

The Effect of Resident Advisor Interactions on Resident Enrollment: Undergraduate Research from the University of Colorado Boulder¹

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University of Colorado Boulder | Economics Undergraduate Honors Program

Defense Date: April 5, 2017

¹ A special thank you to Terra McKinnish for being an excellent advisor and resource; Victoria Vanderwerf Johanna Karasik from the Office of Residence Life and Robert Stubbs from the Office of Data Analytics for organizing the data set; Derik Briggs and Martin Boileau for participating on my Honors Defense Council; David Rogalski for his advice and support as my academic advisor throughout my collegiate experience. Thank you to all my friends and family, as well as fellow resident advisors who put up with my continuous rambling about this thesis; your input and patience is greatly appreciated.

Abstract

This study examines the effect of resident advisor (RA) interactions on student retention rates within a peer mentoring structure at the University of Colorado Boulder (CU Boulder) through linear probability regression analysis. As more schools look to residence life programs to increase retention rates, this analysis seeks to help the University of Colorado Boulder evaluate its residence life program for the Fall 2015 school year. This study finds that the peer mentoring program CU Boulder uses is insignificant in effecting a student's enrollment decision while also holding a negative coefficient. This could be interpreted as the interactions resident advisors have with residents in this peer-mentoring model do not influence enrollment, but rather reflect the level of integration a student has in the university; the more interactions a resident has with their RA, the less that student may be integrated into the community, and the less likely they are to be enrolled for both the next semester and next school year. This does not speak to the entire role of resident advisors but only analyzes the peer mentorship model used by CU Boulder.

Introduction

The Office of Residence Life at the University of Colorado Boulder (CU Boulder) introduced a new structure for resident advisors (RAs) to interact with residents living on campus in the Fall of 2015. Named the "One to One Model," resident advisors would now spend their efforts reaching out to their residents with specified conversations designed to integrate residents into the university socially and academically. This model focuses on intentional conversations that build community and help students process through transitioning into and succeeding at the university. In the Fall 2015 semester, there were three conversation topics: transitioning into college, goal setting, and interpersonal relationships. These "one-to-one" conversations didn't necessarily have to be done in a one-on-one setting, but could have been done in individual or group settings. It is up to the resident advisor to attempt to talk with each of their residents, while completing conversations with at least 60% of their residents.

The hope of this new model is to improve academic standards, campus climate and student retention (University of Colorado Boulder, 2006). Beforehand, RAs had spent their time hosting educational programs aimed at achieving the same goals, yet the Office of Residence Life found the implementation of the programming model to be inefficient at meeting their goals. The CU Boulder notes the importance of student roles in achieving their goals – especially the resident advisor. But without proper analysis, it is unclear if this peer mentoring model actually plays a key part in bringing CU Boulder closer to its residential campus vision.

This study seeks to find whether resident advisor interactions within the "One-to-One" model affect the participating student's choice to stay enrolled at CU Boulder. This study analyzes the enrollment of students living on-campus using simple, linear probability regressions. It will define a relationship between the number of one-to-one conversations a student has with their RA and the likeliness of that student to stay enrolled, while controlling for student characteristics. One would expect a positive correlation between the number of conversations and retention rates; however, this study finds a negative, insignificant relationship between one-to-one conversations and enrollment.

Literature Review

What is a Residential Campus?

There has been a big push for many public universities to create a stronger living-learning environment on campus and outside of the class room. Every small detail of campus life should offer a life lesson or learning opportunity. This kind of college environment has been dubbed as a residential campus (Barr & Tagg, 1995; Kerr & Tweedy 2006; The Colligate Way, 2016). Robert O'Hara describes decentralization, academic leadership, social stability, and genuine diversity as four pillars to a residential campus (The Colligate Way, 2016). Decentralization is the idea that individual faculty members have the power to mentor their students rather than a centralized system. Academic leadership points to faculty led learning environments. Social stability is simply that the university remains a safe and welcoming environment for social interactions to occur. Finally, genuine diversity describes diversity beyond demographics to include ideology, religion and academic interest (The Colligate Way, 2016).

All of these pillars can be achieved at a certain degree in a big public university like CU Boulder, but O'Hara fears that mainstream public universities have become too centralized, bureaucratic and profit-oriented, ultimately hurting the university's purpose of educating its students. Universities are growing fast. Full-time student enrollment increased by 17% between 2004 and 2014, from 17.3 million to 20.2 million (NCES, 2017). And as higher-education demand increases, universities need continue to increase their capacity for teaching. Some offer the idea that a shift in focus must be made to increase the efficiency of universities.

Barr and Tagg (1995) describe this as a paradigm shift from instruction to learning. An instructional paradigm focuses on quantifying the amount of instruction giving (i.e. the number and variety of courses offered, class room attendance... etc.), which Barr and Tagg say mistakes a means for an end (1995). They recognize that the ultimate mission of higher education is not to increase the amount of instruction given, but rather to increase the amount of learning in the most effective way (Barr & Tagg, 1995). Although the paradigm shift seems small in its focus, it calls for a big reform in campus structures. Instead of learning only occurring in the class room, it must be integrated everywhere on campus – into every structure and aspect of the university. Within this paradigm shift, decentralization, academic leadership, social stability and genuine diversity are implemented, and the essence of the residential campus is captured. Ultimately, this paradigm shift from instruction to learning should increase student success and completion of their degrees. In other words, it should lead to higher retention rates.

Retention rates are a simple yet powerful statistic that gauge the success of a university. There are many factors that go into student retention, making it difficult to explain the results of the statistic. Tinto (1975) clarifies that retention rates reflect the level of student assimilation into campus life, and that a higher level of academic and social integration a student experiences, the more committed he is to completing his degree at his institution. He suggests that there is a balance between academic integration and social integration within the university system that will ultimately affect the individual's dropout decision. Tinto stresses that social integration directly affects persistence in college (1975). Therefore, residence halls must be an important piece in retention since the majority of social interactions occur there for first year students (Kerr & Tweedy, 2006). Students can develop support systems, study groups, and relationships with their peers and educators at on-campus facilities and residence halls, which help students succeed and increases their desire to stay at a university (Tinto, 1975; 2015). In turn, this contact between peers and educators contribute to the academic leadership that helps to construct the residential

campus (O'Hara, 2016). Therefore, the change in CU Boulder's RA mentoring structure could have huge implications for its vision to be a residential campus.

The Effect of the Residential Campus on Students

A student's sense of self-efficacy and self-belonging are all results of university structures that determine persistence in college (Tinto, 2015). The residential campus seeks to improve each of these aspects in their students' lives. Tinto argues that self-efficacy and self-belonging are both enhanced by social integration; the social support systems for a student can help them adjust to the academic and emotional demands of their university (2015). A study done by Leone & Tian (2009) found that residence life was the top reason for students either leaving or entering a university²; once again, this makes sense since most social interactions occur within the halls for first year students.

One study found peer mentors at a university to help adaptation and integration into the new collegiate environment, increasing retention rates (Collings, Swanson, & Watkins, 2014)³. More specifically, they found that on average students without peer mentors were four times more likely to want to leave their university than students with peer mentors, and they were more likely to have less self-esteem than peer mentored students; thus, it seems that students with structured peer interactions offered higher levels of integration into the university, lowering the intention for students to leave (Collings, Swanson, & Watkins, 2014).

A study by Sacerdote (2001) found peer effects within the residence halls to have significant impacts between roommates, especially when looking at academic success and social choices (Sacerdote, 2001). Sacerdote (2001) found those peer effects to have short-term effects, only impacting the time-frame when the students were roommates; ultimately, the student's own habits effected their academic success in the long term. Patacchini, Rainonee & Zenou (2016) found the strength of the relationship between peers to impact the robustness of peer effects by looking at short-term versus long-term relationships. They found short-term relationships to have a significant impact on academic success in the short-run, and long-term relationships made a significant impact in both the short and long-run, which is intuitive.

Literature Summary

As more universities turn to a residential campus setting, many are looking to implement changes within their residence halls. Social interactions and peer effects have been shown to effect retention rates, which are a good measurement of a university's success in delivering learning. This is because students need social support systems to assimilate successfully into university life.

Methodology

Key Variables and Data Description

This research will define a relationship between one-to-one conversations for the Fall 2015 semester and enrollment for both the Spring and Fall 2016 semesters. The data was

² Leone & Tian (2009) use the phrasing "campus life," which I have translated to residence life. They did this to differentiate between dining services and campus life in their study, but for my purposes, I do not need to differentiate between the two, so I will use the phrasing "residence life" to describe "campus life" for consistency within my paper.

³ Collings, Swanson, & Watkins (2014) use a longitudinal comparison study between two different universities in the U.K. I note this because their study is not an economics based research paper.

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acquired from the Office of Data Analytics and the Office of Residence Life at the University of Colorado Boulder. The Office of Residence Life provided data on one-to-one conversations and student living and RA arrangements, and the Office of Data Analytics tied this together with the residents' demographic controls, academic controls, and enrollment variables. Enrollment is the outcome variable on which the regression will be defining a relationship for. Data was given for both the Spring 2016 and Fall 2016 semester enrollment periods. Given that the controls are from the Fall 2015 semester, this study will be able to analyze the short-term and long-term effects of one-to-one conversations on enrollment.

The sample population is made up of students living in Athens North, Baker, and the Engineering Quad during the Fall 2015 semester⁴. Any students who changed rooms were excluded from this study to keep consistency and eliminate the chance they'd be counted twice. In total, there are 976 observations when all the controls are added to the regression. Table 1 (see appendix) shows a basic summary of the variables used in this analysis. Table 2 (see appendix) splits up these variables based on the number of conversations that observation has received⁵.

Residence Halls will be controlled for throughout the regressions. Athens North is located further away from central campus than Baker and the Engineering Quad, and this year, it was introduced as a housing option to Freshman later in the application time-frame due to capacity over flows. Baker and the Engineering Quad also have Residential Academic Programs (RAPs), while the Engineering Quad focuses on housing for Engineering students, hence its name. Looking at Table 2, we also see that students living in Athens North have substantially lower numbers of one-to-one conversations with their resident advisors than do students in Baker or the Engineering Quad. Therefore, one might expect to see higher enrollment from Baker and the Engineering Quad than from Athens North, which is why it is important to include these as controls. Roommates will also be controlled for to measure a sense of social integration which may affect retention and number of conversations.

Resident characteristics will also be controlled for. Sex (noted as Male in the variable list) is an important characteristic to control for since females are known to stay enrolled more on average than males (Lopez & Gonzalez-Barrera, 2014). There are also more males enrolled at CU Boulder, about 64% of students are male. This may bias the number of conversations. Age is included in the controls and ranges from 17-20. Ages beyond those cut offs were excluded from this analysis since it is odd to see any other age in a residential living situation, and they also skewed the data. Table 2 also shows that older students received less conversations on average. Minority status and international status have been included in the controls since we know that minorities and international students tend to drop-out more on average than non-minorities and domestic students.

Academic demographics are controlled for as well, such as school of study, grade point average, and a freshman variable. Some schools have harder acceptance requirements and heavier workloads, especially the engineering school. These both may affect a student's enrollment decision, as well as the number of conversations a student has with their resident

⁴ There was no special consideration for which halls were chosen to be included in this study other than Baker Hall and the Engineering Quad have the most observations. Given the time frame and priority of this study, not all halls could be integrated into the data set in time.

⁵ The purpose of Table 2 is to find any patterns in the aggregate statistics that might lead one to believe there is a relationship between conversations and that variable. We can find these patterns by looking at numbers that differ from the sample mean for that variable.

advisor. I also include academic probation, which is a dummy variable of term GPA below a 2.25. GPA will be controlled for in this analysis since I believe that leaving it out creates an omitted variable bias; although, I will include regression results with and without GPA variables as it might be argued that including it could create a reflection issue. That is, the number of one-to-one conversations could affect GPA. The freshman variable was not given, but created by looking at the difference between term GPA and cumulative GPA. This is logical since this study only analyzes the first semester of the school year, and freshman would have the same term and cumulative GPA. However, it is important to note the rare possibility that this could also capture upper-classmen whose term GPA matches his cumulative GPA.

Finally, one-to-one conversations, the variable of interest, are added to this analysis. One-to-one conversations can be broken down in multiple ways, based on the information that was reported. First, one-to-one conversations can be broken down by theme period; however, I use the sum of the total number of one-to-one conversations a resident has. This is because I am more interested in the effect of the aggregate interactions a student has with their resident advisor, and this gives the study more information than just one interaction. Conversations can also be broken down by group or individual conversations. This is a point of interest because this can proxy for the level of social integration a student might have.

Research Design and Models

My analysis will examine how the number of one-to-one conversations a resident has effects their decision enrollment decision. Obviously, an enrollment decision is not solely based on the number of conversations a resident has with their resident advisor. There are many other interactions a resident can have on campus to socially integrate into the university. Ultimately, it is up to the student to make the enrollment decision, but RAs can connect students with resources and information they need to be successful.

Because of this relationship, I expect one-to-one conversations to have a significant impact on enrollment; however, I expect that the coefficient on conversations will be low given that it is not the only factor affecting a student's enrollment choice. Enrollment is a dummy variable, so I use a linear probability model format since it is the simplest to use and interpret⁶. This means that all coefficients must be interpreted as a percentage point change in the probability of enrollment with every unit change. It's important to note that each of these models regress conversations (with controls) on enrollment, but split up the conversations variable to gather different insights on conversations.

$$(1) \text{ enrollment}_i = \alpha + \beta_1 (\text{conversations})_{ir} + \beta_2 (\text{resident characteristic controls})_i + \beta_3 (\text{resident academic controls})_i + \beta_4 (\text{residence hall controls})_i + \varepsilon$$

The first model is basic in its methodology because it looks at conversations with respects to resident controls. This will be useful in determining the level of significance and magnitude one-to-one conversations play overall in a student's enrollment decision. β_1 will be interpreted as one conversation leads to an x percentage-point change in enrollment.

⁶ A logit model could be run in future analysis.

$$(2) \text{ enrollment}_i = \alpha + \beta_1 (\text{ra average})_i + \beta_2 [(\text{conversations}) - (\text{ra average})]_i + \beta_3 (\text{resident characteristic controls})_i + \beta_4 (\text{resident academic controls})_i + \beta_5 (\text{residence hall controls})_i + \varepsilon$$

This second model looks at the difference between the RA's average number of conversations and that which their resident received. This examines the effect of a resident having more or less contacts than the average resident to that assigned RA. This is helpful because it controls for outliers in the One-to-One Model. Students might be more likely to talk with their RA if they are struggling; on the other hand, the RA might more easily have conversations with residents whom have great social skills and integration. It might also be the case that students will be less likely to talk to their resident advisor if they have their own support systems in place and are doing well academically and socially. β_2 will be interpreted as one conversation beyond or below the average amount of conversations leads to an x percentage-point change in enrollment.

$$(3) \text{ enrollment}_i = \alpha + \beta_1 (\text{group conversations})_i + \beta_2 (\text{individual conversations}) + \beta_3 (\text{resident characteristic controls})_i + \beta_4 (\text{resident academic controls})_i + \beta_5 (\text{residence hall controls})_i + \varepsilon$$

This third model aims at breaking down social integration within the one-to-one conversations themselves. Resident advisors are more likely to have group conversations with residents that have friends or some level of social connectivity with their community. Group conversations should also build deeper relationships between participating residents, which would positively effect social integration, and thus enrollment. Of course, group conversations could also pose a reflection issue. If students are more connected on their floors, then they might be more likely to stay enrolled. β_1 will be interpreted as a one group conversation leads to an x percentage-point change in enrollment compared to an individual conversation.

Research & Results

Introduction to Table 2

Table 2 (see appendix) shows control variables by number of one-to-one conversations in order to find any patterns between the data and quantity of conversations. In each semester, a resident can have between 0 and 3 conversations. The mean of all conversations in this sample is about 2.1, which is 70% of 3⁷. A low number of conversations is between 0-1, and a high number is between 2-3 given the mean. The table describes the share of the specified number of conversations for that specific variable. The sample mean for each variable is given to compare the share to what should be expected if no bias existed. For example, male under 0 conversations shows 0.794, which means that out of all the observations for 0 conversations, about 79% of them were male⁸. This is interesting because males make up 64% of the population, which tells us, on average, males are receiving proportionally less conversations than females.

⁷ This is interesting to note because RA's were required to have conversations with at least 60% of their residents. This could be a result of RAs inflating their numbers.

⁸ There are only 34 observations with 0 conversations.

The analysis by hall also yields interesting results. It seems that Athens North has a substantially low amount of one-to-one conversations. This could be for several reasons: Athens North has apartment based housing for residents; it does not have a Residential Academic Program (RAP)⁹ like Baker or the Engineering Quad; and Athens North is not located on campus. There may also be a selection bias for Halls because of RAPs. Engineers also get a substantially large amount of conversations, but this may be because of the Engineering RAPs that exists in the Engineering Quad. However, Baker does not display this pattern.

There is also pattern found in all of the academic variables. Both term GPA and cumulative GPA; as the number of conversations increases, so does the average GPA. Enrollment for Spring and Fall also increase as number of conversations increase. This could be because of two possibilities: (1) one-to-one conversations increase the capacity of students to succeed, or (2) as a student is more capable of academic success, they are more likely to have a conversation.

Regression Results: Model 1

Table 3 (see appendix) shows the key results of Model 1 with variation in the enrollment period as well as the inclusion of cumulative GPA. Only variables of interest are shown, which are conversations, cumulative GPA, freshman, international, roommate, Baker and the Engineering Quad variables. There are four columns of results. The first two columns regress conversations and controls on spring enrollment, while the last two regress for fall enrollment. As mentioned in the methodology, there are variations with and without GPA since it might be argued that conversations affect GPA and may cause a reflection issue; however, I do not believe this to be the case¹⁰, so I will focus my analysis of the results on columns i and iii.

Conversations hold more significance in Spring enrollment periods; however, the p-values are very high for either model, therefore conversations are not statically significant in any of these regressions. Interestingly, there is a negative coefficient on the number of conversations which suggests that the number of conversations a student has with their resident advisor decreases the chance that the student will choose to enroll for either the next semester or the next school year. The magnitude of these coefficients is -0.006. Although this may seem small, each conversation decreases the likelihood of a student enrolling by 0.6 percentage points, and a resident who received three conversations has almost a 1.8% less chance of enrolling for the spring and fall semesters compared to a student with no conversations.

The interpretation of this model tells us the more a resident talks with their resident advisor, they are less likely to enroll into the next semester or school year on average. Obviously, resident advisors do not encourage students to drop out of school; however, it may be that students who struggle more tend to have more conversations with their resident advisors. It may be the case that students who are integrating well into the university have no need for one-to-one conversations, especially since these conversations are focused on helping them transition into university life. What may be alarming about these results is even as students talk more with their

⁹ Residential Academic Programs are classes held within the residence halls and require approval for registration. This could a positive omitted variable bias on the conversations variable.

¹⁰ however, a regression on GPA and conversations reveals no significant relationship between conversations' effect on GPA, so I will include GPA in my official analysis. I also believe excluding GPA would create an omitted variable bias since GPA effects enrollment on a significant level, but also might effect the number of conversations. GPA also increases the R^2 for regressions i and iii, making those models more powerful predictors of a student's enrollment decision.

resident advisor within the one-to-one model, they are still more likely to drop-out. This is telling us that the One-to-One Model may not be supporting struggle students' needs.

Regression Results: Model 2

Resident advisors have been commissioned to have 60% conversation completion with every theme-period, and on average, they had about a 70% completion rate. Resident Advisors also most likely talked with some residents more than others, for various reasons (i.e., the resident was always there, getting written up, struggling, which could all increase conversations). As Model 1 pointed out, residents who had more conversations were more likely to drop-out. What we can do in this model is control for the RA's level of effort in completing one-to-one conversations and look at residents who received more on average. This will help us look at students who may be struggling more than the average person.

Model 2 is set up similarly to Model 1, with regressions on spring and fall enrollment, with and without the academic controls, but Table 4 (see appendix) only includes the RA average variable and Conversations – RA average. Once again, we see that the variables are insignificant and hold a negative coefficient, but this is no surprise given the results from Model 1. An interesting find on this model is that the p-values for RA average on variations i and ii are 0.14 and 0.15, respectively. This is the lowest p-value for conversations on any regression, and almost statistically significant at the 90% level. The coefficients on RA Average can be interpreted as a one-conversation increase in RA average leads to a 2.5 percentage point decrease in a student's chance in enrollment, on average.

The RA Average variable has an interesting narrative. RA Average ranges from 1.063 to 3, and the coefficient tells us that students who have RAs who reach out were more likely to be enrolled on average. I believe this comes from a reporting bias, in which RAs who reported lower numbers probably captured real conversations, not made up conversations or small talk¹¹. This means that RAs with a lower number of conversations probably actually had genuine connections with their residents over RAs with high averages that may have reported falsely.

This model also finds that a student who has a one-conversation increase above the RA's Average has a 0.3 percentage point decrease in chance of enrollment for both the spring and fall semester, on average. This supports the narrative that as a student has more conversations than the average resident, they are more likely to drop-out. This helps make the distinction that students who are struggling will have more conversations with their RA. This makes sense; RAs are often told to talk with residents who are struggling, and RAs will often seek out residents who seem to be struggling. Residents who are struggling may also be more open to talking within the one-to-one context as well, increasing the number of conversations they have.

Regression Results: Model 3

Finally, Model 3 regression addresses social integration. Students who have group conversations with their resident advisors may be more socially integrated into their communities than students who consistently have individual conversations. Therefore, distinguishing between group conversations may yield important results.

Table 5 (see appendix) shows the results of regression Model 3 and is set up the same as Table 4. Model 3 makes the designation between group and individual conversations while

¹¹ Conversations are self-reported with little to no oversight. RAs have incentives to inflate their numbers to avoid job action or to look better to their supervisors.

looking at enrollment for the spring and fall semesters, with variations that include or ignore academic controls. Once again, the coefficients on the conversation variables are negative and insignificant, reiterating the results from the previous models.

This model will tell us the effect of having more individual conversations than group conversations, and it seems to be telling us that individual conversations are worse than group conversations. On average, every individual conversation increases the chance that a student will group out by 0.7 percentage-point in the spring semester, and 0.6 percentage-point decrease in fall semester enrollment. A group conversation contributes to a 0.2 percentage point decrease in the enrollment rate in the spring semester, which is better than an individual conversation's effect in the short-run. But group conversations are correlated with a 0.6 percentage point decrease in the fall. This seems to tell us that in the short run, group conversations are better, on average, than individual conversations, but in the long-run, individual and group conversations have the same effect on enrollment.

A group conversation could mean that a student is making enough social connections to stay enrolled for that semester, but the same coefficient for both individual and group conversations in the long-run could point to the fact that these connections are not meaningful in the long-term. This could be because students are making more meaningful connections outside of their residence hall. Friendships and connections also tend to change every semester based on class schedule, conflicts, etcetera, so one might conclude that group conversations are not significant in building long-lasting, social integration; however, the short-term effect of these group conversations supports short-term gains to academic success. This aligns with the findings of Patacchini, Rainonee & Zenou (2016) and Sacerdote (2001).

Limitations

This research will not be able to fully explain a student's decision to remain enrolled at CU Boulder. It also will not be able to speak to the roll of resident advisors in general – only the effectiveness of one-to-one conversations. The reporting criteria for RAs on one-to-one conversations are very specific: RAs only recorded conversations that dealt with the theme period, and only one conversation per theme period was recorded. This means that any other interactions are not captured within the data. RAs have many roles beyond the One-to-One Model: conduct, programing, desk duties, and general community building, to name a few. Therefore, the implications of this research will be constrained to just the One-to-One Model since no data is given about other RA responsibilities. However, one-to-one conversations make up the majority of a resident advisor's responsibility and effort.

Biases

Bias may exist in the data from false reporting. The One-to-One Model does not have any third-party involved in tracking conversations and relies solely on self-reported numbers. Resident advisors have incentive to inflate their reporting numbers to make themselves look better or to avoid job action¹². Since RAs are also students, they have much more on their agenda

¹² This is a well-known fact that RAs cheat their numbers regularly to meet their quotas. The results from Model 2 seem to confirm this as well.

than just their RA duties; therefore, they might shirk on their responsibilities and report small talk as a one-to-one rather than the actual conversation topic. This could make the variables to have less magnitude and significance.

There may also be omitted variable bias. Conduct and residents on the Students of Concern list most likely have a negative effect on enrollment, while having a positive effect on conversations since RAs will seek out conversations with struggling students; therefore, missing a conduct variable and a students of concern variable could be causing a negative omitted variable bias, and conversations are absorbing the effect from conduct and problems and concerning behavior; however, usually conduct meetings would not count towards a one-to-one conversation, and only one conversation gets recorded per theme period, which would make bias from this source less impactful.

Conclusion

In conclusion, none of the results in this study are statistically significant, so these implications must be analyzed with the highest scrutiny. This study has failed to reject the null-hypothesis that RA interactions within the One-to-One Model have no effect on a student's enrollment decision. Based on the known reporting bias in the data set, this study cannot properly analyze the effect of one-on-one conversations on an individual level; however, it is clear that the One-to-One Model as a whole is not effective in increasing retention rates.

If this is true, it seems that students who have more one-on-one conversations with their resident advisors are struggling. The more conversations a resident has, the more they could be struggling. Unfortunately, this means that the One-to-One Model may not be attending student needs. This makes sense, especially if the One-to-One Model is not being implemented effectively. Ultimately, this comes down to a policy issue, and the Office of Residence Life should look at different policies that could make implementation of the One-to-One Model more effective. The Office of Residence Life should also set up reporting standards that are more accurate and keep resident advisors more accountable to accurate reporting.

I recommend that CU Boulder runs a more thorough analysis of its current resident advisor model that includes much more information and observations from more halls and residents, and resident advisors. Future analysis should also include variables that capture conduct and concerning behavior. I also suggest that the Office of Residence Life set up reporting structures that can be easily integrated into analytical software. The One-to-One Model is new and exciting in this paradigm shift; however, it must continue to be studied and properly analyzed to ensure that CU Boulder is taking steps in the right direction.

Appendix

THE EFFECT OF RESIDENT ADVISOR INTERACTIONS ON RESIDENT ENROLLMENT

Table 1: Data Summary

	Obv.	Mean	Std. Dev.	Min	Max
Demographics					
Conversations	1,043	2.128	0.862	0	3
Group	1,043	0.770	0.869	0	3
Conversations RA Average	34	2.125	0.373	1.063	3
Roommate	980	0.907	0.290	0	1
Male	1,043	0.640	0.480	0	1
Freshman	1,040	0.813	0.391	0	1
Age	1,043	18.205	0.561	17	20
Minority	1,043	0.262	0.440	0	1
International	1,043	0.033	0.178	0	1
School					
Arts & Sciences	1,043	0.507	0.500	0	1
Business	1,043	0.061	0.240	0	1
Engineering	1,043	0.387	0.487	0	1
Hall					
Athens North Hall	1,043	0.130	0.337	0	1
Baker Hall	1,043	0.412	0.492	0	1
The Engineering Quad	1,043	0.457	0.498	0	1
Academics					
Term GPA	1,039	2.983	0.775	0	4
Cumulative GPA	1,040	3.000	0.743	0	4
Enrolled Spring 2016	1,043	0.960	0.197	0	1
Enrolled Fall 2016	1,043	0.875	0.330	0	1

Conversations is a variable denoting number of conversations an RA has with a resident as recorded by an RA. RA Average is a specific RA's average number of conversations. Age was narrowed down to 17-20 as other ages are unusual in a residence hall and could potentially skew the data from the targeted population.

This sample consists of observations from the Fall 2015 semester at CU Boulder and only looks at students living in three residence halls: Athens North, Baker, and the Engineering Quad. All residents that changed rooms were not included in the data set to eliminate duplicate observations.

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Table 2: Variables by Quantity of Conversations

		Number of Conversations				Sample Mean
		Low		High		
		0	1	2	3	
Demographics						
Roommate		0.900	0.909	0.916	0.900	0.907
Male		0.794	0.639	0.643	0.625	0.640
Freshman		0.853	0.796	0.801	0.828	0.813
Age		18.441	18.238	18.212	18.163	18.205
Minority		0.235	0.273	0.283	0.240	0.262
International		0.029	0.031	0.042	0.026	0.033
School						
Arts & Sciences		0.588	0.568	0.484	0.487	0.507
Business		0.029	0.057	0.054	0.072	0.061
Engineering		0.382	0.344	0.411	0.392	0.387
Hall						
Athens North Hall		0.412	0.185	0.122	0.086	0.130
Baker Hall		0.206	0.410	0.374	0.462	0.412
The Engineering Quad		0.382	0.405	0.504	0.452	0.457
Academics						
Term GPA		2.830	2.939	2.993	3.011	2.983
Cumulative GPA		2.806	2.953	3.022	3.022	3.000
Enrolled Spring 2016		0.941	0.956	0.960	0.963	0.960
Enrolled Fall 2016		0.794	0.846	0.884	0.890	0.875
n		34	227	353	429	1043

The sample mean tells us what one might expect to see in each column if one-to-one conversations were completely random and unbiased. This helps us find patterns in the data that may need to be controlled for, or that conversations might affect.

THE EFFECT OF RESIDENT ADVISOR INTERACTIONS ON RESIDENT ENROLLMENT

Table 3: Model 1 Regression with Variation

	i Spring Enrollment	ii Spring Enrollment	iii Fall Enrollment	iv Fall Enrollment
Conversations	-0.006 (0.007)	-0.005 0.007	-0.006 0.011	-0.003 0.012
Cumulative GPA	0.041*** (0.012)		0.084*** 0.020	
Freshman	0.016 (0.016)	0.009 0.016	-0.016 0.026	-0.029 0.027
International	-0.069** (0.035)	-0.073** 0.036	-0.088 0.058	-0.100 0.060
Roommate	0.043** (0.021)	0.047** 0.021	0.094*** 0.035	0.104*** 0.036
Baker Hall	0.010 (0.023)	0.015 0.024	-0.010 0.039	0.005 0.040
The Engineering Quad	0.011 (0.025)	0.011 0.025	-0.052 0.041	-0.051 0.043
R2	0.063	0.031	0.097	0.030
N	976	977	976	977

* p value = < 0.10, **p-value =< 0.05, *** p-value =<0.01
Athens North was excluded from this regression to avoid multicollinearity.

THE EFFECT OF RESIDENT ADVISOR INTERACTIONS ON RESIDENT ENROLLMENT

Table 4: Model 2 Regression Results with Variation

	i	ii	iii	iv
	Spring Enrollment	Spring Enrollment	Fall Enrollment	Fall Enrollment
RA Average	-0.026 (0.018)	-0.025 (0.017)	-0.025 (0.030)	-0.024 (0.029)
Conversations – RA Average	-0.001 (0.007)	-0.003 (0.007)	-0.000 (0.013)	-0.003 (0.012)
Academic Controls	No	Yes	No	Yes
R ²	0.032	0.065	0.031	0.097
N	1043	976	1043	976

* p value = < 0.10, **p-value =< 0.05, *** p-value =<0.01

RA Average is the average number of conversations that RA had. Academic controls include Cumulative GPA and Academic Probation.

Table 5: Model 3 Regression Results with Variation

	i	ii	iii	iv
	Spring Enrollment	Spring Enrollment	Fall Enrollment	Fall Enrollment
Group Conversations	-0.002 (0.008)	-0.002 (0.008)	-0.005 (0.014)	-0.006 (0.014)
Individual Conversations	-0.006 (0.007)	-0.007 (0.007)	-0.002 (0.012)	-0.006 (0.012)
Academic Controls	No	Yes	No	Yes
R ²	0.004	0.064	0.030	0.097
N	1043	976	1043	976

* p value = < 0.10, **p-value =< 0.05, *** p-value =<0.01

Resident Advisors can have one-on-one conversations with multiple residence. The goal of the One-to-One Model is not to have a conversation alone, but to have an intentional conversation aimed at integrating students into the university, whether that be in an individual or group setting. Academic controls include Cumulative GPA and Academic Probation.

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