

Book Vouchers: An Exploratory Analysis of Their Use and Effectiveness

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Book vouchers serve as one component of need-based financial aid packages at the College of Southern Nevada (CSN), one of the nation's largest community colleges. This study compared the academic performance of Free Application for Federal Student Aid (FAFSA) applicants in attendance at CSN during the 2008-09 and 2009-10 academic years. A basic exploratory analysis was conducted that examined the academic outcomes of seven students groups with different financial aid packaging outcomes. Student groups were ranked by their academic performance, which comprised of grade point average (GPA), percentages of full-time attendance, and percentage of successful, full-time attendance completion. Within these measures, book voucher recipients were found to have better overall academic performance than students who received Federal Pell Grants – even when Pell was combined with institutional grant or work-study funds.

Aid offices across the United States face the difficult task of offering aid packages that can provide access to the growing numbers of students qualifying for aid. The situation was particularly acute in the Las Vegas Valley, home to the College of Southern Nevada (CSN).

The College of Southern Nevada is among the 10 largest community colleges in the nation, serving nearly 45,000 students each semester. Classes are offered at three main campuses, through distance learning, and at 13 community instructional locations. The college has one Baccalaureate degree program, and primarily awards Associate degrees and Certificates of Achievement. Operating in an open enrollment environment, the college performs no academic evaluation process at the point of student admissions. CSN has no ethnic majority, attracts an almost equal number of men and women, seven of ten of which attend as part-time, and most of its students fall between 20 – 34 years old.

As an open-enrollment institution, the growth in enrollment resulting in higher demand for aid is typically expected during times of economic recessions. From 2006-07 to 2009-10, CSN received from 15,000 to over 45,000 Free Application for Federal Student Aid (FAFSA) applications, which is an increase of 200%. During the same period, Federal Pell Grant recipients nearly tripled from 4,700 to more than 13,000, resulting in an increase of 177%.

In concert with the college's new mission statement and strategic plan that emphasizes access, quality and diversity, the aid office allocated more institutional money for student employment programs and the book

voucher program. The potential benefits of redirecting institutional aid dollars to student employment are documented in the extant research literature (Anderson, 1981; Astin, 1975; Tinto, 1993; Velez & Javalgi, 1987). However, the effects of book voucher program are less studied. As such, the CSN administration encouraged this study.

Using a pool of FAFSA applicants, I hypothesize that book voucher recipients will perform better academically than non-recipients. FAFSA applicants eligible for need-based assistance while attending two-year schools in the form of direct cash refunds may forgo purchasing books because of more pressing expenses. Those who do not receive grants or work-study awards, and who are loan averse, may elect to skip purchasing course material altogether as a way of managing educational costs.

While the financial aid office had detailed bookstore receipts for the voucher recipients, we did not attempt to measure whether or not the non-voucher students actually purchased required course material. While this is a limitation of the study, the nature of this study is exploratory and the potential linkages between book vouchers and academic performance warrant investigation.

Background: Book Voucher Program at CSN

Initially, the book voucher program grew from a 2004 marketing plan initiated by then President Richard Carpenter, who invited the public to take their first-class and get the first textbook free at CSN (T. Holcomb, personal communication, August, 10, 2010). Carpenter authorized a portion of collected fee revenues to pay for the marketing strategy to draw in new students. The college would pay for a three-credit class and provide a \$100 book voucher for use at the college's bookstore. The program was modestly successful, but never attracted more than 80 new student recipients per academic year.

Despite the modest success of the marketing strategy, the popularity of book vouchers, however, allowed for the establishment and development of the program at CSN. As seen in Table 1, expenditures for the book voucher program dramatically increased in the 2008-09 academic year to over a quarter of a million dollars and by 2010-11. Essentially, funding for the book voucher program grew to more than 45% of the funds allotted by the college for financial aid programs.

Thus, Student Financial Services began including book vouchers as part of its financial aid packaging methodologies starting in 2008-2009. To qualify for a book voucher, an otherwise eligible student must meet the following requirements:

1. Be a first time undergraduate;
2. Have an Expected Family Contribution (EFC) below 8,000;
3. Comply with Satisfactory Academic Progress Policy (SAPP) requirements;
4. Not receive a Federal Supplemental Educational Opportunity Grant (FSEOG).

Table 1: Funding for The College of Southern Nevada Book Voucher Program, 2003-2010

Academic Year	Expenditures
2003-04	\$ 67,470
2004-05	\$ 54,150
2005-06	\$ 112,720
2006-07	\$ 59,675
2007-08	\$ 80,620
2008-09	\$ 251,700
2009-10	\$ 855,220
2010-11*	\$1,550,000

* Budgeted

So long as funding remained, vouchers were awarded to Federal Pell Grant or CSN Access Grant eligible students. Pell students can also receive either the CSN Access Grant or a work-study award, but not both. In other words, book vouchers can only be awarded to Pell Grant or CSN Access Grant recipients. See award combination groups in Methodology.

The value of the voucher ranged from a minimum of \$100 for less-than-half time enrollment to a maximum of \$400 for full-time study. Book voucher purchases were limited to required textbooks and supplies like pens, notebooks, calculators, and dictionaries. Specialized academic programs like the Dental Hygiene and Nursing programs are awarded much larger vouchers to accommodate first-year materials such as equipment and uniforms. Purchases were not subject to state sales tax because the voucher is issued from a tax-exempt organization.

Federal aid regulations indicate aid payments cannot be disbursed to students earlier than ten-days prior to the start of school (U.S. Department of Education, 2009). Institutions dealing with concerns over “Pell Runners” (Field, 2011), students who fraudulently seek the benefit of a Pell Grant refund and have no intention of achieving a degree or even attending the school, frequently delay paying aid in order to avoid the financial liability these students create. However, on October 29, 2010 the U.S. Department of Education issued *Program Integrity Issues; Final Rule* (2010), which further emphasized the school’s obligation to make books available to Pell Grant students without delay. Because CSN’s books voucher program did not involve cash transactions to students, voucher recipients were allowed to make purchases before the semester started, which can provide an added benefit of reading a head of assignments. Conversely, aid recipients, who did not receive a book voucher, had to wait for the aid refund process to their buy books.

The book voucher program depends upon an important collaboration between Student Financial Services, student recipients, CSN Purchasing, and the Follett Corporation. Book voucher utilization is limited to the CSN Bookstore because the college is technologically limited in its data exchange capabilities. As such, reimbursement to Follett can take up to eight weeks, and necessitates that the vendor has significant financial wherewithal. While the aid office is the single largest bookstore customer, it leverages no discount because the college already receives a commission on generated sales activity.

Including book vouchers as part of a financial aid package requires special regulatory compliance sensitivity; thus, immediate access to transaction receipt detail is critical. For example, program beneficiaries who become subject to Federal Return to Title IV recalculation requirements have the value of the voucher included as a direct institutional expense. In terms of “unearned” financial aid related to Return to Title IV requirements, book vouchers increase the financial liability of the institution.

Literature: Book Voucher Programs

As noted earlier, little prior research has explored the potential effects book vouchers have on academic performance. A review of ERIC, JSTOR, Google Scholar and, specifically, the *Journal of Student Financial Aid* yielded little empirical research. One study at California’s community college system looked at the impacts of book voucher programs. MacCallum (2008) demonstrated that the processing policies of the aid office impacted student enrollment decisions, retention, and academic success. In his study, book voucher programs were used as a variable demonstrating the administrative capability of the aid office. Where book vouchers were offered, MacCallum saw the aid office as having a higher level of administrative capability.

The effects of other forms of financial aid, however, are well-tread in the research literature and generally demonstrate a positive relationship between aid and academic outcomes. For instance, St. John’s (2000) research about the effects of financial aid on student recruitment and retention concluded:

Without adequate student aid, growing numbers of students become periodic consumers, taking their courses as they can afford to do so. This means reductions in persistence rates, an outcome of increasing importance in the domain of public accountability (p. 72).

Because two-year institutions are often the epicenter of periodic consumers, using book vouchers as a new form of need-based aid could potentially prove revolutionary and aid with student persistence. At a minimum, book vouchers could better help some students meet their direct education expenses. With an exploratory analysis from one institution’s experience with book voucher, I hope to expand the importance of book vouchers for college students.

Methodology

The working hypothesis is tested by gathering and comparing three measures of performance: grade point average, credit completion rates, and credit attempted rates. The use of grade point average (GPA) serves as a proxy for academic performance. Students who attempt full-time credit loads are assumed to have higher confidence in their own academic abilities and intent to earn a degree. Examination of the rate of full-time attempted enrollment is included because full-time students are seen as demonstrating a stronger intent to earn a degree and are understood to be making more efficient use of institutional resources. Graduation data were not available for this study. For this exploratory study, then, combining the three variables into one composite becomes the measure of overall success.

Academic data was gathered from FAFSA applicants attending CSN in 2008-09 and/or 2009-10. When an applicant was approved for awarding, there were seven potential categories of aid receipt:

- 1.) Federal Pell Grant Only
- 2.) Federal Pell Grant and Work-Study
- 3.) Federal Pell Grant and a Book Voucher
- 4.) Federal Pell Grant and a CSN Access Grant
- 5.) CSN Access Grant Only
- 6.) CSN Access Grant and a Book Voucher
- 7.) Applicant, No Aid

Because CSN does not automatically include loans in its award methodologies, being a FAFSA applicant who received “no aid” is a valid outcome, and includes more affluent students represented by higher EFCs. The groups are not of equal size because of the varying amounts of financial aid funds available for awards. While funding for Federal Pell Grants is seemingly limitless, the CSN Access Grant is awarded to about 1,000 students, and work-study dollars provide funds to roughly 150 students per year.

The data collected were analyzed to compare the performance of the book voucher recipients relative to their peer groups that received aid, but not a book voucher, and that of a larger cohort of financial aid applicants who did not receive any aid during the same enrollment period. Those who did not apply for financial aid were excluded as immaterial to the study.

The academic performance measures are individually problematic at CSN. For example, grade point average, by itself, is an ineffective measure of ability because many students withdraw from classes when they perceive themselves as failing to preserve a high GPA. A limitation of this study may be treating each performance measure as an equal contribution to overall success. Doing so reflects the researcher’s perspective and may not comply with more commonly accepted variables. The only homogeneity and stability characteristics accounted for include the student having

submitted a FAFSA and being a degree seeking at the college, which may limit this study's validity.

Results

The summarized data for each award group within each measurement category are illustrated in Table 2. Each group's three scores are summed, averaged and then ranked, with "1" being the highest value and "7" representing the lowest value. The last column reflects the three ranked individual variables summed, averaged, and then re-ranked to provide the overall academic performance of each group.

As expected from prior research, students participating in the work-study program had the highest level of performance. Work-study students, on average, were tied for the highest percentage of groups completing a full-time course load and were second with regard to the percentage attempting full-time enrollment during the period reviewed. Student grade point averages ranked third among the seven groups studied. In addition, the work-study group reflected the smallest population of students for reasons previously discussed.

Pell Grants are awarded to students that demonstrate the greatest amount of financial need. Students who only received a Pell Grant ranked the lowest of the studied groups in overall academic performance. Conversely, students receiving a Pell Grant combined with a CSN Access Grant performed slightly better overall. Grant stacking then appeared to provide this population adequate financing to allow for higher percentage rates of attempted full-time enrollment. However, they did not successfully complete the full-time course load at an equivalent percentage when compared against Pell Grant Only students.

Table 2: Ranking Results of Academic Performance Measures by Award Categories

Award Categories	Full-Time Population Count	GPA (rank)	Full-Time Attempted (rank)	Full-Time Completed (rank)	Overall Rank
CSN Access Grant and Book Voucher	28	3.095 (1)	47% (1)	89% (1)	1
Federal Pell Grant and Work-Study	18	2.795 (3)	34% (2)	89% (1)	2
CSN Access Grant Only	118	2.826 (2)	26% (4)	79% (3)	3
Federal Pell Grant and Book Voucher	344	2.728 (4)	25% (5)	75% (5)	4
FAFSA No Aid	1,991	2.661 (5)	17% (7)	76% (4)	5
Federal Pell Grant and CSN Access Grant	704	2.636 (6)	29% (3)	73% (7)	5
Federal Pell Grant Only	1,714	2.602 (7)	22% (6)	74% (6)	7

The study's comparison group, those students who submitted a FAFSA but did not qualify for the funds awarded to the other six groups, were tied for fifth in overall academic performance. This population included late aid applicants who, because of their EFCs, did not qualify for Pell, but may have qualified for a CSN Access award and, perhaps a book voucher award. However, long before these FAFSAs had cleared the validation process, voucher funds were exhausted. The population also included applicants who did not demonstrate any financial need-based aid eligibility and did not choose to borrow although they qualified for student loans. These characteristics at least suggest enhanced affluence compared to the other studied populations.

Students in that comparison group also ranked last in the percentage attempted full-time enrollment and were near the bottom in grade point average. These rankings may imply they were balancing regular employment responsibilities. Unfunded applicants did relatively well in terms of the percentage of students completing full-time credits, ranking fourth in that category. This might suggest that these students had a greater sense of ownership of the classes they paid for out-of-pocket.

Pell Grant and Book Voucher recipients ranked fourth-best in overall academic performance. Among Pell Grant eligible students, this group finished behind only those that also had work-study employment. It is significant to note that students receiving Pell and a voucher performed better than students receiving Pell and a CSN Access Grant. This observation may support a shift in awarding strategies; reduce dollars allocated to the CSN Access Grant program, while increasing voucher program allocations even further.

The group observed to have the top academic performance ranking among all evaluation criteria was the student population receiving CSN Access Grants, coupled with the Book Vouchers. These FAFSA applicants demonstrated sufficient affluence that they did not qualify for the federal grant program. Fitting squarely into the middle-class, they had expected family contributions below \$8,000. Their financial strength provided slightly more than half of the \$14,300 total cost of attendance, but left plenty of room for need-based assistance. Coupled with their own family resources, the college awarded a \$1,800 CSN Access grant and an \$800 Book Voucher for the year until exhausting available funding.

Conclusions and Reflections

While not demonstrating causation, the data provide a correlation between the CSN Book Voucher Program and improved academic performance. Ironically, the two groups that performed the best – Pell Grant & Work-study, and CSN Access Grant & Book Voucher recipients – were also the smallest populations reviewed. However, the rankings of these two groups re-enforces the benefit of better integrating students into college and, perhaps, suggests that book vouchers are another way to accomplish integration. In that context, sweeping changes may not be justifiable based upon the data and suggests that additional study would be prudent.

Anecdotally, there is a psychological impact to the CSN Book Voucher Program that emerged. As the fall 2010 semester approached, many students visited the aid office asking staff to explain why they did not receive a book voucher. Frequently, the question originated from a student receiving Pell and CSN Access Grants, which tied for fifth in this study. Aid counselors clarified that voucher funding was limited but that grants provided by the aid office netted students an additional \$200 more than Pell Grant students with a voucher. Interestingly, on numerous occasions, students asked to convert their \$1,000 CSN Access award to an \$800 CSN Book Voucher.

This experience might be explained in the context of timing. Vouchers could be used before classes began, while grant payments in excess of registration fees were refunded during the first week of classes. Getting started on book work before the semester's started may have been worth the potential \$100 per semester reduction to these students' financial aid checks.

As a member of CSN's aid office and the architect of the book voucher program, its success is important to the author. My annual performance evaluation included a grade for the effective use of funding resources as well as how well the financial aid office executes its responsibilities in terms of the CSN Mission Statement.

Another research study that employs a more scientific analysis, or a similar study using different definitions of academic performance, could produce dissimilar results. The hypothesis warrants testing at other types of higher education institutions and may not produce identical results outside of CSN. The current economic conditions of the Las Vegas Valley with record unemployment and foreclosures rates or other unstudied variables may be responsible for the observed academic performance differences.

Although this analysis is exploratory at one institution and reflective in nature, the lack of literature on this topic and the findings of this study suggest avenues for additional research. While this study did not include graduation data, future book voucher studies at other colleges either considering a book voucher program or have a program in place might consider the value of including graduation data. Lastly, future research might consider designing a qualitative study of this issue by conducting individual interviews or focus groups of the college's faculty. Interviews with a variety of classroom instructors might be an effective way to research such a theory. Several CSN faculty members voluntarily acknowledged the aid office for its focus on assisting students with textbook purchases, suggesting that CSN faculty members might be open to a qualitative study in the future.