The Value Index
Creating the Value Index

The value of higher education is multifaceted, not just about earnings. This study combines quantitative and qualitative benefits into one Value Index

Sources of Data
- American Community Survey – 2019 (approximately 2.1 million records)
- Current Population Survey – Multiple samples from 2018 and 2019 (approximately 110,000 records)
- General Social Survey – 2016 (approximately 1,300 records)
- CDC – 2019 mortality multiple cause file – (2.8 million records)

Note: All data for the US
The **Value Index** is a qualitative and quantitative measure with five **dimensions** – each of which have four **variables** – that indicate value relative to educational attainment.

**Economic Related**
- Earnings
- Employment Status
- Labor Force Status
- Poverty Status

**Home related**
- Housing Mobility
- Doubled-up Household Status
- Home Ownership
- Access to Internet

**Civic/Social Related**
- Voter Participation
- Voter Registration
- Attended Movies
- General Happiness

**Health Related**
- Age of Death
- Health Insurance Status
- Food Security
- Access to Vehicles

**Professional Related**
- Occupational Prestige
- Job Tenure
- Career Satisfaction
- Travel Time to Work
1. Converted all Value Index variables into “standard scores” – stated as standard deviations from the mean
   • This allows for “apples to apples” comparisons of variables and for combination of variables into indexes (indexes created by averaging the “standard scores”)

2. Broke the data into 4 education cohorts
   • No degree
   • Associates Degree
   • Bachelors Degree
   • Advanced Degree

3. Compared the Value Index across the 5 dimensions and compared them over the 4 education cohorts
Overall Index of Value of Higher Education
(Combination of all Variables)

-0.12  0.04  0.14  0.22

No Degree  Associates Degree  Bachelors Degree  Advanced Degree

Across the spectrum of factors, more education results in a higher Value Index score.

Americans with a bachelors degree score approx. 2x higher on the Value Index compared to those with no degree.

The 0.00 line is the mean. Positive values are an index value greater than the population average. Negative values are an index value lower than the population average.
Radial Graph Reading

• The 0.0 contour (dotted line) is the mean – the national average for the given Dimension or Variable.
• The contours are scaled as standard deviations above or below the national average.
• Points outside the 0.0 contour identify education cohort scores above the national average and inside the 0.0 contour identify cohort scores below the national average.
• The further out on the graph, the higher the score.
Valuing an Academic Degree by Major Dimension

More education results in a higher Valuematic score even when drilling down into individual dimensions.
Valuing an Academic Degree by Major Dimension

**Economic by Individual Variables**

- **Wage and Salary Earnings:**
  - No Degree
  - Associates Degree
  - Bachelors Degree
  - Advanced Degree

- **Employment Status:**
  - No Degree
  - Associates Degree
  - Bachelors Degree
  - Advanced Degree

- **Labor Force Status:**
  - No Degree
  - Associates Degree
  - Bachelors Degree
  - Advanced Degree

- **Poverty Status:**
  - No Degree
  - Associates Degree
  - Bachelors Degree
  - Advanced Degree

*Wage and Salary Earnings; Employed or not; In the Labor Force or not; Above or below poverty line*
## Valuing an Academic Degree by Major Dimension

More education results in a higher Valuemetric score even when drilling down into individual dimensions.

### Health by Individual Variables

#### Average age of Death

<table>
<thead>
<tr>
<th>Degree</th>
<th>Standard Deviations from Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Degree</td>
<td>-0.03</td>
</tr>
<tr>
<td>Associates Degree</td>
<td>-0.07</td>
</tr>
<tr>
<td>Bachelors Degree</td>
<td>0.11</td>
</tr>
<tr>
<td>Advanced Degree</td>
<td>0.22</td>
</tr>
</tbody>
</table>

#### Health Insurance Status

<table>
<thead>
<tr>
<th>Degree</th>
<th>Standard Deviations from Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Degree</td>
<td>-0.13</td>
</tr>
<tr>
<td>Associates Degree</td>
<td>0.06</td>
</tr>
<tr>
<td>Bachelors Degree</td>
<td>0.14</td>
</tr>
<tr>
<td>Advanced Degree</td>
<td>0.23</td>
</tr>
</tbody>
</table>

#### Food Security

<table>
<thead>
<tr>
<th>Degree</th>
<th>Standard Deviations from Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Degree</td>
<td>-0.17</td>
</tr>
<tr>
<td>Associates Degree</td>
<td>0.01</td>
</tr>
<tr>
<td>Bachelors Degree</td>
<td>0.21</td>
</tr>
<tr>
<td>Advanced Degree</td>
<td>0.28</td>
</tr>
</tbody>
</table>

#### Access to vehicle(s)

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
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<td>-0.03</td>
</tr>
<tr>
<td>Associates Degree</td>
<td>0.11</td>
</tr>
<tr>
<td>Bachelors Degree</td>
<td>0.05</td>
</tr>
<tr>
<td>Advanced Degree</td>
<td>-0.03</td>
</tr>
</tbody>
</table>

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Average of the ages of death reported on the death certificates; Had health insurance coverage or not; Level of food security; Number of cars available to household members.
Valuing an Academic Degree by Major Dimension

More education results in a higher valuometric score even when drilling down into individual dimensions

Civic/Social by Individual Variables

- Voted in last election or not
- Registered to vote or no
- Attended movies in last year or not (proxy for recreational amenities)
- Self reported happiness scale

Voter Participation

- No Degree: -0.24
- Associates Degree: 0.10
- Bachelors Degree: 0.25
- Advanced Degree: 0.35

Voter Registration

- No Degree: 0.08
- Associates Degree: 0.29
- Bachelors Degree: 0.34
- Advanced Degree: 0.34

Attended Movies

- No Degree: 0.25
- Associates Degree: 0.08
- Bachelors Degree: 0.29
- Advanced Degree: 0.34

General Happiness

- No Degree: -0.08
- Associates Degree: -0.14
- Bachelors Degree: 0.19
- Advanced Degree: 0.14
Valuing an Academic Degree by Major Dimension

A constructed variable that assigns a prestige score to each occupation using the occupational classification; Years at current job; Self reported career satisfaction scale; Minutes it takes to get to work
Valuing an Academic Degree by Major Dimension

More education results in a higher Valuemetric score even when drilling down into individual dimensions.

Home by Individual Variables

- Years at current address
- Number of discrete subfamilies living with the primary family in the housing unit
- Own your house or not?
- Access to the internet or not?

<table>
<thead>
<tr>
<th>Standard Deviations from Mean</th>
<th>No Degree</th>
<th>Associates Degree</th>
<th>Bachelors Degree</th>
<th>Advanced Degree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Housing Mobility</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-0.03</td>
<td>-0.01</td>
<td>0.07</td>
<td>-0.01</td>
</tr>
<tr>
<td>Doubling up - subfamily count</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>-0.02</td>
<td>0.05</td>
<td>0.00</td>
<td>0.08</td>
</tr>
<tr>
<td>Home Ownership</td>
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</tr>
<tr>
<td></td>
<td>-0.09</td>
<td>0.09</td>
<td>0.10</td>
<td>0.20</td>
</tr>
<tr>
<td>Access to Internet</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-0.17</td>
<td>0.11</td>
<td>0.20</td>
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</tbody>
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