Actual and Perceived Effectiveness of Alternative Education

John Vandivier

**I. Background and Outline**

Alternative education consists of alternative credentials, paths, and pedagogies[[1]](#footnote-1). These alternative entities are defined by the negation of their traditional counterparts.

This study focuses on the case of the United States, although certain parts are applicable elsewhere. In this context, traditional education refers to public education from Kindergarten through the 12th grade. Traditional higher education refers to a 4-year degree from an accredited university in the United States.

A path is a sequence of steps or a series of tasks. An educational path results in the acquisition of learning or a learning credential. The traditional path for a student in the United States is to enroll in a university in the year following high school graduation. An alternative path would be to enter the work force following high school graduation, and to enroll in college later in life. Alternative paths may result in traditional or alternative credentials, but traditional paths always lead to traditional credentials.

Traditional pedagogy refers to learning-by-lecture. Learning-by-lecture is the most common form of teaching in traditional institutions of education, but it is also utilized in alternative institutions of education. Likewise, alternative pedagogies may be utilized within traditional or alternative institutions of education. Alternative pedagogies include, non-exhaustively, learning-by-doing, learning-by-teaching, flipping the classroom, self-directed learning, and the Socratic method of teaching.

The main hypothesis in this study is that alternative education is a comparatively preferred path to a career for many careers. This study specifies the industrial and other conditions under which alternative education is and is not practically preferred. The results of this study are equally important at the macroeconomic and microeconomic levels; for policy and for personal financial considerations.

Section 1 describes the content, importance, and organization of the paper. Section 2 – 4 describe original research and results. Section 5 synthesizes results and includes third party research. Section 6 concludes with recommendations for practical implementation.

* 1. theoretical and practical importance
     1. theory: signaling or human capital? Caplan basically answered this
     2. practical: financial consulting barely addresses education but it should; how should it do so? Also career and life planning. Gains to be had by starting earlier
        1. question: average age of first financial consulting or bank account? Connection to financial success?
  2. relation to the literature
     1. Previous papers calling for additional research and a dearth of data
     2. temporal changes as a need to update even the so-called established literature
     3. caplan’s work and other notable scholars in this field
     4. problematic conclusions in the field this far: govt spending bad and also failure to disaggregate and look at edge cases: even caplan looked at the mean and not so much the distribution nor a multi-specific approach by skill or industry (though he agrees it comes down to skills!)

1. outline
   1. Attitudinal Study
      1. Technical Description
      2. Results
      3. Related Material
         1. Stack overflow 2016-2018
         2. Gitlab and others
      4. Key Conclusions
      5. Future Work
         1. Repeat and make panel
   2. Udacity Study
      1. Technical Description
         1. Identification of Udacity in particular, and other key providers
      2. Results
      3. Related Material
      4. Key Conclusions
      5. Future Work
         1. Increase sample size and detail (what about nanodegrees?), look at other providers
   3. a series of concrete case studies to illustrate opportunity cost
      1. Fire Academy + EMT -> Paramedic -> other
   4. bottleneck diagnosis: employers, parents, students, teachers, or someone else?
      1. Students think it’s too hard or boring
      2. Parents and teachers think kids need to go to school
      3. Employers don’t realize the value

**X. Results**

-does it matter that you actually do work in a STEM field or that you think you work in a STEM field even when you don’t? reasons:

1. Psychology mechanisms including identity mechanisms: is a technology-positive mindset and view associated with stem?
2. Actual scholarship and regulations for STEM (by state, nationally?)

1. <http://www.afterecon.com/education/alternative-paths-traditional-education/> [↑](#footnote-ref-1)