

HOW CAN COMMUNITY COLLEGES INCREASE STUDENT USE OF YEAR-ROUND PELL GRANTS?

TWO PROVEN STRATEGIES TO BOOST SUMMER ENROLLMENT

MICHAEL J. WEISS

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MDRC's Center for Applied Behavioral Science (CABS) is an initiative that combines MDRC's expertise in social and education programs with insights from behavioral science. CABS develops innovative, low-cost interventions, tests their impact through experimentation, and provides technical assistance to programs.

Nationwide, only 24 percent of community college students earn a degree or certificate within three years of matriculating.¹ Students who enroll in summer classes at the end of the freshman year are more likely to persist and graduate.² Summer enrollment enables students to earn additional credits, reducing the time it takes to earn a degree. Summer enrollment also keeps students engaged in school, which may reduce the likelihood that they will drop out between spring and fall. Despite these potential benefits, only 30 percent of community college students enroll in summer courses, leaving much room for improvement.³

There are a host of reasons why students do not enroll in the summer. Barriers include the cost, along with limited awareness about whether grant aid can be used in the summer; the need to work or provide child care; concerns about the difficulty and availability of courses; college policies that do not encourage summer enrollment; and the habit, formed in primary and secondary school, of not enrolling in the summer, compounded by the stigma of summer school as a time for remediation.⁴

How can community colleges address these barriers and encourage more students to enroll in summer courses? A prior brief from MDRC's Encouraging Additional Summer Enrollment (EASE) project presented evidence that two interventions, an informational campaign and an informational campaign paired with a "last-dollar" tuition assistance grant (one that covers the gap between financial aid and total tuition and fees), can increase summer enrollment and credit accumulation.⁵ While these findings were promising, the interventions were implemented and evaluated before a major national policy shift: the reinstatement of year-round federal Pell Grants (or "summer Pell"), which provide additional financial aid for summer enrollment to qualifying students.

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- 1 McFarland et al. (2018). The statement refers to first-time, full-time, degree-seeking students.
 - 2 Adelman (2006); Attewell, Heil, and Reisel (2012); Attewell and Jang (2013).
 - 3 Attewell and Jang (2013).
 - 4 Headlam, Anzelone, and Weiss (2018).
 - 5 Headlam, Anzelone, and Weiss (2018).

This brief supplements the prior one in several important ways. First, the EASE project has expanded from 4 colleges and 3,700 students to include 10 Ohio community colleges and over 10,000 students. The size of the study allows for an exceptionally precise assessment of the effectiveness of the two interventions across a wide range of community colleges and students. Second, the interventions have now been implemented in two substantially different policy contexts, enabling an assessment of whether these interventions are robust to the shift in Pell Grant policy. Finally, for the first cohort of study participants it is now possible to determine the interventions' effects on enrollment in the summer of their sophomore year.

THE ENCOURAGING ADDITIONAL SUMMER ENROLLMENT (EASE) PROJECT

In partnership with the Ohio Association of Community Colleges and 10 community colleges in Ohio,⁶ MDRC developed and rigorously evaluated two interventions to encourage summer enrollment. The two interventions (described in detail in the prior brief)⁷ were designed with insights from behavioral science and featured the following components:

Intervention 1: Informational campaign

- The campaign consisted of a series of personalized student emails (up to seven) and mailings (up to four) to encourage summer enrollment.
- It began before the opening of summer registration and ended either before the start of the summer term or midway through the summer term.
- The emails and mailings included tailored content, such as the amount of Pell Grant dollars each student had available for summer courses. They also included general content, such as testimonials from fellow students, reminders about registration deadlines and how to seek enrollment assistance, and information about the benefits of enrolling in summer courses.
- The campaign incorporated principles from behavioral science intended to encourage students to act.

Intervention 2: Informational campaign paired with a “last-dollar” tuition-assistance grant

- The second intervention included an informational campaign very similar to the first intervention.

⁶ The participating colleges are Clark State, Columbus State, Lakeland, Marion Technical, North Central State, Northwest State, Rio Grande, Sinclair, Southern State, and Stark State.

⁷ Headlam, Anzelone, and Weiss (2018).

- In addition, it included a tuition supplement, referred to as a “summer scholar grant.” The value of the tuition supplement was equal to the total cost of tuition for summer courses that was not covered by federal or state grant financial aid (such as Pell Grant funding).

A randomized controlled trial was conducted to evaluate the effects of the interventions. All first-year students who enrolled in the spring semester and received a Pell Grant were randomly assigned to one of the two interventions or to a control group that received their respective colleges’ standard communications and financial support.⁸ The outcomes (for example, summer enrollment rates) of the three groups were compared to estimate the effects of each intervention.⁹

The interventions were launched at 4 of the 10 colleges in spring 2017 to encourage enrollment for the upcoming summer term. A total of 3,689 students were randomly assigned in this spring 2017 cohort. At that time, students who enrolled full time in the fall and spring semesters did not have Pell Grant funding remaining for summer courses, but part-time students may have had some Pell Grant funding available.

A second iteration of the interventions was launched at all 10 colleges in spring 2018 to encourage enrollment in the summer 2018 term (6,979 students). At that time, the year-round Pell Grant had been reinstated, and all Pell Grant recipients could receive funding to pay for summer courses. Across both the 2017 and 2018 cohorts, a total of 10,668 students (all eligible students) were randomly assigned to the three groups in equal proportions.¹⁰

Table 1 provides descriptive information on the students in the study.¹¹ Most notably, 46 percent were financially independent of their parents, an important consideration given the role that financial assistance plays in the interventions. Also of note, around 49 percent of the sample enrolled part time in the spring; part-time enrollment is an indicator of risk of not graduating. The summer may be a particularly important opportunity for part-timers, whose time to degree is inevitably longer than that of full-timers.¹²

8 Each college had its own standard communications.

9 The project’s registered analysis plan is available at <https://osf.io/mryxh/>.

10 An additional 37 students were randomly assigned but dropped from the sample because of ineligibility, and an additional 145 students (the entire sample at one college in the 2018 cohort) were dropped due to an implementation error. All decisions about removing students from the sample were made before running analyses. Dropped students were distributed evenly across the three research groups.

11 The three groups were very similar on observed characteristics when the study began.

12 O’Toole, Stratton, and Wetzel (2003).

Table 1. Student Characteristics

Characteristic	Control Group	Info Campaign Group	Info Campaign + Tuition Group
Female (%)	60.7	62.4	61.2
Race/Ethnicity (%)			
Asian or Pacific Islander	3.3	2.9	3.4
Black	25.3	26.3	26.1
Hispanic	4.6	4.5	4.6
White	55.0	55.3	54.5
Other ^a	5.4	5.0	5.1
Missing	6.3	5.9	6.4
Age (%)			
19 or younger	39.4	39.9	38.2
20-23 years old	24.0	24.8	25.9*
24 or older	36.6	35.3	35.9
Financially independent (%)	46.3	46.0	46.2
Highest degree completed (%)			
High school	92.0	92.0	91.4
GED certificate ^b	8.0	8.0	8.6
Spring enrollment status ^c (%)			
Full time	51.5	51.5	51.4
Financial aid status			
Baseline Expected Family Contribution (\$)	676.01	674.68	692.03
Baseline EFC = \$0 (%)	66.1	66.3	65.8

SOURCE: MDRC calculations from pre-random assignment data provided by each of the 10 colleges in the study.

NOTES: The sample size is 10,668 for all categories except gender (female) and financial aid status, for which it is 10,667, and highest degree completed, for which it is 10,325.

Missing values are shown for characteristics with more than 5 percent missing values.

A two-tailed t-test was applied to differences between the control group and each program group. Statistical significance levels for differences are indicated as follows: *** = 1 percent; ** = 5 percent; * = 10 percent.

Estimates are adjusted by interactions between college, cohort, and enrollment level in the semester of random assignment (full time/part time), except spring enrollment status, which is adjusted by interactions between college and cohort only.

^aThe “other” category includes students who self-identified as Native American, Alaska Native, two or more races, or other.

^bGED = General Educational Development.

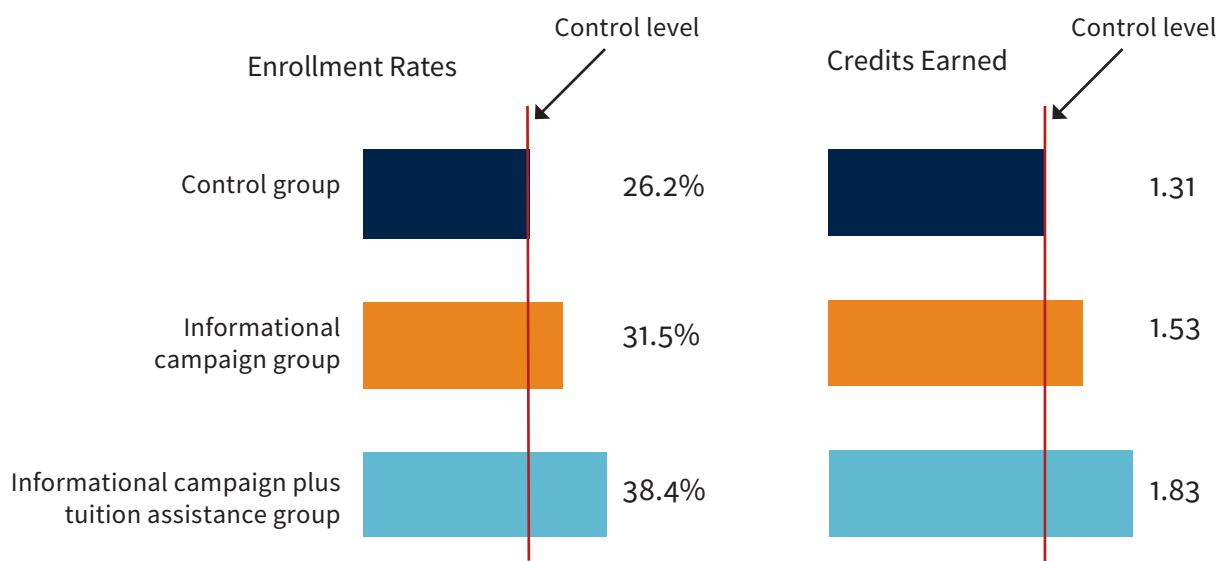
^cSpring enrollment status refers to the enrollment status during the semester of random assignment.

KEY FINDINGS

- **Both interventions increased summer enrollment and credit accumulation, with the informational campaign plus tuition assistance producing larger effects.**

Figure 1 shows summer enrollment rates and summer credits earned for the full sample of over 10,000 students (in both cases, this is for the summer at the end of the freshman year). The informational campaign increased summer enrollment by 5.3 percentage points, which resulted in 0.22 more credits earned, on average (a 17 percent increase). The informational campaign plus tuition assistance increased summer enrollment by 12.2 percentage points, which translated into 0.52 more credits earned (a 40 percent increase). All estimated effects are statistically significant (see Table 2, at the end of this brief, for more details).

Figure 1. Summer Enrollment Rates and Credits Earned



SOURCE: MDRC calculations using transcript data provided by each of the 10 colleges in the study.

NOTES: Estimates are for the full sample of 10,668 students.

Estimates are adjusted by interactions between college, cohort, and enrollment level in the semester of random assignment (full time/part time), as well as race/ethnicity, gender, age, dependency status, and Expected Family Contribution (EFC).

- **Both interventions had a positive, statistically significant effect on summer enrollment in the absence of year-round Pell Grants in 2017 and after their reinstatement in 2018.**

These interventions are therefore robust to the change in the policy context. Figure 2 plots the estimated effect and 90 percent confidence interval of each intervention (compared with the control condition) for the full sample as well as before and after the year-round Pell Grant was reinstated.¹³

The left part of Figure 2 focuses on the effect of the informational campaign alone. The horizontal dash represents the increase in summer enrollment caused by the informational campaign, in percentage points. The estimated effects are 5.3, 5.6, and 5.2 percentage points for the full sample, the 2017 cohort, and the 2018 cohort, respectively. All effects are positive and statistically significant. There is no discernible difference in the effects before and after the reinstatement of the year-round Pell Grant.

The right part of Figure 2 focuses on the effect of the informational campaign plus tuition assistance. The estimated effects are 12.2, 14.6, and 10.9 percentage points for the full sample, the 2017 cohort, and the 2018 cohort, respectively. Again, all effects are positive, sizable, and statistically significant, and there is no statistically discernible difference in effects between the cohorts.

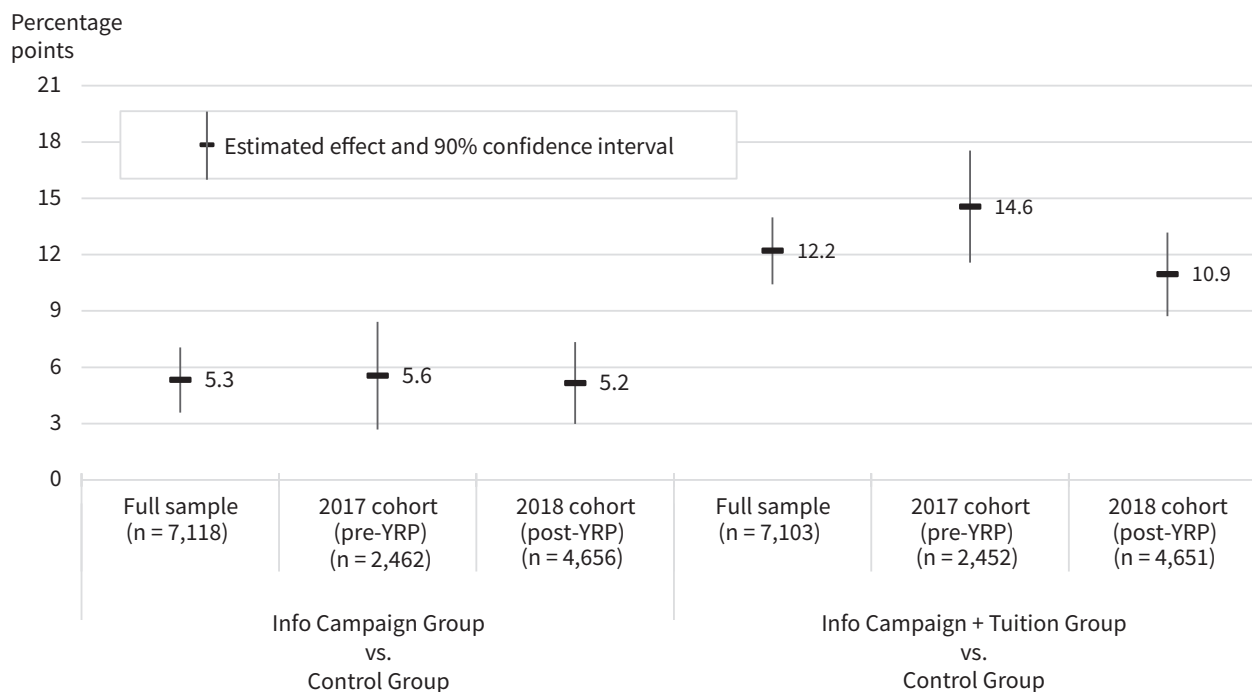
- **Neither intervention increased enrollment in the following fall term.**

The benefit of these interventions is to increase summer enrollment and credit accumulation. Estimated effects on subsequent fall enrollment are near zero (see Table 2). To some extent this result is unsurprising — neither intervention directly targeted fall enrollment. Yet both interventions increased summer enrollment, and prior research suggests that summer enrollment increases fall retention, so it may seem plausible that these interventions could indirectly increase fall enrollment. Upon close investigation, though, even such indirect effects would likely be quite small, because the additional 5.3 percent or 12.2 percent who were induced to enroll in the summer are the only students whose fall enrollment could be affected.¹⁴ In general, interventions that target summer enrollment alone are unlikely to

¹³ The 90 percent confidence interval provides a range of values that it is 90 percent certain the true effect lies within. When a confidence interval is positive and does not cross the zero line, it is very likely an intervention's true effect is positive.

¹⁴ One prior study estimated that summer enrollment increases students' likelihood of enrolling in the fall by 16 percentage points (Liu, 2016). If the additional 12.2 percent who were induced by the informational campaign plus tuition assistance to enroll in the summer were 16 percentage points more likely to enroll in the fall, then the expected overall effect on fall enrollment would be just 2.0 percentage points ($0.122 * 0.16 = 0.02$). The estimated effect on fall enrollment in the present study is 0.5 percentage points.

Figure 2. Enrollment Effects Before and After Reinstatement of Year-Round Pell Grants



SOURCE: MDRC calculations using transcript data provided by each of the 10 colleges in the study.

NOTES: YRP = reinstatement of year-round Pell Grants.

Estimates are adjusted by interactions between college, cohort, and enrollment level in the semester of random assignment (full time/part time), as well as race/ethnicity, gender, age, dependency status, and Expected Family Contribution (EFC).

have meaningful effects on overall fall enrollment — their main benefit is enabling students to earn credits in the summer, thus furthering progress toward a degree.

- **For the spring 2017 cohort, a second year of the informational campaign alone had no effect on summer enrollment or credits in students' sophomore year (summer 2018), but the informational campaign plus tuition assistance did increase summer enrollment and credits earned that year.**

The spring 2017 cohort of students received the same interventions leading up to two consecutive summers (freshman and sophomore years). While the informational campaign alone did not produce effects in students' sophomore year, the informational campaign plus tuition assistance increased summer enrollment by 7.2 percentage points, and students in that group earned 0.21 more credits (see Table 2). Corresponding results for the spring 2018 cohort will be available in a future publication.

SUMMARY AND NEXT STEPS

The mostly positive findings reported here confirm the previous evidence that many more students will take advantage of the summer session and earn credits toward a degree if thoughtfully encouraged to do so. This may be one small and inexpensive but important piece of what it takes to improve completion rates in community colleges.

Future project publications will include the following:

- An EASE guide, including the messages used for the informational campaign, for use by community colleges that want to implement the EASE interventions
- Information on the cost of implementing the interventions (current incentive data from the colleges suggest that, with year-round Pell in place, just under \$50 per student¹⁵ was spent on the last-dollar tuition waiver for the spring 2018 cohort in summer 2018)
- Additional follow-up on academic outcomes (for example, effects for the spring 2018 cohort in their sophomore summer)
- Additional analyses to determine whether the interventions work better for any subpopulations of students (for example, students for whom the tuition waiver had monetary value because they could not fully cover tuition and fees with their federal Pell Grants)

MDRC is interested in working with additional college systems and funders to increase summer enrollment by replicating or adapting the EASE interventions. Please contact MICHAEL.WEISS@MDRC.ORG and CAMIELLE.HEADLAM@MDRC.ORG to learn more.

¹⁵ This estimate includes all students who were offered the summer scholar grant, including those who did not receive a grant because they did not enroll or because other grants fully covered the cost of summer tuition.

Table 2. Summer and Fall Outcomes

Outcome	AVERAGE OUTCOME LEVELS			INFO CAMPAIGN vs. CONTROL			INFO CAMPAIGN + TUITION vs. CONTROL			INFO CAMPAIGN + TUITION vs. INFO CAMPAIGN		
	Control Group	Info Campaign	Info Campaign + Tuition	Difference	SE	P-Value	Difference	SE	P-Value	Difference	SE	P-Value
Full sample												
Summer after random assignment												
Registered (%)	26.2	31.5	38.4	5.3	1.1	<0.001	12.2	1.1	<0.001	6.9	1.1	<0.001
Total credits attempted	1.70	2.05	2.45	0.35	0.08	<0.001	0.75	0.08	<0.001	0.40	0.08	<0.001
Total credits earned	1.31	1.53	1.83	0.22	0.07	0.001	0.52	0.07	<0.001	0.30	0.07	<0.001
Fall after random assignment												
Registered (%)	55.3	55.3	55.8	0.0	1.2	0.973	0.6	1.2	0.625	0.5	1.2	0.648
Sample size (students = 10,668, colleges = 10)												
Spring 2017 cohort												
Summer 2017												
Registered (%)	23.2	28.8	37.8	5.6	1.7	0.001	14.6	1.8	<0.001	9.0	1.9	<0.001
Total credits attempted	1.44	1.73	2.33	0.29	0.12	0.020	0.89	0.13	<0.001	0.61	0.13	<0.001
Total credits earned	1.19	1.37	1.79	0.19	0.11	0.096	0.60	0.11	<0.001	0.41	0.12	<0.001
Fall 2017												
Registered (%)	56.4	56.7	56.9	0.4	2.0	0.856	0.5	2.0	0.792	0.2	2.0	0.933
Summer 2018												
Registered (%)	16.5	17.4	23.7	0.9	1.5	0.564	7.2	1.6	<0.001	6.3	1.6	<0.001
Total credits attempted	1.08	1.13	1.43	0.06	0.11	0.597	0.35	0.11	0.002	0.29	0.12	0.011
Total credits earned	0.90	0.94	1.11	0.04	0.10	0.681	0.21	0.10	0.040	0.17	0.10	0.097
Sample size (students = 3,689, colleges = 4)												

(continued)

Table 2. Summer and Fall Outcomes (continued)

Outcome	AVERAGE OUTCOME LEVELS		INFO CAMPAIGN vs. CONTROL		INFO CAMPAIGN + TUITION vs. CONTROL		INFO CAMPAIGN + TUITION vs. INFO CAMPAIGN	
	Control Group	Info Campaign + Tuition	Difference	SE	P-Value	Difference	SE	P-Value
Spring 2018 cohort								
Summer 2018								
Registered (%)	27.8	33.0	5.2	1.3	<0.001	10.9	1.4	<0.001
Total credits attempted	1.84	2.22	0.38	0.10	<0.001	0.67	0.10	<0.001
Total credits earned	1.37	1.61	0.24	0.09	0.005	0.48	0.09	<0.001
Fall 2018								
Registered (%)	54.7	54.5	-0.2	1.4	0.898	0.5	1.4	0.728

Sample size (students = 6,979, colleges = 9)

SOURCE: MDRC calculations using transcript data provided by Clark State Community College, Columbus State Community College, Lakeland Community College, Marion Technical College, North Central State College, Northwest State Community College, Rio Grande Community College, Sinclair Community College, Southern State Community College, and Stark State College.

NOTES: "SE" indicates standard error.

A two-tailed t-test was applied to differences between research groups.

Estimates are adjusted by interactions between college, cohort, and enrollment level in the semester of random assignment (full time/part time) as well as race/ethnicity, gender, age, dependency status, and Expected Family Contribution (EFC). Estimation model specifications, including the specific list of covariates, were determined before data analyses were run.

In previous published EASE materials, fall 2017 registration estimates were produced using preliminary data provided before the final add/drop deadlines. These fall 2017 registration estimates have been updated using finalized transcript data.

Fall registration for the spring 2018 cohort students is based upon preliminary data provided before the final add/drop deadlines for fall 2018.

Rounding may cause slight discrepancies in sums and differences.

One college was removed from the spring 2018 cohort due to an implementation error. This decision was made before receiving any outcome data or running any analyses.

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