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# The Influence of Custodial, Maintenance, and Residence Life Services on Student Satisfaction in Residence Halls

## **Abstract**

This study is important because it examines the relationship between students' overall satisfaction with their residence hall living experience and students' satisfaction with various custodial, maintenance, and residence life services. The study, conducted in university residence halls at a Midwestern Carnegie Classification Research extensive university, used a backward step-wise multiple linear regression model with data from a 57-item survey to predict students' satisfaction with their overall residence hall experiences. The strongest predictors were students' comfort and socializing within the living unit. Only one maintenance or custodial item, students' satisfaction with exterior landscape maintenance, was a significant predictor of the dependent variable.

## **Disciplines**

Curriculum and Social Inquiry | Educational Assessment, Evaluation, and Research | Political Science | Social and Philosophical Foundations of Education | Student Counseling and Personnel Services

## **Comments**

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# The Influence of Custodial, Maintenance, and Residence Life Services on Student Satisfaction in Residence Halls

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## INTRODUCTION

This study is important because it examines the relationship between students' overall satisfaction with their residence hall living experience and students' satisfaction with various custodial, maintenance, and residence life services. The study, conducted in university residence halls at a Midwestern Carnegie Classification Researchextensive university, used a backward step-wise multiple linear regression model with data from a 57 -item survey to predict students' satisfaction with their overall residence hall experiences. The strongest predictors were students' comfort and socializing within the living unit. Only one maintenance or custodial item, students' satisfaction with exterior landscape maintenance, was a significant predictor of the dependent variable.

## LITERATURE REVIEW

Astin (1 984) and Chickering and Reisser (1 993) found that residence hall living influences students' satisfaction with the college experience. Other research supporting the benefits of living on campus indicates that

living in the residence halls has a direct influence on academic persistence and completion of the bachelor's degree (Astin, 1 993; Pascarella & Terenzini, 1 991), increases the likelihood of peer social interaction (Pascarella, 1 985), and enhances academic and social integration (Pascarella, Terenzini, & Blimling, 1994). While many students choose to live on campus because of its convenience, research also indicates that students note opportunities to meet new people and the ability to be part of a holistic college experience as important reasons for living on campus (Luzzo & McDonald, 1 996).

Given the importance of students' living environment on their overall college experience, several studies have considered the impact of students' living environment, but none has focused specifically on the interplay between student satisfaction and custodial and maintenance service. For example, Moos (1 979) identified 1 0 aspects of the residence environment that relate to personal growth and development, including, but not limited to, involvement, emotional support, academic achievement, order and organization, and innovation. Schroeder (1 994) identified other ways that residential environments influence students' experiences, explaining that the development of community is promoted by environments encouraging high member involvement, exhibiting a high degree of student influence, demonstrating investment in individual students, and displaying a high degree of identity.

While many variables contribute to students' satisfaction with their living environment, environment also plays an important role in supporting student SUCCESS. Fay (1 981) illuminated the ways in which physical settings have an impact on student development and suggested that the lack of adequate facilities precludes the possibility of interpersonal growth. Other research supports this finding, indicating that high-quality facilities are an important predictor of residents' satisfaction with their halls (Educational Benchmarking, Inc., 2003; Foubert, Tepper, & Morrison, 1 998). Similarly, Kaya (2003) found that enhanced physical climate (e.g., cleanliness) was related to better adjustment by freshmen to

Simply living in a residence hall, however, does not guarantee that students have rich educational experiences (Blimling, 1 999). Both higher education researchers and institutions of higher education have explored ways to enhance student SUCCESS by

designing educational facilities and programs that enhance students' cognitive and personal development. Research supports the conclusion that to contribute significantly to student SUCcESS, residence hall environments should be structured intentionally. For example, Schroeder (1994) found that hall environments should be structured to reinforce classroom learning and enhance students' commitment to college. Efforts to create this structure, such as residential-learning communities, may reinforce the integrating effects of residence halls (Pike, Schroeder, & Berry, 1997).

Loundsbury and DeNuie (1995) found that student characteristics, institutional characteristics, and campus experiences influenced students' sense of community on campus, along with both their involvement and sense of community within the residence halls. Arboleda, Wang, Shelley, and Whalen (2003) illustrated that residence hall students' involvement in their living community is influenced significantly by precollege student characteristics (gender, ethnicity), classification, attitudes (toward hall director, living unit cabinet, academic comfort, social environment, and group study), and environmental variables.

Understanding what factors influence students' involvement and satisfaction with their living community is important. McCarthy, Pretty, and Catano (1990) found that students who lacked a sense of community were more likely to experience higher degrees of emotional and physical exhaustion in the campus environment. In addition, Berger (1997) found that a positive sense of residence hall community is an important precursor to students' attachment to the broader campus social system.

Tinto (1993) observed that residence halls provide scaled-down environments enabling newcomers to find an early physical, social, and academic anchor during the transition to college life." This notion suggests the need to explore what factors contribute to students' sense of satisfaction within their living environment, given that this satisfaction may be an important precursor to social integration and personal development. The current researchers examined how students' satisfaction with aspects of residence life such as residence hall staffing, government, and atmosphere, and custodial and maintenance services relate to overall satisfaction with their residence hall experiences. One question guided

this research: Which variables are significant predictors of overall residence hall satisfaction?

## METHOD

### Population and Sample

This study was conducted at a large Midwestern Carnegie Classification Research-extensive university. The university enrolls more than 21,000 undergraduate students, the majority of whom are male (56%). The institution is fairly homogeneous, as 91% of undergraduates are nonHispanic Caucasian and 9% minority (3% African-American, 3% Asian/Pacific Islander, 2% Hispanic, and 1% American Indian/Alaska Native). Twenty-one percent live in residence halls, 7.2% in single apartments, and 2.9% in family housing. The remaining students lived somewhere off-campus either in Greek or privately owned housing.

The population for this survey was all undergraduate students living in residence halls ( $N = 5,459$ ). This population differed from the university undergraduate population in its representation across categories of student classification, as the sample was comprised of mostly freshmen (64%), but was similar in composition by gender (56% male) and ethnicity (1% minority). The residence halls range in age and function from older traditional halls to newly constructed suite buildings. Most halls are coeducational, except for two traditional halls, one of which is exclusively for females and one exclusively for males. Two high-rise halls are set aside for upper-class students with single-room occupancy only.

A random sample ( $n = 1,353$ ) was drawn for this survey. This survey was one of four surveys administered to mutually exclusive samples of students. Incentive awards of pizza parties were offered for the houses (i.e., floor or wing) with the highest proportion of survey returns in each of three residence halls clusters). From the sample, 539 surveys (39.8%) were returned. Because the research focused on undergraduates, the few graduate student responses were removed, as were surveys that were incomplete or without an identification number, resulting in 489 (36.1%) usable responses.

The 489 undergraduate students who returned usable surveys were similar to the overall residence hall population in freshmen

composition (62%), but were somewhat different in gender (47% male) and minority student (8%) composition. To attend to these discrepancies and to permit better generalization to the entire residence hall population, the data were weighted (see Table 1) across 16 strata based on combinations of classification, gender, and minority status. In this manner, appropriate sample weights were applied so the available sample responses would approximate most closely the responses we would have obtained if the same proportion of all demographic components of the entire residence hall population had completed the survey.

### The survey instrument

The survey was structured in three parts, with a total of 57 questions. These questions were factor-analyzed in groups for two related reasons. First, the ratio of number of observations to number of items (about 8:1) is rather low compared to what is recommended commonly for results to be stable (e.g., Tabachnick & Fidell, 2001). Second, each group of items comprises conceptually different and separately meaningful components of the residence halls experience.

The first group of questions provided general information about students' satisfaction with house staff (the CA), house government, and house atmosphere. A second group of questions sought information on students' satisfaction with custodial services. The third group of questions provided information on students' satisfaction with maintenance services and the maintenance service center that was the primary communication link between students wishing maintenance work to be done and staff who would do the work. Demographic information for respondents was obtained from university student electronic files by matching this information with the student's university ID provided on the survey. After demographic information was matched with the survey data, individual student identifiers were removed. The university Institutional Review Board approved the survey and the research.

### Description of variables

The dependent variable in the analyses was students' satisfaction with their overall residence hall experiences. The following items that are related to students' demographic characteristics, academic ability, and residential living experience were used as independent variables:

- Demographic variables: Gender, minority student status, classification as determined by cumulative credits achieved, instate residency, citizenship, and whether the student transferred from another institution were obtained from the university registrar and department of residence.
- Ability measure: ACT composite score was included to examine the effect of students' ability on satisfaction with their residence hall experiences.
- Student residential living experience choice variables: A variable identifying students living in freshmen special program residence halls was used to designate several new or renovated buildings that were used as freshmen program halls, even though the population of the buildings was not exclusively freshmen. This variable captured both the new, program-friendly space and the focus on freshman programming. Programming for this building includes increased study and meeting space, and additional staff for student academic support. The variable identifying students as upper-class hall residents was used to designate two high-rise halls featuring single-room occupancy for students who had completed one academic year. It was reasoned that upper-class students who chose to remain in the residence halls and who lived in single rooms might be more satisfied with their residence hall experiences. The upper-class halls featured single rooms, which also were readily available in other halls at increased cost. Thus, another variable identifying students as single-room

occupants was created based on the assumption that students living in single rooms might be more satisfied with their residence hall experiences due to the increased privacy afforded.

# Factor analysis

To reduce the number of survey questions in the

**TABLE 1  
UNIVERSITY POPULATION, RESIDENCE HALL POPULATION, SAMPLE DEMOGRAPHIC CHARACTERISTICS,  
AND WEIGHTING SCHEME FOR SURVEY DATA.**

Minority	Gender	Classification	University population		Residence hall population		Sample Survey returns		Weight
			N	%	N	%	N	%	
Majority	Female	Freshman	1,807	0.08	1,464	0.27	147	0.30	0.892
Majority	Female	Sophomore	1,704	0.08	415	0.08	50	0.10	0.743
2,624	Majority	94			0.2				
2,370	Minority				0.1				
2,080	Minority				0.0				
2,358	Minority								
Sophomore									
Freshman									
Freshman									
Senior									
Sophomore									
Senior									
Minority	Male	Junior	457	0.02	33	0.01	1	<0.01	2.956
Minority	Male	Senior	734	0.03	33	0.01	3	0.01	0.985
<b>Total</b>			<b>21,402</b>	<b>1.00</b>	<b>5,459</b>	<b>1.00</b>	<b>489</b>	<b>1.00</b>	
		Senior							
		Freshman							
		Sophomore							
		Junior							
		Junior							
		Majority							
		Majority							
		Majority							
		Majority							
		Minority							
		Minority							
		Majority							
		Majority							
		Minority							

analysis, provide conceptual clarity, and ensure construct validity, exploratory factor analysis was conducted on three separate groups of questions (except the "overall satisfaction" questions mentioned below). The first (Group 1) included 19 items related to the house atmosphere. These questions used a common metric: 1 strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, and 5 = strongly agree. The second (Group 2) included the 14 custodial services questions, and the third (Group 3) included 21 maintenance services and service center questions. Groups 2 and 3 Used a common metric: 1 very dissatisfied, 2 = dissatisfied, 3 neutral, 4 = satisfied, and 5 = very satisfied. In each case, principal components extraction was followed by varimax rotation with Kaiser normalization (Tabachnick & Fidell, 2001). Reliability analysis using Cronbach's coefficient alpha was conducted to determine the strength and consistency of the

0.588  
0.994  
1.125  
1.097  
1.110  
0.944  
0.717  
0.430  
1.523  
1.993  
5.016

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correlations among the items that loaded strongly on each factor.

Questions from Group 1 were reduced to four common factors. The factors, with their assigned labels, factor loadings for each item in parentheses, and Cronbach's alpha reliability values for the set of items loading highest on that factor, were:

1. Community advisor (CA) satisfaction: (a) CA is knowledgeable about campus and community services (0.78), (b) CA shows enthusiasm for job (0.77), (c) CA promotes respect of individuals' differences (0.77), (d) resident feels comfortable approaching CA confidentially (0.75), (e) CA enforces policies appropriately (0.75), (f) CA is a good resource

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for academic matters (0.71), (g) CA attempts to get to know resident (0.71), (h) CA abides by residence rules and regulations (0.71), (i) CA is available in the house (0.68), (j) CA works well with house cabinet (0.68), and (k) CA encourages residents to be responsible for their own actions (0.63). Reliability for the factor was 0.90.

2. House cabinet satisfaction: (a) cabinet considers the entire house when planning activities (0.82), (b) house meetings are run effectively (0.78), and (c) cabinet members are effective at building community within the house (0.77). Reliability for the factor was 0.81.

3. House comfort: (a) resident is able to study in the residence halls (0.75), (b) resident

is comfortable living in the house (0.69), and (c) there is a strong feeling of respect for others' individuality and beliefs in the house (0.53). Reliability for the factor was 0.64.

4. HOUSE socializer: (a) resident knows most people in the house (0.80), and (b) resident takes advantage of opportunity to learn about hOUSE members whose backgrounds or beliefs are different (0.68). Reliability for the factor was 0.55.

Group 2 consisted of two factors extracted from questions related to custodial services. The factors, with their assigned labels, factor loadings, and reliabilities, are:

1 . Cleanliness: (a) house lounge cleanliness (0.72), (b) laundry cleanliness (0.72), (c) building entryway cleanliness (0.70), (d) hallway cleanliness (0.67), (e) room cleanliness at the time of moving in (0.64), (f) stairwell cleanliness (0.61 ), (g) bathroom cleanliness (0.52), and (h) litter-free lawn near building (0.44). Reliability for the factor was 0.82.

2. Custodial appreciation: (a) custodial staff is respectful of house members (0.79), (b) CUStodial staff provides a valuable service to the community (0.71 ), (c) floors are vacuumed at a time not inconvenient (0.67), (d) custodial staff is responsive to clean up specific/speciai requests (0.66), (e) trash in common areas is emptied in a timely fashion (0.66), and (f) bathrooms are cleaned at a time not inconvenient (0.45). Reliability for the factor was 0.75.

Group 3 consisted of six factors focused on maintenance services. The factors, with their assigned labels, factor loadings, and reliabilities, for this group are:

1 . Maintenance services: (a) maintenance staff provides a valuable community service (0.86), (b) maintenance staff is COURteOUS (0.84), (c) resident feels maintenance staff are trustworthy (0.82), (d) maintenance staff cleaned up before leaving (0.76), and (e) things

in the building are generally in working order (0.57). Reliability for the factor was 0.89.

2. Service center effectiveness: (a) confident in service center to have someone respond (0.83), (b) dispatcher who took the request was courteous (0.83), (c) quality of maintenance repairs is satisfactory (0.70), and (d) online service request system is effective (0.69). Reliability for the factor was 0.84.

3. Maintenance administration: (a) informed if work in room was not completed (0.73), (b) maintenance staff respond to common area service requests in a reasonable time (0.72), (c) maintenance staff respond to student's room service requests in a reasonable time (0.66), (d) copy of repair request left in student's room upon work completion (0.61 ), and (e) student reports a needed repair to the service center (0.44). Reliability for the factor was 0.80.

4. Landscape maintenance: (a) satisfaction with lawn care around the building (0.89), and (b) satisfaction with shrub and tree maintenance around the building (0.87). Reliability for the factor was 0.83.

5. Additional services: (a) satisfaction with building laundry facilities (0.71 ), (b) satisfaction with room Ethernet service (0.68), and (c) satisfaction with room cable service (0.65). Reliability for the factor was 0.51 .

6. Air temperature and pest control: (a) satisfaction with building pest control (0.78), and (b) building air temperature (0.68). Reliability for the factor was 0.54.

Two survey questions that were not factored were used separately as independent variables: students' satisfaction with the (a) overall cleanli-

ness and (b) overall maintenance of the building. Not including these more general items with the factored, more specific questions made it possible to investigate how these broader measures influence students' overall satisfaction with their residence hall experiences separate from the impact of more specific components of student satisfaction.

## Regression

A backward selection least squares linear regression model (Agresti & Finlay, 1997; Tabachnick & Fidell, 2001) was used for statistical analyses of the quantitative questions investigated in this research. A power transformation for the dependent variable, students' overall satisfaction with their residence hall experiences, was performed to satisfy the assumption of normality. This is a commonly used procedure to satisfy the assumptions underlying multiple regression and other linear models (Bowerman & O'Connell, 1990).

Table 2 includes the mean, standard deviation, and correlation with the dependent variable for each of the independent variables or factors. The table also summarizes both the full and reduced statistical models. The  $R^2$  values were 0.444 and 0.423, respectively, and the adjusted  $R^2$  values were 0.411 and 0.412, respectively. The use of the backward selection process made it possible to determine the best model for predicting students' satisfaction with overall residence hall experience. These models explain somewhat more than 40% of the variation in overall satisfaction with the residence hall experience. Although this leaves about three-fifths of the variation in the dependent variable unaccounted for, the explanatory power of these results is greater than for many cross-sectional (as opposed to longitudinal) models and accomplishes that objective parsimoniously, with relatively few independent variables (Agresti & Finlay, 1997; Bowerman & O'Connell, 1990; Tabachnick & Fidell, 2001).

Full model: Two demographic variables were significant predictors of the dependent variable in the full model, controlling for the other variables in the model. The effect of male gender was negative, indicating that women were more satisfied than were men with their overall residence hall experiences. The effect of classification was positive, indicating that the larger the number of credit hours students had attained, the more satisfied they were with their overall residence hall experiences.

Six of 12 factors in the model were significant positive predictors of overall satisfaction with residence halls, controlling for the other variables in the equation. The significant factors in the full model, in descending order of their contribution to students' satisfaction with their overall residence hall experiences, as determined by the absolute values of their standardized regression coefficients, were: (a) house comfort, (b) house socializer, (c) CA satisfaction, (d) additional services, (e) landscape maintenance, and (f) house cabinet satisfaction.

Reduced Model: The reduced model was the result of the final step in the backward selection regression method, resulting in a more parsimonious representation of the relationships among these variables. All predictors in this final iteration were statistically significant. Five of the six significant factors in the full model remained significant in the reduced model, in descending order of the absolute value of their standardized regression coefficients: (a) house comfort, (b) house socializer, (c) CA satisfaction, (d) house cabinet satisfaction, and (e) landscape maintenance. The additional services factor was not significant in the reduced model.

Male gender and classification maintained their significance from the full model. Women (more than men) and higher-classification students (more than lower-classification

students) were satisfied with the overall residence hall experience. One item, upper-class hall resident (i.e., a resident in one of two halls set aside for upper-class students with single-room occupancy only), was not significant in the full model, but was negatively significant in the reduced model. This fact indicates that residents who were located somewhere other than in the two upper-class halls were more satisfied with the overall residence hall experiences.

## DISCUSSION

This study is unique because it combines examination of students' satisfaction with various aspects of their residence hall living experience and students' satisfaction with custodial and maintenance services. While previous studies have considered these aspects of students' experiences and satisfaction independently, this study collectively addresses multiple SOURCES of influence on student satisfaction in residence halls.

**TABLE 2**  
**MEANS, STANDARD DEVIATIONS, AND PEARSON CORRELATIONS FOR PREDICTOR VARIABLES WITH THE DEPENDENT VARIABLE, AND BACKWARD ELIMINATION ESTIMATED ORDINARY LEAST SQUARES MULTIPLE REGRESSION COEFFICIENTS FOR FULL AND REDUCED MODELS.**

MODEL	Descriptive Measures				Full model				Reduced model					
	MEAN	S.D.	R	SIG.	B	S.E.	BETA	T	SIG.	B	S.E.	BETA	T	SIG.
(Constant)					19.939	6.865		2.904	**	25.037	1.048		23.888	***
Maintenance service factor <sup>a</sup>	3.84	0.78	0.128	**	0.397	0.497	0.033	0.799						
Service center effectiveness factor <sup>a</sup>	3.34	0.64	0.044		0.568	0.453	0.048	1.254						
Maintenance administration factor <sup>a</sup>	3.42	0.67	0.078		0.771	0.475	0.064	1.623						
Landscape maintenance factor <sup>a</sup>	4.12	0.85	0.175	***	1.149	0.536	0.095	2.145	*	1.014	0.466	0.084	2.178	*
Additional services factor <sup>a</sup>	4.15	0.73	0.153	**	1.197	0.580	0.100	2.063	*					
Air temperature and pest control factor <sup>a</sup>	3.36	1.12	0.084		0.991	0.537	0.083	1.845						
CA satisfaction factor <sup>b</sup>	4.19	0.66	0.281	***	3.026	0.481	0.247	6.287	***	3.210	0.465	0.262	6.901	***
House cabinet satisfaction factor <sup>b</sup>	3.84	0.81	0.082	***	1.129	0.508	0.092	2.222	*	1.428	0.467	0.116	3.060	**
House comfort factor <sup>b</sup>	4.18	0.65	0.390	***	4.788	0.495	0.398	9.664	***	5.002	0.455	0.416	11.005	***
House socializer factor <sup>b</sup>	3.72	0.90	0.334	***	4.030	0.483	0.334	8.345	***	4.227	0.460	0.350	9.183	***
Cleanliness satisfaction factor <sup>a</sup>	4.09	0.67	0.194	***	-0.889	0.745	-0.073	-1.193						
Custodial appreciation factor <sup>a</sup>	4.28	0.61	0.229	***	-0.123	0.576	-0.011	-0.214						
Overall cleanliness of the building <sup>a</sup>	4.22	0.90	0.222	***	1.357	0.827	0.100	1.642						
Overall maintenance of the building <sup>a</sup>	4.29	0.72	0.222	***	-0.920	0.906	-0.056	-1.016						
ACT composite	26.02	4.08	-0.180		0.067	0.124	0.023	0.540						
Minority student (1 = yes)	0.10	0.30	0.003		0.629	1.716	0.015	0.367						
In-state resident (1 = yes)	0.69	0.46	-0.009		0.422	1.018	0.016	0.414						
Male (1 = yes)	0.56	0.50	-0.043		-2.045	0.978	-0.085	-2.090	*	-2.368	0.914	-0.099	-2.591	*
Classification <sup>c</sup>	1.59	0.91	0.039		1.685	0.662	0.115	2.544	*	1.435	0.569	0.098	2.520	*
Freshman special program hall resident (1 = yes)	0.49	0.50	-0.011		-0.433	1.016	-0.018	-0.427						
Upper-class hall resident (1 = yes)	0.06	0.25	0.026		-3.682	2.689	-0.062	-1.369		-4.927	2.267	-0.084	-2.174	*
United States citizen (1 = yes)	0.98	0.13	0.000		1.102	3.664	0.012	0.301						
Transfer student (1 = yes)	0.47	0.50	0.007		-0.400	0.945	-0.002	-0.042						
Single room occupant (1 = yes)	0.16	0.37	-0.057		-1.589	1.645	-0.047	-0.966						

Statistics for the regression models: (Full model)  $R = .667$ ,  $R^2 = .444$ , Adjusted  $R^2 = .411$  (Reduced model)  $R = .650$ ,  $R^2 = .423$ , Adjusted  $R^2 = .412$

<sup>a</sup> Scale: 1 = very dissatisfied, 2 = dissatisfied, 3 = neutral, 4 = satisfied, 5 = very satisfied

<sup>b</sup> Scale: 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree

<sup>c</sup> Scale: 1 = freshman, 2 = sophomore, 3 = junior, 4 = senior

The dependent variable is satisfaction with the overall residence hall experience

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

Results from this study indicated that the interpersonal environment was more important than cleanliness and maintenance variables in predicting students' satisfaction with their residence experiences. When controlling for the influence of the other variables in the model, none of the CUSTodial factors was related to overall satisfaction, and only two maintenance-related factors significantly predicted students' satisfaction with their residence hall living experiences. This result supports research that has indicated a lesser role of facilities-related items in determining students' overall housing satisfaction (EBI, 2002). It is important to highlight that this finding does not diminish the importance of high-quality facilities. It may be that students in this study were simply satisfied with the quality of the facilities at the institution, that the quality matches students' expectations, or that other factors are more variable. In other words, student satisfaction with facilities, while important, may be stable at this institution and less likely to influence overall satisfaction. These findings may suggest that efforts to enhance and maintain students' physical environment are effective at this institution.

Exterior hall landscape maintenance (i.e., lawn care, and shrub and tree maintenance around the building) is the sole maintenance factor that predicted students' overall satisfaction with living in the residence halls in both full and reduced models. This outcome may reflect the lack of assigned student responsibility for exterior maintenance, whereas students do share responsibility for their interior living space. We feel certain that if parents or guardians were surveyed, things like cleanliness of the residence hall or maintenance services more likely WOULD be among the strongest predictors of their satisfaction with residence halls, but students' satisfaction with their overall residence hall experience is influenced by things other than custodial and maintenance services. Again, it is important to reiterate that this finding does not diminish the importance of custodial and maintenance services, but rather indicates that these variables were not associated with variation in students' overall satisfaction.

One other maintenance factor, additional services, including students' satisfaction with laundry facilities and with room Ethernet and cable services, was significant on the first step, but not on the final step of model development. This finding suggests that additional services are important, but not central, to students' satisfaction.

The centrality of the house comfort factor to students' satisfaction with the overall residence hall experience was expected, because the items it summarized are closely related to satisfaction with the house. Students place a high priority on being able to study in their rooms. Similarly, students who indicate they feel comfortable living in the house and that there is a strong feeling of respect for others' individuality and beliefs in the house are more likely to be satisfied with their overall experience. A second item that is informative about students' overall satisfaction with their residence hall experiences is the house socializer factor, which indicates that students who take time to know other community members and learn more about community members whose backgrounds or beliefs are different than their own enjoy their residence experiences more. The fact that house socializer is the second-strongest predictor after house comfort indicates the strong role of community within their house in enhancing students' satisfaction.

Also central to students' satisfaction with their residence hall experiences was satisfaction with their CA. This finding should be encouraging to those who understand the essential support for students provided by this key residence hall staff member. The house cabinet plays a somewhat less important role in making students satisfied with their living experiences. The items comprising this factor address how the house cabinet may contribute to students' satisfaction with living in the house: effective meetings, inclusiveness of everyone in the house, and consideration of the entire community when planning activities.

Female residents were more satisfied than were male with their overall residence hall experiences. The finding that increases in students' classification are associated with higher satisfaction with the overall residence hall experience probably reflects the reality that

students who returned to live in the halls normally would do so largely because they were satisfied with previous residence hall living. Living in one of the two upper-class residence halls may be a negative predictor of overall residence hall satisfaction due to a decision before survey administration to close these two halls and relocate students to other residence halls or apartments in the next academic year. We speculate further that the entirely single-room environment in these high rises detracts from the benefits of residential community suggested by Moos (1979) and Schroeder (1994).

## CONCLUSION

This research indicates that once residence life factors are taken into account custodial and maintenance services generally do not influence students' overall satisfaction with their residence hall experiences. Yet students' comfort within their residential unit, ability to get to know all students in the residential unit, satisfaction with the CAs, and the ability of the house government to be effective and inclusive in governance, are the most important determinants of student satisfaction.

The study was conducted at one fairly homogeneous Midwestern research-intensive university, so these findings may not apply to every institution of higher education. Also, given its focus, the research did not include other variables that may influence student satisfaction, such as proximity, cost, or dining services. Nonetheless, these results do point to issues affecting student satisfaction that may be explored in further research.

These findings offer some insight into budgeting issues for housing administrators. They call attention to the importance of residence life programs as promoters of student satisfaction. Resident Assistant staff should be maintained to offer support for students' adjustment and happiness with their living environment. Community governance should be encouraged, and acceptance of diversity should be fostered.

Support facilities, such as faster Internet services, cable television services, and laundry facilities, should be maintained. This research does not indicate if and when custodial and maintenance services will begin to take on more importance than the interpersonal environment in affecting students' overall satisfaction with their residence hall experiences. Future research might consider how the model used in this study applies to students' overall satisfaction at other institutions. For example, students' perceptions of maintenance quality may become a primary influence in students' overall satisfaction at other institutions. Detailed knowledge of students' satisfaction with maintenance and custodial services and the connection to students' overall satisfaction would help institutions prioritize financial support for maintenance and custodial services and for residence life services. This information

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could help institutions develop ways to allocate resources and answer difficult questions. For example, would poor custodial or maintenance services begin to make those services a stronger (negative) predictor than interpersonal interaction of student satisfaction? How might reductions in custodial or maintenance staff services affect students' overall satisfaction, perhaps causing them to look elsewhere for housing? Would a reduction in residence life services cause satisfaction in those areas to be less important than the cleanliness and maintenance of the facilities?

The study also is helpful in deciding whether and what kind of new facilities to build. Interaction with other students, more than facilities, is what maximizes housing satisfaction. This finding does not suggest that institutions should not build new facilities, but rather, if they are going to be built, that those facilities should be constructed with student interaction in mind. New facilities offer replacement for older facilities that cannot be refurbished because of renovation standards. They offer new wiring for faster Web service and improved electrical and heating systems. New construction also may include new facilities to foster academic-residence life connections such as instructional space and computer

laboratories, and needed space may be requested by learning communities or other academic programs, but this study suggests that new facilities first and foremost must foster community to increase student satisfaction with their residence hall experiences. If the facilities are not more functional for academic and social interaction, student satisfaction will not be improved.

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