of female-male pay differentials.

Comparable worth exercises provide good illustrations of how wage rates tend to be lower in "female" than "male" occupations. In these exercises, jobs are objectively evaluated and point scores established for factors such as responsibility, skill, education, physical effort, working conditions. The summation of these factor scores indicates in some objective sense the value of a job, and therefore its comparable worth. The greater the number of total points, the greater a job's worth or value. Figure 1 and table 3 provide examples

[10] A solution to this problem used by some garment factories in Bangladesh is to have single-sex shop-floors. In this way, factories have both male and female workers, but there is no interaction between men and women at the worksite.

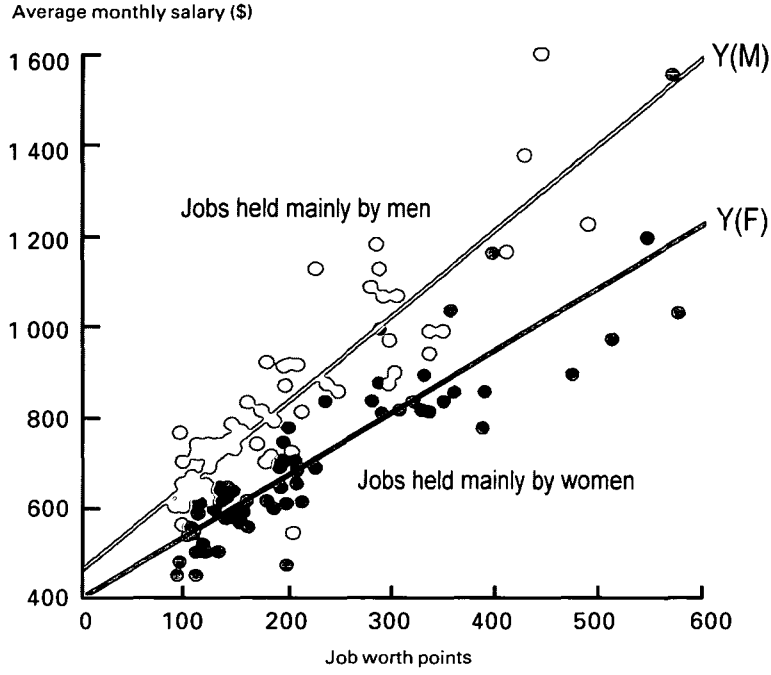
Table 2. Female-male wage ratios in the world, around 1990 [1]

Region/country/area	Reference period [2,3]	Female-male wage ratio	
		All non-agricultural	Manufacturing
OECD countries [4]			
Australia	Hourly	88.2	82.5
Belgium	Hourly	75.1	74.5
Denmark	Hourly	82.6	84.6
Finland	Hourly		77.3
France	Hourly	80.8	78.9
Germany (Fed. Rep. of)	Hourly	73.2	72.7
Greece	Hourly		78.4
Iceland	Hourly	87.0	
Ireland	Hourly		69.2
Luxembourg	Hourly	67.8	62.2
Netherlands	Hourly	77.5	75.0
New Zealand	Hourly	80.6	74.9
Norway	Hourly		86.4
Portugal	Hourly	69.1	69.0
Sweden	Hourly		88.9
Switzerland	Hourly	67.6	68.0
United Kingdom	Hourly	70.5	68.4
Average (unweighted)		**76.7**	**75.7**
Cyprus	Daily/weekly	59.0	58.0
Turkey	Daily/weekly	84.5	81.0
Average (unweighted)		**71.8**	**69.5**
Developing countries or areas [4]			
Sri Lanka	Hourly	91.2	
Average (unweighted)		**91.2**	
Egypt	Daily/weekly	80.7	68.0
Hong Kong	Daily/weekly	69.5	69.0
Sri Lanka	Daily/weekly	89.8	88.0
Average (unweighted)		**80.0**	**75.0**
Costa Rica	Monthly	66.0	74.0
Japan	Monthly	49.6	41.0
Kenya	Monthly	78.3	73.0
Korea (Rep. of)	Monthly	53.5	50.0
Malaysia	Monthly		50.1
Paraguay	Monthly	76.0	66.0
Singapore	Monthly	71.1	55.0
Swaziland	Monthly	106.6	88.0
Average (unweighted)		**71.6**	**62.1**
World averages (unweighted)			
	Hourly	**77.8**	**75.7**
	Daily/weekly	**76.7**	**71.2**
	Monthly	**71.6**	**62.1**

Notes: [1] Data year is 1990. [2] Countries are grouped according to reference period over which wages are estimated, because the female-male wage ratio decreases as the reference period increases (since women work fewer hours than men on average). For purposes of exposition, estimates for daily and weekly reference periods are combined. [3] Preference is given to estimate for shorter reference period if data are available for two or more reference periods. [4] Japan is included with other Asian countries (which are developing countries). Sri Lanka appears twice because of different reference periods.

Sources: ILO: *Yearbook of Labour Statistics* (Geneva), various issues.

Figure 1. Relationship between monthly salary and job worth points for men and women in the Washington State public service, 1974



drawn from the Washington State Government (United States) and the Toronto municipal government (Canada), respectively. In the case of jobs with similar worth (point scores), male-dominated occupations have substantially higher pay rates compared with female-dominated occupations. On the basis of these evaluations, pay rates are increased for the "female" jobs in order to help equalize pay in the "male" and "female" jobs which showed similar point scores.

Empirical studies analysing the determinants of male-female pay differences typically rely on regression analysis to separate out the proportion attributable to differences in productivity-related variables (including human capital)[11] and other factors which affect wage rates[12] and differences in the returns men and women receive for their endowments. The first set of variables is felt to measure justifiable differences in wage rates, whereas the second set deals mainly with the functioning of the labour market and is seen as measuring discrimination (Oaxaca, 1973).

There have been scores of empirical studies of the female-male pay differential. A review of United States studies concludes that around one-third of the female-male differential is due to occupational segregation by sex (Treiman and Hartmann, 1981; World Bank, 1994), as do reviews of different national studies (Terrell, 1992; Gonzalez, 1991).[13]

Table 3. Pay equity[1] job evaluations for selected male and female job classes[2], Toronto municipal government

Selected female job classes			Selected male job classes		
Total points[3]	Pay rate[4]	Description	Total points[3]	Pay rate[4]	Description
1 559	17.22	Early childhood educator, grade 1	1 563	20.94	Automotive mechanic foreman
1 399	15.44	Early childhood educator, grade 2	1 179	16.36	Junior micro-computer technician
1 155	12.49	Nursing attendant	1 179	16.36	Junior micro-computer technician
1 034	13.02	Day-care housekeeper	1 034	14.28	Cook, grade 1
839	11.68	Housekeeping attendant	879	15.22	Security guard
652	11.42	Cleaner, light duties	694	14.21	Cleaner, heavy duties

Notes: [1] The phrases "pay equity" and "comparable worth" are equivalent; the former is used in Canada and the latter in the United States. [2] Job classes selected for this table are based in part on the job classes chosen as the main male comparators in the pay equity evaluations and in part on what are typical female jobs around the world [3] Total points are obtained from a comparable worth review on 4 September 1992. Total points for job evaluation are based on the summation of points for the following factors using the following weights shown in brackets: skill (45%); responsibility (33%); effort (14%); and working conditions (8%). [4] Pay rates are hourly pay rates in Canadian dollars as at 1 January 1990.

Source: Canadian Union of Public Employees, mimeo, 1992.

Studies relating occupational segregation by sex to female-male pay differentials are also greatly affected by the level of disaggregation of the occupational data analysed. When very aggregated data (such as the usual seven major ISCO occupations) are used, occupational segregation's effect is underestimated, mainly because most occupational segregation by sex remains unobserved. As occupational data become more disaggregated, the observed level of sex segregation increases, and the portion of the female-male pay differential explained by occupational segregation tends to increase. A study from the United States (Treiman and Hartmann, 1981) illustrates this: the percentage of the female-male earnings gap explained by occupational segregation by sex rose from about 10 per cent when 12 occupational categories were used, to 10 to 20 per cent when 222 occupations were used, and to at least 30 per cent when 479 occupations were used. Similarly, a study by Kidd and Shannon (1996) found that the percentage of the female-male wage gap explained rose from 12 to 18 and 27 per cent as the number of occupations classified increased from 9, to 17 and 36 using the same Oaxaca (1973) approach used by

[11] Variables typically used to measure a worker's human capital and productivity include the following: education, field of study, training, experience in the enterprise, experience in the labour market, age, size of firm, hours of work and health.

[12] Factors typically used to measure macro, meso and establishment level aspects that might affect a worker's wage rate include the following: size of establishment, sector of establishment, whether public or private, region, city size, whether unionized. Also sometimes included is the percentage of women in the occupation, although this variable is sometimes interpreted as measuring sex discrimination.

[13] Scott (1986) discusses the interesting case of Peru where female education levels increased over several decades to a point where they exceeded male levels — yet the average female-male pay ratio showed little change.

Treiman and Hartmann (1981); though no change was observed in this percentage when the Brown et al. (1980) approach was used, which estimates a separate equation for each occupation. OECD (1988) reports that average female earnings would have been 93.2 per cent of average male earnings in 1986, if men and women had been paid the same median earnings for each occupation based on 18 broad occupational groups; in contrast, this would have been 84.1 per cent on the basis of a much more disaggregated classification with 238 occupations.

After a fairly high level of detail in the occupational classification is reached, however, further disaggregation of the occupational data probably reduces the proportion of the female-male pay differential observed to be attributable to occupational segregation by sex. At the extreme of detailed job descriptions within establishments, there is usually very little difference in pay for men and women, since anti-discrimination laws make it illegal to pay different wages for the identical job within an enterprise.

The research literature on wage differentials provides a useful context in which to understand occupational segregation by sex, since it indicates that female-male pay differentials are due to many factors other than occupational segregation and differences in the human capital of men and women. It is only when these other factors are also taken into consideration that a coherent explanation can be found for both the level of female-male pay differentials and occupational segregation by sex in countries around the world. Indeed, several previous cross-national studies based on aggregated occupational data have noted that the simple correlation between the female-male pay ratio and occupational segregation by sex is not statistically significant and that sometimes this relationship is even positive (Rosenfeld and Kalleberg, 1991; Jacobs and Lim, 1992; Barbezat, 1993).

For example, Anker (forthcoming) finds that occupational segregation by sex is lower in Asia than in Europe and, within Europe, highest in Scandinavia. These results are unexpected and counter-intuitive if one is thinking only about female-male pay ratios since, as shown in table 2 and elsewhere (for example, Anker and Hein, 1986; Standing, 1989; Terrell, 1992), European countries tend to have higher female-male pay ratios compared with Asian countries. And among European countries, female-male pay ratios are highest in Scandinavia.

There are several possible explanations for these unexpected values. First, a major determinant of female-male pay differences across countries is the general level of pay differentials in a country (Blau and Khan, 1992; Gunderson, 1989). Second, in a related point, female-male pay differentials tend to be lower in countries with centralized wage setting (Gunderson, 1994; Rosenfeld and Kalleberg, 1991). Both of these factors undoubtedly help explain the relatively high female-male pay ratios in Scandinavia.

A third major source of pay differentials within countries is enterprise size. Large enterprises pay higher wage rates than do small enterprises to workers in apparently similar occupations (Gunderson, 1989 and 1994). Various explanations have been offered for this. One theory (that of compensating differentials) postulates that large enterprises pay a higher, so-called efficiency

wage in order to attract the best talent. This has important implications for the average female-male wage ratio in a country, because men are more likely than women to be employed in large enterprises. This factor could be especially important in a country like Japan where about one-third of the labour force works in large enterprises, in which seniority is an especially important determinant of pay. That women have been largely excluded from these large firms undoubtedly helps to explain the low female-male wage ratio in Japan (despite its relatively low level of occupational segregation by sex).

Fourth, the research literature distinguishes between two different forms of occupational segregation by sex. Horizontal segregation refers to the distribution of men and women across occupations — for example, women may work as maids and secretaries and men as truck drivers and doctors. Vertical segregation refers to the distribution of men and women in the same occupation but with one sex more likely to be at a higher grade or level — for example, men are more likely to be production supervisors and women production workers, men more likely to be senior managers and women junior managers. Some authors stress the point that vertical segregation is more important (Hakim, 1992) or at least as important (Barbezat, 1993) a determinant of the female-male pay ratio as horizontal segregation. Of course, depending on the detail of the occupational classification, the same phenomenon could be observed as horizontal or vertical segregation. For example, when men work as doctors and women as nurses, this would be horizontal segregation in a three-digit ISCO classification where these two occupations are classified separately; but this same phenomenon would be vertical segregation in a two-digit ISCO classification where medical, dental and veterinary workers are combined into one occupational group. Irrespective of this measurement problem, it is clear that vertical segregation is a very important determinant of female-male pay differentials, because even a relatively detailed occupational classification of 250 or so occupations is rather crude for a modern economy. Referring again to the situation in Japan, it seems likely that vertical segregation is an especially important determinant of Japan's low female-male pay ratio. For example, Japanese women are more or less excluded from the managerial career path in large corporations, so that even when they get a job in a large company, they rarely get into a career track position (Lam, 1992).[14]

Concluding remarks

This article is concerned with the sex segregation of occupations and labour market inequalities between men and women and explanations of why it occurs. This brief concluding section provides some general conclusions about the relevance and usefulness of the theories described for explaining this

[14] Even in Nikko Securities, a large Japanese corporation which is considered a leader in promoting women's employment, very few women enter the career promotion track. According to a recent report (Manpower, 1994), Nikko Securities recruited a relatively high percentage of women for its managerial positions (148 men and 75 women), but not into the career track (148 men and only 3 women).

phenomenon; in so doing, it draws on results from a large empirical study of occupational segregation by sex by the author (Anker, forthcoming) where detailed occupational data for 41 countries and territories around the world are analysed.

The data analysed therein indicate that the majority of men and women in the world work in what can only be described as "male" or "female" occupations, given the high proportion which is either male or female. The data also indicate that there is considerable similarity all over the world in the types of occupation which are gender-stereotyped — determining and reinforcing the gender stereotypes shown in table 1.

These empirical results provide support for all three of the general theories described in this article. Neo-classical/human capital theories correctly point out how women are less well qualified than men for certain occupations because of differences in their education and years of experience. So, for example, all over the world men, not women, are engineers because very few women train to be engineers; on the other hand women, not men, are nurses because very few men train to be nurses. Labour market segmentation theories are correct in their basic premise that labour markets are indeed segmented, and this segmentation undoubtedly helps reduce wages in "female" occupations through the "overcrowding" effect.

However, data from the forthcoming study also indicate that gender theories provide the most compelling explanations for the sex segregation of occupations, given that they emphasize enormous overlap in the abilities and preferences of individual men and women. They also address the underlying reasons for segregation inside as well as outside the labour market. They help explain why the most important occupations in which women are employed around the world reinforce typical "female" stereotypes such as the caring, docile or home-based woman worker. They help explain why women acquire less experience than men, because women are overwhelmingly responsible for child care at home. They help explain why women in certain countries are virtually excluded from occupations which involve public contact between men and women. They help explain how the restricted and inferior labour market opportunities for women associated with occupational segregation are perpetuated into the next generation, because such limited prospects cause many families — and many women — to underinvest in women's education, training and experience. They help explain why the part-time work and/or flexible hours associated with so many "female" occupations are as much a reaction to the fact that these are "female" occupations as they are to the need for "flexibility" in these occupations. They help explain why, despite high unemployment rates, relatively few men in industrialized countries have so far been willing to enter typical "female" occupations.

With increasing competition across the globe, it is increasingly important for countries to make efficient use of their resources. What could be a more important source of labour market inefficiency than the extensive segmentation of male and female workers? With the impact of the women's liberation movement, and an increasing participation of women in the labour force and in

public life, what could be more important than equal labour market opportunities for men and women? In both these respects, the sex segregation of occupations has an important influence. The stereotyping of men and women around the world has important implications for development and competitiveness.

Policy-makers need to address more seriously the inequality of labour market opportunities and its effect on both men and women. A wide variety of policies and programmes is needed — for example, facilitating policies to reduce the burden on women of family responsibilities; consciousness-raising programmes to remove gender stereotypes and prejudices; educational policies to bring about greater gender equality in schooling and training, especially with respect to opening access to non-traditional occupations for both men and women; and equal opportunity and affirmative action policies, especially those opening up new opportunities for men and women. Action is required on all these fronts to reduce occupational segregation between men and women with benefits not only for the present workforce and economy, but also for the future.

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