# The Prevalence of Overemployment in Penang: A Preliminary Analysis 

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#### Abstract

Nowadays, workers tend to face the problem of overemployment where desired working hours are less than their actual working hours. Some overemployed workers desire to work less hours although there may be a concomitant decline in earnings. This research is conducted to study the factors that are related to the employment status of workers in Penang with regard to being overemployed or otherwise. This research uses primary data that was collected in a survey that was done in one particular state in Malaysia, namely Penang. The questionnaires were distributed to workers in different areas in Penang. A total of 525 respondents were surveyed in this study. This paper reports the preliminary findings of the study by presenting the bivariate relationship between the employment status of workers and various demographic, socio-economic and work-related variables. The initial findings of this study provide the basis for some general conclusions and policy implications on the issue of overemployment in Penang.


Keywords: Overemployment; hours mismatch; actual hours of work; preferred hours of work.

## 1. Introduction

One important aspect of working conditions is working time. In industrialised countries, 22 percent of the workforce surveyed worked more than 48 hours a week, which the International Labour Organisation defines as excessive (Lee, McCann and Messenger, 2007). In Malaysia, the Malaysian Employment Act defines the standard work week as 48 hours, with a maximum of 8 working hours per day and 6 working days per week. However, in a survey that was done by an online recruitment firm involving 954 employees across various industries in Malaysia, it was revealed that 70 percent of the workers worked 2-5 extra hours daily due to unreasonable deadlines and work overload. It was also reported that 63 percent of workers felt that they were not spending enough time with their families due to long working hours (JobStreet, 2013).

Although there are statutory regulations on working time in most countries, the problem of hour mismatches still persists. Hour mismatches arise when workers actual hours of work differ from their desired or preferred hours of work. There are two types of hour mismatches; the first is overemployment which occurs when actual hours of work exceeds desired hours of work and the second is underemployment which occurs when actual hours of work falls short of desired hours of work. The focus of this paper is overemployment. The issue of overemployment merits attention because of its negative consequences on work-life balance, workers well-being and their job performance. The main objective of this paper is to identify empirically the factors associated with overemployment.

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## 2. Literature Review

Overemployment is often related to demographic, socio-economic and work-related factors. The first group of factors is demographic variables which include age and gender; the second set of factors is socio-economic factors which encompasses income, presence of full-time homemaker and childcare responsibilities. The last category of factors is work-related factors such as hours of work, job satisfaction and occupation.

Most studies take into account the relationship between overemployment and two key demographic variables, which are age and gender. Age may influence desired work hours as younger workers who are just entering the workforce are likely to have very different work preferences than those who are older and nearing retirement. Previous studies (e.g. Golden and Gebreselassie, 2007; Angrave and Charlwood, 2015) show a clear pattern by age, with overemployment low among young workers but rising with age. Another demographic variable that is of interest is gender. Women tend to do a greater share of household work than men; in addition, gender inequalities in the work place tend to reduce women's job commitment and tendency to make labour market work their central priority (Reynolds, 2005). As a result, women tend to desire fewer hours of work. Empirical evidence (e.g. Sousa-Poza and Henneberger's (2002) study which covers twenty one countries; Golden and Gebreselassie's (2007) research in the United States) indicates that women are more likely to be overemployed than men.

The second group of factors that is linked to overemployment is socio-economic factors. One of these factors is income. Theoretically, an increase in wage income induces an increase in the allocation of time for leisure (due to the income effect), thus decreasing the likelihood of overemployment. On the other hand, an increase in wages increases the opportunity cost of leisure; therefore a higher wage may encourage workers to sacrifice leisure for wages/work (due to the substitution effect), thus increasing the likelihood of overemployment. The net effect of an increase in wage income on overemployment is theoretically indeterminate. In the United States, employees who have higher wage incomes do more work than their lower paid peers but they do not have a stronger passion for work (Reynolds and Aletraris, 2007). It is argued that higher paid employees seem to be working more hours reluctantly because employers have packaged their high incomes with long workweeks (Clarkberg and Moen, 2001).

The other socio-economic variables are family characteristics such as the presence of a fulltime homemaker and childcare duties. All workers have to allocate time for labour market work and their personal life. The time squeeze may be more pronounced in the absence of a full-time homemaker (e.g. in the case of single working parents and dual-earner couples with children) and this can give rise to an unmet desire for fewer working hours (Jacobs and Gerson, 2001). In contrast, breadwinners (particularly men) can work many hours because they have spouses who perform unpaid domestic work (Reynolds, 2014). Furthermore, these men may feel responsible for the economic well-being of their families (Kaufman \& Uhlenberg 2000), and this would increase their desire for additional work hours and reduce the likelihood of overemployment. Another important family characteristic is childcare duties, which is proxied by number of children in the household and age of the youngest child. The difficulty of integrating paid work and childcare increases the probability of individuals wanting less working hours in order to spend more time with their children. This occurs among women workers (Van der Lippe, 2001) as well as men workers (Abendroth, Pausch and Bohm, 2014).

The last category of factors is work-related factors such as hours of work, job satisfaction and occupation. The link between hours of work and overemployment can be understood in the context of the work-leisure model of time allocation. The hour mismatch problem arises when an individual has not attained his/her optimum position. Workers who spend many hours at work often want to reduce their working hours. According to Sousa-Poza and Henneberger (2002), the percentage of workers who desire fewer hours of work rises as working hours increase. Empirical studies show that overemployment is significantly related to hours of work (Reynolds, 2003; 2004; 2005). Golden and Gebreselassie's (2007) study shows that full-time workers have a progressively higher probability of being overemployed corresponding to the length of their usual weekly hours, relative to those working 35-39 hours. Another work-related variable is job satisfaction. Satisfaction with paid labour is expected to decrease the likelihood that individuals encounter hour mismatches. The negative impact of job satisfaction on hour mismatches is documented in the literature (e.g. Bloch and Taylor, 2012; Reynolds and Aletraris, 2007). The last factor is type of occupation. Some jobs require more working hours. Golden and Gebreselassie (2007) opine that overemployment is more likely to occur in occupations for which there are no legally required overtime pay premia for increasing hours as well as occupations that tend to be paid by salary rather than hourly wages. These job characteristics are more common among white-collar workers. According to Reynolds (2003), professionals are more likely to desire fewer hours of work in comparison to blue-collar workers. Golden's (2004) study also found that white-collar workers in managerial and professional groups have significantly higher levels of overemployment while blue-collar workers are less likely to experience overemployment.

## 3. Data and Methodology

Primary data is used in this study. The survey data was collected using a structured questionnaire that was distributed to workers in Penang, a northern state in Malaysia. A total of 525 respondents were surveyed comprising 207 ( 39.4 percent) Malays, 239 ( 45.5 percent) Chinese and 79 ( 15 percent) Indians and others. This is similar to the ethnic composition of Penang's population which is 40.9 percent Malays, 41.5 percent Chinese and 17.6 percent Indian and others. The sample comprises 253 ( 48.2 percent) males and 272 ( 51.8 percent) females which also reflects the state's gender composition of 50.01 percent males and 49.99 percent females.

An analysis of overemployment in Penang is presented in the next section based on cross tabulations in order to examine the association between overemployment and demographic, socio-economic and work-related variables. The Chi-square statistic is used to examine whether the relationship between overemployment and the variable in question is significant or not. The employment status of workers is divided into two categories that is overemployed and not overemployed. In this study, overemployed workers refer to individuals who desire to work fewer hours for less pay. Workers who are not overemployed are those who either prefer to maintain current working hours for the same pay or prefer to work more hours for more pay.

## 4. Empirical Results

The sample in this study consists of 525 workers, of which 114 individuals ( 21.71 percent) are overemployed and the remaining 411 individuals ( 78.29 percent) are not overemployed. Table 1 provides a snap shot of the employment status of respondents who are categorised into different groups based on selected demographic, socio-economic and work-related factors, and the chi-square statistics.
The sample of 525 workers used in this study comprises 253 males ( 48.2 percent) and 272 females ( 51.8 percent). Among the 114 workers who are overemployed, 51 (44.7 percent) are males and 63 ( 55.3 percent) are females. Table 1 shows that the incidence of overemployment is slightly higher for women than for men, that is 23.2 percent of women and 20.2 percent of men prefer fewer working hours. However, the Chi-square test shows that gender is not significantly related to overemployment. This may be due to the influence of countervailing forces of other factors (which are linked to overemployment and gender) that are not held constant in this tabular analysis, which obliterates the relationship between the two variables.

The majority of the respondents ( 70 percent) are relatively young workers, below the age of 35. By comparing the percentage of workers who are overemployed in each age group, it can be seen that the incidence of overemployment tends to increase with age; less than 20 percent of workers below the age of 30 are overemployed; the corresponding figure is between 20 30 percent in the $31-50$ age bracket and it is greater than 40 percent for older workers above the age of 50 . This result is similar to the findings of previous studies (Golden and Gebreselassie, 2007; Angrave and Charlwood, 2015) which show that the incidence of overemployment is positively related with age. It is speculated that the higher prevalence of overemployment (the desire to work fewer hours for less pay) among older workers may be due to health reasons, greater financial stability and the preference for flexible working options prior to retirement.
Next, we turn to the socio-economic variables which include income and family characteristics. There is a positive relationship between income and the incidence of overemployment. The incidence of overemployment is positively related to the level of wage income; it is lowest ( 18.9 percent) in the low wage income group and highest ( 40 percent) in the high wage income group. The positive relationship between income and overemployment suggests that as income rises, there is an increase the percentage of workers who desire fewer hours of work and are willing to forgo some portion of their earnings for reduced hours of work. This implies that higher income affords workers this choice since they are well off economically and have strong financial footing as argued by Reynolds (2003).

Family characteristics include factors such as presence of full-time homemaker (proxied by spouse's working status) and childcare responsibilities. There are 175 dual earner families without a full-time homemaker ( 166 respondents with spouses who are working full-time and 9 with spouses working part-time). There are 350 respondents who are either single or with spouses who are not employed. The data shows that slightly over 30 percent of respondents with a working spouse desire fewer hours of work. In the case of those with a non-working spouse or are single, only 17.1 percent are overemployed. In short, the incidence of overemployment is greater for those who have a working spouse; this is possibly because of the time squeeze that both partners encounter in dividing their time for labour market work and household duties.

Childcare responsibilities are reflected by the number of children and age of youngest child. The incidence of overemployment varies by the number of children in the household. Table 1 shows that 44 percent of respondents with 4 children or more are overemployed; the
corresponding figure is about 30 percent for those with 2 or 3 children, 23 percent for those with 1 child and only 16.4 percent for those with no children. This shows that the incidence of overemployment increases as the number of children increases. The incidence of overemployment also varies by the age of the youngest child in the household. The data shows that 50 percent of workers with youngest child more than 17 years old desire to reduce their working hours; the corresponding figure is between 23-26 percent for workers whose youngest child is below 17 years and it is 16.5 percent for those with no children. The results suggest that overemployment is highest for workers with older children (above 17 years) in comparison to those with younger children. There are at least two possible reasons why workers whose youngest child is above 17 years old are overemployed. Firstly, these workers are likely to be in the older age group and more likely to face overemployment given that the desire for few hours is positively related to age. Secondly, workers whose youngest child is above 17 years old probably have older children who are working and providing financial support to the family and this gives these workers the option to reduce hours of work and earn a lesser salary. But the incidence of overemployment does not vary greatly for those with pre-school children (below 6 years), primary level children (6-12 years) and secondary level children (13-17 years). This may be because workers with pre-school or school-age children can rely on unpaid / paid caregivers to provide childcare and so the desire for fewer hours of work is not markedly different for those with children in these age groups.

In this study, almost 70 percent of workers work less than 48 hours per week, while 23 percent work more than 48 hours per week and 7.8 percent work exactly 48 hours per week. The high proportion of workers working less than 48 hours per week could probably be because there are a number of organisations that operate five days per week. The incidence of overemployment tends to increase with working hours. The incidence of overemployment is highest among workers working more than 48 working hours ( 31.7 percent), followed by those working exactly 48 hours per week ( 26.8 percent) and lowest for those working less than 48 hours per week ( 17.9 percent). The low incidence of overemployment among workers with less than 48 hours per week is not surprising since this group would include part-time workers who work short hours. The result of the chi square test indicates that the relationship between working hours and employment status is significant at $1 \%$.

Workers' job satisfaction is measured by a 5-point Likert scale ranging from 1 (lowest job satisfaction) to 5 (highest job satisfaction). Job satisfaction of workers is classified as low if the score is 1 or 2, medium if the score is 3 and high if the score is 4 or 5 . Among the 525 respondents, more than three-fifths of them have high job satisfaction, and followed by 27.6 percent with medium job satisfaction and 9.1 percent with low job satisfaction. Overemployment appears to be inversely related to the level of job satisfaction. The incidence of overemployment among workers with high job satisfaction (19.6 percent) is lower than those with medium job satisfaction (23.4 percent). Similarly, the incidence of overemployment for workers with medium job satisfaction is lower than those with low job satisfaction ( 31.2 percent). Workers with low job satisfaction tend to have the greatest desire to reduce their working hours. Nevertheless, the result of the chi square test indicates that there is no significant relationship between employment status and job satisfaction at $1 \%$ level.

Table 1: Distribution of Workers by Employment Status and Incidence of Overemployment

| Variables | Chi-squarestatistics | Categories | Employment Status |  | Incidence of overemployment |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Overemployed (\%) | Not Overemployed (\%) |  |
| Gender | 0.696 | Male | 44.7 | 49.1 | 20.2 |
|  |  | Female | 55.3 | 50.9 | 23.2 |
| Age | 28.68*** | 15-20 | 1.8 | 12.2 | 3.9 |
|  |  | 21-25 | 16.7 | 23.1 | 16.7 |
|  |  | 26-30 | 22.8 | 25.8 | 19.7 |
|  |  | 31-35 | 17.5 | 12.7 | 27.8 |
|  |  | 36-40 | 11.4 | 10.2 | 23.6 |
|  |  | 41-45 | 7.0 | 54.6 | 25.8 |
|  |  | 46-50 | 6.1 | 5.1 | 25.0 |
|  |  | 51-55 | 10.5 | 3.2 | 48.0 |
|  |  | 56-60 | 6.1 | 2.2 | 43.8 |
| Wage Income (RM) | $6.27 * *$ | <2000 | 40.4 | 47.9 | 18.9 |
|  |  | 2001-4000 | 36.0 | 36.7 | 21.4 |
|  |  | 4001-7000 | 16.7 | 12.4 | 27.1 |
|  |  | >7000 | 40.0 | 2.9 | 40.0 |
| Spouse's <br> Working <br> Status | 12.94*** | Working full time | 44.7 | 22.8 | 30.7 |
|  |  | Working part time | 2.6 | 1.5 | 33.3 |
|  |  | Not working/ no spouse | 52.6 | 70.6 | 17.1 |
| No of Children | 17.65*** | No children | 45.6 | 64.5 | 16.4 |
|  |  | 1 | 10.5 | 9.7 | 23.1 |
|  |  | 2 | 20.2 | 12.9 | 30.3 |
|  |  | 3 | 14.0 | 9.5 | 29.1 |
|  |  | 4 \& above | 9.6 | 3.4 | 44.1 |
| Age of Youngest Child (years) | 24.42 *** | No children | 45.6 | 64.2 | 16.5 |
|  |  | < 6 | 20.2 | 15.6 | 26.4 |
|  |  | 6-12 | 11.4 | 10.5 | 23.2 |
|  |  | 13-17 | 6.1 | 5.1 | 25.0 |
|  |  | > 17 | 16.7 | 4.6 | 50.0 |
| Hours of work (hours) | 10.81*** | $<48$ | 57.0 | 72.7 | 17.9 |
|  |  | 48 | 9.6 | 7.3 | 26.8 |
|  |  | >48 | 33.3 | 20.0 | 31.7 |
| Job <br> Satisfaction | 3.72 | Low | 13.2 | 8.0 | 31.2 |
|  |  | Medium | 29.8 | 27.0 | 23.4 |
|  |  | High | 57.0 | 65.0 | 19.6 |
| Occupation | 14.24** | Managerial | 12.3 | 5.1 | 40.0 |
|  |  | Professional | 31.6 | 34.5 | 20.2 |
|  |  | Technicians | 7.9 | 8.8 | 20.2 |
|  |  | Clerical | 14.0 | 15.6 | 20.2 |
|  |  | Sales \& Service | 20.2 | 27.0 | 17.2 |
|  |  | Craft | 0.9 | 2.2 | 10.0 |
|  |  | Elementary | 6.1 | 2.9 | 36.8 |
|  |  | Others | 7.0 | 3.9 | 33.3 |

Source: Authors' computation based on survey data.
Note: $\quad{ }^{* * *}, * *, *$ indicate the chi-square statistic is significant at 1,5 and 10 per cent levels, respectively.

This study uses the Department of Statistics' classification of occupations. The sample comprises 35 managerial workers ( 6.7 percent), 178 professional workers ( 33.9 percent), 45 technicians ( 8.6 percent), 80 clerical workers ( 15.2 percent), 134 sales and service workers ( 25.5 percent), $10 \mathrm{craft} /$ related trade workers ( 1.9 percent), 19 elementary workers (3.6 percent), and 24 in other occupations ( 4.6 percent). The highest incidence of overemployment is among managerial workers ( 40 percent). The high incidence of overemployment in the managerial group is noted in other studies e.g. Golden (2004), Golden and Gebreselassie (2007). Another group with a high incidence of overemployment is elementary workers (36.8 percent). The chi square test shows that the relationship between occupations and employment status is significant at $5 \%$.

## 5. Conclusions and Policy Implications

The incidence of overemployment tends to be higher for the following groups: older workers, high-income workers, individuals with a working spouse, more children and older children, workers who clock in more than 48 hours as well as managerial and elementary workers.

The above findings are used to discuss tentative policy implications. The high incidence of overemployment among older workers suggests a need to offer them part-time jobs or jobsharing options. This will enable firms to retain senior and experienced employees. Another key finding is the positive relationship between overemployment and number of children. This implies the need for family-friendly policies (e.g. parental leave) to reduce overemployment. Providing childcare facilities in or near the workplace is another possible solution.

The results show that overemployment is prevalent among workers who work more than 48 hours per week. The move to reconfigure working time policies and limit overtime work is a step in the right direction to reduce overemployment. The five dimensions of decent working time propagated by ILO - healthy working time, "family-friendly" working time, gender equality through working time, productive working time and choice and influence regarding working time - provide a framework for policies which can advance the goal of decent working time. The prevalence of overemployment also increases with earnings. It is suggested that high income workers be given the option of working remotely (if the nature of their work permits it) in order to reduce overemployment. Finally, there is a prevalence of overemployment among managerial and elementary workers. Mitigating overemployment in the latter group is seen as a matter of greater urgency because this group is relatively more vulnerable. Labour laws should ensure that these workers are not subject to exploitation in terms of their hours of work.

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