



Karen Wagner High School
San Antonio, Texas

Architect: PBK
Photographer: Jud Haggard

37TH ANNUAL MAINTENANCE & OPERATIONS COST STUDY

SCHOOLS



BY JOE AGRON

As tough economic conditions and rapidly rising costs continue to strain school district budgets, spending by K-12 institutions on maintenance and operations (M&O) faces growing pressure.

The median school district allocated a smaller percentage of total district expenditures (TDE) to M&O in 2007-08—8.35 percent, down from 9.19 percent the year before, according to *American School & University's* 37th annual Maintenance and Operations Cost Study. While lower, the 8.35 percent of TDE still is higher than the percentages allocated throughout much of the decade.

As noted last year, spending on energy/utilities remains high, reflecting skyrocketing costs to operate facilities. Rising prices also are forcing available funds to be redirected from other areas. For example, maintenance staff is being required to “do more with less”—the square footage maintained per full-time custodial worker jumped 14 percent to 26,786 from 23,408 the year before.

Following are findings from the latest M&O Cost Study that can help you in benchmarking expenditures at your institution. Data provided reflect actual spending by school districts on M&O and are not intended to be “ideal” amounts for allocations. Numerous factors—such as age and overall condition of buildings, the labor market in your area, climate, etc.—also will affect your costs when compared with the national medians.

(continued)

Maintenance & Operations Costs

(Expressed in **median** dollars **per student**)

Total Payroll	\$380.48
Custodial**	\$279.41
Maintenance**	\$88.87
Grounds**	\$35.99
Outside Contract Labor	\$41.70
Total Energy/Utilities	\$299.43
Energy (gas, electricity, other fuels)**	\$246.60
Utilities**	\$40.37
Trash Collection/Disposal**	\$9.94
Total Equipment & Supplies	\$68.18
Custodial/Maint. Equip. & Supplies**	\$45.58
Grounds Equip. & Supplies**	\$13.59
Other	\$86.55
Total M&O*	\$876.34
Total District Expenditures (TDE)	\$10,501
M&O as % TDE	8.35%

*Calculated from subtotals (in bold).

**Based on fewer responses than the total because of schools that combine some of these categories.

Maintenance & Operations Costs

(Expressed in **median** dollars **per square foot**)

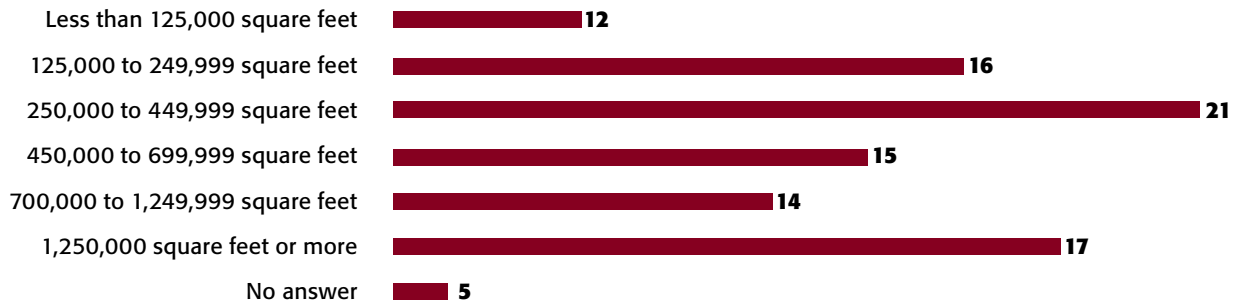
Total Payroll	\$2.05
Custodial**	\$1.61
Maintenance**	\$0.53
Grounds**	\$0.22
Outside Contract Labor	\$0.21
Total Energy/Utilities	\$1.52
Energy (gas, electricity, other fuels)**	\$1.25
Utilities**	\$0.22
Trash Collection/Disposal**	\$0.05
Total Equipment & Supplies	\$0.38
Custodial/Maint. Equip. & Supplies**	\$0.27
Grounds Equip. & Supplies**	\$0.06
Other	\$0.40
Total M&O Budget*	\$4.56
Total District Expenditures (TDE)	\$58.69

*Calculated from subtotals (in bold).

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Total gross area of buildings maintained

(including corridors and other common and office areas of all district buildings) by survey respondents



Study methodology

To arrive at data for the AS&U Maintenance & Operations Cost Study, a detailed questionnaire was mailed in October 2007 to chief business officials at the nation's public school districts asking them to document their institutions' M&O expenditures per student and per square foot for the 2007-08 school year. Categories include:

- Per student:** Based on total district enrollment (average daily attendance as of October 2007).
- Per square foot:** Based on total gross area of all district buildings maintained, including corridors, offices and common space.
- Total district expenditures (TDE):** Amounts for the 2007-08 school year.
- Total maintenance and operations (M&O) expenditures:** Including salaries, benefits, outside contracts, utilities, energy, trash collection/disposal, equipment and supplies,

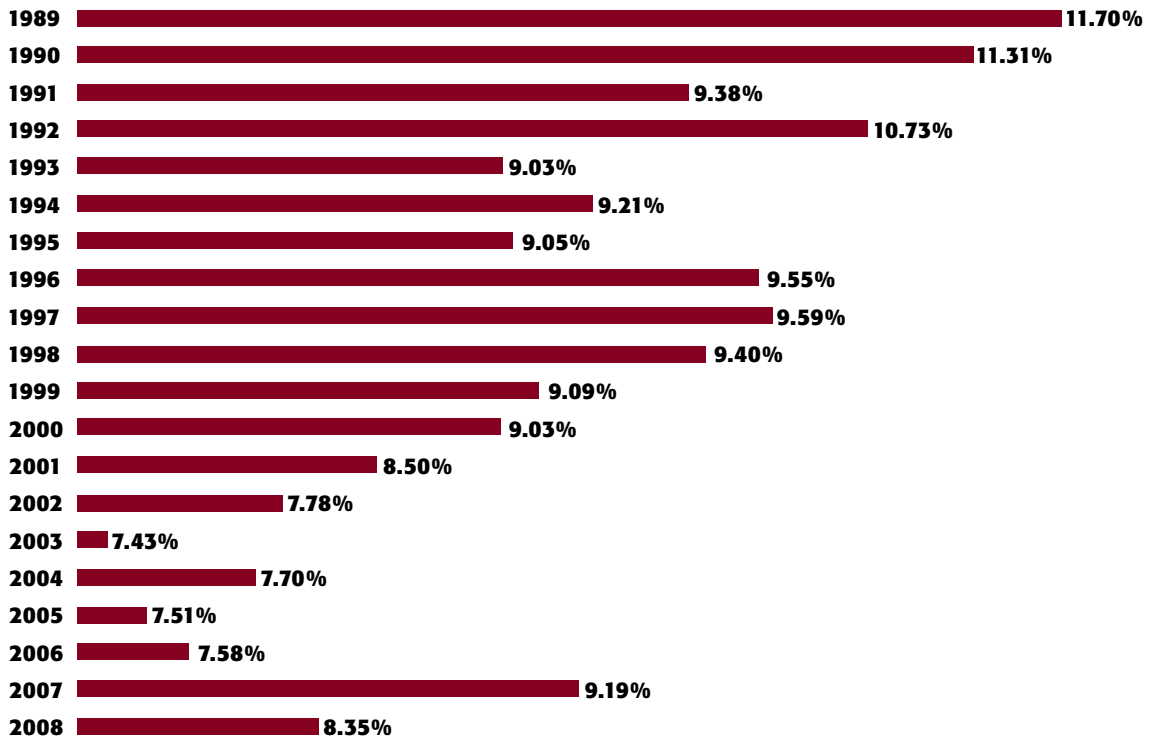
etc., for custodial, maintenance and grounds.

- Custodial:** Those individuals responsible for building upkeep and cleaning.
- Maintenance:** Those individuals who perform skilled jobs, such as HVAC, electrical or plumbing repair.
- Grounds:** Those individuals responsible for landscape upkeep and maintenance.
- Payroll:** Including benefits.
- Average salary:** Annualized, excluding benefits.
- Outside contract labor:** Those hired for specialized jobs to maintain or repair building systems or equipment, such as HVAC maintenance or repair.
- Energy:** Including gas, electricity and other fuels used to operate facilities.
- Utilities:** Including water, telephone, etc.
- Other:** Most often identified as clerical costs, equipment repair and rental, insurance and travel.



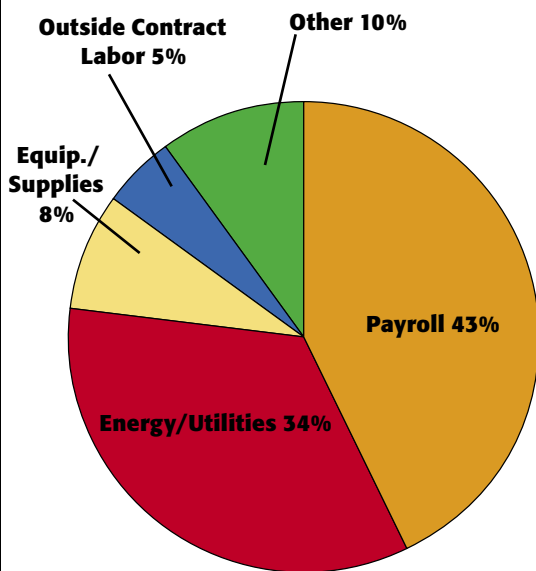
M&O expenditures—the past 20 years

Spending by school districts on maintenance and operations as a percentage of total district expenditures over the past two decades:



How the M&O budget is split

(based on median dollars per FTE student)

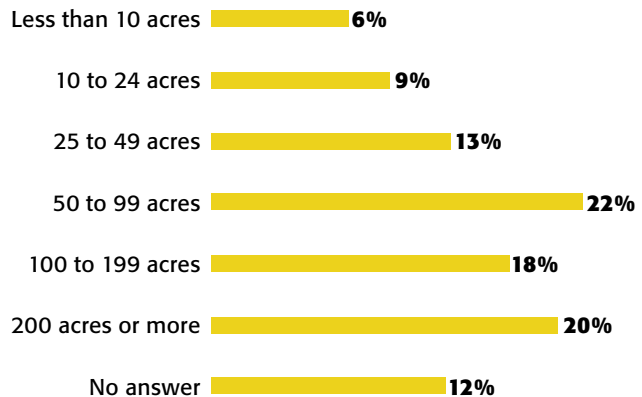


8,742

Mean number of students of responding school districts.

Total gross area of grounds maintained

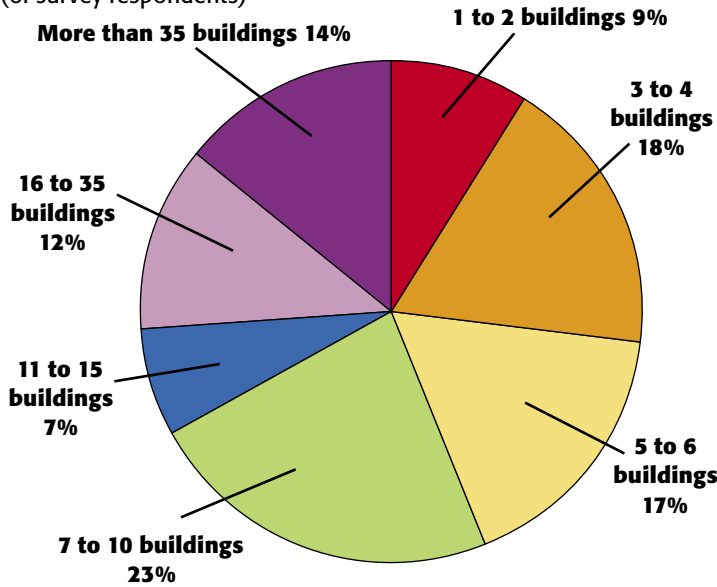
(by survey respondents)





Total number of buildings in district

(of survey respondents)

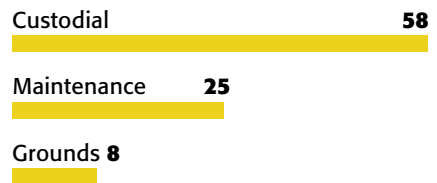


\$6.9

Mean total M&O expenditure, in millions, of responding school districts.

Personnel update

Mean number of full-time custodial, maintenance and grounds personnel at school districts:



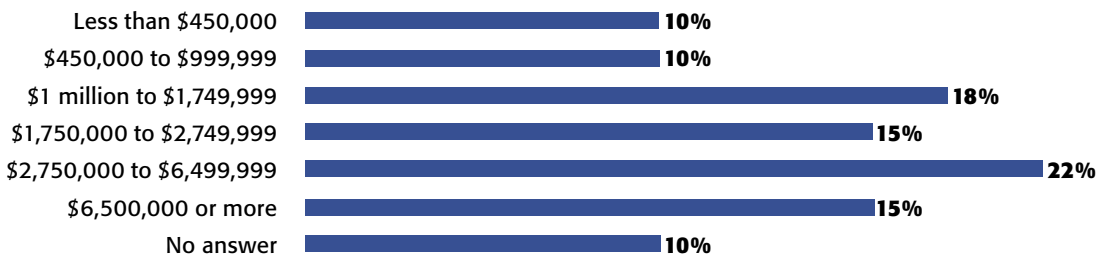
Privatizing M&O

17.7%

The percentage of school districts contracting out maintenance and operations services.

Total maintenance and operations expenditures

(per survey respondents)



\$1.9

Mean amount spent annually, in millions, on energy (gas, electricity and other fuels) by responding school districts.

Square-footage details

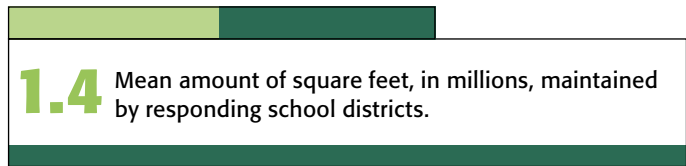
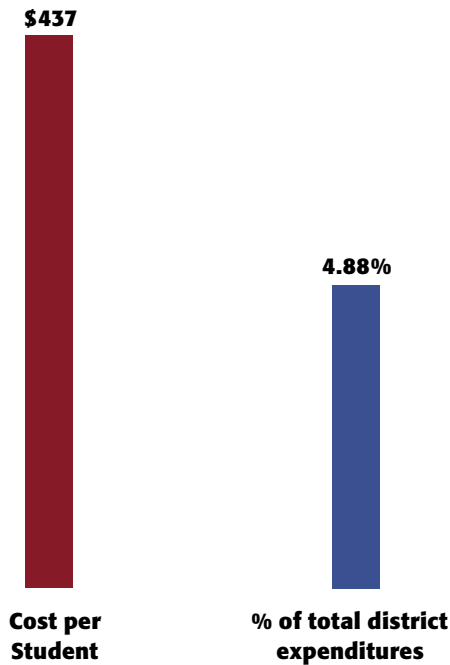
Median amount of square feet (SF) and acreage maintained at school districts:

SF maintained per full-time custodial worker	26,786
SF maintained per full-time maintenance worker	107,439
Acres maintained per full-time grounds worker	45
SF maintained per building	72,533
SF of bldg. maintained per student	177.61



Detailing transportation costs

Median cost of transportation per student and as a percentage of total district expenditures:



Salary update

Median salary for custodial and maintenance personnel at school districts:



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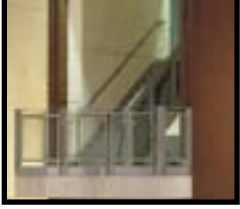
Does your institution embrace Green Cleaning?

Here's your chance to be recognized. *AS&U's* Green Cleaning Award for Schools & Universities recognizes and honors education institutions and their partners that embrace green principles and practices in their maintenance operations. Created in conjunction with the Green Cleaning Network and Healthy Schools Campaign, individual schools, school districts, colleges and universities are invited to submit information about their green cleaning program for review by an expert panel. Awards will be presented to exemplary programs, and winners will be profiled in a special supplement in the December issue of *American School & University*.

For more information on how to enter, email JAgon@ASUmag.com.
To view last year's winners, visit ASUmag.com/green.

**GREEN CLEANING
AWARD**
for Schools & Universities





Mt. San Antonio Community College,
Science Center, Walnut, Calif.

Architect: NTD Architecture
Photographer: RMA Architectural Photographers

37TH ANNUAL MAINTENANCE & OPERATIONS COST STUDY

COLLEGES



BY JOE AGRON

Just like their school district brethren, higher-education institutions are feeling the pressure on maintenance and operations (M&O) budgets caused by difficult economic conditions and rising costs. The median college allocates 11 percent of total college budget to M&O, down from 16.4 percent the year before, according to *American School & University's* 37th annual Maintenance and Operations Cost Study.

The area affecting M&O budgets the most is energy expenditures. Spending per full-time-equivalent (FTE) student on energy/utilities rose a whopping 24 percent from the year before. This comes after dramatic increases in the category's costs last year. Also, budget pressures are causing maintenance staffs to absorb more work. For example, the amount of square feet of building maintained per FTE student increased to a record 277 this year.

Additional data from the most recent M&O Cost Study follows, providing you with valuable data that can help you in benchmarking expenditures at your institution. Please note that the information provided only targets two-year and four-year colleges with no significant graduate programs. This is done to provide more useful comparative data. Larger four-year universities with significant graduate programs are not surveyed because their costs and activities are so varied that results would be less useful.

(continued)

Maintenance & Operations Costs

(Expressed in **median** dollars per **FTE student**)

Salaries	\$472.22
Benefits (based on full-time only)	\$103.07
Total Energy/Utilities	\$540.17
Gas/Electricity/Other Fuels**	\$400.92
Utilities**	\$76.25
Total Equipment & Supplies	\$110.21
Custodial/Maint. Equip. & Supplies**	\$76.81
Grounds Equip. & Supplies**	\$27.41
Vehicle Maintenance	\$16.64
Other	\$175.60
Total M&O Budget*	\$1,417.91
% M&O of Total College Budget	11.0%

*Calculated from sub-totals (in bold).

**Based on fewer responses than the total because of schools that combine some of these categories.

Maintenance & Operations Costs

(Expressed in **median** dollars per **square foot**)

Salaries	\$1.82
Benefits (based on full-time only)	\$0.49
Total Energy/Utilities	\$1.87
Gas/Electricity/Other Fuels**	\$1.60
Utilities**	\$0.27
Total Equipment & Supplies	\$0.35
Custodial/Maint. Equip. & Supplies**	\$0.25
Grounds Equip. & Supplies**	\$0.08
Vehicle Maintenance	\$0.06
Other	\$0.44
Total M&O Budget*	\$5.03

*Calculated from sub-totals (in bold).

**Based on fewer responses than the total because of schools that combine some of these categories.

Study methodology

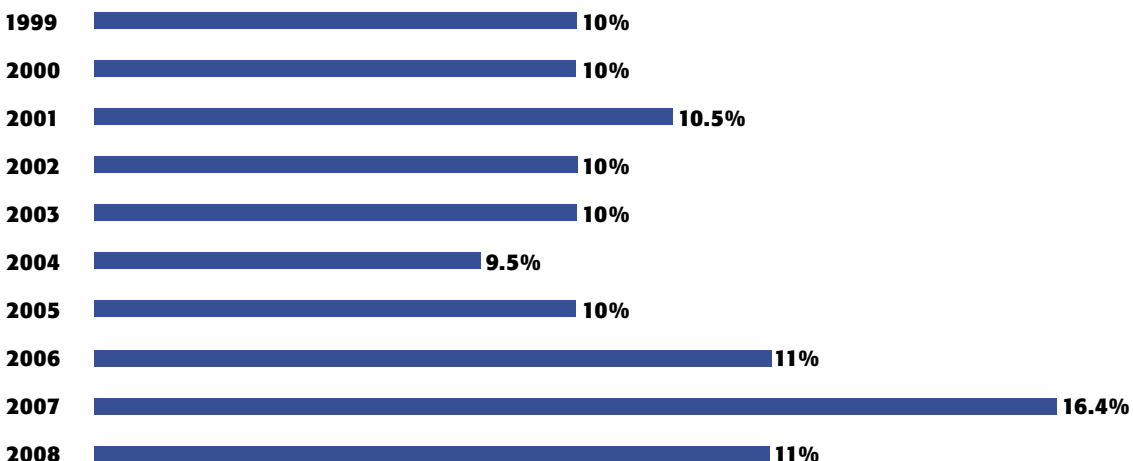
Data for the annual *American School & University* M&O Cost Study were collected via an in-depth questionnaire mailed in October 2007 to physical plant directors at two-year and four-year colleges with no significant graduate programs. Recipients were asked to document various M&O costs for the 2007-08 school year. The tables and charts detail median M&O expenditures per full-time-equivalent (FTE) student and per square foot, as well as the incidence of various maintenance practices.

Among the titles included:

- **Administrative:** Those individuals who have managerial or supervisory duties (does not include the overall director of physical plant).
- **Custodial:** Those individuals responsible for building upkeep and cleaning.
- **Maintenance:** Those individuals who perform skilled jobs, such as plumbing, electrical or HVAC repair.
- **Grounds:** Those individuals responsible for landscape maintenance and upkeep.
- **Secretarial:** Those individuals providing clerical support.

M&O expenditures over the decade

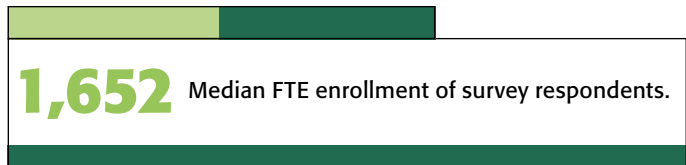
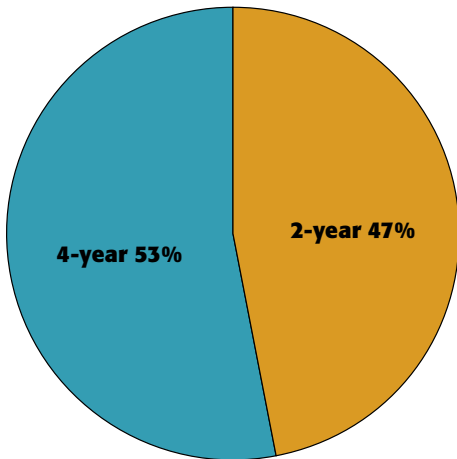
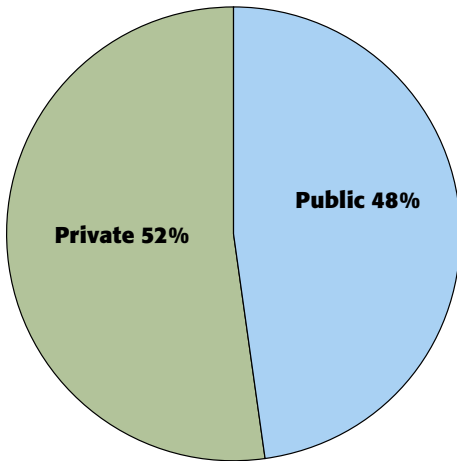
Spending by colleges on maintenance and operations as a percentage of total college expenditures over the past 10 years:





Type of institution

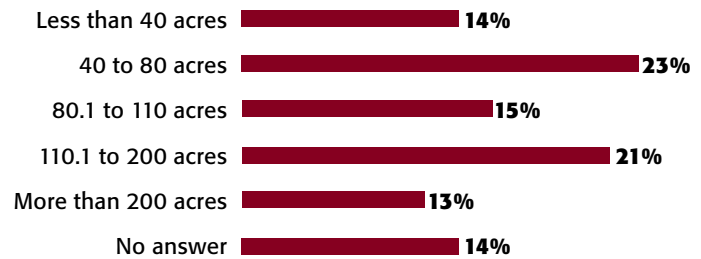
(of survey respondents)



Total gross area maintained of all buildings (including corridors and other common and office areas) (by responding institutions)

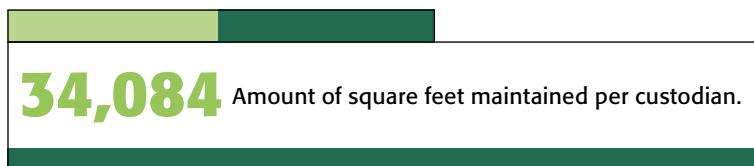
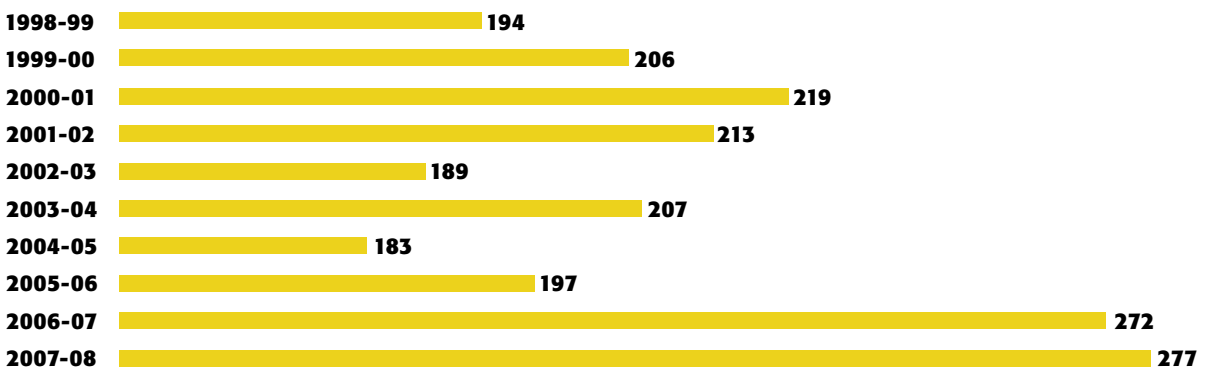
Less than 150,000 sq. ft.	7%
150,000 to 299,999 sq. ft.	11%
300,000 to 449,999 sq. ft.	17%
450,000 to 599,999 sq. ft.	14%
600,000 to 749,999 sq. ft.	12%
750,000 to 999,999 sq. ft.	13%
1 million sq. ft. or more	15%
No answer	11%

Total grounds acreage maintained (by survey respondents)



Square footage maintained

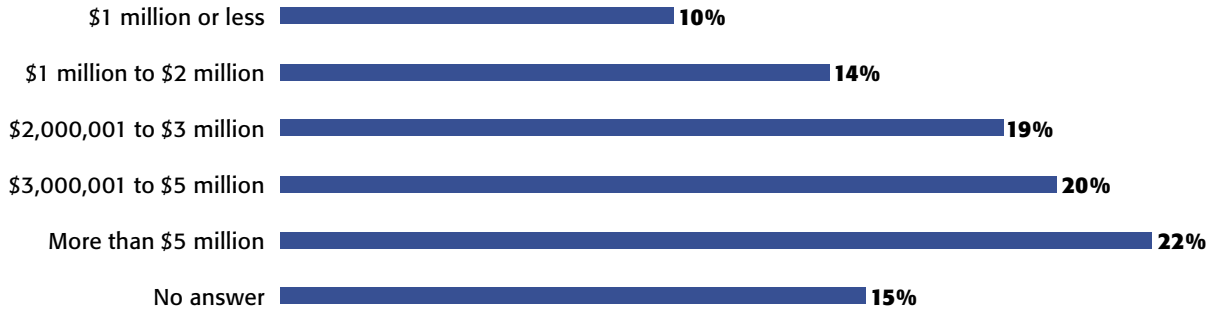
The amount of square feet of building maintained per full-time-equivalent (FTE) student at colleges over the past decade (in median square feet):





M&O budget

(of survey respondents)



\$850,000 Annual amount the median college spends on energy (gas, electricity, other fuels).

Number of buildings at institution

1-4 buildings	8%
5 to 10 buildings	19%
11 to 15 buildings	10%
16 to 25 buildings	19%
26 to 40 buildings	18%
More than 40 buildings	20%
No answer	6%

Data analysis

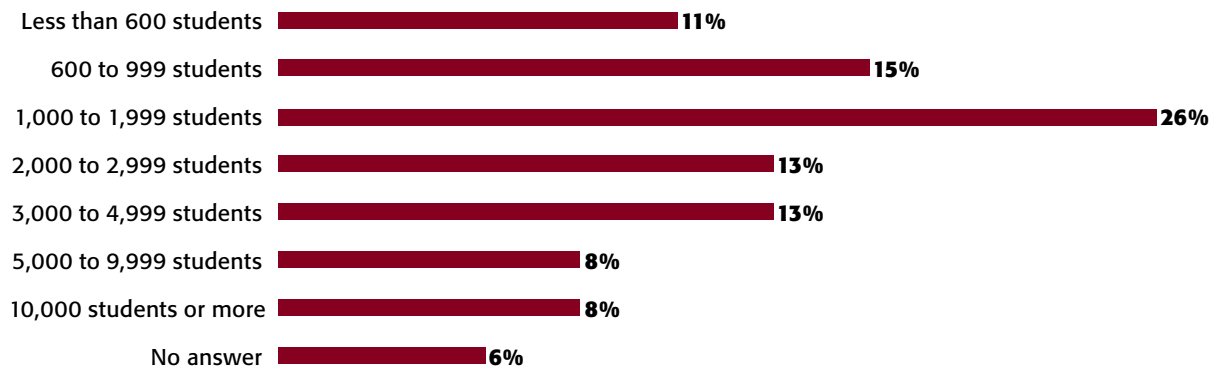
Following are medians for the 2007-08 school year:

Sq. ft. of bldg. maintained per student	277
Sq. ft. maintained per custodial employee	34,084
Sq. ft. maintained per maintenance employee	69,873
Acres maintained per grounds employee	22
Total reported M&O Budget	\$3.03 million

277 Amount of square feet of building maintained per student.

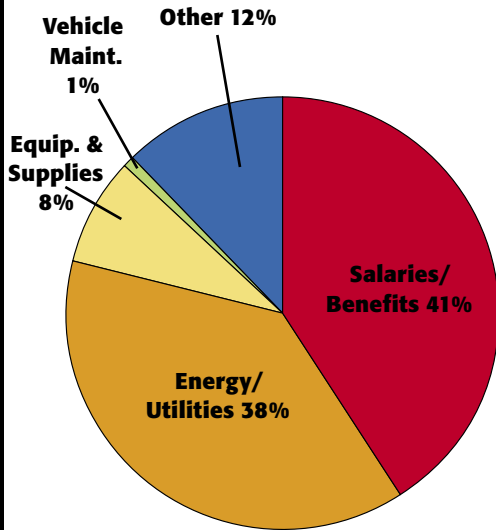
FTE enrollment

(of responding institutions)





How the M&O budget is split
(median dollars per FTE student)



69,873 Amount of square feet maintained per maintenance worker.

Median M&O salaries and number of employees at colleges
(Full-time employees)

Function	Salary	# of Employees
Administrative	\$56,333	3
Custodial/Housekeeping	\$23,004	15
Grounds	\$27,823	4
Maintenance	\$35,661	8
Secretarial/Clerical	\$28,217	1

Agron, editor-in-chief, can be reached at JAgron@ASUmag.com. For more exclusive research, visit ASUmag.com.

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for Schools & Universities

