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Articles

Financial literacy and student debt

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ABSTRACT

Using a large sample of over 1000 students from a major, land-grant, public university in Massachusetts, we examine the financial literacy level of college students, and its implications on the repayment of student debt. We find low levels of financial literacy (39.5%), particularly among female (26%), minority (24%) and first-generation (33%) students. Based on survey responses, we show that students with a deficit in financial literacy are more likely to underestimate future student loan payments; 38.2% of low-literacy students underestimate future payments by more than $1000 annually, while high financial literacy reduces the probability of significant payment underestimation by 17–18 percentage points. Furthermore, we find evidence of a financial literacy wage gap as students with low financial literacy expect significantly lower starting salaries than their high-literacy peers. As a result, low-literacy students are more vulnerable to unexpected, adverse shocks on their payment-to-income ratios that can impair their future creditworthiness and undermine their ability to service debt post-graduation.

KEYWORDS:

Financial literacy | student debt | literacy wage gap | student loan default

JEL CLASSIFICATIONS:

D84 | I22 | I23 | J16

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Disclosure statement

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Notes

1 It is important to note that if students also underestimate the amount of debt they hold, as suggested by Akers and Chingos (2014), then our estimates are by definition conservative and they constitute lower bounds of the actual underestimation.

2 This is the essence of the ‘double-trigger’ default models, where negative equity is a necessary condition, and a ‘life event’ ((e.g. job loss, death/illness, divorce) which results in inability to continue servicing debt is a sufficient condition for mortgage default (see Riddiough and Elliott Thompson 1991; Vandell 1995; Elul et al. 2010).

3 A deficit in financial literacy has been associated with a number of inefficient financial outcomes, including debt problems (Lusardi and Tufano 2015) and increased propensity to default (Gerardi, Goette, and Meier 2013; Urban et al. 2014), suboptimal investment

strategies (Van Rooij, Lusardi, and Alessie 2011; Hastings and Tejeda-Ashton 2008) and use of credit instruments (Lusardi and Tufano 2015), lower rates of wealth accumulation (Lusardi, Michaud, and Mitchell 2017) and less efficient wealth management (Hilgert, Hogarth, and Beverly 2003) and retirement planning (Lusardi and Mitchell 2007, 2008).

4 We find that students that respond 'I do not know' in questions 1 and 2 are less likely to answer the remaining two questions correctly and more likely to answer them both incorrectly. However, this pattern is reversed in question 3. Interestingly, the first two questions involve computations, while the third relies purely on financial knowledge. It is plausible that students with strong numerical skills but no financial knowledge, prefer to abstain from answering the last question.

5 It is important to note that our minority student sample size is limited (71), but it is representative of the university's enrollment.

6 The financial literacy level of Asian students is not due to the influx of international students; in fact, these students exhibit similar literacy rates (38.9%) to Asian in-state students.

7 We note that these figures are self-reported. Akers and Chingos (2014) find that undergraduates underestimate the amount of student debt they hold, in which case, our estimates can be seen as a lower bound of the actual underestimation of student loan payments.

8 Among students who report their interest rate, about 30% of minority and 23% of first-generation students borrow at the high-cost brackets (6–12%), when the respective percentage for the entire sample is just 17%.

9 In a recent study, Anderson, Conzelmann, and Austin Lacy (2018) find that student borrowers exhibit higher student debt literacy than non-borrowers. We do not find any corroborating evidence here, however we should point out that we are looking at financial literacy from the standard 'Big-Three' questions, while Anderson, Conzelmann, and Austin Lacy (2018) define debt literacy as the level of awareness on government provisions related to student debt repayment.

10 Our results on the relative underestimation of actual payments of high and low-literacy students remain robust, if we include these observations.

11 For instance, due to the ‘in-bracket’ range of the expected payment question and the use of midpoints, a bias of up to $600 may appear, even if the student responds correctly. This is the case, for example, if the actual monthly payment is $200 and the respondent marks $200–300 per month as the expected amount to pay. Due to the use of the midpoint $250, the student will appear to underestimate her payments by $600 annually.

12 This creates a different type of measurement error that we attempt to address by focusing on large payment underestimations (see endnote 11).

13 For the extreme brackets ‘less than $30,000’ and ‘more than $70,000’, we use $25,000 and $75,000, respectively.

14 Differences in expected remuneration between low and high financial literacy seniors remain large, but the power of the sample is low, due to the reduced sample size.

15 Widely used cutoff points are 36% for total debt (Quercia, McCarthy, and Wachter 2003) and 28% for just housing expenses (front-end ratio). Federal Housing Administration limits for qualifying mortgages are 31% and 43%, for front-end and back-end ratios, respectively.

16 It should be noted that our estimates are conservative as expected salaries refer to before-taxes income.

17 See Sections 3.3 and 3.4 for a discussion on these concerns.