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**Award-Winning Paper**

This issue brief is based on the paper that won the inaugural FINRA Foundation National Financial Capability Study Research Award. More information about the award and the National Financial Capability Study can be found at [USFinancialCapability.org](http://USFinancialCapability.org).

## Does State-Mandated Financial Education Affect High-Cost Borrowing?

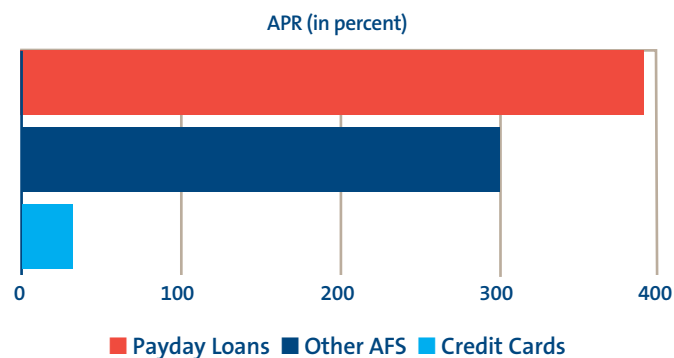
### Summary

Using pooled data from the 2012 and 2015 waves of the National Financial Capability Study (NFCS), this research finds that young adults who were required to take personal finance courses in high school were significantly less likely to borrow payday loans than their peers who were not. These effects do not significantly differ by race/ethnicity or gender, suggesting that financial education may be useful regardless of demographics.

### Background

Alternative financial services (AFS) are primarily offered outside of banks and credit unions. These products include but are not limited to payday loans, auto title loans, pawn shop loans, and rent-to-own financing.<sup>1</sup> They are regulated at the state level in several ways, including caps on loan amounts, number of rollovers allowed, and interest rates.<sup>2</sup> They charge a typical annual percentage rate (APR) of 300 percent—or even more for payday loans, which charge a typical APR of nearly 400 percent (Consumer Financial Protection Bureau 2013; Robb et al. 2015). These rates are at least 10 times the APR charged on unsecured credit cards (see Figure 1). This suggests that consumers should use AFS as loans of last resort after exhausting lower-cost forms of credit.

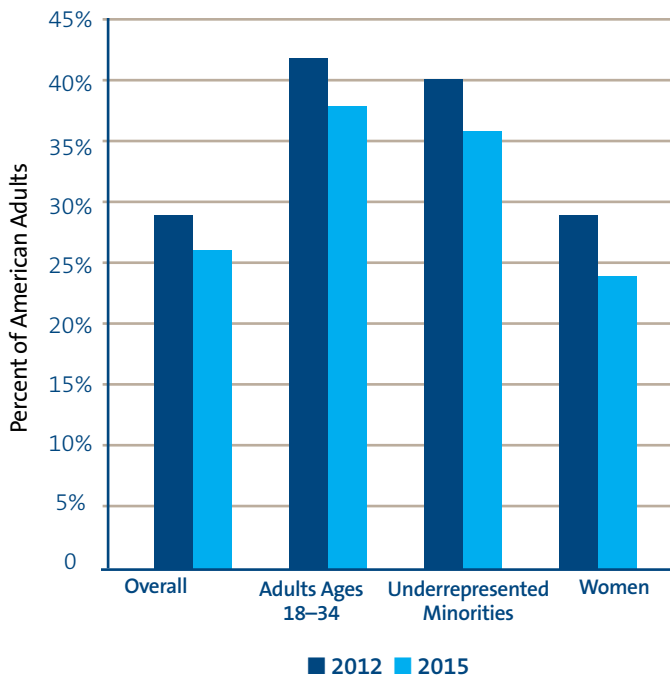
**Figure 1. Typical APRs of Alternative Financial Services Versus Unsecured Credit Cards**



SOURCE: Consumer Financial Protection Bureau (2013) and Robb et al. (2015)

Nevertheless, based on the 2015 data, one-quarter of all American adults used any AFS in the past five years (see Figure 2). When comparing different demographic groups, 38 percent of young adults (ages 18–34) used AFS versus 20 percent of older adults (ages 35 and above); 36 percent of underrepresented minorities used AFS versus 21 percent of whites and Asian-Americans; and 24 percent of women used AFS versus 27 percent of men.<sup>3</sup> In all instances except women, higher proportions of demographic subgroups more likely to be economically vulnerable borrowed payday loans and similar products. Prior studies suggest that poor credit and lack of close-by mainstream financial institutions may help to explain why some groups of consumers are more likely to use AFS, but cannot account for all of the reasons people use these products (e.g. Prager 2014; Barth et al. 2016; Friedline and Kepple 2017).<sup>4</sup>

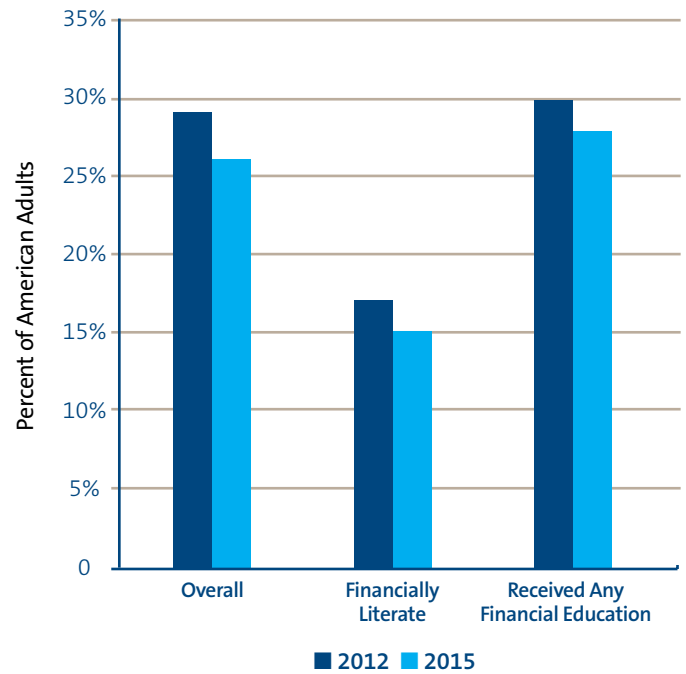
**Figure 2. AFS Use in the Past Five Years, American Adults Overall and by Select Demographics**



NOTES: Author’s calculations of NFCS 2012 and 2015. Figures exclude refund anticipation loans.

Figure 3 demonstrates that people with higher measured financial literacy are less likely to borrow high-cost loans.<sup>5</sup> Those who self-reported receiving financial education in school, the workplace, or the military are slightly more likely to use AFS. However, these patterns may be explained by age differences. Young adults are more likely to use AFS than their older counterparts, and they are more likely to be exposed to school-based financial education.

**Figure 3. AFS Use in the Past Five Years, Overall and by Financial Literacy and Financial Education Receipt**



NOTES: Author’s calculations of NFCS 2012 and 2015. Figures exclude refund anticipation loans.

State-mandated financial education can impact young adults' high-cost borrowing directly or indirectly. The direct way is through explicitly discussing alternative financial services with high school students. At least two states' personal finance standards indicate that AFS use is discussed in classrooms as follows:

- ▶ “Compare and contrast the various sources and types of consumer credit, such as student loans, auto loans, store credit cards, and payday loans. Draw conclusions about the types of credit best suited for financing and/or purchasing various goods and services, defending claims with specific textual evidence.” (Tennessee Department of Education)
- ▶ “Evaluate the costs and risks of payday and predatory lending.” (Utah State Board of Education)

The indirect approach is through increasing financial literacy and improving financial management behaviors. Substantial portions of personal finance curricula tailored to youth and young adults cover debt management and financial planning. This includes, but is not limited to, understanding compound interest, evaluating costs of credit, developing a budget or spending plan, and saving for emergencies.

This issue brief examines whether or not state public schooling financial literacy mandates have direct effects on AFS use.<sup>6</sup> Specifically, this analysis tests:

- ▶ Does state-mandated financial education impact AFS use among young adults?
- ▶ Do these effects vary by demographic subgroups?

This analysis is based on the pooled 2012 and 2015 NFCS data as supplied in the FINRA Foundation's tracking dataset.<sup>7</sup> The NFCS is a cross-sectional, triennial dataset that captures Americans' financial behaviors, dispositions, and characteristics. Importantly, it includes information about using auto title loans, payday loans, pawn shop services, or rent-to-own financing. The NFCS is nationally representative when weighted.

*Young adults exposed to personal finance course requirements in high school were less likely to borrow payday loans.*

State mandates are based on a dataset compiled by Urban and Schmeiser (2015) to determine which graduation cohorts were required to take personal finance courses in high school. This dataset documents when states implemented course requirements between 1970 and 2014. It differentiates mandates that required schools to offer financial education as an elective from those mandates that required all students to take financial education as a prerequisite for graduation. This analysis uses state policies that obligate all students to take personal finance courses to graduate from high school as of a certain year.

Because the NFCS lacks respondents' high school graduation years and state of residence during high school, the author approximates mandate exposure using respondents' ages and state of current residence. In determining treatment, the author follows guidelines from Urban et al. (2018) for which states adopted less rigorous or rigorous mandates.<sup>8</sup> Logit regressions estimate probabilities of using the following AFS:

- ▶ Any AFS (auto title loans, payday loans, pawn shop services, or rent-to-own transactions)
- ▶ Payday loans
- ▶ Rent-to-own financing

All three outcomes simply capture if an individual borrowed the specific loan or not. The study controlled for race/ethnicity, age, gender, marital status, number of dependent children, state of current residence, and survey year.

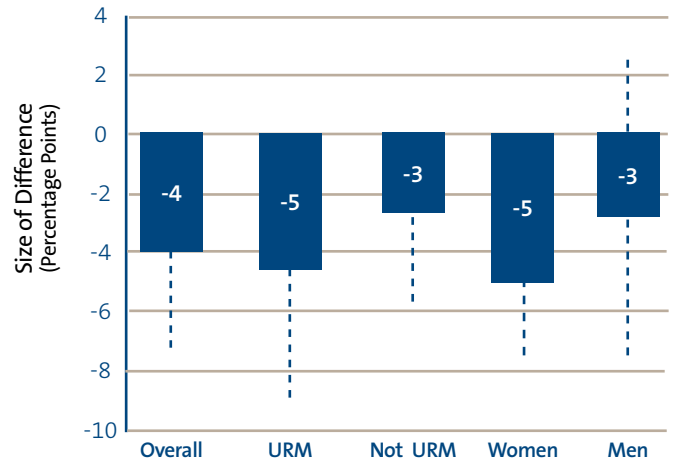
## Findings

The findings below estimate the effects of state-mandated financial education on AFS use by comparing behaviors of individuals living in a state with a mandate to: (1) older counterparts living in the same state and (2) same-aged counterparts living in a state without a mandate. It is assumed that, conditional upon controlling for individual characteristics, all differences across states and when mandates are implemented are captured in the state of current residence, age, and survey year variables.

Figure 4 shows the estimated effects of required personal finance courses on payday borrowing. This graph displays logit regression results comparing the difference between respondents subjected to mandated financial education and respondents not subjected to mandated financial education. On the x-axis, “overall” depicts the overall effect, and “women,” for example, depicts the effect of the mandates on women. The y-axis displays the percentage point difference in likelihood to borrow payday loans between respondents subjected to a financial education mandate and those not subjected to a mandate. Ninety-five percent confidence intervals are shown with the dashed vertical lines. If a dashed line crosses zero, then the reported result is not statistically significantly different than zero, meaning mandates did not lower payday borrowing for the group in question.

Overall, when controlling for demographics, state of current residence, and survey year, exposure to state mandated financial education does not necessarily reduce the likelihood of using any AFS among young adults. Young adults exposed to personal finance requirements were no less likely to use rent-to-own financing than their peers who were not exposed to these requirements. However, state-mandated financial education did reduce the probability of borrowing payday loans among young adults by four percentage points. The overlapping confidence intervals between racial groups and gender groups shown in Figure 4 reveal that required high school personal finance courses do not differentially affect AFS use among sub-groups. This suggests that financial education may be useful for a variety of demographic groups.

**Figure 4. Comparing Payday Borrowing by Respondents Subjected to Financial Education Mandates to Those Who were Not, Overall and by Race/Ethnicity and Gender**



NOTES: Author’s analysis of the 2012 and 2015 NFCS. “URM” stands for “underrepresented minorities.”

## Discussion

This brief highlights the impact of state-mandated financial education on AFS use based on the 2012 and 2015 waves of the NFCS. The study finds that state-mandated financial education particularly reduced the likelihood to borrow payday loans. This may be because payday loans are very popular and readily available relative to other AFS. These effects do not significantly differ by race/ethnicity or gender.

The research supplements previous research in finding that receiving or having financial information reduces the probability of borrowing payday loans. Further analysis shows that state-mandated financial education reduces AFS use independently of payday lending legislation.<sup>9</sup>

This work has implications for financial education evaluation. Evaluations should assess the effects of mandates on the use of both traditional and non-traditional sources of credit, including AFS. Without such analyses, decision makers may underestimate the benefits of state mandated financial education.

## References

- Barth, James R., Jitka Hilliard, John S. Jahera, and Yanfei Sun. 2016. “Do State Regulations Affect Payday Lender Concentration?” *Journal of Economics and Business* 84: 14–29.
- Consumer Financial Protection Bureau. 2013. *Payday Loans and Deposit Advance Products: A White Paper of Initial Data Findings*. Washington, DC: Consumer Financial Protection Bureau.
- FINRA Investor Education Foundation. 2016. “2015 NFCS State-by-State Survey – Full Tracking Dataset (trackable variables only).” Last updated July 11, 2016. Washington, DC: FINRA Investor Education Foundation.
- Friedline, Terri, and Nancy Kepple. 2017. “Does Community Access to Alternative Financial Services Relate to Individuals’ Use of These Services? Beyond Individual Explanations.” *Journal of Consumer Policy* 40, no. 1: 51–79.
- Harvey, Melody. 2017. “Are Financial Education Mandates Associated with Use of Alternative Financial Services?” *Consumer Interests Annual* 63: 1–2.
- ----- . 2018. “Financial Education among Financially Vulnerable Populations in the United States.” Ph.D. diss., Pardee RAND Graduate School, 2018, RAND Corporation Dissertation Series (RGSD-410).
- ----- . 2019. “Impact of Financial Education Mandates on Younger Consumers’ Use of Alternative Financial Services.” *Journal of Consumer Affairs* (Forthcoming).
- Lusardi, Annamaria, and Carlo de Bassa Scheresberg. 2013. “Financial Literacy and High-Cost Borrowing in the United States.” *NBER Working Papers*, No. 18969.
- Prager, Robin A. 2014. “Determinants of the Locations of Alternative Financial Service Providers.” *Review of Industrial Organization* 45, no. 1: 21–38.
- Robb, Cliff A., Patryk Babiarz, Ann Woodyard, and Martin C. Seay. 2015. “Bounded Rationality and Use of Alternative Financial Services.” *Journal of Consumer Affairs* 49, no. 2: 407–435.
- Tennessee Department of Education. 2016. Personal Finance. Nashville, TN: Tennessee Department of Education. Accessed September 12, 2017. [https://www.tn.gov/content/dam/tn/education/cte/cte/cte\\_std\\_personal\\_finance.pdf](https://www.tn.gov/content/dam/tn/education/cte/cte/cte_std_personal_finance.pdf)
- Urban, Carly, and Maximilian Schmeiser. 2015. *State-Mandated Financial Education: A National Database of Graduation Requirements, 1970 - 2014*. Database. Accessed September 12, 2015. <http://www.montana.edu/urban/financial-edu-database.html>
- Urban, Carly, Maximilian Schmeiser, J. Michael Collins, and Alexandra Brown. 2018. “The Effects of High School Personal Financial Education Policies on Financial Behavior.” *Economics of Education Review* (Forthcoming).
- Utah State Board of Education. 2016. *General Financial Literacy*. Salt Lake City, UT: Utah State Board of Education. Accessed September 12, 2017. <http://financeintheclassroom.org/downloads/GFLStandardsObjectives.pdf>

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## Endnotes

1. Other AFS products include refund anticipation loans, prepaid debit cards, and check-cashing services. FDIC limited refund anticipation loans through a “cease and desist” order to major banks in 2012. Accordingly, this option was excluded from the 2015 NFCS.
2. Some states prohibit these products entirely, especially payday loans.
3. Black/African-American, Hispanic/Latino, and Native American racial groups are classified as underrepresented minorities.
4. AFS providers are largely located in predominately low-income and predominately minority communities.
5. Associations between financial literacy and AFS use are consistent with findings in Lusardi and de Bassa Scheresberg (2013) and Robb et al. (2015).
6. The full paper on which this issue brief is based examined indirect effects as well as direct effects. The full paper can be found in a forthcoming issue of the *Journal of Consumer Affairs*.
7. The author employs the restricted-use version and drops the 2009 wave because it lacks respondents’ exact ages.
8. These states are Arkansas, Colorado, Florida, Georgia, Idaho, Iowa, Missouri, North Carolina, South Carolina, South Dakota, Tennessee, Texas, Utah, and Wyoming. Several states that have mandates according to legislation are not considered “treated” in this study because they practice local control (e.g. Arizona and Virginia), had pre-implementation demonstration pilots (e.g. Kansas, New Jersey, and Oregon), or experienced major shocks during the implementation year (e.g. Louisiana). Illinois, Michigan, New Hampshire, and New York are dropped from analyses because they implemented mandates prior to 2000.
9. See Harvey (2019) for more details. This was a robustness check to ensure that financial education mandates are not impacting payday borrowing among states that prohibit it.