

A Descriptive Study of Retention Rates among Residential Students: Fall 2004 to Spring 2012

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Introduction

At the request of the Director of Residence Life, the Office of Institutional Research initiated a study of retention rates among residential students starting with the fall 2004 semester. The purpose of this study was to examine patterns of retention among residential students by gender, class level, first-generation status, term and overall grade point averages, and distance from home address. In particular the study sought to identify students who left on-campus housing but remained enrolled, thus changing their status from resident to commuter.

At present there are three primary housing options available to Hilbert students who wish to live on-campus. Trinity Hall is a 153-bed residence hall that first opened in the fall of 2009 and serves as the primary residence for all first-year students. Trinity Hall offers both traditional double rooms as well as “double room” suites with a common living room area. A second option is the St. Joseph’s Hall with 46 rooms in traditional dormitory style, accommodating up to 96 students. Preference in assignment to St. Joseph’s Hall is given to students in their sophomore, junior, or senior years, although freshmen may be assigned if Trinity Hall is at capacity. The third option in campus housing is in one of four apartment suite buildings (Rufino House, Sister Katherine House, St. Agnes House and Leo House). Junior and Senior students are given preference in assignment to the apartments. St. Agnes House is typically reserved for students aged 21 and older. Each building can accommodate up to 17 students.

All residential buildings on-campus are co-ed, however residence hall rooms, suites and individual apartments are assigned by gender.

Methodology

In discussion with the Director of Residence Life, it was decided that “residential” would refer only to students living in on-campus housing options and only to students so identified within the PowerCampus databases. This would exclude students who moved from an on-campus residence to an off-campus apartment or house owned or rented by the College as sometimes occurred prior to the 2009-10 academic year. It would also exclude students who withdrew from on-campus housing before the official drop/add deadline in any given semester.

The initial level of analyses looked at overall numbers of residential students for each semester since fall, 2004 through spring, 2012. These analyses were conducted at the group level, by gender, class level, primary home zip code, and first-generation status.

A second level of analyses sought to examine patterns among individual students who began a given fall semester as an on-campus resident but did not return as a resident in the subsequent spring semester. For these analyses, data from the fall semester of 2008 forward were examined, providing information about a period of time covering four academic years. It was during the early part of this time period, in the fall of 2009, that Trinity Hall, the new 153 bed, residence hall was first opened as well as two additional apartment buildings thus significantly expanding and changing the on-campus living options for both entering and returning students.

Rates of persistence were also examined for spring to fall semesters starting with spring 2008 to fall 2008 through spring 2009 to fall 2011.

Finally, a separate analysis was conducted to look at persistence rates for students who had been assigned to triple occupancy rooms in the spring term. The fall 2009 and spring 2010 terms saw an unusually high number of such assignments and there was interest in the question of whether triple occupancy room assignments had any noticeable effect on persistence rates.

No statistical analyses were planned for this study. Rather the results are presented in the form of tables with accompanying charts for ease of interpretation.

Findings

General Trends among Residential Student Populations: Fall 2004 through Spring 2012

Table 1 presents the numbers of residential students by class level from fall 2004 through spring 2012 semesters. With opening of new residences in the middle of this period (Fall 2009) the numbers of students in residence effectively doubled. Across the 8-year period the average number of residents was 189. For the four years from fall 2004 through spring 2008 the average was 147 and in the subsequent four years (Fall 2008 – Spring 2012) it was 231. Although increases were seen across all class levels, the increases in numbers are most apparent for freshmen students in the fall terms.

Table 1.
Total Residential Students by Class and Semester:
Fall 2004 to Spring 2012

<u>SEMESTER</u>	<u>Freshmen</u>	<u>Sophomores</u>	<u>Juniors</u>	<u>Seniors</u>	<u>Total</u>	<u>Fall-Spring Change</u>
F04	65	17	34	13	129	
S05	45	15	34	13	107	-17.05%
F05	79	13	27	13	132	
S06	71	18	34	11	134	1.52%
F06	94	20	43	12	169	
S07	60	30	47	14	151	-10.65%
F07	98	27	46	15	186	
S08	73	34	39	19	165	-11.29%
F08	119	21	43	15	198	
S09	87	25	43	23	178	-10.10%
F09	104	33	62	11	210	
S10	82	33	70	19	204	-2.86%
F10	126	39	76	22	263	
S11	87	51	75	25	238	-9.51%
F11	137	54	79	27	297	
S12	90	55	72	40	257	-13.47%
Averages	88.6	30.3	51.5	18.3	188.6	-9.18%

Total of fall semesters = 1584

Total of spring semesters = 1434

Average change from fall to spring semesters = -9.2%

Typically the numbers of residential students is greater in the beginning of an academic year with some loss into the following spring semester following the trend in overall enrollment numbers. The average change in number of enrolled degree-seeking students from fall to spring semesters over the past 8

years has been a loss of -8.3%. For the same period the average decline in number of residential students has been slightly higher at -9.2% (see Table 1). The Fall 2011 to Spring 2012 loss was -13.5%, representing the largest within-academic-year decline in residential numbers since the Fall 2004 to Spring 2005 academic year which saw a -17.05% drop. Changes from fall to spring are most dramatic among freshmen and sophomores who also represent the largest overall numbers of residential students.

On average men are somewhat more likely than women to return to residential status between fall and spring semesters, however gender rates fluctuated considerably across the years considered in this study with more women returning in some years (see Table 2). As a result gender cannot be considered a reliable predictor of residential persistence in any given academic year. Likewise First Generation status (Table 3) was not a reliable indicator of returnees year to year, although across the 8 years first Generation students were almost twice as likely to return as their counterparts.

Term	Female	Fall→Spring	Male	Fall→Spring	Total
F04	75		54		129
S05	64	-14.67%	44	-18.52%	108
F05	79		54		133
S06	72	-8.86%	63	16.67%	135
F06	94		76		170
S07	80	-14.89%	72	-5.26%	152
F07	106		81		187
S08	99	-6.60%	67	-17.28%	166
F08	117		81		198
S09	103	-11.97%	75	-7.41%	178
F09	127		83		210
S10	120	-5.51%	84	1.20%	204
F10	151		113		264
S11	139	-7.95%	98	-13.27%	237
F11	183		114		297
S12	154	-15.85%	103	-9.65%	257
<i>Averages</i>		<i>-10.79</i>		<i>-6.69%</i>	

Table 3.
First Generation (FG) Residential Students

<u>Term</u>	<u>FG</u>	<u>Fall→Spring</u>	<u>Not FG</u>	<u>Fall→Spring</u>	<u>Total</u>
S12	84	-17.65%	173	-11.28%	257
F11	102		195		297
S11	86	-10.42%	151	-10.12%	237
F10	96		168		264
S10	76	-3.80%	128	-2.29%	204
F09	79		131		210
S09	68	-13.92%	110	-7.56%	178
F08	79		119		198
S08	59	-10.61%	107	-11.57%	166
F07	66		121		187
S07	58	-9.38%	94	-11.32%	152
F06	64		106		170
S06	54	8.00%	81	-2.41%	135
F05	50		83		133
S05	48	-11.11%	60	-20.00%	108
F04	54		75		129
<i>Averages</i>		<i>-11.11%</i>		<i>-20.00%</i>	

There has been some recent discussion about whether many of Hilbert's residential students actually live relatively close to the College but choose to dorm rather than commute, as opposed to those students who come from further away and may require housing. To examine this question, students' home zip codes were taken as distance bands from the 14075 zip code (Hamburg, NY). As shown in Table 4, on average across the 8 academic years, less than 10% of residential students come from a zip code area under 10 miles away. Furthermore that percentage appears to have been decreasing at a fairly steady rate since 2006-07. The majority of residential students (68.4% in fall 2011) list home address zip codes greater than 25 miles from the Hamburg area. Figure 1 presents a map of the city of Buffalo and surrounding suburbs with the inner circle representing those zip codes 10 miles or less distant from the 14075 zip code and the outer circle representing a 25 mile radius. Students from within the inner band were 9.8% of the residential population while 36.6% of students were from within the 25 miles or less band. Residential students with home zip codes more than 25 miles distant from the Hilbert campus represented 63.4% of the population.

Table 4.
Residential Students by Home Zip code Distance from 14075

<u>Term</u>	<u>≤ 10 MILES</u>	<u>≤ 15 MILES</u>	<u>≤ 20 MILES</u>	<u>≤ 25 MILES</u>	<u>> 25 MILES</u>	<u>TOTAL</u>					
F04	17	13.18%	29	22.48%	41	31.78%	52	40.31%	77	59.69%	129
S05	13	12.15%	22	20.56%	31	28.97%	41	38.32%	66	61.68%	107
F05	13	9.85%	28	21.21%	42	31.82%	52	39.39%	80	60.61%	132
S06	15	11.19%	32	23.88%	49	36.57%	58	43.28%	76	56.72%	134
F06	21	12.43%	40	23.67%	54	31.95%	63	37.28%	106	62.72%	169
S07	20	13.25%	33	21.85%	44	29.14%	54	35.76%	97	64.24%	151
F07	18	9.68%	41	22.04%	59	31.72%	71	38.17%	115	61.83%	186
S08	18	10.91%	39	23.64%	54	32.73%	64	38.79%	101	61.21%	165
F08	14	7.07%	35	17.68%	52	26.26%	63	31.82%	135	68.18%	198
S09	11	6.18%	31	17.42%	46	25.84%	57	32.02%	121	67.98%	178
F09	15	7.14%	34	16.19%	58	27.62%	70	33.33%	140	66.67%	210
S10	15	7.35%	35	17.16%	56	27.45%	69	33.82%	135	66.18%	204
F10	25	9.51%	58	22.05%	84	31.94%	102	38.78%	161	61.22%	263
S11	21	8.82%	48	20.17%	74	31.09%	85	35.71%	153	64.29%	238
F11	23	7.74%	48	16.16%	81	27.27%	94	31.65%	203	68.35%	297
AVERAGES		9.76%		20.41%		30.14%		36.56%		63.44%	

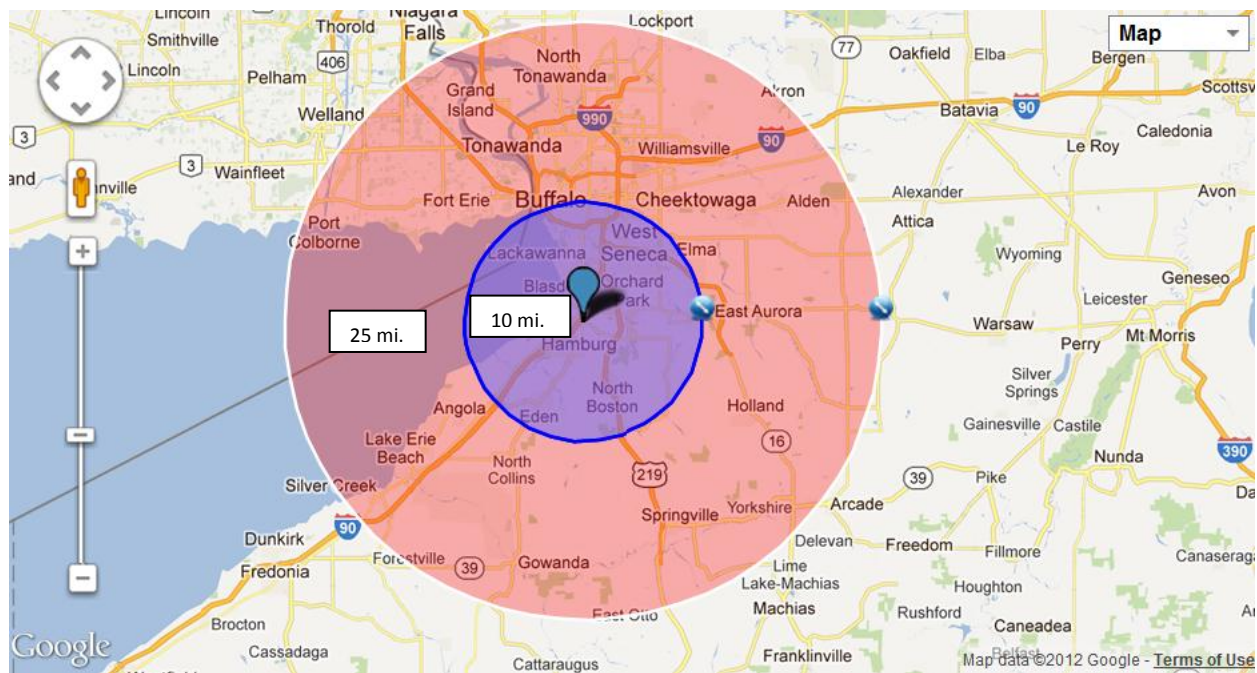


Figure 1. Western New York map showing 10 and 25 mile radii from Hilbert campus.

Fall to Spring Non-Returnees – Academic Years 2008-09 through 2011-12

As mentioned above, on average, just over 9 percent of students who began a fall term as an on-campus resident did not return to residential housing in the following spring term. In order to get better understanding of what happened to these students rosters of fall and spring semester residents were compared within each academic year from 2008-09 through 2011-12 to identify individual students who began a fall term as an on-campus resident but was not in residence in the following spring term. Then each individual student's record was examined to determine their status in that subsequent spring term. Spring status was categorized into one of the following: returned in residence, returned as commuter student, graduated, registered for the spring semester but withdrew before the drop/add deadline, did not register for the spring semester, was granted a leave of absence, or was studying abroad for the spring semester. Also, the overall grade point averages (GPAs) were recorded for comparisons.

Table 5 summarizes the subsequent statuses and GPAs of these students. Across the 4 academic years 2008-09 through 2011-12, there were a total of 968 students beginning the fall semesters as residential students. Of these, 155 (16.01%) did not return for the spring semesters. Of those who did not return to residence in the spring semesters the largest group, 54 (34.84% of non-returnees), remained enrolled as commuters, while 40 (25.81%) registered for the spring semester but later withdrew. The average GPA for all students who did not return to residences in the spring semesters was 2.27. Those who remained enrolled as commuter had on average about a half-point higher GPA (2.89) than did those who registered but then withdrew (2.34) suggesting that other than academic difficulties are likely reasons for students leaving the residences but remaining enrolled. During this same time period 51 students (32.9% of non-returnees) did not register for the spring semester (average GPA, 1.37). Of the 155 who did not return in spring semesters, 4 had graduated (2.6%), 3 were placed on a leave of Absence (1.9%), and 2 students were studying abroad (1.3%).

Of the 155 students over the four years who did not return, 54 (34.84%) continued as enrolled commuter students, 51 (32.90%) did not register for the spring semester, 40 (25.81%) registered for spring but withdrew from all classes before the drop/add deadline, 5 (3.23%) graduated at the end of the fall semester, and 5 (3.23%) were either studying abroad or placed on a leave of absence. Combining the "did not register" and the "withdrawals" groups, on average 58.7% of the fall residential students who were not in residence in the following spring were also not attending Hilbert. From the data available for this study it was not possible to know the fates of these students any more specifically. It does appear that their GPAs were somewhat lower than for those who returned to residence or returned as commuters, so academic difficulties were likely an issue for some. For others it may have been an issue of finances or a decision to transfer-out and continue their college elsewhere.

	<u>F08→S09</u>	<u>F09→S10</u>	<u>F10→S11</u>	<u>F11→S12</u>	<u>Totals</u>
Starting Fall Resident #	198	210	263	297	968
# Returned as Spring Resident	164	182	225	242	813
	82.83%	86.67%	85.55%	81.48%	
DNR Spring	34	28	38	55	155
% of Fall Residents	17.17%	13.33%	14.45%	18.52%	16.0%
Avg. GPA	2.08	2.05	2.15	2.59	
DNR-Still Enrolled	8	9	12	25	54
% of DNRs	23.53%	32.14%	31.58%	45.45%	34.8%
Avg. GPA	2.95	2.62	3.06	2.89	
Withdrew	8	7	9	16	40
% of DNRs	23.53%	25.00%	23.68%	29.09%	25.8%
Avg. GPA	2.64	2.73	1.68	2.39	
Not Registered	16	12	13	10	51
% of DNRs	47.06%	42.86%	34.21%	18.18%	32.9%
Avg. GPA	1.33	1.23	1.26	1.77	
Graduated	1	0	3	1	5
% of DNRs	2.94%	0%	7.89%	1.82%	3.2%
Avg. GPA	3.8	N/A	3.49	3.01	
LOA	1	0	0	2	3
% of DNRs	2.94%	0	0	3.64%	1.9%
Avg. GPA	1			3.8	
Study Abroad	0	0	1	1	2
% of DNRs	0	0	2.63%	1.82%	1.3%
Avg. GPA			2.88	3.68	

Note: DNR = Did Not Return as resident; LOA = Leave of Absence

Not surprisingly, Trinity Hall, as the primary freshman residence, has had the highest percentages of non-returnees each academic year, approximately two-thirds (68.5%) compared to Saint Joseph Hall (13.0%) and the apartments (18.5%) (see Tables 6 & 7). Table 7 shows that while a majority of non-returnees originally resided in Trinity, the overall percent of Trinity Hall non-returnees has been declining somewhat over the past three years while the percent from St. Joseph's Hall has been increasing. Non-returnees who resided in one of the apartments has been relatively constant at about 18.5%.

Table 6.
Residency by Building by Academic Year

<u>Year</u>	<u>Agnes</u>	<u>Katherine</u>	<u>Leo</u>	<u>Ruffin</u>	<u>St Joe</u>	<u>Trinity</u>
F09	14	16	15	15	20	129
S10	15	14	16	14	27	117
F10	16	16	17	14	59	140
S11	16	16	17	18	55	116
F11	17	17	17	16	66	163
S12	16	15	17	16	63	130

Table 7.
Did-Not>Returns by Building

	Trinity	St Joe	Apts.
F09→S10	70.37%	11.11%	18.52%
F10→S11	68.42%	13.16%	18.42%
F11→S12	66.67%	14.81%	18.52%

Freshmen were consistently over-represented among overall non-returnees, on average accounting for 63% of those who did not return from fall semesters each year (see Table 9). However, when taking non-returnees as a percentage of the total number per class each academic year, it appears that sophomores are slightly more likely not to return as residents.

Table 9.
Did-Not>Returns by Class

	FR	%	SO	%	JR	%	SR	%	Total
F08→S09	27	79.41%	4	11.76%	1	2.94%	2	5.88%	34
F09→S10	18	66.67%	5	18.52%	3	11.11%	1	3.70%	27
F10→S11	18	48.65%	14	37.84%	2	5.41%	3	8.11%	37
F11→S12	31	56.36%	12	21.82%	7	12.73%	5	9.09%	55
Averages		62.77%		22.48%		8.05%		6.70%	

Comparing GPAs of residential students to those of commuter students (Table 9) finds a small advantage for commuters over residents although it is unlikely that this difference is statistically significant. For term GPAs, residents averaged 2.836 while commuters averaged 2.890. For overall GPAs, residents averaged 2.920 and commuters averaged 2.949.

Table 9.
Term and Overall GPAs for Resident and Commuter Students

	Term GPA		Overall GPA	
	Resident	Commuter	Resident	Commuter
Fall 2008	2.684	2.833	2.765	2.917
Spring 2009	2.843	2.878	3.178	2.975
Fall 2009	2.887	2.856	2.923	2.911
Spring 2010	2.958	2.965	2.978	3.021
Fall 2010	2.819	2.871	2.793	2.86
Spring 2011	2.718	2.916	2.823	2.958
Fall 2011	2.942	2.914	2.982	3.003

Spring to Fall Residential Retention

Retention rates were examined for spring semester residents who did or did not return for the following fall semester at Hilbert. Once again rosters of spring semester residential students were created and compared with similar rosters of returning students for the subsequent fall semester (e.g., a comparison of spring 2011 residents to fall 2011 residents). Students who graduated during the spring term were removed from the lists. Table 9 shows overall retention rates of students who began as residents in the spring semester and subsequently enrolled for the following fall semester. Also shown in this table are the residential retention rates representing the percentages of students who returned to on-campus housing in the fall term. As a point of comparison, the retention rate for all students from the fall of 2010 to the fall of 2011 was 72.7% for all full-time, first-time-college Hilbert students and 78.8% for all full-time, transfer-in students. Thus it appears that the overall retention rates for residential students may be somewhat higher than for the general student population.

Table 9.
Spring to Fall Retention Rates for Residential Students

Semesters	Overall Retention	Return to Residential
S'08 – F'08	81.6%	78.9%
S'09 – F'09	82.6%	60.9%
S'10 – F'10	81.8%	66.8%
S'11 – F'11	79.3%	70.0%

A final comparison of spring to fall retention looked specifically at those students who had been assigned to a triple occupancy room. Triple occupancy is somewhat unusual and typically occurs only as a result of space shortage in the resident hall. The academic year fall 2009 – spring 2010 was an exception when an unusually large number of students had to triple. In the spring semester of that year (2010) a total of 55 students were in triple rooms. Table 10 shows the spring-to-fall return rates for students who had been in triple rooms during the spring semester. Comparing these rates to the overall return rates in Table 9 it appears that having a triple occupancy assignment did not adversely impact the likelihood a student returning in the fall as a student and as a resident. In fact the return rates for triple occupancy students in the spring 2010 to fall 2010 terms when triples were most heavily used were actually slightly higher than for residential students overall. The exception was in the spring 2011 semester when only three students were living in a triple room and none of the three returned for the fall 2011 semester.

Table 10.

Spring to Fall Retention Rates for triple Occupancy Residential Students

Semesters	# Tripled	Overall Retention	Returned as Resident	Returned as Non-Resident
S'08 – F'08	7	85.7%	71.4%	14.3%
S'09 – F'09	11	54.6%	45.5%	9.1%
S'10 – F'10	55	87.3%	72.7%	14.6%
S'11 – F'11	3	0	0	0

Conclusions

- On average the loss of residential students from fall to spring semesters is just over 9%; however this rate does vary somewhat across academic years.
- Not surprisingly, the rate of non-return to residence tends to be greater for first-years than for upperclass students.
- While on average men and first-generation residential students are somewhat more likely to return than their counterparts, the rates can vary greatly between academic years. As a result these demographics are not likely to be reliable predictors of residential retention in any given year.
- The majority of residential students come from communities greater than 25 miles away. Perhaps contrary to some recent perceptions, fewer than one in ten (9.76%) of residential students have a home address with a zip code 10 miles or less from the Hilbert campus.
- Typically more than 80% of students who are in residence in a fall semester return to campus as a resident in the subsequent spring semester. Of those who do not return as residents, the greatest percent are students who drop out or transfer and do not register for spring classes or withdraw from all spring semester classes prior to the drop/add deadline (combined 58.7%). About one third of non-returning residents (34.8%) do continue at Hilbert but as commuter

students. The present study does not contain any data that would specifically point to reasons for students taking these various actions. However, it is noted that those who do not register or later withdraw in the spring tend to have lower overall GPAs than those who either return to residential status or continue to attend Hilbert as a commuter student.

- As would be expected given the policy to use Trinity Hall primarily as first-year housing, a higher percentage of non-returnees are from this residence than any of the other residential options.
- Term and overall grade point averages (GPAs) appear to be similar for both residential and commuter student populations over the past four years. However, no statistical test for significance was performed.
- Spring to fall return rates for residential students compare well to overall student retention rates.
- The use of triple occupancy at times of high overall residential numbers has not seemed to have any adverse effect in terms of great non-return rates.