

SUPPLEMENTAL MATERIAL

Table S1. Comparison of included participants and participants excluded due to missing values in the data.

| | Included | | | Excluded | | |
|------------------------------|----------|-------|----|----------|--------|----|
| | Obs | n | % | Obs | n | % |
| Age | | | | | | |
| 20-30 | 2378 | 38 M | 20 | 918 | 7.0 M | 21 |
| 31-50 | 4437 | 65 M | 34 | 1638 | 12 M | 35 |
| 51-65 | 3719 | 53 M | 28 | 1262 | 8.2 M | 24 |
| 66+ | 2995 | 34 M | 18 | 1070 | 6.7 M | 20 |
| Race and Ethnicity | | | | | | |
| Hispanic | 3163 | 28 M | 15 | 1387 | 6.4 M | 19 |
| NH Asian | 1470 | 10 M | 5 | 740 | 2.7 M | 8 |
| NH Black | 3069 | 20 M | 11 | 1268 | 6.1 M | 18 |
| NH White | 5827 | 130 M | 69 | 1493 | 19 M | 55 |
| Income / Poverty Line | | | | | | |
| 0.00 – 1.00 | 2754 | 26 M | 14 | 892 | 3.9 M | 21 |
| 1.01 – 2.00 | 3588 | 39 M | 21 | 850 | 4.0 M | 22 |
| 2.01 – 3.00 | 2066 | 29 M | 15 | 481 | 2.7 M | 15 |
| 3.01 – 4.00 | 1531 | 25 M | 13 | 302 | 1.8 M | 10 |
| 4.01 – 5.00 | 3590 | 72 M | 38 | 699 | 5.8 M | 32 |
| Employment Status | | | | | | |
| Disabled/Health | 1188 | 13 M | 7 | 531 | 3.9 M | 12 |
| Employed | 7664 | 120 M | 63 | 2676 | 18 M | 53 |
| Homemaker | 806 | 10 M | 5 | 413 | 3.3 M | 10 |
| Retired | 2671 | 33 M | 17 | 854 | 5.7 M | 17 |
| Student | 243 | 3.1 M | 2 | 64 | 0.48 M | 1 |
| Unemployed | 957 | 12 M | 6 | 329 | 2.3 M | 7 |
| Education | | | | | | |
| HS | 5592 | 66 M | 35 | 2478 | 14 M | 41 |
| Some College | 4300 | 62 M | 32 | 1347 | 9.8 M | 29 |
| College+ | 3637 | 62 M | 33 | 1048 | 10 M | 30 |
| Health Insurance | | | | | | |
| Combination | 2108 | 27 M | 14 | 654 | 5.4 M | 16 |
| Medicaid | 1098 | 11 M | 6 | 507 | 2.9 M | 9 |
| Medicare | 1208 | 13 M | 7 | 495 | 2.6 M | 8 |
| Military | 247 | 3.3 M | 2 | 61 | 0.76 M | 2 |
| Other | 773 | 9.8 M | 5 | 260 | 1.7 M | 5 |
| Private | 5628 | 97 M | 51 | 1796 | 14 M | 41 |
| Uninsured | 2467 | 29 M | 16 | 1019 | 5.9 M | 18 |
| Sex | | | | | | |
| Female | 6990 | 97 M | 51 | 2567 | 19 M | 58 |
| Male | 6539 | 93 M | 49 | 2321 | 14 M | 42 |
| LE8 Score | | | | | | |
| Low (0-49) | 2752 | 32 M | 17 | 256 | 2.4 M | 17 |
| Moderate (50-79) | 8620 | 120 M | 63 | 863 | 9.2 M | 64 |
| High (80-100) | 2157 | 39 M | 20 | 175 | 2.6 M | 19 |

% - weighted percent, Disabled/Health – people out of work because of disability or health reasons, HS – high school, LE8 – Life’s Essential 8, M – numbers in millions, n – weighted number of Americans represented by observations, NH – non-Hispanic, NHANES – National Health and Nutrition Examination Survey, Obs – observations

Table S2. Caloric targets for each age/sex group used to adjust dietary intake values when calculating the Dietary

Approaches to Stop Hypertension score.

| <u>Age</u> | <u>Males</u> | <u>Females</u> |
|-------------------|---------------------|-----------------------|
| 2-4 years | 1300 kilocalories | 1200 kilocalories |
| 5-8 years | 1600 kilocalories | 1500 kilocalories |
| 9-13 years | 2100 kilocalories | 1800 kilocalories |
| 14-18 years | 2600 kilocalories | 2100 kilocalories |
| 19-30 years | 2700 kilocalories | 2100 kilocalories |
| 31-59 years | 2600 kilocalories | 1900 kilocalories |
| 60 or more years | 2300 kilocalories | 1900 kilocalories |

Intake of each Dietary Approaches to Stop Hypertension score food category was multiplied by the caloric target for the relevant age/sex group then divided by actual calories consumed.

Table S3. Number of NHANES observations, weighted n, and weighted percentages by SES variables, racial and ethnic group, and Life's Essential 8 score category.

| Hispanic Americans | | | | | | | | | |
|-------------------------------------|-------------------|----------|----------|-------------------------|----------|----------|----------------------|----------|----------|
| | Low (0-49) | | | Moderate (50-79) | | | High (80-100) | | |
| | Obs | n | % | Obs | n | % | Obs | n | % |
| Age | | | | | | | | | |
| 20-30 | 43 | 0.55 M | 7 | 383 | 5 M | 63 | 166 | 2.4 M | 30 |
| 31-50 | 173 | 2 M | 16 | 737 | 7.8 M | 65 | 185 | 2.2 M | 18 |
| 51-65 | 257 | 1.4 M | 25 | 640 | 4 M | 70 | 58 | 0.27 M | 5 |
| 66+ | 142 | 0.6 M | 26 | 359 | 1.6 M | 69 | 21 | 0.11 M | 5 |
| Income / Poverty Line | | | | | | | | | |
| 0.00 – 1.00 | 211 | 1.3 M | 19 | 593 | 4.7 M | 67 | 95 | 1 M | 14 |
| 1.01 – 2.00 | 196 | 1.5 M | 18 | 670 | 5.7 M | 66 | 111 | 1.4 M | 16 |
| 2.01 – 3.00 | 87 | 0.7 M | 16 | 349 | 3 M | 69 | 67 | 0.67 M | 15 |
| 3.01 – 4.00 | 55 | 0.46 M | 14 | 210 | 2.3 M | 68 | 45 | 0.61 M | 18 |
| 4.01 – 5.00 | 66 | 0.53 M | 12 | 297 | 2.8 M | 60 | 112 | 1.3 M | 28 |
| Employment Status | | | | | | | | | |
| Disabled/Health | 116 | 0.81 M | 41 | 141 | 1.1 M | 54 | 13 | 0.094 M | 5 |
| Employed | 300 | 2.6 M | 14 | 1269 | 12 M | 66 | 295 | 3.7 M | 20 |
| Homemaker | 49 | 0.25 M | 11 | 208 | 1.6 M | 68 | 57 | 0.47 M | 21 |
| Retired | 97 | 0.46 M | 23 | 297 | 1.4 M | 71 | 24 | 0.12 M | 6 |
| Student | 5 | 0.05 M | 8 | 26 | 0.3 M | 50 | 14 | 0.24 M | 41 |
| Unemployed | 48 | 0.37 M | 16 | 178 | 1.7 M | 72 | 27 | 0.29 M | 13 |
| Education Level | | | | | | | | | |
| HS or less | 424 | 3.1 M | 20 | 1318 | 11 M | 69 | 163 | 1.7 M | 11 |
| Some College | 135 | 1.1 M | 13 | 554 | 5.4 M | 66 | 144 | 1.8 M | 21 |
| College+ | 56 | 0.39 M | 9 | 246 | 2.3 M | 54 | 123 | 1.5 M | 36 |
| Health Insurance | | | | | | | | | |
| Combination | 91 | 0.47 M | 28 | 197 | 1.1 M | 64 | 19 | 0.13 M | 8 |
| Medicaid | 60 | 0.4 M | 16 | 206 | 1.8 M | 71 | 28 | 0.32 M | 13 |
| Medicare | 80 | 0.37 M | 32 | 172 | 0.71 M | 61 | 14 | 0.084 M | 7 |
| Military | 10 | 0.097 M | 37 | 15 | 0.14 M | 52 | 3 | 0.03 M | 11 |
| Other | 32 | 0.22 M | 12 | 147 | 1.2 M | 64 | 35 | 0.44 M | 24 |
| Private | 176 | 1.4 M | 13 | 702 | 7.1 M | 63 | 207 | 2.6 M | 24 |
| Uninsured | 166 | 1.5 M | 17 | 680 | 6.5 M | 69 | 124 | 1.3 M | 14 |
| Sex | | | | | | | | | |
| Female | 276 | 1.8 M | 13 | 1108 | 9 M | 65 | 298 | 3.1 M | 23 |
| Male | 339 | 2.8 M | 20 | 1011 | 9.4 M | 67 | 132 | 1.8 M | 13 |
| Non-Hispanic Asian Americans | | | | | | | | | |
| | Low (0-49) | | | Moderate (50-79) | | | High (80-100) | | |
| | Obs | n | % | Obs | n | % | Obs | n | % |
| Age | | | | | | | | | |
| 20-30 | 8 | 0.047 M | 2 | 146 | 1.2 M | 47 | 174 | 1.3 M | 51 |
| 31-50 | 43 | 0.31 M | 8 | 356 | 2.5 M | 62 | 191 | 1.2 M | 30 |
| 51-65 | 42 | 0.30 M | 12 | 275 | 1.7 M | 72 | 61 | 0.38 M | 16 |
| 66+ | 18 | 0.072 M | 7 | 131 | 0.81 M | 77 | 25 | 0.16 M | 16 |
| Income / Poverty Line | | | | | | | | | |
| 0.00 – 1.00 | 21 | 0.16 M | 12 | 100 | 0.80 M | 60 | 48 | 0.36 M | 27 |
| 1.01 – 2.00 | 30 | 0.15 M | 10 | 137 | 0.99 M | 69 | 42 | 0.29 M | 20 |
| 2.01 – 3.00 | 15 | 0.12 M | 8 | 137 | 0.95 M | 69 | 52 | 0.30 M | 22 |
| 3.01 – 4.00 | 17 | 0.11 M | 7 | 133 | 0.93 M | 60 | 72 | 0.53 M | 34 |
| 4.01 – 5.00 | 28 | 0.19 M | 4 | 401 | 2.6 M | 59 | 237 | 1.6 M | 37 |
| Employment Status | | | | | | | | | |

| | | | | | | | | | |
|-------------------------|----|----------|----|-----|--------|----|-----|---------|----|
| Disabled/Health | 7 | 0.039 M | 21 | 15 | 0.11 M | 61 | 5 | 0.033 M | 18 |
| Employed | 68 | 0.43 M | 6 | 620 | 4.4 M | 62 | 326 | 2.2 M | 32 |
| Homemaker | 7 | 0.090 M | 10 | 78 | 0.52 M | 61 | 39 | 0.24 M | 29 |
| Retired | 16 | 0.080 M | 8 | 123 | 0.75 M | 77 | 21 | 0.15 M | 15 |
| Student | 2 | 0.0043 M | 1 | 32 | 0.24 M | 50 | 30 | 0.24 M | 50 |
| Unemployed | 11 | 0.079 M | 14 | 40 | 0.28 M | 49 | 30 | 0.21 M | 37 |
| Education Level | | | | | | | | | |
| HS or less | 43 | 0.28 M | 14 | 181 | 1.4 M | 70 | 40 | 0.31 M | 16 |
| Some College | 33 | 0.24 M | 11 | 195 | 1.4 M | 63 | 73 | 0.56 M | 26 |
| College+ | 35 | 0.21 M | 4 | 532 | 3.5 M | 59 | 338 | 2.2 M | 37 |
| Health Insurance | | | | | | | | | |
| Combination | 12 | 0.051 M | 9 | 58 | 0.37 M | 69 | 13 | 0.11 M | 21 |
| Medicaid | 8 | 0.064 M | 11 | 58 | 0.37 M | 64 | 15 | 0.14 M | 25 |
| Medicare | 9 | 0.044 M | 9 | 63 | 0.41 M | 82 | 9 | 0.044 M | 9 |
| Military | 0 | 0 M | 0 | 11 | 0.11 M | 77 | 3 | 0.033 M | 23 |
| Other | 7 | 0.058 M | 8 | 59 | 0.5 M | 68 | 23 | 0.18 M | 24 |
| Private | 52 | 0.34 M | 5 | 536 | 3.6 M | 58 | 338 | 2.3 M | 37 |
| Uninsured | 23 | 0.17 M | 12 | 123 | 0.93 M | 67 | 50 | 0.29 M | 21 |
| Sex | | | | | | | | | |
| Female | 41 | 0.32 M | 6 | 422 | 3.0 M | 58 | 265 | 1.8 M | 36 |
| Male | 70 | 0.41 M | 8 | 486 | 3.3 M | 67 | 186 | 1.2 M | 25 |

Non-Hispanic Black Americans

| | Low (0-49) | | | Moderate (50-79) | | | High (80-100) | | |
|------------------------------|------------|---------|----|------------------|--------|----|---------------|---------|----|
| | Obs | n | % | Obs | n | % | Obs | n | % |
| Age | | | | | | | | | |
| 20-30 | 55 | 0.38 M | 7 | 391 | 3.7 M | 71 | 119 | 1.1 M | 21 |
| 31-50 | 240 | 1.8 M | 25 | 623 | 4.8 M | 65 | 95 | 0.72 M | 10 |
| 51-65 | 347 | 2.0 M | 37 | 599 | 3.3 M | 60 | 36 | 0.14 M | 3 |
| 66+ | 181 | 0.73 M | 31 | 352 | 1.5 M | 62 | 33 | 0.15 M | 6 |
| Income / Poverty Line | | | | | | | | | |
| 0.00 – 1.00 | 274 | 1.7 M | 32 | 451 | 3.2 M | 61 | 47 | 0.37 M | 7 |
| 1.01 – 2.00 | 248 | 1.4 M | 26 | 504 | 3.5 M | 64 | 69 | 0.54 M | 10 |
| 2.01 – 3.00 | 126 | 0.75 M | 24 | 332 | 2.0 M | 65 | 42 | 0.33 M | 11 |
| 3.01 – 4.00 | 77 | 0.46 M | 20 | 228 | 1.5 M | 68 | 40 | 0.27 M | 12 |
| 4.01 – 5.00 | 98 | 0.65 M | 16 | 450 | 2.9 M | 70 | 85 | 0.6 M | 15 |
| Employment Status | | | | | | | | | |
| Disabled/Health | 171 | 0.99 M | 47 | 170 | 1.1 M | 51 | 4 | 0.025 M | 1 |
| Employed | 369 | 2.5 M | 20 | 1175 | 8.4 M | 68 | 194 | 1.5 M | 12 |
| Homemaker | 25 | 0.16 M | 26 | 63 | 0.4 M | 65 | 7 | 0.052 M | 9 |
| Retired | 171 | 0.73 M | 31 | 337 | 1.5 M | 63 | 31 | 0.14 M | 6 |
| Student | 5 | 0.027 M | 6 | 40 | 0.31 M | 63 | 19 | 0.16 M | 31 |
| Unemployed | 82 | 0.53 M | 24 | 180 | 1.4 M | 64 | 28 | 0.27 M | 12 |
| Education Level | | | | | | | | | |
| HS or less | 476 | 2.9 M | 33 | 800 | 5.2 M | 61 | 61 | 0.47 M | 6 |
| Some College | 253 | 1.5 M | 20 | 749 | 5.2 M | 69 | 111 | 0.85 M | 11 |
| College+ | 93 | 0.58 M | 14 | 415 | 2.7 M | 67 | 111 | 0.78 M | 19 |
| Health Insurance | | | | | | | | | |
| Combination | 137 | 0.63 M | 32 | 273 | 1.3 M | 64 | 18 | 0.076 M | 4 |
| Medicaid | 120 | 0.84 M | 29 | 223 | 1.7 M | 59 | 35 | 0.32 M | 11 |
| Medicare | 100 | 0.4 M | 32 | 159 | 0.72 M | 59 | 17 | 0.11 M | 9 |
| Military | 22 | 0.18 M | 31 | 58 | 0.35 M | 60 | 6 | 0.048 M | 8 |
| Other | 49 | 0.32 M | 22 | 133 | 0.95 M | 66 | 21 | 0.17 M | 12 |
| Private | 234 | 1.5 M | 19 | 764 | 5.2 M | 67 | 142 | 1.0 M | 13 |
| Uninsured | 161 | 1.1 M | 25 | 355 | 2.9 M | 68 | 44 | 0.34 M | 8 |
| Sex | | | | | | | | | |
| Female | 402 | 2.5 M | 22 | 1057 | 7.4 M | 67 | 167 | 1.2 M | 11 |

| | | | | | | | | | |
|-------------------------------------|-------------------|----------|----------|-------------------------|----------|----------|----------------------|----------|----------|
| Male | 421 | 2.5 M | 27 | 908 | 5.7 M | 63 | 116 | 0.90 M | 10 |
| Non-Hispanic White Americans | | | | | | | | | |
| | Low (0-49) | | | Moderate (50-79) | | | High (80-100) | | |
| | Obs | n | % | Obs | n | % | Obs | n | % |
| Age | | | | | | | | | |
| 20-30 | 84 | 1.4 M | 6 | 538 | 14 M | 61 | 271 | 7.5 M | 33 |
| 31-50 | 376 | 6.1 M | 15 | 1045 | 25 M | 59 | 373 | 11 M | 26 |
| 51-65 | 395 | 9.6 M | 24 | 828 | 23 M | 58 | 181 | 6.9 M | 18 |
| 66+ | 349 | 4.5 M | 16 | 1219 | 21 M | 72 | 168 | 3.3 M | 12 |
| Income / Poverty Line | | | | | | | | | |
| 0.00 – 1.00 | 331 | 4.1 M | 32 | 495 | 6.9 M | 54 | 89 | 1.9 M | 14 |
| 1.01 – 2.00 | 433 | 6 M | 25 | 1005 | 15 M | 62 | 144 | 2.9 M | 12 |
| 2.01 – 3.00 | 175 | 3.3 M | 17 | 565 | 13 M | 67 | 120 | 3.2 M | 16 |
| 3.01 – 4.00 | 101 | 2.6 M | 15 | 418 | 11 M | 61 | 135 | 4.2 M | 24 |
| 4.01 – 5.00 | 164 | 5.5 M | 9 | 1147 | 37 M | 62 | 505 | 16 M | 28 |
| Employment Status | | | | | | | | | |
| Disabled/Health | 273 | 4.3 M | 49 | 254 | 4.0 M | 46 | 20 | 0.40 M | 5 |
| Employed | 495 | 11 M | 13 | 1889 | 50 M | 62 | 664 | 20 M | 25 |
| Homemaker | 52 | 1.0 M | 17 | 141 | 2.8 M | 45 | 80 | 2.4 M | 38 |
| Retired | 313 | 4.5 M | 16 | 1090 | 20 M | 72 | 152 | 3.2 M | 12 |
| Student | 4 | 0.043 M | 3 | 36 | 0.70 M | 45 | 30 | 0.83 M | 53 |
| Unemployed | 67 | 1.0 M | 15 | 220 | 4.1 M | 62 | 47 | 1.5 M | 22 |
| Education Level | | | | | | | | | |
| HS or less | 650 | 11 M | 27 | 1315 | 26 M | 65 | 121 | 2.9 M | 7 |
| Some College | 444 | 7.9 M | 18 | 1325 | 28 M | 65 | 284 | 7.5 M | 17 |
| College+ | 110 | 2.7 M | 6 | 990 | 27 M | 57 | 588 | 18 M | 38 |
| Health Insurance | | | | | | | | | |
| Combination | 298 | 4.1 M | 18 | 862 | 15 M | 69 | 132 | 2.9 M | 13 |
| Medicaid | 124 | 1.8 M | 34 | 195 | 2.9 M | 54 | 26 | 0.67 M | 12 |
| Medicare | 136 | 2.0 M | 20 | 404 | 7.0 M | 71 | 46 | 0.85 M | 9 |
| Military | 29 | 0.42 M | 18 | 77 | 1.4 M | 60 | 13 | 0.50 M | 22 |
| Other | 50 | 1.0 M | 17 | 174 | 3.8 M | 64 | 43 | 1.1 M | 18 |
| Private | 344 | 8.5 M | 12 | 1480 | 43 M | 60 | 653 | 20 M | 28 |
| Uninsured | 223 | 3.7 M | 25 | 438 | 8.6 M | 60 | 80 | 2.2 M | 15 |
| Sex | | | | | | | | | |
| Female | 552 | 9.8 M | 15 | 1769 | 39 M | 58 | 633 | 18 M | 27 |
| Male | 652 | 12 M | 18 | 1861 | 43 M | 66 | 360 | 10 M | 16 |

% - weighted percent, Disabled/Health – people out of work because of disability or health reasons, HS – high school, LE8 – Life’s Essential 8, M – numbers in millions, n – weighted number of Americans represented by observations, NH – non-Hispanic, NHANES – National Health and Nutrition Examination Survey, Obs – observations, SES – socioeconomic status.

Table S4. The association of socioeconomic status with Life's Essential 8 score by race and ethnic group, excluding NHANES participants with missing data

(final n=13,529).

| Education | | Unadjusted Models | | Age-Adjusted Models | | Multivariable Models | |
|----------------------------|----------|---------------------------|--------|---------------------------|--------|---------------------------|--------|
| Level | Group | Beta (CI) p | Int.p | Beta (CI) p | Int.p | Beta (CI) p | Int.p |
| HS or less vs College+ | Hispanic | 10.3 (7.7, 13.0) p<0.001 | 0.001 | 10.0 (7.5, 12.5) p<0.001 | 0.001 | 6.9 (4.3, 9.4) p<0.001 | <0.001 |
| HS or less vs College+ | NH Asian | 8.5 (5.6, 11.5) p<0.001 | <0.001 | 7.7 (5.0, 10.5) p<0.001 | <0.001 | 4.9 (2.2, 7.5) p=0.001 | <0.001 |
| HS or less vs College+ | NH Black | 9.8 (7.6, 11.9) p<0.001 | <0.001 | 9.7 (7.8, 11.7) p<0.001 | <0.001 | 5.6 (3.6, 7.6) p<0.001 | <0.001 |
| HS or less vs College+ | NH White | 15.8 (14.3, 17.3) p<0.001 | Ref | 15.4 (13.9, 16.8) p<0.001 | Ref | 12.6 (11.3, 13.9) p<0.001 | Ref |
| HS or less vs Some College | Hispanic | 5.1 (3.3, 6.9) p<0.001 | 0.342 | 4.1 (2.4, 5.8) p<0.001 | 0.179 | 2.1 (0.5, 3.7) p=0.011 | 0.040 |
| HS or less vs Some College | NH Asian | 3.3 (-0.1, 6.8) p=0.058 | 0.122 | 2.1 (-1.3, 5.6) p=0.223 | 0.059 | -0.3 (-3.4, 2.8) p=0.857 | 0.008 |
| HS or less vs Some College | NH Black | 4.8 (3.0, 6.7) p<0.001 | 0.197 | 4.1 (2.6, 5.6) p<0.001 | 0.089 | 1.6 (0.2, 3.0) p=0.027 | 0.003 |
| HS or less vs Some College | NH White | 6.1 (4.8, 7.5) p<0.001 | Ref | 5.6 (4.3, 6.8) p<0.001 | Ref | 4.2 (3.1, 5.3) p<0.001 | Ref |

| Income / Poverty Line | | Unadjusted Models | | Age-Adjusted Models | | Multivariable Models | |
|-----------------------|----------|------------------------|--------|------------------------|-------|-------------------------|-------|
| Continuous | Group | Beta (CI) p | Int.p | Beta (CI) p | Int.p | Beta (CI) p | Int.p |
| Income/Poverty Line | Hispanic | 1.4 (1.0, 1.9) p<0.001 | 0.001 | 1.6 (1.1, 2.1) p<0.001 | 0.001 | 0.2 (-0.3, 0.7) p=0.374 | 0.001 |
| Income/Poverty Line | NH Asian | 1.4 (0.8, 2.1) p<0.001 | 0.003 | 1.5 (0.9, 2.2) p<0.001 | 0.001 | 0.1 (-0.5, 0.8) p=0.661 | 0.001 |
| Income/Poverty Line | NH Black | 1.4 (1.0, 1.9) p<0.001 | <0.001 | 1.8 (1.4, 2.2) p<0.001 | 0.001 | 0.3 (-0.2, 0.9) p=0.173 | 0.001 |
| Income/Poverty Line | NH White | 2.6 (2.2, 3.1) p<0.001 | Ref | 2.9 (2.4, 3.3) p<0.001 | Ref | 1.4 (1.0, 1.8) p<0.001 | Ref |

| Employment Status | | Unadjusted Models | | Age-Adjusted Models | | Multivariable Models | |
|-----------------------------|----------|------------------------------|-------|------------------------------|--------|-----------------------------|-------|
| Level | Group | Beta (CI) p | Int.p | Beta (CI) p | Int.p | Beta (CI) p | Int.p |
| Employed vs Disabled/Health | Hispanic | -11.2 (-13.9, -8.6) p<0.001 | 0.003 | -8.1 (-10.8, -5.4) p<0.001 | 0.001 | -6.2 (-8.8, -3.6) p<0.001 | 0.032 |
| Employed vs Disabled/Health | NH Asian | -9.4 (-16.7, -2.0) p=0.014 | 0.044 | -6.4 (-13.3, 0.4) p=0.065 | 0.018 | -4.1 (-8.9, 0.6) p=0.084 | 0.030 |
| Employed vs Disabled/Health | NH Black | -10.7 (-13.0, -8.4) p<0.001 | 0.001 | -8.2 (-10.5, -6.0) p<0.001 | <0.001 | -4.1 (-6.2, -1.9) p=0.001 | 0.001 |
| Employed vs Disabled/Health | NH White | -17.1 (-19.6, -14.6) p<0.001 | Ref | -15.1 (-17.7, -12.5) p<0.001 | Ref | -10.1 (-12.8, -7.5) p<0.001 | Ref |
| Employed vs Homemaker | Hispanic | 0.7 (-1.4, 2.9) p=0.496 | 0.575 | 1.6 (-0.4, 3.5) p=0.114 | 0.951 | 1.7 (-0.4, 3.8) p=0.103 | 0.576 |
| Employed vs Homemaker | NH Asian | -0.3 (-3.5, 2.9) p=0.848 | 0.305 | 0.4 (-2.5, 3.3) p=0.773 | 0.581 | -1.0 (-4.0, 2.0) p=0.498 | 0.301 |
| Employed vs Homemaker | NH Black | -3.2 (-7.7, 1.2) p=0.150 | 0.099 | -4.4 (-8.9, 0.0) p=0.052 | 0.052 | -0.9 (-4.9, 3.1) p=0.662 | 0.523 |
| Employed vs Homemaker | NH White | 1.8 (-1.1, 4.7) p=0.214 | Ref | 1.4 (-1.3, 4.2) p=0.299 | Ref | 0.7 (-1.7, 3.1) p=0.533 | Ref |
| Employed vs Retired | Hispanic | -6.2 (-8.3, -4.1) p<0.001 | 0.193 | 0.4 (-1.7, 2.5) p=0.696 | 0.350 | 0.1 (-2.1, 2.3) p=0.922 | 0.139 |

| | | | | | | | |
|-------------------------------|----------|---------------------------|-------|---------------------------|-------|--------------------------|-------|
| Employed vs Retired | NH Asian | -4.5 (-7.3, -1.6) p=0.003 | 0.879 | 1.9 (-0.9, 4.6) p=0.177 | 0.803 | 2.9 (-0.5, 6.3) p=0.094 | 0.568 |
| Employed vs Retired | NH Black | -5.3 (-7.2, -3.4) p<0.001 | 0.562 | 1.2 (-0.9, 3.3) p=0.256 | 0.773 | 2.0 (-0.1, 4.1) p=0.060 | 0.940 |
| Employed vs Retired | NH White | -4.7 (-6.1, -3.3) p<0.001 | Ref | 1.5 (-0.3, 3.3) p=0.106 | Ref | 1.9 (0.3, 3.5) p=0.018 | Ref |
| Employed vs Student | Hispanic | 6.7 (1.8, 11.5) p=0.008 | 0.329 | 3.6 (-1.3, 8.5) p=0.148 | 0.469 | 2.1 (-2.8, 7.1) p=0.386 | 0.159 |
| Employed vs Student | NH Asian | 7.1 (3.2, 11.0) p=0.001 | 0.345 | 3.5 (-0.5, 7.4) p=0.086 | 0.406 | 5.2 (1.4, 9.0) p=0.010 | 0.556 |
| Employed vs Student | NH Black | 9.8 (4.5, 15.1) p=0.001 | 0.945 | 6.6 (2.0, 11.1) p=0.006 | 0.828 | 8.1 (3.7, 12.6) p=0.001 | 0.692 |
| Employed vs Student | NH White | 10.0 (4.6, 15.5) p=0.001 | Ref | 6.0 (1.1, 10.9) p=0.018 | Ref | 7.0 (1.8, 12.2) p=0.010 | Ref |
| Employed vs Unemployed | Hispanic | -3.6 (-6.3, -0.9) p=0.009 | 0.101 | -3.7 (-6.3, -1.2) p=0.006 | 0.088 | -2.0 (-4.4, 0.4) p=0.105 | 0.109 |
| Employed vs Unemployed | NH Asian | -1.4 (-6.3, 3.6) p=0.585 | 0.864 | -2.0 (-7.0, 3.0) p=0.428 | 0.678 | -1.6 (-6.3, 3.1) p=0.485 | 0.363 |
| Employed vs Unemployed | NH Black | -0.3 (-2.8, 2.2) p=0.813 | 0.671 | -0.9 (-3.2, 1.5) p=0.453 | 0.985 | 2.4 (0.4, 4.5) p=0.020 | 0.143 |
| Employed vs Unemployed | NH White | -0.9 (-3.0, 1.2) p=0.384 | Ref | -0.9 (-3.2, 1.4) p=0.428 | Ref | 0.6 (-1.5, 2.7) p=0.561 | Ref |

| Health Insurance | | Unadjusted Models | | Age-Adjusted Models | | Multivariable Models | |
|-------------------------------|--------------|-----------------------------|--------------|-----------------------------|--------------|-----------------------------|--------------|
| Level | Group | Beta (CI) p | Int.p | Beta (CI) p | Int.p | Beta (CI) p | Int.p |
| Private vs Combination | Hispanic | -9.6 (-12.7, -6.4) p<0.001 | 0.057 | -2.5 (-6.1, 1.1) p=0.163 | 0.089 | 2.6 (-1.0, 6.2) p=0.146 | 0.749 |
| Private vs Combination | NH Asian | -5.6 (-10.1, -1.0) p=0.018 | 0.803 | 1.5 (-3.0, 6.1) p=0.491 | 0.756 | 4.0 (-0.6, 8.6) p=0.088 | 0.753 |
| Private vs Combination | NH Black | -7.2 (-9.2, -5.2) p<0.001 | 0.323 | -1.3 (-3.3, 0.6) p=0.178 | 0.067 | 3.2 (1.2, 5.1) p=0.003 | 0.974 |
| Private vs Combination | NH White | -6.2 (-7.6, -4.7) p<0.001 | Ref | 0.8 (-1.0, 2.6) p=0.363 | Ref | 3.2 (1.8, 4.6) p<0.001 | Ref |
| Private vs Medicaid | Hispanic | -4.8 (-7.1, -2.4) p<0.001 | 0.003 | -4.8 (-6.9, -2.7) p<0.001 | <0.001 | 0.1 (-2.4, 2.5) p=0.937 | 0.014 |
| Private vs Medicaid | NH Asian | -5.0 (-10.8, 0.8) p=0.089 | 0.045 | -5.0 (-10.1, 0.1) p=0.054 | 0.007 | 2.8 (-3.1, 8.6) p=0.338 | 0.022 |
| Private vs Medicaid | NH Black | -4.1 (-6.4, -1.8) p=0.001 | 0.003 | -5.9 (-8.1, -3.6) p<0.001 | 0.003 | 0.4 (-1.8, 2.6) p=0.714 | 0.015 |
| Private vs Medicaid | NH White | -11.4 (-14.9, -7.8) p<0.001 | Ref | -12.8 (-16.0, -9.6) p<0.001 | Ref | -4.3 (-7.1, -1.5) p=0.004 | Ref |
| Private vs Medicare | Hispanic | -9.9 (-12.4, -7.3) p<0.001 | 0.607 | -2.8 (-5.3, -0.3) p=0.029 | 0.732 | 3.4 (0.5, 6.2) p=0.024 | 0.336 |
| Private vs Medicare | NH Asian | -7.8 (-10.6, -5.0) p<0.001 | 0.466 | 0.2 (-2.5, 3.0) p=0.870 | 0.148 | 3.2 (0.8, 5.7) p=0.013 | 0.328 |
| Private vs Medicare | NH Black | -6.2 (-8.3, -4.1) p<0.001 | 0.048 | -0.0 (-2.1, 2.0) p=0.969 | 0.114 | 5.4 (3.4, 7.3) p<0.001 | 0.004 |
| Private vs Medicare | NH White | -9.0 (-11.0, -7.0) p<0.001 | Ref | -2.2 (-4.6, 0.2) p=0.066 | Ref | 1.7 (-0.4, 3.7) p=0.105 | Ref |
| Private vs Military | Hispanic | -10.4 (-17.3, -3.5) p=0.004 | 0.217 | -8.9 (-16.6, -1.2) p=0.024 | 0.316 | -5.9 (-12.5, 0.7) p=0.078 | 0.113 |
| Private vs Military | NH Asian | 1.6 (-5.0, 8.1) p=0.629 | 0.082 | 3.1 (-1.6, 7.8) p=0.186 | 0.019 | 6.9 (0.5, 13.4) p=0.036 | 0.033 |
| Private vs Military | NH Black | -6.0 (-11.8, -0.2) p=0.044 | 0.845 | -4.0 (-9.4, 1.5) p=0.150 | 0.879 | -1.7 (-7.0, 3.6) p=0.521 | 0.701 |
| Private vs Military | NH White | -5.2 (-10.1, -0.4) p=0.034 | Ref | -4.5 (-9.1, 0.0) p=0.051 | Ref | -0.4 (-3.3, 2.5) p=0.766 | Ref |
| Private vs Other | Hispanic | 0.4 (-2.1, 3.0) p=0.729 | 0.005 | 1.0 (-1.3, 3.4) p=0.364 | 0.001 | 2.3 (-0.3, 4.9) p=0.078 | 0.012 |
| Private vs Other | NH Asian | -3.4 (-7.0, 0.2) p=0.062 | 0.260 | -2.5 (-6.5, 1.6) p=0.222 | 0.100 | 1.2 (-2.3, 4.6) p=0.492 | 0.048 |
| Private vs Other | NH Black | -0.4 (-2.8, 1.9) p=0.722 | 0.005 | -0.5 (-2.8, 1.8) p=0.689 | 0.002 | 3.2 (0.9, 5.6) p=0.010 | 0.002 |
| Private vs Other | NH White | -5.9 (-8.7, -3.0) p<0.001 | Ref | -6.3 (-9.1, -3.5) p<0.001 | Ref | -2.9 (-5.5, -0.3) p=0.028 | Ref |

| | | | | | | | |
|-----------------------------|----------|----------------------------|-------|----------------------------|-------|---------------------------|-------|
| Private vs Uninsured | Hispanic | -4.1 (-6.2, -2.0) p<0.001 | 0.027 | -4.9 (-6.9, -2.9) p<0.001 | 0.018 | -0.5 (-2.6, 1.7) p=0.672 | 0.082 |
| Private vs Uninsured | NH Asian | -6.2 (-10.1, -2.3) p=0.003 | 0.452 | -6.9 (-10.6, -3.2) p=0.001 | 0.356 | -2.0 (-5.3, 1.3) p=0.221 | 0.548 |
| Private vs Uninsured | NH Black | -2.0 (-4.1, 0.2) p=0.068 | 0.001 | -3.6 (-5.7, -1.5) p=0.001 | 0.001 | 0.8 (-1.3, 2.8) p=0.440 | 0.015 |
| Private vs Uninsured | NH White | -7.8 (-10.1, -5.5) p<0.001 | Ref | -8.7 (-10.9, -6.6) p<0.001 | Ref | -3.0 (-4.9, -1.1) p=0.003 | Ref |

CI – 95% confidence interval, HS – high school, Int.p – race interaction p-value, NH – non-Hispanic, NHANES – National Health and Nutrition Examination Survey. Multivariable models are adjusted for age, sex, and socioeconomic status variables not included in interaction term. Example Interpretation: there is a significantly greater magnitude of positive association of education level with Life’s Essential 8 among NHWA than other groups (likelihood ratio test p < 0.001). There is a significantly greater magnitude of positive association of income level with Life’s Essential 8 among non-Hispanic White Americans than other groups (likelihood ratio test p < 0.001). There is a significantly greater magnitude of negative association of having a disability or health issue that prevents work with Life’s Essential 8 among non-Hispanic White Americans than other groups (likelihood ratio test p < 0.001). There is a significantly greater magnitude of negative association of having Medicaid insurance with Life’s Essential 8 among non-Hispanic White Americans than other groups (likelihood ratio test p < 0.001).

Table S5. The association of socioeconomic status with Life's Essential 8 score by race and ethnic group, imputing missing data (final n=18,417).

| Education | | Unadjusted Models | | Age-Adjusted Models | | Multivariable Models | |
|----------------------------|----------|---------------------------|--------|---------------------------|--------|---------------------------|--------|
| Level | Group | Beta (CI) p | Int.p | Beta (CI) p | Int.p | Beta (CI) p | Int.p |
| HS or less vs College+ | Hispanic | 9.8 (7.4, 12.2) p<0.001 | <0.001 | 9.6 (7.3, 11.8) p<0.001 | <0.001 | 6.5 (4.3, 8.8) p<0.001 | <0.001 |
| HS or less vs College+ | NH Asian | 8.7 (6.4, 11.0) p<0.001 | <0.001 | 7.7 (5.5, 9.9) p<0.001 | <0.001 | 4.9 (2.8, 7.0) p<0.001 | <0.001 |
| HS or less vs College+ | NH Black | 10.1 (8.3, 11.8) p<0.001 | <0.001 | 10.1 (8.4, 11.7) p<0.001 | <0.001 | 6.1 (4.4, 7.7) p<0.001 | <0.001 |
| HS or less vs College+ | NH White | 15.3 (14.0, 16.6) p<0.001 | Ref | 14.8 (13.6, 16.1) p<0.001 | Ref | 12.2 (11.1, 13.3) p<0.001 | Ref |
| HS or less vs Some College | Hispanic | 4.7 (3.1, 6.2) p<0.001 | 0.352 | 3.7 (2.2, 5.2) p<0.001 | 0.180 | 1.8 (0.3, 3.2) p=0.018 | 0.049 |
| HS or less vs Some College | NH Asian | 3.0 (0.3, 5.7) p=0.029 | 0.075 | 1.7 (-1.0, 4.4) p=0.208 | 0.027 | -0.6 (-3.1, 1.8) p=0.593 | 0.002 |
| HS or less vs Some College | NH Black | 5.0 (3.4, 6.6) p<0.001 | 0.484 | 4.2 (3.0, 5.5) p<0.001 | 0.321 | 1.8 (0.6, 3.0) p=0.006 | 0.014 |
| HS or less vs Some College | NH White | 5.5 (4.4, 6.7) p<0.001 | Ref | 4.9 (3.9, 5.9) p<0.001 | Ref | 3.5 (2.6, 4.5) p<0.001 | Ref |

| Income / Poverty Line | | Unadjusted Models | | Age-Adjusted Models | | Multivariable Models | |
|-----------------------|----------|------------------------|--------|------------------------|--------|-------------------------|--------|
| Continuous | Group | Beta (CI) p | Int.p | Beta (CI) p | Int.p | Beta (CI) p | Int.p |
| Income/Poverty Line | Hispanic | 1.3 (0.8, 1.7) p<0.001 | <0.001 | 1.4 (1.0, 1.8) p<0.001 | <0.001 | 0.1 (-0.3, 0.6) p=0.527 | <0.001 |
| Income/Poverty Line | NH Asian | 1.4 (0.9, 1.9) p<0.001 | 0.001 | 1.5 (1.0, 2.0) p<0.001 | <0.001 | 0.1 (-0.4, 0.6) p=0.763 | <0.001 |
| Income/Poverty Line | NH Black | 1.3 (0.9, 1.8) p<0.001 | <0.001 | 1.7 (1.3, 2.1) p<0.001 | <0.001 | 0.3 (-0.1, 0.8) p=0.175 | <0.001 |
| Income/Poverty Line | NH White | 2.6 (2.1, 3.0) p<0.001 | Ref | 2.8 (2.4, 3.2) p<0.001 | Ref | 1.3 (0.9, 1.7) p<0.001 | Ref |

| Employment Status | | Unadjusted Models | | Age-Adjusted Models | | Multivariable Models | |
|-----------------------------|----------|------------------------------|-------|------------------------------|--------|----------------------------|-------|
| Level | Group | Beta (CI) p | Int.p | Beta (CI) p | Int.p | Beta (CI) p | Int.p |
| Employed vs Disabled/Health | Hispanic | -11.3 (-13.6, -9.0) p<0.001 | 0.005 | -8.2 (-10.6, -5.8) p<0.001 | 0.001 | -6.4 (-8.9, -4.0) p<0.001 | 0.065 |
| Employed vs Disabled/Health | NH Asian | -9.3 (-14.7, -3.8) p=0.001 | 0.018 | -6.4 (-11.6, -1.2) p=0.017 | 0.006 | -2.5 (-7.0, 2.0) p=0.261 | 0.011 |
| Employed vs Disabled/Health | NH Black | -10.4 (-12.6, -8.1) p<0.001 | 0.001 | -7.9 (-10.1, -5.8) p<0.001 | <0.001 | -4.4 (-6.5, -2.2) p<0.001 | 0.003 |
| Employed vs Disabled/Health | NH White | -16.2 (-18.4, -14.0) p<0.001 | Ref | -14.2 (-16.4, -12.0) p<0.001 | Ref | -9.5 (-11.8, -7.2) p<0.001 | Ref |
| Employed vs Homemaker | Hispanic | 1.9 (-0.2, 3.9) p=0.072 | 0.620 | 2.5 (0.6, 4.4) p=0.011 | 0.246 | 2.4 (0.5, 4.2) p=0.013 | 0.137 |
| Employed vs Homemaker | NH Asian | 0.6 (-2.1, 3.3) p=0.638 | 0.859 | 1.2 (-1.3, 3.6) p=0.341 | 0.713 | 0.1 (-2.4, 2.6) p=0.950 | 0.972 |
| Employed vs Homemaker | NH Black | -1.5 (-5.2, 2.2) p=0.418 | 0.328 | -2.3 (-5.9, 1.4) p=0.214 | 0.264 | 0.2 (-3.1, 3.5) p=0.924 | 0.949 |
| Employed vs Homemaker | NH White | 1.0 (-1.8, 3.8) p=0.480 | Ref | 0.5 (-2.2, 3.1) p=0.717 | Ref | 0.0 (-2.2, 2.3) p=0.983 | Ref |

| | | | | | | | |
|-------------------------------|----------|---------------------------|-------|---------------------------|-------|--------------------------|-------|
| Employed vs Retired | Hispanic | -5.8 (-7.4, -4.2) p<0.001 | 0.426 | 0.8 (-1.0, 2.6) p=0.364 | 0.763 | 0.5 (-1.3, 2.2) p=0.604 | 0.156 |
| Employed vs Retired | NH Asian | -5.1 (-7.3, -2.8) p<0.001 | 0.943 | 1.3 (-0.9, 3.4) p=0.253 | 0.897 | 2.6 (0.0, 5.2) p=0.050 | 0.569 |
| Employed vs Retired | NH Black | -4.7 (-6.3, -3.1) p<0.001 | 0.759 | 1.7 (-0.1, 3.4) p=0.061 | 0.535 | 2.2 (0.3, 4.0) p=0.025 | 0.769 |
| Employed vs Retired | NH White | -5.0 (-6.3, -3.6) p<0.001 | Ref | 1.1 (-0.6, 2.8) p=0.188 | Ref | 1.9 (0.4, 3.4) p=0.017 | Ref |
| Employed vs Student | Hispanic | 6.6 (1.7, 11.5) p=0.010 | 0.435 | 3.6 (-1.3, 8.5) p=0.148 | 0.641 | 2.2 (-2.7, 7.1) p=0.366 | 0.231 |
| Employed vs Student | NH Asian | 6.7 (3.5, 9.9) p<0.001 | 0.382 | 3.0 (-0.2, 6.3) p=0.069 | 0.453 | 4.5 (1.4, 7.7) p=0.007 | 0.564 |
| Employed vs Student | NH Black | 9.6 (5.2, 14.1) p<0.001 | 0.851 | 6.4 (2.6, 10.2) p=0.002 | 0.573 | 8.0 (4.3, 11.7) p<0.001 | 0.463 |
| Employed vs Student | NH White | 9.1 (4.3, 14.0) p<0.001 | Ref | 5.1 (0.6, 9.5) p=0.026 | Ref | 6.1 (1.3, 10.9) p=0.014 | Ref |
| Employed vs Unemployed | Hispanic | -2.8 (-5.1, -0.5) p=0.020 | 0.639 | -3.0 (-5.2, -0.7) p=0.011 | 0.562 | -1.3 (-3.5, 0.8) p=0.207 | 0.754 |
| Employed vs Unemployed | NH Asian | -0.3 (-4.0, 3.4) p=0.867 | 0.387 | -1.0 (-4.7, 2.7) p=0.591 | 0.595 | -0.1 (-3.5, 3.2) p=0.932 | 0.695 |
| Employed vs Unemployed | NH Black | -0.6 (-2.8, 1.7) p=0.620 | 0.274 | -1.2 (-3.3, 0.9) p=0.247 | 0.505 | 1.9 (-0.1, 3.9) p=0.059 | 0.029 |
| Employed vs Unemployed | NH White | -2.1 (-4.1, -0.1) p=0.040 | Ref | -2.1 (-4.2, 0.0) p=0.052 | Ref | -0.9 (-2.8, 1.1) p=0.362 | Ref |

| Health Insurance | | Unadjusted Models | | Age-Adjusted Models | | Multivariable Models | |
|-------------------------------|----------|-----------------------------|--------|-----------------------------|--------|---------------------------|-------|
| Level | Group | Beta (CI) p | Int.p | Beta (CI) p | Int.p | Beta (CI) p | Int.p |
| Private vs Combination | Hispanic | -9.4 (-11.9, -6.8) p<0.001 | 0.051 | -2.8 (-5.7, 0.0) p=0.052 | 0.075 | 2.0 (-1.0, 4.9) p=0.178 | 0.719 |
| Private vs Combination | NH Asian | -7.0 (-10.5, -3.5) p<0.001 | 0.792 | 0.2 (-3.2, 3.5) p=0.928 | 0.950 | 3.2 (-0.4, 6.8) p=0.076 | 0.696 |
| Private vs Combination | NH Black | -6.8 (-8.5, -5.1) p<0.001 | 0.729 | -1.4 (-3.1, 0.2) p=0.082 | 0.126 | 3.0 (1.3, 4.7) p=0.001 | 0.577 |
| Private vs Combination | NH White | -6.5 (-7.8, -5.2) p<0.001 | Ref | 0.0 (-1.5, 1.5) p=0.957 | Ref | 2.5 (1.3, 3.7) p<0.001 | Ref |
| Private vs Medicaid | Hispanic | -3.4 (-5.6, -1.2) p=0.003 | <0.001 | -3.6 (-5.7, -1.5) p=0.001 | <0.001 | 0.9 (-1.3, 3.2) p=0.409 | 0.001 |
| Private vs Medicaid | NH Asian | -4.2 (-8.9, 0.5) p=0.077 | 0.011 | -3.9 (-8.3, 0.5) p=0.081 | 0.001 | 3.4 (-1.1, 8.0) p=0.132 | 0.002 |
| Private vs Medicaid | NH Black | -3.1 (-5.3, -1.0) p=0.005 | <0.001 | -4.6 (-6.7, -2.6) p<0.001 | <0.001 | 1.5 (-0.6, 3.6) p=0.149 | 0.001 |
| Private vs Medicaid | NH White | -11.2 (-14.2, -8.2) p<0.001 | Ref | -12.6 (-15.3, -9.9) p<0.001 | Ref | -4.6 (-6.9, -2.2) p<0.001 | Ref |
| Private vs Medicare | Hispanic | -10.2 (-12.5, -7.9) p<0.001 | 0.360 | -3.4 (-6.0, -0.9) p=0.009 | 0.454 | 2.6 (0.2, 5.0) p=0.037 | 0.478 |
| Private vs Medicare | NH Asian | -7.2 (-9.9, -4.5) p<0.001 | 0.302 | 0.5 (-2.1, 3.2) p=0.682 | 0.073 | 3.5 (1.1, 5.9) p=0.006 | 0.160 |
| Private vs Medicare | NH Black | -7.0 (-8.8, -5.2) p<0.001 | 0.109 | -1.1 (-3.0, 0.9) p=0.270 | 0.297 | 4.1 (2.4, 5.8) p<0.001 | 0.012 |
| Private vs Medicare | NH White | -8.8 (-10.6, -7.1) p<0.001 | Ref | -2.2 (-4.3, -0.2) p=0.033 | Ref | 1.5 (-0.4, 3.3) p=0.119 | Ref |
| Private vs Military | Hispanic | -9.8 (-16.5, -3.1) p=0.005 | 0.191 | -8.5 (-15.7, -1.3) p=0.023 | 0.267 | -5.8 (-11.9, 0.3) p=0.060 | 0.152 |
| Private vs Military | NH Asian | 1.5 (-4.2, 7.1) p=0.596 | 0.094 | 3.6 (-0.0, 7.3) p=0.053 | 0.009 | 6.6 (1.2, 12.0) p=0.019 | 0.017 |
| Private vs Military | NH Black | -6.4 (-11.5, -1.4) p=0.014 | 0.569 | -4.6 (-9.4, 0.3) p=0.063 | 0.843 | -2.3 (-7.0, 2.4) p=0.321 | 0.700 |
| Private vs Military | NH White | -4.6 (-9.5, 0.3) p=0.067 | Ref | -3.9 (-8.6, 0.8) p=0.100 | Ref | -1.2 (-4.5, 2.1) p=0.460 | Ref |
| Private vs Other | Hispanic | 0.8 (-1.5, 3.1) p=0.483 | 0.003 | 1.3 (-0.8, 3.4) p=0.210 | <0.001 | 2.6 (0.5, 4.8) p=0.018 | 0.004 |
| Private vs Other | NH Asian | -3.7 (-7.0, -0.4) p=0.030 | 0.414 | -3.0 (-6.4, 0.5) p=0.090 | 0.180 | 1.0 (-2.2, 4.3) p=0.516 | 0.063 |
| Private vs Other | NH Black | -0.7 (-2.9, 1.6) p=0.554 | 0.014 | -0.9 (-3.2, 1.3) p=0.393 | 0.009 | 2.7 (0.6, 4.8) p=0.012 | 0.001 |
| Private vs Other | NH White | -5.4 (-8.3, -2.6) p=0.001 | Ref | -5.7 (-8.5, -3.0) p<0.001 | Ref | -2.6 (-4.8, -0.3) p=0.027 | Ref |

| | | | | | | | |
|-----------------------------|----------|----------------------------|--------|----------------------------|--------|---------------------------|-------|
| Private vs Uninsured | Hispanic | -2.9 (-4.7, -1.0) p=0.003 | 0.001 | -3.6 (-5.4, -1.9) p<0.001 | <0.001 | 0.3 (-1.6, 2.2) p=0.732 | 0.004 |
| Private vs Uninsured | NH Asian | -6.1 (-9.2, -3.0) p<0.001 | 0.294 | -6.4 (-9.4, -3.3) p<0.001 | 0.149 | -1.4 (-4.3, 1.4) p=0.315 | 0.180 |
| Private vs Uninsured | NH Black | -2.7 (-4.4, -1.0) p=0.003 | <0.001 | -4.1 (-5.7, -2.4) p<0.001 | <0.001 | 0.4 (-1.2, 2.1) p=0.601 | 0.003 |
| Private vs Uninsured | NH White | -8.1 (-10.2, -5.9) p<0.001 | Ref | -9.0 (-10.9, -7.0) p<0.001 | Ref | -3.5 (-5.2, -1.8) p<0.001 | Ref |

CI – 95% confidence interval, HS – high school, Int.p – race interaction p-value, NH – non-Hispanic. Multivariable models are adjusted for age, sex, and socioeconomic status variables not included in interaction term. Example Interpretation: there is a significantly greater magnitude of positive association of education level with Life’s Essential 8 among non-Hispanic White Americans than other groups (likelihood ratio test $p < 0.001$). There is a significantly greater magnitude of positive association of income level with Life’s Essential 8 among non-Hispanic White Americans than other groups (likelihood ratio test $p < 0.001$). There is a significantly greater magnitude of negative association of having a disability or health issue that prevents work with Life’s Essential 8 among non-Hispanic White Americans than other groups (likelihood ratio test $p < 0.001$). There is a significantly greater magnitude of negative association of having Medicaid insurance with Life’s Essential 8 among non-Hispanic White Americans than other groups (likelihood ratio test $p < 0.001$).

Table S6. The association of socioeconomic status with Life's Essential 8 score by race and ethnic group, excluding NHANES participants with missing data or history of CVD (final n=12,157).

| Education | | Unadjusted Models | | Age-Adjusted Models | | Multivariable Models | |
|----------------------------|----------|---------------------------|--------|---------------------------|--------|---------------------------|--------|
| Level | Group | Beta (CI) p | Int.p | Beta (CI) p | Int.p | Beta (CI) p | Int.p |
| HS or less vs College+ | Hispanic | 10.1 (7.5, 12.7) p<0.001 | 0.001 | 9.9 (7.5, 12.4) p<0.001 | 0.001 | 7.0 (4.5, 9.5) p<0.001 | <0.001 |
| HS or less vs College+ | NH Asian | 8.5 (5.5, 11.4) p<0.001 | <0.001 | 7.7 (4.9, 10.5) p<0.001 | <0.001 | 5.1 (2.3, 7.9) p=0.001 | <0.001 |
| HS or less vs College+ | NH Black | 9.2 (7.0, 11.4) p<0.001 | <0.001 | 9.4 (7.4, 11.5) p<0.001 | <0.001 | 5.5 (3.5, 7.5) p<0.001 | <0.001 |
| HS or less vs College+ | NH White | 15.5 (13.9, 17.0) p<0.001 | Ref | 15.3 (13.7, 16.8) p<0.001 | Ref | 12.7 (11.2, 14.1) p<0.001 | Ref |
| HS or less vs Some College | Hispanic | 5.0 (3.1, 6.8) p<0.001 | 0.337 | 4.1 (2.4, 5.8) p<0.001 | 0.160 | 2.2 (0.6, 3.8) p=0.009 | 0.045 |
| HS or less vs Some College | NH Asian | 3.2 (-0.2, 6.6) p=0.065 | 0.127 | 2.1 (-1.3, 5.5) p=0.223 | 0.057 | -0.1 (-3.2, 3.0) p=0.947 | 0.012 |
| HS or less vs Some College | NH Black | 4.4 (2.6, 6.2) p<0.001 | 0.100 | 3.7 (2.4, 5.1) p<0.001 | 0.027 | 1.3 (-0.0, 2.7) p=0.053 | 0.001 |
| HS or less vs Some College | NH White | 6.0 (4.6, 7.4) p<0.001 | Ref | 5.6 (4.3, 6.9) p<0.001 | Ref | 4.3 (3.1, 5.4) p<0.001 | Ref |

| Income / Poverty Line | | Unadjusted Models | | Age-Adjusted Models | | Multivariable Models | |
|-----------------------|----------|------------------------|-------|------------------------|-------|-------------------------|-------|
| Continuous | Group | Beta (CI) p | Int.p | Beta (CI) p | Int.p | Beta (CI) p | Int.p |
| Income/Poverty Line | Hispanic | 1.3 (0.8, 1.8) p<0.001 | 0.005 | 1.5 (1.0, 2.1) p<0.001 | 0.001 | 0.2 (-0.3, 0.7) p=0.451 | 0.002 |
| Income/Poverty Line | NH Asian | 1.5 (0.8, 2.1) p<0.001 | 0.014 | 1.6 (0.9, 2.2) p<0.001 | 0.002 | 0.2 (-0.4, 0.9) p=0.469 | 0.003 |
| Income/Poverty Line | NH Black | 1.2 (0.8, 1.7) p<0.001 | 0.001 | 1.7 (1.2, 2.1) p<0.001 | 0.001 | 0.3 (-0.2, 0.8) p=0.262 | 0.001 |
| Income/Poverty Line | NH White | 2.4 (1.9, 2.9) p<0.001 | Ref | 2.8 (2.3, 3.2) p<0.001 | Ref | 1.3 (0.9, 1.7) p<0.001 | Ref |

| Employment Status | | Unadjusted Models | | Age-Adjusted Models | | Multivariable Models | |
|-----------------------------|----------|------------------------------|-------|------------------------------|-------|-----------------------------|-------|
| Level | Group | Beta (CI) p | Int.p | Beta (CI) p | Int.p | Beta (CI) p | Int.p |
| Employed vs Disabled/Health | Hispanic | -11.6 (-14.9, -8.4) p<0.001 | 0.025 | -9.1 (-12.3, -5.8) p<0.001 | 0.011 | -7.3 (-10.5, -4.1) p<0.001 | 0.184 |
| Employed vs Disabled/Health | NH Asian | -5.2 (-14.6, 4.2) p=0.269 | 0.020 | -3.2 (-12.4, 5.9) p=0.478 | 0.015 | -5.1 (-12.1, 2.0) p=0.152 | 0.182 |
| Employed vs Disabled/Health | NH Black | -9.9 (-12.3, -7.4) p<0.001 | 0.002 | -7.7 (-10.1, -5.4) p<0.001 | 0.001 | -3.7 (-6.2, -1.2) p=0.005 | 0.002 |
| Employed vs Disabled/Health | NH White | -16.5 (-19.2, -13.7) p<0.001 | Ref | -14.8 (-17.6, -12.0) p<0.001 | Ref | -10.0 (-12.9, -7.1) p<0.001 | Ref |
| Employed vs Homemaker | Hispanic | 0.9 (-1.4, 3.3) p=0.419 | 0.857 | 1.7 (-0.4, 3.8) p=0.116 | 0.685 | 1.7 (-0.6, 3.9) p=0.141 | 0.416 |
| Employed vs Homemaker | NH Asian | -0.4 (-3.7, 3.0) p=0.830 | 0.432 | 0.3 (-2.6, 3.3) p=0.824 | 0.753 | -1.3 (-4.4, 1.8) p=0.388 | 0.384 |
| Employed vs Homemaker | NH Black | -2.4 (-6.5, 1.7) p=0.242 | 0.203 | -3.6 (-7.8, 0.5) p=0.080 | 0.110 | -0.3 (-4.0, 3.4) p=0.873 | 0.845 |
| Employed vs Homemaker | NH White | 1.3 (-1.7, 4.3) p=0.378 | Ref | 0.9 (-1.9, 3.7) p=0.507 | Ref | 0.2 (-2.3, 2.6) p=0.880 | Ref |
| Employed vs Retired | Hispanic | -5.8 (-8.1, -3.6) p<0.001 | 0.171 | 0.6 (-1.7, 2.9) p=0.590 | 0.290 | -0.1 (-2.5, 2.3) p=0.942 | 0.139 |
| Employed vs Retired | NH Asian | -4.1 (-7.0, -1.1) p=0.009 | 0.935 | 2.1 (-0.8, 5.0) p=0.146 | 0.866 | 3.2 (-0.1, 6.5) p=0.059 | 0.426 |
| Employed vs Retired | NH Black | -4.1 (-6.3, -2.0) p<0.001 | 0.960 | 2.3 (-0.1, 4.6) p=0.059 | 0.707 | 2.6 (0.4, 4.9) p=0.021 | 0.483 |

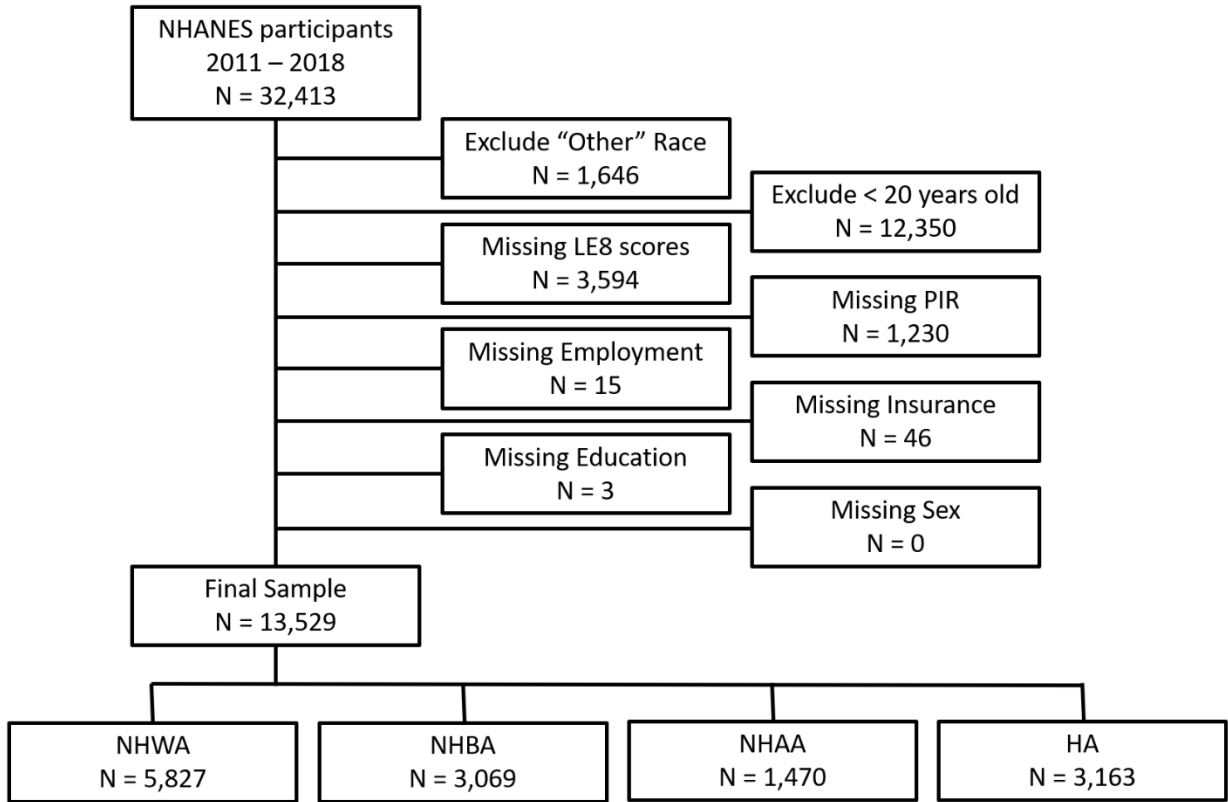
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|-------------------------------|----------|---------------------------|-------|---------------------------|-------|--------------------------|-------|
| Employed vs Retired | NH White | -4.2 (-5.6, -2.8) p<0.001 | Ref | 1.8 (-0.0, 3.7) p=0.052 | Ref | 1.9 (0.3, 3.5) p=0.023 | Ref |
| Employed vs Student | Hispanic | 6.6 (1.7, 11.4) p=0.009 | 0.374 | 3.6 (-1.4, 8.5) p=0.151 | 0.511 | 2.0 (-2.9, 6.9) p=0.408 | 0.185 |
| Employed vs Student | NH Asian | 6.9 (3.0, 10.8) p=0.001 | 0.381 | 3.4 (-0.6, 7.4) p=0.096 | 0.435 | 4.9 (1.1, 8.8) p=0.014 | 0.583 |
| Employed vs Student | NH Black | 9.4 (4.1, 14.8) p=0.001 | 0.949 | 6.3 (1.7, 11.0) p=0.009 | 0.834 | 7.7 (3.3, 12.2) p=0.001 | 0.689 |
| Employed vs Student | NH White | 9.6 (4.2, 15.1) p=0.001 | Ref | 5.7 (0.8, 10.7) p=0.023 | Ref | 6.6 (1.4, 11.8) p=0.014 | Ref |
| Employed vs Unemployed | Hispanic | -3.4 (-6.2, -0.6) p=0.020 | 0.110 | -3.5 (-6.1, -0.8) p=0.011 | 0.104 | -1.9 (-4.4, 0.6) p=0.129 | 0.122 |
| Employed vs Unemployed | NH Asian | -1.2 (-6.4, 3.9) p=0.627 | 0.837 | -2.0 (-7.2, 3.1) p=0.434 | 0.646 | -1.8 (-6.4, 2.8) p=0.423 | 0.319 |
| Employed vs Unemployed | NH Black | 0.1 (-2.5, 2.7) p=0.930 | 0.602 | -0.4 (-2.8, 1.9) p=0.705 | 0.824 | 2.7 (0.6, 4.9) p=0.013 | 0.115 |
| Employed vs Unemployed | NH White | -0.7 (-2.9, 1.5) p=0.525 | Ref | -0.8 (-3.1, 1.6) p=0.510 | Ref | 0.6 (-1.6, 2.8) p=0.590 | Ref |

| Health Insurance | | Unadjusted Models | | Age-Adjusted Models | | Multivariable Models | |
|-------------------------------|----------|-----------------------------|-------|-----------------------------|-------|----------------------------|--------|
| Level | Group | Beta (CI) p | Int.p | Beta (CI) p | Int.p | Beta (CI) p | Int.p |
| Private vs Combination | Hispanic | -8.8 (-12.0, -5.7) p<0.001 | 0.040 | -1.9 (-5.0, 1.1) p=0.206 | 0.040 | 2.4 (-0.7, 5.5) p=0.125 | 0.433 |
| Private vs Combination | NH Asian | -4.5 (-8.9, -0.0) p=0.048 | 0.731 | 2.7 (-1.6, 7.0) p=0.211 | 0.629 | 5.1 (1.0, 9.3) p=0.017 | 0.497 |
| Private vs Combination | NH Black | -6.7 (-8.6, -4.7) p<0.001 | 0.198 | -0.8 (-2.8, 1.3) p=0.461 | 0.066 | 3.2 (1.1, 5.3) p=0.005 | 0.718 |
| Private vs Combination | NH White | -5.3 (-6.7, -3.8) p<0.001 | Ref | 1.6 (-0.4, 3.5) p=0.106 | Ref | 3.6 (2.1, 5.2) p<0.001 | Ref |
| Private vs Medicaid | Hispanic | -4.6 (-7.0, -2.2) p<0.001 | 0.010 | -4.9 (-7.1, -2.7) p<0.001 | 0.001 | -0.4 (-3.0, 2.2) p=0.748 | 0.047 |
| Private vs Medicaid | NH Asian | -4.7 (-10.5, 1.1) p=0.109 | 0.075 | -4.9 (-10.0, 0.3) p=0.064 | 0.013 | 2.3 (-3.8, 8.3) p=0.443 | 0.042 |
| Private vs Medicaid | NH Black | -3.6 (-6.0, -1.3) p=0.003 | 0.006 | -5.5 (-7.7, -3.2) p<0.001 | 0.004 | 0.4 (-1.7, 2.6) p=0.675 | 0.021 |
| Private vs Medicaid | NH White | -10.6 (-14.4, -6.9) p<0.001 | Ref | -12.3 (-15.6, -8.9) p<0.001 | Ref | -4.2 (-7.2, -1.2) p=0.008 | Ref |
| Private vs Medicare | Hispanic | -8.6 (-11.6, -5.6) p<0.001 | 0.854 | -1.6 (-4.5, 1.3) p=0.264 | 0.977 | 4.0 (1.0, 7.1) p=0.012 | 0.209 |
| Private vs Medicare | NH Asian | -6.9 (-10.0, -3.8) p<0.001 | 0.461 | 0.9 (-2.2, 4.1) p=0.544 | 0.171 | 3.2 (0.5, 6.0) p=0.022 | 0.401 |
| Private vs Medicare | NH Black | -4.4 (-6.8, -2.0) p=0.001 | 0.010 | 1.8 (-0.5, 4.2) p=0.128 | 0.016 | 6.5 (4.2, 8.7) p<0.001 | <0.001 |
| Private vs Medicare | NH White | -8.3 (-10.2, -6.4) p<0.001 | Ref | -1.7 (-4.0, 0.7) p=0.163 | Ref | 1.7 (-0.4, 3.8) p=0.103 | Ref |
| Private vs Military | Hispanic | -12.7 (-19.3, -6.2) p<0.001 | 0.029 | -11.7 (-18.5, -4.9) p=0.001 | 0.043 | -8.2 (-14.2, -2.3) p=0.009 | 0.008 |
| Private vs Military | NH Asian | 2.3 (-4.2, 8.9) p=0.479 | 0.120 | 3.7 (-0.9, 8.2) p=0.109 | 0.026 | 7.4 (1.0, 13.8) p=0.025 | 0.037 |
| Private vs Military | NH Black | -5.6 (-12.4, 1.2) p=0.103 | 0.646 | -3.7 (-10.1, 2.7) p=0.246 | 0.949 | -1.3 (-7.1, 4.4) p=0.639 | 0.658 |
| Private vs Military | NH White | -3.7 (-8.4, 1.0) p=0.115 | Ref | -3.5 (-8.0, 1.1) p=0.133 | Ref | 0.2 (-2.9, 3.2) p=0.899 | Ref |
| Private vs Other | Hispanic | 1.1 (-1.5, 3.8) p=0.398 | 0.006 | 1.6 (-0.8, 4.0) p=0.190 | 0.001 | 2.5 (-0.2, 5.2) p=0.065 | 0.011 |
| Private vs Other | NH Asian | -3.7 (-7.3, -0.0) p=0.049 | 0.424 | -2.8 (-6.9, 1.2) p=0.165 | 0.182 | 0.6 (-2.8, 4.1) p=0.718 | 0.083 |
| Private vs Other | NH Black | -0.2 (-2.4, 2.1) p=0.891 | 0.008 | -0.1 (-2.3, 2.1) p=0.906 | 0.002 | 3.5 (1.1, 5.8) p=0.005 | 0.001 |
| Private vs Other | NH White | -5.4 (-8.5, -2.4) p=0.001 | Ref | -6.0 (-8.9, -3.0) p<0.001 | Ref | -3.0 (-5.6, -0.4) p=0.027 | Ref |
| Private vs Uninsured | Hispanic | -4.0 (-6.1, -1.9) p<0.001 | 0.053 | -4.9 (-6.9, -2.8) p<0.001 | 0.035 | -0.6 (-2.8, 1.7) p=0.595 | 0.157 |
| Private vs Uninsured | NH Asian | -6.2 (-10.0, -2.4) p=0.002 | 0.626 | -6.8 (-10.5, -3.2) p=0.001 | 0.479 | -2.1 (-5.3, 1.1) p=0.185 | 0.736 |
| Private vs Uninsured | NH Black | -1.6 (-3.8, 0.6) p=0.148 | 0.001 | -3.2 (-5.4, -1.1) p=0.004 | 0.002 | 0.9 (-1.2, 3.0) p=0.399 | 0.024 |
| Private vs Uninsured | NH White | -7.2 (-9.6, -4.8) p<0.001 | Ref | -8.2 (-10.5, -6.0) p<0.001 | Ref | -2.7 (-4.7, -0.7) p=0.010 | Ref |

CI – 95% confidence interval, HS – high school, Int.p – race interaction p-value, NH – non-Hispanic, NHANES – National Health and Nutrition Examination Survey. Multivariable models are adjusted for age, sex, and socioeconomic status variables not included in interaction term. Example Interpretation: there is a

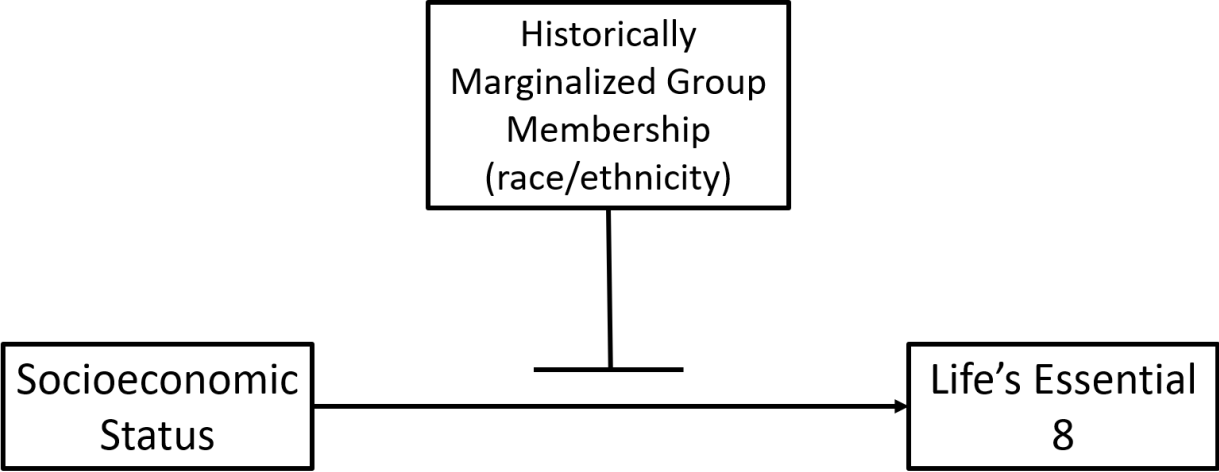
significantly greater magnitude of positive association of education level with Life's Essential 8 among non-Hispanic White Americans than other groups (likelihood ratio test $p < 0.001$). There is a significantly greater magnitude of positive association of income level with Life's Essential 8 among non-Hispanic White Americans than other groups (likelihood ratio test $p < 0.001$). There is a significantly greater magnitude of negative association of having a disability or health issue that prevents work with Life's Essential 8 among non-Hispanic White Americans than other groups (likelihood ratio test $p < 0.001$). There is a significantly greater magnitude of negative association of having Medicaid insurance with Life's Essential 8 among non-Hispanic White Americans than other groups (likelihood ratio test $p < 0.001$).

Figure S1. National Health and Nutrition Examination Survey participant flow diagram.



HA – Hispanic Americans, LE8 – Life’s Essential 8, NHAA – non-Hispanic Asian Americans, NHANES - National Health and Nutrition Examination Survey, NHBA – non-Hispanic Black Americans, NHWA – non-Hispanic White Americans, PIR – income to poverty line ratio

Figure S2. Conceptual Model: Historically marginalized group membership tempers the association of socioeconomic status with Life’s Essential 8.



Conceptual Model: Historically marginalized group membership tempers the association of socioeconomic status with Life’s Essential 8. Arrows indicate association. T-shaped connectors indicate inhibition or tempering of an association.