

# Future Effects of Growing Up With a Female Breadwinner

An analysis of the effect of growing up with a  
female breadwinner on a child's future income

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## **I. Introduction**

In many countries around the world, including the United States, there are very clear gender normative expectations for how men and women should behave. As more and more people stray from these expectations, it is important to study how this will affect future generations. In the U.S., it is more common than ever for a woman to be the higher earner in a heterosexual relationship, but because this is a new and recent trend we are unsure how this will impact the next generation. Historically, the expectation has been that the man would be the higher earner in a heterosexual relationship/marriage. According to the Bureau of Labor Statistics, in 2018 almost 30% of American wives in a heterosexual dual-income marriage earn more than their husbands, while in 1987 this number was only 18%. Previous research shows that, because this trend upsets gender norms, it can create strife in the relationship and even cause couples to misrepresent their income (Simons, 2020). In fact, in opposite-sex marriages in which the women earned more, on average, those women reported on the Census that they earned 1.5 percentage points *less* than they actually did; their husbands said they earned 2.9 percentage points *more* than they did (Heggeness and Murray-Close, 2018). Our ideas about gender and the role of men and women in heterosexual relationships are so deeply ingrained in us that some people lie in order to appear to conform to the traditional gender role expectations. When people do not meet these expectations, their thoughts and actions can affect the people around them, specifically their children. For example, Mavrokonstantis (2017)'s study of gender role expectations found that female children of breadwinning mothers are more likely to develop traditional views of gender which go against their own family structure/norm.

Prior literature has shown that the roles of mothers and fathers and the influence of gender expectations can have an effect on children, which led us to pose the question: does growing up

in a household with a female breadwinner have an effect on a child's future income? Using data from the U.S. Bureau of Labors Statistics' National Longitudinal Survey of Youth, we created a breadwinner variable that is coded to indicate male (1) or female (0) and employed an ordinary least squares linear regression model to predict each participant's income using the breadwinner variable along with many others. We hypothesize that the coefficient on the breadwinner variable would be positive and significant, indicating that having a male breadwinner leads to higher earnings. We also ran the same regression for only males in the sample and only females in the sample, as we expected there to be a larger effect for females with female breadwinners. The final regression we ran is for only subjects with a bachelor's degree or higher to see if the effect is different for this group.

We found that the estimated effect of the breadwinner (male) variable was indeed positive, but unfortunately, based on the large p-values there was no evidence that the breadwinner variable has a statistically significant effect on income. Interestingly, we did find that depression level was a statistically significant predictor of income throughout our regression analyses, except when considering only males from the sample. Further research as to why this is the case would be an interesting next step.

Although our original hypothesis was not supported by the data and models employed in our study, our research contributes to the larger question of how and if gender roles influence children and dives deeper into the direct effects of having a male vs. female breadwinner. It does so by including the breadwinner variable in the regression model and focusing on the coefficient of this variable specifically to see how it might be associated with a child's future earnings. Our results may also spark the question of how gender role expectations affect mental health, which in turn affects many other aspects of a person's life, including income.

## II. Literature Review

While there is a significant amount of literature on surrounding topics, research into the connection between the gender of a household breadwinner and the future income levels of the children is sparse. There is literature linking parental income to children's future earnings, but much of this research disregards the gender identity of the primary household earner. In order to learn more about the potential effect of having a female breadwinner on a child's future income, we review related literature which studies the effects of parents' education and income on children's success (academically and professionally), as well as the gender socialization of children and the effects of growing up in a “nontraditional” household.

Bertrand (2019) used regression analysis controlling for many variables to study how young adults' gender-role attitudes are affected by their exposure to nontraditional family arrangements from ages 0 to 15 years old. Although Bertrand (2019) attempts to answer a different question than we are, understanding the effects of a nontraditional family structure on a child's view of the world is vital to ultimately understanding how that child will succeed in the future. Bertrand (2019) found that the gender role attitudes of female children were not significantly affected by exposure to nontraditional family structures (a working married mother or a non-married mother) as long as the mother remained married. On the other hand, for male children, she found that there was a significant move in gender attitudes toward a more liberal view (Bertrand, 2019). Most research on this subject agrees that a working mother tends to be correlated with more liberal gender attitudes.

However, a similar study conducted by Mavrokonstantis (2017) found that a working married mother who earns more than her spouse has perverse effects on the gender attitudes of their

female children. Mavrokonstantis (2017)'s study was almost identical to Bertrand (2019)'s but Mavrokonstantis (2017) defined "gender role attitudes" slightly differently and focussed only on married working mothers who earn more than their spouse (i.e., are the primary breadwinner). Our research builds off of the studies of Bertrand (2019) and Mavrokonstantis (2017) in order to determine how exposure to the nontraditional family structure, and more specifically exposure to a female primary breadwinner, eventually affects a child's income. Because Bertrand (2019) finds that young men with nontraditional family exposure have more liberal gender attitudes, we may see male children of female breadwinners going into non-gender normative careers that tend to pay less. Mavrokonstantis (2017)'s findings support this idea, showing that male children of breadwinning mothers are less likely to develop traditional views of gender. Mavrokonstantis (2017) also finds that female children of breadwinning mothers are more likely to develop traditional views of gender in opposition to their family's norm. These females are less likely to believe that high earnings are important to them and less likely to want to study science at university (Mavrokonstantis, 2017). This is directly related to our research; if female children of female breadwinners are less likely to pursue a major in STEM, we expect them to be earning less, on average, than a female who does not grow up with a female breadwinner in their household. While these results help inform our understanding of how the presence of a breadwinning mother can affect the gender perceptions of children within a household, it does not go the step further to investigate their future earnings as our paper seeks to do. Additionally, it is important to note that Dhar et al. (2019), who study the intergenerational transmission of gender attitudes, showed that mothers influence children's gender attitudes more than fathers. This suggests that having a female breadwinner probably has a significant effect on a child's perspective on gender roles.

Many studies also investigate generational wealth and education in the relationship between household income and future earnings or academic achievement. Johnson (2020) employed the Panel Survey of Income Dynamics (PSID) data from 1968 to 2017 to determine the relationship between parental socioeconomic status and future attainment of a college degree using a Two-Stage Least Squares model. While this paper does not clearly relate the gender of the higher-earning parent and child's future income, it can be used in connection with results and data on the relationship between education level and income, to come to an approximate conclusion about parental income and future earnings. While approximations like this can be formed by combining results from multiple studies, it can not be assumed that they are going to be correct. More direct research should still be conducted.

The studies most closely related to our question of interest were those that study the effects of the parent gender in single-parent households. Downey et al. (1998) used adjusted OLS regression models to study the first follow-up of the National Education Longitudinal Study data from the same year. They concluded that differences between the academic, economic, or behavioral outcomes in the long-run were insignificant. Furthermore, they concluded that differences were more likely due to the absence of a parent than the gender of the single parent. Although we are not focused on only single-parent households, unlike Bertrand (2019) or Mavrokonstantis (2017), the model used in Downey et al. (1998) does look to quantify the effect of the gender of the primary breadwinner. The findings also gave no indication of different effects depending on the gender of the children within the household.

Overall, it is difficult to find studies that directly relate the gender of parental household breadwinners to the child's future earnings. As culture and gender norms change, the existing literature would benefit from a greater understanding of this kind of household structure without

the assumption that mothers are breadwinners only in single-parent households. Using the U.S. Bureau of Labor Statistics' National Longitudinal Survey of Youth, this paper seeks to fill this gap. Building on the previous research that used Ordinary Least Squares (OLS) regression models to estimate the effects of gender perceptions, generational wealth/education, and single-parent households, our research will utilize similar OLS models to answer our research question.

### **III. Empirical Analysis**

#### ***A. Data***

The data used in our analysis comes from the U.S. Bureau of Labors Statistics' National Longitudinal Survey of Youth (NLSY) data, specifically from the 1997 survey cohort. In this sample, 77% of the initial 8,984 participants responded to the same survey each year for 19 rounds until the release of the data in 2019. All participants of this study were born between 1980-1984, making them between the ages of 12-16 at the time of the first data collection. The initial sample was split almost 50/50 between male and female participants with 4,599 males and 4,385 females.

From this larger data set, we specifically study the entries of 2,070 participants. 6,914 participants were dropped from the original data set because they did not have the information needed to determine whether the household's breadwinner was male or female. Of these entries, we focus specifically on the participants' age, sex, household income during youth, highest education level, employment status, yearly income during adulthood, and mental health. Within our data set, 1,060 participants are male and 1,010 are female. Additionally, 300 (14.5%) are "Black/Non-Hispanic," 323 (15.6%) are "Hispanic or Latino," 1,423 (68.7%) are

“Non-Black/Non-Hispanic,” and only 24 (1.2%) are “Mixed.” Table 1 shows the most relevant summary statistics for each variable we considered.

**Table 1, Summary Statistics of Sample Used**

|  | <i>% of Sample</i> | <i>Mean</i> | <i>Std. Dev.</i> |
|--|--------------------|-------------|------------------|
| <i>Participant Income (per year)</i>   |                    | 62790.07    | 53908.31         |
| <i>Income w/ Female Breadwinner</i>  |                    | 60297.68    | 48404.28         |
| <i>Income w/ Male Breadwinner</i>  |                    | 63717.93    | 55813.09         |
| <i>Breadwinner Female</i>  | 26.91              |             |                  |
| <i>Breadwinner Male</i>  | 73.09              |             |                  |
| <i>Age</i>   |                    | 36.45       | 1.347            |
| <i>Female</i>  | 48.80              |             |                  |
| <i>Male</i>  | 51.20              |             |                  |
| <i>Black/Non-Hispanic</i>  | 14.49              |             |                  |
| <i>Hispanic or Latino</i>  | 15.60              |             |                  |
| <i>Mixed</i>   | 1.16               |             |                  |
| <i>Non-Black/Non-Hispanic</i>  | 68.74              |             |                  |
| <i>Father's Education</i>  |                    | 13.48       | 3.506            |
| <i>Mother's Education</i>  |                    | 13.53       | 3.216            |
| <i>Family Income</i>   |                    |             |                  |
| <i>North East</i>  | 14.16              |             |                  |
| <i>North Central</i>   | 24.73              |             |                  |
| <i>South</i>   | 38.58              |             |                  |
| <i>West</i>  | 22.54              |             |                  |
| <i>Mental Health</i>   |                    | 0.26        | 0.641            |
| <i>Observations</i>  | 2070               |             |                  |
| <i>Note: Respondent's Education is measured by degrees earned while Parent Education is measured in years of schooling</i> |                    |             |                  |



Below are further details of how the model's variables were cataloged within our data.

*Age:* Age in Years.

*Gender:* A categorical variable coded as 0, 1 or 2. 0 indicates that the participant did not report their gender as either male or female, 1 representing male participant, and 2 representing female participant.

*Race/Ethnicity:* The survey breaks down race/ethnicity into 4 different categories represented by the numbers 1-4. Black/Non-Hispanic is reported as a 1, Hispanic or Latino is reported as a 2, Mixed is reported as a 3, and Non-Black/Non-Hispanic is reported as a 4.

*Mental Health:* The data relating to the participant's mental health comes from participant survey responses from 2019 and is represented by a scale of 0 to 4; a 0 indicating that they do not feel depressed at all, 1 indicating that they do sometimes feel depressed, and 3 and 4 being increased frequency and severity of depressed feelings.

*Education Level of Parents (Father's Education/Mother's Education):* This data is represented by the number of years of education achieved by the parent. For example, if the participant's parent completed high school the corresponding data point would be 12. This data was taken from the 2019 survey responses.

*Parental Income Level:* The data specifying the household income of a participant during their childhood comes from participant responses in 1998, in which both the total household income and the individual income of each parental figure are specified. Given that these survey questions also asked for the respondent's relation to the participant, this data was also used to determine the gender of the household's breadwinner.

*Breadwinner:* The gender of the participant's household breadwinner during their childhood is represented by a binary variable. In this case, a 1 indicates the primary breadwinner is a male and a 0 indicates the primary breadwinner is a female. This data was determined using the survey questions about the income of the participant's parents and the specific relationship of each earner to the participant (i.e. mother, father, etc.).

*Geographic Region:* This variable was also placed on a 1-4 numerical scale to represent the relative geographic location of the participant. 1 indicates Northeast (CT, ME, MA, NH, NJ, NY, PA, RI, VT), 2 indicates North Central (IL, IN, IA, KS, MI, MN, MO, NE, OH, ND, SD, WI), 3 indicates South (AL, AR, DE, DC, FL, GA, KY, LA, MD, MS, NC, OK, SC, TN, TX, VA, WV), and 4 indicates West (AK, AZ, CA, CO, HI, ID, MT, NV, NM, OR, UT, WA, WY).

### ***B. Model Specification***

In order to determine how the gender of a household's highest-earning parent affects the future earnings of the children, this paper utilizes an Ordinary Least Squares (OLS) regression model. This model utilizes the participant's yearly income survey response from 2019 as the dependent variable and the gender of the breadwinner as the independent variable of interest. Additionally, the variables including the participant's sex, age, race/ethnicity, geographic location, and mental health, as well as the education level of their parents and the household income during the participant's youth are included in the model as covariates. The equations for this model are:

$$(1) \text{ YearlyIncome}_i = \beta_0 + \beta_1 \text{SexFem}_i + \beta_2 \text{Age}_i + \beta_3 \text{Depres}_i + \beta_4 \text{REHispanic}_i \\ + \beta_5 \text{REMix}_i + \beta_6 \text{RENonBH}_i + \beta_7 \text{EduFather}_i + \beta_8 \text{EduMother}_i \\ + \beta_9 \text{IncPar1}_i + \beta_{10} \text{IncPar2}_i + \beta_{11} \text{RegNorCen}_i + \beta_{12} \text{RegSou}_i \\ + \beta_{13} \text{RegWest}_i + \beta_{14} \text{BreadwinnerMale}_i + \varepsilon_i$$

or

$$(2) \text{ YearlyIncome}_i = \beta_0 + \beta_1 \text{BreadwinnerMale}_i + \sum_{k=2}^K \beta_k \text{Control}_i + \varepsilon_i$$

*Note: Eq. 2 is the simplified formula focusing on only the independent and dependent variables of interest. Dummy variables beginning with “Edu” refer to the participant’s education level, dummy variables beginning with “RE” refer to the Race/Ethnicity of the participant, and variables beginning with “Reg” refer to the participant’s geographic location. Additionally, “EduFather” refers to the education level of the participant’s father (with “EduMother” referring to the mother’s education).*

In this model, the covariates are included in order to account for and reduce any potential bias related to the demographic information of the participant or their parents and the Breadwinner’s Gender. Many of these factors likely affect both the yearly earnings of the participant and the gender of the household breadwinner. By including them within our model we are able to control for those factors and reduce the potential bias that they may induce in our results. With this model, we are able to determine the relationship between the gender of the household breadwinner and future income by conducting the following test to analyze the  $\beta_{14}$  coefficient in Equation 1.

$$H_0: \beta_{14} = 0$$

$$H_A: \beta_{14} \neq 0$$

If the gender of the breadwinner does not have an effect on future earnings we would expect this coefficient to be zero. If the coefficient were statistically significant in a positive direction, this would indicate that a male household breadwinner is more positively correlated with the participants’ future earnings than a female breadwinner.

To further investigate the research question, this model was then applied to different subsections of the sample. Firstly, the model was used to analyze the sample by participant’s gender. To achieve this, equation (1) was applied to the portion of the sample that contains female participants only and then again to the portion of the sample that contains male participants only.

Using this same method, the equation was also applied to the portions of the sample when isolated by the participant's education level, specifically whether they have received a Bachelor's degree or further. The resulting coefficients of these OLS regressions can then be compared to determine any differing results between the subsamples.

There are a few assumptions in the use of this model. Given that we take income level data from only one year for both the participants and their parents, we are assuming that year's income level is representative of the income normally earned by the participants. For example, we are working under the assumption that nothing peculiar occurred to the participant that year that may impact their income level significantly, like winning the lottery or being fired from their long-term job. Most importantly, we are assuming there are no variables missing from the model that may be correlated to both the income level of participants in 2019 and the Breadwinner's gender during their childhood.

It should be noted that there exist several different limitations to this model. While it attempts to account for any potential biases, it can be reasonably assumed that our model does not account for every factor affecting both a person's income level and the Breadwinner's gender during childhood. Another possible limitation is that given both the income and education levels of the participant's parents are included in the model, there may also be an issue of multicollinearity which could result in higher standard errors in our results. Additionally, the survey data was collected in the United States and thus may not be applicable to other countries.

However, the approach we employ also has advantages. For instance, by utilizing existing data we remove the need to conduct a randomized experiment ourselves. Given that our research question needs data from both a participant's childhood and adulthood, conducting an

experiment ourselves would require an impractically long period of time within our current project parameters for data collection. Additionally, by utilizing the existing NLSY data we are able to work with a much larger (and potentially more representative) data set than one we would collect ourselves. While our results do not show that a household breadwinner's gender directly affects the future income of the children, it may indicate correlation. Repeated found results of this correlation, by repeating our method with different data subsections of time or population and by utilizing different methods with similar results, could eventually lead to a stronger indication of potential causation.

#### **IV. Results**

The estimation results for our three regression models are shown below in Tables 2, 3, and 4. In all three of our regressions, we did not find any statistically significant difference (at a 5% significance level) in the average participant's income based on the gender of the breadwinning parent.

**Table 2, OLS Regression Results for the Entire Sample.**

| <b>Coefficients</b>                             | <b>Estimate</b> | <b>Std. Error</b> | <b>P-value</b> |
|---|-----------------|-------------------|----------------|
| <i>Intercept</i>                                | -54110.00       | 41280.00          | 0.19022        |
| <i>Sex Female</i>                               | -20030.00       | 2949.00           | < 2e-16***     |
| <i>Race/Ethnicity Hispanic</i>                  | -1499.00        | 5836.00           | 0.79738        |
| <i>Race/Ethnicity Mixed Race (Non-Hispanic)</i> | -3300.00        | 15240.00          | 0.82865        |
| <i>Race/Ethnicity Non-Black/Non-Hispanic</i>    | -1009.00        | 4494.00           | 0.82231        |
| <i>HGA Dad</i>                                  | 738.70          | 441.30            | 0.09443        |
| <i>HGA Mom</i>                                  | 2316.00         | 684.00            | 0.00073***     |
| <i>Response Parent's Income</i>                 | 0.19            | 0.04              | 0.00001***     |
| <i>Nonresponse Parent's Income</i>              | 0.12            | 0.04              | 0.00359**      |
| <i>Age</i>                                      | 1996.00         | 1084.00           | 0.06575        |
| <i>Region North Central</i>                     | 19.32           | 4764.00           | 0.99677        |
| <i>Region South</i>                             | -81.22          | 4588.00           | 0.98588        |
| <i>Region West</i>                              | 7030.00         | 5077.00           | 0.16638        |
| <i>Depression Level</i>                         | -8386.00        | 2610.00           | 0.00135**      |
| <i>Breadwinner Male</i>                         | 3960.00         | 3397.00           | 0.24397        |

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

In Table 2, the model predicts that, on average, participant income is approximately \$3,960 higher for participants where the breadwinning parent is a male compared to family units in which the breadwinner is female. Given that the average participant's income for individuals with a female Breadwinner is \$60,297.68 (about \$5024.807 per month), this additional \$3,960 represents an approximate 6.57% increase in yearly income associated with having a male Breadwinner during childhood rather than a female Breadwinner. The difference is nearly equal to the income of an additional month. However, this coefficient was not precisely estimated and thus was not found to be a statistically significant result within our model. Tables 3 and 4 show the regression results for different subsamples. Table 3 gives the results when looking at only male participants and Table 4 shows the results for only female participants.

Table 3, OLS Regression Results for Males in the Sample.

| <b>Coefficients</b>                             | <b>Estimate</b> | <b>Std. Error</b> | <b>P-value</b> |
|---|-----------------|-------------------|----------------|
| <i>Intercept</i>                                | -136900.00      | 64190.00          | 0.03337*       |
| <i>Race/Ethnicity Hispanic</i>                  | 1072.00         | 9744.00           | 0.91244        |
| <i>Race/Ethnicity Mixed Race (Non-Hispanic)</i> | -7740.00        | 22200.00          | 0.72746        |
| <i>Race/Ethnicity Non-Black/Non-Hispanic</i>    | -1518.00        | 7637.00           | 0.84253        |
| <i>HGA Dad</i>                                  | 1927.00         | 923.80            | 0.03738*       |
| <i>HGA Mom</i>                                  | 1608.00         | 1110.00           | 0.14789        |
| <i>Response Parent's Income</i>                 | 0.21            | 0.06              | 0.00087***     |
| <i>Nonresponse Parent's Income</i>              | 0.11            | 0.07              | 0.08813        |
| <i>Age</i>                                      | 4056.00         | 1661.00           | 0.01488*       |
| <i>Region North Central</i>                     | -2813.00        | 6871.00           | 0.68242        |
| <i>Region South</i>                             | -1394.00        | 6779.00           | 0.83718        |
| <i>Region West</i>                              | 6843.00         | 7376.00           | 0.35389        |
| <i>Depression Level</i>                         | -6718.00        | 4193.00           | 0.10968        |
| <i>Breadwinner Male</i>                         | 6940.00         | 5156.00           | 0.17884        |

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

Table 4, OLS Regression Results for Females in the Sample.

| <b>Coefficients</b>                             | <b>Estimate</b> | <b>Std. Error</b> | <b>P-value</b> |
|---|-----------------|-------------------|----------------|
| <i>Intercept</i>                                | 9079.00         | 52640.00          | 0.86313        |
| <i>Race/Ethnicity Hispanic</i>                  | -2117.00        | 6998.00           | 0.76241        |
| <i>Race/Ethnicity Mixed Race (Non-Hispanic)</i> | 3905.00         | 20960.00          | 0.85226        |
| <i>Race/Ethnicity Non-Black/Non-Hispanic</i>    | -334.00         | 5290.00           | 0.94968        |
| <i>HGA Dad</i>                                  | 277.40          | 468.20            | 0.55383        |
| <i>HGA Mom</i>                                  | 2670.00         | 855.40            | 0.00189**      |
| <i>Response Parent's Income</i>                 | 0.17            | 0.06              | 0.00553**      |
| <i>Nonresponse Parent's Income</i>              | 0.13            | 0.05              | 0.01821*       |
| <i>Age</i>                                      | -209.50         | 1403.00           | 0.88136        |
| <i>Region North Central</i>                     | 3937.00         | 6544.00           | 0.54769        |
| <i>Region South</i>                             | 2317.00         | 6179.00           | 0.70776        |
| <i>Region West</i>                              | 8674.00         | 6915.00           | 0.21020        |
| <i>Depression Level</i>                         | -9635.00        | 3214.00           | 0.00284**      |
| <i>Breadwinner Male</i>                         | -56.12          | 4392.00           | 0.98981        |

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

Similar to the results found in Table 2, there is no statistically significant difference between the average income level of participants with female or male breadwinners. However, when comparing Tables 3 and 4, the coefficient for *Breadwinner Male* is smaller (2125) within the female participant group than in the male participant group (4979). This suggests that having a male breadwinner has a lower effect on the future income levels of females than males. In other words, the existence of a male breadwinner within the household may be associated with an approximately \$2854 higher average income for males compared to females. Unfortunately, again, the estimates are very imprecisely estimates, so this difference is not statistically different from zero. I.e. statistically speaking, the coefficients are equivalent and as a result, no strong claims of difference can be made.

Finally, Table 5 shows the results when looking specifically at the subsample of participants who have at least a Bachelor's Degree. Again, we find that there is not a statistically significant difference between the average income levels of participants where the household has a female or male breadwinner. Similar to the female group in Table 4, while we do not see a statistically significant difference, the effect of a male breadwinner on future income appears to be lower.



**Table 5, OLS Regression Results for Participants With at Least a Bachelor's Degree.**

| <b>Coefficients:</b>                            | <b>Estimate:</b> | <b>Std. Error:</b> | <b>P-value:</b> |
|---|------------------|--------------------|-----------------|
| <i>Intercept</i>                                | -36600.00        | 72810.00           | 0.61538         |
| <i>Sex Female</i>                               | -24740.00        | 5268.00            | 0.00000332***   |
| <i>Race/Ethnicity Hispanic</i>                  | -15630.00        | 11350.00           | 0.16905         |
| <i>Race/Ethnicity Mixed Race (Non-Hispanic)</i> | -33180.00        | 26360.00           | 0.20862         |
| <i>Race/Ethnicity Non-Black/Non-Hispanic</i>    | -7054.00         | 8410.00            | 0.40198         |
| <i>HGA Dad</i>                                  | 1439.00          | 1111.00            | 0.19570         |
| <i>HGA Mom</i>                                  | 565.20           | 1231.00            | 0.64623         |
| <i>Response Parent's Income</i>                 | 0.15             | 0.07               | 0.0279*         |
| <i>Nonresponse Parent's Income</i>              | 0.07             | 0.06               | 0.26524         |
| <i>Age</i>                                      | 2632.00          | 1872.00            | 0.16015         |
| <i>Region North Central</i>                     | 4159.00          | 8123.00            | 0.60883         |
| <i>Region South</i>                             | 405.30           | 7748.00            | 0.95830         |
| <i>Region West</i>                              | 8746.00          | 8564.00            | 0.30758         |
| <i>Depression Level</i>                         | 13820.00         | 4762.00            | 0.00386**       |
| <i>Breadwinner Male</i>                         | 2590.00          | 6078.00            | 0.67012         |

Note:  $p < 0.1$ , \*\* $p < 0.05$ , \*\*\* $p < 0.01$

## V. Conclusion

The findings in this paper do not seem consistent with the existing literature. The results suggest a lack of connection between the gender of the breadwinning parent within a household and the future income level of the household's children. Oppositely, based on the previous literature, we expected to find this connection between parent and child. However, given the assumptions and potential biases made in this model, the finding of this paper may not be representative of an existing lack of correlation. The existing literature suggests that at least the education levels between the parents and children are likely related.

While our paper was unable to find a statistically significant difference between the average future income levels of participants with female and male Breadwinner, this does not prove that a

connection does not exist. The existence of multicollinearity within our model may be led to larger standard errors within our results, affecting the eventual statistical significance of the coefficients. As a result, while we are unable to reject the null hypothesis, our research does not prove an existing disconnect between our two variables of interest. In further research into this topic, models should be constructed to better address potential issues in confounding or omitted variable bias and applied to different samples to establish a replication of any potential results.

Additionally, because society and culture are continuously changing, the data used within our model should be updated as well as applied to past generations. It is possible that while our findings are not statistically significant during this time period, the effect is significantly different between different generations. Identifying how the general perceptions and social norms of one generation affect the next can help us better understand the impact that changes to culture impact individuals on a micro-level.

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