

Students who used the services of the Writing Center in their first year vs. those who did not:
GPA, retention, and graduation rates

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Summary

- Students who visited the CU Boulder Writing Center during their first term were compared to students who did not, on last UCB cumulative GPA, retention rates, and graduation rates.
- Domestic first-term users and non-users of the Writing Center were matched on academic preparation (Predicted GPA, based on high school GPA and standardized test scores), entry year, entry residency, gender, entry college (and division for A&S students), underrepresented minority status, financial need (received need-based aid vs. not), and having a declared major vs. an open-option major.
- After matching for all the above factors, **freshmen who used the Writing Center's services in the first term had higher cumulative GPAs, retention rates to the 2nd, 3rd, and 4th fall, and graduation rates after 4, 5, and 6 years.**
- We also looked at international freshmen and at transfers, using slightly different matching variables; similar results were found, although for transfers none reached statistical significance.

Details

Freshmen

- The Program in Writing and Rhetoric sent lists of IDs of Writing Center visitors by term to ODA, from Fall, 2009 through Spring, 2020.
- We looked at students who entered as summer/fall freshmen from 2009 through 2019 and were enrolled both semesters of their first year, a total of 55,119 students.
- A total of 3,768 of the entering freshmen (6%) visited the Writing Center one or more times in their first year. 56% of these visited once, 19% twice, the remaining 25% visited 3 or more times.
- Visitors and non-visitors were then matched on PGPA¹, entry residency, entry college (and division for A&S students), entry year, gender, underrepresented minority status, whether or not the student received need-based financial aid in the first year, and whether the student entered with a declared major vs. open option. International students, who have no PGPA, were excluded from this analysis but analyzed separately (reported below).
- This process left 3,044 Writing Center visitors, and 3,044 randomly selected matching non-visitors, for analysis.

¹ PGPA is predicted 1st-year GPA, a measure of academic preparation. It is calculated by formula, based on high school GPA and standardized test scores (ACT/SAT).

- About 7% of the “non-visitor” group actually did use the Writing Center, but not in their first year. These students were grouped for analysis with those who never visited in their UCB careers.
- Differences in outcomes were substantial. The average last observed cumulative GPA for Writing Center visitors was 3.22, vs. 3.00 for non-visitors. Retention to the 2nd fall was 92% for visitors, 89% for non-visitors. Those results and others are summarized in Table 1.

Table 1. Outcomes for domestic new freshmen who visited the Writing Center during their first year, vs. matched students who did not.

Measure	Entry years	N of matched pairs	Writing Center visitors	Non-visitors
Last observed cumulative GPA	2009-19	3,044	3.22*	3.00
2 nd -fall retention	2009-18	2,668	92%*	89%
3 rd -fall retention	2009-17	2,285	86%*	82%
4 th -fall retention	2009-16	1,906	84%*	80%
4-year graduation rate	2009-15	1,641	60%*	54%
5-year graduation rate	2009-14	1,278	79%*	71%
6-year graduation rate	2009-13	996	82%*	74%

*= statistically significant difference at $p < .05$

NOTE: Numbers of paired students differ for different measures, due to the amount of time that has passed since entry. For example, 6-year graduation rates can be calculated only for students who entered from 2009-2013, while 2nd-fall retention can be calculated on 2009-18 and GPA on the entire entering population 2009-19.

International freshmen

- A similar analysis was done on international students, except the matching variables were different; we don't calculate a PGPA for internationals, because most of them have neither standardized test scores nor a high school GPA calculated on a 0-4 scale. The matching variables for internationals were gender, entry college, and entry year. Again, students who visited the Writing Center during their first year had much better academic outcomes. See Table 2.

Table 2. Outcomes for international students who visited the Writing Center during their first year, vs. matched students who did not.

Measure	Entry years	N of matched pairs	Writing Center visitors	Non-visitors
Last observed cumulative GPA	2009-19	333	3.11*	2.73
2 nd -fall retention	2009-18	315	97%*	93%
3 rd -fall retention	2009-17	275	90%*	83%
4 th -fall retention	2009-16	234	85%	79%
4-year graduation rate	2009-15	188	58%	48%
5-year graduation rate	2009-14	117	68%	70%
6-year graduation rate	2009-13	83	81%	72%

*= statistically significant difference at $p < .05$

Domestic transfers

- For transfer students, the matching variables were the same as for domestic freshmen, except we used transfer GPA instead of PGPA. As with domestic freshmen, the domestic transfers who used the Writing Center had better academic outcomes, although none of the differences were statistically significant at the conventional .05 level. See Table 3.

Table 3. Outcomes for domestic transfer students who visited the Writing Center during their first year, vs. matched students who did not.

Measure	Entry years	N of matched pairs	Writing Center visitors	Non-visitors
Last observed cumulative GPA	2009-19	425	3.17	3.10
2 nd -fall retention (or graduation)	2009-18	391	91%	90%
3 rd -fall retention (or graduation)	2009-17	343	83%	78%
4-year graduation rate	2009-16	218	72%	65%

*= statistically significant difference at $p < .05$

Caveat

- All the above results come with an important caveat: we can't definitively say that the services of the Writing Center *caused* the better outcomes. We've matched users and non-users on many factors that could have their own relationship to grades and retention in an attempt to control for them, but the fact remains that students choose for themselves whether or not to use the Writing Center, and it's possible that users and non-users differ in some way – motivation to succeed, for example, or study time, or general conscientiousness – that we can't control for or match on. These results are powerfully suggestive but do not provide definitive evidence that using the Writing Center results in better academic outcomes.

More information

- More complete data summaries are available on request to ODA. Contact Perry Sailor at perry.sailor@colorado.edu.