

The Value of College in IT

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Summary

Null Hypothesis

The level of education doesn't impact financial success in IT career in Florida.

Alternate Hypothesis

The higher the level of education the more probability of financial success in IT career in Florida.

Project statement

The IT field is one where there are multiple ways to succeed. It also is a field which relies heavily on certificates that display a minimum level of competency in a specific technology/skill. We sought to determine if one of these paths offers a better return than the rest.

Questions

- Is a 4yr degree a better investment vs a technical degree/certificate in Florida?
 - What is the cost of a bachelor degree vs a non-bachelor degree?
 - How are the jobs available distributed between BS/BA required vs not required?
 - How are the salary changes divergent or inline for certain periods of career?
 - Is there any difference based on career type/level?
 - How long does term salary growth vary between the two (BS/BA vs Certificat)?
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Data Sources

College Scorecard - University data and data by field of study:

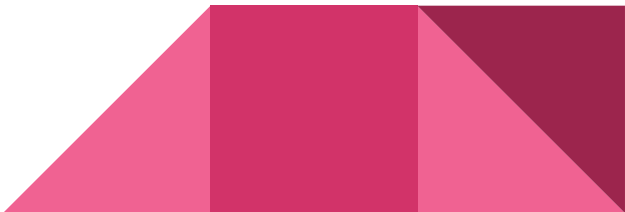
[College Scorecard Data Documentation](#)

Career One Stop - List of occupations with salary information and education requirements:

[List Certifications | Web API](#)

Returns Salary & education requirements for a given occupation:

[Occupations API - Get Occupation Details](#)



Data Cleanup and Exploration

Challenges

- Access to some data sets
- Granularity of certain data sets
- Finding minimum job requirements
- Lack of documentation for the data queried

Insights

- Salary level data on degree type is hard to obtain
- There are many more technical schools than we anticipated

Interesting finds

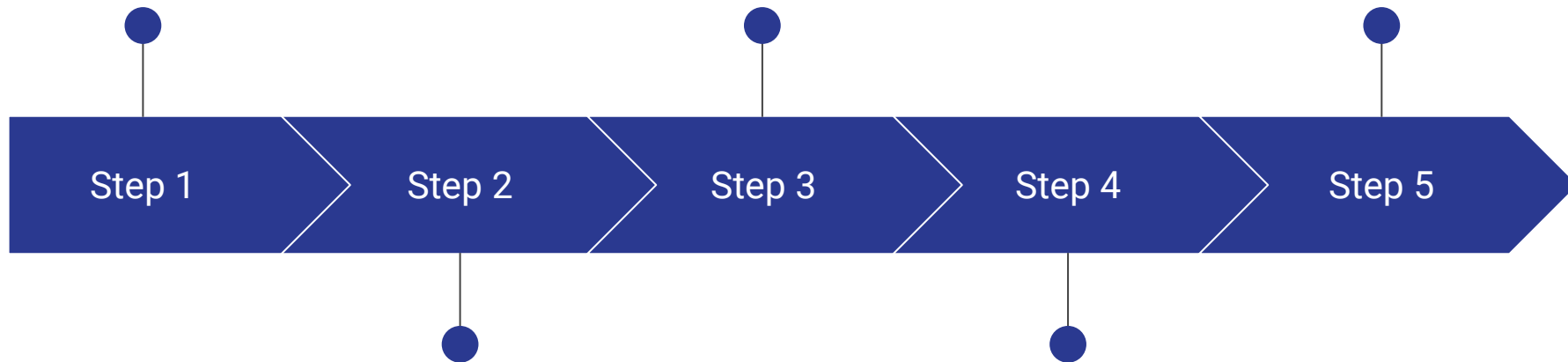
- There are people with HS Diploma or less with jobs in IT

Data Analysis

Search for data
sources based on our
questions

Download data sets
and create Data
Frames

Analyze data to
answer questions and
determine which
hypothesis we accept



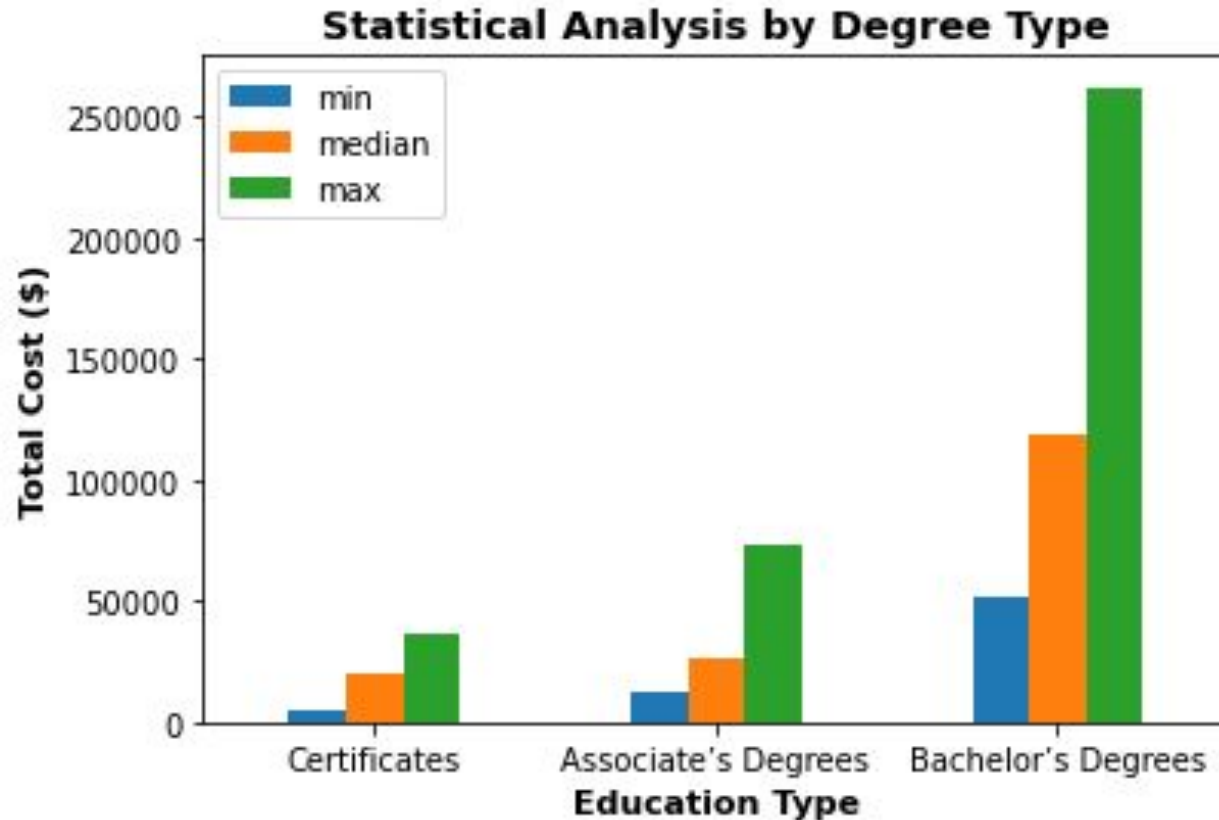
Divide data pulling
tasks amongst team

Combine and
manipulate data to
analyze

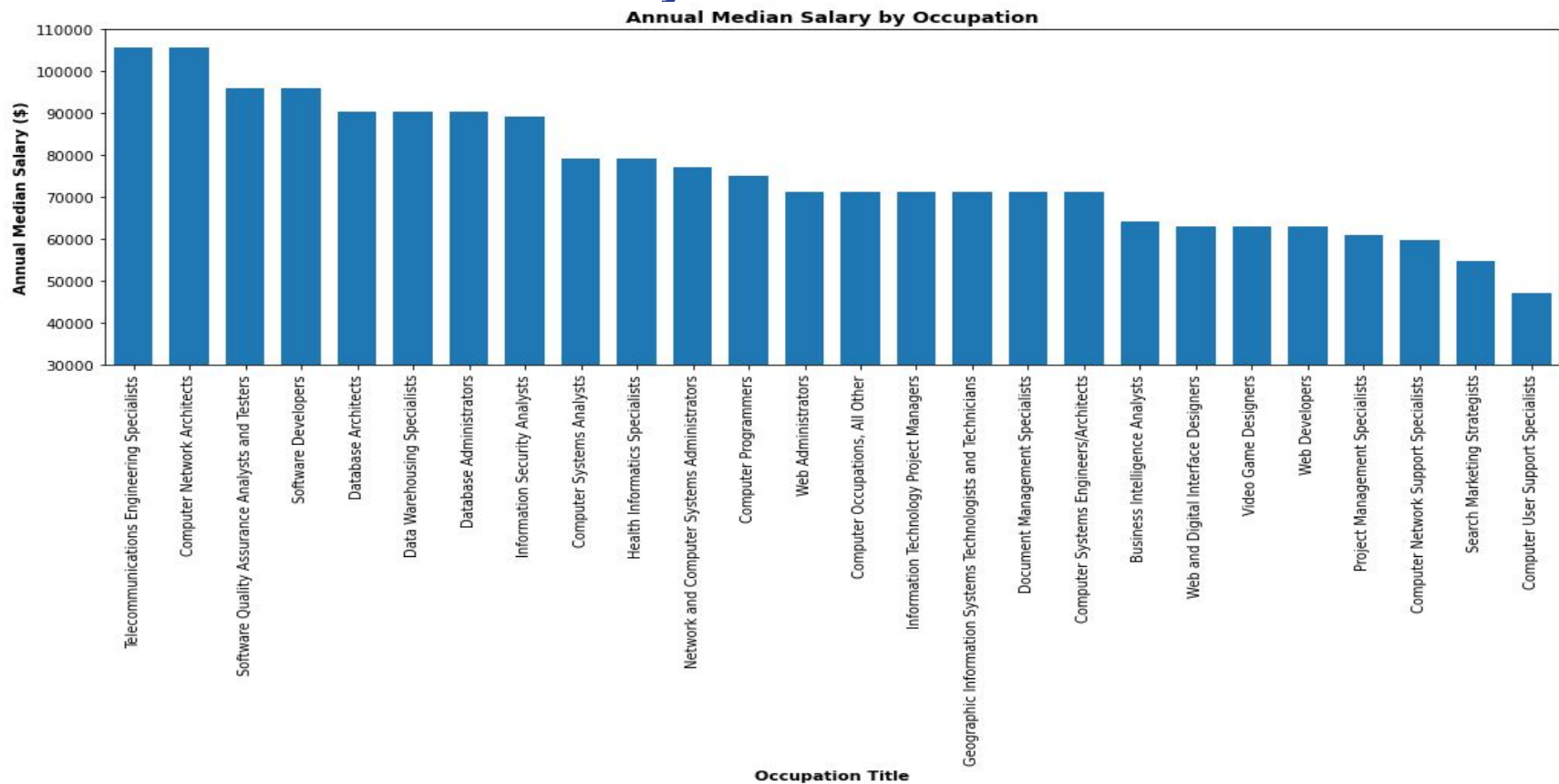
Analysis Questions

1. Is a 4yr degree a better investment vs a technical degree/certificate in Florida?
 2. What is the average annual salary for all IT occupations?
 3. What is the average distribution for education requirements for all IT occupations?
 4. What is the average return on each education level within the IT field?
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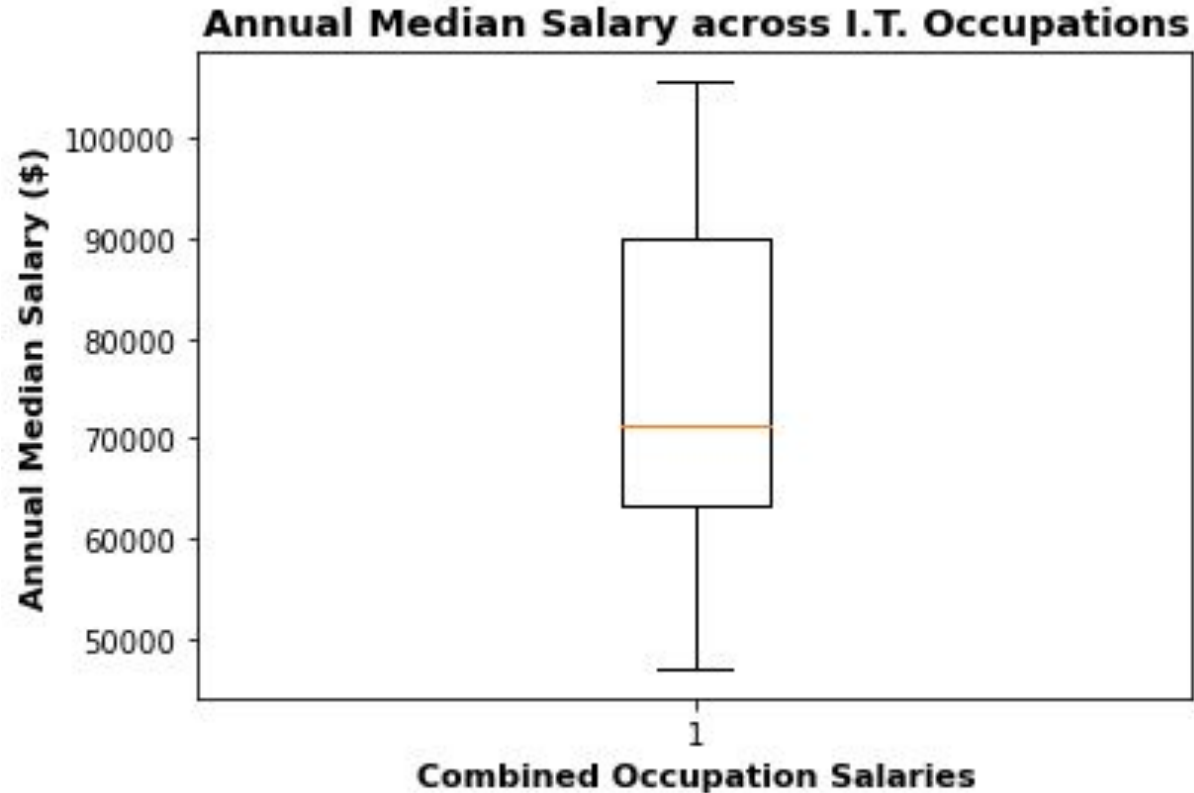
Cost of tuition



Annual median salary

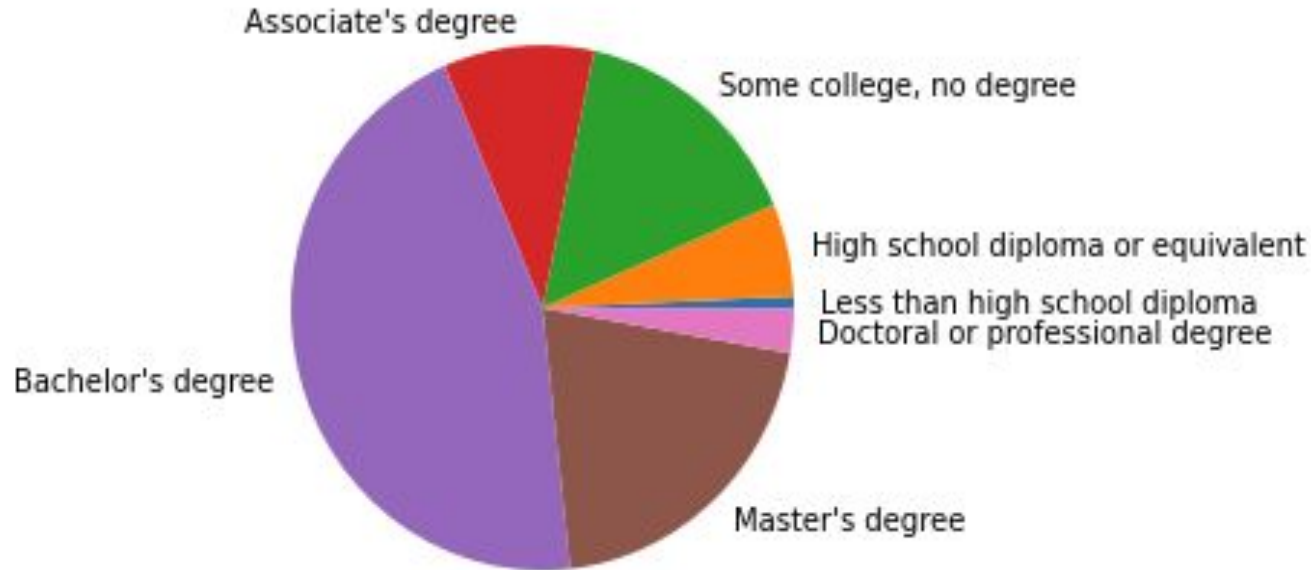


Annual median salary

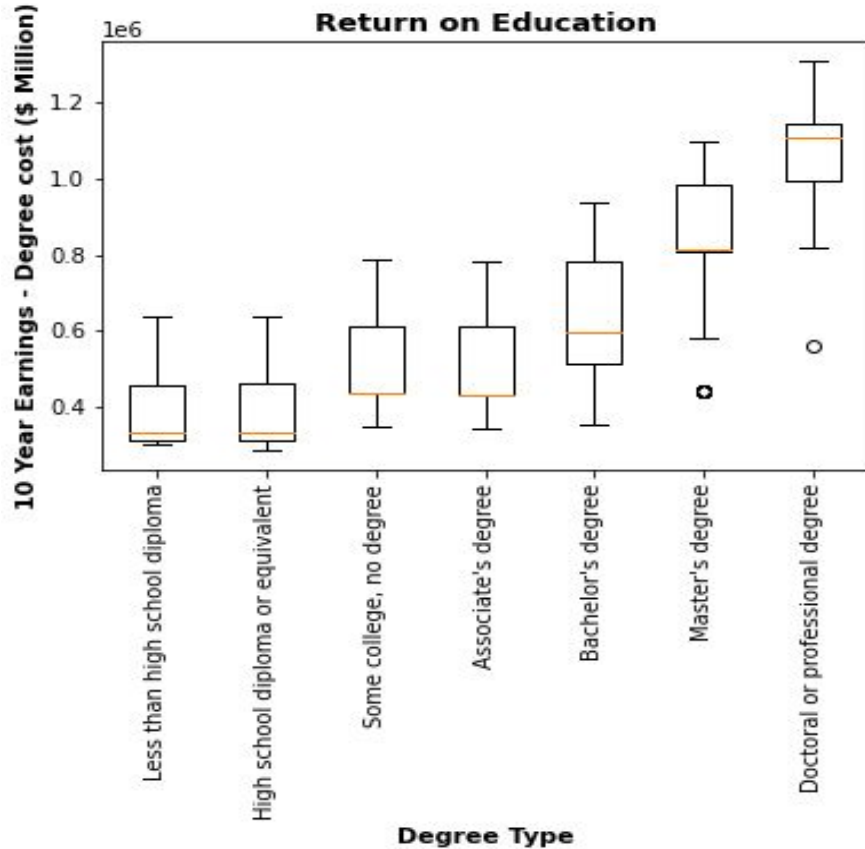


Distribution of Education Types

Distribution of Education Level for IT Occupations

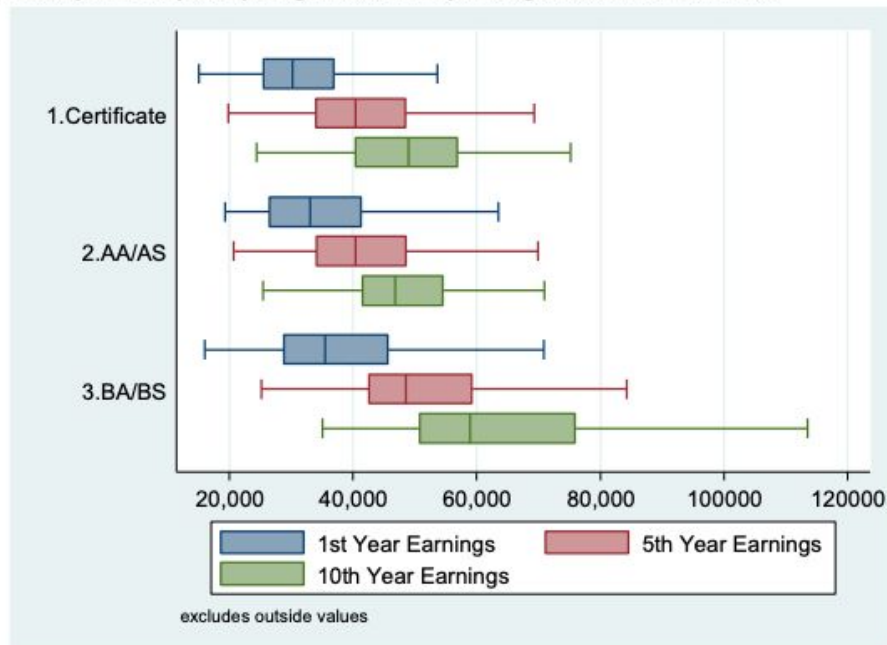


Return on Education by Degree type



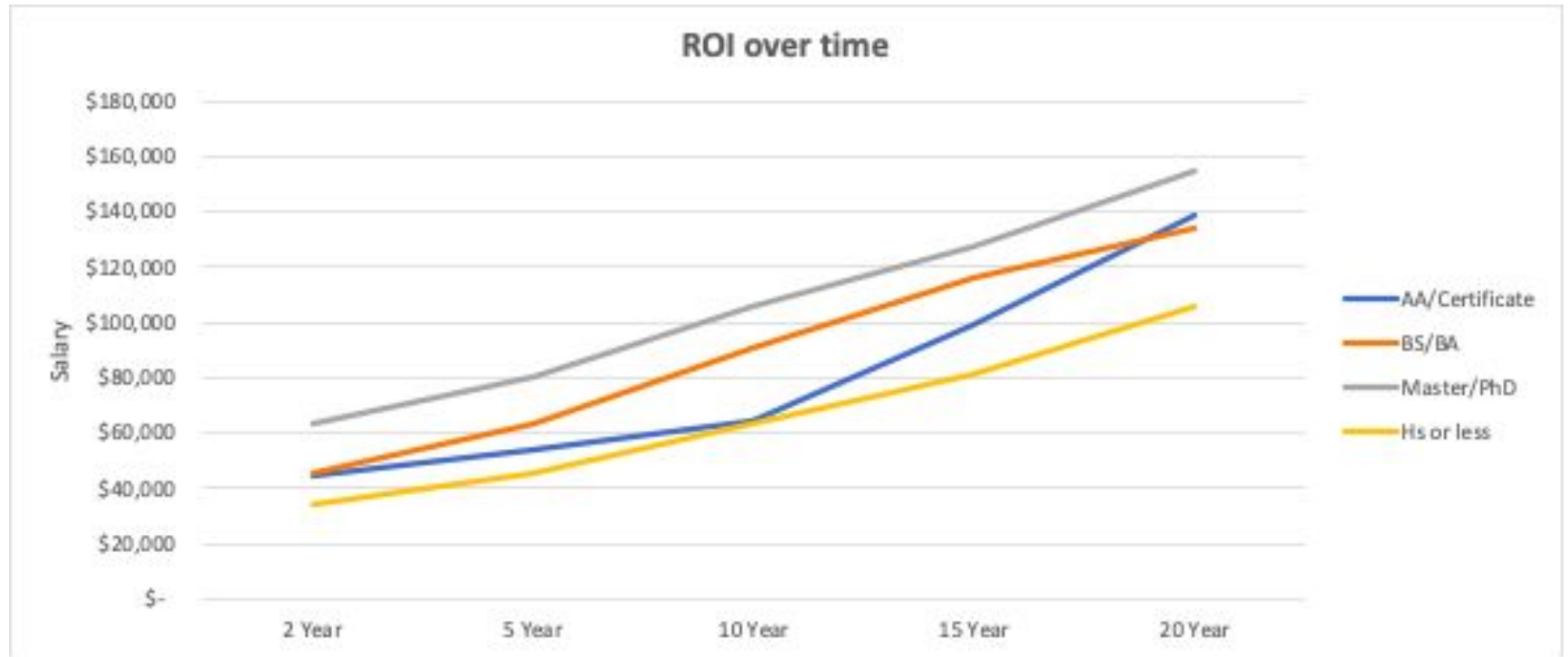
Assumption base

Exhibit 4. Distribution of median earnings 1, 5, and 10 years after completion for fields of study in PSEO-participating institutions by undergraduate credential level



Source: U.S. Census Bureau. (2019). Post-Secondary Employment Outcomes Data (Beta) (2001-2016) [computer file]. Washington, DC: U.S. Census Bureau, Longitudinal-Employer Household Dynamics Program [distributor], accessed on 9/30/19 at https://lehd.ces.census.gov/data/pseo_beta.html. R2019Q2 [version]

Salary ROI over time* (mock up)



Conclusion

We cannot accept nor reject the null hypothesis.

- **Missing salary level per education type**
- **Missing minimum job requirements vs education level of current position holders**
- **Missing salary growth over time based on education level**