



UTAH SYSTEM OF
HIGHER EDUCATION

ISSUE BRIEF

April 2023

Brett Campbell

Effect of Regents' Scholarship Awards on Degree Completions

Key findings:

- Regents' Scholarship awardees received an average of \$3,476.29 across 2.4 semesters.
- More Regents' awardees earned associate and bachelor's degrees compared to similar students.
- Most Regents' recipients earned bachelor's degrees as timely completions.
- Regents' recipients required less aid in institutional support and federal loans.
- More Regents' recipients from underrepresented populations earned bachelor's degrees than similar students.
- More Regents' recipients from underrepresented populations earned bachelor's degrees as timely completions compared to similar students.

Background

Recently the demand for jobs requiring a degree has increased (Carnevale, Smith & Strohl, 2013); however, a number of barriers prevent many from seeking a degree. Such barriers include high student debt (Looney & Yannelis, 2015), high dropout rates from colleges and universities (Kolodner & Butrymowicz, 2017), the achievement gaps between racial groups (Bailey & Dynarski, 2011; Cahalan, Perna, Yamashita, Wright, & Santillan, 2018), and the lack of financial means for low-income and first-generation students (Millet et al., 2018; Perna & Leigh, 2018).

In response, a number of new scholarships have emerged known as promise scholarships (Millet, Saunders, Kanter & Hiestand, 2020). A promise scholarship aims to increase collegiate attainment by promising financial aid to eligible students (Perna & Smith, 2020). Promise scholarships differ from traditional scholarships in that promise scholarships are non-competitive and not necessarily needs-based (Swanson, Watson, & Ritter, 2020). Typical eligibility criteria for promise scholarships include a set minimum GPA and residence within a specific geographic area. Utah's Regents' Scholarship could be considered a promise scholarship. For Regents', the criteria included a minimum GPA of 3.0 with no grade below a "C" and residence within Utah for high school grades 9 through 12. Specific coursework was also required. Unfortunately, Utah legislators also established a state Promise Scholarship, a needs-based scholarship that would not be considered a promise scholarship in the literature.

Students receiving promise scholarships were likelier to persist (Gonzalez et al., 2011; Daugherty & Gonzalez, 2016). Researchers found gains in the number of students earning degrees. For example, Harris

and colleagues (Harris et al., 2020) found a small but significant increase in degrees earned at two-year institutions. Bartik and colleagues (Bartik, Hershbein, & Lachowska 2015; see also, Long, Goldhaber, & Gratz, 2019) found more timely completions for bachelor's degrees among students who received the Kalamazoo Promise scholarship.

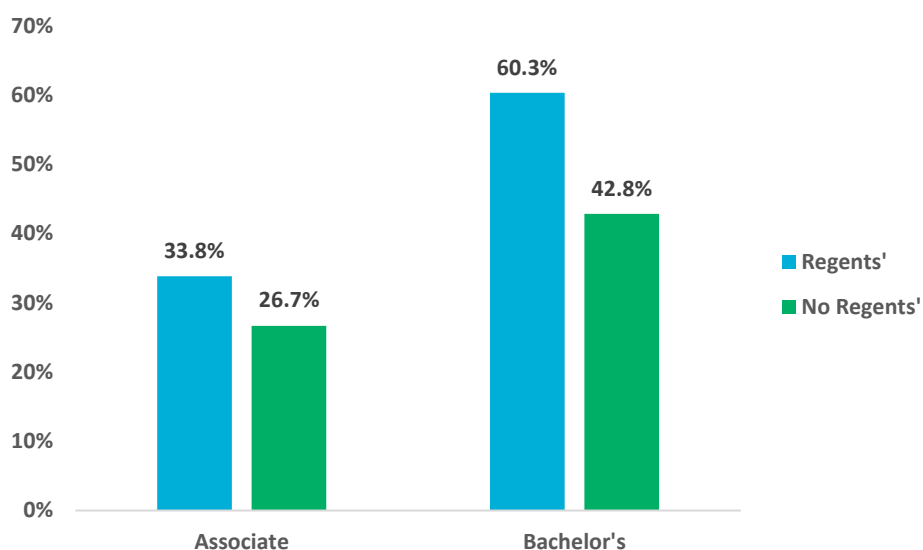
This brief examined the effect of Regents' Scholarship awards on degree completions of Utah students. A comparison group was created by matching Regent recipients on gender, race, and ACT score. This brief also compares Utah Regents' recipients to all other students in their cohort.

This matched sample totaled 5,604 students. Of those, 68.5% identified as female and 31.5% as male. Most identified as white (87.7%), Latinx/Hispanic (3.7%), Asian American (3.1%), or not identified (3.5%); those who remained comprised the remaining 2.1%. The matching was one-to-one, meaning 2,802 students were awarded the Regents' Scholarship, and 2,802 similar students did not.

Results

On average, students received 2.4 semesters of support from the Regents' program. Additional financial support was awarded beyond the Regents' base amount to some students: 55.8% received the Exemplary addition and 11.1% received the my529 matched award. The mean Regents' award was \$3,476. For underrepresented students, 43.8% received the Exemplary award and 10.1% received the my529 matched award. Of those who received Regents', 74.6% reported receiving additional scholarship awards.

Figure 1. Completions of degree-seeking students with or without Regents' Scholarship

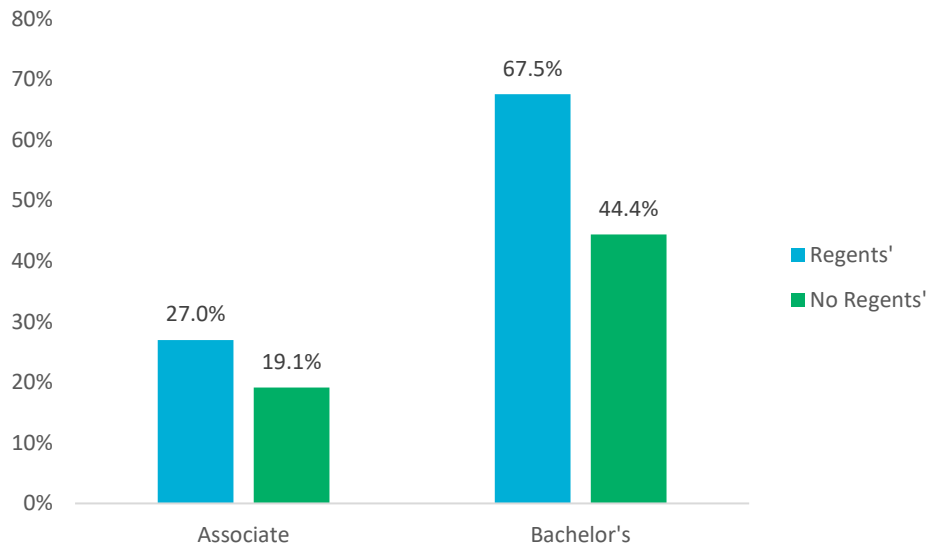


Regents' recipients earned more associate degrees than those in the matched group (Figure 1).¹ There was little difference between Regents' recipients and matched non-recipients in the number of timely

¹ $\chi^2 = 34.17, p < 0.001$

completions. However, timely completion was slightly better for those who earned associate degrees (59.6% vs. 58.4%). There was no significant difference among underrepresented students in associate degrees earned between Regents' recipients and non-recipients.²

Figure 2. Completions of underrepresented students by Regents' Scholarship status



More Regent recipients earned a bachelor's degree compared to matched students;³ however, no difference existed in the proportion of those who earned a bachelor's degree as timely completions.⁴ No significant difference existed in the timely completion of bachelor's degrees.⁵ Many underrepresented students who received the Regents' Scholarship earned a bachelor's degree (Figure 2).⁶ No difference existed between the two groups in earning a bachelor's degree as timely completions.

Regents' recipients who also earned a bachelor's degree received more federal financial aid but less in institutional financial aid and federal loans than those who did not earn a bachelor's degree.⁷ Those who received a Regents' Scholarship required less federal aid, institutional aid, and federal loans than those who did not receive Regents' funding.

² $\chi^2 = 2.83$, n.s

³ $\chi^2 = 173.65$, $p < 0.001$

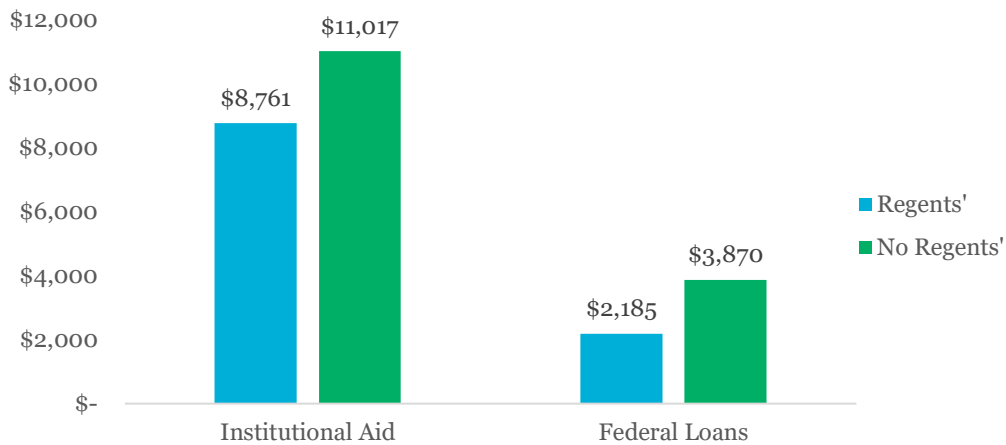
⁴ $\chi^2 = 0.59$, n.s

⁵ $t(2,583) = 0.89$, n.s

⁶ $\chi^2 = 17.51$, $p < 0.001$

⁷ $(F_{(4, 3,285)} = 12.67$, $p < 0.001$, Wilks $\lambda = 0.99$, partial $\eta^2 = 0.02$)

Figure 3. Additional financial support needed by degree-seeking students



Those who did not earn a bachelor's degree received more institutional aid and federal loans. In contrast, those who were Regents' recipients received more federal financial aid, institutional aid, and federal loans than those who did not receive Regents' but still earned a bachelor's degree. Federal aid is mainly comprised of grants related to the FAFSA process and may be more indicative of economic status.

These differences may reflect other factors that were not included in this study. Individual factors such as grit (Duckworth, Peterson, Matthews & Kelly, 2007; Eskreis-Winkler, Shulman, Beal & Duckworth, 2014), conscientiousness (Kaufman, Agars & Lopez-Wagner, 2008; Wagerman & Funder, 2007), or motivation (Bandura, 1986; Giuffrida, Lynch, Wall & Abel, 2013; Hsieh, Sullivan & Guerra, 2007; Ryan & Deci, 2000) may explain the differences. Additional research is needed to confirm that this is the case.

Implications

The main findings include (1) that more Regents' Scholarship recipients earned associate and bachelor's degrees compared to similar students, and (2) Regents' Scholarship recipients received less in federal loans and less in institutional financial support, and underrepresented students received less financial support beyond Regents' Scholarship, though more Regent's Scholarship recipients earned a degree.

Overall, the Regents' Scholarship appeared to help with *earning* a degree and requires *less* in student loans. While Regent's recipients received less in institutional aid, this difference approximated the average Regents' award received. This finding is especially important for underrepresented students who rely more on student loans. Underrepresented students also receive less institutional aid. This study aligns with previous research in that more associate and bachelor's degrees were earned, suggesting such scholarships support student persistence (Bartki et al., 2015; Daugherty & Gonzalez, 2016; Gonzalez et al., 2011).

The Regents' Scholarship had a small impact on timely completions for those seeking associate degrees. Still, it did not impact those who sought bachelor's degrees. This result differs from prior research (Bartik, et al., 2015; Long et al., 2019) from Bartik and colleagues who examined the Kalamazoo Promise scholarship, where students received between 65 and 100 percent of all tuition costs. Extending financial support beyond four semesters or the total contribution amount may impact timely completions for those pursuing bachelor's degrees.

Appendix

Participants

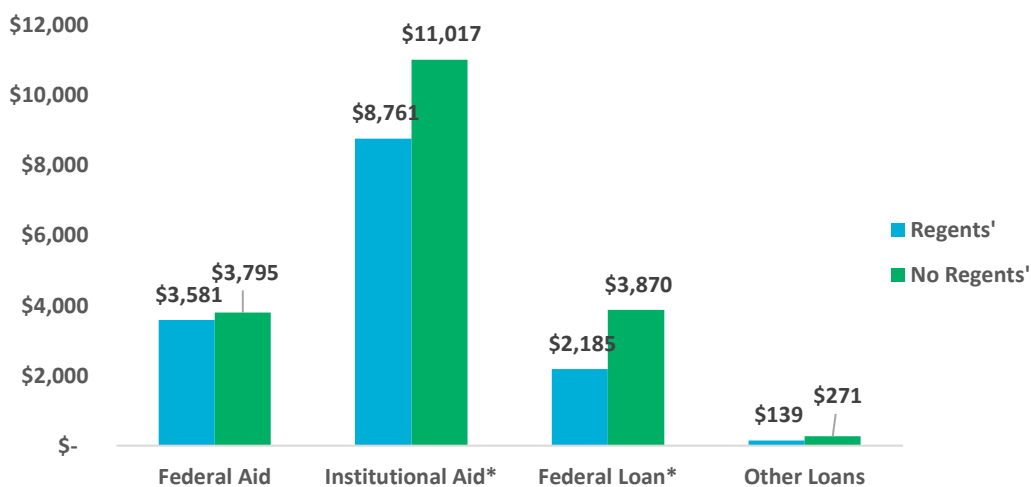
The original sample consisted of 57,678 students enrolled in the 2015 or 2016 cohorts. Of these, 51.6% identified as female and 48.4% as male. The sample was primarily white (76.5%) or Latinx/Hispanic (13.7%). Multi-racial students made up 2.5%; Asian Americans, 2.4%; Black or African American, 2.0%; Native American or Alaskan Natives, 1.5%; and Pacific Islanders or Native Hawaiians, 1.4%. One in five earned an associate degree (20.6%), with 14.5% earned within 150% of the expected time (timely completions). More than one in four earned a bachelor's degree (27.8%), with 51.6% as timely completions.

A comparison group was created to represent a matched sample. The comparison group was constructed using propensity score matching on gender, race, and cumulative ACT score. ACT scores were selected as matching criteria to represent knowledge mastered in high school.

Matching

To examine how much financial support was awarded in addition to the Regents' Scholarship and award earned, a multivariate analysis of variance (MANOVA) was employed. The dependent variables were federal financial aid, institutional financial aid, federal loans, and other loans. The two dichotomous independent variables were Regents' recipient (yes or no) and award earned (yes or no).

Figure 4. Effect of Regents' on other forms of financial support.

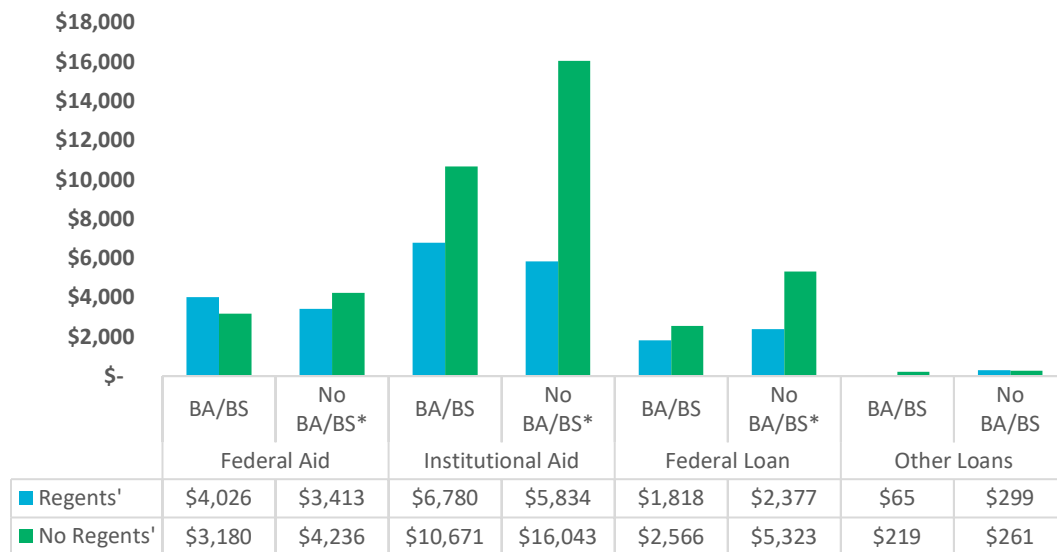


Two MANOVAs were implemented for each award: associate's and bachelor's degrees. The interaction between Regents' and associate degree earned was not significant ($F_{(4, 3,285)} = 1.66$, n.s., Wilks $\lambda = 0.99$). Comparing only Regents' versus the matched students as a main effect (Figure 4), the finding was

significant, $F_{(4, 3,285)} = 15.56$, $p < 0.001$, Wilks $\lambda = .98$, partial $\eta^2 = 0.02$. Regents' recipients received less institutional aid and federal loans than matched sample recipients.

The interaction between Regents' recipients and earning a bachelor's degree was significant ($F_{(4, 3,285)} = 12.67$, $p < 0.001$, Wilks $\lambda = 0.99$, partial $\eta^2 = 0.02$). The differences lay in those who did not earn bachelor's degrees. Federal aid is often indicative of financial need as opposed to merit. The significant difference may be that aid provided with the Regents' Scholarship was insufficient for that group of students. These students may not have been high achieving, considering how little institutional aid is provided to these students.

Figure 5. Regents' Scholarship interaction on other financial support for those who earned bachelor's degrees



Limitations

The chi-squared statistic (χ^2) is sensitive to sample size, meaning large sample sizes produce significant results with higher frequency. Slight differences may appear more important than had they been subject to parametric statistics. The significant chi-squared findings in this report should be interpreted with caution.

Another limitation emerged from creating a matched sample. First, many Utah high school students take the ACT only once in 11th grade. This study may not capture learning gains from the 12th grade. Taking the ACT as a high school junior misses significant academic growth as most students take Concurrent Enrollment courses in their senior year.

Second, several findings suggested that the two groups may not be as equal as projected. More credits classified as “other credits” (AP, CLEP, etc.) were earned by Regents' recipients than those who were in the matched group (Table 6). Related, those who earned associate degrees did not demonstrate the same number of “other credits” as those who earned bachelor's degrees.

Table 6. Mean credit hours students earned outside of higher education					
	Regents'	Matched	t-test	p	n
Associate	3.63 (7.97)	2.43 (6.75)	3.35	.001	1,695
Bachelor's	12.06 (15.64)	9.21 (14.50)	5.00	< .001	2,889

Finally, underrepresented students in the matched sample totaled only 7.2% of this sample. This percentage was far smaller than the number of underrepresented students in higher education (21.4%). While the differences were statistically significant within the underrepresented student sample, these results should be interpreted cautiously.

References

- Bailey, Martha J., and Susan M. Dynarski. *Gains and gaps: Changing inequality in US college entry and completion*. No. w17633. National Bureau of Economic Research, 2011.
- Bandura, Albert. "The explanatory and predictive scope of self-efficacy theory." *Journal of Social and Clinical Psychology* 4, no. 3 (1986): 359-373.
- Bartik, Timothy J., Brad Hershbein, and Marta Lachowska. "Longer-term effects of the Kalamazoo Promise Scholarship on college enrollment, persistence, and completion." In *American Education Finance and Policy Annual Conference, Washington, DC*. 2015.
- Cahalan, Margaret, L. W. Perna, M. Yamashita, J. Wright, and S. Santillan. "indicators of higher education equity in the United States: Historical trend report"(The Pell Institute for the Study of Opportunity in Higher Education, Council for Opportunity in Education (COE), and Alliance for Higher Education and Democracy of the University of Pennsylvania, 2018)." (2018).
- Carnevale, Anthony P., Nicole Smith, and Jeff Strohl. "Recovery: Job growth and education requirements through 2020." (2013).
- Daugherty, Lindsay, and Gabriella C. Gonzalez. *The Impact of the New Haven Promise Program on College, Enrollment, Choice, and Persistence*. RAND (2016).
- Duckworth, Angela L., Christopher Peterson, Michael D. Matthews, and Dennis R. Kelly. "Grit: perseverance and passion for long-term goals." *Journal of Personality and Social Psychology* 92, no. 6 (2007): 1087-1101.
- Eskreis-Winkler, Lauren, Elizabeth P. Shulman, Scott A. Beal, and Angela L. Duckworth. "The grit effect: Predicting retention in the military, the workplace, school and marriage." *Frontiers in Psychology* 5 (2014): 36.
- Gonzalez, Gabriella C., Robert Bozick, Shannah Tharp-Taylor, and Andrea Phillips. *Fulfilling The Pittsburgh Promise [R]: Early Progress of Pittsburgh's Postsecondary Scholarship Program. Monograph*. RAND Corporation. (2011).
- Gonzalez, Gabriella C., Robert Bozick, Lindsay Daugherty, Ethan Scherer, Reema Singh, Mónica Jacobo Suárez, and Sarah Ryan. *Transforming an Urban School System: Progress of New Haven School Change and New Haven Promise Education Reforms (2010-2013). Research Report*. RAND Corporation. (2014).
- Guiffrida, Douglas A., Martin F. Lynch, Andrew F. Wall, and Darlene S. Abel. "Do reasons for attending college affect academic outcomes? A test of a motivational model from a self-determination theory perspective." *Journal of College Student Development* 54, no. 2 (2013): 121-139.
- Harris, D., Raquel Farmer-Hinton, Debbie H. Kim, John B. Diamond, Tangel Blakely Reavis, Kelly Krupa Rifelj, Hilary A. Lustick, and Bradley Carl. "The promise of free college and its potential pitfalls: Evidence from a randomized controlled trial of a performance-based aid program." *Improving research-based knowledge of college promise programs* (2020): 119-150.
- Hsieh, Peggy, Jeremy R. Sullivan, and Norma S. Guerra. "A closer look at college students: Self-efficacy and goal orientation." *Journal of Advanced Academics* 18, no. 3 (2007): 454-476.

- Kaufman, James C., Mark D. Agars, and Muriel C. Lopez-Wagner. "The role of personality and motivation in predicting early college academic success in non-traditional students at a Hispanic-serving institution." *Learning and Individual Differences* 18, no. 4 (2008): 492-496.
- Kolodner, M., and S. Butrymowicz. "Debt without degree: The human cost of college debt that becomes "purgatory."." *The Hechinger Report* (2017).
- Long, Mark C., Dan Goldhaber, and Trevor Gratz. "Washington's College Bound Scholarship Program and Its Effect on College Entry, Persistence, and Completion. Working Paper No. 221-0919." *National Center for Analysis of Longitudinal Data in Education Research (CALDER)*, (2019).
- Looney, Adam, and Constantine Yannelis. "A crisis in student loans?: How changes in the characteristics of borrowers and in the institutions they attended contributed to rising loan defaults." *Brookings Papers on Economic Activity* 2015, no. 2 (2015): 1-89.
- Millett, Catherine M., Stephanie R. Saunders, and Daniel Fishtein. "Examining how college promise programs promote student academic and financial readiness." *ETS Research Report Series* 2018, no. 1 (2018): 1-24.
- Millet, Catherine, Stephanie Saunders, Martha Kanter, and Robyn Hiestand. "A history and overview of the college promise movement." *Improving Research-based Knowledge of College Promise Programs* (2020): 17-30. Georgetown University.
- Perna, Laura W., and Elaine W. Leigh. "Understanding the promise: A typology of state and local college promise programs." *Educational Researcher* 47, no. 3 (2018): 155-180.
- Perna, Laura W., and Edward J. Smith. "How our findings bear on future policy, practice, and research." *Improving research-based knowledge of college promise programs* (2020): 305-307.
- Ritter, G., and Elise Swanson. "The effect of the El Dorado Promise Scholarship on higher education, K-12, and community outcomes." *Improving research-based knowledge of college promise programs* (2020): 95-118.
- Ryan, Richard M., and Edward L. Deci. "Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being." *American Psychologist* 55, no. 1 (2000): 68-78.
- Swanson, Elise, A. Watson, G. Ritter, and M. Nichols. "Promises fulfilled? A systematic review of the impacts of college promise programs." *Improving research-based knowledge of college promise programs* (2020): 33-68.
- Wagerman, Seth A., and David C. Funder. "Acquaintance reports of personality and academic achievement: A case for conscientiousness." *Journal of Research in Personality* 41, no. 1 (2007): 221-229.