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Export-Oriented Policies, Women's Work Burden and Human  
Development in Mauritius

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# **Export-Oriented Policies, Women's Work Burden and Human Development in Mauritius**

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**Abstract:** This paper, looking at the case study of Mauritius, attempts to understand the factors affecting the relationship between EOP, women's work burden along different social backgrounds. The analysis is based on between-method triangulation consisting of a quantitative survey in the industrial sector and a qualitative survey in the industrial and services sectors. The main result shows that women and the social reproductive process were not affected in the same way depending on the socio-professional background of the woman.

# **Export-Oriented Policies, Women's Work Burden and Human Development in Mauritius**

## **Introduction**

Looking back at the feminist economics literature of the early 1990s, the argument that the process of social reproduction<sup>1</sup> could be adversely affected by women's entry into the labor market remains largely under-researched. This is however one of the core arguments in feminist economics discourse: as women enter the labor market for the first time, questions are raised as to who will take responsibility for the reproductive economy within the home. Evidence suggests that women often end up being responsible for both the productive and the care economy, decreasing their leisure time and/or decreasing the quality of their reproductive work (Elson, 1991). Feminist economists argue that this is likely to have negative consequences both on women's health and on the care of children, potentially affecting social reproduction and human development, as the labor force would not be reproduced effectively (Cagatay, 1996).

The purpose of this paper is to determine the extent of women's work burden and women's coping strategies as a result of their entry into the industrial and service export sectors in Mauritius. The paper is used as an avenue to highlight the potential impact on the reproductive economy in terms of care and attention given to children. This paper adds to findings of feminist economics research for three reasons: first by providing insights on the limited evidence in literature on the impact of women's entry into the labor market on their work burden and coping strategies, second by applying between-method triangulation<sup>2</sup>, an innovative method in economics, which will allow to uncover the processes behind the relationship between women's

participation in the labor market and their productive and reproductive work burden . Finally, this research draws from a comparative analysis of women from different socio-professional backgrounds, which will shed light on the disparities of experiences as a result of different social contexts.

Mauritius, a small island economy in the Indian Ocean, implemented an Export Oriented Industrialization (EOI) strategy in the late-1970s as a mean to achieve successful industrialization and solve its employment problems. This was translated through the implementation of an Export Processing Zone (EPZ), which, as in many other LDCs, led to a sudden and rapid feminization of the labor force (Hein, 1984). Feminization of the labor force could be seen as desirable given that export-oriented policies were not only creating employment, but also was allowing women to enter the labor market, earn an income, improve family welfare and potentially increase their autonomy and bargaining power within the family. However, the EPZ offered poor labor conditions (long working hours, low pay, poor safety measures) and women who entered the labor market were now caught between their productive and reproductive responsibilities (Hein, 1984). Rigidity in gender roles and poor provision of market substitutes in reproductive activities meant that as women entered the EPZ, they remained the main provider of caring activities within the home (University of Mauritius, 1991).

Mauritius expanded its export-oriented policies in the early 1990s by partially liberalizing financial and business services (with the setting up of an offshore sector), and the IT sector. The opening up of services also created employment opportunities for women, though not on the same scale as in the EPZ (Blin, 2004b). Nevertheless, Very little is known about the extent to which different working contexts in Mauritius may affect women and their workload differently

The next section presents an overview of feminist economics literature on the relationship between export-oriented policies, women's entry into the labor market and the reproductive economy. It is shown that the existing evidence remains limited to the impact on the reproductive economy in terms of hours of work. The paper then presents an overview of Mauritius' export oriented policies and their impact on the gender structure of the work-force and show that export sectors in Mauritius employ a relatively high proportion of women. Before presenting the results, the paper argues that the application of between-method triangulation has allowed to complement and further validate the findings in the quantitative research and therefore provide a more in depth understanding of the relationship between EOP and social reproduction. The results of the quantitative survey show that women working in the export processing zone suffered from a relatively high work burden and health problems.. The qualitative analysis not only further validated the quantitative results but also showed that the extent to which women managed their conflicting pressures depended not only on family characteristics but also on income and socio-professional categories. The paper concludes that women's initial social background will play an crucial role in determining the extent to which women are able to cope with their double work burden. Furthermore, the victimization of women as they are pushed into the labor market should be further qualified and women could clearly benefit from entry into the labor market as long as proper infrastructure, social safety nets and family networks are present.

### **Export oriented policies, women's employment and social reproduction**

There is now large cross-section evidence that in many countries the implementation of export oriented industrialization policies has led to a strong feminization of the

labor force in the industries created (Joeques, 1995, Elson, 1993, Cagatay, 1996). Women's access to paid employment implies that women have greater control over their income which can potentially increase their autonomy and empower them, giving them the possibility to participate in household decision-making (Fontana *et. al.*, 1998). Besides, women's greater control over income could imply a better distribution of income within the household in favor of the reproductive economy. Indeed, evidence shows that women invest a higher proportion of income than men in social reproduction with potential long run benefits for the productive economy through improvement in human capital production (Cagatay, 1996, Ranis *et.al.* 2000). Nonetheless, evidence also suggests that EOP have either exacerbated or perpetuated the gender wage gap and has created employment mostly characterized by poor labor conditions (Seguino, 1997, World Bank, 1992, Cagatay, 1996).

While EOP seem to have had a beneficial impact on women in terms of employment, women's competitive advantage seemed to have lied in the inferiority of their employment conditions in terms of earnings, health and safety conditions (Cagatay, 1996). In fact, women's employment opportunities have generally been in Export Processing Zones where labor conditions imply long hours of work, poor safety conditions and job insecurity.

Evidence suggests that as women enter the labor market they see a decrease in their leisure time and are forced to reduce the provision of care (Floro,1995; Fontana and Wood, 2000; Moser 1992). Indeed, the gender division of labor within the household implies that as women enter productive employment they often remain responsible for the caring economy as a result of low female/male substitution elasticity in the reproductive economy. It has been further argued that a reduction in

the provision of care, in particular that of children, could adversely affect long run human development (Elson 1993, Floro, 1995;Cagatay, 1996 & 2001).

Extensive evidence exists on the health impact of women's productive and reproductive work burden (WHO, 2000). As mentioned in the previous paragraph, there is also some evidence (even though scarce) that women's double work burden has decreased their leisure time and forced them to reduce the time spent on the caring economy (Floro, 1995; Fontana and Wood, 2000; Moser 1992).

However this evidence needs to be updated in particular given the important changes in the development process in the last ten years as new export sectors emerged and as the structure (along age and family status) of the female labour force changed. More evidence would also be needed on the impact of women's entry into the labor market on the care of children. To our knowledge, only three studies have looked at the relationship between women's employment and the well-being of the child (Basu and Basu, 1999; Desai and Jain, 2003; and Borooh, 2003). Summarizing the results of these three studies, it would seem that whether women's employment will affect the child's well-being (and therefore human capital) might depend on the socio-economic background of the mother.

However, these studies have focused on India and look at women's employment and not women's work burden as such. Moreover, they were undertaken exclusively in rural areas and results may be different in urban areas or when women enter the labor market as a result of EOP. Therefore, evidence on the impact of the work burden on the production of human capital remains too limited to draw any definite conclusion.

In this paper, the lack of data on a counter-factual will not allow us to go as far as analyzing the impact on the reproductive economy, but we hope that this paper through its finding will push to further research on evaluating the trade-off between greater income and work burden.

### **Export oriented policies and the gender structure of employment in Mauritius**

Mauritius, a small Indian Ocean island economy, has experienced quite an extraordinary economic development over the last 30 years. In two decades the country changed from a dependent mono-crop economy to a diversified multi-sector, middle-income economy.

The engine of the success in the development process of Mauritius has been the Export Processing Zone (EPZ). The EPZ specialized in labor-intensive textile and clothing manufacturing industry, and hired predominantly women. Throughout the 1980s and 1990s the average proportion of women in the EPZ workforce was 68 to 80 per cent (CSO, various years). Prior to the implementation of the EPZ only 20 per cent of the Mauritian labor force were women, by 2003, almost 35 per cent of the labor force were women. In 2003, 40 per cent of employed women were employed in the secondary sector, 54 per cent in the tertiary sector and only 6 per cent of women were in the primary sector (CSO, 2002). Indeed, Mauritian women have increasingly entered the labor market since the implementation of the EPZ and not only due to financial pressures, but also to seek autonomy and financial independence (Blin, 2004a).

In 2003, the sub-sector employing the largest proportion of women was the EPZ, offering mostly low-skill, labor-intensive jobs for women. However, the service sector has been an increasing employer of women in absolute terms and, for example



the liberalization of business and financial services through the implementation of an offshore sector has led to an increasing number of women entering higher skill employment (Blin, 2004b). The liberalization of the IT sector, however did not have the same effect and remains a male dominated sector (Blin, 2004b).

Before moving to the core of our analysis, a few points need to be made on gender relations in Mauritius and on some of the particularities of the Mauritian socio-economic structure.

The 1990 Survey on Absenteeism (University of Mauritius, 1990) showed that, while women increasingly participated in the productive economy, men on the other hand did not participate significantly at all in reproductive activities. Only 0.5 per cent of the men in the sample presented a very high involvement in domestic chores, while 34 per cent of women said they were highly involved in domestic chores<sup>3</sup> (University of Mauritius, 1990). As a result, women cumulate both productive and reproductive work, and rely increasingly on women not in the productive economy to help them with their reproductive responsibilities (University of Mauritius, 1990). There is a general increase in work for all women as those not in productive work see their workload increase, as they have to help those in the productive economy. Indeed, Mauritius remains a male dominated patriarchal society where gender roles are clearly defined with men being the main breadwinners and women the main provider of caring activities (Burn, 1996).

Some particular characteristics in Mauritius may influence the impact women's entry into the labor market may have on them and their children.

- Thanks to the establishment of pre-primary schools for children from the age of three, women, at least during school hours, do not have to worry about the care of their young children.
- The generalization of private tuition in the highly competitive education system means that children are taken care of even after school through private tuition. However, this concerns only some mothers as not all can afford to pay private tuition fees for their children.
- Mauritius has a free health care system which can potentially decrease women's workload in terms of care of the family.
- Women working in the EPZ are relatively well educated with at least primary education, therefore they are likely to be relatively more effective in their caring activities.
- Real wages in the EPZ have increased steadily throughout the 1980s and 1990s, therefore allowing women to invest more in the reproductive economy. For example, an improvement in family welfare thanks to the development success of Mauritius has to an extent allowed some families to substitute capital for labor in the reproductive economy. The Survey on Women's Role in Economic Activity shows that, in 1995, 11 per cent of the sample had a washing machine, and 54 per cent of the sample had a refrigerator. Nevertheless, only 6 per cent of the sample had a vacuum cleaner/floor polisher, and 12 per cent of the sample did not have an electric or gas cooker, implying the use of wood/charcoal (13 per cent of the sample) or Kerosene (10 per cent of the sample).

## **Methodology**

In order to analyze the impact of women's entry into the export labor market, the paper first measures women's work burden (productive and reproductive work) and assesses women's health status and women's coping strategies as they struggle to cope with their double work burden.

The method chosen is between-method triangulation, and a quantitative and a qualitative survey were undertaken from January to June 2002. Two broad issues motivated this choice: gaps in data generation and gaps in data analysis.

Gaps in data generation arose because the invisibility of the reproductive economy means that data on women's reproductive activities were not available. A Quantitative survey was undertaken in order to collect data on working hours and on women's health status. However, because quantitative data on reproductive work is less apt to explore quality aspects of the reproductive economy (such as care and attention given to children, or intensity of reproductive work) a qualitative survey was also undertaken.

Gaps in data analysis arose for two main reasons. First, quantitative analysis does not reveal the mechanism behind the relationship between family and work characteristics and their impact on work burden. A qualitative survey however, could capture the complexity of the different factors affecting women's work burden and answer questions such as: did women feel they could give enough care? Why? How did women feel their work burden was affecting their children?

Second, available literature was not sufficient to develop a questionnaire that would be adapted to the social and cultural context of Mauritius. Therefore, to avoid sources of bias in the quantitative survey questionnaire a prior qualitative analysis through focus groups was undertaken to explore how questions could be asked within Mauritius' particular social context.

### *The quantitative survey*

The main hypotheses of the quantitative survey were:

1. Women's entry into the labor market raised their work burden.
2. A woman's work burden is worsened both by her type of work and her family characteristics.
3. The more hours women work in the productive or/and the reproductive sector, the worse is the effect on their health.

To explore hypothesis 1 the total number of productive and reproductive hours worked by women was evaluated. Hypothesis 2 and 3 were tested using robust Ordinary Least Square (OLS) analysis<sup>4</sup>.

Using proportionate stratified random sampling, the data was collected in Mauritius in February-April 2002 on 200 women working in 35 textile and garment firms in the EPZ. Sixty six women came from firms of 200 employees or less, 69 women from firms between 201 and 1000 workers and 65 women from firms of more than 1000 workers. Cooperation rate from women was 0.99 and the non-response rate 0.5 per cent<sup>5</sup> and there were no non-eligible cases.

The quantitative questionnaire consisted of four main sections. Section one looked at general information on the respondent. Section two covered questions related to hours of productive and reproductive work during weekdays and weekends, as well as the types of reproductive activities undertaken within the household. Section three covered questions on the participation in house chores from other members of the household, as well as the availability of labor-saving equipment within the home. Section four consisted of questions on women's perception of their working conditions and health status as a result of their entry into the labor market.

On top of evaluating women's productive and reproductive hours of work and women's health status, three linear equations were developed to test the determinants of women's work burden and a fourth equation to examine the determinants of women's health status.

Factory weekly work hours equation:

$$Wk_i = f(S_i, W_i, Y_i, U_i, Cer_i, Ny_i, A_i, F_i, C_i, H_i) \quad (1)$$

Weekday housework hours equation:

$$Hswk_i = f(Y_i, U_i, Ny_i, A_i, F_i, M_i, Husb_i, C_i, L_i, H_i) \quad (2)$$

Weekend work hours equation:

$$WEhswk_i = f(S_i, W_i, Y_i, U_i, Cer_i, Ny_i, A_i, F_i, M_i, Husb_i, C_i, L_i, H_i) \quad (3)$$

Health impact equation:

$$Health_i = f(Wk_i, Hswk_i, WEhswk_i, M_i, F_i, C_i, U_i, Y_i, P_i, L_i, H_i) \quad (4)$$

where  $Wk_i$  denotes hours of factory work per week,  $Hswk_i$  is hours of reproductive work from Monday to Friday,  $WEhswk_i$  is productive and reproductive hours of work on Saturday and Sunday,  $Health_i$  is an index of women's health problems<sup>6</sup>,  $S_i$  is firm size,  $W_i$  is the income of respondents,  $Y_i$  is numbers of years worked in the factory,  $U_i$  is a dummy denoting whether the women works in an urban area or not,  $Cer_i$  is a dummy denoting whether the respondent works as a controller or not,  $Ny_i$  is the number of people earning an income in the household,  $A_i$  is age of respondent,  $F_i$  is number of people living in the household,  $C_i$  is number of children under 18 living in the house,  $H_i$  is an index of house chores contributors<sup>7</sup>,  $M_i$  is a dummy denoting whether the respondent is married or not,  $Husb_i$  is a dummy denoting whether the husband helps in house chores or not,  $L_i$  is an index on labor saving equipment<sup>8</sup>, and  $P_i$  is a dummy denoting whether the respondent complained of poor working conditions or not (Table 1).

*Table 1*

The quantitative survey results have, however, some limitations. The results are based on women recalling their hours of work and rest. While during weekdays women usually had a precise timetable of activities, during the weekend the organization of their days was more blurred and therefore their answers might have been less accurate. This could explain the difficulties with the results for the models on weekend work.

The models are restricted by the number of variables that could be covered in the survey. A number of variables were not included in the analysis, because they could not be measured quantitatively (for example issues around the intensity of work, or issues of culture and tradition).

Besides, the study is from a woman's perspective and other members' of the household were not interviewed. Also, the results could have been improved if they had been compared with a control group of women who were not working<sup>9</sup>.

The results could also have been affected by the relatively small size of our sample, which might have lead to some bias.

Finally, using OLS regression in cross-section analysis based on survey results may raise some issues of selection bias. In other words, the sample results may differ from the true population, or some measurement errors may have arisen in the evaluation of regressors (for example women give an approximation of their income not the actual amount earned).

The regression analysis is limited to simple correlation inference rather than causation inference, as there is not enough information to infer on causation. Therefore in the analysis, there is no attempt to develop fully specified models, but rather to evaluate what factors influence the dependent variables, paying particular attention to factors related to the household.

### *Qualitative research method*

The in depth interviews were undertaken on women working in three export sectors, the EPZ and the offshore and IT sectors. The objective of comparing three different sectors was to understand how different work contexts could impact women and their productive and reproductive work burden. The qualitative interviews explored issues such as empowerment as a result of women's entry into the labor market, the level of their work burden, and how women felt they could cope with their caring activities as a result of their entry into the labor market. In particular, the research explores whether women felt the care of their children had been affected by their entry into the labor market. The qualitative research also looked at whether women undertook multitasking at home and whether the intensity of their work had increased with productive work. It looked at coping behaviors and how family and work circumstances influenced women's work burden. Finally, it explored women's needs and women's expectations from the government and society as a whole in terms of their gender positioning in Mauritius. Forty one women were interviewed, 16 from the EPZ, 16 from the offshore sector and 9 from the export IT sector.

The selection process was undertaken so as to get as diversified a sample as possible (quotas were taken along company size, type of employment, marital status, family structure, number of children and age of children).

### **Quantitative perspective on women's work burden and health status in the EPZ**

The women sampled were on average 37 years old and the majority were married (64 per cent) or had been married (17 per cent). They came from diversified ethnic communities, and a majority (60 per cent) of them lived in urban areas. The size of the respondents' families was relatively small given the tradition of extended family in Mauritius (53.5 per cent of the women were in families of less than five members), and a majority (63 per cent) of respondents had only one extra income earner in the household<sup>10</sup>. The respondents generally did not have more than one helper for house chores (only 24 per cent of women had more than one helper in the house). A large majority of children (79 per cent) and a half (51.5 per cent) of husbands did not or helped only a little in house chores. On average, the women had been working in the EPZ for eight years and for 76 per cent of them the EPZ was the only sector they ever worked in. The main motivation of women for working was to earn an income (96 per cent). Respondents earned on average Rs.2,900 per month, and quality controllers were the best paid, followed by machinist and then packers and ironers.

#### *Women's Work burden*

To evaluate women's work burden, women were asked to give a precise account of their hours of work at the factory and of their daily activities outside factory work (including leisure), separating weekdays and weekends. The results found that women spent on average 51 hours per week in the factory and three hours and a half per weekday on house chores, and women worked on average a total of 25 hours on Saturdays and Sundays<sup>11</sup>. In total respondents worked an average of 102 hours of



productive and reproductive work per week, this is more than twice the 45 hour minimum of the EPZ. As a result women had little time for rest and on average spent less than one hour resting on weekdays. Nevertheless, on average respondents had reasonable amount of sleep per night, sleeping on average more than 7 hours on weekdays and close to 8 hours on weekends.

*Table 2*

*Determinants of Hours of Work*

Table 2 reports the model results. Model 1 considers the determinants of productive hours of work. It is expected that work characteristics would affect factory hours of work, but also explores whether women influenced the number of overtime they undertook depending on their family characteristics. The results demonstrate a significant negative relationship between family size and hours of productive work per week, suggesting that women are constrained by their reproductive responsibilities as larger families are likely to involve greater reproductive work at home. However, the results also show a positive relationship between the number of children and hours of factory work. This may seem at first contradictory with the previous results, but larger families are not necessarily those with the greater number of children under eighteen. Rather, this result suggests that the presence of children implies further costs (such as the purchase of books, uniforms, and private tuition), which push women to undertake more hours of work to cover these extra costs. In fact, results of the qualitative analysis indicate that many women entered paid employment to cover the cost of the education of their children.

Model 2 tested the determinants of women's hour of reproductive work during weekdays. Previous research suggests that married women, in particular those with children, are more likely to have heavier work burdens, with child care considered as

one of the most time consuming activities within the reproductive economy (Cagatay, 1996). The focus groups also showed that the presence of “helpers” in house chores can significantly diminish women’s work’s burden at home. Furthermore, labor saving equipment (LSE) are increasingly part of the reality of Mauritian households and it is expected that the presence of LSE will reduce women’s reproductive hours of work. The results in Model 2 are very much in line with expectations. Table 2 illustrates that being married, the age and the number of children under 18 living in the house all have a significant positive relationships with work burden. On the other hand, the importance and intensity of help received in house chores (help index), as well as the presence of labor saving equipment have a significant negative relationship with hours of reproductive work. Another interesting result is the dummy variable urban (denoting whether the woman lives in an urban or rural area) which suggests that women in urban areas have a lower workload than women living in rural areas. This is likely to be explained by the fact that access to reproductive services and infrastructure is better in urban areas than in rural areas. The qualitative survey will allow shedding more light on the causal mechanisms behind the relationships between the independent variables and hours of reproductive work.

Model 3 explores the determinants of hours work on weekend. It is important to note that hours of work on weekend are a mix of overtime worked at the factory and of reproductive chores. This model is much weaker than the other two models because women’s day on weekend is not as structured as on weekdays and therefore women had difficulties recalling their activities. Table 2 shows that the results on the relationship between weekend hours of work and the number of children and labor saving equipment are in line with our results during the week. However, while urban women tend to work fewer hours during the week, our results here suggest that they

tend to work more hours on weekend than women in rural areas. There does not seem to be a clear explanation for this result and it could be linked to the issues around the way the dependent variable was evaluated by women. Also, the more years women worked in the EPZ, the less they worked on the weekend, and this is in line with our findings with respect to the age of respondents. However, on the other hand we found that during the week, hours of work (productive and reproductive) were positively related to years worked in the EPZ. One reason that could explain the difference is that women who had been working in the firm for a long time could negotiate their overtime with the manager and do not do overtime at the weekend. In fact, the preliminary focus groups suggested that women with a long history in the EPZ seemed to have stronger negotiating power as compared to others. No significant relationship was found with the other variables.

#### *Work conditions and Health of Women*

While the survey results suggested that women did suffer to some extent of poor working condition (57.5 per cent of women complained of poor working conditions), the most striking result comes from the question related to their health status. Women were asked whether they felt their work at the factory affected their health and to list the health problems they had been suffering from since entering the labor force. Eighty three per cent of the women interviewed said they had health problems directly related to work. The most frequent health problems encountered by women were (lower and upper) backache, headache and tiredness. Other problems such as foot ache or leg ache were less frequent.

In model 4, looking at the determinants of women health status, the results suggest that the longer women worked in the factory and at home, the more health problems they encountered, with hours in the factory having a stronger significance.

The latter suggests that women's health problems are not only related to poor working conditions (there is a positive correlation between the incidence of having problems at work and health problems), but also to cumulating productive and reproductive responsibilities. It could be argued that women's health might have been worse if they were not working since greater income would mean greater access to health facilities. However, since health services are free in Mauritius, this is less likely to be the case in the Mauritian context.

Women in urban areas are less likely to have health problems and this could be explained by better health facilities in urban areas. As expected the larger the family, the more women had health problems. Indeed, women in larger families can be expected to have less time for themselves and therefore take less care of their health. However, the number of children in the house is negatively correlated with women's health problems. This is surprising, as we would have expected that women with more children would have had more health problems given the previous finding on family size. One explanation is that one can differentiate between the nuclear and non nuclear family, and then these results are not contradictory. This would mean that it is not children but extended families that have a larger impact on women's health. Or these results could result from selection bias, and the correlation is in fact explained by other factors. It could also be associated with the limitations of the calculation of the health index, which does not account for the gravity of the health problem.

Overall, the results of the four models suggest that on average, women working in the MEPZ suffer from high work burden and of several health problems related to work. There therefore seems to be a trade-off between the income they earn and the cost women incur in terms of working hours and health status.

## **Qualitative perspective on the relationship between women's work burden and the reproduction of human capital**

In-depth interviews were undertaken with women from different socio-professional categories<sup>12</sup> working in export sectors. The qualitative research shows that the extent to which women working in export sectors suffer from high work burden and the extent to which they manage to cope with that work burden depends on the complex interplay not only of family characteristics but also of women's socio-professional background.

Women were asked whether they found it difficult to combine their productive and reproductive responsibilities, and to describe the extent to which they found themselves undertaking tasks more intensively and whether they undertook multitasking<sup>13</sup>.

A large majority of women across socio-professional categories said they found it difficult to combine both responsibilities and they therefore found themselves intensifying their reproductive activities, regularly undertaking more than one chore at a time. Nevertheless this was not true for all women. Women with adult children, or women with little responsibilities at home (who are single or without children, or with a husband helping with chores) did not feel they suffered from a heavy work burden. All the women working at a top management level also did not suffer from their work burden, and despite their long hours of productive work they were able to manage their reproductive chores thanks to the presence of paid domestic staff. One respondent told us:

“It used to be difficult before this job, but now I have two maids [...] and my mother in law lives across the street [...] now I can prioritize and choose to spend more time with the children if I want”.

What is interesting is the case of women with children working at a middle management level: even with one paid domestic staff they found it difficult to combine their work and home responsibilities. Another striking element of the qualitative interviews is the difference between women working in the EPZ and women working in the service sectors. Women working in the EPZ had the worse combination of situations: long working hours and little help available in the house because of lack of income. Even women living in extended families receiving the help of a mother in law or sister in law found it difficult to cope with their double responsibilities. One respondent with extended family helping remarked:

“Three quarter of the chores I need to do on the weekend, I don’t have time, and I have to wash the laundry twice sometimes three times. And for the big clean up I have to wait for Sunday. On Saturday I work until 1pm so I usually go to the market. I don’t really have time for me, to rest. And if you want to go out, you are forced to neglect your chores”.

Across categories, women complained of increasing the intensity of their chores and of constantly having to do multitasking. The latter suggests that the work burden estimated in the quantitative survey is therefore likely to be underestimated.

Although most women across socio-professional categories found their work burden difficult to bear, this is not to say that they did not enjoy working. In fact, mostly, it was only women working in the EPZ who expressed they would prefer to stay at home and not work at the factory. One respondent from the EPZ said:

“Yes [I would prefer not to work], I would be more fulfilled, to see my children grow, I didn’t see them doing their first steps. Maybe I would be the happiest woman!”.

However these feelings were generally not present for women in the service sector.

One respondent working as a clerk in the offshore sector said:

“Yes [I like to work], for the money, it’s distressing. When you work you feel more professional, I know I am someone...”.

Some women said they would possibly do another job more compatible with child care, or work part time if they had more choice; one respondent said “I would look for something to keep myself busy, like start a business”.

The qualitative data indicates that the difference between women working in the EPZ and women working in the service sector is explained both by the difference in working conditions in the two sectors and the difference in productive and reproductive workload between women in the sectors. Work burden for women in the EPZ is much worse than that of other women because women in the EPZ work longer hours of productive work and earn much lower income.

The same kind of difference arose between women in the EPZ and women in the service sector when they were asked about their health status. While a majority of women (except, women working at the top management level or women with little responsibilities within the home) complained of health problems related to their work burden, the type of health problems appeared to be more numerous and severe for women working in the EPZ.

In summary, the main factors affecting the extent of the work burden were the hours of work in the work place, and the extent of the substitutability of women’s time (i.e. labor-saving equipment, external help, the structure of the family, and having a helping husband). While a majority of women complained of a heavy work burden and said they found it difficult to cope, the extent of the latter varied first between the women from the EPZ and the service sector, but also within the service

sector where women working at the top management level did not suffer from their work burden irrespective of their family structure. It can therefore be argued that the extent to which women will suffer from their work burden depends on their socio-professional background. In fact the extent of women's work burden is a complex interplay between hours of productive work, family structure (extended or nuclear family, married/single, with/without children), and socio-professional category (and therefore level of income), but with income playing a key role since women at the top management level found their work burden manageable irrespective of their family structure and of the hours of productive work (which are similar to those of women working in the EPZ).

The next set of questions in the interviews concerned the care and education of children and how women felt their productive work actually impacted on their children. It could be argued that how women feel about the care of their children is a relatively good indicator of the extent to which women feel they are coping with their work burden.

Women's answers differed between sectors. Most women from the EPZ said they felt they could not give their children the care and attention they needed. One respondent explained this by saying: "when I get home they [her children] are already in bed and when I leave in the morning they are still in bed". One respondent told us it broke her heart not being able to be at home, while another said that working at the factory meant you had to sacrifice having contacts with your children. Many could not see their children during the week and their weekend was shared between overtime in the factory and house chores. Thus, the time they could spend with their children was very limited. Their situation was the worse because not only had they the longest working days, but they had no equipment to ease their burden, and the help they got



either from extended family or from their husbands was not enough to compensate for their heavy work burden. Overall, women working in the EPZ had strong feelings that their children could not get the care they required, but as one respondent pointed out: “If I don’t work my children don’t eat and I don’t eat”.

For women working in the service sectors, the way they felt about the care of their children was very much proportionate to the level of their work burden. Those with higher work burden (such as women at the management level with long productive hours of work, or those with little external help at home) tended to have stronger negative feelings about how working affected the care of their children. There was some exception though, for example one respondent, a mother of two working long hours in an IT firm, but with an extended family told us about her children:

“my weekends are full to be with them as much as possible...if I stayed at home I would be more stressed and I don’t think I would give them much attention”.

Even though she was the only respondent who argued that staying at home might leave the children worse off, it does raise questions as to the extent women’s feeling about the care of their children is a reflection of reality or a result of social pressure. Indeed, women’s entry into the labor market has challenged the traditional role of women a housekeeper and men as breadwinner. Consequently, right from the 1980s, there has been a lot of media attention around women’s entry into the labor market and the possible detrimental impact on children. This would require more research, but it is likely that the response of the women we interviewed were a combination of their assessment of their family reality and of social pressure.

To complete the analysis of the in depth interview, a few words need to be said about the trade-off between earning an income and the impact on women's work burden, their well-being and that of their children. All women across social-professional categories stressed that working allowed them to earn an income and therefore improve the welfare of their family. Many women, especially women working in the EPZ and women working as clerk in the service sector, started working in order to finance their children's schooling, in particular private tuitions. Unfortunately, the research does not allow us to make any definite conclusion on the direction of the trade-off as there is no a counter-factual. However, it can be argued that the results of the research highlight some strong inequalities between women entering the labor market, reinforcing existing inequalities.

In particular, while we cannot conclude on the overall impact on the care of children, it could be argued that while women's work improves the production of human capital as extra income allows for better nutrition and better schooling, the care of children is not improved as much as it could be for women at the bottom of the social ladder because institutions are not there to compensate for the trade-off discussed earlier. From the perspective of these women as compared to women in higher social strata, there seems to be an opportunity cost in the provision of social reproduction.

The in depth interviews ended with a question on women's needs with respect to the double responsibilities and their expectations from the government.

Women in the EPZ said the ideal solution was to work fewer hours of work, and finish work at 3 pm so they could be there for their children. They expected from the government higher pay so they could live decently, but most striking was their strong feelings that they were not respected and valued as women. These feelings were not

present for the other women from the services sector. The latter asked for more time, clerks like women in the EPZ asked to finish work earlier. At the management level women asked for the development of part-time jobs, flexi-time job, or work from home, but none felt that as women they were not respected.

Many thought that there was no problem for women in Mauritius, and those who did, talked more about issues around the job and the fact that women were responsible for everything in the house. This suggests a clear difference in women's positions between women working in factories and women in the service sector.

Obviously, most women said they would like a higher pay but only women in the EPZ saw this as a way to improve their work burden.

A final point to make on women's needs was the clear lack of infrastructure for working women. Across sectors women asked for more day care centres, longer maternity leave, and longer sick leave for when children are sick.

## **Discussion and conclusions**

Women's increased participation in the Mauritian labour market triggered by Export Oriented policies has impacted women differently and the experience of women at the top of the social ladder can be used as an inspiration for policy reform. In fact, it was the failure to integrate gender in trade policies that led to some adverse effects on women in terms of greater work burden and health problems.

The analysis of the quantitative and qualitative survey showed that the channels through which women were affected, were an interplay of women's income, their hours of productive work and the substitutability of their time at home. As a result, some women felt particularly more affected than others in terms of work

burden and health, as well as in terms of the extent to which they felt they could cope with the conflicting pressures

If indeed, as women claimed, children in the poorer households have been affected in terms of care and to some extent in terms of their education by women's work burden, then there could be adverse consequences for human development. Since the reproductive economy produces human capital, it can be argued that by failing to prevent the adverse impact of the feminization of the labor force on the reproductive economy, EOP generates an opportunity cost in the reproduction of human resources, therefore affecting adversely the production of human capital in the long run. While this research does not show whether the care of children has been affected by women's work burden, the suggestion made by some women that they could not provide the care their children required implies that further research on the impact on human capital production is needed.

The disparity between women with different incomes could imply that women's double work burden possibly increased inequalities or at least perpetuated inequalities between women. Indeed, some women were likely to be benefiting from their entry into the labor market; gaining higher income, being empowered by their work, and not suffering from the trade-off between earning an income and having less time for their reproductive economy. On the other hand, some women (generally those already at the bottom end of the social ladder) felt affected by their entry into the labor market, with little gain in empowerment, important health problems, income remaining insufficient to significantly improve their welfare, and for whom the trade-off between earning an income and having less time for the reproductive economy seem to have gone against the reproductive economy.

Taking the inequalities between women before women's entry into the labor as given, and all other things remaining equal, this would imply an increase in inequalities between women, as some women seem to benefit significantly more than others.

The results however show that the common denominators on the extent to which women are affected is the substitutability of women's time at home and/or the hours of productive work. There are two main channels that can ensure that some women are not more adversely affected than others by their entry into the labor market and therefore ensure that human capital is reproduced as effectively as possible. First, the government should improve the substitutability of women's time through the provision of better public reproductive services such as child care and second by improving labor condition for women with the promotion of flexi- time and part time work. But changes in social norms, pushing husbands to participate more in house chores can also have a tremendous positive impact in lowering women's work burden. Indeed, the in depth interviews and focus group showed that for those women who had a husband who shared chores equally, women and children fared much better.

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## Annexes

Table I. Definitions of variables used in explaining work burden and health status of women

Variable	Definition	Mean	Standard deviation
Wk	Hours of factory work per week	50.92	6.53
Hswk	Hours of reproductive work from Monday to Friday	17.55	7.5
Wehswk	Hours of productive and reproductive work on Saturday and Sunday	25.38	6.48
Health	Health index according to the number of health problems, value from 1 to 6	2.84	2.2
W	Monthly earnings of respondent in Rs.	2924.8	869.35
Y	Numbers of years worked in the factory	8.05	5.94
U	Equals 1, if respondent lives in urban area	0.60	0.49
Cer	Equals 1, if respondent is a quality controller	0.17	0.37
Ny	Number of income earners in the household	1.21	0.86
M	Equals 1, if the respondent is married	0.81	0.39
F	Number of people living in the house	4.2	1.62
C	Number of children under 18 living in the house	0.88	0.99
A	Age of respondent	36.95	10.34
L	Labour saving equipment index according to hours saved per day, value from 0 (no time saved) and 4	1.09	0.59
H	House chore contribution index according to number of helpers and perceived intensity if help, value from 0 (no help) to 12	3.21	2.54
P	Equals 1, if respondents is complained of poor working conditions	0.425	0.49



Table II. Ordinary least-squares regression results for the four models

Variables	Coefficients (t-stat)			
	Wk	Hswk	Wehswk	Health
W	0.0013364 (1.90)***	-	-	-
Y	0.1860473 (2.55)**	0.0378836 (1.99)**	-0.3022299 (-4.19)*	-
U	-2.263669 (-2.49)**	-0.5896404 (-3.12)**	2.108895 (2.38)**	-0.3499068 (-1.41)****
Cer	2.010767 (1.61)****	-	-	0.6090264 (1.94)***
Ny	1.415896 (2.31)**	0.2161997 (1.72)***	-	-
M	-	1.03913 (3.89)*	-	-
F	-0.68263 (-2.18)**	-	-	0.1230742 (1.64)****
C	0.681762 (1.34)****	0.4682824 (5.05)*	1.052248 (2.35)**	-0.2694722 (-2.08)**
O	-	-	-	-
A	-	-	-0.185417 (3.36)*	-
L	-	-0.2212703 (-2.10)**	-0.7774004 (-1.46)****	-
H	-	-0.094285 (-2.44)**	-	-
Wk	-	-	-	0.0866005 (3.83)*
Hswk	-	-	-	0.3869331 (3.16)*
P	-	-	-	1.386484 (4.69)*
Constant	47.08714 (21.06)*	2.590153 (7.99)*	19.61725 (9.32)*	3.208056 (1.78)***
F	4.40*	15.42*	7.93*	31.92*
R-squared	0.1380	0.3276	0.1338	0.4870
Nb of Obs.	200	200	200	200

\*  $p \leq 0.01$ , \*\*  $p \leq 0.05$ , \*\*\*  $p \leq 0.10$ , \*\*\*\*  $p < 0.20$  (marginally significant)

1- R-squared have low values because typically in cross-section analysis looking at differences in individual behaviour, many of the factors affecting these behaviours cannot be measured (Rubinfeld, 2000), therefore we cannot hope to explain all the variation.

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<sup>1</sup> Social reproduction in the context of this paper is utilized to mean the process of reproducing of human resources through the caring activities undertaken for free within the household or in its social proximity. Reproductive economy, care economy and social reproduction are used interchangeably in this paper.

<sup>2</sup> Between-method triangulation is a research method rooted in a realist perspective which combines quantitative and qualitative methods with the aim of uncovering processes behind identified relationships.

<sup>3</sup> The rate is low compared to what one might expect, but this is explained by the fact that women generally rely on other female members of the household to assist them in reproductive work and by the fact that 46.3 per cent of the sample are young single women.

<sup>4</sup> The STATA software, by calculating robust standard errors allows the correction of non-normal distribution and heteroskedasticity.

<sup>5</sup> The non-response rate is very low because interviews were undertaken on the firm's premises and women were asked by their manager whether they wanted to answer our questions.

<sup>6</sup> The health index was built in function of the number of health problems and assumes their homogeneity.

<sup>7</sup> The house chore contributor index measures the importance and intensity of help received in house chores. It was calculated by constructing an index proportionate to the number of household member contributing to house chores and the perceived intensity of their contribution.

<sup>8</sup> The labour saving index measures the number of minutes saved per day by owning some labour saving equipment.

<sup>9</sup> The lack of resources meant that we could not interview other members of the household or women not in the labor force.

<sup>10</sup> There has been an important change in the structure of the labour force since in 1990 most workers were young, single and living in extended families (University of Mauritius, 1990)

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<sup>11</sup> The large number is explained by the fact that both factory overtime and house chores are included in the data. Also women considered visiting the family as a chore. This was also found in Bangladesh (Kabeer, 1999).

<sup>12</sup> These categories were: EPZ factory worker, offshore and IT services sector clerk, offshore and IT services sector middle management, offshore and IT services sector top management.

<sup>13</sup> Intensification of work was defined as increase in the speed required to undertake their chores. Multitasking refers to the undertaking of more than one reproductive activity at the same time.