## Comment on Nabanita Datta Gupta: Are women falling behind in the new economy? Gender gaps in new skills and competencies

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First, this is a very interesting paper and an important contribution to understanding the gender wage-gap in the labour market in Denmark as well in other industrialized countries. The gender wage gap has been on the research agenda for a while now and the findings have so far been remarkable but there are still unanswered questions. This paper takes us a bit closer to fully understanding why there is still a gap.

Since many of the human capital factors, such as education, experience etc., have lost much of their significance, or power, to explain the gap between men and women, we have to look for other aspects in the wage-formation process to understand the remaining wage gap. The reason why traditional human capital factors are no longer of prime interest is that women have been catching up on men. As long as women were lagging behind men, less education, less labour market experience etc., these factors were explaining a considerable part of the gap. Today, men and women are certainly more equal but since there is still a wage gap, we have to look for other explanations. Human capital factors cannot be neglected but they are now part of a more complex setting for understanding the gender wage gap. Ingredients to which it is worth paying more attention are gender differences in the matching process in the labour market as well as the size of the wage-premium. Since the latter tends to vary according to occupation, type of education and sex, it is obvious that the sexsegregated labour market has to be considered more seriously. But besides these well-known factors, the on-going changes in the Swedish wage-setting process must also be paid attention to. We are still lacking research considering its potential to decrease or increase the gender wage gap.

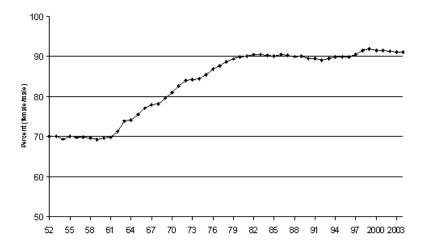
The development of the Swedish gender wage gap is illustrated below. Figure 1 gives the long-term trend (1952-2004) in relative female wages in the manufacturing industries (hourly wages) while Figure 2

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illustrates a much shorter period of time (1996-2005) for three different sectors in the labour market. The first figure illustrates the remarkable break for Swedish women at the beginning of the 1960's. After a long period with a constant wage gap between men and women the gap started to decrease. In a twenty-year period, the gap was reduced from more than 30 percent to approximately 10 percent. The reason for this was a combination of several factors such as: demand factors, new agreements between unions and the employers' federation concerning equal pay, a period of impressive economic growth, at least during the 1960's, and not least that some of the bans on female labour were lifted. Working nights in the manufacturing industry was e.g. prohibited for women until 1962. Moreover, vocational training was gradually extended and came to benefit many women who had previously been housewives and, in addition, the expansion of the public child care for working mothers became very important. The public investments here did both make it legitimate and easier for women wishing to enter the labour market. By the middle of the 1980's, the effect of these positive changes on relative wages seems to have reached a peak since the narrowing of the gap between male and female wages came to an end. Since then, the general gap has remained constant or almost constant, at around ten percent.

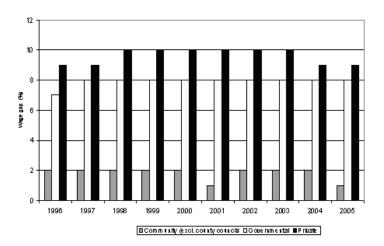
Looking at the three main sectors in the labour market separately, a more varied pattern is revealed, however (Figure 2). After controlling for age, education and working-time, the wage-differential between men and women is found to be lowest in the community sector, approximately two percent, and largest in the private sector, around ten percent. The gap in the governmental sector has remained steady at eight percent. The county councils are not represented here although it is well known that this is where the gap is widest. The reason is the extremely sex-segregated market within the county councils where most men are highly paid doctors or technicians while most women are performing as moderate or low paid nurses and assistant nurses.

Figure 1. Female relative wage (manufacturing industries 1952-2004)



Source: Statistics Sweden.

Figure 2. Gender wage gaps in different sectors (Swedish labour market 1996-2005)



Looking at the gender wage gap today, it is obvious that we have to conduct further research to find the reason behind the remaining gap, at least as long as we consider the gap to be unfair and related to sex. So far, it has been possible to sort the reasons into two distinct and objective categories:

- Human-capital factors. Women catching up on men has contributed to gradually diminishing the gap (see the reasoning above) but there may still be different returns on human capital due to sex.
- Sex-segregated labour market. The separation of men and women in the labour market, horizontally as well vertically, is an old phenomenon dating back to ancient times. Although there have been great changes here, the consequences of the separation are still visible. Men's and women's choice of gender stereotyped occupations or/and employers' traditional way of valuing and rewarding men and women and their respective jobs/tasks are still ruling part of the gap.

But now it may be time to add a third, but less investigated, category:

• The wage-setting process. What are men and women rewarded for, or paid for, today? We know quite a lot about the "old" system, i.e. the centralized model, of wage-setting in Sweden and its effect on the wage gap in general and on the gender gap in particular but still very little about the new, more decentralized, system. The effect of changes in both process and remunerated factors during the last decades is still unclear and it is here that Datta Gupta's paper is an important contribution.

The transition from centralized to decentralized wage-setting in Sweden started in the 1980s but became apparent and more wide-spread in the 1990s. An increasing amount of decentralized and individualistic wage-setting was introduced and accepted both among unions and employers. This did also open up for "new" informal merits to be rewarded. These were enhanced while formal ones, i.e. educational merits and labour market experience, started to lose some of their significance. When parts of the wages are decided "face to face" and not as earlier on collective grounds, the possibility for employers to reward and value individually did increase, as did their possibility to introduce and remunerate new criteria and new competencies. At least two questions are revealed here: "What other characteristics do employers choose to value"—social competence, leadership, innovative competence or perhaps even beauty was on the list—and "What ef-

fect do these "new" methods and "new" merits have on the gender wage gap"?

As long as we believe that formal merits are both transparent and measurable in an objective way, hardly any objections are raised against them as recruiting instruments for a job and the basis for individual wages. As long as we also think that this will serve as a guarantee for gender neutrality in recruiting and rewarding, it is hard to see any other result than a gradually diminishing gender wage gap. Introducing more informal merits into the process may, however, "threaten" this and is therefore more complicated in this context. Informal merits may e.g. be hard to measure in a correct way and furthermore, they are not as transparent and objective as the formal ones. This may increase the degree of freedom for employers since they may easily decide what competencies they want to remunerate and which they do not. The reason for the constant gap since the 1980s in Sweden may, at least partly, be an effect of the introduction of new wage-setting processes. This seems to be most pronounced within the private sector but since the gap is substantial within the governmental sector as well, it might not be a matter of private or public.

Datta Gupta uses an interesting and rich data set when discussing this issue on competencies in her paper. She has access to a Danish database, part of the OECD project on Definition and Selection of Competencies, for 1998-2003. Besides all kinds of labour market information and individual background characteristics, the data set also includes information on thirteen different competencies. In this data base, these are measured by self-reporting. This is normal but also a bit problematic. The variations in answers may be big and to a certain degree biased since some will report too high a competence while others may report one that is too low. This may, however, be levelled out but there might also be a sex-bias here which is worth considering. We know, from other research, that men, on average, are more likely to overestimate their abilities while women tend to underestimate theirs and the results stemming from self-reported competencies must therefore be treated with caution. Datta Gupta does discuss this problem and I think that more information can be obtained by making the gender perspective on this issue even deeper.

There are thirteen different competencies in the original database but Datta Gupta only uses *eight*. Looking at the result from the selfreported competencies, there is only in one, *communication*, where women possess a significantly greater competency or hold jobs that require more competency than men. Men, on the other hand, have reported significantly more competence in innovation, English language, learning and self-management while no significant gender-gap was found in computer, training and mobility. The tricky thing here is that "competence" may reflect both personal competence and the competence needed for a specific job. Using the different competencies in the wage-regressions, Datta Gupta can tell us something about their effect on the wage gap. One important result is that the returns are more often positive for men (6 out of 8 competencies) than for women (4 out of 8). With a t-value around two (2), only one of the competencies was significantly positive for women compared to three for men. Overall, the level of significance may be a bit too low, but despite this, Gupta's findings confirm that men are rewarded for competencies that matter e.g. in managerial jobs or other high-level jobs while women may be penalised for acquiring some of the same skills.

One explanation for this may be that women tend to be *overeducated* more often than men. They have more formal qualifications, e.g. higher education, than what are needed for the job they actually have. If job quality, as the author points out, is a crucial factor here it is obvious that women may be lagging behind men due to this mismatch. This mismatch is already a fact today, according to research findings, and will probably grow since women outnumber men in higher education today. This is something which has to be investigated in detail in the near future, since individual costs as well as political costs are involved here.

The five competencies Gupta omitted are the following: social competence, environmental competence, health, cultural and democratic competence. The reason is that other analyses (not by Gupta) indicate that none of these were related to workers' income. I do, however, think that we need more research here. Is e.g. choice of competencies gender-neutral or in any way gender biased? Is it possible that the subselection has anything to do with differences and difficulties in valuing as well as rewarding these omitted competencies? Are they impossible to include in the kind of empirical models Datta Gupta are estimating due to their un-measurability? Would it be possible and meaningful to sort the competencies into broad groups e.g. hard and soft competencies (maybe even semi-soft and semi-hard), respectively, or inherited and acquired competencies, respectively, and use them in the estimations? The important question here, as I see it, is whether there

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exist different reward systems for different types of competencies and in that case, whether they are found to be gender biased or not.