



UK Institutional Research Brief:

The Impact of Residence on First-Year Students' Academic Success and Adjustment to Campus life

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Roughly 85 percent of all freshmen live in residence halls during their first semester at UK (85.7% in fall 2008 and 84.6% in fall 2009). This study examines the impact of on-campus housing upon the academic success of our newest students. First, institutional research staff examined the retention rates and grade point averages for the Fall 2008 and Fall 2009 cohorts of freshmen living on- and off-campus. Then, responses from the 2009 administration of the National Survey of Student Engagement (NSSE) were disaggregated for the fall 2008 cohort according to lists provided by Student Affairs staff of all students living in on-campus housing. Institutional Research staff focused on a select set of NSSE items that reflect involvement in the social fabric of the institution and access to campus resources and co-curricular experiences. Finally, students' responses on the fall and spring Freshman Survey were used to assess the impact of life in the residence halls upon the freshman experience.

Characteristics of Freshmen Who Live On- and Off-campus

Examination of the enrollment files shows first-year students who live in residence halls differ significantly on several demographic characteristics from their off-campus peers. Chi-square tests comparing sex, race, and residency status were significant for both years (p -values <0.05). Table 1 shows disproportionately higher percentages of freshmen in the residence halls were female and from out-of-state, compared to first-year students who lived off-campus. The freshman rolls in the residence halls also show a lower representation of students of 'other' races (i.e., not White or Black). First-generation college students were somewhat less likely to reside on-campus. Analysis of the NSSE dataset revealed 29.0% of freshmen living in residence halls were first-generation college students, compared to 41.0% living in off-campus housing (p -value=.005). In terms of their academic credentials, first-year students who live on- and off-campus appear equally prepared. Generally, there was no difference between the two groups on high school grades and standardized tests, although t-tests revealed a significant difference for the 2009 cohort's ACT Composite scores.

A study of the rosters of first-year students living in the residence halls by county of origin showed a much lower percentage of students from Fayette and adjacent counties chose to live on campus. For the 2008 and 2009 cohorts in this study, the respective percentages of freshmen from these counties

Table 1. Demographic Characteristics of First-Year Students by Residency

	Freshman Cohort Fall 2008 (N=4079)		Freshman Cohort Fall 2009 (N=4113)	
Characteristic	Residence halls (N=3495)	Off- campus (N=584)	Residence halls (N=3478)	Off- campus (N=635)
HS Academics				
High School GPA	3.51	3.55	3.52	3.50
ACT	24.42	24.25	24.75	24.31
Sex				
Percent Male	47.3%	57.7%	47.1%	58.3%
Percent Female	52.7%	42.3%	52.9%	41.7%
Race				
Percent Black	9.0%	5.3%	10.3%	6.3%
Percent White	84.8%	81.5%	83.4%	80.2%
Percent Other	6.2%	13.2%	6.3%	13.5%
Residency Status				
Percent In-state	73.7%	93.2%	75.8%	92.0%
Percent Out-of-State	26.4%	6.9%	24.2%	8.0%

living in campus housing were as follows: Fayette (56%, 51%); Bourbon (88%, 80%), Clark (64%, 67%), Jessamine (54%, 58%), Madison (83%, 88%), Scott (73%, 61%), Woodford (68%, 73%). The percentage of first-year students from non-adjacent Kentucky counties who chose to live on campus in 2008 and 2009 was 91% for both years.

Retention Rates and GPA

Our analysis found students who live on-campus are more academically successful than their off-campus peers on two key indicators, retention rates and first-semester GPA.

Students living in residence halls are retained at significantly higher rates.

- For the Fall 2008 cohort, 81.9% of students living in residence halls and 70.9% of students not living in residence halls came back the following fall (Chi-sq=38.05, p-value<0.001).
- For the Fall 2009 cohort, 82.8% of students living in campus housing and 75.9% of students living off-campus returned for a second year of college (Chi-sq=17.29, p-value<0.001).

Students who live on-campus earn significantly higher grades during their first semester than students who live off-campus.

- For the Fall 2008 cohort, students living in residence halls earned a GPA of 2.83, compared to 2.42 for their off-campus peers ($t=7.71$, $p\text{-value}<0.001$).
- For the Fall 2009 cohort, students in campus housing earned a GPA of 2.86, compared to 2.50 for students living elsewhere ($t=7.64$, $p\text{-value}<0.001$).

Results from the National Survey of Student Engagement

The University of Kentucky has participated biennially in National Survey of Student Engagement (NSSE) since 2001. NSSE's content is grounded firmly in the student development literature and addresses best practices associated with student involvement and learning. The analyses described below are based on students' responses to the NSSE 2009 questionnaire. A total of 2,285 UK students participated in the survey. Of the 1,217 seniors who completed NSSE, only 47 were living in residence halls (3.9%), a sample too small to warrant closer examination. Thus, the NSSE 2009 results presented below are only for the 1,068 freshman respondents.

Analysis of Differences on the Five Benchmarks of Effective Educational Practice

Items on NSSE are clustered into five benchmarks of effective educational practices: 1) level of academic challenge, 2) active and collaborative learning, 3) student-faculty interaction, 4) enriching educational experiences, and 5) supportive campus environment. Table 2 shows the average NSSE scale scores were all higher for students living in residence halls, but the difference was statistically significant only for SCE -Supportive Campus Environment ($t\text{-statistic}=-2.22$, $p\text{-value}=0.028$). The multivariate test, comparing the two groups on all five scale means simultaneously, was marginally significant ($F(5,951)=2.21$, $p\text{-value}=0.051$).

These findings are not surprising when one considers the ways in which a student's residence is likely to affect her experience of the academic and social dimensions of college life. There is little reason to believe that a student's housing arrangement would affect the amount of challenge they perceive from their classes or their level of interaction with faculty. However, a student's level of access to selected campus resources and the opportunity for frequent interactions with other students may likely depend upon place of residence and the amount of time spent commuting to campus.

IR staff focused on the responses of students in the two housing groups to selected NSSE items. These questions tapped into students' academic and social engagement, enriching educational experiences, use of time, and satisfaction with UK. In general, freshmen who lived in residence halls were more likely than those living off-campus to engage in extracurricular activities and interact both academically and socially with other students. They also were more likely to perceive UK as a supportive institution and to

Table 2 – NSSE Benchmark Scores by Residency

NSSE Scale	Residence	N	Mean	Difference	t-statistic	p-value
Academic Challenge	Off-campus	145	53.27			
	Residence Hall	857	54.12	-0.85	-0.60	0.552
Active and Collaborative Learning	Off-campus	150	38.93			
	Residence Hall	905	41.07	-2.14	-1.55	0.123
Student-Faculty Interaction	Off-campus	144	33.70			
	Residence Hall	861	34.16	-0.46	-0.27	0.790
Enriching Educational Experiences	Off-campus	143	25.98			
	Residence Hall	838	28.18	-2.20	-1.87	0.062
Supportive Campus Environment	Off-campus	143	56.29			
	Residence Hall	819	60.40	-4.11	-2.22	0.028

assign higher ratings to their entire educational experience at UK. Students who resided off-campus tended to spend more time working off campus, providing care for dependents living with them, and commuting. They were also more likely to be first-generation college students.

The following comparisons based on selected NSSE 2009 questions were statistically significant based on chi-square analyses.

Academic and Social Engagement

- 42.9% of students living in residence halls “Worked with classmates OUTSIDE OF CLASS to prepare class assignments” *often or very often*, compared to 33.6% of those not living in residence halls (chi-square=8.01, p-value=0.046).
- 72.3% of students living in residence halls reported participating in co-curricular activities (organizations, campus publications, student government, fraternity or sorority, intercollegiate or intramural sports, etc.)” for *one or more hours* in a typical week compared to 46.5% of those not living in residence halls (chi-square=44.89, p-value<0.001).
- 46.4% of students living in campus housing reported *having done* “Community service or volunteer work,” compared to 37.3% for students living off-campus (chi-square=14.90, p-value=0.002).
- Only 4.7% of students living in residence halls *never* “Tried to better understand someone else's views by imagining how an issue looks from his or her perspective” compared to 10.4% of those not living in residence halls (chi-square=8.53, p-value=0.036).
- When asked to evaluate the quality of their relationships with other students on a scale from 1 to 7, with higher values indicating higher quality (friendly, supportive, sense of

belonging), the average for students in residence halls was 5.55 compared to the average of 4.96 for those living off-campus (t-statistic=-4.11, p-value<=0.001).

Enriching Experiences

- 70.7% of students living in a residence hall *sometimes, often or very often* “Attended an art exhibit, play, dance, music, theater, or other performance” compared to only 54.2% of those living off-campus (chi-square=16.39, p-value=0.001).
- 71.5% of students in campus housing “Exercised or participated in physical fitness activities” *often or very often*, compared to 57.7% of those not living in residence halls (chi-square=22.49, p-value<0.001).
- 73.8% of students living in residence halls indicated that UK emphasized *Quite a bit* or *Very much* attending campus events and activities (special speakers, cultural performances, athletic events, etc.) compared to 59.8% of students who lived away from campus (chi-square=14.09, p-value=0.003).

Weekly Use of Time

- 9.2% of students in residence halls reported working off-campus *more than ten hours* in a typical week compared to 36.4% of students not living in residence halls (chi-square=97.10, p-value<0.001).
- Only 12.3% of students who lived on campus spent *at least one* hour in a typical week providing care for dependents, compared to 39.4% of their off-campus peers (chi-square=71.11, p-value<0.001).
- Only 22.9% of students living in residence halls spent more than 5 hours per 7-day week commuting, compared to 47.6% of students not living in residence halls (chi-square=39.28, p-value<0.001).

Evaluation of Educational Experiences at UK

- 88.6% of first-year students living on-campus perceived UK as providing *some, quite a bit, or very much* support needed “to thrive socially” compared to 76.9% of the students living off-campus (chi-square=15.14, p-value=0.002).
- 90.6% of students living in campus housing evaluated their “entire educational experience at this institution” as *good or excellent*, compared 82.3% of students who live elsewhere (chi-square=17.58, p-value=0.001).

Gains in Skill and Knowledge Domains on NSSE 2009

Kuh, Gonyea, and Palmer (2001) analyzed gains made in three areas by commuters and their on-campus counterparts by summing across selected groups of NSSE items.¹ The three factors are defined below:

Gains in personal and social competence combines gains in ethical development, appreciation for diversity, understanding of self, community awareness, citizenship, inquiry, and getting along with others.

Gains in practical competence charts progress made in computer and information technologies, quantitative skills, and knowledge and skills for work.

Gains in general education are based on self-reported gains in writing and speaking skills, general education, and analytical skills.

Table 3 shows the average gains on the scale scores in the three domains were higher for students living in residence halls. The multivariate test, simultaneously comparing the two groups on the three scale means, was significant ($F(3,953) = 3.9$, $p\text{-value} = 0.009$). Differences were statistically significant for *Gains in personal and social competence* ($t\text{-statistic} = -2.54$, $p\text{-value} = 0.012$) and for *Gains in general education* ($t\text{-statistic} = -2.33$, $p\text{-value} = 0.021$).

Table 3 – Gains in Three NSSE Domains by Residency

NSSE Domains	Residence	N	Mean	t-statistic	p-value
Gains in personal and social competence	Off-campus	141	2.56		
	Residence Hall	816	2.73	-2.54	0.012
Gains in practical competence	Off-campus	142	2.89		
	Residence Hall	816	2.94	-0.74	0.461
Gains in general education	Off-campus	142	2.88		
	Residence Hall	816	3.04	-2.33	0.021

The higher perceived gains in personal and social competence reported by residence hall students relative to their off-campus peers are easy to understand. Most freshmen who live on campus are exposed in substantive ways for the first time to students who differ from themselves along many dimensions. Students are likely to find themselves rooming or living next to students who differ in terms of race, religion or political values. Interestingly, on-campus residents' self-reported gains in general

¹ Kuh, G. D., Gonyea, R. M., & Palmer, M. (2001). The *disengaged commuter* student: Fact or fiction? *Commuter Perspectives*, 27 (1), 2-5

education are more difficult to explain, but may relate to increased time spent on campus, greater participation in co-curricular activities, and greater exposure to enriching educational experiences.

Results from UK's Freshman Survey Program

IR staff examined the responses of both groups of Fall 2008 freshmen to selected items on the fall Survey of First-Year Students. This analysis revealed:

- Students living in the dorms were more likely to come from families with higher incomes (chi-square=30.85, p-value<0.001).
 - The percentage of students who reported family incomes of \$60,000 or less was lower for students living on-campus (21.1% vs. 34.2%)
 - The percentage of students who reported their family's income bracket in the \$60,000 to \$100,000 range was the same for both groups (39.2%).
 - A higher percentage of freshmen living on-campus reported family incomes of \$100,000 or more (39.7% vs. 26.6%).
- Students' educational goals differed according to their place of residence. A higher percentage of students living off campus than in the residence halls planned to earn only a Bachelor's degree (23.7% vs. 16.9%; p-value=0.025).

Analysis of selected items on the spring 2009 Survey of First-year Experiences revealed findings consistent with the NSSE 2009 results. Relative to freshmen who lived off-campus, first-year students in the residence halls reported greater development in study skills and use of campus services. Moreover, students in on-campus housing reported greater social involvement and indicated that they were more satisfied with their first year in college. All differences listed below are statistically significant at or below the 0.001 significance level.

Compared to their off-campus classmates, significantly greater percentages of students living on campus rated themselves as *successful* or *very successful* in:

- developing effective study skills (66.2% vs. 56.3%).
- utilizing campus services available to students (65.3% vs. 50.3%).
- developing close friendships with students (82.9% vs. 60.7%).
- establishing a network of friends on campus, compared to (80.3% vs. 60.9%).

Finally, relative to their peers living away from campus, students in residence halls were generally more satisfied with their experiences at UK:

- 44.5% of students living in the residence halls indicated that UK fulfilled their expectations *moderately above or far above*, compared to 25.9% of students living away from campus.
- 65.1% of students in campus housing were *satisfied or very satisfied* with their first year of college, compared to 45.9% of students living off-campus.