



# INCREASING TAKE-UP OF THE AMERICAN OPPORTUNITY TAX CREDIT

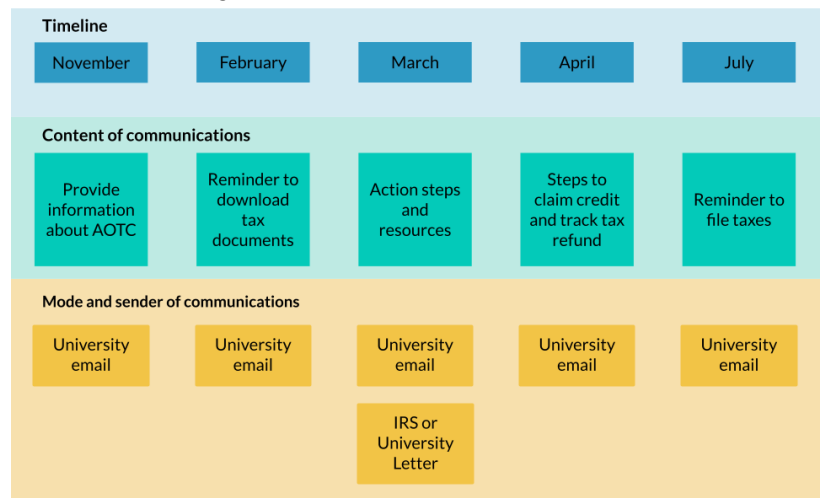
*A series of emails and a letter increased take-up*

**Target a Priority Outcome** Despite the fact that the American Opportunity Tax Credit (AOTC) is the most generous federal higher education tax credit, many eligible students or their families do not claim it.<sup>1</sup> Eligible students can claim a maximum credit of \$2,500, meaning that eligible students who do not claim the credit are missing out on a potentially large tax benefit, including a refund of up to \$1,000 if the credit reduces their tax owed to \$0.<sup>2</sup> Supporting the strategic objective to empower and enable all taxpayers, the Internal Revenue Service (IRS) sought to increase take-up of AOTC as part of efforts to ensure taxpayers receive the tax credits for which they are entitled.<sup>3</sup>

**Translate Behavioral Insights** Eligible students may lack awareness of the benefits of AOTC or the steps to claim it, be uncertain about their own eligibility, have difficulty remembering key deadlines and locating necessary documents, and face coordination problems with family members, among other barriers to take-up.<sup>4,5</sup> To address these barriers, the Office of Evaluation Sciences (OES), the Research, Applied Analytics, and Statistics division of the IRS, and a University partner collaborated to design and send a series of emails and a letter encouraging AOTC take-up. To increase the likelihood that eligible taxpayers open and read the materials, the series of communications included multiple modes (emails and a letter), multiple audiences (the letter was sent to students' permanent addresses), and for some students multiple senders (University and

IRS), as shown in Figure 1.<sup>6</sup> The communications incorporated included clear action steps, easy-to-use links, and timely reminders to help readers act on the information.

Figure 1. Communications overview and timeline



**Embed Evaluation** The effectiveness of the series of communications was evaluated using a block randomized design. Undergraduate students enrolled at the University at least half-time for one or more term during the 2019 tax year (N=19,071) were randomly assigned to a business-as-usual group (N=9,541) or communications-bundle group (N=9,530). Randomization occurred within blocks based on students' year in school (including whether they transferred to the University or earned a Bachelor's degree in 2019); whether they were enrolled at the University in Fall 2019; and whether they had registered an authorized payer to receive University emails. The University emailed all students when the Form 1098-T, Tuition Statement was ready. The communications bundle included five additional emails and one letter. Between November 2019 and July 2020, the University sent five AOTC emails to communications-bundle students and, if applicable, their authorized payer. In February 2020, the IRS sent the letter to a random sample of half the communications-bundle group (N= 4,765) and the

<sup>1</sup> Guyton, John, Dayanand Manoli, Brenda Schafer, Michael Sebastiani, and Nick Turner. "Credits for College." In *Proceedings. Annual Conference on Taxation and Minutes of the Annual Meeting of the National Tax Association*, vol. 110, pp. 1-20. National Tax Association, 2017.

<sup>2</sup> Internal Revenue Service, *American Opportunity Tax Credit*, <https://www.irs.gov/credits-deductions/individuals/aotc>.

<sup>3</sup> Internal Revenue Service, "IRS Strategic Plan FY2018-2022," Internal Revenue Service, <https://www.irs.gov/about-irs/irs-strategic-plan>.

<sup>4</sup> Bergman, Peter, Jeffrey T. Denning, and Dayanand Manoli. "Is information enough? The effect of information about education tax benefits on student outcomes." *Journal of Policy Analysis and Management* 38, no. 3 (2019): 706-731.

<sup>5</sup> Dynarski, Susan, Judith Scott-Clayton, and Mark Wiederspan. "Simplifying tax incentives and aid for college: Progress and prospects." *Tax policy and the economy* 27, no. 1 (2013): 161-202.

<sup>6</sup> The cost of the intervention included labor costs for developing and sending the emails as well as printing and postage for the letter mailing, which cost \$1.12 per University letter. Average cost for an IRS letter mailing was \$0.74 in 2019.

University sent the letter to the other half (N=4,776).

**Analyze Using Existing Data** The analysis uses tax-return data maintained by the IRS to meet the needs of research analysts and academic records from the University registrar. The primary analysis compares AOTC take-up on Tax Year 2019 returns between students in the business-as-usual and communications-bundle groups.<sup>7</sup> Tax returns data not only include student-level information on claiming AOTC, but also return-level information on tax credit amount, which allows for estimates of the education tax credit benefit amount per student. Exploratory analysis examines potential messenger effects by comparing AOTC take-up between students sent the IRS letter and those sent the University letter. Because AOTC aims to promote college access and affordability, exploratory analysis also examines downstream effects of the communications bundle on progress towards a degree, measured by academic credits earned between Spring 2020 and Fall 2020.<sup>8</sup>

**Results** Sending a series of emails and a letter increased AOTC take-up, but did not have statistically significant effects on exploratory outcomes. AOTC take-up was 48.5 percent in the communications-bundle group and 46.9 percent in the business-as-usual group, a statistically significant increase of 1.5 percentage points ( $p = 0.02$ ; 95% CI [0.2 - 2.8]).<sup>9</sup> Average AOTC credit amount was \$838 in the communications-bundle group and \$813 in the business-as-usual group, a \$25 increase ( $p=0.06$ ; 95% CI [-1.08 - 50.82]), or one percent of the maximum credit amount (\$2,500). Finally, the communications-bundle group earned on average 21.9 academic credits, which was 0.1 more academic credits earned than students in the business-as-usual group ( $p = 0.64$ ; 95% CI [-0.23, 0.38]).

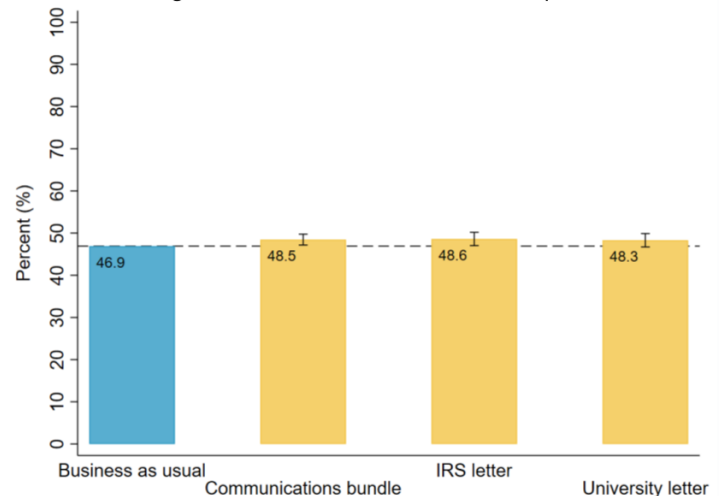
<sup>7</sup> Unless noted otherwise, all of the analysis reported in this abstract was prespecified in an analysis plan, which can be found at <https://oes.gsa.gov/projects/aotc>.

<sup>8</sup> The sample for this analysis excludes students who graduated from the University in Fall 2019 or earlier.

<sup>9</sup> The analysis plan prespecified a robustness check where AOTC take-up is defined to exclude claims with a high likelihood of error. This analysis is forthcoming and reported results include our primary measure that does not adjust for possible errors in claiming the credit.

Turning to messenger effects, AOTC take-up was 48.6 percent in the IRS-letter group and 48.3 percent in the University-letter group. When compared to the business-as-usual group, the effect is statistically significant for the IRS-letter group ( $p=0.04$ ; 95% CI [0.1 - 3.3]) and marginally statistically significant for the University-letter group ( $p=0.09$ ; 95% CI [-0.2 - 3.0]); however, the difference in effects between the letter groups is not statistically significant ( $p=0.74$ ).

Figure 2. Effect of outreach on AOTC take-up



**Build Evidence** This evaluation finds that a series of communications via emails to students and a letter to their primary residence can increase take-up of higher education tax credits among current students and recently enrolled students. Building on the exploratory findings in this study, future work could use larger sample sizes to evaluate the extent to which the IRS mailing drives results or other messengers could achieve similar impact implementing their own communications efforts. Additionally, exploring interventions that go beyond communications—for example, integrating tax benefits with other types of financial aid for college—could achieve larger effects on take-up and add to our understanding of the relationship between take-up of tax benefits and downstream educational outcomes.