

**Technology in the Residence Halls
Survey Results 2009
Conducted by:
Andrew Saeger, Waldorf College
Charles Ringer, University of Kansas
Adrienne Appler, University of Northern Iowa**

Introduction:

In May of 2009, The UMR-ACUHO Assessment and Information Management (AIM) Committee e-mailed a survey to its member institutions in order to collect data covering technology use in the residence halls. The present study will compare the results of the 2009 study with the ones done in 2001 and 1996. This longitudinal study will compare the data and see if there have been any changes in the results.

Method:

AIM Committee distributed an internet based questionnaire via e-mail to the Chief or Senior Housing Officers of all UMR-ACUHO member institutions. The Chief or Senior Housing Officer was asked to delegate the questionnaire completion to the individual in their department who could best answer the questions. Responses were received May 20 through July 7 of 2009. Seventy-two member institutions completed the questionnaire, resulting in a return rate of 80.9% (89 member institutions with information in the database). The survey contained 32 questions that focused demographics, computer services, telecommunications, cable television and magnetic/debit and student identification cards in residence halls. These areas were also covered in the 2001 and 1996 surveys. The 2001 survey did not cover magnetic/debit and student identification cards. The 2009 survey provides both raw numbers and percentages. The 1996 (percentage only) and 2001 (raw numbers and percentages) survey provide information for comparison.

Descriptive Findings:

The first five questions in the 2009 survey were demographic questions. Of the 72 responding institutions, 46 (63.9%) were public and 26 (36.1%) were private. Sixty-eight responding institutions (94.4%) were four-year and four (5.6%) were two-year institutions. Table 1 shows the breakdown of on campus populations of both the 2009 and 2001 surveys.

Table 1

2009 Population Response	2009 Response Count	2009 Percentage of Response	2001 Population Response	2001 Response Count	2001 Percentage of Response
<500	2	2.8%	<500	15	22.4%
500-1000	17	23.6%	501-1000	13	19.4%
1,001-2,000	16	22.2%	1,001-2,000	16	23.9%
2,001-3000	12	16.7%	2,001-3000	11	16.4%
3,001-5000	17	23.6%	3,001-5000	8	11.9%
>5,000	8	11.1%	>5,000	4	6%

In the 1996 survey, 46 institutions responded. The breakdown of public and private institution was 52.5% (public) to 47.8% (private). In the 2001 survey, 67 institutions responded. The breakdown was 37 (55.2%) public and 30 (44.7%) private. Survey responses for 2009 indicate a slight increase in percentage of public institutions responding to the 2009 survey. In the 2001 survey, 65 (97%) of the responding institutions were four year and 2 (2.9%) were two year institutions. In comparing the results to the 2001 study, the results of four year and two year institutions are similar.

The 1996 and 2001 surveys indicated that the surveys were sent to Chief Housing Officers. The 2009 survey had six categories that could be selected. They were Senior Housing Officer/Director, Associate Director, Assistant Director, Hall Director, Technology Specialist, and Other. Table 2 shows the breakdown of respondents to the 2009 survey. There were four responses to Other. Those responses were:

- Residential Program Manager
- Area Coordinator
- Area Coordinator (with tech responsibilities)
- Interim Director-Residence Life

Table 2

Position Held at Institution/department	Response Count	Percentage of Response
Senior Housing Officer/Director	40	55.6%
Associate Director	7	9.7%
Assistant Director	19	26.4%
Hall Director	2	2.8%
Technology Specialist	0	0.0%
Other (please specify)	4	5.6%

Question six through eight asked technology questions concerning access of technology in residence halls. Question six concerned types of in-hall computer facilities available to residents. Table three shows the breakdown of responses in the 2009 survey. Respondents could check all that applied. In the 1996 survey 78% of the institutions responded they had computer facilities in their residence halls. Of that 78%, 82% was from labs, 12% was from residence rooms, and 6% was from the floor. The 2001 survey responded 62 (92.5%) had computer facility availability in their residence halls. Of that number 57 (92%) are computer labs, 13 (21%) from e-mail terminal in lobbies (that was not distinguished in the 2009 survey), 8 (13%) computer on the floor and 4 (4.6%) computer in the room (supplied by school). There appears to be no significant increase in the 2001 and 2009 survey results concerning computer in room (institution provided 4.6% to 5.6%). Labs in the 2009 study account for 73.61% of the computer facilities when in 2001 they were 92% and in 1996 they were 82%. The raw numbers for 2001 and 2009 differ by 57 and 53 respectively.

Table 3

Facility available to resident	Response Count	Percentage of Response
Computer Lab	53	73.61%
Computer Kiosk	11	15.27%
Computer in room (institution provided)	4	5.6%
Wired Internet/Network Connection(s) in room	66	91.66%
Wireless Internet/Network Connection(s) in room	38	66.66%
None of the above	0	0.0%

In the 2009 survey, question seven asked of the facilities listed in question six, which are available in every one of your residence hall(s). Respondents had the ability to check all that applied. Of the six stated facilities available 32 (44.44%) had computer labs available in all of their halls. Six (8.33%) reported having computer kiosks available. Three (4.16%)

reported that there were computers in every room of each hall provided by their institution. Sixty-six (91.66%) reported they had wired internet/network connection(s) in all of their rooms. Thirty-eight (52.77%) reported that they had wireless internet/network connection(s) in the room. Question eight asked if the institution provided computer labs or kiosks in the respondent's residence hall(s). Fifty-two (72.22%) responded yes and 19 (26.38%) responded no, one respondent did not answer the questions for 1.38%. This question is important as questions 9 through 19 dealt specifically with questions concerning lab/kiosk in residence halls.

Questions nine through 19 asked about type of technology and access to that technology in residence halls. In this group of questions, a number of the group did not respond to all of these answers. Twenty-six (36.11%) up to thirty one (43.05%) of the 72 respondents did not answer questions nine through nineteen. This may be due to the 19 (26.38%) that responded no to question eight.

Respondents were asked if access to public computers (labs, kiosks) were available to residence hall students only. Out of 46 (63.88%) responding, 26 (56.6%) responded yes and 20 (43.5%) responded no. They were also asked how many hours per day were public computers available for student use during the weekday and weekend. Forty six (63.88%) responded. Thirty-four of the 46 (73.91%) responded that they were open 24 hours a day both on the weekday and weekend. Weekday responses in total ranged from 5 to 24 hours a day with an average of 21.83 hours. Weekend responses ranged from 4 to 24 hours a day with an average of 20.63 hours per day (Saturday and Sunday). The 1996 survey reported that 69% of the labs in residence halls were open 24 hours Monday through Friday and 67% were open 24 hours on Saturday and Sunday. There is no raw data for the percentage for this study and the 2001 study did not ask about hourly access to computer labs.

Question eleven asked how many of each type of computer was available to the students that had access to the computers in the residence halls in labs or kiosks. Three options were given to respondents and forty-six individuals responded (63.88%). The options were: Windows based PC, Apple/Macintosh and Other. Respondents could reply to all three of the options. Windows based PC ranged from 1 to 25 with an average of 8.85 per hall that had computer labs/kiosks. Apple/Macintosh ranged from zero to 16 for an average of 1.19 per hall that had computer labs/kiosks. Other as an option had 14 respond that they had zero (0.00%). Table 4 shows the breakdown of 2009 responses. Both the 1996 and 2001 survey asked about types of computers that were available to students and the average number of each kind that were available. The 1996 data indicated that just over 50% of the computers available in 1996 were designated as IBM. There was no percentage designation for Macintosh or Apple/Macintosh. In the 2001 study, 61 (98.4%) used IBM compatible computers. Of the 46 (63.88% of 72) that responded in the 2009 study 46 (100%) responded that they used Windows-Based PC (which is compatible with the IBM designation of 1996 and 2001). The 2009 survey had 36 (78.26%) of the 46 respond that they had Apple/Macintosh computers in their labs/kiosks. In the 2001 study, 18 (29%) indicated that they used Macintosh computers, and 1 (1.6%) indicated "other".

Table 4

Type	Response Average	Response Total	Response Count
Windows-Based PC	8.85 (range 1-25)	407	46
Apple/Macintosh	1.19 (range 0-16)	43	36
Other	0.00 (range 0-0)	0	14

Questions 12 through 15 asked questions pertaining to printer access, type, cost and ratio to computer. Forty-four (61.11% of 72 institutions) responded that there was printer access or printing services in their residence halls. In an earlier question (question 8) 52 institutions had responded that they had computer facilities available in the residence halls. Based off of the answer to this question, 84.61% of the halls that stated they have computers have printer facilities

as well. The 1996 survey indicated that 67% of the labs had laser printers and 56% of the labs provided dot matrix printers. The 2001 survey indicated that 49 (79%) of the institutions had laser printers and 8 (12.9%) had dot matrix computers. The 1996 and 2001 surveys did not cover ink jet printers. In the 2009 survey, no one indicated that they had dot matrix printers (0.00%). Twenty (38.46%) of the 52 with computer labs/kiosks responded they had Ink jet printers and 42 (80.76%) responded that they had black/white laser. Only 3 (5.76%) institutions responded that they had color laser printers. Table 5 indicates the style, response and response total of the 2009 survey.

Table 5

Style	Response Average	Response Total	Response Count
Dot Matrix	0.00	0	17
Ink Jet	0.30	6	20
Black & White Laser	1.50	63	42
Color	.18	3	44

Respondents were asked if their institution charged for printing. Forty-five of the potential 52 responded to this question. Thirteen (25%) of the respondents indicated no. Thirty-two (75%) indicated some form of yes. The following is a list of several of the responses that said yes:

- They receive \$50 a semester at .10 per copy for printing. Once they use up the \$50 they can purchase more copies to add to their account.
- The cost for 300 sheets per semester come out of a student's technology fee. Everything printed above 300 each semester is charged to the student at \$0.10
- They get 100 free copies and then they are charged 5 cents per copy
- Each students is allotted 550 pages. After that they are charged. Then it is \$7.50 every 100 additional pages.
- \$.10 black and white, \$.30 color printing

In the 1996, 66% of the labs provided printers at no additional cost to the resident. Table 6 shows a breakdown of costs pertaining to laser printing for the 2001 survey. The dot matrix printers were indicated to have no cost at all for printing.

Table 6

Cost	Laser Printer number/percentage
Do not charge	30 (61.2%)
Charge less than 10 cents per copy	10 (20.4%)
Cost figured into technology fee	3 (6.1%)

Question 15 asked respondents who indicated that they had computer labs/kiosks in their residence halls what the ratio of public computers to printers was. Forty-one responded to this question. The answers ranged from not sure to 3:1 up to 24:1. The range indicated in the 2001 survey was 1:1 up to 21+:1

Question 16 asked if there was access to the college/university network in the residence halls. Forty-five (62.5%) responded yes and one responded no (1.38%). Twenty-six (36.11%) respondents did not answer the question. In the 1996 survey, 83% were indicated to have university networking. In the 2001 survey, 57 of the 62 (91.1%) responded that there is access and 3 (4.8%) responded that there was not access and 2 (3.2%) did not respond.

Questions 17 through 19 pertained to supplying, maintaining and supporting computer services in the residence halls. In the 2009 survey 46 (63.88%) of the 72 respondents replied to these questions. Table 7 and 8 illustrate the responses of all three of the surveys. If there is a N/A, the survey did not ask a specific question to that department or of that survey.

Table 7 Provides Computer Hardware

Department	2009 Response Count	2009 Response Percentage	1996 Response Percentages	2001 Response count/percentage
Residence Life	16	34.8%	44%	17 (27.4%)
Computing Services	20	43.3%	N/A	27 (43.5%)
ResNet	5	10.9%	N/A	5 (8.1%)
Joint Project	4	8.7%	39%	14 (22.6%)
Other (please specify)	1	2.2%	N/A	N/A

Table 8 Maintains Computer Hardware

Department	2009 Response Count	2009 Response Percentage	1996 Response Percentages	2001 Response count/percentage
Residence Life	11	23.9%	N/A	18 (29%)
Computing Services	22	47.8%	N/A	33 (63.2%)
ResNet	7	15.2%	N/A	N/A
Joint Project	5	10.9%	N/A	9 (14.5%)
Other (please specify)	1	2.2%	N/A	N/A

Respondents also replied about different support services for the computer labs/kiosk users. Of the 46 that replied to these questions in the 2009 survey, 6 (13%) have attendants, 1 (2.2%) have a tutor, 11 (23.9%) have lab monitors, 13 (28.3%) responded to Other and 20 (43.5%) responded as having no support. Responses to Other include:

- Help Desk
- ResNet
- Direct line to Tech Services

The 1996 survey indicated that 31% of the computer labs were maintained by lab assistants, 22% had no support and 19% had a helpline for support. The 2001 survey indicated that 17 (27.4%) had attendants, 8 (12.9%) had tutors, 21 (33.9%) had lab monitors, and 22 (35.5%) have other individuals who monitor the labs.

Questions 20 through 24 pertain to telecommunications in the residence halls. Respondents were asked if telephone lines were available in the residence halls. Of the 72 possible respondents, 56 (86.2%) responded Yes and 9 (13.8%) responded no. Seven (9.72%) did not respond. In the 1996 and 2001 survey 100% of the institutions responded yes to a similar question. In the 2009 survey, respondents that answered yes to having telephones lines were asked how many lines were available to resident. Fifty-three of the 56 responded. All responded with one per room, or indicated that 2 or more people share one line.

All respondents were asked if they were considering discontinuing or have discontinued providing telephone lines in rooms. Seven (9.72%) skipped the question. Nineteen respondents (26.38%) stated that they have or will discontinue service in the fall of 2009. Thirty-two respondents (44.44%) indicated that they have thought of discontinuing service but have not done so yet. Fourteen (19.44%) responded no. Those that indicated yes were asked why they had discontinued or were thinking of discontinuing telephone service. Fifty-two responded to the question. Of those 52, 45 (86.53%) indicated "Lack of Use", 41(78.84%) indicated "Cost Reduction", and 10 (19.23%) responded with "Other". Some of those responses were:

- Is up to resident to activate and sign contract for their land line phone with the phone company, land line phones are not part of the residence hall contract
- Students may elect to have a land line at a modest additional cost
- Land line provides direct access to safety and security

Question 24 specifically asked what internet access is available in rooms and respondents could check all that applied. The 1996 and 2001 surveys referred to internet access as data lines. The 1996 survey had 49% of institutions respond that 50% of their residents had a designated data line. In the 2001 survey, 64 (95.5%) of the institutions responding responded that they have data line in rooms with 43 (64.2%) having just one. In the 2001 survey, 57 (89.1%) indicated they had Ethernet or hard wired lines and 7 (10.9%) had modem lines. In the 2009 study 61 (84.72%) of institutions responded that there was hardwired Ethernet in the room. One (1.38%) responded modem and one (1.38%) responded to none in room. The 2009 survey also had wireless Ethernet, 44 (61.11%) respondents, which the 1996 and 2001 survey did not.

Questions 25 through 30 pertain to cable television in the residence halls. Question 30 asked if institutions had their own cable channel. Fifty-three (61.11%) responded Yes and 21 (29.16%) responded No. In the 1996 survey 50% of the respondents indicated that they had their own university channel and the 11% had a channel through the residence hall system. The 2001 survey reported that 38 (56.7%) had their own channel, 28 (41.8%) did not, and one (1.5%) did not answer the question. Fourteen (20.9%) of the residence halls had their own channel, 52 (77.6%) did not, and one (1.5%) did not answer the question. Table 8 shows the breakdown of responses for questions 25 and 26. These questions concern cable directly in the room or lounges. Of the institutions that do have cable in their rooms, 29 (40.27%) responded that the residents get premium channels. A follow up questions of cost was asked for those that responded to yes on premium channels. The majority of the responses said that it was dependant on the contract that the resident had with the cable company. The 1996 survey indicated that 59% of the halls had premium channels available and in 41% of these there was an additional charge for the premium channels.

Table 9

Questions	Yes-Percent	No	Skipped
25. Is there a cable connection available in each room	62 or 86.1%	3 or 4.2%	7 or 9.7%
26. Is Cable television available in floor/lounges/common areas	59 or 81.94%	6 or 8.3%	7 or 9.7%

Question 27 asked if students were charged an additional fee to have cable in their rooms. In the 2009 survey, 53 or 73.61% answered No and 8 or 11.11% answered Yes. Four answered not applicable. Some of the replies under yes were:

- \$102.00
- They can purchase a plan through a local company
- Student pays per month when they sign up

In the 1996 survey 16% of the residence facilities had additional charges for cable in the room, 31% said cable was part of the housing fee. The 2001 survey reported that 46 (68.7%) reported that there was no fee. Fifteen (22.4%) indicated that they did charge.

The 2009 survey data indicates that 62 (86.1%) of the residence halls have cable available in each room. The lounge/commons areas indicate that 59 (81.94%) have cable. The 1996 survey reported that 78% of the universities did

have cable connections in the rooms, with 44% of those having a connection in every room, 16% had access in 50% of their rooms, and 8% in 75% of their rooms. The 2001 survey 58 (82.1%) had access in every room and only 8 (11.9%) did not have access. In additions to the connections in the rooms, 49 (73.1%) reported that they had connections in the floor lounges.

Question 28 asked how many channels residents had access to. Sixty-one (84.72%) responded. Eleven (15.27%) did not answer the question. Responses were mostly numerical in answer. The answers ranged from 30 to over a hundred channels. Some of the written responses were:

- Basic cable package in area
- Depends on the package that they subscribe to

The 1996 survey indicated that the number of channels that residents had access to was between 10 to 60 channels. The 2001 survey indicated that channels ranged from 5-120 channels.

The last two questions in the survey pertained to magnetic/debit and Student Identification cards. The questions ask if debit/credit/magnetic cards are available, what are they used for and how many services can be accessed by the same card? Respondents could check all that applied. At least 33 respondents (45.83%) responded that the cards were used in all of these ways on their campuses:

- Bookstore
- Food service
- Laundry
- Library
- Photocopying
- Security/building access

Food Service had the highest percentage of use with 63 (87.5%) and laundry service had the least percentage of use with 33 (45.83%). Thirty-two respondents (44.44%) reported that all of the above mentioned services were available on one card.

The 2001 survey did not have questions pertaining to this area. The 1996 survey reported that debit cards were used at 20% of the institutions. Twenty-two percent could use them to purchase textbooks, 76% used them for food service, 33% used them for photocopying, and 24% used them for security purposes. Laundry and Library usage were not specifically asked about in the survey (N/A). Table 9 shows the breakdown of the 2009 and 1996 surveys.

Table 10

magnetic/debit and Student Identification cards used for:	1996 percentages	2009 Response Count	2009 Response Percent
Bookstore	22%	53	73.16%
Food Service	76%	63	87.5%
Laundry	N/A	33	45.83%
Library	N/A	51	70.83%
Photocopying	33%	35	48.61%
Security/building access	24%	48	66.66%
Did not answer	N/A	8	11.11%

Analysis and Discussion:

There appear to be changes with technology in the residence halls looking at the 1996, 2001 and 2009 surveys. Common area computer labs in the residence halls appear to have fluctuated with 82% in 1996, 92% in 2001 and 73.61% in 2009. Computer labs appear to have gone down from 1996 and 2001. The percentage of providing computers in rooms (from institutions) appears to have not significantly changed with 2001 results at 4.6% and 2009 results at 5.6%.

There appears to be an increase in access to common area computers in labs/kiosks. In the 2009 survey 73.91% indicated that the labs/kiosks were open 24 hours a day. The 1996 survey indicated that 69% were open 24 hours a day. The type of computers available in residence halls (Windows-Based PC and Apple/Macintosh) have both increased. Windows-Based PC has significantly increased from 50% in 1996, 98.4% in 2001 up to 100% in the 2009 survey. The ratio of computer to printer has stayed relatively the same range from 2001 to 2009. The cost or apparent cost of printing has gone up since 1996. The 1996 survey indicated that two thirds or 66% of the institutions surveyed did not charge for printing cost. In the 2009 survey 75% of the institutions surveyed indicated that they did charge for printing.

Based off of responses in the 2009 survey, Computing Services appears to provide and maintain close to half of the computer hardware in residence halls. This is similar in percentage to the 2001 survey results. Residence Life and Computing Services appear to be the main providers of both hardware and maintaining it. Support services computer services appear to be moving from lab assistants or monitors to a help desk that can be reached through phone services or no support. Forty-three point five percent responded as having no support in 2009. That is almost as much as the 1996 percentage of 22% for no support.

Telephone services appear to be making a change as well. In the 1996 and 2001 surveys 100% of the respondents indicated that telephone lines were in residence rooms. The 2009 survey indicated that 86.2% of the institutions have telephone lines in all of the rooms. A significant portion of the respondents (44.44%) have thought or are thinking of discontinuing telephones altogether because of lack of use or cost reduction.

Cable television use and having a university channel in residence halls appears to have gone up. University channel responses went from 50% in 1996, to 56.7% in 2001 to 61.11% in the 2009 survey. Cable television in every residence hall room went from 44% in 1996, to 82.1% in 2001, to 86.1% in 2009. The increase is not as significant from 2001 to 2009. Availability of channels has significantly increased from 1996 (10-60) to 2009 (30-100+) however range of number of channels did not change significantly from 2001 (5-120) Cost of cable appears to be increasing and moving to outsourcing to cable providers.

The use of magnetic/debit and student Identification cards has increased since the 1996 survey. In the 1996 survey 20% of the institutions responded that they used debit cards and the area used was primarily food service (76%) and photocopying (33%). The 2009 survey indicates that food service has increased (87.5%) and other services have been added to the function of the card that weren't there in 1996 (laundry/library). There was a significant increase in percentage of use in the other areas that were used in 1996 (bookstore/text books, photocopying and security/building access).

Access to technology for the most part seems to be increasing. The only area that appears to be downsizing is telephone service and that is being looked at due to lack of use and cost reduction. Perhaps questions of cell phone use to land line use should be addressed in future technology surveys. The accessibility of computers in common area space has stayed about the same as well as computer to printer ratio. The direct cost to students seems to be increasing for printer use. Residence Life departments and computer services still appear to be the main facilitators of hardware and maintenance. While cable television in the residence halls use has increased, paying for television has also increased and appears to be outsourced instead of institutions absorbing the cost into room and board rates. The use of magnetic/debit and student identification cards has greatly increased. This may be due to ease of use of using one card for multiple different uses. These trends are useful in future as residence halls continue to look at contracting out services and are no longer the middleman (i.e. telephone and cable). Also looking at areas where we can provide increased access to technology that increases service to students (i.e. wireless Ethernet, university channels, magnetic/debit and student identification card)

For longitudinal purposes, questions asked in the 1996, 2001, and 2009 studies should be asked again.