

STATISTICAL ANALYSIS OF “YOU’RE HIRED!” SURVEY RESULTS, 2014-2015

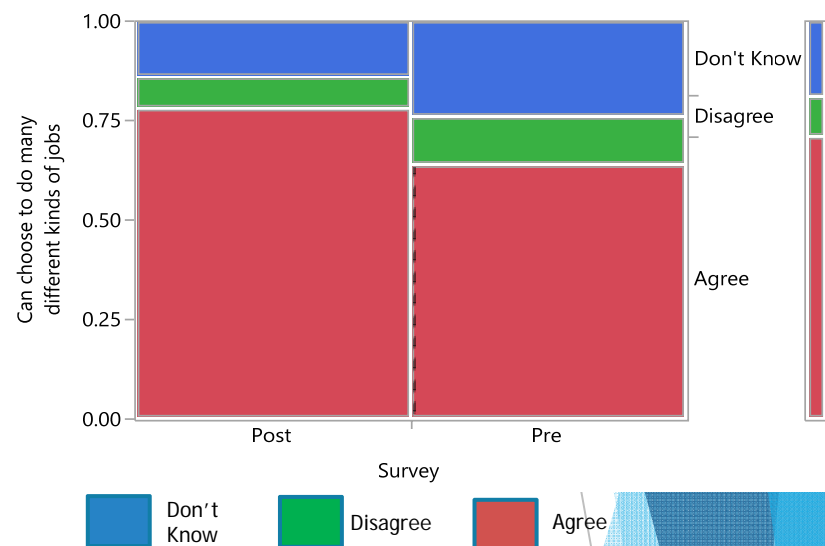
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Objective: Research, education, government, and private industry experts have shed light on the fact that the United States educational system is leaving a shortfall in student STEM interest and preparedness. In particular the “You’re Hired!” STEM program wants to reach out to students, and females and minorities especially, who are not naturally attracted to STEM fields.

Research Project: In this project I used student survey results, gathered digitally, from 6th, 7th and 8th grade students. This survey data was reformatted and cleaned up to statistically analyze the impact and effectiveness of the “You’re Hired!” STEM program. The major questions explored pertain to students’ changing attitudes and opinions on engineering and other STEM careers, and their willingness and desire to pursue them. Given that most of the responses came in the form of categorical data, and that I was looking at “before” and “after” responses, most of the analysis was done using Chi Squared tests.



Test	ChiSquare	Prob>ChiSq
Likelihood Ratio	8.348	0.0154*
Pearson	8.284	0.0159*

An example result: The graphic above represents a statistically significant shift, with a ChiSq = 0.0154 from pre- to post- “You’re Hired!” in the responses of females to the statement, “Engineers can choose to do many different kinds of jobs.” This represents a desired outcome in terms of girls becoming more aware and interested in the wide variety STEM and engineering careers available.