**2-Page, Oct 2018, Attitudinal Survey on Alternative Credentials**

This 2-pager summarily describes what was done, why it was done, and what I found. What was found takes the form of 5+ talking points.

**I. What Was Done**

A survey[[1]](#footnote-1) with 381 responses was taken over the course of 2018. 141 responses were obtained in February and an additional 240 responses were collected in October. 293 responses were purchased through SurveyMonkey, 30 responses were obtained using Mechanical Turk, and 58 responses were obtained through non-advertisement postings on social media and word of mouth[[2]](#footnote-2).

**II. Why it Was Done**

I previously investigated whether individuals that make hiring and firing decisions are significantly opposed to hiring based on alternative credentials, with an exploration of related questions. The present survey bolsters prior research as a first cut at looking for change over time. Added samples add confidence to prior conclusions, and in some cases modify prior conclusions. I also investigated whether Mechanical Turk was a cheaper way to obtain responses of a similar quality. Finally, this survey added new questions, including questions related to ideology such as religiosity and attitude toward regulation.

**III. What I Found**

Key results:

1. Time did not have a notable effect in the model. This is plausibly attributable to the low variability of time values.
2. Innovation bias was replicated as a strong effect, but a question on artificial intelligence is a better tool for identification of this bias relative to a previously used question on cryptocurrency.
3. Strong correlation was demonstrated between favorability on alternative credentials to qualify entry-level job candidates in lieu of a degree, the perception that alternative credentials will soon be conventional, and favorability on the use of online education.
4. Religiosity has a weak relation to the variable of interest, but individual level attitude toward government regulation has a strong relation to the variable of interest.
5. Favorability to government regulation had an effect directionally opposite expectation. Theoretically, pro-regulatory attitude was expected to correlate with support of traditional, accredited degrees and opposition to unaccredited, alternative modes of education. More generally, Q9 was taken as a proxy for fiscal conservatism, where Q7-Q8 were taken as proxies for social conservatism. On this view, fiscal conservatives would be expected to support free market solutions, deregulation, and alternative modes of education. Other literature is clear that conservatives tend to favor alternative modes of education including private schooling, home schooling, charter schools, vouchers, and more. While respondents were generally favorable to alternative credentials, those who were favorable to government regulation were counterintuitively more favorable to alternative credentials. This may be attributable to personality traits or innovation bias. Conservatives may relatively lack openness or possess relatively weaker support for disruptive innovation. While it’s out of scope of this paper, it might present an interesting paradox if the group most favorable to free market action is also a group which tends to relatively oppose innovation. That’s paradoxical to the extent that innovation flourishes on the free market.
6. With the introduction of new factors, industrial effects and anti-foreign bias no longer exhibited strong effects.
7. With the introduction of new factors, age became increasingly important and survived into the strong model.
8. The unimportance of employment status and region was replicated in the strong model.
9. The importance of gender, household income, and provider recognition was replicated in the strong model.
10. Mechanical Turk responses were obtained in a reasonable timeframe for a lower price compared to SurveyMonkey, but these responses did not include gender, income, or age variables which are included with SurveyMonkey paid responses. While there isn’t strong evidence that Mechanical Turk is preferred, there is some evidence that further exploration can be had with little risk or cost. Over the longer term, obtaining responses from Mechanical Turk might save money and act as a hedge against systematic bias from obtaining responses solely through SurveyMonkey paid audiences.

**Appendix A - Question Reference**

1. Do you contribute to hiring and firing decisions at your company?
   1. One selection among the following was allowed:
      1. Yes
      2. No
      3. Unemployed
2. For many professions, alternative credentials can qualify a person for an entry-level position.
   1. An integer selection inclusively between 1 and 10.
   2. Value of 1 labeled “Strongly Disagree”
   3. Value of 10 labeled “Strongly Agree”
   4. Other values unlabeled.
   5. This is the default answer pattern. If some question doesn’t specify the available answers, then the answers available are similar to question #2.
3. It will soon become fairly conventional for high school graduates to obtain alternative credentials instead of going to college.
4. When you add up the pros and cons for online education, it's probably a good thing for society overall
5. When you add up the pros and cons for artificial intelligence, it's probably a good thing for society overall.
6. When you add up the pros and cons for cryptocurrency, it's probably a good thing for society overall.
7. When evaluating an applicant's education, it is important is important to check whether the degree was awarded from a US institution.
8. Have you heard of any of the following online course providers?
   1. Zero to many selections among the following were allowed:
      1. Udacity
      2. Udemy
      3. Coursera
      4. Pluralsight
      5. Lynda.com
9. Do you work in a STEM profession?
   1. One selection among the following was allowed:
      1. Yes
      2. No
      3. Unsure
10. Which of these industries most closely matches your profession?
    1. Selections were not based on 2018 SOC codes, but in the future I would like to provide those options. https://www.bls.gov/soc/2018/major\_groups.htm
    2. One selection among the following was allowed:
       1. Agriculture
       2. Education
       3. Energy
       4. Finance, Investment, or Accounting
       5. Health
       6. Information Technology
       7. Law
       8. Manufacturing
       9. Military
       10. Other
       11. Retail
       12. Transportation
11. I consider myself religious
12. I consider myself Christian
13. Government regulation helps ensure businesses treat individuals more fairly.
14. Age
    1. Included by SurveyMonkey in 2018.
    2. In 2019 the question was explicitly asked.
    3. One selection among the following was allowed:
       1. < 18
       2. 18 -29
       3. 30-44
       4. 45-60
       5. > 60
15. Gender
    1. Included by SurveyMonkey in 2018.
    2. In 2019 the question was explicitly asked and the value of Other became a choice.
    3. One selection among the following was allowed:
       1. Male
       2. Female
       3. Other
16. Household Income
    1. Included by SurveyMonkey in 2018.
    2. In 2019 the question was explicitly asked.
    3. Measured annually, in nominal USD.
    4. One selection among the following was allowed:
       1. 0-9,999
       2. 10,000-24,999
       3. 25,000-49,999
       4. 50,000-74,999
       5. 75,000-99,999
       6. 100,000-124,999
       7. 125,000-149,999
       8. 150,000-174,999
       9. 175,000-199,999
       10. 200,000+
       11. Prefer not to answer
17. Region
    1. Included by SurveyMonkey
    2. One selection among the following was allowed:
       1. New England
       2. Middle Atlantic
       3. East North Central
       4. West North Central
       5. South Atlantic
       6. East South Central
       7. West South Central
       8. Mountain
       9. Pacific
18. Device Type
    1. Included by SurveyMonkey
    2. One selection among the following was allowed:
       1. iOS Phone / Tablet
       2. Android
       3. Other Phone / Tablet
       4. Windows Desktop
       5. MacOS Desktop
       6. Other

**Appendix B – Questions Per Survey**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Question Number** | **Short Name** | **2018, Feb** | **2018, Oct** | **2019, Feb** | **2019, March** |
| 1 | Employment | X | X | X | X |
| 2 | Entry-Level Suitability | VOI | VOI | VOI | VOI |
| 3 | Conventionalism | X | S | X | X |
| 4 | Online Education | X | S | X | X |
| 5 | Artificial Intelligence |  | S | X | X |
| 6 | Cryptocurrency | S | X |  |  |
| 7 | US Degree Centrism | S | X |  |  |
| 8 | Provider Recognition | S | S | X | X |
| 9 | STEM | X | X |  |  |
| 10 | Industry | S | X | X | X |
| 11 | Religiousness |  | X |  |  |
| 12 | Christianity |  | X |  |  |
| 13 | Regulatory Policy |  | S | X | X |
| 14 | Age | X | S | X | X |
| 15 | Gender | S | S | X | X |
| 16 | Household Income | S | S | X | X |
| 17 | Region | X | X | X |  |
| 18 | Device Type | X | X | X |  |
| 19 | Time |  | C | C | C |
| 20 | Collector |  |  | C | C |

C - Question is a calculated question, the answer of which was determined by the analyst instead of being explicitly asked of the respondent.  
S - Question was presented and associated with a strong effect.  
X - Question was present for survey. This does not guarantee every respondent answered the question. Particularly, Q14-Q18 were presented as SurveyMonkey included data for paid responses only during 2018. Beginning in 2019, Q14-Q16 were asked of all respondents, but Q17-Q18 remained observed for SurveyMonkey paid responses.  
VOI - Question was present and represents the variable of interest.

**Appendix C – Survey Collector Reference**

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| --- | --- | --- | --- |
| **Collector Name** | **Responses** | **First Response Date** | **Last Response Date** |
| Oct 2018 - Work, Social Media, Misc | 20 |  |  |
| Oct 2018 - Targeted relaunch | 84 |  |  |
| Oct 2018 - MTurk | 30 |  |  |
| Oct 2018 - Targeted | 106 |  |  |
| Feb 2018 - Social Media, Work, Misc Web Link | 38 |  |  |
| Feb 2018 - Targeted Audience | 103 |  |  |

1. Aggregate results and questions asked are publicly viewable at <https://www.surveymonkey.com/results/SM-FBQL8F5H8/> [↑](#footnote-ref-1)
2. See Appendix C for a Survey Collector Reference with additional information. [↑](#footnote-ref-2)