



Targeting Financial Aid for Improved Retention Outcomes

The Potential Impact of Redistributing State Gift Aid on Student Retention Among Pell Grant Recipients in Louisiana's Statewide and Regional Universities

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Introduction

With public funding for financial aid facing constraints at both the state and federal levels, there is heightened interest in the question: How do strategies allocating financial aid affect student retention and completion? Indeed, a growing body of literature addresses this issue, with most studies suggesting that increasing the size of individual financial aid packages creates relatively modest improvements in student retention. In one such study, Eric Bettinger found through a broad review of the literature that, on average, a \$1,000 increase in Gift Aid¹ for needy students results in a 2 to 4 percentage point increase in student retention. However, he concludes that, in the absence of better targeting of financial aid, “The marginal benefit might not be sufficiently large to offset the cost of a large-scale expansion in the program’s generosity. To expand the generosity, we either need to identify more cost-effective forms of financial aid or find ways to target aid programs more effectively.”²

This paper investigates financial aid policies and approaches affecting public institutions in the state of Louisiana and suggests a research-based approach to leveraging declining state resources in order to enable the greatest possible number of students to complete their postsecondary education. This work was conducted with generous support from the Bill and Melinda Gates Foundation.

Statewide Financial Aid Data Analysis Used to Understand and Predict Student Retention Behavior

As we consider the question of whether and how improved targeting of financial aid can increase retention in a cost-neutral fashion, one rich source of data can be found in statewide student unit record systems (SURS). In 2005–06, Noel-Levitz assisted the Louisiana Board of Regents (Regents) in adding record-level financial aid data to its SURS. Data submission and cleaning protocols were developed, and a taxonomy was constructed to interpret the myriad of institutional fund codes contained in the institutions’ administrative data systems. Louisiana’s student unit record system now contains detailed record-level data on the types and amounts of aid that students attending the state’s public institutions receive. In addition to these financial data, the Regents’ SURS also contains information on students’ high school and college performance, standardized test scores, and retention/completion behavior. Although the Regents had collected these data over the years, they had not mined the database to understand the impact of financial aid on retention and completion. In partnership with the Regents, we extracted data for the 2006–07, 2007–08, and 2008–09 academic years. We are now in the process of extracting and interpreting 2009–10 and 2010–11 data. Our analysis of the first three years of data focused on the following questions:

- How do the level and mix of financial assistance affect fall-to-fall, same-school student retention in Louisiana among Pell Grant recipients?
- Can we observe differences in the retention of Pell Grant recipients versus students in other financial classifications (needy non-Pell recipients and no-need students)?

¹ We use the term “Gift Aid” to refer to grants and scholarships that the student does not have to repay. This aid can come through the federal government (e.g., Pell Grants), through state programs, or through the institutions themselves. In contrast to Gift Aid, loans must be repaid and hence are less valuable to the recipient. See also definitions on page 6.

² Bettinger, Eric, *Financial Aid: A Blunt Instrument for Increasing Degree Attainment*, Prepared for the American Enterprise Institute Conference, “Degrees of Difficulty: Can American Higher Education Retain Its Edge?” (2011), 21-22

This paper suggests a research-based approach to leveraging declining state resources in order to enable the greatest possible number of students to complete their post-secondary education.



- Can we identify flex points in the size and composition of financial aid awards where additional dollars yield diminishing or no returns? Can we help Louisiana package aid more efficiently by eliminating “overpayment” to some students and shifting that money to students who might otherwise be inclined to drop out?
- How does Louisiana’s need-based supplemental GO Grant interact with the Pell Grant in terms of impact on student retention?
- What is the best use of the state’s financial aid investment in TOPS Scholarships and GO Grants?

We initially focused on Pell Grant recipients because they are a population of great interest both nationally and in Louisiana. Moreover, an important aspect of Louisiana financial aid policy was the introduction of the GO Grant for the 2007-08 academic year. Prior to 2007-08, most Louisiana state-based financial aid was awarded through the Taylor Opportunity Program for Students (TOPS), a merit-based award. A TOPS award typically covers the cost of tuition at a public college/university.

The GO Grant was created to supplement the federal Pell Grant and was awarded to Louisiana residents who are Pell-eligible. For the 2007-08 and 2008-09 academic years, it was valued at \$2,000 per year for full-time students, \$1,000 for half-time students, and \$500 for part-time students. The introduction of this program in 2007-08 provided us with an opportunity to assess its impact on the overall quality of student financial aid packages and how this change affected student retention.

This research brief provides an overview of our initial findings at Louisiana’s public statewide and regional four-year universities. We elected to exclude the state’s flagship institution, Louisiana State University, because its first- to second-year retention rate is considerably higher (84 percent in 2006-07) than rates at the 13 other four-year universities, where retention rates range from 39 percent at Southern University–New Orleans to 74 percent at the University of Louisiana–Lafayette.³ These campuses collectively also enroll around four times as many students as LSU, and improving their retention rates (and ultimately their graduation rates) represents a far bigger challenge, as well as a greater opportunity to improve the number of Louisiana citizens with bachelor’s degrees.⁴

Demographics of the Research Population

The analysis that follows is based on 40,931 student records for full-time students enrolled during the fall terms of 2006, 2007, and 2008. We removed four groups of students who possessed characteristics that might skew our results: international students, students receiving talent-based awards (e.g., student athletes), students receiving aid because they were a dependent of an institutional employee, and students paying non-resident tuition. Students receiving aid on the basis of special talent have a unique affiliation at the institution, typically membership on an athletic team. Students paying non-resident tuition are not eligible for either TOPS or the GO Grant, which makes their aid packages considerably weaker than those of their in-state counterparts.

In addition, data from Louisiana State University–Shreveport was excluded for the 2007-08 and 2008-09 years (639 student records) and data from Southern University–Baton Rouge was excluded from all years (2,407 student records). These exclusions were due to incomplete or suspect data. Elimination of the Southern University data could be perceived as particularly problematic because it is one of only three publicly funded, four-year Historically Black Colleges and Universities in Louisiana. However, the research file contained 9,330 African American students (25 percent of students in the final research file). The exclusions described above reduced the overall data set to 37,251 records or 91 percent of the original file.

³ For more information on retention trends in Louisiana’s public institutions see: <http://regents.louisiana.gov/index.cfm?md=pagebuilder&tmp=home&pid=134>

⁴ We plan to analyze the effects of financial aid on community and technical colleges as part of a separate completion study.

Tables 1 and 2 contain a summary of the gender distribution, race/ethnicity, financial characteristics, and receipt of Pell Grants, TOPS Scholarships, and GO Grants. As previously noted, the primary focus of the initial research was on the 36 percent of students who received a Pell Grant (n=13,583).

Table 1: Gender and Race Ethnicity of Final Study Database (37,251 records)

Description	Number of Records	Percent of Records
Females	21,658	58%
Males	15,593	42%
Asian American	640	2%
Native American	283	<1%
African American	9,330	25%
Hispanic American	770	2%
White American	25,418	68%
Unknown	810	2%

Some totals may not equal 100% because of rounding.

Table 2: Financial Characteristics of the Final Study Database (37,251 records)

Description	Number of Records	Percent of Records
Filed a FAFSA*, demonstrated financial need, received a Pell Grant	13,583	36%
Filed a FAFSA, demonstrated financial need, did not receive a Pell Grant**	7,897	21%
Filed a FAFSA, did not demonstrate financial need	10,981	29%
Did not file a FAFSA	4,790	13%
TOPS recipients	21,634	58%
GO Grant recipients	7,888	21%
Pell Grant recipients	13,583	36%
Dependent students	30,746	83%

* The FAFSA is the Free Application for Federal Student Aid which students must submit to potentially qualify for Pell Grants and other forms of federal financial aid.

** Pell Grants are awarded to students with Expected Family Contributions (EFC) below a prescribed level, so it is possible for a student to demonstrate financial need without qualifying for a Pell Grant.

Some totals may not equal 100% because of rounding.

Major Findings

1. In predicting fall-to-fall, same-school retention, high school Grade Point Average was the strongest academic preparation variable.

Consistent with previous studies, we found that high school Grade Point Average was the strongest preparation indicator, explaining two-thirds of the variance in year-over-year student retention. The next most powerful predictor, student ACT composite scores, explained approximately 60 percent of the variance in retention.

As is evident in Table 3, retention rates increase in step with academic preparation reflected in high school GPA, rising, for example, from 55 percent for students with a high school GPA below 3.00 to 87 percent for students with a GPA of 3.75 or more.

2. Pell Grants help overcome differences in retention rates across income levels among students with equivalent academic preparation.

We can see the effects of Pell Grants on retention rates when we compare Pell Grant recipients with other students with demonstrated financial need and comparable academic preparation who were not eligible for a Pell Grant.⁵ Once we controlled for high school Grade Point Average, the data (Table 3) show that Pell Grant recipients retain as well as students who filed a FAFSA and demonstrated financial need, but did not receive a Pell Grant. Pell student retention rates lag by two points at the upper and lower ends of the GPA distribution, but in the two middle categories, students with Pell Grants do as well, if not better, than students without Pell Grants.

This parity in performance is surprising given the vast difference in family income between the Pell students (\$24,675) and students with demonstrated financial need without Pell Grants (\$59,887). Since family income has such a strong relationship to college success, the performance of Pell students, when compared to that of wealthier students, suggests that these grants are helping students overcome a significant risk factor impeding student success. That said, the data suggest that the biggest factor hindering the success of Pell students is their weaker high school performance.

Table 3: Fall-to-Fall, Same-School Retention by High School Grade Point Average

High School GPA Range	All Students	Pell Recipients	Demonstrated Financial Need, Not Pell-Eligible
<3.00	55%	54%	56%
3.00-3.49	70%	70%	68%
3.50-3.74	79%	78%	78%
3.75-4.00	87%	85%	87%
Total	68%	65%	69%

⁵ Students with an Expected Family Contribution (EFC) that is greater than the Pell cut-off in a given year. Cost of Attendance (COA) minus EFC leaves demonstrated need.

Definitions

Cost of Attendance (COA) – Estimated cost, including tuition and fees, books and supplies, room and board, personal costs, and transportation

Expected Family Contribution (EFC) – The amount of money that the family is expected to contribute to the student's education, as determined by the Federal Methodology need analysis formula

Student's Financial Need – The difference between the COA and the EFC is the Student's Financial Need

Gift Aid – Financial aid, such as grants and scholarships, which does not need to be repaid

Percent Need Met With Gift Aid – Percent of Student's Financial Need that is met with Gift Aid

Grade Point Average (GPA) – Average of a student's high school grades, converted to a 4.00 scale (4.00 is an A, 3.00 is a B, and 2.00 is a C)

3. After controlling for high school performance, the level of students' Need Met With Gift Aid is associated with retention.

To measure the interaction of federal, state, and institutional Gift Aid, we calculated each Student's Financial Need (Cost of Attendance minus Expected Family Contribution [EFC]), then created a variable to measure the percentage of that need that was met with Gift Aid from all sources (Percent Need Met With Gift). We believe this is a more useful variable than total Gift Aid, because it accounts for differences between the Cost of Attendance and the student's EFC. Our findings indicated that as the percentage of need met with Gift Aid increased among Pell Grant recipients, so did the fall-to-fall retention rate. Importantly, this pattern held within each high school GPA range (see Appendix for the results in each high school GPA range). For example, among students with a high school Grade Point Average of 3.00-3.49, the retention rate among students with less than 30 percent of Need Met with Gift was 51 percent. When the gift percentage was 80 percent or more, the retention rate improved to 78 percent.

Given this finding, one of the major goals of this study was to identify any "flex points" that lead to diminishing returns on the investment of scarce financial aid dollars on student retention. Indeed, we found that the positive impact of increasing the percentage of need met with Gift Aid declines substantially once 55 to 60 percent of a student's need is met. For example as shown in Table 4 below, increasing the gift percentage from <30% to 55% to <60% corresponds to a 26 percentage point increase in the retention rate, while increasing the percentage of need met with Gift Aid from 55% to <60% to 70% to <80% increases retention by only four points.

Table 4: Fall-to-Fall, Same-School Retention by Percentage of Need Met With Gift Aid

Pell Grant Recipients in Louisiana Statewide and Regional Universities (Fall 2006, 2007, and 2008 Cohorts)

Percent of Need Met With Gift Aid	Retained	Did Not Retain	Total	Retention Rate
<30%	753	892	1,645	45.8%
30% to <40%	1,144	936	2,080	55.0%
40% to <50%	1,680	1,128	2,808	59.8%
50% to <55%	795	446	1,241	64.1%
55% to <60%	683	270	953	71.7%
60% to <70%	1,195	494	1,689	70.8%
70% to <80%	980	310	1,290	76.0%
80% or more	1,544	333	1,877	82.3%
Total	8,774	4,809	13,583	64.6%

CHI SQUARE RESULTS: df 7; value 744; p-value < 0.0001

We noted the highest retention rates among students who received the largest packages, where more than 80 percent of their need was being met with Gift Aid. In dollar terms, these students received financial aid packages averaging more than \$10,000 in Gift Aid—more than \$3,500 above the average received by other students. Further investigation into the characteristics of these students showed that they were high achievers with substantially higher high school grade point averages (3.53 versus 2.99) and ACT composite scores (23.5 versus 19.5) than all other students.

Our data suggest a way in which the state's GO Grant program can be fine-tuned to improve retention. At the current time, there are large numbers of Pell Grant recipients with inadequate financial aid packages who will in turn have a hard time remaining in college. We believe that it is possible to increase the overall retention rate among Louisiana students by redirecting a portion of state GO Grants from students with the largest aid packages to students who are receiving the lowest levels of support.

While some students with decreased aid might not return, the growth in retention rates among students with low levels of financial aid will likely more than make up for those losses—with a potential savings of approximately \$400,000 per year to the state.

The Effects of Redirecting GO Grant Funding

To test the effects of redirecting aid from students with aid packages above 55 percent of need met with Gift Aid to students with aid packages below that cut-off, we conducted a series of simulations.

We began by grouping students into five categories of high school GPA and eight categories of need met with Gift Aid. Within each category, we calculated the actual retention rates. (See Table 5.) These retention rates were the "baseline" rates we used to demonstrate how changing financial aid packages would affect retention. Note that students with the weakest financial aid packages (less than 30 percent of need met with Gift Aid) retain at a lower percentage than students with stronger financial aid packages.

Table 5: Retention Rates by GPA for 2007-08 and 2008-09 First-time, Full-time Students With Both Pell Grant and GO Grant
Louisiana Regional Universities

High School Grade Point Average					
Percent of Need Met With Gift Aid	<3.00	3.00 to 3.49	3.50 to 3.74	3.75 to 4.00	No GPA
<30%	35%	49%	38%	43%	49%
30% to <40%	50%	65%	82%	55%	59%
40% to <50%	55%	68%	65%	74%	57%
50% to <55%	57%	69%	77%	82%	55%
55% to <60%	67%	75%	77%	80%	76%
60% to <70%	58%	71%	85%	86%	53%
70% to <80%	60%	74%	79%	88%	69%
80% or more	73%	77%	83%	89%	85%

We repackaged students' GO Grants in the range of \$0 to \$4,000 with a target of meeting 55 percent of need with Gift Aid. In some cases, \$4,000 grants were not sufficient to bring a group of students up to the 55 percent of need met target. In other cases, totally eliminating their GO Grants did not bring them down to the 55 percent.

We took the resulting financial aid package for each subset and estimated a new retention rate based on actual historical behavior of students who had received that level of financial assistance with that level of academic preparation.

Table 6 shows the actual distribution of 2007-08 and 2008-09 students who received a Pell Grant and a GO Grant (no more than \$2,000) by their Percentage of Need Met With Gift Aid range and various financial and retention indices. These numbers served as the baseline for the simulation.

Table 6: 2007-08 and 2008-09 Fall-to-Fall Students With Both a Pell Grant and GO Grant at Louisiana Statewide and Regional Universities

Current Financial Distribution						
Current Percent of Need Met With Gift Aid	Number of Cases	Average Gift	Average GO Grant	Average Percent Met With Gift	Percent Retained	Number Retained
All Students						
<30%	335	\$3,587	\$1,540	24%	41%	138
30% to <40%	799	\$5,417	\$1,882	36%	56%	445
40% to <50%	1,759	\$6,601	\$1,954	45%	59%	1,037
50% to <55%	902	\$7,231	\$1,972	53%	63%	567
55% to <60%	613	\$7,767	\$1,969	57%	72%	442
60% to <70%	1,172	\$8,501	\$1,976	65%	69%	808
70% to <80%	901	\$9,524	\$1,969	75%	74%	664
80% or more	1,407	\$10,319	\$1,893	97%	81%	1,145
Total	7,888	\$7,795	\$1,926	61%	67%	5,246
Total GO Grant Expenditure			\$15,192,288			

Note: The original count of 13,583 Pell Grant recipients is reduced to 7,888 when we remove the 2006-07 records (no GO Grant in 2006-07) and a relatively small number of Pell recipients who did not receive a GO Grant in 2007-08 and 2008-09.

Table 7 shows what happened in the simulations when we used GO Grants of up to \$4,000 to move students as close as possible to the target of 55 percent of need met with gift given other aid they were receiving. Importantly, we did not assume changes to any other funding sources (e.g., institutional scholarships, TOPS). Rather, we simply reduced or eliminated GO Grants for students with the richest overall aid awards and redirected those GO Grant funds to students with the weakest financial aid awards by increasing the GO Grant itself.

- We calculated how many students were moved from weak packages to stronger ones, and we applied the higher retention rate to those students to estimate the gain in the number of students retained.
- Conversely, we knew that students with the strongest financial aid packages would lose money, and their retention rate might decline.
- We calculated the fiscal implications of this redistribution of financial aid by comparing how much more money would be needed to bring students up to the target aid goal and how much money would be saved by reducing the financial aid packages of students above the target.

Table 7: Results of Simulation Number 1 – Projected Retention With a Maximum \$4,000 GO Grant and Target of 55 Percent of Need Met With Gift Aid

Proposed—Need Met With Gift Aid Target at 55 Percent						
Current Percent of Need Met With Gift Aid	Number of Cases	Average Gift	Average GO Grant	Average Percent Met With Gift	Percent Retained Calculated	Projected Number Retained
All Students						
<30%	335	\$6,032	\$3,984	42%	57%	192
30% to <40%	799	\$7,446	\$3,910	50%	62%	496
40% to <50%	1,759	\$8,038	\$3,390	55%	64%	1,121
50% to <55%	902	\$7,556	\$2,297	55%	65%	590
55% to <60%	613	\$7,445	\$1,647	55%	67%	412
60% to <70%	1,172	\$7,264	\$738	55%	69%	806
70% to <80%	901	\$7,604	\$49	59%	74%	669
80% or more	1,407	\$8,427	\$0	78%	77%	1,083
Total	7,888	\$7,696	\$1,827	58%	68%	5,369
Total GO Grant Expenditure			\$14,412,330			

In comparing Table 7 simulated results to the baseline data in Table 6, the potential gains in retention were particularly impressive among students with less than 50 percent of their need met with Gift Aid. As a group, their retention rate increased from 56 percent to 63 percent and 189 additional students would be retained. Meanwhile, the overall retention rate increased 1.5 percentage points or 123 students. (Because of rounding, this shows up as 1 percent in the table points.) In addition, the redistribution of aid yielded a potential savings of approximately \$780,000 to the state over two years, or nearly \$400,000 per year.

Further Analysis of Students that Historically Received the Most Generous Aid Packages

In our estimation of changes in retention, we included both increases in retention as weak student aid packages were improved and declines in retention as the strongest financial aid packages were reduced. For example, we forecast a loss of around 60 students whose financial aid package formerly met more than 80 percent of their need with Gift Aid. The potential loss of these 60 students diminishes the substantial gains we see among students receiving the weakest financial aid awards. In fact, if these students were not lost, the overall retention gain would be closer to 2.5 percent. Therefore, we wanted to examine this cohort more closely.

As the data in Table 8 show, students with generous aid packages have the strongest academic credentials, with high GPAs, high composite ACT scores, and high college GPAs. Moreover, their aid packages average close to 100 percent of need met and 97 percent of need met with Gift Aid (dependent students only). Removing the GO Grant would still leave these students with nearly 80 percent of their need met with Gift Aid. Given their strong academic performance and likelihood to persist, we deem it a worthwhile risk to eliminate this potential “overpayment” in order to achieve improved retention among students with more modest credentials and aid packages. In fact, we suspect that the 60-student loss in our simulation is probably the worst-case scenario because of their overall academic strength coupled with the quality of their financial aid packages even after the GO Grant is either reduced or removed.

Table 8: Profile by Percent of Need Met With Gift Aid of 2007-08 and 2008-09 Fall-to-Fall Students With Both Pell Grants and GO Grants at Louisiana Statewide and Regional Universities

Description	Percent of Need Met With Gift Aid		
	Less Than 80%	80% and Higher	Overall
Total Cases	6,481	1,407	7,888
Percent of Total	82%	18%	100%
Number Retained	4,101	1,145	5,246
Percent Retained	63%	81%	67%
High School GPA	2.98	3.48	3.08
ACT Composite	19.6	23.1	20.2
College GPA	2.11	2.84	2.24
Dependent Students	5,808	1,370	7,178
Percent Retained	64%	82%	67%
Parents' Income*	\$28,952	\$32,704	\$29,661
Need	\$13,796	\$11,094	\$13,281
Percent of Need Met	70%	100%	76%
Percent of Need Met With Gift Aid	54%	97%	62%
Independent Students	673	37	710
Percent Retained	58%	76%	58%
Student's Income*	\$22,917	\$6,566	\$22,073
Need	\$15,522	\$13,005	\$15,391
Percent of Need Met	61%	102%	63%
Percent of Need Met With Gift Aid	45%	96%	47%

*Average of reported incomes greater than zero

Additional Simulation

We ran a second scenario using a maximum GO Grant of \$4,000 and targeting 60 percent of need met with Gift Aid. This simulation increased the retention rate 2.5 percentage points (196 students), but at a cost that was \$2 million more than 2007-08 and 2008-09 expenditures for students at these schools. These results appear in the appendix.

Implications and Conclusions

We believe that the scenario that offers the most cost-effective path forward for the state of Louisiana as it confronts the task of keeping students enrolled while facing increasingly stringent fiscal constraints is as follows:

- Increase GO Grants from \$2,000 to \$4,000,
- Set a target of meeting 55 percent of student need with Gift Aid using the GO Grant and all other forms of Gift Aid, and
- Simultaneously reduce or eliminate GO Grant awards for students with total gift assistance higher than 55 percent.

Our data suggest that by adhering to the parameters of this simulation, Louisiana would likely maintain and even marginally increase its retention rates while saving almost \$400,000 per year.

While our analysis suggests that Louisiana may be able to target a portion of its state-based aid to modestly improve retention at its state and regional universities without increasing the overall cost of the GO Grant program, current fiscal realities in the state may demand that our analysis be used to ration a shrinking pool of GO Grant funding more strategically.

In 2009-10 the GO Grant formula was changed such that students at lower-cost institutions were less likely to receive the award. In 2010-11 the program was converted to a campus-based program wherein schools received a fixed pool of funding to allocate to Pell Grant recipients. A maximum award of \$900 was set for 2010-11 and increased to \$1,000 for 2011-12.

Table 9 shows the net impact of these changes on the number of recipients and their average award since the program's inception.

Table 9: GO Grant Expenditures, Recipients, and Average Award: 2007-08 Through 2011-12

Academic Year	Total Expenditures (in millions)	Number of Recipients	Average per Recipient
2007-08	\$17.0	10,461	\$1,625
2008-09	\$25.8	15,973	\$1,615
2009-10	\$24.5	22,440	\$1,092
2010-11	\$25.1	30,774	\$816
2011-12	\$26.4	27,924	\$945

At the current time, GO Grants are typically being allocated by campuses on a first-come, first-served basis. Our analysis suggests that it would be judicious for the Board of Regents to provide greater guidance to campuses, urging them to use their GO Grants to meet 55 percent of need as a general policy goal.

We also believe that the Regents should systematically investigate how the declining overall level of GO funding has affected overall retention and retention among various types of students.

Finally, we hope these findings are instructive for other states that already house record-level financial aid data in their SURS and for those considering adding these data to their systems. Fiscal constraints at the federal and state levels will require improved precision in the allocation of all forms of financial aid, and these decisions should be grounded in research-based understanding of student response to particular awarding levels in order to ensure maximum impact on both initial enrollment behavior and retention/completion.

Appendix

Retention by Percentage of Need Met With Gift Aid, HS GPA <3.00

Percent of Need Met With Gift Aid	Retained	Did Not Retain	Total	Retention Rate
<30%	359	479	838	42.8%
30% to <40%	607	591	1,198	50.7%
40% to <50%	819	658	1,477	55.5%
50% to <55%	325	258	583	55.7%
55% to <60%	240	120	360	66.7%
60% to <70%	288	199	487	59.1%
70% to <80%	155	99	254	61.0%
80% or more	130	52	182	71.4%
Total	2,923	2,456	5,379	54.3%

CHI SQUARE RESULTS: df 7; value 105; p-value < 0.0001

Retention by Percentage of Need Met With Gift Aid, HS GPA 3.00 – 3.49

Percent of Need Met With Gift Aid	Retained	Did Not Retain	Total	Retention Rate
<30%	123	120	243	50.6%
30% to <40%	263	161	424	62.0%
40% to <50%	481	240	721	66.7%
50% to <55%	265	121	386	68.7%
55% to <60%	238	91	329	72.3%
60% to <70%	491	200	691	71.1%
70% to <80%	379	116	495	76.6%
80% or more	451	130	581	77.6%
Total	2,691	1,179	3,870	69.5%

CHI SQUARE RESULTS: df 7; value 87; p-value < 0.0001

Retention by Percentage of Need Met With Gift Aid, HS GPA 3.50 – 3.74

Percent of Need Met With Gift Aid	Retained	Did Not Retain	Total	Retention Rate
<30%	30	30	60	50.0%
30% to <40%	69	28	97	71.1%
40% to <50%	126	64	190	66.3%
50% to <55%	101	25	126	80.2%
55% to <60%	109	31	140	77.9%
60% to <70%	202	36	238	84.9%
70% to <80%	218	56	274	79.6%
80% or more	335	72	407	82.3%
Total	1,190	342	1,532	77.7%

CHI SQUARE RESULTS: df 7; value 56; p-value < 0.0001

Retention by Percentage of Need Met With Gift Aid, HS GPA 3.75 – 4.00

Percent of Need Met With Gift Aid	Retained	Did Not Retain	Total	Retention Rate
<30%	7	8	15	46.7%
30% to <40%	26	10	36	72.2%
40% to <50%	64	26	90	71.1%
50% to <55%	62	13	75	82.7%
55% to <60%	54	18	72	75.0%
60% to <70%	179	32	211	84.8%
70% to <80%	204	30	234	87.2%
80% or more	583	69	652	89.4%
Total	1,179	206	1,385	85.1%

CHI SQUARE RESULTS: df 7; value 53; p-value < 0.0001

Second Simulation Produced Additional Retention Gains but at a Greater Total Cost

Although we did not run a third simulation between these two “percentage of need met with Gift Aid” targets, a 57 percent ratio would likely produce a revenue-neutral option wherein retention is optimized at no additional cost to the state.

Results of Simulation Number 2 – Projected Retention With a Maximum \$4,000 GO Grant and Target of 60 Percent of Need Met With Gift Aid

Proposed—Need Met with Gift Aid Target at 60 Percent						
Current Percent of Need Met With Gift Aid	Number of Cases	Average Gift	Average GO Grant	Average Percent Met With Gift	Percent Retained Calculated	Projected Number Retained
All Students						
<30%	335	\$6,041	\$3,993	42%	57%	192
30% to <40%	799	\$7,512	\$3,977	50%	62%	494
40% to <50%	1,759	\$8,466	\$3,817	58%	65%	1,151
50% to <55%	902	\$8,243	\$2,983	60%	67%	605
55% to <60%	613	\$8,122	\$2,323	60%	69%	424
60% to <70%	1,172	\$7,899	\$1,372	60%	71%	828
70% to <80%	901	\$7,822	\$267	61%	73%	660
80% or more	1,407	\$8,432	\$6	78%	77%	1,089
Total	7,888	\$8,050	\$2,181	59%	69%	5,442
Total GO Grant Expenditure			\$17,203,728			

About the Sponsors

Noel-Levitz

Noel-Levitz has consulted with more than 2,700 public and private colleges and universities across North America, helping these campuses and systems reach and exceed their goals for student recruitment, financial aid, student retention and completion, and strategic enrollment management. In addition, Noel-Levitz convenes events attended by more than 5,000 educators each year and produces reports, papers, and columns to help campus leaders analyze current enrollment trends and discover more effective strategies.

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Questions About This Paper

If you have any questions or comments about this study, please contact Kevin Crockett, President/CEO and Principal, Noel-Levitz. Call 1-800-876-1117, or e-mail kevin-crockett@noellevitz.com.

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