

The Last Dollars: A Mixed-Methods Analysis of the *Spartans Will* Completion Grant Experiment at Michigan State University

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INTRODUCTION

Through generous funding from the Bill & Melinda Gates Foundation and Great Lakes Higher Education Corporation, and project management by the University Innovation Alliance (UIA), Michigan State University (MSU) has a new understanding of the ways financial barriers influence a student's ability to persist to graduation.

How does a student's financial situation in their last year of college influence their overall college experience? These expenses—ranging from essential costs like tuition and books, to discretionary spending like eating out with friends—may affect students' choices and their overall college experience. This study used mixed methods to explore effects of forgiving outstanding debt of low-income students who are within a year of graduating. We asked how completion grants (1) affect students' academic success and (2) influence the experiences of those who receive this financial support. To better understand ways in which additional financial support can have a personal impact on a student's last year in college, we interviewed 23 students who qualified to receive the *Spartans Will* Completion Grant. This financial support covers small debts (\$100 to \$1,000) owed by low-income students nearing graduation. Of the 23 students interviewed, all but six received a grant. Qualitative analysis from interviews (n=23) suggest personal impacts related to when and how additional financial support is received, and ways which students navigate financial stress. However, quantitative analysis of the full population (n=643) shows no statistically significant relationship difference between students who received the grant and those who did not in regards to percent of credits passed and both GPA and graduation outcome variables.

Our findings can inform policy development and leadership decisions in postsecondary education (PSE). Researchers, policy makers, administrative leaders, and student-facing staff can consider where their decisions can increase or decrease student financial stress. Our research affirms that whether through financial aid policy, campus engagement programs, or administrative procedures, access to just-in-time financial aid and student success interact.

Background

As postsecondary institutions seek ways to retain and graduate low-income students, retention and completion grants have become part of a strategy of "just in time" financial support sometimes called "emergency aid" (Anderson & Steele, 2016; Goldrick-Rab et al., 2021; Kruger et al., 2016; Van Duser & Tanabe, 2018). Retention grants are designed to be just that: financial grants that keep students in school when an outstanding balance would cause disenrollment (Van Duser & Tanabe, 2018). Completion grants are similar but typically awarded when students have made significant progress toward their degree (Goldrick-Rab et al., 2021). Inspired by the Panther Retention Grants program at Georgia State University (see Rosenberg, 2017) a number of institutions have taken up this approach (Goldrick-Rab et al., 2021; Van Duser & Tanabe, 2018). A number of private foundations (e.g., Ascendium, Bill &

Melinda Gates, Lumina) have supported efforts to explore the efficacy of retention/completion grants, sometimes through collaborations with non-profit groups of PSEs such as the Association of Public and Land-Grant Universities (APLU) or University Innovation Alliance (UIA).

Efficacy of Retention and Completion Grant Programs

There is limited research on the efficacy of these programs in increasing student persistence and degree attainment, and to date it remains mixed (see Goldrick-Rab et al., 2021). Van Duser and Tanabe (2018) developed a predictive logistic regression model and found a statistically significant positive effect on retention for students who received a one-time \$5000 scholarship during their sophomore year at one public university. Castleman and Long (2013) found a positive effect for Florida State University students receiving an annual \$1000 retention grant. A UIA-led program claimed positive results in a highly-structured completion grants program (described below) across 10 large public universities (The University Innovation Alliance [UIA], 2021) but the results were not even across institutions. Evidence is not yet conclusive as to the efficacy of retention/completion grants, in part because the diversity of program models makes them hard to compare to one another and in part because researchers have not always used methods that allow for causal claims.

Student Debt as an Obstacle

Students of any financial background may find themselves owing balances on their university account. These balances may accrue late payment fees, further compounding the problem. While some wealthier students may consider the situation an inconvenience, for low-income students these balances and fees constitute an obstacle to persistence in college. The *Spartans Will* Completion Grant program was designed to remove this obstacle. The debt in question is on students' university account, so it can be connected to anything from tuition and fee costs to library fines to unpaid parking tickets. Regardless of how this debt was incurred, these obligations can be a barrier for many students to succeed. Considering the student's academic standing and advancement towards their degree, the *Spartans Will* Completion Grants focus on helping eliminate additional barriers associated with their minimal debt—ranging from additional fees (e.g., late payment), interference with academic progress, and emotional stress. Students who received the grant have described how it was beneficial in different ways, including how it has alleviated financial stress, allowed more discretion with spending, and was the means to pay of final debts owed to the university.



Data and Methods

We conducted a mixed-methods study combining a randomized control trial with subsequent interviews with students in treatment and control groups. We implemented the *Spartans Will* Complete Grant program as a randomized control trial, which allowed us to compare experiences of similar groups of students who did and did not get the grants. Each semester between Fall 2017 and Spring 2020 we made a list of students who met eligibility criteria for receiving the completion grant (Expected Family Contribution [EFC] of \$7,000 or less, good academic standing, accepted full financial aid packages offered, 98 credits or more, and owing a balance between \$100 or \$1000). From this list, students were randomly selected until all funds were utilized for that term. Academic advisors called students individually to let them know about the grant, which was not something they could apply for and not something of which they could have been aware prior to the call. These students became the treatment group and the remaining students became the control group. When combined, this list includes 586 unique students. After removing students who fell into the treatment group more than once, or treatment and control in different semesters, we analyzed 257 in the control group and 301 in the treatment condition.

Quantitative Data

Data on student demographics, enrollment and graduation, GPA, and credit accumulation came from the Student Information System (SIS). The student demographics included legal sex, self-identified race/ethnicity (adjusted to IPEDS categories), and educational generation status. Academic outcomes included enrollment and graduation status for each semester, GPA for the semester they received or were eligible for the grant, overall GPA before and after the semester they received or were eligible for the grant, and total credits attempted and total credits passed for the semester they received or were eligible for the award. Overall, we included all students who were eligible for the grant from Fall 2017 through Spring 2020. For analysis on graduation, the Fall 2019 and Spring 2020 cohorts were excluded and for longer term graduation analysis the Spring 2019 cohort was also excluded as the required time period had not passed.

For the quantitative analysis, we first ran Chi Square tests to validate random assignment by comparing the treatment and control groups on relevant identity characteristics (legal sex, race/ethnicity, educational generation status) and found that our assumption of random assignment held true. Our research questions related to the quantitative data asks: (i) what impact does the completion grant have on academic student success (e.g., GPA, credit momentum, completion)? and (ii) are there any differences in outcomes by race/ethnicity, legal sex, or educational generation status? To answer this, we compared the treatment and control groups using t-tests for each of the following outcome variables: the percentage of credits

a student passed versus attempted, a student's in-term GPA, a student's term-to-term GPA change, whether a student graduated the semester after receiving the grant, whether a student graduated within two semesters, and whether a student graduated at any point.

Quantitative Findings

When analyzing the full population, we found no statistically significant difference between students who received the grant and those who did not with regard to percent of credits passed and both GPA outcome variables. When drilling down into the different student populations we found no statistically significant relationship by legal sex, race/ethnicity, or educational generation status between receiving a grant and the percentage of passed credits in the term, in-term GPA or term-to-term GPA.

Overall, we found no statistically significant relationship between receiving a completion grant and any of the three graduation outcomes. However, when exploring effects by student identity characteristics, some small effects were observed. A slight effect was found for graduating in the term after receiving a grant for white, female, continuing generation students. Additionally, a slight effect was found for graduating ever for Hispanic, male, first generation students.

Qualitative Data

Through interviews with low-income students—from a range of identities, involvement, and experiences—we have been able to understand different perspectives about what these barriers are and what they mean for students. We selected from students in the treatment and control groups. Of the students meeting the criteria outlined above for the *Spartans Will* Completion Grant program, about two-thirds received the grants and the remaining comprised a control group that did not. All eligible students (treatment and control) were invited to participate in an interview. Twenty-three students volunteered to be interviewed, six who did not receive a grant and 17 who received grants ranging from \$92.90 to \$984.92.

The interview protocol was designed to answer the research question: *How do low-income students experience and navigate their last year of college?* Guiding questions explored:

- When comparing those who did and did not receive the *Spartans Will* completion grant, what are the similarities and differences in how students describe their last year of college?
- How do low-income students spend their time in and outside of the classroom?
- In what ways, after receiving financial support and debt is cleared, do student success-related attitudes and/or behaviors change for students who receive the completion grant?
- Are there any patterns among the reasons students end up owing funds to MSU?

Students shared their personal journeys at MSU—from matriculation to graduation—for us to better understand how money helps or impedes a student’s ability to succeed. Interviews focused on key areas of the student experience:

1. **Academics:** changes in grades, course load, enrollment patterns like continuing year-to-year, or those who ‘stop out’ and take a term or more away;
2. **Out of class experiences:** work, volunteer, leadership, involvement, family responsibilities;
3. **Home and life responsibilities:** living, dependents, travel/commute, story of their balance owing, needs for summer work;
4. **Well-being, health, and mental health:** influences of stress/relief; health medical issues, insurance factors and co-pays; and,
5. **Identity-related stress:** for example, stereotypes, coping.

Overview of Qualitative Sample

To start, we offered each participant an opportunity to self-identify race and/or ethnicity and sex. Participants also named characteristics, such as first-generation identity (i.e., first in the family to attend college) and an estimate of the number of hours they work a week during the academic year. We asked questions about if or how students engaged on campus, leading to descriptions of their MSU involvement. Aspects of these students’ stories and experiences are noted on the table and discussed related to themes from our findings.

In sum, interviews include individuals who qualified in Spring 2019 and received a grant (n=1), students who qualified in Spring 2020 (n=6) but did not receive a grant, and those who received a grant in Fall 2020 (n=16). Student characteristics are summarized in Table 1. One third of interviews were conducted in July 2020, with the remaining occurring late October through November 2020.

Research affirms that student success is very individual, which is evident from our interviews. In this view, while PSE institutions have a stake in student success and also influence it through campus retention strategies, ultimately, students choose if and how they persist. However, there are unintentional barriers that can influence persistence, some of which are related to a student’s context and their financial situation. Stories participants shared affirm this conclusion. Here we summarize what we learned about how the participants spend their time outside of the classroom and how they identify:

- All participants have worked at some point, with many working consistently through their degree,
- Most are contributing and engaging with campus in meaningful ways,
- Just under half are the first in their family to attend college as first-generation college students,
- Nearly one third of the participants self-identify as being part of an underrepresented race or ethnicity, and,
- Two completed degrees in community colleges and later transferred to MSU.

It is important to note that research demonstrates that racially minoritized students face additional barriers to persisting through college (Dynarski, 2002; Goldrick-Rab, 2015; Miller et al., 2019; NCES, 2019; Perna & Ruiz, 2017), and other scholarship discusses the additional financial barriers minoritized students may experience (Black & Bimper, 2020; Serna, 2020; Tierney et al., 2007; Zurate & Burciaga, 2010). Last, and particularly related to students who are graduating in December 2020, all but one had to take an extra semester due to financial reasons such as exceeding Pell Grant eligibility, no longer qualifying for other financial aid, or—the most extreme reason—needing to contribute financially at home due to a family property foreclosure (one participant). We conducted these interviews during the height of disruption of the COVID-19 pandemic, which exacerbated financial difficulties for many students in our region. In spite of the financial obstacles, each of these students persisted and graduated in December 2020.



Table 1. Overview of Students Participating in Interviews

Pseudonym	Self-ID race and/or ethnicity	Sex	FG+	Spartans Will Completion Grant amount received	Graduation	Approx. work hours/wk	MSU involvement/engagement throughout duration of degree
COMPLETION GRANT CYCLE SPRING 2019 (n=1)							
April	Black	F	Y	\$136.00	Apr 2020	20	peer mentorship programming; working on campus
COMPLETION GRANT CYCLE SPRING 2020 (n=6)							
Ali	Arab	M		\$0^	Apr 2020	35	volunteering within college; off campus youth reading programs
Jack	White	M	Y	\$0^	Apr 2020	20	campus club recreation
John	White	M		\$0^	Apr 2020	25	nothing described
Katie	White	F	Y	\$0^	Apr 2020	20	campus club recreation; orientation
Kylie	White	F		\$0^	Apr 2020	20	undergraduate research assistant; study abroad; clubs and groups
Marko	Latinx	M		\$0^	Apr 2020	25	college society; student association
COMPLETION GRANT CYCLE FALL 2020 (n=16)							
Alex	White	T	Y	\$738.10	Apr 2021*	20	MSU food bank volunteer
Clara	White	F		\$696.11	Apr 2021*	20	residence hall; cheerleading
Colin	White	M		\$706.80	Dec 2020	20	orientation; college society
David	White	M		\$323.47	Apr 2021*	10	Veterans Services peer support
Dillon	White	M	Y	\$218.75	Apr 2021*	20	band; peer programs
Emma	White	F		\$92.90	Apr 2021*	25	college society
Erika	Black	F	Y	\$308.50	Dec 2020	20	residence life
Jenn	White	F	Y	\$984.82	Dec 2020	40+	MSU youth rehabilitation volunteer
Josie	White	F	Y	\$407.05	Dec 2020	20	nothing described
Kam	Black	M	Y	\$482.85	Apr 2021*	30	student government, student advocacy
Mohammad	Asian	M		\$125.00	Apr 2021*	30	college society; summer program internships (4)
Nancy	Asian	F		\$849.71	Dec 2020	20	theatre; working on and off campus; residence life
Ronnie	White	F	Y	\$342.44	Dec 2020	30	varsity athletics (former); recreation
Ross	White	M		\$904.00	Dec 2020	30	college society; recreation
Sam	White	M	Y	\$252.75	Apr 2021*	15	nothing described
Sierra	Black	F		\$330.21	Apr 2021*	20	residence life; sorority

+Students who identify as being *first-generation students*, meaning they are the first in their family to attend college.

*Students who are expected to graduate in Spring 2021 depending on successful completion of courses and degree requirements.

^Students who qualified for but did not receive a completion grant.

Summary of Key Qualitative Findings

Overall, we learned how these grants have helped individuals through the final stages of their degree and how students who did not receive the grant might have benefited if they had. Most of these findings relate to financial needs, prioritizing out-of-class job responsibilities, managing competing commitments related to personal and future academic success (i.e., volunteerism to augment medical school applications), and limitations of support from family. Whether or not they received the grant, students described similar pressures and stress regarding finances and financial planning. Consistently, interviews suggest participants' lack of knowledge regarding financial aid and resources on campus, or knowledge of resources that are available for undergraduates, but which are confusing to navigate or difficult to access. Our findings are described below.

The Need to Work While in College

"I didn't want to bug [my grandparents] for money again . . . I was planning to just keep [debt] on my account and show up to class and use Christmas money so I could continue the progress I had been making . . . I've tapped out loans and grants." — David (received \$323.47)

Recent NCES data shows that nearly 85% of students who attend college rely on financial aid in some regard, and eight out of ten students have a paid job in some capacity on or off campus, which was consistent with our participants (Hussar et al., 2020; Kena, et al., 2014). Though it was not a requirement for participants in this study to have worked, every student we spoke to has worked a paying job within the academic year, and four students described working multiple jobs simultaneously in order to make ends meet. Since beginning college, more than half of the participants have always worked a paying job in-year while studying.

David was one of many students sharing the pressing need to balance work and school expectations, which compound with other life needs. As shown in table 1, some students are working over 20 hours a week during the academic year, and some financially support other people (e.g., sibling, parent). While these individuals work part- to-full time to persist through school, and in many cases engage on campus and/or volunteer, there is an added layer of obligation as they help others who are also in financial need. This commitment illuminates the multiple priorities that low-income students navigate.

Compromising Time and Making Sacrifice

"The difference between missing a dinner out, or [buying] a cheaper SD card for class, or doing something with friends that costs money . . . and like, making a rent payment is negligible to some. That [completion grant] helped me make rent and I didn't miss the hayride with my friends. I told [the academic advisor notifying me about the grant] thank you, but I hope she knows I'm really, really thankful." — Colin (received \$706.80)

Students described many times when they felt they needed to compromise and make sacrifices for 'needs' over 'wants,' with time and money ultimately influencing the decision. Participants reflected on *the meaning of money* and the weight it had on their in- and out-of-classroom experiences—whether it was making sacrifices on required textbooks or technology—or perhaps even missing those 'college experiences' that Colin touches on.

Colin is like many of the students we interviewed: he works, is quite involved in extracurricular activities outside of his studies, and reflects on how much weight there is on what someone may deem their 'essential needs.' Ultimately, these students are left with the choice to continue to pay down their balance due to MSU or to prioritize some 'non-essential' aspects of college life like social times with friends on a hayride. As a result of a grant, Colin was able to not only make rent but also take part in these important social experiences. Many other students experienced similar stress regarding the choices, sacrifices, and financial trade-offs they made as money influenced their overall college experience.

How Financial Need and Time Interact

"You know, I don't want to be working doubles and studying for midterms on breaks . . . so if I got [the completion grant] a week earlier, I probably would have canceled some shifts this week . . . I'm really tired." — Jenn (received \$984.82)

MSU awarded completion grants two weeks after quarter term, which is after fee deadlines in the fall and spring terms, allowing university staff to reasonably conclude which students qualify as being low-income and are also in need of this just-in-time aid. Out of 17 recipients interviewed, eight participants used the term lottery when asked how they felt when receiving the call about receiving the award. Of these eight, the lowest grant issued was \$92.90 and the highest was \$984.82. Many students expressed relief and gratitude for this award but also quietly critiqued the timing. Students shared experiences about balancing their needs with competing work requirements in order to pay for their time, resulting in compromises.

Ross shared *"I felt like I won the lottery . . . Each year I'm picking up extra shifts or working under the table right now to pay off what I know is coming . . . this [extra work] didn't happen this year because of losing my job because of [the pandemic]."* The completion grant filled this gap.

In a different light, Kam joked, *"I don't mean to be greedy, but if I knew I could have won this earlier I don't know if I would have taken the chance on late fees to see if I'd get the call to save the time and gas. I'm working so much at two jobs . . . and at the craziest time of my term."*

A number of students referred to 'getting that phone call' and not believing they were receiving a grant—the lowest awarded being just under \$100—and how it felt like winning the lottery. Some students were direct in saying that had wished they had alternative financial support to avoid seeking-out more paid work opportunities.

Accessing Campus Resources

We investigated each personal journey from matriculation to graduation—or the final semester, for some—to better understand how money helps or impedes a student’s ability to succeed. Many students in each group reflected on achievement or described pride, others considered how important the support they received in their first year was to their success.

However, some students described being aware of but not accessing important resources on campus in their later college years. For some, they had accessed these resources in years one and two. Many participants attributed their decisions to not access resources to poor time management, self-reported stress, and/or confusion with navigating campus resources in their upper years.

Recommendations and Implications for Institutional Practice to Support Student Success

We maintain that the finding of minimal effect of the completion grants on student completion is an important null case. Based on the criteria used to select participants (amount owed, EFC, one year from completion), completion grant recipients at this large public university graduated at about the same rate as non-recipients. However, in interviews we learned that non-recipients expended substantial effort to “hustle” or borrow to pay off their balance, but they still completed. We heard from students in both groups that they had developed strategies over their time at MSU to deal with late fees, financial stress, and last-minute payments to the university to ward off dismissal. The quantitative findings indicate that if small grants are to be effective in increasing completion rate at this institution, then the timing, amount, or other criteria were not most effectively placed and further experimentation is necessary. We suggest that institutions considering completion/retention grant programs determine when in a student’s program the grant is most likely to make a difference in staying in school or leaving without a degree.

Our findings also indicated, however, that the grants did make a difference in the quality of life of those students who did receive them. They reduced work hours to make time for study, leisure, or co-curricular activities. Reduced financial stress improved their overall well-being. They took opportunities to do “college things” that they wouldn’t have done otherwise. We believe that these are valuable outcomes apart from the question of college completion.

As a conclusion, to aid leaders, policy makers, scholars, and practitioners, we present the following implications regarding low-income student success and financial aid policy.

1. Completion grants seem to be an affordable strategy to help advanced students get through and continue to degree completion. Especially considering the students we interviewed who required an extra term due to financial situations such as maxing out on Pell eligibility, campuses should explore and compare costs of finishing earlier than later. After reviewing campus needs and policies, completion grants could be a meaningful addition to policy. Understanding what thresholds and benchmarks a campus would consider is important to ensure sustainability for such grants. This analysis could include timing of delivery, academic standing, and work requirements, among others. Consequently, understanding intersections between stakeholder offices and departments (i.e., enrollment, financial aid, student affairs) and assessing efficiency (e.g., through gap analysis or focus groups) could be beneficial for the institution.
2. Institutions should clearly communicate resources to all students, especially those navigating their final years at the college. Considering the compounded responsibilities low-income senior students have, colleges can help students better navigate their last semesters by ensuring policy, programs, and services for low-income students are aligned with student success goals from first through final year. We suggest reviewing campus-wide financial aid policies to understand if there is room for revisions or alternatives that meet broad student needs. In response to the problems identified above, particularly those shared by students, we feel financial aid policies require an institutional response and mandates within a college that connects policy, programs, and services—all with the intention to meet the needs of all students.
3. Institutions should identify and provide resources to a campus lead to develop and implement strategies that will keep low-income students connected to resources throughout their time in school. The seniors we interviewed had stopped using campus resources that were available to them, instead relying on working more hours and hoping holiday/birthday gifts might help cover the balance they owed. Understanding how to communicate effectively with upper-division students and how to put resources in their way should be a priority.
4. Institutions should prioritize well-paid on-campus jobs for low-income students. Reducing the number of places students have to go in a day or a week – and cutting down on travel time between – provides more time for academic, co-curricular, and social engagement.
5. Institutions should examine the role of late fees on unpaid balances to see if they have any effect as deterrents or punishments. Students we interviewed described budgeting for the late fees they knew were coming, not because they were trying to flout payment deadlines but because they could not make the payment on time. Late fees thus penalize these students who can least afford to compound their balance due. Campuses might consider amnesty programs, fee waivers, and a careful examination of the intent of late fees for various kinds of balances due (e.g., tuition, library materials, repayment of emergency loans).

REFERENCES

- Black, R., & Bimper, A. Y. (2020). Successful Undergraduate African American Men's Navigation and Negotiation of Academic and Social Counter-Spaces as Adaptation to Racism at Historically White Institutions. *Journal of College Student Retention: Research, Theory & Practice*, 22(2), 326–350. <https://doi.org/10.1177/152102511774720>
- Dynarski, S. (2002). Race, income, and the impact of merit aid. In D. E. Heller & P. Marin (Eds.), *Who should we help? The negative social consequences of merit scholarships* (pp. 73–92). Cambridge. DOI 10.3386/w9400
- Goldrick-Rab, S. (2015, November 17). *The student debt we should strike*. Medium. <http://medium.com/synapse/the-student-debt-we-should-strike-ea722e046923>
- Hussar, B., Zhang, J., Hein, S., Wang, K., Roberts, A., Cui, J., Smith, M., Bullock Mann, F., Barmer, A., and Dilig, R. (2020). *The Condition of Education 2020* (NCES 2020-144). U.S. Department of Education. Washington, DC: National Center for Education Statistics. <https://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2020144>.
- Kena, G., Aud, S., Johnson, F., Wang, X., Zhang, J., Rathbun, A., Wilkinson-Flicker, S., and Kristapovich, P. (2014). *The Condition of Education 2014* (NCES 2014-083). U.S. Department of Education, National Center for Education Statistics. Washington, DC. <http://nces.ed.gov/pubsearch>
- Miller, B., Campbell, C., Cohen, B., & Hancock, C. (June 2019). Addressing the \$1.5 trillion in federal student loan debt. Retrieved from <https://www.americanprogress.org/issues/educationpostsecondary/reports/2019/06/12/470893/addressing-1-5-trillion-federal-student-loan-debt/>.
- National Center for Education Statistics. (2019). *Loans for Undergraduate Students*. The Condition of Education. Retrieved from https://nces.ed.gov/programs/coe/indicator_cub.asp
- Perna, L. W., & Ruiz, R. (2017). Understanding student debt: Implications for federal policy and future research. *The ANNALS of the American Academy of Political and Social Science*, 671(1), 270–286. <https://doi.org/10.1177/0002716217704002>
- Renn, K. A., & Reason, R. D. (2021). *College students in the United States: Characteristics, experiences, and outcomes* (2nd ed.). Stylus.
- Serna, G. R. (2020). Signaling, student identities, and college access: A proposed conceptual model of college choice and going. *Tertiary Education Management* 26, 19–37. <https://doi.org/10.1007/s11233-019-09041-0>
- Tierney, W., Sallee, M. & Venegas, K. (2007). Access and financial aid: How American Indian students pay for college. *Journal of College Admission*, 14–23. <https://doi.org/10.1037/a0021202>