Promise Program Effects at a Large, Urban Institution: A Study of Miami Dade College’s American Dream Scholarship

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Abstract

College promise programs, or place-based scholarships, are aimed at helping students attend and afford higher education. The American Dream Scholarship (ADS), offered by Miami Dade College (MDC), is a promise program that covers tuition and fees for the first 60 credits of an associate degree for students residing in and graduating from high school in Miami-Dade County. In this study, we relied on Bourdieu’s (1986) sociological framework to conceptualize the impact of the ADS on MDC’s student body. We posed the research question of whether the scholarship had any effect on total first-time, full-time college enrollment at MDC. Utilizing data primarily from the Integrated Postsecondary Education Data System, we used two comparison groups of colleges that were untreated by any county-level promise program: 26 colleges in the Florida College System and 37 public institutions nationally with the same Carnegie Classification as MDC. We applied difference-in-differences analyses and event studies to explore our research question. Results suggest that compared to untreated institutions in the Florida College System and institutions with the same Carnegie Classification, MDC enrolled 18.5% and 32% more first-time, full-time degree-seeking undergraduates, respectively, after ADS’s inception. This enrollment increase demonstrates that ADS positively contributed to MDC’s programmatic goals to increase student enrollments.

Keywords: higher education, student enrollment, financial aid

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Promise Program Effects at a Large, Urban Institution: A Study of Miami Dade College’s American Dream Scholarship

Nationwide, college promise programs, or place-based scholarships, often help students fulfill postsecondary educational goals by diminishing the financial burden of pursuing higher education. These programs have eligibility criteria that require that the student reside in a particular geographic area or attend high school in a certain school district, and typically cover tuition and required fees (Miller-Adams, 2015). Ever since discussions of “free college” became widespread during the 2016 presidential election, promise programs have grown nationwide. As of November 2022, the Upjohn Institute identified 210 local-level programs covering a geographic region smaller than a state (W.E. Upjohn Institute, 2022), while estimates from the College Promise show 297 local-level programs and 128 statewide programs as of March 2023 (College Promise, 2023). Some promise programs allow eligible students to use their scholarship funds at one of many institutions; for example, the Tennessee Promise is available for use at any of Tennessee’s 27 colleges of applied technology and 13 community colleges (Tennessee Promise, n.d.). However, more common is a program that offers scholarship funds for a single institution, which represents many of the local-level programs currently being offered.

One example of a single-institution promise program is the American Dream Scholarship (ADS), offered by Miami Dade College (MDC), one of the nation’s largest institutions of higher learning with over 120,000 students across eight campuses (Miami Dade College, n.d.-c). The ADS can be considered a promise program, and it covers tuition and required fees for the first 60 credits of an Associate of Arts or Associate of Science degree (Miami Dade College, n.d.-e). The ADS is not disbursed in cash but applied directly by the institution at the in-state tuition rate and as a last-dollar scholarship to cover tuition and fees—after students have exhausted all other forms of aid, including federal aid (e.g., Pell Grants), state financial aid, and other institutional scholarships. However, students that do not receive other forms of aid can use the ADS to pay for the entire amount of tuition and fees. Eligible out-of-state students must cover the difference between the in-state and out-of-state tuition costs (Miami Dade College, n.d.-e).

Initiated in 2011 with donations by private community benefactors, the ADS was established during MDC’s 50th anniversary (Office of the Press Secretary, 2011). The scholarship received an additional, anonymous $10 million donation in 2018, which allowed its operations to continue (Riera, 2018). ADS coordinators also work with the Bill and Melinda Gates Foundation, and the scholarship continues to be funded by private donations (A. Porro, personal communication, December 8, 2021).

Scholarship Eligibility Criteria

To be eligible for the ADS, students must reside in Miami-Dade County; earn a high school diploma, GED, or home school diploma in Miami-Dade County during the
academic year prior to enrolling; and be entering college for the first time (Miami Dade College, n.d.-e). Additionally, students must have a weighted cumulative high school grade point average (GPA) of 3.0 or higher. In the high school GPA calculation, students benefit from Miami-Dade County public schools’ policy of weighting a 3.0, or a letter grade of B, as a 4.0 for honors courses and 5.0 for Advanced Placement, International Baccalaureate, and Advanced International Certificate of Education courses (Miami-Dade County Public Schools, 2018). To be considered for the scholarship, students must also complete the Free Application for Federal Student Aid (FAFSA) or an Expected Family Contribution (EFC) calculator, though no additional application is necessary. Furthermore, students must demonstrate college readiness by achieving minimum scores on standardized tests or have a cumulative high school weighted GPA of 3.5 (Miami Dade College, n.d.-e). Approximately 3,700 students meet these criteria yearly (Unigo, 2020), representing about one-third of the entering MDC cohort. Since the scholarship’s inauguration, more than 17,000 students have received the ADS as of 2018 (Riera, 2018). To benefit from the scholarship, students must enroll in at least 12 credits during their first semester at MDC. To renew the scholarship, students must maintain a cumulative GPA of 3.0 by the end of every spring term and continue to enroll in 12 credits or more every fall and spring semester (Miami Dade College, n.d.-e).

Scholarship Recipients and Support Services

According to Adam Porro, the Director of the American Dream Scholarship, the majority of ADS recipients are female and 18% are Black. Anecdotally speaking, the ADS has positively impacted MDC’s retention and graduation efforts—85%–88% of ADS recipients return to college their second fall semester, compared to 55% nationally (Riera, 2018; A. Porro, personal communication, December 8, 2021). Additionally, 55%–62% of ADS students graduate within three years (ibid); for community college students nationwide, this figure is around 25% (American Association of Community Colleges, 2023).

To enhance high school students’ familiarity with the ADS and MDC, ADS coordinators assign counselors to area schools; seven of MDC’s eight campuses have assigned area feeder high schools. Also, working with the Bill and Melinda Gates Foundation has enabled ADS coordinators to provide students with a more structured support system. For example, ADS provides several non-financial supports to its recipients, including designated advisors, FAFSA renewal reminders, success teams to help ADS students access resources and stay on track for graduation, and pinning ceremonies in the fall. Ultimately, ADS coordinators hope program graduates will be encouraged to become global leaders and give back to their communities (A. Porro, personal communication, December 8, 2021).
Literature on Promise Programs and Student Enrollment

Existing studies of promise programs generally show that these programs increase first-time enrollment at eligible two- and four-year institutions (Li & Lowry, 2022). We review literature on programs that share characteristics with the ADS, with eligibility restricted to a certain locality and disbursing funds as last-dollar. The last-dollar Knox Achieves program increased the proportion of students from high school who enrolled at eligible community colleges in Tennessee by 3–5 percentage points (Carruthers & Fox, 2016). Other last-dollar, localized programs (eligible for those residing in a city or county), such as the Pittsburgh Promise, increased the proportion of high school students enrolling at any postsecondary institution in Pennsylvania by 5 percentage points (Page et al., 2019), while the Buffalo “Say Yes to Education” program increased enrollment by 8 percentage points at eligible colleges in New York (Bifulco et al., 2019). A study of 32 single-institution promise programs, or those programs that award students funding to attend a single college or college system (such as MDC), found that these programs increased first-time, full-time enrollment by 9%–22% at eligible community colleges (Li & Gándara, 2020). The ADS is a last-dollar, single-institution promise program and we hypothesized that, similar to findings from prior studies on both single- and multiple-institution programs, the ADS would increase the number of first-time college enrollments by notable percentages.

The ADS program was implemented by MDC for several purposes. First, it aims to relieve the financial burden of pursuing higher education. Second, the program intends to attract high-achieving students (A. Porro, personal communication, December 8, 2021), who tend to be from socioeconomically privileged backgrounds (Sutton & Soderstrom, 1999). These students would expand the academic and socioeconomic diversity of the MDC student body, 78% of whom work while attending college, 58% of whom are low-income, and 49% of whose family incomes fall below the federal poverty level (Miami Dade College, n.d.-c). ADS students are well-represented in MDC’s Honors College; among its high-achieving Presidential Scholars, who have at least a cumulative high school GPA of 3.5 (Miami Dade College, n.d.-b); and in its prestigious Rising Black Scholars program (Miami Dade College, n.d.-d). Being a recipient of the scholarship could positively impact the likelihood that eligible first-time, full-time students will enroll at the college.

Conceptual Framework

Previous research points to the importance of academic and socioeconomic diversity in higher education and the premium that students and families place on academic prestige, or perceptions of academic excellence. As Patton and Renn (2016) indicate, Bourdieu (1986) identified the existence of different forms of “capital,” or resources, that motivate students to pursue college and allow them to afford college (Bourdieu, 1986; Patton & Renn, 2016). Access to economic capital, or resources that are convertible to money, is
the reason why students seek financial aid and scholarships, as these resources improve perceived and actual college affordability. Bourdieu’s conceptual framework suggests that programs such as ADS also give access to social capital—resources that facilitate the formation of socially beneficial networks (Patton & Renn, 2016)—by enhancing ADS students’ academic prestige of being selected as a scholarship recipient. Being a scholarship recipient, in turn, may enhance students’ self-efficacy for postsecondary study, and thus lead to positive higher education outcomes, such as enrollment (which we examine), persistence, timely graduation, and transfer to four-year universities.

Bourdieu’s (1986) research spoke not only to the existence of social and economic capital but to the link between them and cultural norms—also a form of capital (Patton & Renn, 2016). Bourdieu’s theories imply that applying to and attending college is not a monolithic proposition, but a socioeconomic and culturally contingent one. Students from working-class backgrounds attend college for largely economic reasons—to gain better employment prospects and wages (Lehmann, 2009) and to obtain economic capital, while students from middle- to upper-class backgrounds who hail from generations of higher education legacies might attend to maintain familial college-going traditions (Grodsky & Riegle-Crumb, 2010), which also represent forms of socio-cultural capital. Applied to our study, students are seeking these different forms of capital as they apply to the ADS, and if they meet the eligibility criteria, students benefit from the economic, social, and cultural capital gained from being a scholarship recipient and from the opportunity to attend college.

Educational synergies are created for students from a variety of backgrounds when they interact in a socioeconomically diverse campus. Students from working-class backgrounds are exposed to the culture, or what Bourdieu (1986) calls habitus, of college-going that more economically privileged students bring with them to campus (Grodsky & Riegle-Crumb, 2010), thus enhancing the social and cultural capital of working-class students. In turn, students from more privileged backgrounds benefit from exposure to practices, such as negotiating school and work, which are more commonly acquired by working-class students. Promise programs, such as ADS, could increase the number and socioeconomic diversity of students entering college at MDC and enable such synergies.

From an enrollment management perspective, Bourdieusian theory can also help institutions understand how programs such as ADS are affected by shifting dynamics in the college admissions field (Patton & Renn, 2016), by bringing greater prestige to attending an open-access institution such as MDC. In previous admissions cycles, such as before the 2000s, academically-prepared students may have treated institutions such as MDC, which originated as a community college, as “safeties,” or last-resort schools. Yet, due to both increased competitiveness in college admissions and the promise of enhanced social capital for being a scholarship recipient, these same students might now treat MDC as a “fit.” Because of programs such as ADS, academically high-achieving students may regard MDC as an ideal option and thus may feel more encouraged to apply to the college, thereby increasing enrollment. Scholars and
practitioners can thus use Bourdieu’s (1986) conceptual framework to unpack how, in attempting to recruit these students, institutions that offer such programs as ADS may specifically target them. Consequently, it is important to investigate whether receiving the scholarship has a positive impact on students’ initial enrollment at MDC.

Research Design

Research Questions
As described earlier, one programmatic goal of the ADS was to increase the number of students who could afford to attend MDC and reward high-achieving high school students from Miami-Dade public schools. In our study, we investigated the following research question: Did the American Dream Scholarship have any effect on total first-time, full-time college enrollment at Miami Dade College? Our question explores the impact of the ADS on student entry into any of the MDC campuses and considers the eligibility requirements of the scholarship—students must be enrolled first-time in college and be full-time. As mentioned earlier, prior research has found that similar programs, especially those with relatively simple application procedures (such as the ADS), have resulted in greater enrollment of entering students (Li & Lowry, 2022). Therefore, we predicted that ADS would have a positive effect on the total number of entering students.

Data
We collected data on college enrollment from the Integrated Postsecondary Education Data System (IPEDS). From the fall enrollment survey, we used the total number of first-time, full-time, undergraduate, degree/credential-seeking students in the fall semester as our outcome variable. This variable captures the initial enrollment of students directly from high school who enter the MDC system for the first time. Our dataset starts in Fall 2008 (three years of pre-treatment data) until Fall 2020, the latest year available at the time of data collection.

Comparison Groups
We used two comparison groups of colleges that were untreated by any county-level promise program. The first included the 26 colleges that belong to the statewide Florida College System, of which our treated college belongs to, and that did not start their own promise program during the years of observation (2008–09 to 2019–20). There are 28 colleges in the statewide Florida College System (Florida Department of Education, 2022). Beside MDC, we excluded one college in the system, Florida State College at Jacksonville, due to its implementation of the FSCJ Promise in 2017 (Perna & Leigh, 2020). We selected our first comparison group because it was local and focal; institutions in the same state system may share similar, unobservable characteristics.
and are all situated in the state of Florida. Students residing in counties other than Miami-Dade would not have had the same opportunity to attend a local college on a promise-like scholarship. Thus, in the absence of the ADS, we would anticipate that the enrollment trends of other, similar colleges in the state would be comparable to enrollments at MDC.

Our second comparison group consisted of colleges nationally that shared similar characteristics with MDC. We downloaded IPEDS data on Title-IV participating, U.S. institutions that enrolled first-time, full-time undergraduates, with degree-granting status (granting associate degrees and certificates and granting bachelor’s degrees but primarily associate degrees). We excluded special focus colleges (e.g., nursing, arts, culinary, beauty, and seminary schools; tribal colleges). While MDC started as a community college, in 2003 it became a bachelors-granting institution (Miami Dade College, n.d.-a), specifically being categorized as a baccalaureate/associate’s college: mixed baccalaureate/associate’s degrees. This Carnegie Classification, as of 2020, was held by 37 institutions in IPEDS—after we excluded any institutions known to have started their own local-level (sub-state) promise program, using data from the Upjohn Institute (W.E. Upjohn Institute, 2022). This second comparison group included colleges similar in mission and degree offerings as MDC, yet without exposure to a promise program.

Analytic Technique
Our panel dataset consisted of three years prior to 2011, the first active year of the ADS, and the years following the introduction of the scholarship. This provided a data structure amenable to a difference-in-differences (DD) design. Our main empirical model uses fixed-effects estimation in ordinary least squares (OLS) to isolate changes to enrollment outcomes in response to the scholarship. DD is a quasi-experimental design that utilizes observable data between treatment and comparison groups (Angrist & Pischke, 2009; Bertrand et al., 2004).

If the creation of the ADS increased initial college entry, we would expect that MDC’s enrollment patterns would be different from that of other institutions in our two comparison groups. In our DD setup, one difference was the change in first-time college entrants between pre-treatment and post-treatment periods for the treated college, and another difference was this same change in entrants between pre-treatment and post-treatment periods for control colleges. We subtracted these two differences, thus calculating the DD. This method exploits differences across time and between institutions (Angrist & Pischke, 2009). Formally, our standard two-way fixed effects DD model was as follows:

\[ Y_{it} = \alpha + \beta_1 (\text{treat}) + \beta_2 (\text{post}) + \beta_3 (\text{treat} \times \text{post}) + \gamma_i + \eta_t + X_{it} + \epsilon_{it} \]

where \( Y_{it} \) is the outcome for college \( i \) in year \( t \), the variable \( \text{treat} \) indicates whether the college is in the treatment or comparison group, the variable \( \text{post} \) accounts for the years the ADS was active, and the interaction \( \text{treat} \times \text{post} \), captured by the parameter \( \beta_3 \), is
the estimated average treatment effect of ADS on the outcome. \( \gamma \) is a college-level fixed effect to account for time-invariant observable and unobservable characteristics of each college, \( \eta \) is a year fixed effect to account for time trends, and \( X_{it} \) represents a vector of time-varying county-level control variables. We logged our outcome variable to normalize enrollment counts. We estimated bias-corrected standard errors using the Donald and Lang method for all models (Donald & Lang, 2007), and analyzed data using the xtdidregress command in Stata 17.

**Panel Event Study Design**
We conducted event studies to explore dynamic indicators for time relative to treatment (Sun & Abraham, 2021). Event studies generate unit-level treatment effects at each time period measured, which is essentially the difference between the observed outcome (at treated colleges) relative to the never-treated counterfactual outcome (at comparison colleges). As with generalized DD, panel event studies assume parallel trends in the baseline outcomes of treated and control units and the absence of anticipatory effects prior to treatment. Event studies offer a visual representation of a policy’s causal impact (Clarke & Tapia-Schythe, 2021). We estimated the following model using the csdid package in Stata:

\[
y_{gt} = \alpha + \sum_{j=2}^{J} \beta_j (\text{Lead}_j)_{gt} + \sum_{k=1}^{K} \gamma_k (\text{Lag}_k)_{gt} + \mu_g + \lambda_t + X'_{gt} \Gamma + \varepsilon_{gt}
\]

where \( y_{gt} \) is the outcome of interest in the time period \( t \) during which group \( g \) adopts the event, \( \mu_g \) and \( \lambda_t \) are group and time fixed effects, respectively, \( X_{gt} \) are time-varying controls, and \( \varepsilon_{gt} \) is an unobserved error term. \( J \) denotes leads and \( K \) denotes lags, and a single lead variable is omitted (where \( j = 1 \)) as the baseline case (Clarke & Tapia-Schythe, 2021).

**Robustness Checks**
In addition to the standard two-way fixed effects model using DD, we incorporated a more robust DD estimator. Sant’Anna and Zhao (2020) propose strategies to estimate the average treatment effect on the treated more accurately in situations with conditional parallel trends by using doubly robust estimators that combine outcome regression and propensity weighting estimators into one specification. These estimators are consistent if either the regression specification or the propensity score specification for the outcome is correct, but both specifications do not have to be correct (Sant’Anna & Zhao, 2020). The outcome regression assumes that researchers correctly model the outcome evolution of the comparison group. Yet, the inverse probability weighting approach does not have this requirement but instead requires the correct modeling of “the conditional probability of unit \( i \) being in group \( g \) given their covariates \( X \) and that they are either in group \( g \) or in an appropriate comparison group” (Callaway & Sant’Anna, 2021, p. 213). This doubly robust approach forgives some model misspecification in either the regression or inverse probability weighted models.
Estimating the average treatment effect using a doubly robust estimator is appropriate in cases where the treatment effects can vary over time, or when short-run effects are more prominent than long-run effects (Callaway & Sant’Anna, 2021). Even though our treatment condition was well-defined, we chose to use the inverse probability weighted estimator as a robustness check. We analyzed data using the csdid package in Stata, incorporating the doubly robust inverse probability weighted estimator, which implements the Callaway and Sant’Anna (2021) approach to DD using conditional parallel trends (Rios-Avila et al., 2021). One major difference between this approach and the standard two-way fixed effects model is that only the first year’s value of the control variables gets incorporated into the model. Results from this robustness check showed that estimates of the treatment effect were similar to those generated by the standard two-way fixed effects DD analysis. Thus, we report our findings from the DD estimation, which does allow for time-varying control variables.

Control Variables
Local economic and demographic conditions impact enrollments at open-access institutions such as MDC. For one, income-per-capita captures the economic well-being of individuals residing in a county, and as described in our Conceptual Framework, socio-economic conditions can impact whether students choose to enroll in college. Higher levels of personal income in a county can increase the capacity of students to pay for college, overall, and increase the demand for a college education. Relatedly, employment rates run counter to higher education enrollment—higher rates of unemployment are associated with increased student enrollment in college (Hillman & Orians, 2013), since the opportunity cost of attending college is lower when fewer employment prospects are available to job seekers. Third, the population in a county affects the number of students who would attend college—especially amongst 18-to-24-year-old residents. Because the ADS requires direct high school to college entry, we used the county-level 18-to-24-year-old resident population (logged) as a control variable.

We collected annual county-level data on income-per-capita from the Bureau of Economic Analysis; unemployment rate of the total, civilian, non-institutional population from the Bureau of Labor Statistics; and population size from the U.S. Census Bureau. We inflation-adjusted all financial variables to year 2020 using the Consumer Price Index for all Urban Consumers (CPI-U), based on the annual average.

Institutional characteristics have long been known to impact the enrollment behaviors of students, especially price-sensitive ones (Heller, 1997; Leslie & Brinkman, 1987), and tuition rates affect enrollment numbers at community colleges (Deming, 2017). In our modeling process, we controlled for the in-district tuition and in-district fee levels for full-time undergraduates (logged and CPI-adjusted). We also included the percent of full-time undergraduate students who were on Pell Grants. However, after running our models with the inclusion of the tuition, fee, and Pell Grant control variables, we
found that our diagnostics showed that the treated and comparison groups did not meet the parallel trends assumption. Therefore, our reported models include only the three county-level control variables, the inclusion of which did allow the trends to be parallel. All summary statistics are displayed in Table 1.

**Table 1. Summary Statistics (2008–09 to 2019–20)**

<table>
<thead>
<tr>
<th></th>
<th>Treated College</th>
<th>Comparison Group 1</th>
<th>Comparison Group 2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Miami Dade College</td>
<td>Florida College System</td>
<td>Same Carnegie classification: National baccalaureate/associate’s colleges (mixed BA/AA degrees)</td>
</tr>
<tr>
<td>First-Time Full-Time Degree-Seeking Undergraduates</td>
<td>8168.85 811.05</td>
<td>1462.18 1189.60</td>
<td>709.24 536.00</td>
</tr>
<tr>
<td>First-Time Full-Time Degree-Seeking Undergraduates (Log)</td>
<td>9.00 0.10</td>
<td>6.92 0.94</td>
<td>6.22 0.92</td>
</tr>
<tr>
<td>County: Population (log)</td>
<td>14.78 0.04</td>
<td>12.63 1.12</td>
<td>12.03 1.24</td>
</tr>
<tr>
<td>County: Personal income per capita (CPI 2020)</td>
<td>48,150.41 4694.38</td>
<td>44,815.35 12,282.41</td>
<td>43,387.62 9030.93</td>
</tr>
<tr>
<td>County: Unemployment rate</td>
<td>6.81 2.55</td>
<td>6.85 2.68</td>
<td>6.94 2.53</td>
</tr>
<tr>
<td>N (College-Years)</td>
<td>13</td>
<td>338</td>
<td>481</td>
</tr>
</tbody>
</table>

*Note. CPI = Consumer Price Index.*
Results

Model Diagnostics
In each analysis, we conducted a test of the parallel trends assumption in DD. All reported models met the parallel trends assumption and included county-level control variables. As mentioned, we incorporated two comparison groups, the first being the 26 colleges that belong to the statewide Florida College System that our treated college (MDC) belongs to and the second being the 37 institutions nationally categorized within Carnegie as baccalaureate/associate’s colleges: mixed baccalaureate/associate’s degrees. In Figures 1 and 2, we display descriptive plots of the number of students for the treated college and both comparison groups. After correcting for linear trends in our models, the outcomes of the treated unit were sufficiently parallel with outcomes of the control units.

Results of Difference-in-Differences Analyses
We report our DD estimates in Table 2. Compared to the control institutions in the Florida College System \((N = 26)\), MDC enrolled, on average across all post-treatment years, 18.5% more first-time, full-time degree/credential-seeking undergraduates in their campuses after the implementation of the ADS, after accounting for county-level covariates, time effects, and institution-level effects \((p < .001, \beta = 0.17, e^{0.17} - 1 = 0.185)\). This translates to approximately 1,511 additional students (total across all years) based

Figure 1. Graphical Diagnostics for Parallel Trends: Number of (Log) Students by Treated Group and Comparison Group of Florida College System
on summary statistics of an average annual first-time, full-time enrollment of 8,168 across all years of observation (summary statistics from Table 1).

Table 2. Difference-in-Differences Estimates of First-Time, Full-Time Degree-Seeking Students (Log) at Miami Dade College Versus Comparison Groups

<table>
<thead>
<tr>
<th>Average Treatment Effect on Treated Years</th>
<th>$\beta$ (SE)</th>
<th>N (College-Years)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comparison Group: Florida College System</td>
<td>0.17 (0.03)</td>
<td>*** 351</td>
</tr>
<tr>
<td>Comparison Group: Colleges nationally (same Carnegie Classification)</td>
<td>0.28 (0.06)</td>
<td>*** 494</td>
</tr>
</tbody>
</table>

Note. *$p < .05$, **$p < .01$, ***$p < .001$. Estimates include control variables, college effects, and year effects.
Our second comparison group consisted of public institutions nationally with the same Carnegie Classification as MDC, specifically baccalaureate/associate’s colleges with mixed baccalaureate/associate’s degrees. Compared to these non-promise colleges ($N = 37$), MDC enrolled 32% more first-time, full-time degree/credential-seeking undergraduates after the start of the ADS ($p < .001$, $\beta = 0.28$, $e^{0.28} - 1 = 0.32$), across all observed post-treatment years. This increase translates to approximately 2,614 new students total, given MDC’s large first-time entering student population averaging 8,168 per year. This 32% increase sounds astoundingly large, yet when viewing the descriptive parallel trends graph in Figure 2, we see a noticeable gap in enrollment between treated and control units starting in year 2011—a gap that continues until the last year of observation. Therefore, it is conceivable that the ADS caused a substantial increase in student enrollment.

As a robustness check, we ran the analyses excluding year 2020, which was the start of the COVID-19 pandemic and could have affected enrollment numbers. Our coefficient estimates of 0.168 and 0.298, respectively for the two comparison groups, were similar to our reported results, and maintained their statistical significance at the $p < .001$ level.

**Results of Panel Event Studies**

Next, we display our findings from the panel event study designs. In Figure 3, we show the estimated differences in logged enrollment in all leads and lags between MDC, compared to control units in the Florida College System. The plotted dot shows the point estimate of this difference for that particular pre- or post-treatment year (leads and lags), which translates to a percent change, and the colored bands around the point estimate show the 95% confidence intervals. Figure 3 illustrates that in the year prior to the first treatment year, there appeared to be an increase in the number of first-time, full-time, degree-seeking students, which may indicate anticipatory effects. Anticipatory effects are those that occur in anticipation of an external policy change, and which incentivize a student or institutional response even before the policy becomes active (Husig & Mann, 2010). Essentially, individuals aware of the soon-to-be established ADS become responsive to changes that are expected to take place. It is conceivable that discussions around the potential new scholarship took place given that it was established by private donations from the Miami community, and that it took place near the institution’s 50th anniversary—both newsworthy events that could garner public awareness. This awareness could have impacted recruitment tactics and increased student interest in applying to and enrolling in MDC, even before the scholarship was formally adopted.

In the first active year of the ADS (0 “periods to treatment”), there was a statistically significant increase in the number of entering students, approximately 0.17 or 18.5% more students (Figure 3). This increase was also significant in the 2nd and 3rd periods to treatment (operating years 3 and 4). In the majority of subsequent years (excluding the
7th and 9th periods to treatment, the point estimates were positive, yet the confidence bands cross over zero, which suggests null effects. Finally, in the 9th year post-treatment, there appears to be a decline in enrollment, although this point estimate does not reach statistical significance.

In Figure 4, we interpret the event study comparing enrollment outcomes between MDC and the national comparison group of Carnegie-classified baccalaureate/associate’s colleges: mixed baccalaureate/associate’s degrees. Here, we see that in the first operating year of the ADS (0 periods to treatment), there was no increase in enrollment numbers. A positive enrollment impact appears in the years 1st through 4th periods to treatment, with rather large coefficients ranging between 0.2 and 0.4. Note that the scale of this event study graph differs from the graph for the first comparison group. In the remaining years, the confidence bands overlap with zero, which points to null changes in enrollment.

Both event studies reveal that the ADS had an immediate positive effect on the number of entering students (within 1 year), which generally continued during the first four operating years of the scholarship. During later years, however, the positive effects were muted, and they eventually disappeared. Overall, these findings suggest that students respond immediately to the provision of the ADS, and that the largest effects of the scholarship occurred during its initial operating years.
Limitations

Perhaps the biggest limitation in our study was that we measured the number of all first-time, full-time, degree-seeking students, rather than looking exclusively at the number of ADS recipients. We made requests to MDC to share annual data on the number of scholarship recipients; however, those data were not available to us. Ideally, we would observe the number of scholarship recipients to identify whether these trends increased over time, although this data point would still not definitively determine whether any additional students on the scholarship would have attended MDC irrespective of the scholarship. Nevertheless, observing the total number of entering students is a compelling proxy to estimating the effect of the ADS, in that if total enrollment increases, then at least a portion of those increases could be attributed to the major policy change of enacting the scholarship.

We also considered alternative explanations for the enrollment increase. We searched institutional websites and news articles to determine whether other policies or programs began around the same time as the ADS, in year 2011. We did not find any competing or complementary policies aimed at increasing entry into MDC. Usual policies, such as guided pathways and dual enrollment, were in place during the treatment period, but these would not contaminate the effects of the ADS because they likely address different sets of students (high school students participate in dual enrollment, while guided...
pathways affect the academic trajectories of existing college students rather than new, incoming students). Granted, there exists other scholarships in Florida that help students cover tuition costs and can be combined with the ADS, for example, the Bright Futures Scholarship, a merit-based scholarship funded by the state’s lottery (Florida Department of Education, n.d.). However, these scholarships existed well before the introduction of the ADS, so we can essentially rule out their effects in our findings.

Discussion

To summarize, the ADS is a last-dollar promise program offered by MDC, one of the nation’s largest colleges. The ADS is applied directly by MDC and covers the first 60 credits of an Associate of Arts or Associate of Science degree. In this study, we assessed the impact of the ADS on total first-time, full-time college enrollment at MDC. Results indicated that compared to colleges in the first control group, untreated institutions in the Florida College System, MDC enrolled 18.5% more first-time, full-time degree/credential-seeking undergraduates after the start of ADS. Additionally, compared to the second control group, institutions nationally with the exact same Carnegie Classification, MDC enrolled 32% more first-time, full-time degree/credential-seeking undergraduates during the years after the implementation of the scholarship.

Our findings contribute to the growing literature that demonstrates promise programs have a positive, measurable impact on first-time, full-time college enrollment directly from high school (Bifulco et al., 2019; Carruthers & Fox, 2016; Li & Gándara, 2020; Li & Lowry, 2022; Page et al., 2019). For one, the ADS is similar to other promise programs in its place-based eligibility criteria, provided to students living in a specified geographic location (Miami-Dade County) and graduating from high schools in this locality. It is also a single-institution program—there is only one college system where the scholarship recipient can use their promise funds.

The ADS has a merit-based focus, given its 3.0 minimum high school GPA requirement, whereas some other promise programs focus more heavily on financial need and have lower GPA requirements (e.g., 2.5). This choice of program design makes the scholarship more likely to be obtained by highly motivated, academically well-prepared students, thus expanding access for a certain subset of the population. Because of its last-dollar design, where students must exhaust all other financial aid before receiving ADS benefits towards tuition and fees, low-income students who qualify for Pell Grants are unlikely to see any funds from the ADS. Therefore, the enrollment increases we observe in our study likely represent those of relatively high-achieving and/or disproportionately middle- and upper-income students—which, fittingly, meets the policy goals of the ADS.

As described in the Conceptual Framework, MDC’s enrollment increase demonstrates that ADS positively contributes to MDC’s programmatic goals and enables
the institution to achieve several educational purposes. First, it helps alleviate ADS students’ financial burden, diminishing the need for interrupted degree progression due to economic hardship. Second, it arguably allows MDC students to be exposed to students from more diverse socioeconomic backgrounds, as the ADS intends to attract high-achieving students who tend to be from more privileged backgrounds. These types of students contribute to a more diverse study body at MDC, whose students are primarily middle- and low-income (Miami Dade College, n.d.-c).

Exposure to a diverse student body as a result of an increase in MDC campus enrollments stems from and translates into increased individual and collective social and economic capital, identified by Bourdieu (1986). As we previously specified, social capital facilitates the formation of socially beneficial networks while economic capital consists of financial resources (Patton & Renn, 2016). Social and economic capital motivate high-achieving students to pursue scholarship opportunities to attend higher education. According to this theory, an increase in ADS awards, and, consequently, campus enrollments, suggests that prospective MDC students have exploited the possession of these resources to support attendance at MDC. Once at MDC, ADS recipients likely contribute to educational synergies that are formed when students from a variety of backgrounds interact at a socioeconomically diverse campus.

Future research might explore the impact of ADS on MDC enrollments by demographic characteristics such as race, gender, and family income, the focus of more recent refinements of Bourdieusian theory. For example, Adair (2005) contends that scholarships often normalize the “working class” as “unmarked” by race and gender (p. 824). Yet, this practice is problematic, as class is necessarily racialized—racially minoritized groups tend to be disproportionally low-income and face disadvantages in a system of social class (Patton & Renn, 2016). Future scholarship on the ADS and similar programs could offer more insight into differential impacts on students according to demographic characteristics.

Future research could also explore why the positive impacts of the ADS only manifested during the first four years after the scholarship’s introduction. It would be useful to examine, perhaps using student-level academic and demographic data, or qualitative interviews of admissions officers and prospective students, why the initial enrollment bump disappears after four years. Subsequent cohorts who benefit from the scholarship do not seem to boost the overall number of entering students at MDC. Additionally, further research might consider whether favorable longer-term postsecondary outcomes, such as retention, associate degree completion, and transfer to four-year universities, are improved by students receiving support from the ADS. Promise programs are beneficial in that they increase the number of students entering college, and it is equally important to evaluate whether students persist and complete degrees.
References


