**The Impact of George Mason Residential Learning Communities:
Fall 2022 First-time Full-time Incoming Cohort**

Housing and Residence Life at George Mason University offers Residential Learning Communities (RLCs) in a variety of forms, connecting students by either an academic field of study, identity, or other broad interest. Some require enrollment in a common course. Others have no academic requirement at all. Regardless, all are assumed to contribute to student success, as it is commonly held that learning communities enhance the probability of retention. Premised on the positivity of engagement, community building and/or academic skill building in general or area-specific ways, learning communities are tools to assist students in finding spaces in which they can thrive and explore. Because they also incur cost in resource constrained environments, it is critical to examine the degree to which they are fulfilling the theoretical promise and/or what ways they can be modified to increase their impact on student success.

SUMMARY FINDINGS

Results of logit modeling suggest that participation in an academic RLC is positively related to retention. However, the impact is small. The impact of individual school/college academic RLCs on retention is not consistent, perhaps due to the size of the n's. Self-selection bias plays a role as academic RLCs tend to engage students with higher high school GPAs along with other differences compared to the broader student population. Below are more detailed findings on academic RLCs and their relationship to one-year retention for first-time, full-time (FTFT) students in the Fall 2022

DISCUSSION

Who enrolls in learning communities?

Because enrolling in a learning community of any type is optional, it is important to examine the degree to which students who choose to do so mirror or deviate from those who do not. Those who choose to participate may reflect different demographic or preparation profiles which might impact their success.

While Mason's policy requires that first-year students live in the residence halls, students can, and often do, apply for a waiver for a variety of reasons including being above age 20, living with a parent or guardian in a residence within 45 miles of Fairfax, married, dependent family members or veteran status. Students may also apply for exemption for other compelling reasons such as health or financial constraint. For the Fall 2022 FTFT cohort, 45% lived off campus.

Table 1 below details the demographic profile of the Fall 2022 FTFT cohort overall, within the residence halls (but not participating in an academic RLC), by academic RLC sponsored by a school/college (with overall school/college profile figures in parenthesis). Interest/Identify RLC demographic data is also presented.

Table 1. Fall 2022 First-Year RLC Demographic Profile

DEMOGRAPHIC PROFILE*	FEMALE	PELL	1ST GEN	IN-STATE	URM	MEDIAN HS GPA
FTFT Fall 2022 Cohort	48.5%	28.1%	19.5%	78.8%	33.8%	3.77
FTFT Fall 2022 Cohort in Residence Hall but Not **RLC**	49.5%	22.0%	14.2%	64.3%	32.7%	3.68
ACADEMIC RESIDENTIAL LEARNING COMMUNITIES**						
Total	47.9%	20.7%	14.5%	63.5%	31.3%	3.83
College of Engineering & Computing	19.2% (23.6%)	20.4% (28.0%)	14.4% (19.2%)	77.6% (85.6%)	26.5% (24.5%)	3.85 (3.81)
College of Humanities & Social Science	65.0% (70.1%)	27.4% (29.3%)	15.9% (19.6%)	65.5% (64.6%)	44.2% (36.8%)	3.82 (3.74)
College of Public Health	72.5% (88.2%)	31.4% (39.1%)	29.4% (29.7%)	64.7% (80.6%)	51.0% (41.5%)	3.79 (3.74)
College of Science	48.2% (70.7%)	24.1% (27.5%)	17.1% (18.4%)	58.2% (69.8%)	34.7% (36.2%)	3.9 (3.84)
College of Visual & Performing Arts	53.9% (56.8%)	16.7% (20.3%)	11.8% (14.0%)	67.6% (72.8%)	34.3% (66.5%)	3.78 (3.77)
Costello College of Business	36.4% (46.9%)	22.4% (29.3%)	21.5% (22.5%)	69.2% (77.2%)	28.0% (30.8%)	3.78 (3.64)
Honors College	68.4% (65.5%)	15.4% (19.4%)	31.6% (13.6%)	50.5% (64.1%)	23.5% (35.8%)	4.16 (4.14)
Schar School Democracy Lab	44.9% (46.4%)	13.0% (16.3%)	10.1% (13.7%)	49.3% (51.6%)	26.1% (20.2%)	3.83 (3.80)
College of Education & Human Development***	48.9% (52.8%)	27.6% (26.8%)	12.7% (20.33%)	72.3% (72.3%)	44.6% (39.8%)	3.78 (3.68)
School of Nursing	66.7% (86.1%)	23.8% (36.9%)	4.8% (30.3%)	71.4% (82.8%)	42.9% (40.1%)	3.90 (3.78)
IDENTITY/INTEREST RESIDENTIAL LEARNING COMMUNITIES						
Total	63.6%	25.2%	10.7%	68.1%	34.9%	3.75
Well-Being	57.5%	20.5%	42.5%	56.2%	31.5%	3.70
LGBTQ+	71.6%	25.7%	28.4%	73.4%	33.0%	3.80
Creativity, Design & Expression	59.2%	28.8%	40.8%	69.6%	40.0%	3.65

** The first % represents the proportion in the academic learning community. The % in parentheses reflects the college population overall.
***Includes both the School of Education RLC and the School of Kinesiology RLC

Those engaged with academic RLCs are often not representative of the university population nor the population within the school/college.

- Females: Underrepresented in all except Honors College.
- Pell Eligible: Underrepresented in all except CEHD.
- 1st Generation: Underrepresented in all except Honors College.
- In-State: As in-state students are underrepresented in the residence halls overall, it is unsurprising that they are underrepresented in most RLCs except for CHSS and CEHD.
- URM: Overall, URM are underrepresented, though there is variation within school/college.
- HS GPA: Students in academic RLCs have a higher median high school GPA (3.83) compared to the Fall 2022 student cohort and the Fall 2022 cohort living in residence halls not engaged with an academic RLC.

Retention and Housing Type

Table 2 details retention rates by housing type. Given known student behavior, the comparative rates are expected, i.e., rates for Mason as an institution are higher than rates within the school/college which, in turn, are higher than within major. As students work to determine the best fit for their interests and skills over the first year, one would expect to see this kind of swirl where they stay at Mason but change majors that may affect their school/college affiliation as well.

Further, from previous analyses we know that Mason's 1-year retention rates differ among various subgroups. While those differences are often small, suggesting an overall robust and common experience, it has long been recognized that, unlike national trends, rates for those living in residence halls are lower than rates for those living off campus at Mason. Previous analyses have found that this may be attributable to the volume of out-of-state students living in the residence halls—a population that would typically have lower rates regardless of housing arrangements. The common understanding is that the overrepresentation of out-of-state students in the residence hall population drives down those rates.

We see in this data a hint that engagement with an academic RLC enhances retention. As expected, off-campus students have higher retention rates than those who live on campus. However, the rate for those who engage in an academic RLC is notably higher than engagement in other types of RLCs (+5.2 percentage points) or no RLC (+5.5 percentage points). Yet, the rate of 87.9% is still 1.5 percentage points lower than those who live off campus.

Table 2. Fall 2022 FTFT 1-Year Retention Rate by Housing Type

HOUSING TYPE	MASON	SCHOOL/COLLEGE	MAJOR
On-Campus	85.4%	75.0%	71.4%
Academic RLC	87.9%	77.8%	74.3%
Other RLC	82.7%	68.1%	65.1%
No RLC	82.4%	71.6%	68.0%
Off-Campus	89.4%	79.5%	74.8%

Exploring the Causal Link between Academic Learning Communities and Retention

Our analyses sought to control for self-selection bias. Below are the results of three models: retention at Mason, retention within a school/college, and retention within the first major a student declared. In order to control for self-selection bias, included in the models are several demographic variables along with participation in an academic RLC.

- Retained at Mason (Table 3): Participation in academic RLCs had a statistically significant positive association with retention while controlling for demographic variables. In addition to academic RLC participation, high school GPA and female gender demonstrated statistically significant positive associations with retention. Out-of-state status had a statistically significant negative association with retention. No other variables demonstrated a statistically significant relationship.
- Retained in School/College (Table 4): Participation in academic RLCs did not demonstrate a statistically significant association with retention. Only HS GPA had a statistically significant positive association with retention at the school/college level.
- Retained in Major (Table 5): Participation in academic RLCs had a statistically significant positive association with retention in the major. HS GPA also had a statistically significant positive association with retention in major.

Note: Although we refer to statistical significance in these models, it is important to note that we were analyzing the entire population, not a sample, of students living on campus. In a purely theoretical sense, statistical significance is relevant only when inferring whether an observed effect in a sample is likely to exist in the entire population.

Table 3. Retained at Mason

PREDICTOR	B	eB (ODDS RATIO)	p-VALUE	ODDS RATIO 95% CONFIDENCE INTERVAL Lower	Upper
Intercept	-0.3979	0.672	0.507	0.208	2.173
Female *	0.3069	1.359	0.015	1.061	1.741
Pell-Eligible	-0.2637	0.768	0.075	0.575	1.027
First-Generation	-0.2945	0.745	0.078	0.537	1.033
HS GPA ***	0.5351	1.708	0.001	1.245	2.342
Underrepresented Minority	0.1644	1.179	0.231	0.901	1.543
Out-of-State *	-0.2497	0.779	0.045	0.610	0.995
Academic RLC **	0.3797	1.462	0.004	1.128	1.894
Interest/Identity RLC	-0.0392	0.962	0.834	0.667	1.385

*p < .05, **p < .01, ***p < .001.

Table 4. Retention in the College

PREDICTOR	B	eB (ODDS RATIO)	p-VALUE	ODDS RATIO 95% CONFIDENCE INTERVAL	
				Lower	Upper
Intercept	-0.486	0.615	0.329	0.232	1.631
Female	-0.0819	0.921	0.424	0.754	1.126
Pell-Eligible	-0.2393	0.787	0.050	0.620	1.000
First-Generation	-0.182	0.834	0.195	0.633	1.098
HS GPA ***	0.4524	1.572	0.001	1.211	2.041
Underrepresented Minority	0.0596	1.061	0.590	0.855	1.318
Out-of-State	-0.1774	0.837	0.082	0.686	1.023
Academic RLC	0.2058	1.229	0.060	0.991	1.522
Interest/Identity RLC	-0.2636	0.768	0.084	0.570	1.036

*p < .05, **p < .01, ***p < .001.

Table 5. Retention in the Major

PREDICTOR	B	eB (ODDS RATIO)	p-VALUE	ODDS RATIO 95% CONFIDENCE INTERVAL	
				Lower	Upper
Intercept	-0.111	0.895	0.816	0.352	2.279
Female	-0.0805	0.923	0.411	0.762	1.118
Pell-Eligible	-0.1731	0.841	0.142	0.668	1.059
First-Generation	-0.2093	0.811	0.121	0.623	1.057
HS GPA *	0.2994	1.349	0.019	1.051	1.731
Underrepresented Minority	-0.0261	0.974	0.804	0.792	1.198
Out-of-State	-0.1791	0.836	0.067	0.690	1.013
Academic RLC *	0.2282	1.256	0.029	1.024	1.542
Interest/Identity RLC	-0.1673	0.846	0.260	0.632	1.132

*p < .05, **p < .01, ***p < .001.