Utah Data Research Center

Example Research Proposal / UDRC Data Request (Academic)

Research Title
Earnings of Utahville high school graduates who attend post-secondary school

Objective
We seek to understand factors that influence workforce outcomes of students who graduate from Utahville, Utah. Specifically, how does post-secondary graduation influence annual wages of our graduates?

Background

Please describe the significance or uniqueness of the research. How will this research fill gaps in knowledge? If this is an operational data request, what decisions, initiatives, or processes do you hope to inform with this data?

No study has examined workforce outcomes for Utahville, thus it will be a new contribution to the field.

Provide your literature review or operational review explaining why the research is necessary. Please provide a list of sources if this is an academic type request.

- Other studies have show that students who attend post-secondary school have higher lifetime earnings (associated citations)
- Wage earnings vary by demographics such as gender and race (associated citations)
- Wage earnings also vary by chosen field of study (associated citations)

List of references:

Allensworth, E., Correa, M., Ponisciak, S. (2008). From high school to the future: ACT preparation – too much, too late. Consortium on Chicago School Research. The University of Chicago, Illinois.

Alm J., Winters, J. V. (2009). Distance and intrastate college student migration. *Economics of Education Review*, 28: 728-738.

Briggs, D. C. (2001). The effect of admissions test preparation: evidence from NELS:88. *Chance*, 14: 10-18.

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DesJardins, S. L., Dundar, H., Hendel, D. (1997). Modeling the college application decision process in a land-grant institution. Annual Meeting of the American Educational Research Association.

Florax R. J. G. M., Hall P., Titheridge H., & Wikhall M. (2004). A comparative analysis of the geography of student recruitment and labor market entry, in Tornqvist G. & Sorlin S. (Eds). *The Wealth of Knowledge: Universities and the New Economy*. MIT Press, Cambridge.

Frenette, M (2006). Too far to go on? Distance to school and und university participation, No. 191. Business and Labour Market Analysis. Statistics Canada.

Questions and Hypotheses

List specific research questions and/or hypotheses. These should build upon the literature review, SME knowledge, or agency knowledge explained in the literature review section:

Do students who graduate from post-secondary schools have higher wages 10 years after graduation than those who only complete a high school diploma? We hypothesize that graduation from post-secondary school increases annual wages 10 years after leaving high school since post-secondary degrees increase marketable skill sets for individuals.

Proposed Methods

List expected methods and analysis, e.g. regression, clustering:

First, summary statistics of the dataset will be compiled. This will include a summary for each of the demographic variables requested. Second, we plan to use a linear regression to determine the impact of post-secondary graduation on annual wages, with demographics (race, gender, ethnicity) as control variables. Annual wages will be normalized or scaled prior to performing the regression if necessary. We do not plan to include students who enrolled in a graduate program or who are not present in the wage record 10 years after high school graduation.

Variables requested:
Note variable types in parentheses after variable names.

- Dependent variable: annual wage 10 years after high school graduation (continuous variable)
- Independent variables: high school graduate only (binary), technical school graduate (binary), degree-granting institution graduate (binary), or post-

secondary attendance but no graduation (post-secondary includes degree-granting institutions and technical colleges) (factor)

- Covariates/control variables: race (binary column for each race), gender (binary), ethnicity (binary for each ethnicity), high school (factor), enrollment in a graduate program (binary), type of post-secondary program (2 digit CIP codes) (factor), institution attended (factor)

Expected Results and/or Product Outcome

List or describe expected results of main statistical analysis:

It is expected that students who graduate from post-secondary school will have higher annual wages than those without post-secondary degrees.

Describe how the results will be leveraged in your agency or research group:

We will use these results in our high school programs to show students the importance of going to post-secondary school and earning a technical certificate or college degree.

Describe the end product of the project (e.g. academic report, dashboard, internal agency report):

We plan to produce a report that will be published on our group's website and a dashboard showing the main results of the research. Both the report and dashboard will be publicly available. Demographic control variables are likely to have significant impacts on wage outcomes as well, which we plan to include in report results and illustrate on our dashboard.