Youth, Visualization and Financial Knowledge

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Objective

Using data from a randomized control trial, this study analyzed the differences in financial knowledge scores based on five financial questions. The goal was to discover whether interventions using text, or text-plus a visual explanation of a financial concept improved scores between groups of respondents under age 30 based with either a bachelor's degree, some college or no college. The expectation was that lower scores among this population would be improved using the visual intervention.

Significance

Student loans have become a hot-button issue in recent years. Economists estimate there is approximately $1.5 trillion in outstanding student loan debt across 44.2 million borrowers. Previous research into financial knowledge and visualization suggests that display of information visually improves financial knowledge (Kothakota & Kiss, in press). However, education was not a significant factor in previous analyses. Examining youth and those potentially taking out student loans will allow for a more granular focus.

Method

The sample of 1,797 respondents was randomly assigned to either a control with no intervention, a text-only intervention and a visual-plus-text intervention. The sample was reduced to include only 18-29 year-olds with high school, some college or bachelor's degrees. This reduced the sample to 1186 and included both males and females. An analysis of covariance (ANCOVA) was conducted to examine how each intervention fared by education level. Further analysis was conducted using Poisson regression to examine the effect of education and the ameliorating effect of the interventions.

Results

Results indicate level of education matters with respect to financial knowledge scores. The ANCOVA illustrates that education is significant at the $p<.01$ level, suggesting the mean financial knowledge scores are different. The control group with bachelor's degrees had a mean score of 3.4, compared to high school graduates with a 2.5 and those with some college having 3.0. However, using the visualization plus text intervention saw those with high school graduates raise their score to 3.0, and those with some college to 3.5. Poisson regression confirms education is a factor in differences in financial knowledge scores, and the interventions had a positive effect on these scores. These responses indicate the intervention is helpful in increasing financial knowledge among youth.

Conclusions/Relevance

Contrasting individuals with some college experience with those with a degree indicate individuals may have student loan debt, but not the asset to help pay it off. A degree has historically meant higher income over the lifetime of the individual, enough to pay their debts. Conversely, someone accumulating debt for college but not finishing school will result in being in a worse situation than if they had simply not made the attempt to obtain a bachelor's degree. Early intervention may help those individuals understand the consequences of their actions and possibly go to college when it is more affordable.

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