Causal Claims Tables

# Summary Statistics

\*\*Summary Statistics for NLSY Variables\*\*
Physical Health scale ranges from 0 to 100.
Depression measure from CES-D, ranging from 0 to 24;
Neuroticism and Conscientiousness derived from TIPI, ranging from 1 to 7;
Education represents highest grade completed, ranging from 0 (none) to 20 (eight years of college or more);
Income represents total net family income in 2014 dollars

| **Variable** | **Mean** | **Standard Deviation** | **Minimum** | **25th Percentile** | **50th Percentile** | **75th Percentile** | **Maximum** | **Number of Observations** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Physical Health | 49.09 | 10.29 | 11.22 | 46.67 | 53.55 | 55.50 | 67.31 | 7,804 |
| Depression | 3.88 | 4.51 | 0.00 | 0.00 | 2.00 | 6.00 | 21.00 | 7,813 |
| Neuroticism | 2.90 | 1.39 | 1.00 | 2.00 | 3.00 | 4.00 | 7.00 | 6,969 |
| Conscientiousness | 5.73 | 1.32 | 1.00 | 5.00 | 6.00 | 7.00 | 7.00 | 6,966 |
| Education | 13.33 | 2.57 | 0.00 | 12.00 | 12.00 | 15.00 | 20.00 | 7,693 |
| Income | 68,487.81 | 85,978.38 | -3.26 | 11,342.18 | 47,000.00 | 94,861.85 | 595,986.00 | 7,693 |

# Illustration 1: Does conscientiousness causally influence physical health?

## OLS: Does Conscientiousness Causally Influence Physical Health (At Age 50)?

| **Characteristic** | **Beta** | **t-statistic** | **95% CI** | **p-value** |
| --- | --- | --- | --- | --- |
| (Intercept) | -0.128 | -3.72 | -0.196, -0.061 | <0.001 |
| conscientiousness | 0.057 | 2.93 | 0.019, 0.095 | 0.003 |
| race | 0.228 | 5.59 | 0.148, 0.308 | <0.001 |
| sex | 0.161 | 3.95 | 0.081, 0.241 | <0.001 |
| Abbreviation: CI = Confidence Interval | | | | |
| R² = 0.027; F-statistic = 18.5; DF1 = 3; DF2 = 1,963; p-value = <0.001; No. Obs. = 1,967 | | | | |

## Discordant: Does Conscientiousness Causally Influence Physical Health (At Age 50)?

| **Characteristic** | **Beta** | **t-statistic** | **95% CI** | **p-value** |
| --- | --- | --- | --- | --- |
| (Intercept) | 0.921 | 29.9 | 0.861, 0.982 | <0.001 |
| age\_50\_physical\_health\_mean | -0.853 | -39.3 | -0.896, -0.811 | <0.001 |
| conscientiousness\_diff | 0.014 | 1.18 | -0.009, 0.036 | 0.237 |
| conscientiousness\_mean | 0.052 | 2.46 | 0.011, 0.094 | 0.014 |
| sex\_1 | 0.016 | 0.513 | -0.045, 0.078 | 0.608 |
| race\_1 | -0.048 | -1.50 | -0.110, 0.014 | 0.133 |
| sex\_2 | -0.066 | -2.10 | -0.128, -0.004 | 0.036 |
| Abbreviation: CI = Confidence Interval | | | | |
| R² = 0.454; F-statistic = 271; DF1 = 6; DF2 = 1,960; p-value = <0.001; No. Obs. = 1,967 | | | | |

# Illustration 2: Does conscientiousness causally influence mental health?

## OLS: Does Conscientiousness Causally Influence Mental Health (Depression)?

| **Characteristic** | **Beta** | **t-statistic** | **95% CI** | **p-value** |
| --- | --- | --- | --- | --- |
| (Intercept) | 0.137 | 3.84 | 0.067, 0.207 | <0.001 |
| conscientiousness | -0.146 | -7.26 | -0.186, -0.107 | <0.001 |
| race | -0.123 | -2.93 | -0.205, -0.041 | 0.003 |
| sex | -0.251 | -6.00 | -0.333, -0.169 | <0.001 |
| Abbreviation: CI = Confidence Interval | | | | |
| R² = 0.045; F-statistic = 32.2; DF1 = 3; DF2 = 2,046; p-value = <0.001; No. Obs. = 2,050 | | | | |

## OLS: Does Conscientiousness Causally Influence Mental Health (Depression) with Income and Highest Grade Level (At Age 50) as Covariates?

| **Characteristic** | **Beta** | **t-statistic** | **95% CI** | **p-value** |
| --- | --- | --- | --- | --- |
| (Intercept) | 0.017 | 0.380 | -0.072, 0.107 | 0.704 |
| conscientiousness | -0.128 | -4.72 | -0.181, -0.075 | <0.001 |
| race | -0.092 | -1.65 | -0.200, 0.017 | 0.098 |
| highest\_grade\_at\_age\_50 | -0.056 | -1.79 | -0.118, 0.005 | 0.073 |
| sex | -0.173 | -3.24 | -0.278, -0.068 | 0.001 |
| tnfi\_at\_age\_50 | -0.100 | -3.45 | -0.156, -0.043 | <0.001 |
| Abbreviation: CI = Confidence Interval | | | | |
| R² = 0.068; F-statistic = 16.4; DF1 = 5; DF2 = 1,117; p-value = <0.001; No. Obs. = 1,123 | | | | |

## Discordant: Does Conscientiousness Causally Influence Mental Health (Depression)?

| **Characteristic** | **Beta** | **t-statistic** | **95% CI** | **p-value** |
| --- | --- | --- | --- | --- |
| (Intercept) | 0.953 | 32.5 | 0.896, 1.01 | <0.001 |
| depression\_mean | 0.833 | 40.1 | 0.792, 0.874 | <0.001 |
| conscientiousness\_diff | -0.022 | -2.03 | -0.044, -0.001 | 0.043 |
| conscientiousness\_mean | 0.042 | 2.04 | 0.002, 0.083 | 0.041 |
| sex\_1 | -0.046 | -1.52 | -0.105, 0.013 | 0.129 |
| race\_1 | -0.094 | -3.16 | -0.153, -0.036 | 0.002 |
| sex\_2 | 0.072 | 2.40 | 0.013, 0.131 | 0.016 |
| Abbreviation: CI = Confidence Interval | | | | |
| R² = 0.461; F-statistic = 291; DF1 = 6; DF2 = 2,043; p-value = <0.001; No. Obs. = 2,050 | | | | |

## Discordant: Does Conscientiousness Causally Influence Mental Health (Depression) with Income and Highest Grade Level (At Age 50) as Covariates?

| **Characteristic** | **Beta** | **t-statistic** | **95% CI** | **p-value** |
| --- | --- | --- | --- | --- |
| (Intercept) | 0.963 | 19.8 | 0.867, 1.06 | <0.001 |
| depression\_mean | 0.819 | 21.9 | 0.746, 0.893 | <0.001 |
| conscientiousness\_diff | -0.027 | -1.36 | -0.067, 0.012 | 0.175 |
| highest\_grade\_at\_age\_50\_diff | 0.013 | 0.503 | -0.038, 0.064 | 0.615 |
| tnfi\_at\_age\_50\_diff | 0.006 | 0.330 | -0.032, 0.045 | 0.742 |
| conscientiousness\_mean | 0.003 | 0.097 | -0.067, 0.074 | 0.923 |
| highest\_grade\_at\_age\_50\_mean | 0.001 | 0.037 | -0.063, 0.066 | 0.971 |
| tnfi\_at\_age\_50\_mean | 0.025 | 0.700 | -0.045, 0.094 | 0.484 |
| sex\_1 | -0.098 | -2.00 | -0.194, -0.002 | 0.046 |
| race\_1 | -0.059 | -1.14 | -0.160, 0.042 | 0.253 |
| sex\_2 | 0.038 | 0.781 | -0.058, 0.134 | 0.435 |
| Abbreviation: CI = Confidence Interval | | | | |
| R² = 0.460; F-statistic = 56.7; DF1 = 10; DF2 = 665; p-value = <0.001; No. Obs. = 676 | | | | |

# Illustration 3: Does neuroticism causally influence mental health?

## OLS: Does Neuroticism Causally Influence Mental Health (Depression)?

| **Characteristic** | **Beta** | **t-statistic** | **95% CI** | **p-value** |
| --- | --- | --- | --- | --- |
| (Intercept) | 0.137 | 3.86 | 0.068, 0.207 | <0.001 |
| neuroticism | 0.185 | 8.86 | 0.144, 0.226 | <0.001 |
| race | -0.136 | -3.24 | -0.217, -0.054 | 0.001 |
| sex | -0.226 | -5.41 | -0.308, -0.144 | <0.001 |
| Abbreviation: CI = Confidence Interval | | | | |
| R² = 0.056; F-statistic = 40.7; DF1 = 3; DF2 = 2,042; p-value = <0.001; No. Obs. = 2,046 | | | | |

## OLS: Does Neuroticism Causally Influence Mental Health (Depression) with Income and Highest Grade Level (At Age 50) as Covariates?

| **Characteristic** | **Beta** | **t-statistic** | **95% CI** | **p-value** |
| --- | --- | --- | --- | --- |
| (Intercept) | 0.027 | 0.586 | -0.063, 0.117 | 0.558 |
| neuroticism | 0.154 | 5.63 | 0.100, 0.207 | <0.001 |
| race | -0.114 | -2.05 | -0.222, -0.005 | 0.041 |
| highest\_grade\_at\_age\_50 | -0.050 | -1.57 | -0.112, 0.012 | 0.116 |
| sex | -0.151 | -2.83 | -0.256, -0.046 | 0.005 |
| tnfi\_at\_age\_50 | -0.112 | -3.88 | -0.168, -0.055 | <0.001 |
| Abbreviation: CI = Confidence Interval | | | | |
| R² = 0.078; F-statistic = 18.8; DF1 = 5; DF2 = 1,119; p-value = <0.001; No. Obs. = 1,125 | | | | |

## Discordant: Does Neuroticism Causally Influence Mental Health (Depression)?

| **Characteristic** | **Beta** | **t-statistic** | **95% CI** | **p-value** |
| --- | --- | --- | --- | --- |
| (Intercept) | 0.943 | 31.9 | 0.885, 1.00 | <0.001 |
| depression\_mean | 0.828 | 39.1 | 0.787, 0.870 | <0.001 |
| neuroticism\_diff | 0.046 | 4.12 | 0.024, 0.068 | <0.001 |
| neuroticism\_mean | -0.027 | -1.29 | -0.068, 0.014 | 0.198 |
| sex\_1 | -0.031 | -1.04 | -0.090, 0.028 | 0.296 |
| race\_1 | -0.093 | -3.10 | -0.151, -0.034 | 0.002 |
| sex\_2 | 0.059 | 1.96 | 0.000, 0.118 | 0.050 |
| Abbreviation: CI = Confidence Interval | | | | |
| R² = 0.463; F-statistic = 292; DF1 = 6; DF2 = 2,039; p-value = <0.001; No. Obs. = 2,046 | | | | |

## Discordant: Does Neuroticism Causally Influence Mental Health (Depression) with Income and Highest Grade Level (At Age 50) as Covariates?

| **Characteristic** | **Beta** | **t-statistic** | **95% CI** | **p-value** |
| --- | --- | --- | --- | --- |
| (Intercept) | 0.950 | 19.7 | 0.855, 1.04 | <0.001 |
| depression\_mean | 0.804 | 21.7 | 0.731, 0.876 | <0.001 |
| neuroticism\_diff | 0.073 | 3.84 | 0.036, 0.110 | <0.001 |
| highest\_grade\_at\_age\_50\_diff | 0.006 | 0.229 | -0.044, 0.056 | 0.819 |
| tnfi\_at\_age\_50\_diff | -0.009 | -0.445 | -0.046, 0.029 | 0.656 |
| neuroticism\_mean | -0.001 | -0.038 | -0.070, 0.067 | 0.970 |
| highest\_grade\_at\_age\_50\_mean | 0.009 | 0.262 | -0.056, 0.073 | 0.793 |
| tnfi\_at\_age\_50\_mean | 0.022 | 0.648 | -0.046, 0.091 | 0.517 |
| sex\_1 | -0.107 | -2.20 | -0.202, -0.011 | 0.028 |
| race\_1 | -0.067 | -1.31 | -0.167, 0.033 | 0.190 |
| sex\_2 | 0.056 | 1.17 | -0.038, 0.151 | 0.244 |
| Abbreviation: CI = Confidence Interval | | | | |
| R² = 0.473; F-statistic = 59.8; DF1 = 10; DF2 = 666; p-value = <0.001; No. Obs. = 677 | | | | |

## Standardized