

Utah System of Higher Education Data 2010

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*Office of the Utah Women & Education Project
Utah Valley University*

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Background Information

There are four data files to be analyzed from the USHE data. They are as follows: USHE Student Data, USHE Course Data, USHE Graduation Data, USHE Perkins Data, and we will analyze them each individually and exhaustively. The USHE databases are not filled with many interesting variables, but they do have nuggets hidden within. This data looks at 2007 Utah high school graduates and the courses they have taken as of fall 2009.

PART I: USHE Student Data

Table 1.1: County of Origin by Gender

| County of Origin | Total Count | Male Count | Female Count | Percent Female |
|------------------|--------------|-------------|--------------|----------------|
| Beaver | 56 | 29 | 27 | 48.2% |
| Box Elder | 351 | 155 | 196 | 55.8% |
| Cache | 660 | 350 | 310 | 47.0% |
| Carbon | 202 | 100 | 102 | 50.5% |
| Daggett | 7 | 4 | 3 | N/A |
| Davis | 1820 | 861 | 959 | 52.7% |
| Duchesne | 121 | 54 | 67 | 55.4% |
| Emery | 128 | 61 | 67 | 52.3% |
| Garfield | 38 | 18 | 20 | 52.6% |
| Grand | 82 | 35 | 47 | 57.3% |
| Iron | 286 | 135 | 151 | 52.8% |
| Juab | 62 | 31 | 31 | 50.0% |
| Kane | 52 | 30 | 22 | 42.3% |
| Millard | 206 | 93 | 113 | 54.9% |
| Morgan | 76 | 38 | 38 | 50.0% |
| Piute | 16 | 6 | 10 | N/A |
| Rich | 14 | 9 | 5 | N/A |
| Salt Lake | 5238 | 2572 | 2666 | 50.9% |
| San Juan | 72 | 35 | 37 | 51.4% |
| Sanpete | 280 | 143 | 137 | 48.9% |
| Sevier | 227 | 90 | 137 | 60.4% |
| Summit | 182 | 95 | 87 | 47.8% |
| Tooele | 230 | 109 | 121 | 52.6% |
| Uintah | 164 | 76 | 88 | 53.7% |
| Utah | 2391 | 1233 | 1158 | 48.3% |
| Wasatch | 143 | 67 | 76 | 53.2% |
| Washington | 711 | 349 | 362 | 50.9% |
| Wayne | 21 | 8 | 13 | N/A |
| Weber | 1283 | 596 | 687 | 53.6% |
| Total | 15119 | 7382 | 7737 | 51.2% |

Table 1.2: Citizenship by Gender

| Type of Student | Total Count | Male Count | Female Count | Percent Female |
|--|--------------------|-------------------|---------------------|-----------------------|
| US Citizen | 17854 | 8707 | 9147 | 51.2% |
| Non-Resident Alien | 509 | 282 | 227 | 44.6% |
| Resident Alien or Other Eligible Non-Resident | 259 | 146 | 113 | 43.6% |
| Other | 5 | 2 | 3 | N/A |
| Total | 18627 | 9137 | 9490 | 50.1% |

Table 1.3: Ethnicity by Gender

| Ethnicity | Total Count | Male Count | Female Count | Percent Female |
|----------------------------------|--------------------|-------------------|---------------------|-----------------------|
| African American | 251 | 139 | 112 | 44.6% |
| Asian | 546 | 288 | 258 | 47.3% |
| Caucasian | 25503 | 12674 | 12829 | 50.3% |
| Hispanic | 2242 | 1076 | 1166 | 52.0% |
| Indian or Native American | 410 | 197 | 213 | 52.0% |
| Pacific Islander | 365 | 165 | 200 | 54.8% |
| Total | 29395 | 14580 | 14815 | 50.4% |

Table 1.4: Class Level by Gender

| Class Level | Total Count | Male Count | Female Count | Percent Female |
|--------------------|--------------------|-------------------|---------------------|-----------------------|
| Freshman | 18212 | 8966 | 9246 | 50.8% |
| Sophomore | 379 | 154 | 225 | 59.8% |
| Junior | 32 | 15 | 17 | 53.1% |
| Senior | 3 | 1 | 2 | N/A |
| Total | 18626 | 9136 | 9490 | 51.0% |

Table 1.5: College Intention by Gender

| College Intention | Total Count | Male Count | Female Count | Percent Female |
|---------------------------|--------------------|-------------------|---------------------|-----------------------|
| Non-Degree Seeking | 916 | 440 | 476 | 52.0% |
| 1-Year | 228 | 96 | 132 | 57.9% |
| 2-Year | 11618 | 5915 | 5703 | 49.1% |
| 3-Year | 126 | 66 | 60 | 47.6% |
| 4-Year | 5733 | 2614 | 3119 | 54.4% |
| 5-Year | 5 | 5 | 0 | N/A |
| Total | 18627 | 9137 | 9490 | 51.0% |

Table 1.6: Enrollment Status by Gender

| Enrollment Status | Total Count | Male Count | Female Count | Percent Female |
|--------------------------|--------------------|-------------------|---------------------|-----------------------|
| Full Time | 12831 | 6061 | 6770 | 52.8% |
| Part Time | 5796 | 3076 | 2720 | 46.9% |
| Total | 18627 | 9137 | 9490 | 51.0% |

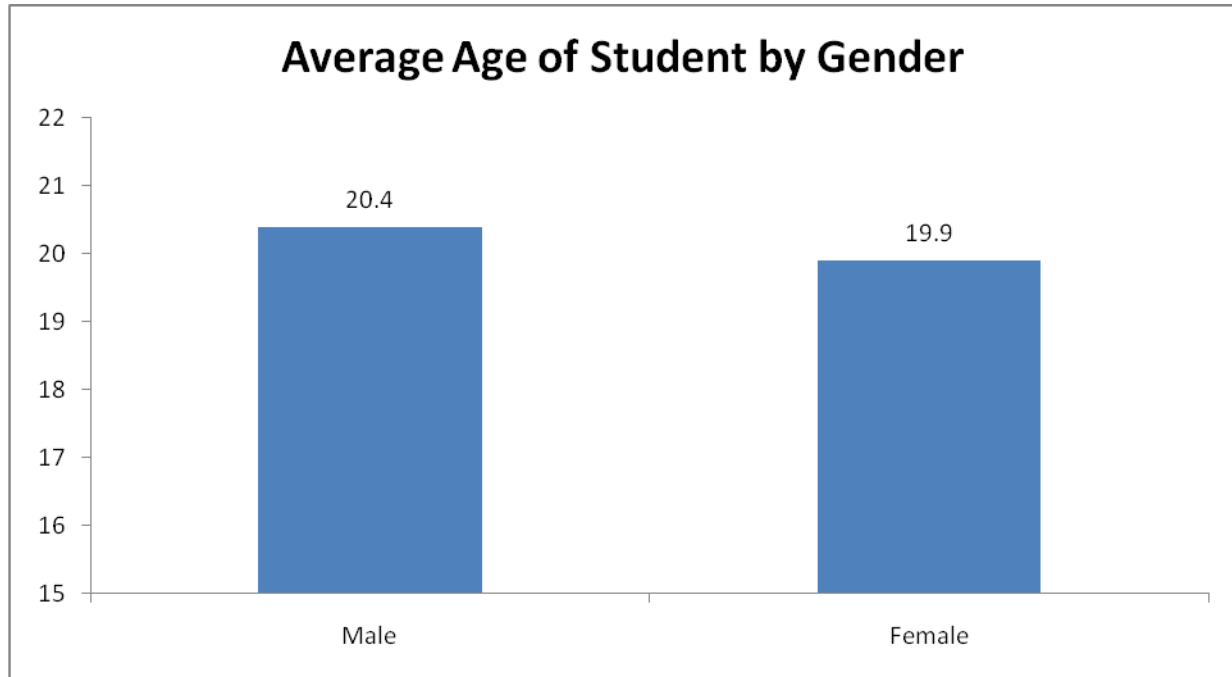
Table 1.7: Country of Origin by Gender

| Country of Origin | Total Count | Male Count | Female Count | Percent Female |
|--------------------------|--------------------|-------------------|---------------------|-----------------------|
| United States | 18008 | 8794 | 9214 | 51.2% |
| Unknown | 619 | 343 | 276 | 44.6% |
| Total | 18627 | 9137 | 9490 | 51.0% |

Table 1.8: Institution by Gender

| Institution | Total Count | Male Count | Female Count | Percent Female |
|------------------------------------|--------------------|-------------------|---------------------|-----------------------|
| College of Eastern Utah | 699 | 352 | 347 | 49.6% |
| Dixie State College | 1360 | 640 | 720 | 53.0% |
| Salt Lake Community College | 3137 | 1666 | 1471 | 46.9% |
| Snow College | 1234 | 511 | 723 | 58.6% |
| Southern Utah University | 1093 | 409 | 684 | 62.6% |
| University of Utah | 1969 | 1038 | 931 | 47.3% |
| Utah State University | 3378 | 1473 | 1905 | 56.4% |
| Utah Valley University | 3151 | 1759 | 1392 | 44.2% |
| Weber State University | 2606 | 1289 | 1317 | 50.5% |
| Total | 18627 | 9137 | 9490 | 51.0% |

Figure 1.1: Average Age of Student by Gender



*The average age is essentially what is expected considering our data is from a single class cohort.

PART II: USHE Graduation Data

Table 2.1: Ethnicity by Gender

| | Total Count | Male Count | Female Count | Percent Female |
|----------------------------------|--------------------|-------------------|---------------------|-----------------------|
| African American | 251 | 112 | 139 | 55.4% |
| Asian | 546 | 258 | 288 | 52.8% |
| Caucasian | 25503 | 12829 | 12674 | 49.7% |
| Hispanic | 2242 | 1166 | 1076 | 48.0% |
| Indian or Native American | 410 | 213 | 197 | 48.1% |
| Pacific Islander | 365 | 200 | 165 | 45.2% |
| Total | 29395 | 14815 | 14580 | 49.6% |

Table 2.2: Special Education by Gender

| Special Education | Total Count | Male Count | Female Count | Percent Female |
|--------------------------|--------------------|-------------------|---------------------|-----------------------|
| Yes | 2488 | 1548 | 940 | 37.8% |
| No | 26907 | 13032 | 13875 | 51.6% |
| Total | 29395 | 14580 | 14815 | 50.4% |

Table 2.3: Low Income by Gender

| Low Income | Total Count | Male Count | Female Count | Percent Female |
|-------------------|--------------------|-------------------|---------------------|-----------------------|
| Yes | 4543 | 2209 | 2334 | 51.4% |
| No | 24852 | 12371 | 12481 | 50.2% |
| Total | 29395 | 14580 | 14815 | 50.4% |

Table 2.4: Graduated from High School by Gender

| Graduated | Total Count | Male Count | Female Count | Percent Female |
|------------------|--------------------|-------------------|---------------------|-----------------------|
| Yes | 28810 | 14239 | 14571 | 50.6% |
| No | 585 | 341 | 244 | 41.7% |
| Total | 29395 | 14580 | 14815 | 50.4% |

Figure 2.1: Composite Score by Special Ed

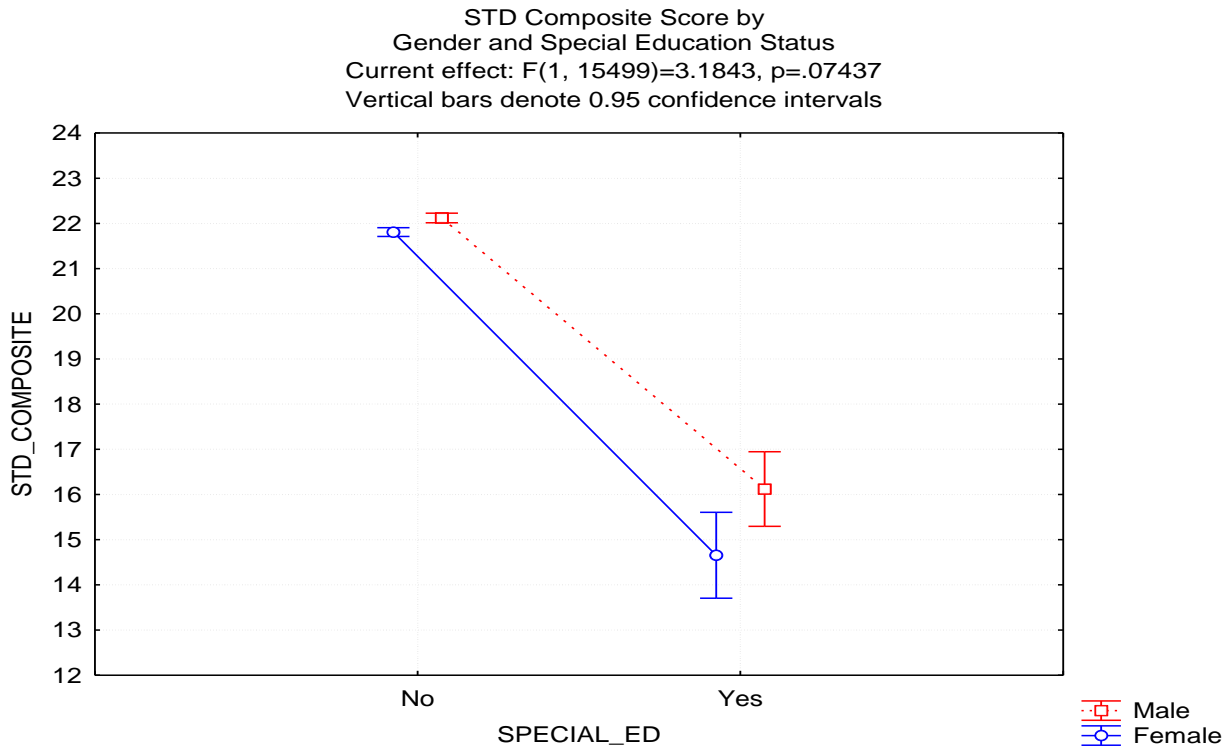


Figure 2.2: Composite Score by Socio-Economic Status

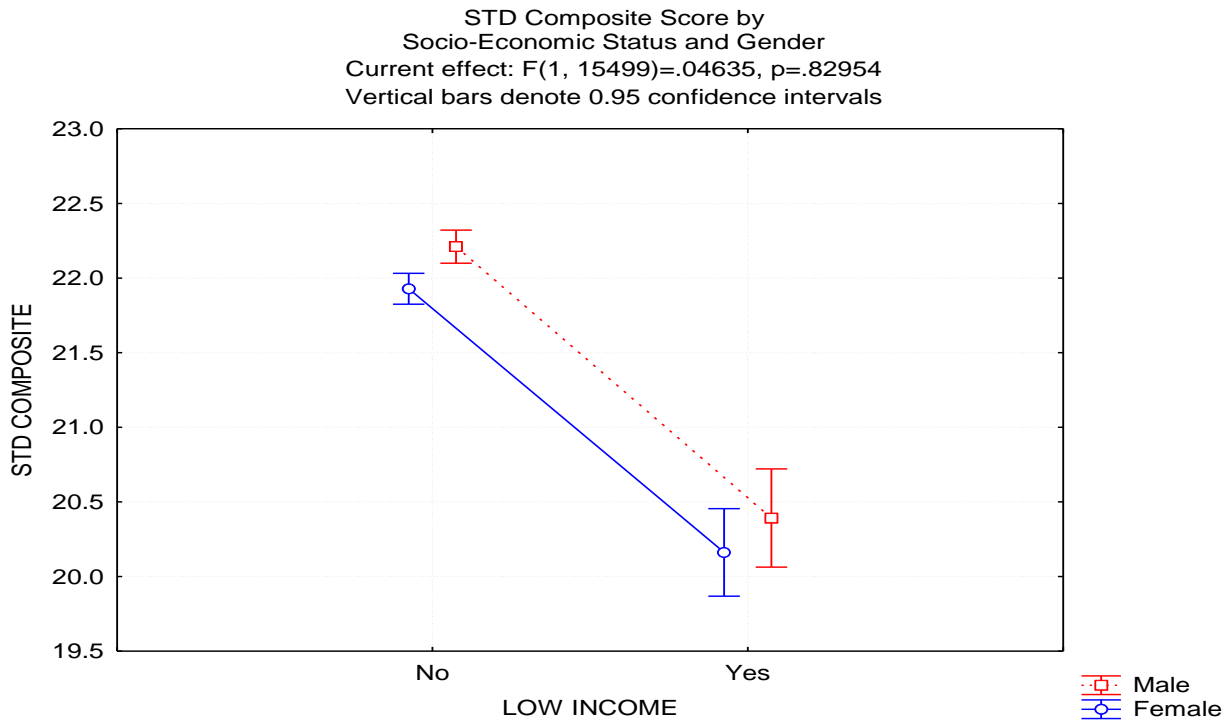
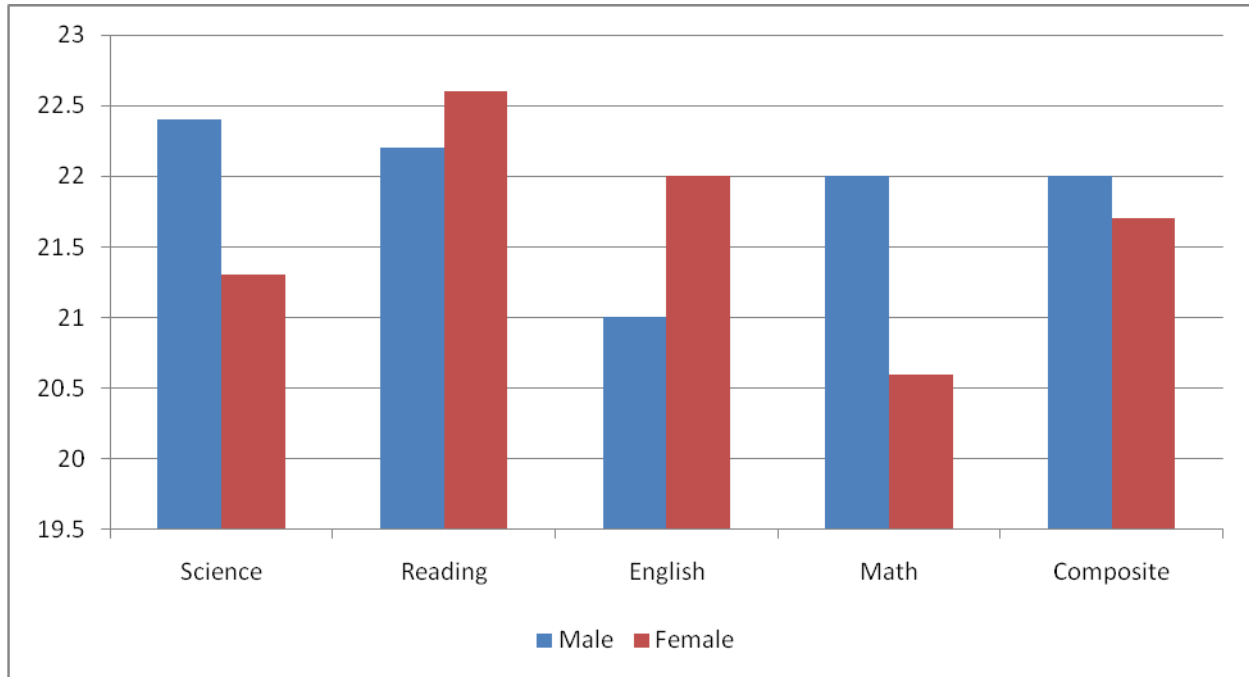


Figure 2.3: STD Academic Scores by Gender



Males test better in science and math while females test better in reading and English. This becomes more interesting when we look at this in the context of which variables predict concurrent enrollment (which has a strong correlation to college participation).

Table 2.5: Discriminant Analysis (Multivariate Exploratory Technique)

| Variable of Interest | Wilks' | Partial | F- remove | p-value | Toler. | 1- Toler. |
|----------------------|--------------|--------------|---------------|--------------|--------------|--------------|
| LOW_INCOME | 0.981 | 0.999 | 22.629 | 0.000 | 0.986 | 0.014 |
| STD_SCIENCE | 0.980 | 1.000 | 2.841 | 0.092 | 0.054 | 0.946 |
| STD_READING | 0.980 | 0.999 | 7.866 | 0.005 | 0.034 | 0.966 |
| STD_ENGLISH | 0.979 | 1.000 | 0.111 | 0.739 | 0.035 | 0.965 |
| STD_MATH | 0.979 | 1.000 | 0.009 | 0.923 | 0.048 | 0.952 |
| STD_COMPOSITE | 0.980 | 1.000 | 5.204 | 0.023 | 0.004 | 0.996 |

Discriminant analysis is used to figure out which variables are best used to discriminate between different groupings. In this situation, we used concurrent enrollment as our independent variable. We then found that income status, STD Reading, and STD Composite are the three variables that allow us to best differentiate between concurrent enrollment students and non-concurrent enrollment students. Concurrent enrollment has historically been a very good predictor of college enrollment.

Figure 2.4: Predictor of Concurrent Enrollment through Feature Selection Analysis

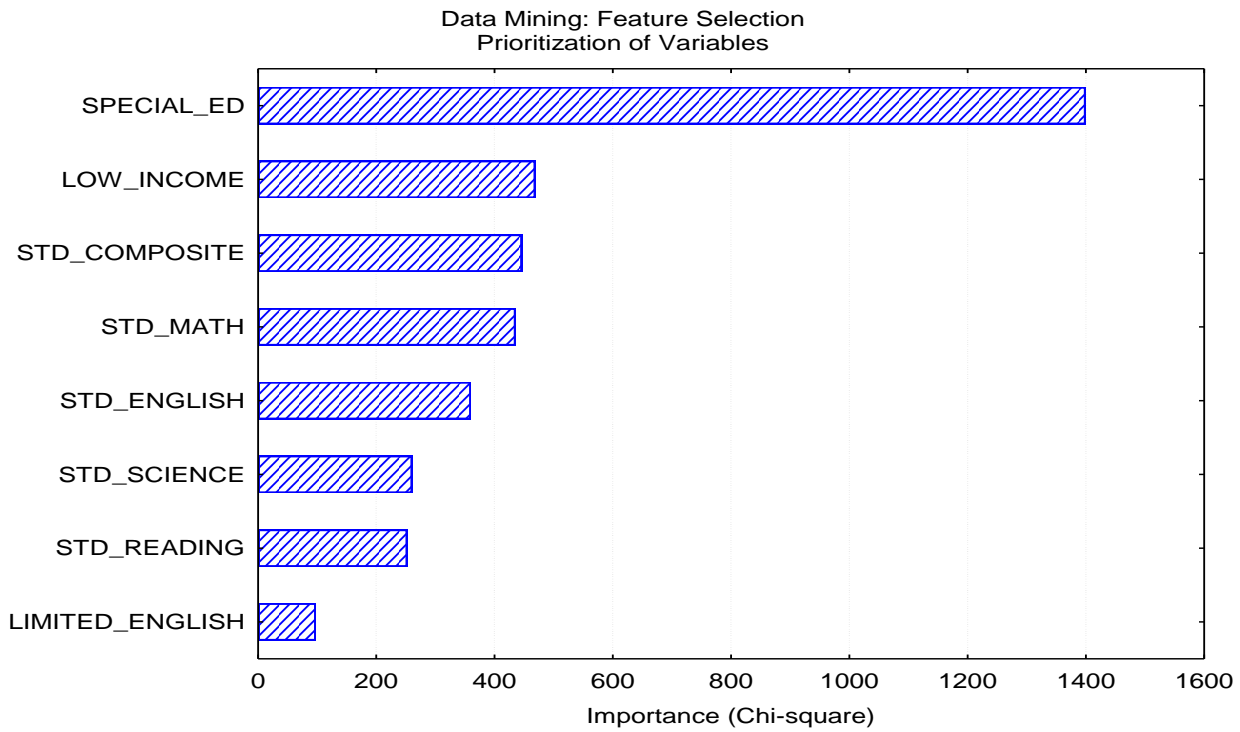


Figure 2.5: Predictor of Concurrent Enrollment through CHAID Regression Tree

Predictor of Concurrent Enrollment through CHAID Regression Tree Analysis (looking only at academic performance via standardized test):

