A one way ANOVA was conducted in order to analyze the following question: What effect does the child’s gender and disability have on their enrollment in homeschooling? A total of 10,681 subjects were polled. The data was gathered from the NHES (NHES:2007) 2007 Parent and Family Involvement in Education Catalog. The sample (since n> 30) is normally distributed.

There are 5498 males and 5183 females (TABLE 1). 311 (2.9%) and currently being homeschooling while 10333 (96.7%) are not (TABLE 2). 2463 (23.1%) currently have a disability while 8218 (76.9%) do not (TABLE 3). There is not a significant variance between gender, but there is a difference between disability status. The standard deviation does not have a significant variance (TABLE 4). The Levene's Test for Equality of Variances is significant (TABLE 5). F = (2, 10678) = 6.6 p <.05

The R Squared = .001 (Adjusted R Squared = .001) which means that the variability of the BWT is not explained by the Independent variables (Gender and Disability status).

A Linear Regression model was conducted using the same variables to evaluate the prediction child’s gender and disability have on their enrollment in homeschooling. The scatterplot and P-P plot shown below indicates that the two variables are not linearly related, in that they have deviation from the proposed distribution.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **TABLE 1**  **CHILD'S SEX** | | | | | |
|  | | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid | 1 MALE | 5498 | 51.5 | 51.5 | 51.5 |
| 2 FEMALE | 5183 | 48.5 | 48.5 | 100.0 |
| Total | 10681 | 100.0 | 100.0 |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **TABLE 2**  **PB3-CHILD BEING SCHOOLED AT HOME** | | | | | |
|  | | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid | -1 INAPPLICABLE | 37 | .3 | .3 | .3 |
| 1 YES | 311 | 2.9 | 2.9 | 3.3 |
| 2 NO | 10333 | 96.7 | 96.7 | 100.0 |
| Total | 10681 | 100.0 | 100.0 |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **TABLE 3**  **D-CHILD CURRENTLY HAS A DISABILITY** | | | | | |
|  | | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid | 1 CURRENTLY HAS A DISABILITY | 2463 | 23.1 | 23.1 | 23.1 |
| 2 DOES NOT CURRENTLY HAVE A DISABILITY | 8218 | 76.9 | 76.9 | 100.0 |
| Total | 10681 | 100.0 | 100.0 |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **TABLE 4**  **Descriptive Statistics** | | | | |
| Dependent Variable: PB3-CHILD BEING SCHOOLED AT HOME | | | | |
| CHILD'S SEX | D-CHILD CURRENTLY HAS A DISABILITY | Mean | Std. Deviation | N |
| 1 MALE | 1 CURRENTLY HAS A DISABILITY | 1.95 | .320 | 1494 |
| 2 DOES NOT CURRENTLY HAVE A DISABILITY | 1.97 | .221 | 4004 |
| Total | 1.96 | .252 | 5498 |
| 2 FEMALE | 1 CURRENTLY HAS A DISABILITY | 1.94 | .313 | 969 |
| 2 DOES NOT CURRENTLY HAVE A DISABILITY | 1.96 | .209 | 4214 |
| Total | 1.96 | .232 | 5183 |
| Total | 1 CURRENTLY HAS A DISABILITY | 1.95 | .317 | 2463 |
| 2 DOES NOT CURRENTLY HAVE A DISABILITY | 1.97 | .215 | 8218 |
| Total | 1.96 | .242 | 10681 |

|  |  |  |  |
| --- | --- | --- | --- |
| **TABLE 5**  **Levene's Test of Equality of Error Variancesa** | | | |
| Dependent Variable: PB3-CHILD BEING SCHOOLED AT HOME | | | |
| F | df1 | df2 | Sig. |
| 17.677 | 3 | 10677 | .000 |
| Tests the null hypothesis that the error variance of the dependent variable is equal across groups. | | | |
| a. Design: Intercept + SEX + DISABLTY + SEX \* DISABLTY | | | |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **TABLE 6**  **Tests of Between-Subjects Effects** | | | | | | | | |
| Dependent Variable: PB3-CHILD BEING SCHOOLED AT HOME | | | | | | | | |
| Source | Type III Sum of Squares | df | Mean Square | F | Sig. | Partial Eta Squared | Noncent. Parameter | Observed Powerb |
| Corrected Model | .780a | 3 | .260 | 4.432 | .004 | .001 | 13.297 | .879 |
| Intercept | 27940.839 | 1 | 27940.839 | 476140.599 | .000 | .978 | 476140.599 | 1.000 |
| SEX | .027 | 1 | .027 | .468 | .494 | .000 | .468 | .105 |
| DISABLTY | .764 | 1 | .764 | 13.023 | .000 | .001 | 13.023 | .950 |
| SEX \* DISABLTY | .002 | 1 | .002 | .033 | .855 | .000 | .033 | .054 |
| Error | 626.547 | 10677 | .059 |  |  |  |  |  |
| Total | 41680.000 | 10681 |  |  |  |  |  |  |
| Corrected Total | 627.327 | 10680 |  |  |  |  |  |  |
| a. R Squared = .001 (Adjusted R Squared = .001) | | | | | | | | |
| b. Computed using alpha = .05 | | | | | | | | |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **ANOVAa** | | | | | | |
| Model | | Sum of Squares | df | Mean Square | F | Sig. |
| 1 | Regression | .778 | 2 | .389 | 6.632 | .001b |
| Residual | 626.549 | 10678 | .059 |  |  |
| Total | 627.327 | 10680 |  |  |  |
| a. Dependent Variable: PB3-CHILD BEING SCHOOLED AT HOME | | | | | | |
| b. Predictors: (Constant), CHILD'S SEX, D-CHILD CURRENTLY HAS A DISABILITY | | | | | | |



