



State-Funded Financial Aid Programs in Nevada

Effectiveness and Budget Considerations
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Introduction

In addition to the myriad of federal and private scholarship, grant, and loan opportunities to offset the cost of higher education, Nevada also offers three state-funded scholarship and grant programs: the Governor Guinn Millennium Scholarship (GGMS), Nevada Promise Scholarship (NPS), and the Silver State Opportunity Grant (SSOG). Depending on the program, these opportunities allow students to reduce the total price tag of Nevada's 2- and 4-year institutions.

The Guinn Center, in conjunction with the Nevada State Treasurer's Office, seeks to answer two questions regarding the GGMS, NPS, and SSOG programs:

- What are the student outcomes for those who receive funding through these programs? Put simply – are these programs effective at helping students complete a program of study.
- Why do the costs of these programs continue to increase? Relatedly, will the expenditures continue to rise, and if so, how much?

There are many ways to characterize "financial aid effectiveness." At the request of the Nevada State Treasurer's Office, this study defines it based on whether the student receiving the aid completed a program of study that culminated in a certificate or degree. Many academic studies on the effectiveness of financial aid focused on the effect of aid on student decisions to enroll in higher education. Other studies analyzed the effectiveness of financial aid on student persistence decisions (i.e., whether a student enrolled in school the following year). This study depends on a more stringent definition of success: student completion of a certificate or degree.

Additionally, it should be noted this report will not use the term "graduation rate." This is because it means something specific for those in higher education and is based upon a complicated formula. While many may colloquially use the phrase (meaning the percentage of students completing a program of study), this study refrains from using it to avoid confusion. Instead, the more generic term "percentage of students completing a program of study" denotes students who have graduated.

This study begins with an overview of the three scholarship and grant programs. It then analyzes the positive student outcomes of the recipient and non-recipient students of each of these programs – being mindful to evaluate the outcomes of only first-time, full-time students for comparability purposes. After program effectiveness, a section on the budgets/expenditures of each of the three programs is presented. Next, using the findings from the previous sections, the study suggests state agencies and Nevada policymakers coordinate to determine where Nevada wishes to land on a continuum between pure college access and promoting access for "qualified" students – with

qualified defined by the eligibility requirements of each program. Finally, a conclusion is presented with possible considerations for Nevada's policymakers.

Part I: The Programs

As part of this research, the Guinn Center was asked to study three state-funded financial aid opportunities for Nevada students. This section provides a brief background of these programs. The subsequent sections will cite relevant information related to program purpose and student eligibility.

Governor Guinn Millennium Scholarship

Governor Kenny Guinn's Millennium Scholarship (the Governor Guinn Millennium Scholarship – GGMS) initiative was enacted into law by the Nevada Legislature in 1999 through Senate Bill 496. This legislation created the Millennium Scholarship trust fund by which scholarship recipients are distributed their award. This trust was initially funded by a portion of the money Nevada received from the \$38 million tobacco Master Settlement Agreement (which ended cigarette litigation by states) in 1998.¹ Since its creation, the trust's funding sources have expanded to include various transfers from Nevada's Unclaimed Property Fund and State General Fund (among other sources).² These additional funding sources have supported the expansion of the GGMS program, which is important because Nevada's annual high school graduating classes have more than doubled since its inception.³

The GGMS is a merit-based scholarship available to all students who graduated from a public or private high school in Nevada, have been a resident of Nevada for at least two years at the time of graduation, and meet specific merit-related eligibility requirements. Original scholarship applicants were required to have a 3.0 Grade Point Average (GPA), but the most recent change, affecting students graduating high school in 2017 and beyond, requires all students to have a 3.25 GPA (or qualifying ACT or SAT score). Students must also complete the designated Millennium "core curriculum" classes (four units of English, four units of math, three units of science, and three units of social science or history).⁴ Students may enroll and use GGMS funding at any of Nevada's public 2- and 4-year institutions. It may also be used at Roseman University.⁵

Public and private high schools provide student eligibility data directly to the Nevada State Treasurer's Office (responsible for administering scholarship awards). Awards are deposited directly into student accounts at their respective institutions each semester. NSHE and the respective institutions advance the money to the students and are then reimbursed by the State Treasurer's Office mid-semester.

Since its inception, students may receive up to \$10,000 over their post-secondary career, and awards are distributed per credit. Awardees receive \$40 per lower-division community college credit and

\$60 per upper-division credit, \$60 per state college credit,^a and \$80 per university credit for up to 15 credits per semester. Students have up to 6 years after their high school graduation date to receive award disbursements.⁶

GGMS funds may be used to cover any expenses related to a student's COA, including tuition, housing, transportation, and other education-related expenses such as textbooks (or other class supplies). The funds may not be used to pay for remedial courses, graduate courses, or courses that do not count towards a student's degree or certificate program.⁷

Scholarship recipients must maintain a set of eligibility requirements to continue to receive their award payouts each semester. Awardees must be enrolled in at least nine community college credits or 12 university credits per semester and make "satisfactory academic progress" (SAP) in a program of study leading to a recognized degree or certificate. Students are expected to earn a 2.75 GPA per semester.⁸ Students who fail to maintain these standards will lose eligibility and no longer receive funds. However, students will be automatically reinstated into the scholarship if they re-meet eligibility requirements.

Nevada Promise Scholarship

The Nevada Promise Scholarship (NPS) was enacted into law through the passage of Senate Bill 391 by the Nevada Legislature during the 79th Session in 2017. It also established the Nevada Promise Scholarship Account in the State General Fund, from which scholarships are paid. The NPS is modeled after other state-funded "Promise" programs, such as Tennessee Promise.⁹ These programs offer "last-dollar" scholarships to eligible students, meaning this type of scholarship covers the costs remaining after all other "gift aid" has been applied. Gift aid includes the Federal Pell Grant, Federal Supplemental Educational Opportunity Grant, Silver State Opportunity Grant, or Governor Guinn Millennium Scholarship.¹⁰ NPS awards are deposited directly into student accounts near the start of every eligible semester. Therefore, students cannot utilize NPS awards to pay for other school-related expenses outside of required fees. Given each individual's diverse financial aid circumstances, the scholarship award amount varies by student.

The Nevada Promise Scholarship is available to all students who are residents of Nevada, graduated from a public or private high school in the state (or have completed a high school equivalency certification), are under the age of 20, have not previously been awarded an associate or bachelor's degree, and are enrolled in at least 12-semester credits towards a program of study leading to a recognized degree or certificate at an NSHE 2-year institution, including the College of Southern Nevada (CSN), Great Basin College (GBC), Truckee Meadows Community College (TMCC), or Western Nevada College (WNC).¹¹ Eligible applicants must also submit an application by October 31st in their last year of high school, complete the Free Application for Federal Student Aid (FAFSA), participate

^a Whenever "state college" is referred to in statute or list of eligible institutions, it refers to Nevada State College.

in at least 8 hours of community service during their last year of high school, and meet with an NPS mentor before their first semester of enrollment at a community college.¹²

The Nevada Promise Scholarship provides funding for up to three academic years. To maintain NPS eligibility, students must remain enrolled in at least 12 credits per semester, make satisfactory academic progress in a program of study leading to a recognized degree or certificate, complete the FAFSA annually, participate in at least 8 hours of community service every Fall and Spring semester, and meet with a mentor in both the Fall and Spring semesters.¹³ Once students obtain their first associate or bachelor's degree, they are no longer eligible to receive NPS funding.

The Nevada Promise Scholarship program helps keep its operating costs down by requiring students to fill out the FAFSA as part of their application, thus limiting the amount of financial aid underutilized by students. This requirement also helps improve Nevada's FAFSA completion rate, which – as of a 2020 report by the Education Strategy Group – is one of the lowest in the nation.¹⁴

Given this background, the Nevada Promise Scholarship supports a different type of financial aid need than the GGMS. The GGMS is a merit-based scholarship, whereas the NPS offers financial aid based on an eligibility criterion that does not rely on previous positive student outcomes or on financial need.

Silver State Opportunity Grant

The Silver State Opportunity Grant (SSOG) was enacted into law through the passage of Senate Bill 227 by the Nevada Legislature during the 78th Session in 2015.¹⁵ This legislation outlined the operating structure of the SSOG, designating most responsibility for grant management to the NSHE Board of Regents. Under this legislation, the Board is responsible for determining grant details, including student eligibility and award amount. The Board is also responsible for fulfilling various administrative duties, including submitting a biennial report and providing updates on grant metrics to the Legislative Council Bureau.

The Silver State Opportunity Grant served as a pilot program during its first two years of operation (from the fiscal years 2015-16 to 2016-17), with Nevada's Legislature appropriating \$2.5 million per fiscal year for the program.¹⁶ When the SSOG became part of the state's Executive Budget during Nevada's 79th Legislative Session in 2017, approved appropriations doubled from \$2.5 million to \$5 million per fiscal year.

SSOG funding is available to all Nevada state college and community college students who are residents of the state, are enrolled in a program of study leading to a degree or certificate, have not previously earned a bachelor's degree, and meet specific other educational and financial requirements.¹⁷ One of these requirements is an expectation that applicants are "college-ready based on placement or completion of entry-level, college-level mathematics and English."¹⁸ College readiness in this context may be evidenced in various ways, including enrollment in a 100 or above

level mathematics and English course, placement into at least Math 120 and English 101, or – prior to 2021 - successful completion of remedial coursework in Math 096 or English 098.

Additionally, students must be enrolled in at least 12 credit hours “that apply to the student’s chosen program of study” to be considered eligible to apply for the SSOG.¹⁹ Eligibility requirements outlined originally in SB227 required that students be enrolled in 15 credits. However, concerns that this requirement excluded certain groups of students (such as non-traditional students or those with heavy workloads or family obligations) pushed for reducing this credit requirement from 15 to 12 credits through the passage of Assembly Bill 155 during Nevada’s 80th Legislative Session in 2019.²⁰

In addition to these requirements, completion of the FAFSA plays a crucial role in the SSOG application process. To qualify for funding, applicants must have an Expected Family Contribution (EFC) of \$8,500 or less. The FAFSA is the only application students must submit to be considered for an SSOG award.²¹

The SSOG is based upon a shared responsibility model, whereby the state and federal governments, along with the student and their family, share the cost of a student’s higher education. Students must contribute \$5,500 annually to their total Cost Of Attendance (COA) as part of this shared responsibility model. They may do so through work commitments or various other sources, including (but not limited to): student savings, scholarships (private, institutional, state, federal, etc.), student loans, financial assistance from family or friends, and veterans’ education benefits.²²

Due to limited funds, Silver State Opportunity Grants are awarded to students with the most financial need (with the lowest EFC) enrolled in 15 credits first.²³ While 15 credits are no longer required for student eligibility, those enrolled in 15 credits are prioritized for awards. Students enrolled in 15 credits are also eligible for more SSOG funding; the maximum possible award per school year for students enrolled in 15 credits is \$5,500, while the maximum possible award for students with a credit load of 12 hours is \$4,400.²⁴

While the Board of Regents is responsible for higher-level administrative and decision-making duties regarding the Silver State Opportunity Grant (including calculating total awards), state and community colleges distribute funds to students. Funds may cover any expenses related to a student’s COA, including tuition, housing, transportation, and other education-related expenses such as textbooks (or other class supplies).²⁵

To maintain SSOG eligibility, students must re-submit a FAFSA application every year and continue to meet Satisfactory Academic Progress (SAP) requirements. Students who fail to maintain SAP may appeal to the financial aid office at their institution, or they may become re-eligible by meeting SAP requirements. Students become ineligible for the SSOG once they earn their first bachelor’s degree.²⁶

Part II: Program Effectiveness

At Nevada's 2-year institutions, students can pursue various programs of study with varying credit requirements. For example, a student may pursue a program of study that requires successful completion of fewer than 30 credits and receive a "Skills Certificate." Example programs include highly qualified substitute teachers, nursing assistants, and journeyman tile setters. Students may also receive a "Certificate of Achievement" by completing a program of study requiring at least 30 credits. Examples of these programs include medical assistant, culinary arts, or bookkeeping. Lastly, students may also pursue a program of study culminating in an associate degree, which requires completing at least 60 credits. Examples of associate degree programs include nursing, accounting, or machinist.²⁷

Many of these programs are considered "stackable," whereby a student could first receive their nursing assistant skills certificate, proceed to receive their medical assistant certificate of achievement, and finally receive their nursing associate degree. Because data is not available to suggest what a student initially intended to pursue in attending a higher education institution, determining what a "successful outcome" is challenging. As such, this study defaults to whether a student completed any program of study as a success metric.

Additionally, not all students were included in the following analysis. Only first-time, full-time students are included in this study to ensure comparable student populations. However, this designation only applies to the first year of a student's enrollment. If a student drops below full-time enrollment in subsequent years, that student is still included in the analysis. This is done to ensure a comparison of similarly situated students (at the beginning of their higher education journey). It is believed this will result in a more accurate indication of the effect of these scholarship and grant programs.

Furthermore, each of the three programs' results differentiates between 2- and 4-year institutions. Nevada's 2-year institutions include the College of Southern Nevada (CSN), Great Basin College (GBC), Truckee Meadows Community College (TMCC), and Western Nevada College (WNC). The 4-year institutions are Nevada State College (NSC), the University of Nevada, Las Vegas (UNLV), and the University of Nevada, Reno (UNR).

Lastly, the data for this analysis was provided by NSHE, and it was available for academic years beginning in 2011-12 and ending in 2020-21. To allow adequate time for students to complete programs of study, this analysis uses the academic year of 2018-19 as the last year for first-time students at 2-year institutions and 2016-17 for students at 4-year institutions. This cut-off allows three and six years to complete a program of study at 2- and 4- year institutions, respectively.

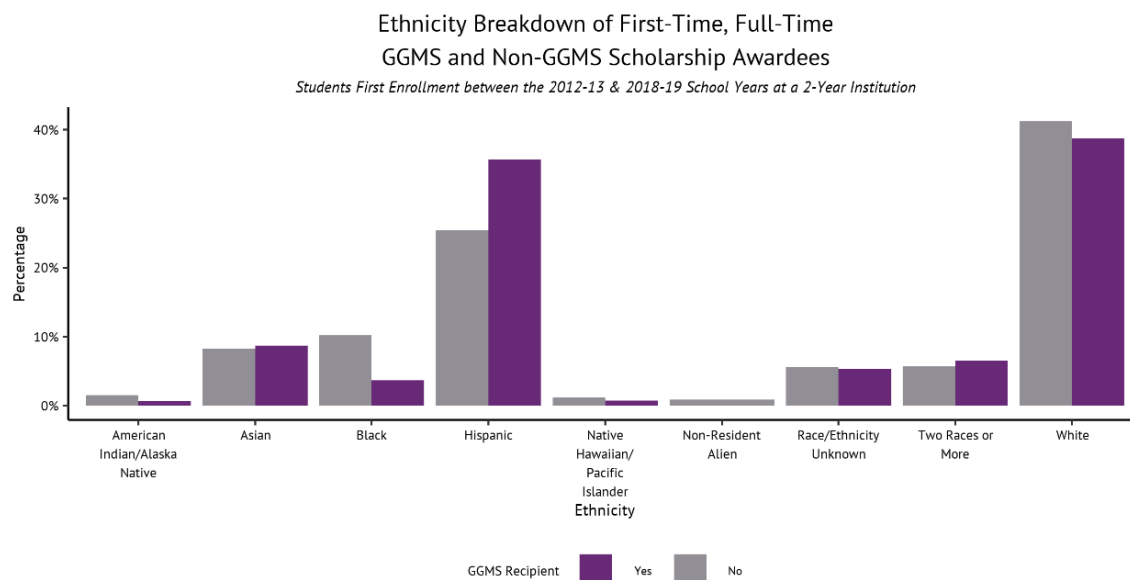
See Appendix A for additional details regarding the data and assumptions to create the subsequent figures and analysis.

Governor Guinn Millennium Scholarship effectiveness

As noted previously, NSHE data on student outcomes is available beginning with the 2011-12 academic year. However, the GGMS began awarding funding in 2000. Data before the 2011-12 academic year is likely housed at each institution, but the data would not be standardized across the institutions. This would make drawing inferences from the older data difficult. As such, this study only includes data back to the 2011-12 academic year.^b

Before analyzing the student outcomes of GGMS recipients, Figure 1 presents the demographics of first-time, full-time students at 2-year institutions. Figure 2 displays the same data at 4-year institutions. Both figures indicate that a higher comparative percentage of Hispanic/Latino students are GGMS recipients than their non-recipient counterparts. However, Black/African American student populations suggest an opposite trend – a smaller comparative percentage of students who identify as Black/African-American receive the GGMS than their non-GGMS peers.

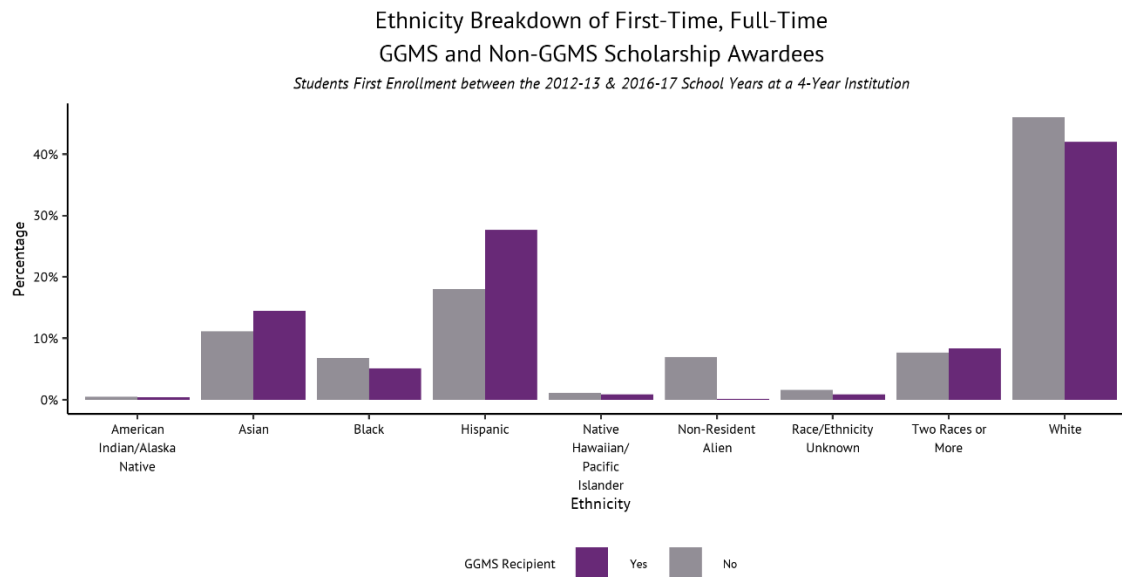
Figure 1: Race and Ethnic Composition of GGMS and Non-GGMS Scholarship Recipients – 2-Year Institutions



Source: Nevada System of Higher Education Student Enrollment Data

^b At 2-year institutions, between the academic years 2012-13 to 2018-19, there were 177,380 first-time students, of which, 24,055 were also full-time students. At 4-year institutions, between the academic years 2012-13 to 2016-17, there were 56,692 first-time students, of which, 33,185 were also full-time students.

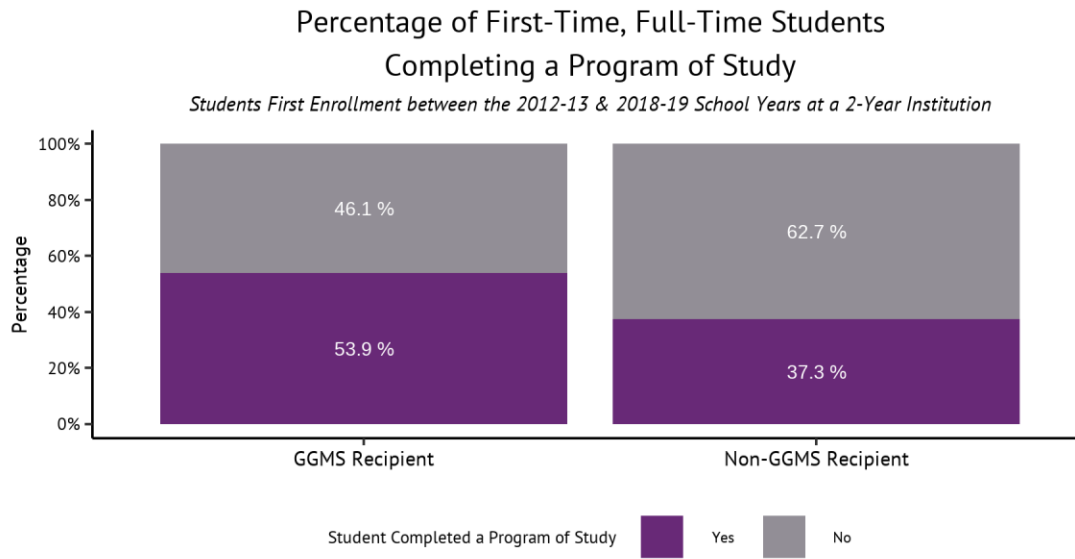
Figure 2: Race and Ethnic Composition of GGMS and Non-GGMS Scholarship Recipients – 4-Year Institutions



Source: Nevada System of Higher Education Student Enrollment Data

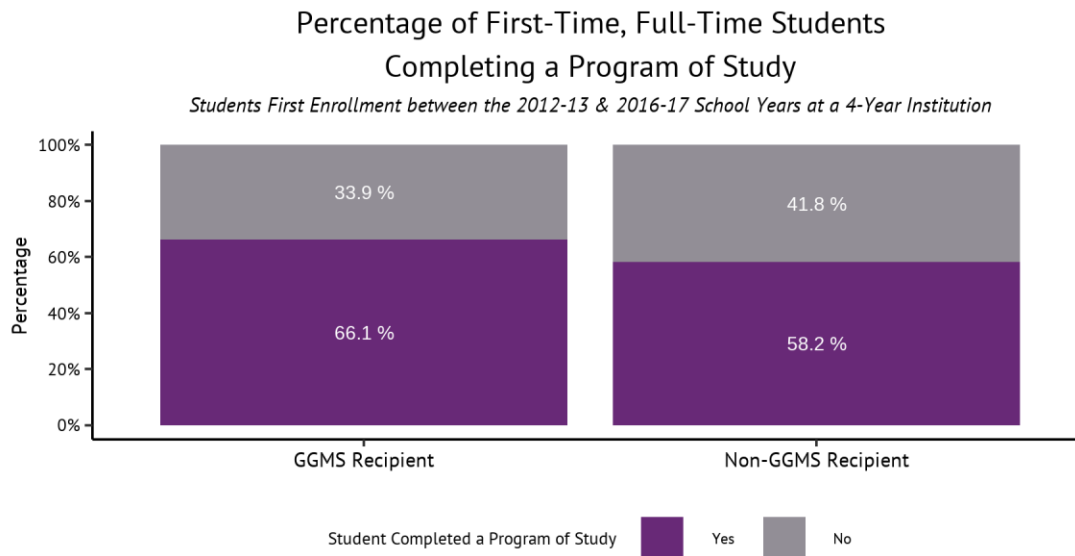
Considering the academic outcomes of GGMS recipients, Figure 3 displays the percentage of first-time, full-time students that completed a program of study at 2-year institutions. Figure 4 shows the results from 4-year institutions. As noted in the figures, 53.9 percent of GGMS recipients at 2-year institutions and 66.1 percent at 4-year institutions receive a certificate or degree, compared to only 37.3 and 58.2 percent of non-GGMS recipients, respectively. While subsequent analyses will further examine this finding, the initial data suggests higher positive outcomes for GGMS recipients.

Figure 3: GGMS and Non-GGMS Recipients Completing a Program of Study – 2-Year Institutions



Source: Nevada System of Higher Education Student Enrollment Data

Figure 4: GGMS and Non-GGMS Recipients Completing a Program of Study – 4-Year Institutions

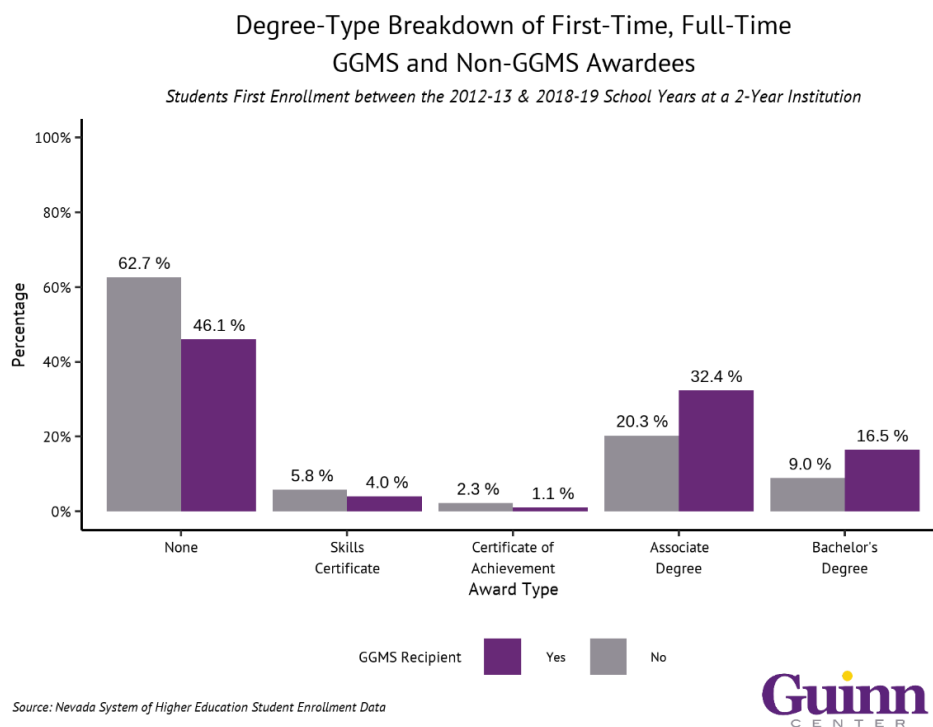


Source: Nevada System of Higher Education Student Enrollment Data

Expanding on the previous finding regarding successful program completion, Figures 5 and 6 display the percentage of students that received a Skills Certificate, a Certificate of Achievement, an Associate Degree, or a Bachelor's Degree in 2- and 4-year institutions, respectively. The figures show that GGMS recipients outperform non-recipients in attaining associate and bachelor's degrees.

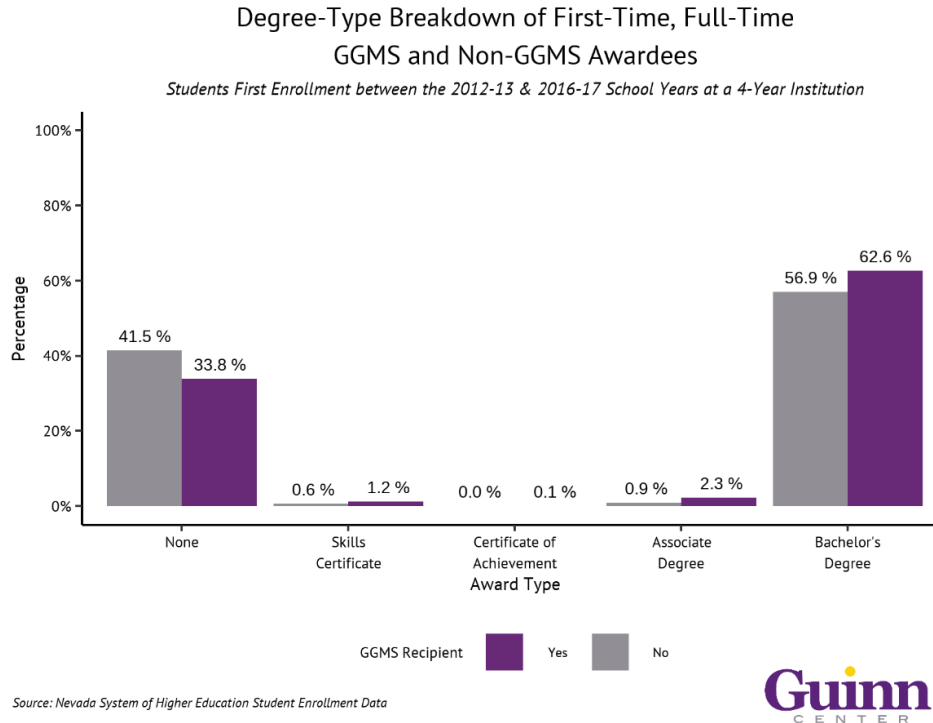
Combining the findings from Figures 3 through 6, GGMS recipients complete a program of study at higher rates than non-recipients, and those students are more likely to complete their associate or bachelor's degree. To further examine this finding, a regression analysis was conducted, including several additional variables to understand better the actual effect of the GGMS on the successful completion of a program of study.^c

Figure 5: Highest Award Earned by GGMS and Non-GGMS Recipients, 2-Year Institutions



^c A regression analysis is a complicated statistical procedure that is difficult to describe succinctly. However, the Harvard Business Review provides the following definition and reason why this technique can be used when multiple variables are in play. "Regression analysis is a way of mathematically sorting out which of those variables does indeed have an impact. It answers the questions: Which factors matter most? Which can we ignore? How do those factors interact with each other?" See Gallo, Amy. 2015. "A Refresher on Regression Analysis." *Harvard Business Review* <https://hbr.org/2015/11/a-refresher-on-regression-analysis>

Figure 6: Highest Award Earned by GGMS and Non-GGMS Recipients, 4-Year Institutions



The regression analysis results are presented in Table 1 for 2-year institutions and Table 2 for 4-year institutions.^d The data suggest that GGMS recipients at both 2- and 4- year institutions are more likely to complete a program of study than are non-recipients, and this relationship is statistically significant. The likelihood of completing a program of study for GGMS recipients (compared to non-recipients) is 12.6 and 7.7 percentage points greater at 2- and 4-year institutions, respectively.

^d The analysis presented in this study includes the results of Ordinary Least Squares (OLS) regression techniques. Because the dependent variable in these models are dichotomous – whether a student graduated with a degree or certificate – logit regression techniques might better account for the relationship between the dependent and independent variables. However, logit regression results are more difficult to interpret. Upon completing both the OLS and logit models, the Guinn Center determined the results were similar enough to warrant inclusion of the OLS results in the main text, primarily because of the easier interpretability of the results. In all cases, the results of the logit and OLS models suggested similar findings. There were no instances where one method resulted in contradictory findings than the other methodology.

Table 1: GGMS Regression Results: 2-Year Institutions

Independent Variables	Certificate/Degree Awarded	
	Coefficient	Standard Error
Constant	0.6386 ***	0.0177
GGMS Recipient	0.1256 ***	0.0068
Number of F's (measured on a per credit basis)	(0.0093) ***	0.0002
Student enrolled at least 23 credits/year	0.0091	0.0061
Amount of Aid Per Credit Enrolled	0.0001 *	0.0000
Pell Recipient	(0.0145)	0.0082
Student Identifies as American Indian/Alaska Native	(0.0377)	0.0293
Student Identifies as Asian	0.0922	0.0160
Student Identifies as Black/African American	(0.0926) ***	0.0162
Student Identifies as Hispanic	0.0008 ***	0.0134
Student Identifies as Native Hawaiian/Pacific Islander	(0.0376)	0.0319
Student Identifies as Two or More Races	(0.0212)	0.0172
Student Identifies as White	0.0032	0.0131
Student attends the College of Southern Nevada	(0.1782) ***	0.0126
Student attends Truckee Meadows Community College	(0.0703) ***	0.0138
Student attends Western Nevada College	(0.0408) *	0.0160
Observations		24,055
Adjusted R ²		0.1136

a - The top entries are the coefficients. Standard errors are in parentheses.
 *** p < .001; ** p < .01; * p < .05

It will be addressed in a subsequent section, but it is important to note that academic studies have found little correlation between financial aid and completing a program of study. More often, financial aid is one of the many factors that is considered when students and families decide to enroll in higher education.²⁸ The likelihood of success once that student is enrolled is based upon more academic factors – like how the student performed in high school, results of admissions tests (e.g., the ACT or SAT), how the student performed in their college coursework, etc.²⁹ In this analysis, the variable of interest is whether a student received GGMS funding, not how much the student received. The total GGMS funding received is included in the variable “Amount of Aid per Credit Enrolled” and consists of all sources of financial aid. It is interesting to note that in one model (Table 1), total aid per enrolled credit is positively correlated to a student completing a program of study. Whereas in the second model (Table 2), it is inversely related.

Table 2: GGMS Regression Results: 4-Year Institutions

Independent Variables	Certificate/Degree Awarded	
	Coefficient	Standard Error
Constant	0.5974 ***	0.0070
GGMS Recipient	0.0767 ***	0.0049
Number of F's (measured on a per credit basis)	(0.0117) ***	0.0002
Student enrolled at least 23 credits/year	0.1696 ***	0.0061
Amount of Aid Per Credit Enrolled	(0.0001) ***	0.0000
Pell Recipient	0.0108	0.0055
Student Identifies as White	0.0503	0.0049
Observations		33,185
Adjusted R ²		0.1819

*** p < .001; ** p < .01; * p < .05

Unfortunately, this analysis does not include many of these academic variables that have been shown to predict successful student outcomes, and the regression results bear this out. This omission results in two important caveats to the results displayed in Tables 1 and 2 (as well as the regression analyses presented later in this study). First, the Adjusted R² for the model including only 2-year institutions is only .1136, which suggests that this regression model only “explains” approximately 11 percent of why students complete a program of study. The model for 4-year institutions performs slightly better, with an Adjusted R² of .1819 (or, the model explains approximately 18 percent of why a student completes a program of study). In terms of explanatory power, this is relatively low. While initial regression diagnostics did not suggest statistical assumptions were being violated,^e the model would be better served with more and better variables that reflect the chances of student success. In other words, instead of asking whether financial aid improves the likelihood a student completes a program of study, future studies should ask what variables explain why students complete a program of study and then add in the financial aid variables of interest. This minor tweak would yield significant results. However, achieving this hypothetical study requires data sharing from NSHE, the Nevada Department of Education (NDE), and K-12 schools/districts and is outside the scope of this current analysis.

^e In the 4-year institutions model, regression diagnostics suggested that the individual institutions and most of the ethnicity variables must be removed due to multicollinearity. This just means that including these variables could negatively impact the analysis and lead to faulty conclusions drawn from the results.

However, certain student academic behavior variables were available for inclusion in the analysis. As students receive more Fs in higher education coursework, their likelihood of completing a program of study declines. Students who remain enrolled full-time throughout their higher education journey are more likely to complete a program of study. Even the GGMS indicator of whether a student received the GGMS may be indicative that the student is better prepared for higher education than their non-GGMS recipient counterparts. As noted in the previous section, this could be because students qualify for the GGMS based on their high school transcripts or grade point average.

Several findings emerge when comparing first-time, full-time GGMS recipients and non-recipients. At both 2- and 4-year institutions, a smaller comparative percentage of students who identify as Black/African-American receive the GGMS than their non-GGMS peers. GGMS recipients do appear to have better academic outcomes, with the percentage of GGMS recipient students at 2- and 4-year institutions completing a program of study being 16.6 and 7.9 percentage points higher than non-recipients. This difference is statistically significant. Additionally, there is a possibility that while the scholarship funding is beneficial to students, the models could also suggest that the GGMS recipient students are better prepared for the rigors of higher education since the eligibility criteria are based upon success at the high school level.

Nevada Promise Scholarship Effectiveness

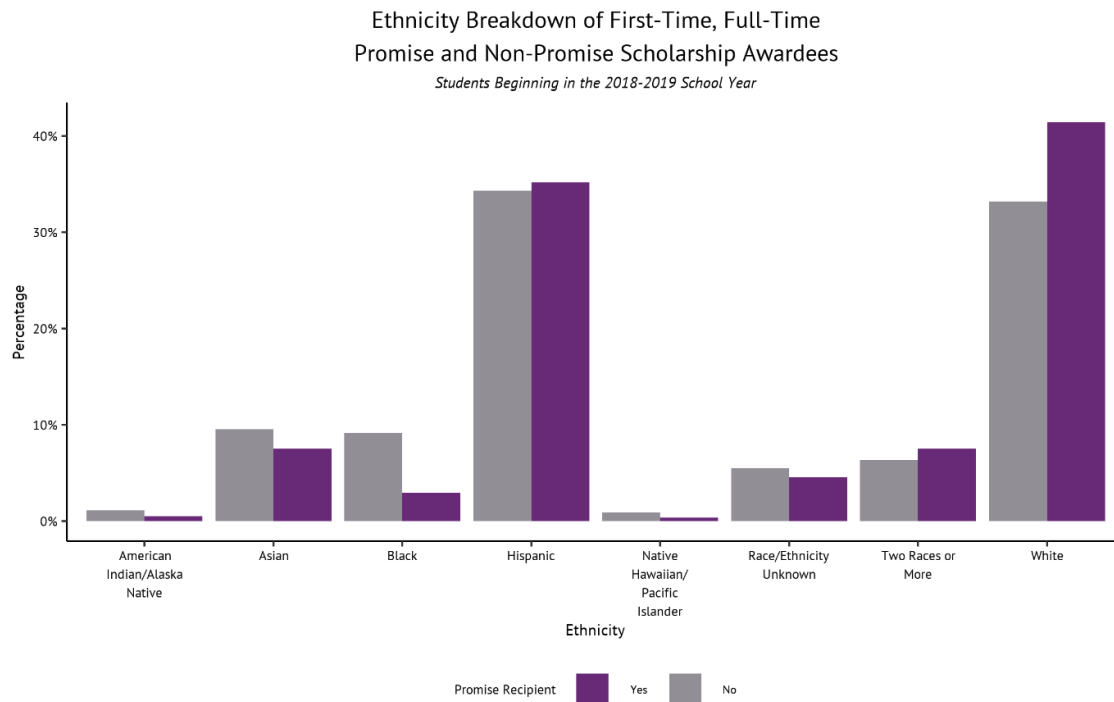
Because the Promise Scholarship is a relatively new program – with the 2018-19 academic year marking the initial year in which awards were made - only those students that began their studies in the 2018-19 school year are included.^f Students who enrolled for the first time in subsequent years may still be pursuing their degree and have not had the appropriate time to complete their program of study. Because of this, including these students in the analysis could unnecessarily bias the results.

The race and ethnic composition of first-time, full-time students at NPS-eligible institutions are presented in Figure 7. As noted in the figure, a higher percentage of white students received the Promise Scholarship than similarly situated non-Promise recipients. While several other race or ethnic categories are approximately the same, it does appear that black/African American students are under-represented in the Promise Scholarship recipients, as are Asian, American Indian/Alaska Native, and Native Hawaiian/Pacific Islander.

^f In the 2018-19 academic year, there were 22,542 first-time students in Promise Scholarship eligible institutions (i.e., 2-year institutions). Of those, only 4,190 were determined to also be full-time students that were included in this analysis.

Future efforts to address the equitable distribution of the Promise Scholarship funding may be warranted.

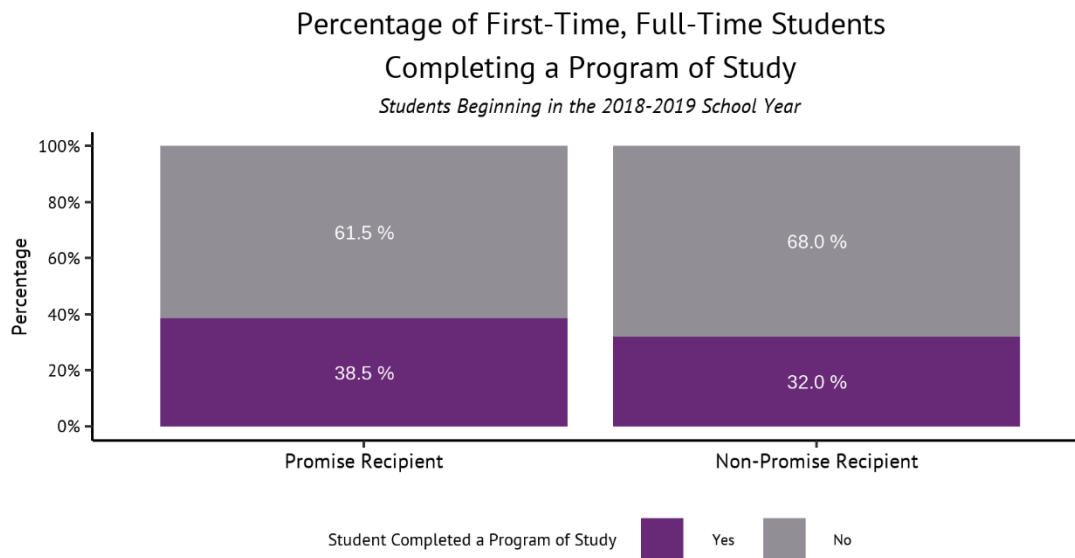
Figure 7: Race and Ethnic Composition of Promise and Non-Promise Scholarship Recipients



Source: Nevada System of Higher Education Student Enrollment Data

Figure 8 displays the percentage of first-time, full-time students who completed a program of study. As noted in the figure, approximately 38.5 percent of NPS recipients receive a certificate or degree, compared to only 32.0 percent of non-Promise Scholarship recipients. While subsequent analyses will further flush out this finding, the initial data suggests higher positive outcomes for Promise Scholarship recipients.

Figure 8: Promise and Non-Promise Recipients Completing a Program of Study

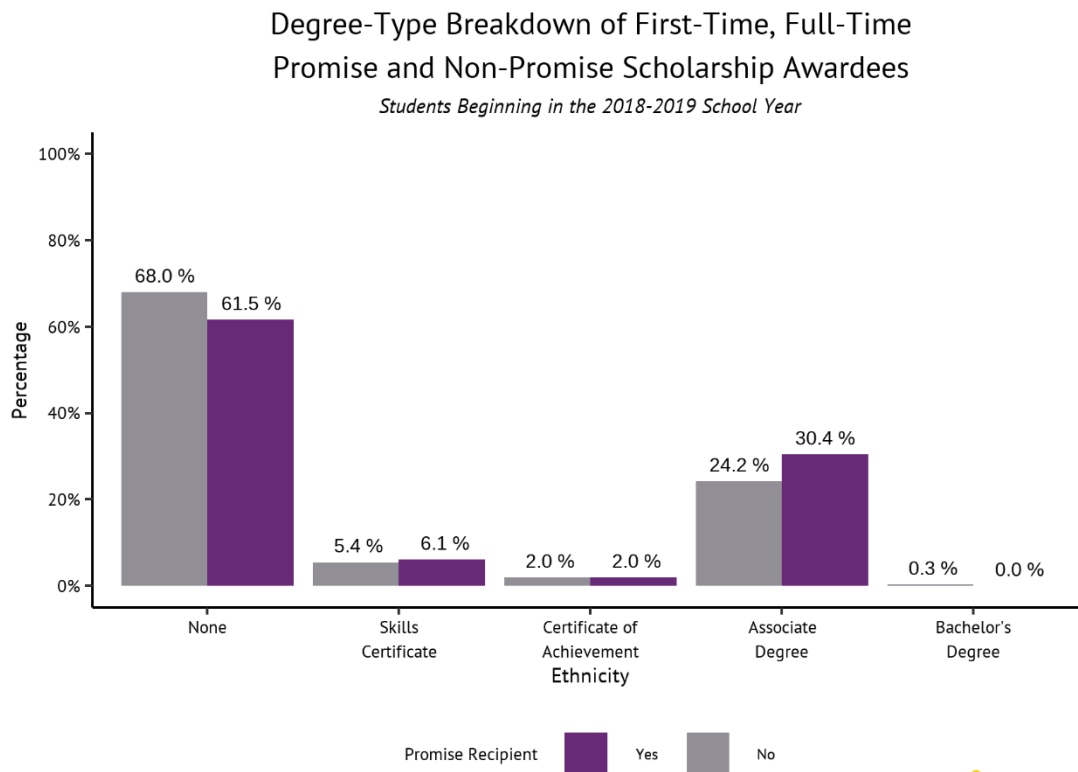


Source: Nevada System of Higher Education Student Enrollment Data

Expanding on the previous finding regarding successful program completion, Figure 9 displays the percentage of students that received a skills certificate, a certificate of achievement, an associate degree, or a bachelor's degree. As shown in the figure, NPS recipients outperform non-recipients in attaining associate degrees and, to a lesser extent, skills certificates.

Combining the findings from Figures 7 and 8, it can be stated that NPS recipients complete a program of study at higher rates than non-recipients, and recipients are more likely to complete their associate degree. However, there is a possibility that Promise Scholarship students do not “look” like non-recipients and that it is not the Promise Scholarship program that is leading to a positive outcome. To determine if this is possible, a regression analysis was completed, including several additional variables to understand better the Promise Scholarship’s actual effect on the successful completion of a program of study.

Figure 9: Highest Award Earned by Promise and Non-Promise Scholarship Recipients



Source: Nevada System of Higher Education Student Enrollment Data

The results of the regression analysis are presented in Table 3. The data suggest that NPS recipients are more likely to complete a program of study than non-recipients, and this relationship is statistically significant. However, the increase in percentage points of completing a program is only 0.002 percent. While it is statistically significant, the effect size is negligible.⁹

⁹ The logit regression results support this finding. There is no difference in odds of a student successfully completing a program if they do or do not receive the Nevada Promise Scholarship. But the indicator is still statistically significant in that model as well.

Table 3: OLS Regression Results: Promise Scholarship Effect on Successful Completion of a Program of Study

Independent Variables	Certificate/Degree Awarded	
	Coefficient	Standard Error
Constant	0.51948 ***	0.03938
Promise Scholarship Recipient	0.00002 ***	0.00001
Number of F's (measured on a per credit basis)	-0.01531 ***	0.00065
Student enrolled at least 23 credits/year	0.14417 ***	0.01338
High School Achievement (student received the GGMS)	0.07095 ***	0.01401
Amount of Aid Per Credit Enrolled	0.00006	0.00007
Pell Recipient	-0.03002	0.02013
Student Identifies as American Indian/Alaska Native	0.04253	0.07135
Student Identifies as Asian	0.03503	0.03500
Student Identifies as Black/African American	-0.03582	0.03611
Student Identifies as Hispanic	0.02859	0.02979
Student Identifies as Native Hawaiian/Pacific Islander	0.00044	0.07651
Student Identifies as Two or More Races	0.00514	0.03761
Student Identifies as White	0.01833	0.02999
Student attends the College of Southern Nevada	-0.21440 ***	0.02688
Student attends Truckee Meadows Community College	-0.10531 ***	0.02998
Student attends Western Nevada College	0.03009	0.03672
Observations		4,190
Adjusted R ²		0.1962

a - The top entries are the coefficients. Standard errors are in parentheses.
 *** p < .001; ** p < .01; * p < .05

Also, while the effect size of receiving a Promise Scholarship appears to be minor, it is still statistically significant. Additionally, as noted in Figure 8, there is a 6.5 percent difference in the percentage of students that complete a program of study between Promise and Non-Promise Scholarship recipients. Given that the total financial aid a student receives is not significant in the regression model, something specific about the Promise Scholarship program – beyond the funding itself – may encourage students to complete a program of study. As noted previously, students must apply for the Promise Scholarship in the Fall of their senior year of high school, so it may encourage students who know they wish to pursue higher education earlier in their academic career. Additionally, NPS recipients must complete several volunteer hours and meet with a mentor. Both

factors may integrate these students more into the institution's culture and provide a built-in support structure for students.

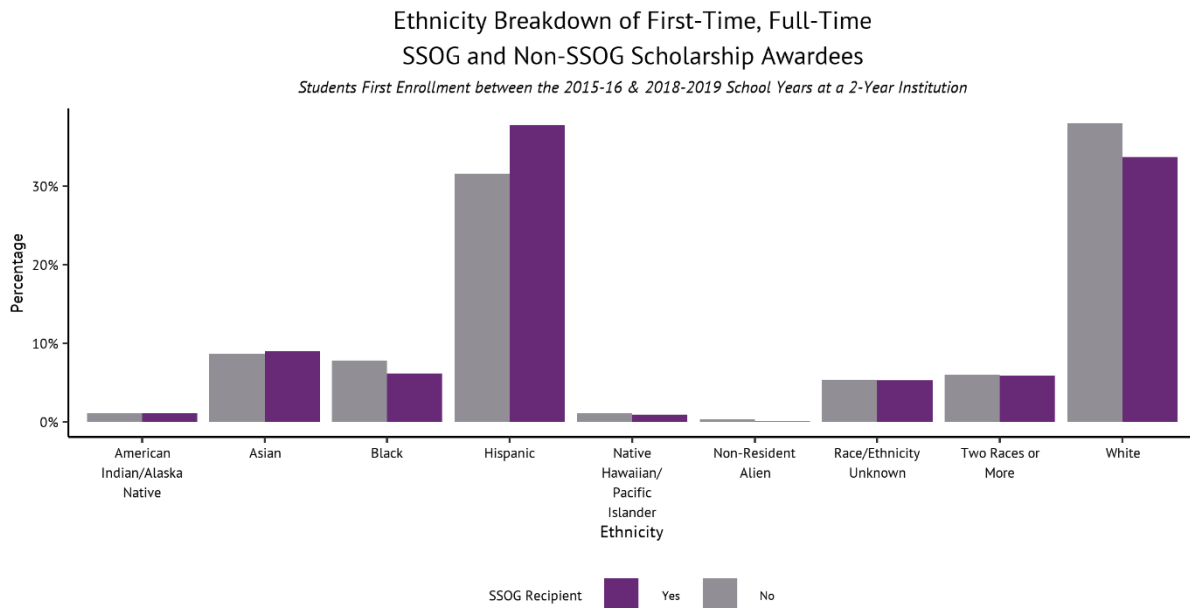
Several findings emerge when comparing first-time, full-time NPS recipients and non-recipients. White students appear to be overrepresented, and black/African American, Asian, American Indian/Alaska Native, and Native Hawaiian/Pacific Islander students are underrepresented. However, Promise Scholarship recipients do appear to have better academic outcomes, with the percentage of Promise Scholarship students completing a program of study being 6.5 percent higher than non-recipients. This difference is statistically significant, but the effect size is minimal based on statistical analysis.

Silver State Opportunity Grant Effectiveness

Like the Nevada Promise Scholarship, the Silver State Opportunity Grant (SSOG) is a relatively new program – with the 2015-16 academic year marking the initial year in which awards were made. This program is available to students at Nevada's 2-year institutions and Nevada State College.^h Figure 10 displays the race and ethnicity composition of SSOG and non-SSOG recipients at 2-year institutions, whereas Figure 11 presents similar data at Nevada State College. As noted in the figures, the race and ethnicity breakdown between the student populations receiving and not receiving SSOG funding is relatively proportionate in both the 2- and 4-year institutions.

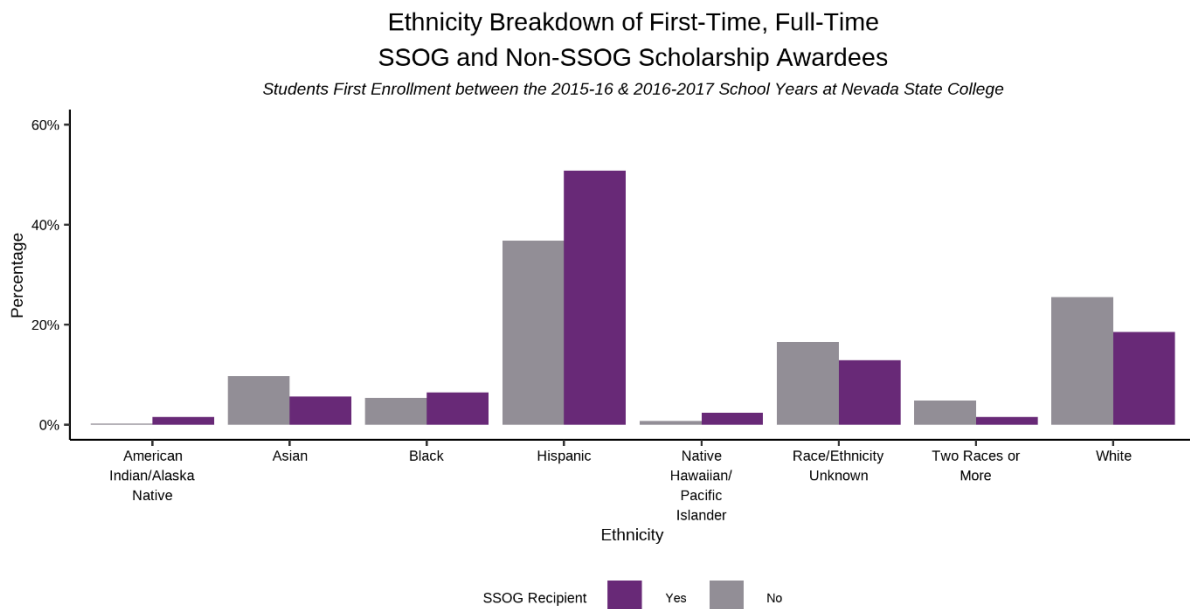
^h At 2-year institutions, between the academic years 2015-16 to 2018-19, there were 86,888 first-time students, of which, 14,123 were also full-time students. At Nevada State College, between the academic years 2015-16 to 2016-17, there were 1,468 first-time students, of which, 515 were also full-time students.

Figure 10: Race and Ethnic Composition of SSOG and Non-SSOG Scholarship Recipients – 2-Year Institutions



Source: Nevada System of Higher Education Student Enrollment Data

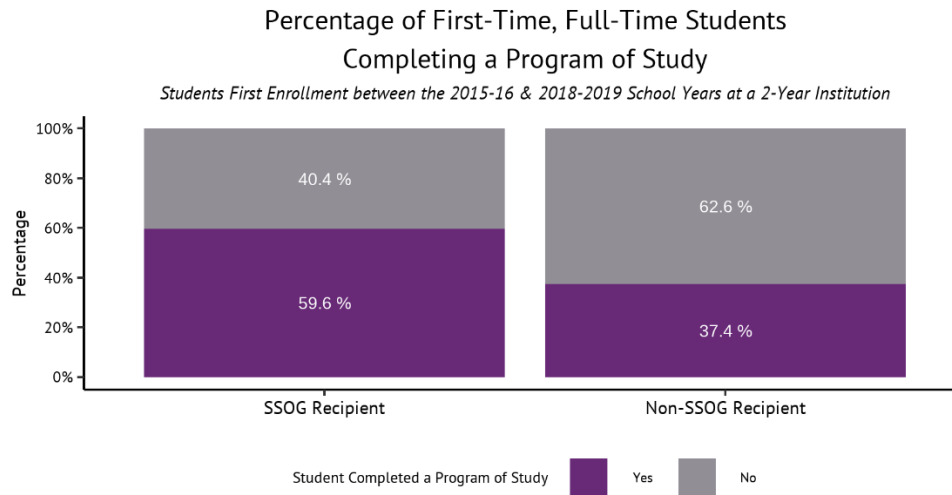
Figure 11: Race and Ethnic Composition of SSOG and Non-SSOG Scholarship Recipients – Nevada State College



Source: Nevada System of Higher Education Student Enrollment Data

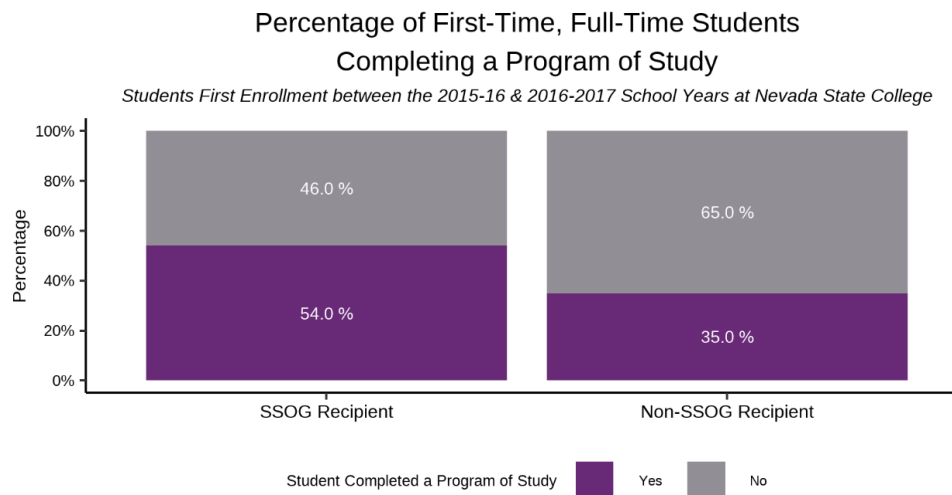
Figure 12 displays the percentage of first-time, full-time students that completed a program of study in 2-year institutions, and Figure 13 shows the same information at Nevada State College. As noted in the figures, approximately 59.6 and 54.0 percent of SSOG recipients receive a certificate or degree at 2- or 4-year institutions, respectively. Non-SSOG recipients lag this rate, with only 37.4 percent completing a program of study at a 2-year institution and 35.0 percent completing a program at Nevada State College.

Figure 12: SSOG and Non-SSOG Recipients Completing a Program of Study – 2-Year Institutions



Source: Nevada System of Higher Education Student Enrollment Data

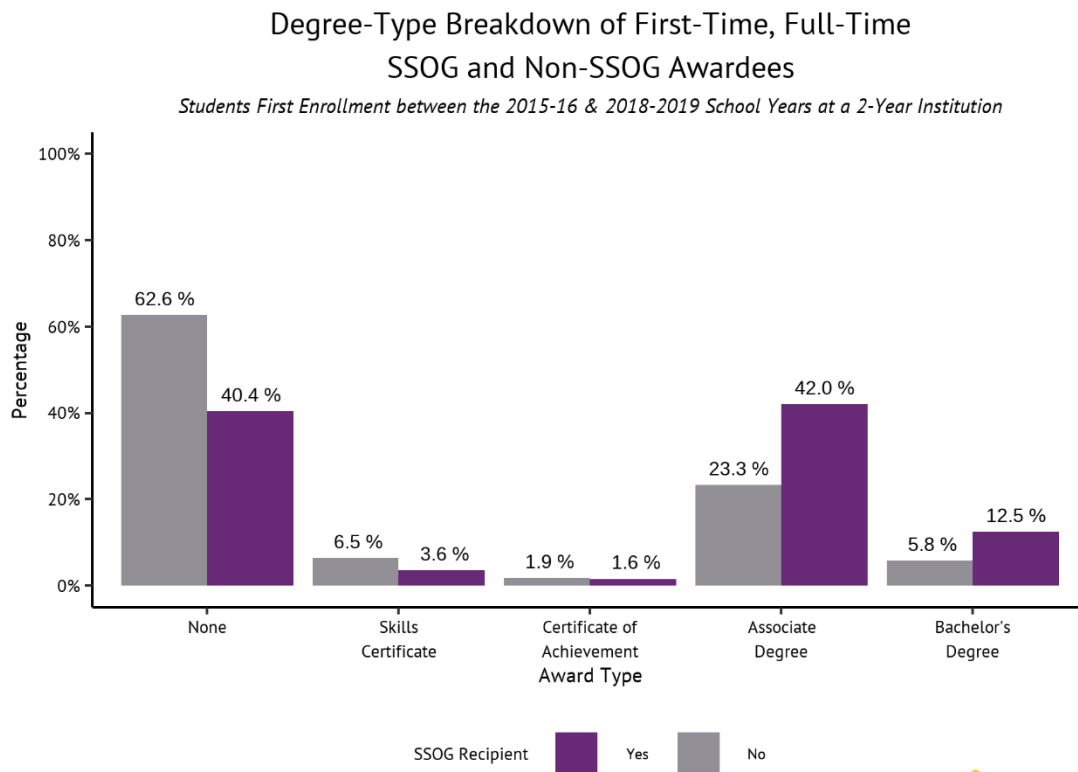
Figure 13: SSOG and Non-SSOG Recipients Completing a Program of Study – Nevada State College



Source: Nevada System of Higher Education Student Enrollment Data

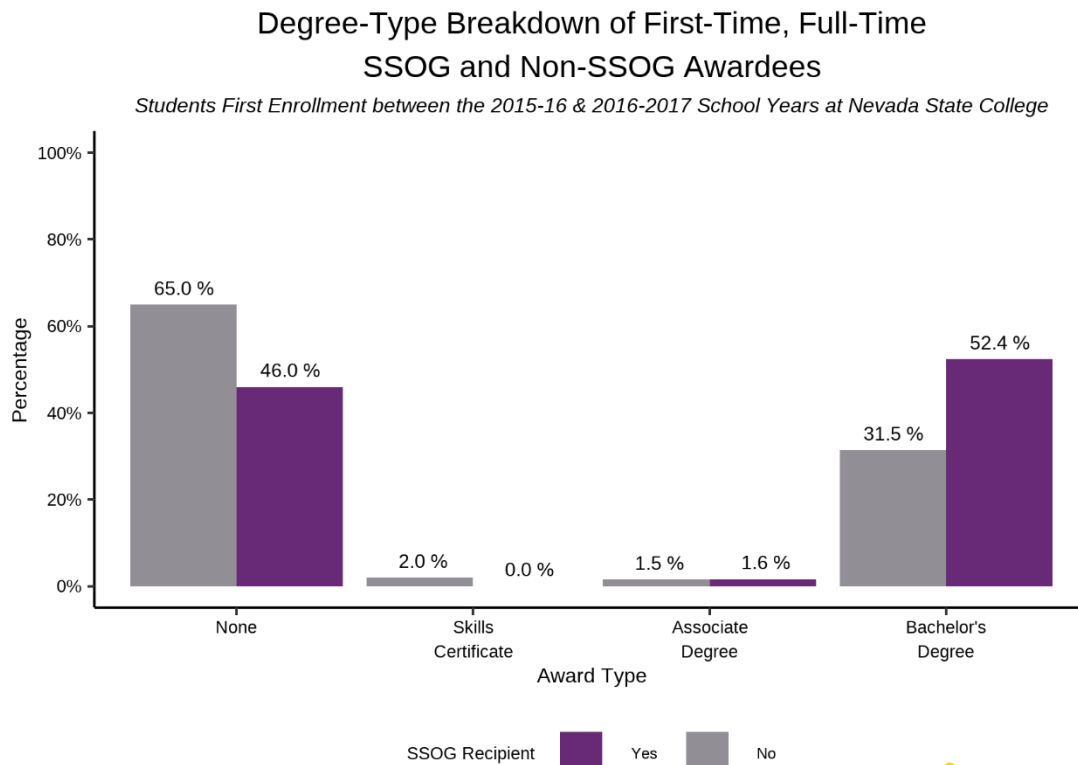
Further exploring the types of programs SSOG recipients complete compared to non-recipients, Figure 14 displays the percentage of students that received a skills certificate, a certificate of achievement, an associate degree, or a bachelor's degree at a 2-year institution. Figure 15 displays the percentage of students receiving similar degrees at Nevada State College. As shown in the figures, SSOG recipients receive a higher percentage of associate and bachelor's degrees than their non-SSOG recipient counterparts.

Figure 14: Highest Award Earned by SSOG and Non-SSOG Scholarship Recipients – 2-Year Institutions



Source: Nevada System of Higher Education Student Enrollment Data

Figure 15: Highest Award Earned by SSOG and Non-SSOG Scholarship Recipients – Nevada State College



Source: Nevada System of Higher Education Student Enrollment Data

Results from a regression analysis confirm that SSOG recipients at both 2-year institutions and Nevada State College are more likely to complete a program of study than non-recipients. These results are statistically significant and are presented in Tables 4 and 5. However, like the previous regression analyses, the R^2 remains low, suggesting a considerable variance that the models do not explain. Still, the regression models indicate that receiving the Silver State Opportunity Grant increases the likelihood a student completes a program of study by 21.8 percentage points at a 2-year institution and 12.6 percentage points at Nevada State College. Interestingly, the total financial aid received by the student is not statistically significant in either model.

Like the GGMS and NPS, questions remain if the scholarship causes better results or if the results are due to the academic eligibility criteria to receive the funding. SSOG recipients must enroll in at least 12 credits each semester, and preference is given to those who enroll in 15 credits. Both these credit totals place students above the 23 credits, also noted to be a significant predictor of completing a program of study in Tables 4 and 5. Also, to be eligible for funding, a student must be eligible to enroll in college-level math and English coursework. Academic studies suggest that remedial coursework, in addition to costing students additional money for classes that are not eligible for graduation requirements, also lowers the likelihood of a student completing a program of study.³⁰

Table 4: OLS Regression Results: SSOG Effect on Successful Completion of a Program of Study – 2-Year Institutions

Independent Variables	Certificate/Degree Awarded	
	Coefficient	Standard Error
Constant	0.64140 ***	0.01740
SSOG Recipient	0.21750 ***	0.01200
Number of F's (measured on a per credit basis)	-0.01180 ***	0.00030
Student enrolled at least 23 credits/year	0.03180 ***	0.00780
High School Achievement (student received the GGMS)	0.07530 ***	0.00830
Amount of Aid Per Credit Enrolled	0.00000	0.00000
Pell Recipient	-0.07450	0.01090
Student Identifies as White	0.01510	0.00820
Student attends the College of Southern Nevada	-0.17560 ***	0.01570
Student attends Truckee Meadows Community College	-0.08450 ***	0.01730
Student attends Western Nevada College	-0.02790	0.02060
Observations		14,123
Adjusted R ²		0.1537
*** p < .001; ** p < .01; * p < .05		

SSOG recipients have much better outcomes than non-SSOG recipients at 2- and 4-year universities. This is evidenced by the 22.2 and 19.0 percentage point difference between SSOG and non-SSOG students completing a program of study at 2-year institutions and Nevada State College, respectively (see Figures 12 and 13). Furthermore, SSOG students receive a proportionately higher percentage of associate's and bachelor's degrees at their institution of choice. Statistical models confirm that SSOG recipients are more likely to complete a program of study. Still, questions remain if this positive outcome is solely due to the financial aid or if the eligibility requirements also contribute to the program completion.

Table 5: OLS Regression Results: SSOG Effect on Successful Completion of a Program of Study – Nevada State College

Independent Variables	Certificate/Degree Awarded	
	Coefficient	Standard Error
Constant	0.3102 ***	0.0640
SSOG Recipient	0.1256 *	0.0509
Number of F's (measured on a per credit basis)	-0.0100 ***	0.0014
Student enrolled at least 23 credits/year	0.2410 ***	0.0407
High School Achievement (student received the GGMS)	0.0486	0.0406
Amount of Aid Per Credit Enrolled	0.0002	0.0001
Pell Recipient	-0.1072 *	0.0500
Student Identifies as American Indian/Alaska Native	0.1235	0.2528
Student Identifies as Asian	-0.0855	0.0792
Student Identifies as Black/African American	0.1515	0.0939
Student Identifies as Hispanic	0.0502	0.1811
Student Identifies as Native Hawaiian/Pacific Islander	0.0507	0.1811
Student Identifies as Two or More Races	0.0065	0.1047
Student Identifies as White	0.1248 *	0.0611
Observations		515
Adjusted R ²		0.2448

*** p < .001; ** p < .01; * p < .05

Academic Studies, Successful Higher Education Outcomes, and Financial Aid

As noted in the above analyses, Nevada's state-funded financial aid programs predict positive student outcomes. However, in nearly all the regression models, a student's total aid per credit enrolled is not a significant predictor of completing a program of study. Given these two findings, that 1) students who receive the financial aid from the programs under investigation are successful, but 2) the total amount of aid per credit is not predictive of success, this suggests that at least a portion of the positive outcomes could be attributed to the characteristics of students who are eligible to receive the funding. Put simply, it may not be the financial aid as much as the eligibility criteria to receive that funding.

Academic studies support this finding. One study found there are several predictors that a student will stop attending a college or university: the student is unprepared for the rigors of higher education, the student might not know what to study, the student does not interact with faculty, or

they do not have a sense of belonging or attachment to the institution (i.e., the student is not integrated into the college or university).³¹ Another study suggested that the better the student's grades are in college, the increased likelihood a student will complete a program of study.³² A different study concluded that higher high school GPAs predict better outcomes at college or university.³³ Similarly, the quality and intensity of a student's high school experience correlate with that student's success at a post-secondary institution.³⁴

The variables included in the regression analysis (and the statistically significant results) support these previous findings. NPS integrates students into the school community by mandating community service hours and matching students with a mentor. GGMS provides funding for students who earn high GPAs in high school. SSOG awards funding to students who are determined to be college-ready – whether that came from high school or early college coursework.

Additionally, other non-financial aid variables consistent with previous research were statistically significant across models in this study. The number of Fs a student receives in their post-secondary coursework is inversely related to completing a program of study, while a student maintaining full-time enrollment was found to predict positive student outcomes.

However, this discussion should not be interpreted to suggest that financial aid has no impact on student performance. Academic studies indicate that financial aid can predict whether a student enrolls in college.³⁵ As noted above, how well the student does once enrolled may depend more on educational factors, but to paraphrase the lottery cliché – you can't graduate if you don't enroll. Furthermore, other studies have concluded that “students from higher-income families are less likely to have to stop or drop out to work to finance their education.”³⁶ For other students, financial aid may be the lifeline necessary to keep them in school when unexpected life events happen.

Part III: The Increasing Budget for Nevada's State-Funded Scholarship Programs

The complexity of examining the budget for state-funded financial aid programs lies in the timing of the expenditures. While Nevada's budget covers a biennium, most students' educational studies do not fit well within that timeframe. For example, because the GGMS can cover up to six years of tuition, students may require funding over three biennia. And because first-time students continue to enter the system, they will add to the need for new financial aid resources. And existing students will continue to receive financial aid for which they qualify. The challenge is ensuring enough funding covers both the new and existing students.

Because of this complexity, the proceeding analysis considers funding from the lens of the total amount needed per year and the amount required per cohort of students (i.e., students that enter the system each year). As will be noted in the analysis, financial aid awards have increased since the

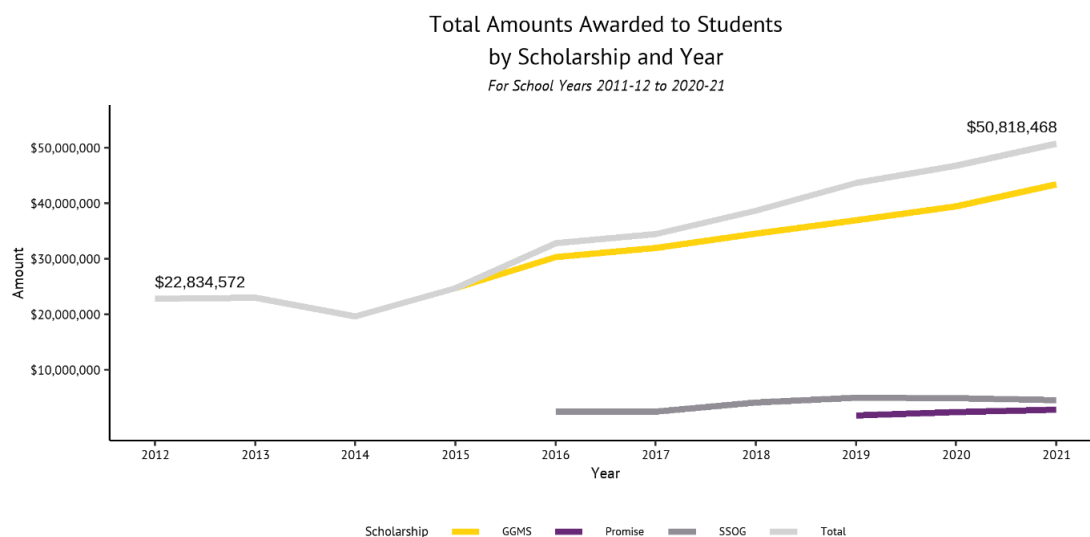
programs' inception. However, the NPS and the SSOG have capped amounts available for financial awards. The Governor Guinn Millennium Scholarship is more complicated, as it is based upon eligibility criteria only – with a relatively unknown number of students who will participate annually and how much funding they will draw.

Furthermore, these programs' costs are primarily in the scholarship programs. While staff time at NSHE and the individual institutions is required to administer the programs, only a minor portion of the state appropriation related to these programs is dedicated to administrative costs. That suggests that most of the costs associated with administering the programs are absorbed in the duties of existing NSHE-institution employees. Based on information on Nevada's legislatively approved biennium budgets, only approximately \$400,000 is budgeted annually for GGMS administration, which is directed to the State Treasurer's Office.³⁷ This equates to only one or two percent of the total scholarship costs.

Funding Required Per Year – Regardless of Student Initial Enrollment Date

Annual expenditures on state-funded financial aid programs have increased rapidly over the past decade. Using data from NSHE, Figure 16 displays the amount of financial aid disbursed from the 2011-12 to 2020-21 academic years. As noted in the figure, Nevada expended approximately \$23 million during the 2011-12 academic year. At that time, only the GGMS existed. The amount ballooned to over \$50 million in the 2020-2021 academic year, including the GGMS, NPS, and SSOG. However, even in recent years, most of the total scholarships awarded are from the GGMS. SSOG expenditures are greater than NPS, but only by a relatively small amount.

Figure 16: State-Funded Financial Aid Expenditures per Year



Source: Nevada System of Higher Education Student Enrollment Data

Because of Nevada's growing population, it is unsurprising that the GGMS has grown too – both in terms of students and total expenditures. Table 6 presents the number of students awarded funding and the total dollar amounts of the scholarship per academic year. Individual students may be (and likely are) included over several years. For example, suppose a student enrolled at Truckee Meadows Community College in the 2014-15 and 2015-16 academic years. In that case, that student is included in both years in Table 6, as would be their annual scholarship awarded.

While total GGMS recipients at Nevada's 2-year institutions increased by approximately 20 percent from the 2011-12 to 2020-21 academic years, the total number of GGMS recipients at 4-year institutions grew much faster. GGMS students at UNLV and UNR have nearly doubled, whereas recipients at Nevada State College have nearly tripled over the same period.ⁱ The total increase of GGMS recipients, specifically the increase at Nevada's 4-year institutions, explains why GGMS expenditures have increased over time. As GGMS recipient enrollment at Nevada's 4-year institutions increases, students will likely receive more GGMS funding as their degree program is longer.

The other two programs do not have as much history as the GGMS. As such, it is harder to make conclusions based on trends – because the programs have not existed long enough for trends to develop. However, Tables 7 and 8 present the scholarship recipients and amounts by eligible institutions for the Nevada Promise Scholarship and the Silver State Opportunity Grant, respectively.

As noted previously, the Nevada Promise Scholarship is available only to students studying at 2-year institutions. While the total number of recipients increased by 72 percent from the 2018-19 to 2020-21 academic years, the average award is approximately the same over the same period. And the increase in students is to be expected, as the 2018-19 data would only include one cohort of students, as that was the program's first year. For academic years beginning with 2019-20 and beyond, the total recipients will consist of the new cohort of recipients and existing students continuing their studies.

ⁱ The total number of GGMS recipients at 4-year institutions increased by 65.9 percent between 2011-12 and 2020-21.

Table 6: Governor Guinn Millennium Scholarship Awards by Year and Institution

Institution	2011-12			2012-13			2013-14		
	Recipients	Amount	Average Award	Recipients	Amount	Average Award	Recipients	Amount	Average Award
Four-Year Institutions									
Nevada State College	386	\$ 408,075	\$ 1,057	370	\$ 395,259	\$ 1,068	381	\$ 413,820	\$ 1,086
University of Nevada- Las Vegas	6,362	10,002,488	1,572	6,385	9,898,181	1,550	4,037	6,453,343	1,599
University of Nevada - Reno	5,534	9,053,862	1,636	5,830	9,476,862	1,626	5,834	9,584,600	1,643
Two-Year Institutions									
College of Southern Nevada	3,743	2,225,603	595	3,720	2,153,291	579	3,673	2,110,347	575
Great Basin College	285	193,380	679	263	183,820	699	245	185,840	759
Truckee Meadows Community College	1,258	679,144	540	1,221	680,058	557	1,218	681,680	560
Western Nevada College	415	272,020	655	377	246,285	653	367	235,500	642
Total	17,983	\$22,834,572	\$ 1,270	18,166	\$23,033,757	\$ 1,268	15,755	\$19,665,130	\$ 1,248

Institution	2014-15			2015-16			2016-17		
	Recipients	Amount	Average Award	Recipients	Amount	Average Award	Recipients	Amount	Average Award
Four-Year Institutions									
Nevada State College	427	\$ 460,534	\$ 1,079	433	\$ 558,710	\$ 1,290	522	\$ 690,105	\$ 1,322
University of Nevada- Las Vegas	7,074	11,083,187	1,567	7,513	13,759,582	1,831	8,069	14,583,776	1,807
University of Nevada - Reno	6,084	9,957,085	1,637	6,561	12,711,125	1,937	6,894	13,287,472	1,927
Two-Year Institutions									
College of Southern Nevada	3,647	2,131,224	584	3,252	2,112,922	650	3,794	2,377,832	627
Great Basin College	260	194,400	748	257	208,628	812	257	210,080	817
Truckee Meadows Community College	1,244	709,120	570	1,145	762,400	666	1,120	673,820	602
Western Nevada College	335	212,220	633	285	218,220	766	274	192,820	704
Total	19,071	\$24,747,771	\$ 1,298	19,446	\$30,331,586	\$ 1,560	20,930	\$32,015,904	\$ 1,530

Institution	2017-18			2018-19			2019-20		
	Recipients	Amount	Average Award	Recipients	Amount	Average Award	Recipients	Amount	Average Award
Four-Year Institutions									
Nevada State College	719	\$ 925,620	\$ 1,287	802	\$ 1,079,825	\$ 1,346	960	\$ 1,281,300	\$ 1,335
University of Nevada- Las Vegas	8,728	15,923,588	1,824	9,184	17,013,591	1,853	9,913	18,705,131	1,887
University of Nevada - Reno	7,268	14,023,516	1,929	7,543	14,687,795	1,947	7,721	15,014,255	1,945
Two-Year Institutions									
College of Southern Nevada	3,979	2,546,249	640	4,622	2,907,705	629	4,848	3,178,217	656
Great Basin College	251	213,400	850	294	243,265	827	291	257,980	887
Truckee Meadows Community College	1,112	716,780	645	1,222	798,520	653	1,305	846,880	649
Western Nevada College	275	195,500	711	329	233,138	709	317	230,917	728
Total	22,332	\$34,544,653	\$ 1,547	23,996	\$36,963,839	\$ 1,540	25,355	\$39,514,681	\$ 1,558

Institution	2020-21		
	Recipients	Amount	Average Award
Four-Year Institutions			
Nevada State College	1,088	\$ 1,456,740	\$ 1,339
University of Nevada- Las Vegas	11,279	21,668,479	1,921
University of Nevada - Reno	8,011	15,902,088	1,985
Two-Year Institutions			
College of Southern Nevada	4,807	3,276,426	682
Great Basin College	318	259,380	816
Truckee Meadows Community College	1,332	909,920	683
Western Nevada College	341	259,560	761
Total	27,176	\$43,732,592	\$ 1,609

Table 7: Nevada Promise Scholarship Awards by Year and Institution

Institution	2018-19			2019-20		
	Recipients	Amount	Average Award	Recipients	Amount	Average Award
College of Southern Nevada	464	\$ 993,207	\$ 2,141	590	\$ 1,218,945	\$ 2,066
Great Basin College	68	194,957	2,867	88	218,279	2,480
Truckee Meadows Community College	201	422,786	2,103	328	681,441	2,078
Western Nevada College	76	143,834	1,893	116	250,349	2,158
Total	809	\$ 1,754,784	\$ 2,169	1,122	\$ 2,369,014	\$ 2,111

Institution	2020-21		
	Recipients	Amount	Average Award
College of Southern Nevada	669	\$ 1,298,084	\$ 1,940
Great Basin College	127	315,975	2,488
Truckee Meadows Community College	429	843,140	1,965
Western Nevada College	169	336,189	1,989
Total	1,394	\$ 2,793,388	\$ 2,004

The Silver State Opportunity Grant also nearly doubled the total awards from the 2015-16 to 2020-21 academic years. Each eligible institution increased the total amount awarded over this time as well. What is notable about the Silver State Opportunity Grant is there are different tiers of eligibility. All students at the first eligibility tier are awarded funding before grants are disbursed to the next tier. This sets a ceiling for funding while also allowing policymakers to incentivize various behaviors (i.e., total credits per semester that students enroll) and reward for past academic success (i.e., students must be deemed college-ready).

Table 8: Silver State Opportunity Grant Awards by Year and Institution

Institution	2015-16			2016-17			2017-18		
	Recipients	Amount	Average Award	Recipients	Amount	Average Award	Recipients	Amount	Average Award
Four-Year Institutions									
Nevada State College	121	\$ 365,103	\$ 3,017	85	\$ 194,367	\$ 2,287	400	\$ 950,168	\$ 2,375
Two-Year Institutions									
College of Southern Nevada	655	1,368,414	2,089	662	1,395,868	2,109	681	1,524,430	2,239
Great Basin College	51	176,842	3,467	53	156,592	2,955	181	573,352	3,168
Truckee Meadows Community College	142	352,007	2,479	207	549,630	2,655	271	680,262	2,510
Western Nevada College	95	237,634	2,501	105	202,520	1,929	161	416,122	2,585
Total	1,064	\$2,500,000	\$ 2,350	1,112	\$2,498,977	\$ 2,247	1,694	\$ 4,144,334	\$ 2,446

Institution	2018-19			2019-20			2020-21		
	Recipients	Amount	Average Award	Recipients	Amount	Average Award	Recipients	Amount	Average Award
Four-Year Institutions									
Nevada State College	460	\$1,202,894	\$ 2,615	439	\$1,175,000	\$ 2,677	379	\$ 1,091,059	\$ 2,879
Two-Year Institutions									
College of Southern Nevada	754	1,817,077	2,410	677	1,677,056	2,477	604	1,577,312	2,611
Great Basin College	185	691,495	3,738	150	550,336	3,669	147	484,752	3,298
Truckee Meadows Community College	307	838,544	2,731	328	984,698	3,002	320	894,494	2,795
Western Nevada College	159	442,780	2,785	192	545,684	2,842	179	504,431	2,818
Total	1,865	\$4,992,790	\$ 2,677	1,786	\$4,932,774	\$ 2,762	1,629	\$ 4,552,048	\$ 2,794

Overall, total scholarship costs have been rising over time. However, only the Governor Guinn Millennium Scholarship does not have a pre-existing funding ceiling. Relatedly, the total GGMS-recipient enrollment has increased over the past ten years, primarily led by the rise in GGMS-recipient enrollment at Nevada's 4-year institutions.

Funding Required per Cohort

The previous subsection attempted to understand annual funding trends and student recipients' numbers for the three state-funded scholarship and grant programs. Given historical trends, this subsection attempts to estimate the future funding needs for the GGMS. Because the Nevada legislature caps the funding for NPS and SSOG, these programs are excluded from the analysis. Only the GGMS has a relatively unknown financial need due to the difference between the number of students who qualify for the program and the number who ultimately receive the funding.

The Nevada State Treasurer's Office maintains records of each high school graduating class: how many students are eligible for GGMS funding, how many students received funding, and the total amount of GGMS funding distributed to date. Combining this data with the number of Nevada graduates from the Nevada Report Card website, it is possible to determine what percentage of Nevada high school students were eligible to receive GGMS funding and what percentage took advantage of the program. The National Center for Education Statistics (NCES) also provides estimated graduation rates by state through the 2030-31 school year.³⁸

Using these data points, Table 9 estimates the total number of students eligible for GGMS scholarship funding through 2031. The table displays the average annual award based on the actual expenditures reported by the State Treasurer's Office. Given that an increasing number of GGMS recipients are opting to attend Nevada's 4-year institutions (see Table 6), it is likely the average award per recipient will continue to increase – even if the total number of high school graduates and the number of GGMS-eligible students is estimated to remain relatively flat.

Conversations with the State Treasurer's Office reveal a nuanced approach to estimating future GGMS funding needs. Table 6 displays the total GGMS expenditures by year, whereas Table 9 displays the expenditures by high school graduating class. Instead of using either of these methods to estimate annual and biennial costs, the State Treasurer's Office completes an analysis of the year-over-year student participation in the GGMS. They found that each year a certain percentage of students will no longer receive the GGMS – either because the student completed their program, stopped taking classes, or somehow became ineligible for funding. The biennial GGMS budget is based on this analysis.

Table 9: Governor Guinn Millennium Scholarship Funding per High School Graduation Year – 2000 to 2031

High School Graduation Year	Total Nevada High School Graduates	Number of Eligible Students	Number of Student Recipients	Amount	Average Award per Recipient
2000	14,551	7,359	5,657	\$ 30,544,753	\$ 5,399
2001	15,127	7,909	6,028	32,175,901	5,338
2002	16,270	8,202	6,221	33,285,575	5,351
2003	16,378	8,701	6,555	28,148,205	4,294
2004	15,201	9,083	6,627	27,199,138	4,104
2005	15,740	8,629	6,184	23,777,242	3,845
2006	16,455	8,744	6,246	23,084,054	3,696
2007	17,149	8,321	5,767	22,648,794	3,927
2008	18,815	8,790	6,161	23,996,007	3,895
2009	19,904	8,458	5,918	23,337,448	3,943
2010	20,956	9,124	6,131	23,395,866	3,816
2011	21,185	9,307	5,992	22,440,972	3,745
2012	21,938	9,758	6,400	24,488,712	3,826
2013	23,083	10,543	6,763	26,582,248	3,931
2014	23,941	10,866	7,026	28,614,613	4,073
2015	24,247	11,311	7,410	32,510,187	4,387
2016	25,307	12,725	8,110	34,178,325	4,214
2017	28,922	13,747	8,945	39,062,967	4,367
2018	30,204	14,524	9,212	38,589,502	4,189
2019	30,988	15,361	9,985	32,573,198	3,262
2020	30,929	15,739	10,230	21,622,410	2,114
2021	30,479	15,447	10,041	10,639,619	1,060
2022	30,176	15,088	9,807	-	-
2023	30,892	15,446	10,040	-	-
2024	31,620	15,810	10,277	-	-
2025	33,148	16,574	10,773	-	-
2026	32,978	16,489	10,718	-	-
2027	31,874	15,937	10,359	-	-
2028	31,668	15,834	10,292	-	-
2029	31,644	15,822	10,284	-	-
2030	31,292	15,646	10,170	-	-
2031	31,122	15,561	10,115	-	-

Finding additional funding for the rising program cost may be a concern for policymakers. Nevada may use existing funding streams to address this issue or look for new revenue sources. While the Guinn Center does not take a position on this, we refer readers to previous state revenue work our organization completed.³⁹ Additionally, the Commission on School Funding contracted with economic analysts to identify funding sources for K-12 education. This work may be informative to the financial aid conversation as well.⁴⁰

Part IV: The Path Forward

Determining the path forward for Nevada's state-funded scholarship programs will require introspection and conversations between NSHE institutions, the Nevada State Treasurer's Office, and the Nevada State Legislature. The primary question to consider is what the primary purpose of these programs is. The Governor Guinn Millennium Scholarship, the Nevada Promise Scholarship, and the Silver State Opportunity Grant show positive student outcomes (defined as the student completing a program of study) compared to non-recipients. The magnitude of the positive effect credited to these programs differs, but each has a statistically significant impact on students completing a program of study.

While the programs all show positive effects, it is also true that the cost of these programs – and specifically the GGMS – continues to rise. All financial aid programs must balance two competing priorities: ensuring access for all students and ensuring access for “qualified” students.^j Most programs fall somewhere between the two extremes.

One End of the Continuum: Financial Aid for College Access for All

Studies suggest that financial aid often encourages students to enroll in post-secondary education or may be a deciding factor for students and families choosing between various institutions. This study did not analyze the effect of financial aid on enrollment decisions. However, there is no reason to believe this would not be true. The analysis supported previous research findings that total financial aid received was not a consistent predictor of student program completion. The academic literature suggests that educational/classroom-based outcomes are better predictors of whether a student will complete a program of study.

However, if Nevada wishes to enroll more students in post-secondary education, a future study may analyze the decision-making process of high school students and families to understand the role financial aid plays in those decisions.

A caveat is warranted, though. If the intention is only to enroll students without proper student support, some students who enroll may not complete a program of study. This is not to critique the current support services at each of Nevada's institutions. They all have support systems in place and are aware of the common pitfalls students encounter. However, increasing the access to more students may overburden the system and require additional funding to increase staffing and resources available to students.

^j “Qualified” is defined as students meeting specific eligibility criteria established by policymakers.

Other End of the Continuum: Increase Access for “Qualified” Students

Overall, Nevada’s state-funded scholarship and grant opportunities are primarily set up in Nevada to provide scholarship funding based on specific criteria. The Governor Guinn Millennium Scholarship awards funding based on a student’s high school performance. The Silver State Opportunity Grant awards funding to low-income students determined to be college-ready. And while it is not an achievement-based criterion, the Nevada Promise Scholarship requires students to participate in community service activities that may integrate them more into the campus community. Previous academic studies find these same criteria are significant predictors of a student graduating from a post-secondary institution.

While this analysis did not support the claim that total financial aid was predictive of positive student outcomes, it did find that students who received GGMS, SSOG, and NPS funding – regardless of the amount – were more likely to complete a program of study than were their non-recipient peers. This finding was statistically significant across each program and in both 2- and 4-year institutions. It suggests that perhaps it is not the financial aid assisting these students cross the finish line but rather the academic characteristics underlying these programs – which are significant predictors of completing a program of study in the academic literature.

The finding that financial aid is not as predictive of a successful student outcome as whether a student receives funding through one of these state-funded scholarship programs should not suggest that financial aid has no impact. Refer to the previous discussion surrounding access to higher education. The funding from these programs likely encouraged students to enroll in post-secondary education who otherwise may not have that option available. This is especially true of the Silver State Opportunity Grant, which incorporates a measure of student need into the application process.

Future studies could explore these findings more, especially to better understand the effects of student/family income levels. Based on the data available, student and family need metrics were whether or not the student received Pell funding. This “yes” or “no” determination ignores the likelihood that student and family need is more nuanced than a dichotomous variable would suggest.

Part V: Conclusion

Based on the findings of this report, Nevada’s state-funded financial aid programs do positively affect students’ completion of a program of study at post-secondary institutions. The regression models suggest this relationship is statistically significant, but the variable is only whether the student received funding through the program, not how much funding they received. Interestingly, the total aid students received was not significant in all the regression models. These two findings suggest that the success may not be due to the money itself but because of the requirements students must meet to qualify for the funding. Previous academic studies indicate that financial aid determines

student decisions on whether to enroll (or persist) in college, not necessarily whether they go on to graduate. Completing a program of study is predicted more by academic factors (e.g., how rigorous a student's high school curriculum was, whether the student earns failing grades in their college coursework, etc.). This is not an argument that the state-funded financial aid programs do not work. The financial aid programs are likely expanding access to college-bound students (or making college an option for students and families), and the underlying eligibility requirements of those programs ensure the students receiving the funding are prepared for the rigors of post-secondary education

However, costs continue to increase due in part to increased students eligible for funding – specifically from the Governor Guinn Millennium Scholarship – and because more GGMS recipients are choosing to pursue 4-year degrees. Finding the appropriate balance between post-secondary education access and rewarding past academic success will continue to be a necessary conversation between the Nevada System of Higher Education, the State Treasurer's Office, and Nevada policymakers.



About the Guinn Center

The Guinn Center is a 501(c)(3) nonprofit, nonpartisan, independent policy center that seeks to advance evidence-based policy solutions for Nevada through research, public engagement, and partnerships.

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Appendix A: Data Cleaning and Methodology

The primary data source for this report was obtained from the Nevada System of Higher Education. They maintain systemwide data beginning in the 2011-12 academic year. When the data was provided, NSHE validated the data through the 2020-21 academic year. Financial Aid data before the 2011-12 is not available within the NSHE data warehouse. It may be housed at the individual institutions but would be contained within a legacy system. Therefore, this analysis uses data beginning with the 2011-12 academic year.

In total, the Guinn Center received 1,231,110 total student observations. The data was provided by academic year; if a student enrolled at an NSHE institution over several years, they were included in each year's file. Table A1 lists the variables received in each academic year's file.

Table A1: Data Received to Complete the Analysis

Data Points Received to Complete the Analysis	
Student ID Number (deidentified)	Gender - Fall
Institution Code	Credits Enrolled - Fall
Academic Year	Credits Earned - Fall
Expected Family Contribution (from FAFSA)	First Time Student Flag - Spring
Total GGMS Funding Received	Freshman Student Flag - Spring
Total SSOG Funding Received	Degree-Seeking Flag - Spring
Total NPS Funding Received	Degree Type Sought - Spring
Total Pell Grant Funding Received	Ethnicity - Spring
Public Loans Accepted	Gender - Spring
Private Loans Accepted	Credits Enrolled - Spring
Other Public Financial Aid	Credits Earned - Spring
Other Private Financial Aid	First Time Student Flag - Summer
Highest Degree Earned	Freshman Student Flag - Summer
Academic Term the Highest Degree was Earned	Degree-Seeking Flag - Summer
First Time Student Flag - Fall	Degree Type Sought - Summer
Freshman Student Flag - Fall	Ethnicity - Summer
Degree-Seeking Flag - Fall	Gender - Summer
Degree Type Sought - Fall	Credits Enrolled - Summer
Ethnicity - Fall	Credits Earned - Summer

Many student records include similar data over various terms/semesters. For example, there is a gender variable for the Fall, Spring, and Summer terms. In cases where there are entries in each of the Fall, Spring, and Summer data points, the research team selected the first instance and used that in all future analyses.