

The Effect of Federal Financial Aid on the Retention of Occupational and Non-Occupational Students at Four Community Colleges

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The Relative Impact Study

- “**Relative Impact of Interventions to Improve Achievement and Retention in Postsecondary Occupational Programs**”
- Longitudinal correlational study of retention interventions (including financial aid) at 4 public community colleges in 4 different states using student-level institutional data
- [http://www.nrccte.org/resources/studies/
relative-impact-interventions-improve-
achievement-and-retention-postsecondary](http://www.nrccte.org/resources/studies/relative-impact-interventions-improve-achievement-and-retention-postsecondary)

“Occupational” Students

- Defined by each of our 4 colleges (aka Prof/Tech, CTE)
- Defined by Bailey, Alfonso, Scott, & Leinbach (2004) as:
 - agricultural business and production, agricultural sciences, business, communication technologies, computer and information science, construction, engineering, engineering technologies, health professions, home economics, mechanics and repair, personal services, precision production, protective services, science technologies, transportation

Occupational Students

- More likely than transfer students to:
 - delay enrollment
 - enroll part-time
 - have family responsibilities
 - Associated with lower completion rates
(Bailey et al., 2004)
 - May have greater financial need than transfer students
- Greater ROI for many occupational degrees

Why Study Occupational Students Specifically?

- “Much of the existing literature on college persistence and completion is focused on baccalaureate students and pays little attention to students in community colleges, and even fewer studies consider differences by students’ program of study” (Bailey et al., 2004, p. 1).

Research Questions

- Does financial aid have differential effects on retention by type of student (transfer vs. occupational)?
- Which kinds of financial aid benefit which type of student more?

The Literature

- Nothing on financial aid + occupational specifically
- Dispute over financial aid as retention (vs. access) tool (e.g., Kennamer, Katsinas, & Schumacker, 2010-2011; Supiano, 2013)
- Fike & Fike (2008): receipt of financial aid predicted retention for community college students in general
 - Corroborated by others (e.g., Mendoza, Mendez, & Malcolm, 2009; Zhai & Monzon, 2001)

Methods

- Each college flagged students by (ever) occupational or not
- Data on receipt of financial aid from 4 colleges; on type from 3:
 - Pell grants
 - Unsubsidized Stafford loans
 - Subsidized Stafford loans
 - Other
- Looked at retention into the:
 - 2nd term (semester or quarter)
 - 2nd year
 - 3rd year (Cohort 1 only)

Descriptive Statistics

- Fall 2009 cohort (Cohort 1): 5,670 students (49.2% of total)
- Fall 2010 cohort (Cohort 2): 5,845 students (50.8% of total)
- 65.5% White/non-Hispanic (vs. Other)
- 52.3% female
- Mean age: 27.15

Descriptive Statistics

- 67.7% ever occupational
- 70.8% had ever received financial aid while enrolled at the college, of which:
 - 35.8% had received a Pell grant
 - 22.9% had received a subsidized Stafford loan
 - 17.7% had received an unsubsidized Stafford loan
 - 15.7% had received some Other kind of financial aid
- 75.2% retained into 2nd term, 47.8% into 2nd year, 20.9% into 3rd year (Cohort 1 only)

Analyses

- Logistic regression to examine the effects of occupational status and receipt of financial aid
 - Controlled for age; race/ethnicity (White/other); sex; students' prior ability in reading, writing, and math per their placement test scores (standardized within college)
- Tested interaction effects between financial aid and the 3 types of placement test scores
- Examined effects of 4 different types of financial aid as well as interaction effects between these and the 3 types of placement test scores

Results: What We Didn't Find

In terms of retention:

- Financial aid impacts occupational students similarly to transfer students.
- Initial placement scores don't matter.

Findings

Retention to...	2 nd Term	2 nd Fall	3 rd Fall
Any fin aid	4.4 times more likely ($p < .001$)	2.2 times more likely ($p < .001$)	1.8 times more likely ($p < .001$)
Types of fin aid	U.S. did not contribute significantly to retention ($p = .091$)	U.S. did not contribute significantly to retention ($p = .453$); beta value fell from .212 to .077	<ul style="list-style-type: none">• U.S. unrelated to retention• S.S. and Pell: beta coefficients similar to results for retention into 2nd fall
Occ	46% ($p < .001$)	44% ($p < .001$)	n.s. ($p = .216$)
White	More likely ($p < .001$)	More likely ($p < .001$)	n.s.
Age	Younger students more likely ($p < .001$)	Younger students more likely ($p < .001$)	n.s.
Female	n.s.	n.s.	25% more likely to persist this long ($p = .025$)

Conclusions

- **Money is good.** All financial aid seems to benefit community college students, regardless of program type/academic goal.
- The impact of occupational status on retention faded over time.
- Students' prior academic ability doesn't matter.

Selected References

- Bailey, T., Alfonso, M., Scott, M., & Leinbach, T. (2004). Educational outcomes of postsecondary occupational students. *CCRC Brief Number 22*. New York, NY: Columbia University, Teachers College, Community College Research Center.
- Fike, D. S., & Fike, R. (2008). Predictors of first-year student retention in the community college. *Community College Review*, 36, 68-88.
- Kennamer, M. A., Katsinas, S. G., & Schumacker, R. E. (2010-2011). The moving target: Student financial aid and community college student retention. *Journal of College Student Retention*, 12(1), 87-103.
- Mendoza, P., Mendez, J. P., & Malcolm, Z. (2009). Financial aid and persistence in community colleges: Assessing the effectiveness of federal and state financial aid programs in Oklahoma. *Community College Review*, 37(2), 112-135.
- Supiano, B. (2013, April 1). To fix student aid, first try to understand it. *The Chronicle of Higher Education*. Retrieved from <http://chronicle.com/article/Everyone-Wants-to-Fix-Student/138199/?key=TmwmlFdjNiiY3k2Zz9EazwAYXY4NU57MSZNYy8nbl5REQ%3D%3D>
- Zhai, L., & Monzon, R. (2001). Community college student retention: Student characteristics and withdrawal reasons. Paper presented at the Annual Meeting of the California Association for Institutional Research, Sacramento, CA. ED 473 676.

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