Does being married earn you more than those who are not?

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**Introduction**

This study examines variations in average employment wages between individuals who identify as married and those who do not. Using the 2021 PUMF Census data from Statistics Canada and condensing the sample to a logical narrative, we can infer many effects from marital status in conjunction with educational attainment, gender, and age. To supplement the research question at hand, conducting the differentiating effects of marital status stems from observing the effects of older and fresh generations of marriages and how it impacts the average earnings of employed individuals.

The methodological approach adopts a series of multiple linear regressions, systematically parsing the variables that contribute to income disparities (Li et al., 2022). During testing, the results were consistent with external findings relevant to the time-period of the data used. The estimates are parodied off the extended Mincer model, with additional demographic characteristic variables implemented that fabricates a model that infers beyond the scope of the Mincer model. Using this comprehensive model, it encompasses an array of demographic and educational factors, with extensions to the analysis along two primary dimensions: marital status and gender. The objective is to not only identify statistical associations from these models, but more importantly, to enlighten the insights that hold relevance for policies that are aimed at reducing income inequality and tackling gender-based economic condemnation. The outcomes that are derived from the regression analyses provide comprehensive insights on why being married may have its benefits in terms of average higher incomes to unmarried individuals. Marital status emerges as a multifaceted determinant, that has direct impacts on the income for male and female cohorts.

**Data and Methodology**

1. My empirical model is:

Where:

* *ln(earningsi*) is the natural logarithm of annual employed earnings of individual *i*
* *Marriedi* = 1 if the individual is married, 0 otherwise
* *Genderi* = 1 if the individual’s gender is Woman+, 0 otherwise
* *CowEmpi* = 1 if the individual is an employee, 0 otherwise
* *Westi* = 1 if the individual resides in BC, Alberta, or Saskatchewan, 0 otherwise
* *Easti* = 1 if the individual resides in Newfoundland and Labrador, PEI, Nova Scotia, or New Brunswick, 0 otherwise
* *Northi* = 1 if the individual resides in Northern Canada, 0 otherwise
* *Centeri* = 1 if the individual resides in Manitoba, Ontario, or Quebec, 0 otherwise
* *NoCDoDi* = 1 if the individual has no certificate, diploma, or degree of any sort, 0 otherwise
* *HighSchooli* = 1 if the individual has completed high school, 0 otherwise
* *SomeCollegei* = 1 if the individual attended college but has not completed a degree, 0 otherwise
* *Bacherlorsi* = 1 if the individual completed university but not a masters, 0 otherwise
* *Mastersi* = 1 if the individual completed a master’s degree, 0 otherwise
* Ranging from *Χ1i* to *Χ9i* represents the categorical dummy variables for age, beginning from age 20 and ending at age 64 in 5-year intervals
* εi refer to the random error term

The coefficients of primary interest are *δ1*, *γ1*, *γ2*, *γ3*, *γ4*, and *γ5* . *δ1* measures the marital status of the individual, either married or not married. Although *δ1* has other values associated with it, to reduce the possibility of increased error I have simplified it to just the two values of married or not married. *γ1*, *γ2*, *γ3*, *γ4*, and *γ5* are measures of educational attainment ranging from no completion of a certificate, diploma, or degree to the completion of a master’s degree. φ1 and φ2 measure gender and if the individual identifies as an employee, respectively. φ3 to φ5 represent the provinces, that are categorized into 4 regions West, East, North, and Center, respectively.

We estimate our standard errors using Statistics Canada’s replication weights, which deems how accurate the means from our sample results be compared to the true population of Canada. Weights were applied when testing the model.

Under the assumption that the error term is constant, and given the other 3 assumptions that must hold, will the OLS estimates be unbiased. These other assumptions consist of the conditional mean of zero, the parameters are linear, and there is random sampling of these observations. I used the robust command to account for heteroskedasticity but did not account for the serially correlated aspect of the standard errors.

1. Describing the data and estimation sample

The estimates that I have generated are based on the 2021 Census PUMF. To tackle the question of interest I had to make restrictions to my sample of interest. I restricted my attention to individuals between the ages of 20 and 64 who reported identifying themselves as an active employee. I also specified, using dummy education variables, an individual’s educational attainment along with their gender. The main differentiator between this study compared to similar study is I directed my focus strictly on employment income only. I did this because I did not come across other researchers solely tackling employment income. I dropped all observations for which my earnings reported variable of interest has missing values.

**Main Results**

1. Descriptive statistics

The non-weighted descriptive statistics (Table 1) provide a brief overview of the characteristics present in the sample of interest without factoring in the complexities of the survey design. Starting with employment income denoted as ‘logincome’ is the logarithm of this income variable ‘empin’, while the rest of the dependent variables were transformed into dummy variables. Most notably the mean of *ln(income)* is 10.49, with standard deviation of 1.29, which suggests there to be moderate variability of income levels among individuals. When observing marital status, we see that 46 percent of the sample is married. In terms of gender, the sample is roughly balanced with approximately 49 percent identifying as women. Examining educational attainment, there is widespread diversity with 23 percent having completed high school, 23 percent attaining some college education, and roughly 23 percent that hold a bachelor’s degree. Additionally, 7 percent of the sample have completed a master’s degree. Only 6 percent of the sample do not have any sort of educational attainment. The regional breakdown shows substantial representation from the Western region of Canada at 28 percent, which overshadows both the Northern (0.3 percent) and Eastern (6.3 percent) regions. In regard to the age distribution, the distribution is relatively even across age groups, with a slight decrease in the 20 to 24 (9.4 percent) and 60 to 64 (8.6 percent) age groups. Lastly, the class of workers who are fully employed consists of a staggering 89 percent of the sample.

The weighted descriptive statistics (Table 2) incorporate survey weights which reflects more precisely the Canadian population. Both the distribution of marital status and gender closely mirrors the non-weighted statistics. Educational attainment also displays similar patterns to that of the non-weighted statistics, which reinforces the robustness of the findings.

Evident by comparing the two tables of descriptive statistics, there is consistency that indicates that the sample, even presented in this raw format, captures how diverse these demographic characteristics are. By understanding these characteristics, it lays the groundwork for informed policy discussions, where policymakers can leverage this information to further address specific needs and disparities of the demographics seen here. These insights are fundamental for building a solid and reliable foundation for subsequent analyses, particularly in exploring the nuanced relationship between wage differentials and marital status in the Canadian labour market.

1. Regression results

In Table 3, we examined marital status, gender, employment, education, age, and regional variables. The results revealed that being married is associated with a higher income, as seen by the positive coefficient of 0.0804. This suggests that, on average, individuals who are married experience higher incomes compared to their unmarried counterparts. Furthermore, we can establish that this result is statistically significant, given that the standard error (SE) is small (0.0039) for the *Married* variable. Conversely, there is evidence of a gender wage gap with females, on average, earning less as indicated by the negative coefficient of -0.3979, and is supported by a small SE of 0.0036. The influence of education on income is sensible, with higher educational attainment corresponding to higher incomes. It is worth pointing out that the coefficients for the various included education levels, such as *bachelors* and *masters*, are statistically significant, supported by small SEs. When examining the age groups, we can observe evidence of an age-related income trajectory that is consistent with similar findings by Altonji et al., (2021). The positive coefficients indicate that income will likely increase with age, which peaks at the 35 to 39 age group level.

In addition to the main regression, I have modelled specific analyses extensions for both marital status (Table 4) and gender (Table 5). In the marital status model, the gender wage gap is persistent within the married group, as evident by the negative coefficient for *Gender* and its small SE. In a similar fashion, the gender model shows that being married has a positive influence on income for both females and males, although its impact varies to different extents. Table 5 also shows that marital status has differing impacts on both males and females. For males, being married has a positive and significant impact on income with a coefficient of 0.2406 and SE of 0.0055, which implies that married men, one average, earn higher income compared to unmarried men. As for females, the impact is far less pronounced, with a smaller positive coefficient of 0.0761 and an SE of 0.0056. While it is still true that being married as a female is associated with higher income, the effect is not as substantial as that observed for males. In relation to employment and educational effects, the results are consistent with that of the main model, where being employed and having a higher educational attainment would positively influence income for both males and females.

To supplement my initial findings, I used the *‘mybswreg* model (Table 6) that uses the bootstrap weights provided within the 2021 Census PUMF data file. While it was proving difficult to extrapolate meaningful findings from Table 6, there are a fair few honorable mentions that provided further insight to the main findings. To start, looking at the primary coefficient of interest, *Married* (0.0804), has a positive association with income, however, when observing the 90 percent confidence interval we see that this effect is not statistically significant at the conventional p-value levels. It can be interpreted as the observed difference in average *ln(income)* between married and unmarried individuals that may not be statistically robust (Schirle, 2015). In reference to Schirle’s paper, although outdated relative to the 2021 data of this study, her goal was to assess the gender wage gap. Her findings resemble striking similarities with the *mybswreg* model regression results that could place pressure not only on marital status differentials in wage, but also the widely-known gender wage gap. By implementing bootstrapping with *mybswreg*, it can generate a range of estimates and more importantly, sample accurately to be more representative of the population through being more stable and reliable. Interpreting the regression results altogether enhances the overall understanding that there are significant factors associated with the marital wage gap.

Lastly, there are regional disparities with similar small coefficients but hold varying levels of statistical significance. This not only applies to regions, but also educational effects that are favoured by higher levels of attainment over low educational exposure and experience. For both the *bachelors* and *masters* variables, they show positive associations with income. Enduring more education will more likely correspond to higher earning potentials.

**Oaxaca-Blinder Decomposition**

In this section, I examine the differences of average log employment wages for non-married and married individuals that are fully employed within each region of Canada (Table 7). Additionally, I inferred results for these differences through a more condensed, broken-down Oaxaca-Blinder decomposition as well to paint a more cohesive picture (Table 8). The decomposition is arranged into three components: endowments, coefficients, and interaction effects, with each containing interesting highlights that I will summarize.

Discussing the results of the simpler Oaxaca-Blinder decomposition in Table 7, we immediately see that the difference in the overall coefficients for non-married and married groups is (-0.351339), referring to the unexplained wage gap. In essence, this term indicates the portion of the wage gap which we cannot attribute to the observable characteristics (these being endowments and coefficients) in the model. Within the endowment component, the negative coefficient of *Gender* (-0.0076) corresponds to, on average, there is relatively equal contribution of women to men to the wage gap, emphasizing the gender-based wage differential. Also of note, individuals with no certificate, diploma, or degree (*NoCDoD*) have a negative coefficient that explains no educational attainment is associated with lower wages on average. Moving on to the coefficient’s component, we see that *Gender* has a positive coefficient, leading to returns for being a male are higher than that of females. This also contributes to the wage gap.

Examining Table 8, all the characteristic variables have been generalized into characteristic categories. Looking at the endowments results, the region variables undoubtedly introduce geographic disparities, with the control variable *West* contributing negatively to the wage gap. When assessing the age groups, we are reminded how important age-related effects are and their emphasis in the contribution to the wage gap. In relation to the control age group, there are significant factors at play that shows a negative association towards the marital wage gap. Younger individuals who are married show lower average wages than that of older individuals who are married. In the coefficient component, both *Gender* and *Age* categories indicate the highest variation in the returns to characteristics. This is also shown in Table 7, where most of the dummy variables within the mentioned categories have higher variation as well from their reported positive coefficients. The output from both these decompositions provides detailed insights that can be used by organizations and policymakers to manage and adjust the problematic components that contribute to the wage gap to further narrow these income disparities.

**Policy Discussion**

When addressing a topic as intricate as marriage in conjunction with wage differentials and equality in the workplace, there are existing policies that have paved the way in moderating and reducing this complex wage gap, while recommendations could expose vast advancements in the field. With a decelerating convergence rate on the gender wage gap over the last 40 years, there is a lack of statistical research involving marital status and wage differentials (Baker & Drolet, 2010).

Taking that into consideration, I will begin by listing the policies already in effect today and the benefits and implications associated with them. Of the relevant and likely biggest policies is the human rights legislation. Although not explicitly focused on the marital wage gap, these gender wage gap policies promote fairness and equal opportunities in the work force (Li et al., 2022). The human rights laws in both federal and provincial jurisdictions prohibits discrimination on a plethora of grounds, including gender and marital status. As of 2021, the Pay Equity Act works to promote pay equity through proactive measures to address the system gender-based discrimination that is present in compensation practices and system of employers (Canada, 2023). This discrimination is frequently experienced by employees in job fields predominantly help by women and ensuring that they receive fair wage compensation equivalent in value to their work. This policy implies, in the marital case, that through reducing the gender wage gap, it will indirectly contribute to the reduction in unfair wages between opposing marital statuses. Another policy that exists today is the Family-Friendly policy which the Canadian government has implemented to accommodate for parental leave and enable flexible work arrangements. Even though the model I birthed does not incorporate how many children an individual or household has, nor include any average child expenses relative to an individual’s average wage, I believe it is worthwhile to make note of (Howard, 2022).

On the other hand, there are policies that I recommend would expedite the convergence of the marital wage differential problem, that are heavily based on the gender wage gap issues mentioned previously. Referring back to the results generated in the multiple linear regressions models, a common trend was the lack of education an individual possessed correlated highly with lower average earnings. I would recommend that Canada invest government funding into more training programs that is tailored to the type of job an individual expects or wants to enter. Specifically, providing multiple financial alternatives for those who are older who have already established a family and are married, and to those who got married at a young age in 2021 and are looking for assistance. This policy pertains more for women and the gender wage issues and less for individuals that class themselves as married and the marital wage issues. For reference, in Tables 4 and 5, we can denote there to be multiple similarities in the results which coincides with the policies created to combat these wage gaps.

**Conclusion**

The results of this study demonstrate the wage differentials between married and unmarried individuals in Canada. Employing summary statistics, multiple linear regressions, and Oaxaca-Blinder decompositions, I quantified the explained and the unexplained portions of the wage gap. Although the results displayed intriguing wage differences for males and females than that of marital status, exploring this avenue of wage gaps revealed a notable portion of remaining unexplained differences. This unexplained gap proposes factors that extended beyond those included in the model that contribute to the income disparities. Given this generic analysis into the topic of marital wage differentials, policymakers should be incentivized to delve deeper into these external factors not present in the model in order to formulate targeting interventions addressing income inequalities between married and unmarried individuals in the Canadian labour market.

**References**

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**Tables**

**TABLE 1 - Unweighted Descriptive Statistics**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Variable | Obs | Mean | Std. Dev. | Min | Max |
| logincome | 436122 | 10.494 | 1.291 | 0 | 13.763 |
| Married | 436122 | .461 | .498 | 0 | 1 |
| Gender | 436122 | .487 | .5 | 0 | 1 |
| cow emp | 436122 | .887 | .317 | 0 | 1 |
| NoCDoD | 436122 | .069 | .253 | 0 | 1 |
| highschool | 436122 | .234 | .423 | 0 | 1 |
| somecollege | 436122 | .225 | .418 | 0 | 1 |
| bachelors | 436122 | .23 | .421 | 0 | 1 |
| masters | 436122 | .074 | .262 | 0 | 1 |
| West | 436122 | .281 | .449 | 0 | 1 |
| North | 436122 | .003 | .051 | 0 | 1 |
| East | 436122 | .063 | .242 | 0 | 1 |
| **agegrp** | . | . | . | . | . |
| 20 to 24 years | 436122 | .094 | .292 | 0 | 1 |
| 25 to 29 years | 436122 | .116 | .321 | 0 | 1 |
| 30 to 34 years | 436122 | .122 | .328 | 0 | 1 |
| 35 to 39 years | 436122 | .123 | .329 | 0 | 1 |
| 40 to 44 years | 436122 | .118 | .323 | 0 | 1 |
| 45 to 49 years | 436122 | .112 | .316 | 0 | 1 |
| 50 to 54 years | 436122 | .112 | .316 | 0 | 1 |
| 55 to 59 years | 436122 | .116 | .32 | 0 | 1 |
| 60 to 64 years | 436122 | .086 | .28 | 0 | 1 |

**TABLE 2 - Weighted Descriptive Statistics**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Variable | Weight | Obs | Mean | Std. Dev. | Min | Max |
| logincome | 16152712.4 | 436122 | 10.494 | 1.291 | 0 | 13.763 |
| Married | 16152712.4 | 436122 | .461 | .498 | 0 | 1 |
| Gender | 16152712.4 | 436122 | .487 | .5 | 0 | 1 |
| cow emp | 16152712.4 | 436122 | .887 | .317 | 0 | 1 |
| NoCDoD | 16152712.4 | 436122 | .069 | .253 | 0 | 1 |
| highschool | 16152712.4 | 436122 | .234 | .423 | 0 | 1 |
| somecollege | 16152712.4 | 436122 | .225 | .418 | 0 | 1 |
| bachelors | 16152712.4 | 436122 | .23 | .421 | 0 | 1 |
| masters | 16152712.4 | 436122 | .074 | .262 | 0 | 1 |
| West | 16152712.4 | 436122 | .281 | .449 | 0 | 1 |
| North | 16152712.4 | 436122 | .003 | .051 | 0 | 1 |
| East | 16152712.4 | 436122 | .063 | .242 | 0 | 1 |
| **agegrp** |  | . | . | . | . | . |
| 20 to 24 years | 16152712.4 | 436122 | .094 | .292 | 0 | 1 |
| 25 to 29 years | 16152712.4 | 436122 | .116 | .321 | 0 | 1 |
| 30 to 34 years | 16152712.4 | 436122 | .122 | .328 | 0 | 1 |
| 35 to 39 years | 16152712.4 | 436122 | .123 | .329 | 0 | 1 |
| 40 to 44 years | 16152712.4 | 436122 | .118 | .323 | 0 | 1 |
| 45 to 49 years | 16152712.4 | 436122 | .112 | .316 | 0 | 1 |
| 50 to 54 years | 16152712.4 | 436122 | .112 | .316 | 0 | 1 |
| 55 to 59 years | 16152712.4 | 436122 | .116 | .32 | 0 | 1 |
| 60 to 64 years | 16152712.4 | 436122 | .086 | .28 | 0 | 1 |

|  |  |  |
| --- | --- | --- |
| **TABLE 3** | **Main Regression Results** | (1) |
| VARIABLES | LABELS | General Model |
|  |  |  |
| Married | Married | 0.0804\*\*\* |
|  |  | (0.00388) |
| Gender | dummy gender = 1 if Woman+ | -0.398\*\*\* |
|  |  | (0.00365) |
| cow\_emp | dummy employee class of worker = 1 if identifies as an employee | 0.821\*\*\* |
|  |  | (0.00831) |
| NoCDoD | dummy no education = 1 if received no certificate, diploma, or degree | -0.543\*\*\* |
|  |  | (0.00845) |
| highschool | dummy highschool education = 1 if completed highschool | -0.307\*\*\* |
|  |  | (0.00583) |
| somecollege | dummy college education = 1 if recieved some college education | -0.0731\*\*\* |
|  |  | (0.00565) |
| bachelors | dummy bachelor education = 1 if completed an bachelor's degree | 0.139\*\*\* |
|  |  | (0.00581) |
| masters | dummy masters education = 1 if completed a Master's degree | 0.257\*\*\* |
|  |  | (0.00799) |
| West | West | 0.0548\*\*\* |
|  |  | (0.00414) |
| North | North | 0.384\*\*\* |
|  |  | (0.0335) |
| East | East | -0.101\*\*\* |
|  |  | (0.00715) |
| \_Iagegrp\_9 | agegrp==9 | 0.657\*\*\* |
|  |  | (0.00868) |
| \_Iagegrp\_10 | agegrp==10 | 0.916\*\*\* |
|  |  | (0.00867) |
| \_Iagegrp\_11 | agegrp==11 | 1.055\*\*\* |
|  |  | (0.00879) |
| \_Iagegrp\_12 | agegrp==12 | 1.173\*\*\* |
|  |  | (0.00872) |
| \_Iagegrp\_13 | agegrp==13 | 1.235\*\*\* |
|  |  | (0.00873) |
| \_Iagegrp\_14 | agegrp==14 | 1.245\*\*\* |
|  |  | (0.00877) |
| \_Iagegrp\_15 | agegrp==15 | 1.165\*\*\* |
|  |  | (0.00895) |
| \_Iagegrp\_16 | agegrp==16 | 0.973\*\*\* |
|  |  | (0.0101) |
| Constant | Constant | 9.034\*\*\* |
|  |  | (0.0115) |
| Observations |  | 436,122 |
| R-squared |  | 0.165 |

Robust standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Notes: This regression table is adjusted via heteroskedasticity-robust and has been weighted by an average weight. Also note that the variables \_Iagegrp\_8-16 are the same dummy variables as the ones present in the descriptive statistics tables in part a.

|  |  |  |
| --- | --- | --- |
| **TABLE 4 – Regression By Marriage** | (1) | (2) |
|  | Not Married | Married |
| VARIABLES | logincome | logincome |
|  |  |  |
| Gender | -0.262\*\*\* | -0.558\*\*\* |
|  | (0.00504) | (0.00528) |
| cow\_emp | 0.836\*\*\* | 0.820\*\*\* |
|  | (0.0131) | (0.0107) |
| NoCDoD | -0.533\*\*\* | -0.545\*\*\* |
|  | (0.0116) | (0.0122) |
| highschool | -0.310\*\*\* | -0.289\*\*\* |
|  | (0.00778) | (0.00878) |
| somecollege | -0.0631\*\*\* | -0.0855\*\*\* |
|  | (0.00757) | (0.00844) |
| bachelors | 0.145\*\*\* | 0.130\*\*\* |
|  | (0.00794) | (0.00853) |
| masters | 0.259\*\*\* | 0.250\*\*\* |
|  | (0.0122) | (0.0107) |
| West | 0.0661\*\*\* | 0.0430\*\*\* |
|  | (0.00590) | (0.00578) |
| North | 0.350\*\*\* | 0.427\*\*\* |
|  | (0.0477) | (0.0450) |
| East | -0.138\*\*\* | -0.0595\*\*\* |
|  | (0.0103) | (0.00978) |
| \_Iagegrp\_9 | 0.661\*\*\* | 0.424\*\*\* |
|  | (0.00910) | (0.0406) |
| \_Iagegrp\_10 | 0.945\*\*\* | 0.628\*\*\* |
|  | (0.00951) | (0.0395) |
| \_Iagegrp\_11 | 1.070\*\*\* | 0.785\*\*\* |
|  | (0.0102) | (0.0393) |
| \_Iagegrp\_12 | 1.180\*\*\* | 0.908\*\*\* |
|  | (0.0102) | (0.0392) |
| \_Iagegrp\_13 | 1.233\*\*\* | 0.974\*\*\* |
|  | (0.0103) | (0.0391) |
| \_Iagegrp\_14 | 1.230\*\*\* | 0.991\*\*\* |
|  | (0.0106) | (0.0391) |
| \_Iagegrp\_15 | 1.153\*\*\* | 0.908\*\*\* |
|  | (0.0109) | (0.0392) |
| \_Iagegrp\_16 | 0.982\*\*\* | 0.693\*\*\* |
|  | (0.0131) | (0.0397) |
| Constant | 8.944\*\*\* | 9.459\*\*\* |
|  | (0.0158) | (0.0405) |
| Observations | 235,220 | 200,902 |
| R-squared | 0.165 | 0.137 |

Robust standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

|  |  |  |
| --- | --- | --- |
| **TABLE 5 – Regression by Gender** | (1) | (2) |
|  | Male+ | Female+ |
| VARIABLES | logincome | logincome |
|  |  |  |
| Married | 0.241\*\*\* | -0.0761\*\*\* |
|  | (0.00537) | (0.00558) |
| cow\_emp | 0.798\*\*\* | 0.867\*\*\* |
|  | (0.0104) | (0.0136) |
| NoCDoD | -0.469\*\*\* | -0.661\*\*\* |
|  | (0.0103) | (0.0146) |
| highschool | -0.281\*\*\* | -0.332\*\*\* |
|  | (0.00735) | (0.00949) |
| somecollege | -0.0542\*\*\* | -0.0876\*\*\* |
|  | (0.00744) | (0.00876) |
| bachelors | 0.0771\*\*\* | 0.188\*\*\* |
|  | (0.00782) | (0.00887) |
| masters | 0.169\*\*\* | 0.334\*\*\* |
|  | (0.0112) | (0.0116) |
| West | 0.0929\*\*\* | 0.0136\*\* |
|  | (0.00565) | (0.00604) |
| North | 0.241\*\*\* | 0.521\*\*\* |
|  | (0.0525) | (0.0404) |
| East | -0.102\*\*\* | -0.104\*\*\* |
|  | (0.00984) | (0.0103) |
| \_Iagegrp\_9 | 0.657\*\*\* | 0.662\*\*\* |
|  | (0.0123) | (0.0122) |
| \_Iagegrp\_10 | 0.962\*\*\* | 0.868\*\*\* |
|  | (0.0121) | (0.0124) |
| \_Iagegrp\_11 | 1.092\*\*\* | 1.008\*\*\* |
|  | (0.0122) | (0.0126) |
| \_Iagegrp\_12 | 1.167\*\*\* | 1.170\*\*\* |
|  | (0.0123) | (0.0123) |
| \_Iagegrp\_13 | 1.220\*\*\* | 1.242\*\*\* |
|  | (0.0124) | (0.0122) |
| \_Iagegrp\_14 | 1.216\*\*\* | 1.268\*\*\* |
|  | (0.0125) | (0.0122) |
| \_Iagegrp\_15 | 1.132\*\*\* | 1.192\*\*\* |
|  | (0.0127) | (0.0126) |
| \_Iagegrp\_16 | 0.940\*\*\* | 0.994\*\*\* |
|  | (0.0143) | (0.0143) |
| Constant | 8.972\*\*\* | 8.676\*\*\* |
|  | (0.0152) | (0.0178) |
| Observations | 223,790 | 212,332 |
| R-squared | 0.168 | 0.145 |

Robust standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **TABLE 6** | **Regression using mybswreg Function** | | | |
| Var\_name | Coef | BSse | BSzstat | BSpvalue | BSilow95 | BSiup95 |
|  |  |  |  |  |  |  |
| Married | 0.080375 | 0.052725 | 1.524425 | 0.127403 | -0.022964 | 0.183713 |
| Gender | -0.397909 | 0.037407 | -10.637328 | 0.000000 | -0.471225 | -0.324593 |
| cow\_emp | 0.821449 | 0.085714 | 9.583616 | 0.000000 | 0.653453 | 0.989445 |
| NoCDoD | -0.543490 | 0.068126 | -7.977764 | 0.000000 | -0.677014 | -0.409966 |
| highschool | -0.306989 | 0.066252 | -4.633646 | 0.000004 | -0.436840 | -0.177137 |
|  |  |  |  |  |  |  |
| somecollege | -0.073092 | 0.070446 | -1.037550 | 0.299480 | -0.211164 | 0.064981 |
| bachelors | 0.138754 | 0.061664 | 2.250143 | 0.024440 | 0.017894 | 0.259614 |
| masters | 0.257083 | 0.058415 | 4.400961 | 0.000011 | 0.142592 | 0.371575 |
| West | 0.054774 | 0.041169 | 1.330473 | 0.183363 | -0.025916 | 0.135465 |
| North | 0.383816 | 0.302913 | 1.267082 | 0.205126 | -0.209883 | 0.977515 |
|  |  |  |  |  |  |  |
| East | -0.101096 | 0.095987 | -1.053218 | 0.292241 | -0.289227 | 0.087036 |
| \_Iagegrp\_9 | 0.656820 | 0.093222 | 7.045761 | 0.000000 | 0.474108 | 0.839532 |
| \_Iagegrp\_10 | 0.915924 | 0.092189 | 9.935317 | 0.000000 | 0.735238 | 1.096611 |
| \_Iagegrp\_11 | 1.054542 | 0.078918 | 13.362560 | 0.000000 | 0.899866 | 1.209218 |
| \_Iagegrp\_12 | 1.173070 | 0.091449 | 12.827641 | 0.000000 | 0.993834 | 1.352306 |
|  |  |  |  |  |  |  |
| \_Iagegrp\_13 | 1.234869 | 0.101719 | 12.139987 | 0.000000 | 1.035503 | 1.434235 |
| \_Iagegrp\_14 | 1.245368 | 0.073278 | 16.995056 | 0.000000 | 1.101746 | 1.388991 |
| \_Iagegrp\_15 | 1.165182 | 0.108995 | 10.690283 | 0.000000 | 0.951557 | 1.378807 |
| \_Iagegrp\_16 | 0.972901 | 0.103933 | 9.360877 | 0.000000 | 0.769197 | 1.176606 |
| \_cons | 9.033654 | 0.085701 | 105.409546 | 0.000000 | 8.865685 | 9.201624 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **TABLE 7 – OBD1** | (1) | (2) | (3) | (4) |
| VARIABLES | overall | endowments | coefficients | interaction |
|  |  |  |  |  |
| Gender |  | -0.00755\*\*\* | 0.142\*\*\* | 0.00401\*\*\* |
|  |  | (0.000850) | (0.00349) | (0.000460) |
| cow\_emp |  | 0.0471\*\*\* | 0.0133 | 0.000890 |
|  |  | (0.000907) | (0.00987) | (0.000663) |
| NoCDoD |  | -0.00594\*\*\* | 0.000728 | 0.000126 |
|  |  | (0.000437) | (0.00102) | (0.000178) |
| highschool |  | -0.0192\*\*\* | -0.00411\* | -0.00138\* |
|  |  | (0.000680) | (0.00230) | (0.000771) |
| somecollege |  | -0.000322\*\*\* | 0.00500\* | 8.42e-05 |
|  |  | (0.000113) | (0.00259) | (5.20e-05) |
| bachelors |  | -0.00498\*\*\* | 0.00375 | -0.000573 |
|  |  | (0.000357) | (0.00289) | (0.000443) |
| masters |  | -0.0105\*\*\* | 0.000900 | -0.000391 |
|  |  | (0.000487) | (0.00156) | (0.000675) |
| West |  | -0.00260\*\*\* | 0.00725\*\*\* | -0.00140\*\*\* |
|  |  | (0.000350) | (0.00254) | (0.000490) |
| North |  | 0.000148\*\* | -0.000186 | -2.68e-05 |
|  |  | (6.81e-05) | (0.000170) | (2.72e-05) |
| East |  | 0.000240\*\*\* | -0.00511\*\*\* | 0.000318\*\*\* |
|  |  | (6.16e-05) | (0.000969) | (8.38e-05) |
| \_Iagegrp\_9 |  | 0.0599\*\*\* | 0.00951\*\*\* | 0.0334\*\*\* |
|  |  | (0.00525) | (0.00153) | (0.00537) |
| \_Iagegrp\_10 |  | 0.0199\*\*\* | 0.0333\*\*\* | 0.01000\*\*\* |
|  |  | (0.00129) | (0.00388) | (0.00121) |
| \_Iagegrp\_11 |  | -0.0279\*\*\* | 0.0405\*\*\* | -0.0101\*\*\* |
|  |  | (0.00149) | (0.00524) | (0.00134) |
| \_Iagegrp\_12 |  | -0.0476\*\*\* | 0.0398\*\*\* | -0.0143\*\*\* |
|  |  | (0.00207) | (0.00539) | (0.00195) |
| \_Iagegrp\_13 |  | -0.0624\*\*\* | 0.0380\*\*\* | -0.0165\*\*\* |
|  |  | (0.00246) | (0.00543) | (0.00238) |
| \_Iagegrp\_14 |  | -0.0669\*\*\* | 0.0355\*\*\* | -0.0161\*\*\* |
|  |  | (0.00258) | (0.00550) | (0.00251) |
| \_Iagegrp\_15 |  | -0.0575\*\*\* | 0.0367\*\*\* | -0.0155\*\*\* |
|  |  | (0.00241) | (0.00553) | (0.00235) |
| \_Iagegrp\_16 |  | -0.0378\*\*\* | 0.0332\*\*\* | -0.0158\*\*\* |
|  |  | (0.00203) | (0.00432) | (0.00206) |
| Not Married Group | 10.33\*\*\* |  |  |  |
|  | (0.00268) |  |  |  |
| Married Group | 10.68\*\*\* |  |  |  |
|  | (0.00279) |  |  |  |
| difference | -0.351\*\*\* |  |  |  |
|  | (0.00387) |  |  |  |
| endowments | -0.224\*\*\* |  |  |  |
|  | (0.00630) |  |  |  |
| coefficients | -0.0842\*\*\* |  |  |  |
|  | (0.00409) |  |  |  |
| interaction | -0.0432\*\*\* |  |  |  |
|  | (0.00646) |  |  |  |
| Constant |  |  | -0.514\*\*\* |  |
|  |  |  | (0.0381) |  |
| Observations | 436,122 | 436,122 | 436,122 | 436,122 |

Standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **TABLE 8 – OBD2** | (1) | (2) | (3) | (4) |
| VARIABLES | overall | endowments | coefficients | interaction |
|  |  |  |  |  |
| group\_1 | 10.33\*\*\* |  |  |  |
|  | (0.00268) |  |  |  |
| group\_2 | 10.68\*\*\* |  |  |  |
|  | (0.00279) |  |  |  |
| difference | -0.351\*\*\* |  |  |  |
|  | (0.00387) |  |  |  |
| endowments | -0.224\*\*\* |  |  |  |
|  | (0.00630) |  |  |  |
| coefficients | -0.0842\*\*\* |  |  |  |
|  | (0.00409) |  |  |  |
| interaction | -0.0432\*\*\* |  |  |  |
|  | (0.00646) |  |  |  |
| Gender |  | -0.00755\*\*\* | 0.142\*\*\* | 0.00401\*\*\* |
|  |  | (0.000850) | (0.00349) | (0.000460) |
| cow\_emp |  | 0.0471\*\*\* | 0.0133 | 0.000890 |
|  |  | (0.000907) | (0.00987) | (0.000663) |
| region |  | -0.00221\*\*\* | 0.00195 | -0.00111\*\* |
|  |  | (0.000369) | (0.00287) | (0.000507) |
| age |  | -0.220\*\*\* | 0.267\*\*\* | -0.0449\*\*\* |
|  |  | (0.00614) | (0.0353) | (0.00636) |
| education |  | -0.0409\*\*\* | 0.00627 | -0.00213\*\* |
|  |  | (0.000862) | (0.00800) | (0.000840) |
| Constant |  |  | -0.514\*\*\* |  |
|  |  |  | (0.0381) |  |
| Observations | 436,122 | 436,122 | 436,122 | 436,122 |

Standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1