

A REPORT ON THE
ASSESSMENT OF THE
FACILITIES DIVISION
AT
AUBURN UNIVERSITY
AUBURN, ALABAMA



BY:

***THE DERISO CONSULTING GROUP
MARIETTA, GEORGIA***

April 17, 2001

EXECUTIVE SUMMARY

This report was developed in the light of recognizing that the Facilities Division at Auburn University is not the same organization that existed twenty years ago. We recognize that the growth and expansion of AU over the last twenty years presented very unique operating problems within the facilities function due to funding problems, the standing of the division within the university, and the lack of trust and confidence exhibited toward the Facilities Division.

While presenting problems, the changes at Auburn also presented some very unique opportunities for radical change, and implementation of new ideas that would result in dramatic improvements, and recognition of the people responsible for achieving these improvements. The Facilities Division has evolved into its present state, and this evolution has not been without some problems. It is not the intent of this report to focus criticism or blame on any individual, group, policy, or practice.

The current Facilities Division “is what it is”, and it got to this point through much hard work and sacrifice on the part of several people. However, the Facilities Division now needs to progress to the next level to be able to efficiently function and protect and preserve the assets of Auburn University through the next century. It cannot achieve this higher level of performance without change, some of which may seem radical or harsh, but of which all is necessary.

The recommendations contained in this report are practical, and can be implemented over a reasonable period of time. Implementation of the recommendations will also form the basis for the accumulation of the data and information required by the upcoming SACS Accreditation process.

We recommend the following:

- Rename the Facilities Division to the Facilities Management Division.
- Elevate the division to “cabinet status” to reflect its importance at Auburn University.
- Create the position of Vice President of Facilities Management
- Consolidate University Planning into the Facilities Management Division.
- Reorganize at practically every level to achieve consolidation and encourage individual responsibility.

- Form four (4) distinct and separate operating units, each managed by a Director. The units are: University Planning, Design/Construction Services, Facilities Operations, and Management Support Services.
- Develop a new Master Plan, integrating deferred maintenance needs, programming needs, in conjunction with the “branding” process.
- Implement new CMMS, and plan for expansion of the software in the future so the Facilities Management Division is supported by fully integrated software.
- Reduce the central shop and implement a zone maintenance plan, including the addition of a preventive maintenance program.
- Reorganize to reduce the levels of management from seven (7) to three (3) in all areas.
- Combine Design and Construction; implement “cradle to grave” project management.
- The Project Construction Group should complete all in-house construction.
- The Maintenance & Operations construction workers should be combined with the Project Construction Group, eliminating the M&O group from doing construction work.
- The in-house construction group should be completely self sufficient and operated as a private company.
- Develop and implement performance standards that will form the basis for employee performance evaluations.
- Consider implementing the merit pay portion of the new compensation plan.
- Develop and implement a comprehensive Quality Assurance Plan for all units.
- Develop a simple Mission Statement that can be easily memorized.
- Develop comprehensive Design Standards for all design and construction.
- Update the deferred maintenance plan for facilities.
- Implement training programs for each unit.

- Hire a Training /Safety Coordinator to implement a Safety Plan for the Division.
- The reorganization can substantially reduce the number of management/supervisory and operative level positions.
- Move control of the Human Resources function back to the AU Human Resources Department.
- Provide comprehensive development training to the management and supervisory staff, and then allow them to supervise the workforce without interference.
- Develop and implement a Maintenance Apprenticeship Program to enhance the addition of personnel to the maintenance staff, and reducing the current hiring problems and delays.

These recommendations can be implemented over a reasonable period of time, provided a sound strategy is developed, incorporating “triage” methodology to determine the order and urgency of the recommendation. We are encouraged by the improvements that can result from the implementation of the recommendations, and are sure they will provide the basis for an even more efficient and effective Facilities Management Division at Auburn University.

Thank you for the opportunity to prepare this report.

Respectfully submitted,

THE DERISO CONSULTING GROUP

Jerald L. Deriso, P.E.
Founder and Chief

INTRODUCTION

In late November 2000, The Deriso Consulting Group, Marietta, GA., was retained by Auburn University to conduct an assessment of the Facilities Division and University Planning at Auburn University. The basic objectives of the study were to study the on-going operations in detail, identify opportunities for performance improvement, and to begin to accumulate the information required by the upcoming Southern Association of Colleges and Schools (SACS) accreditation process.

This report is the result of an identification and analysis of the variables that directly and indirectly affect the day-to-day and long range performance of the Facilities Division at Auburn University. The variables were identified by an intensive on-campus collection of data. This data collection process was started on December 4th, 2000 and completed on January 26, 2001. The consulting staff (Jerald L. Deriso, P.E., Dr. Paula Wells, Mr. Paul Valvo, and Mr. Lance Skelton) utilized various methods to identify and collect the data, including:

- Conducting forty-five (45) meetings with individual groups of operative level employees;
- Conducting sixty (60) one-one-one interviews with management and supervisory employees, as well as operative employees;
- Collection and review of extensive documentation, including budgets, cost histories, organization charts, staffing summaries, work backlogs, and other documentation;
- Review of contracted services for the facilities division such as custodial, fire alarms, building system controls, elevator maintenance, and the like;
- Detailed analysis of the major work processes to identify production bottlenecks, redundancy, and inefficient approaches;
- Detailed analysis of the proposed new Computerized Maintenance Management System (Assetworks);
- Physical inspection of mechanical rooms, central plants, buildings, grounds, and infrastructure.

In addition to the collection and analysis of data indicating the levels of performance, the Consultant was able to use a recently completed Customer Satisfaction Survey Report for the Facilities Division (included in the Exhibits Section of this report). The CSS provided invaluable information concerning the customer's perception of the quality of and the satisfaction (or lack of satisfaction) with the level of service being provided by the various operating units of the Facilities Division. The overall summary of customer satisfaction and dissatisfaction is shown below:

Levels of Customer Satisfaction with Facilities Division Services

<u>Class of Service</u>	<u>% of Satisfied Customers</u>
Customer Service	57%
Housekeeping Quality	57%
Maintenance Quality	46%
Grounds Care Quality	63%
Design/Development Services	45%
Construction Services	47%
Quality of Pest Control Services	59%
Quality of Mail Services	83%
Quality of Moving Services	54%

Levels of Customer Dissatisfaction with Facilities Division Services

<u>Class of Service</u>	<u>% of Dissatisfied Customers</u>
Customer Service	17%
Housekeeping Quality	18%
Maintenance Quality	22%
Grounds Care Quality	12%
Design/Development Services	28%
Construction Services	26%
Pest Control Services	17%
Mail Services	5%
Moving Services	22%

A reasonable expectation for levels of *Satisfaction* for a major university such as Auburn is a **minimum** of seventy percent (**70%**) for the various classes of service. A reasonable threshold for levels of Dissatisfaction is a **maximum** of ten percent (**10%**) or less.

It can be seen from the above results, and reviewing the entire report contained in the Exhibits Section of this report, that there is much room for improving the services in the opinion of the customers being served.

In our opinion, the poor ratings are a combination of under-staffing, inadequate management procedures, bureaucratic delays, inadequate employee performance, inadequate management and supervision of the workforce, and an overall lack of a sense of purpose and urgency in the Facilities Division.

An integral part of the data collection effort was to distribute management data questionnaires to all management and supervisor personnel. Not all questionnaires were returned, but of those that were, the results are shown below. The percentages shown represent the percentage of the total responses received.

Question – List the three things your unit does best

<u>Category of Response</u>	<u>% of Total Responses</u>
High quality and quantity of work	37%
Positive response to deadlines and problems	23%
Positive attitude and pride toward work	11%
Satisfy customer needs	11%
Cooperate with each other/teamwork	10%
Communicate well with customer	3%
Act safely and keep work areas clean	3%

Question – List the three things your unit does worst

<u>Category of Response</u>	<u>% of Total Responses</u>
Poor management practices	22%
Don't communicate well with customer	16%
Poor quality and quantity of work	15%
Poor employee attitudes and motivation	11%
Disruptive management procedures	9%
Don't keep vehicles and equipment clean	7%
Don't complete jobs on time	5%
Low employee productivity	5%
Not allowed to supervise	4%
Poor response to problems/requests	3%
Workers not trained	3%

Question – List the five things you think should be changed

<u>Category of recommended change</u>	<u>% of Total Responses</u>
Higher quality workforce	17%
Increase levels of compensation	15%
Better work facilities	10%
Additional staff	9%
Improved management practices	8%
Better tools and equipment	8%
Worker incentive program	7%
Streamline procedures	7%
More and better training	6%
More supervisory authority	5%
More effective communications	5%
Consistent HR policies	3%

GENERAL OVERVIEW

The Facilities Division at Auburn University is charged with the routine maintenance and upkeep of over 170 buildings, comprising approximately 4,100,000 gross square feet. Maintenance services are provided to other facilities on campus operated by Housing, Auxiliary Services, and Athletics. These services are provided on a charge-back basis, as the three entities each have some semblance of maintenance and housekeeping staffs.

Approximately 3,900,000 gross square feet are cleaned by the Building Services Department. A private contractor (Sodexo-Marriott) is cleaning approximately 956,000 gross square feet of the total cleanable space. Some spaces in some buildings require maintenance, but do not require cleaning on a routine basis, hence the difference in space maintained and space cleaned.

The campus has approximately 560 acres of improved grounds and landscaped spaces.

Organization

The Facilities Division is organized into nine (9) different operating entities with various responsibilities:

Administrative Services

- Accounts Payable
- Accounts Receivable
- Plant Fund Accounting
- Departmental Cost Accounting
- Purchasing

Human Resources

- Payroll
- Training
- Recruiting
- Employee Disciplinary Issues

Miscellaneous Support Services

- Work management and work order system
- Transportation
- Pest control
- Mail services

Special Projects

- Solid waste and recycling

Landscape Services

- Grounds Maintenance
- New plantings

Construction Services

- Construction management
- Contracted construction
- Project and in-house construction
- Project and contract management

Design and Development

- Programming services
- Facilities and project design
- Construction budgeting
- Architecture, electrical/mechanical/civil engineering design
- Interior design

Maintenance, Operations, & Utilities

- Automotive repair
- Asbestos
- Chilled water plants
- Electrical distribution
- Electrical maintenance
- General construction
- Heavy construction
- Incinerator
- Locksmith
- Mechanical maintenance
- Painting
- Plumbing
- Roofing
- Steam plants
- Stockroom
- Signage
- Utility records
- Water treatment

Building Services

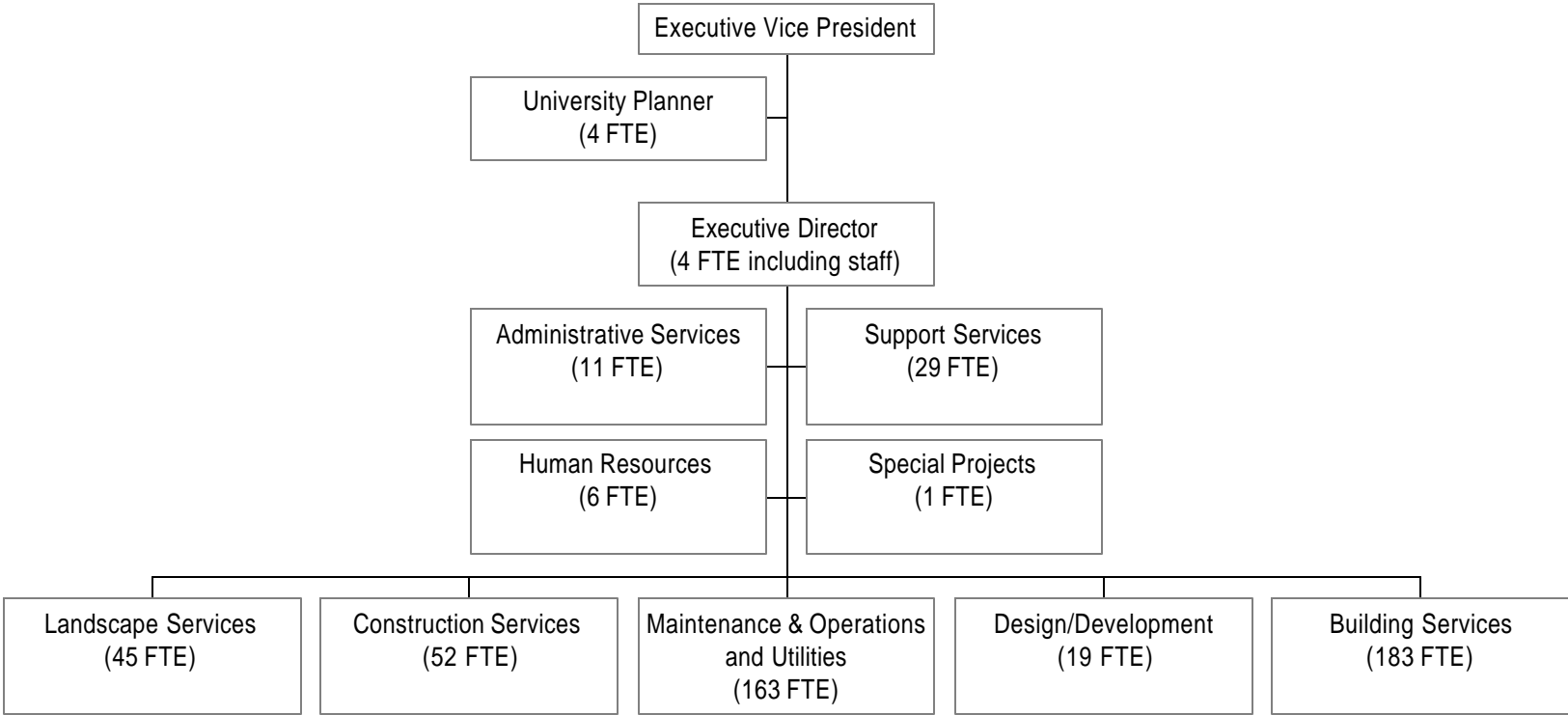
University housekeeping services

Floor care

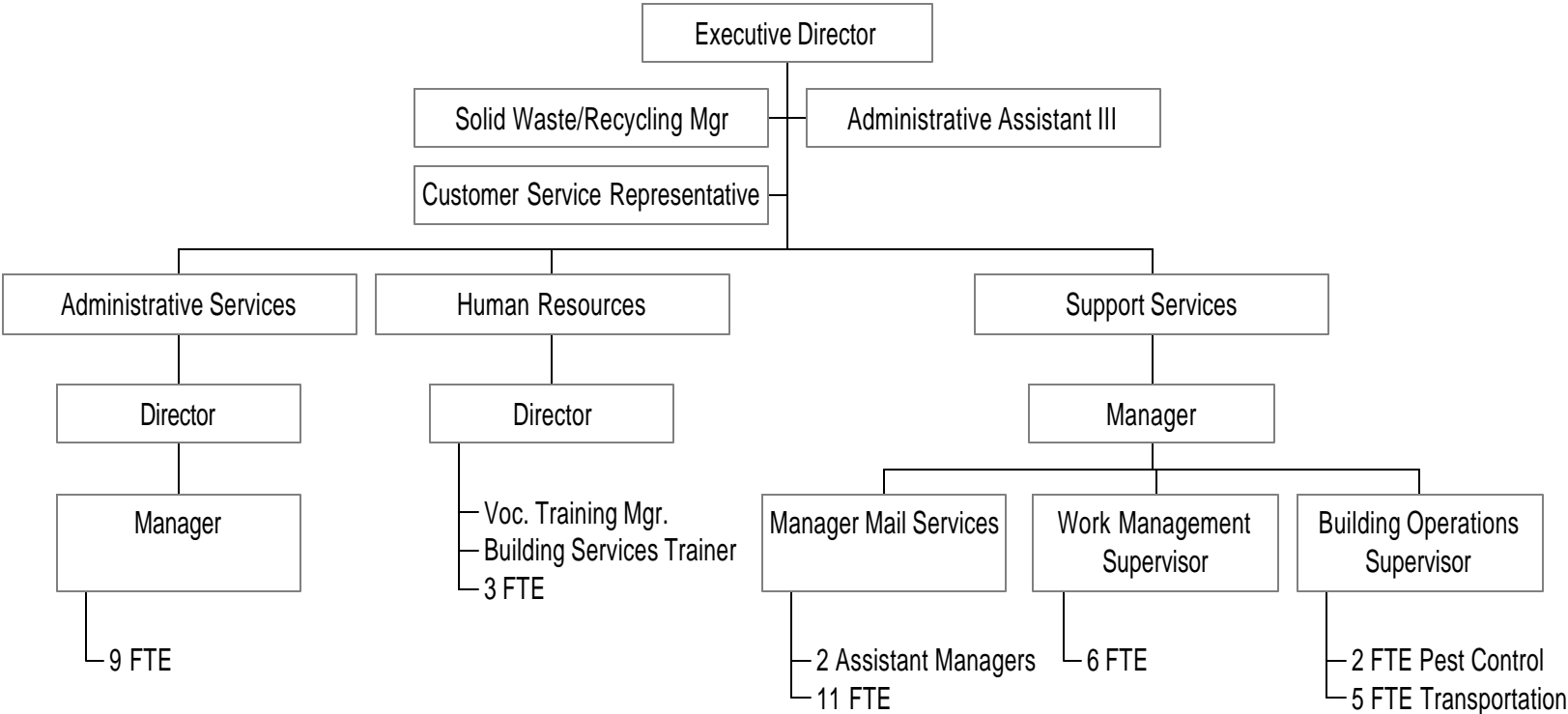
Project cleaning

The following pages contain the organization charts of the existing Facilities Division operating units, with approximate staffing levels.

Facilities Division Existing Organization

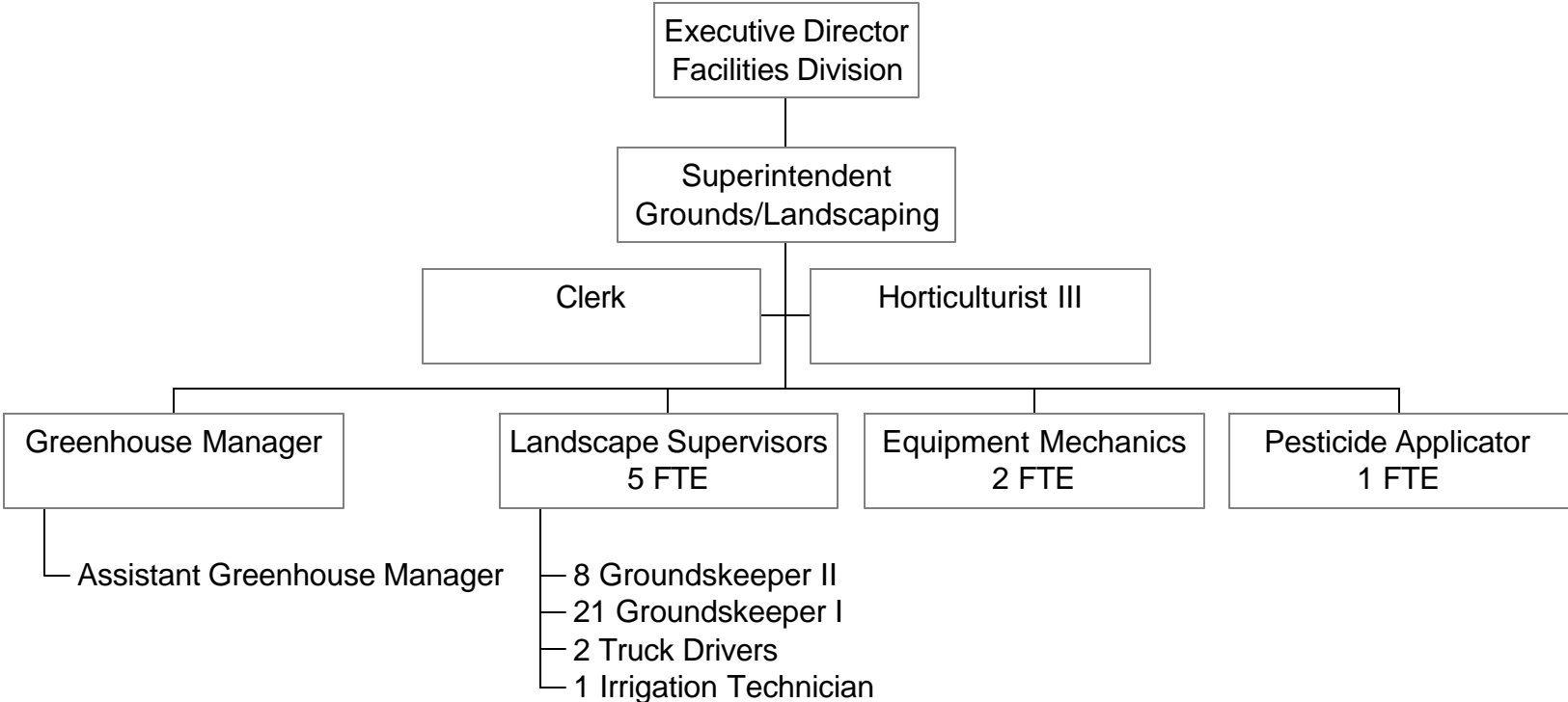


Facilities Division Existing Support Staff Organization

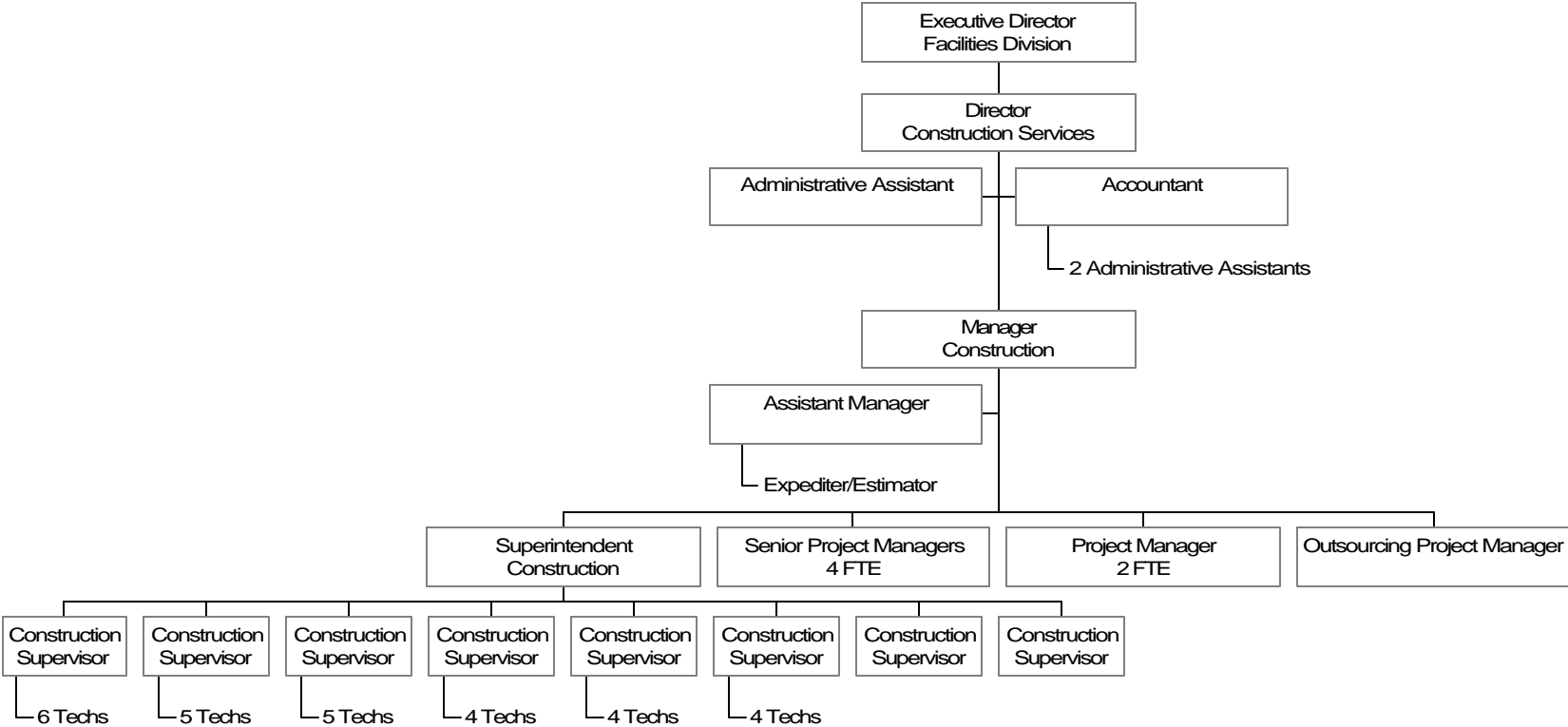


Facilities Division

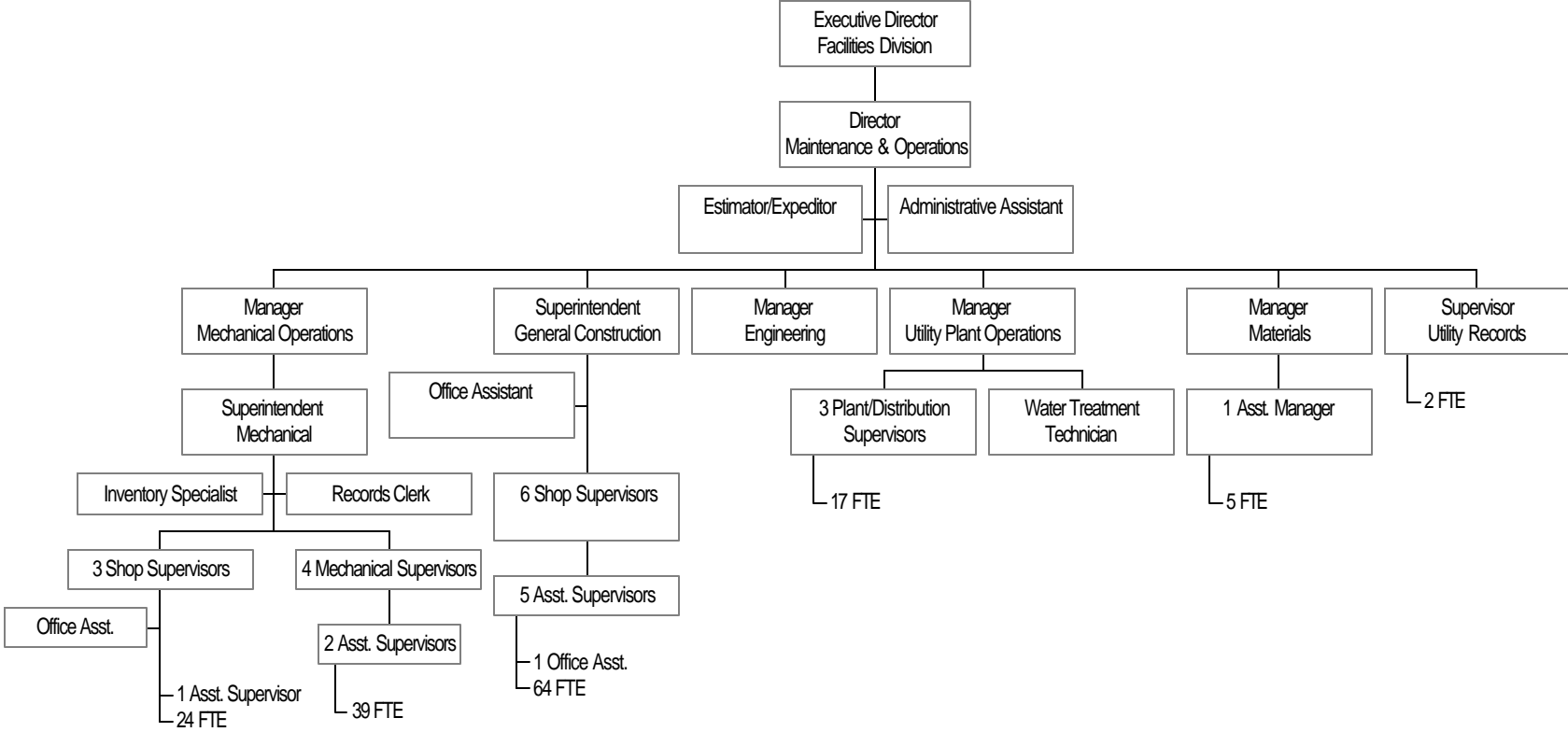
Existing Grounds/Landscaping Maintenance Organization



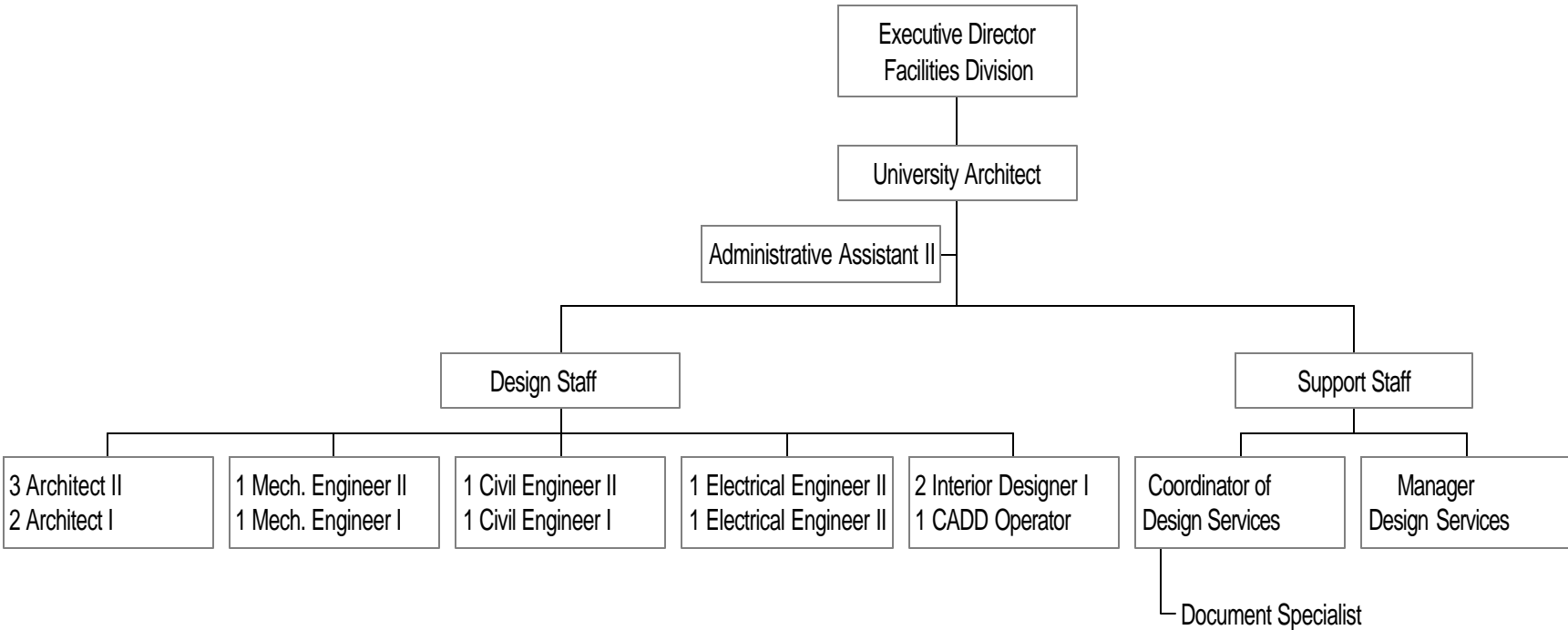
Facilities Division Existing Construction Services Organization



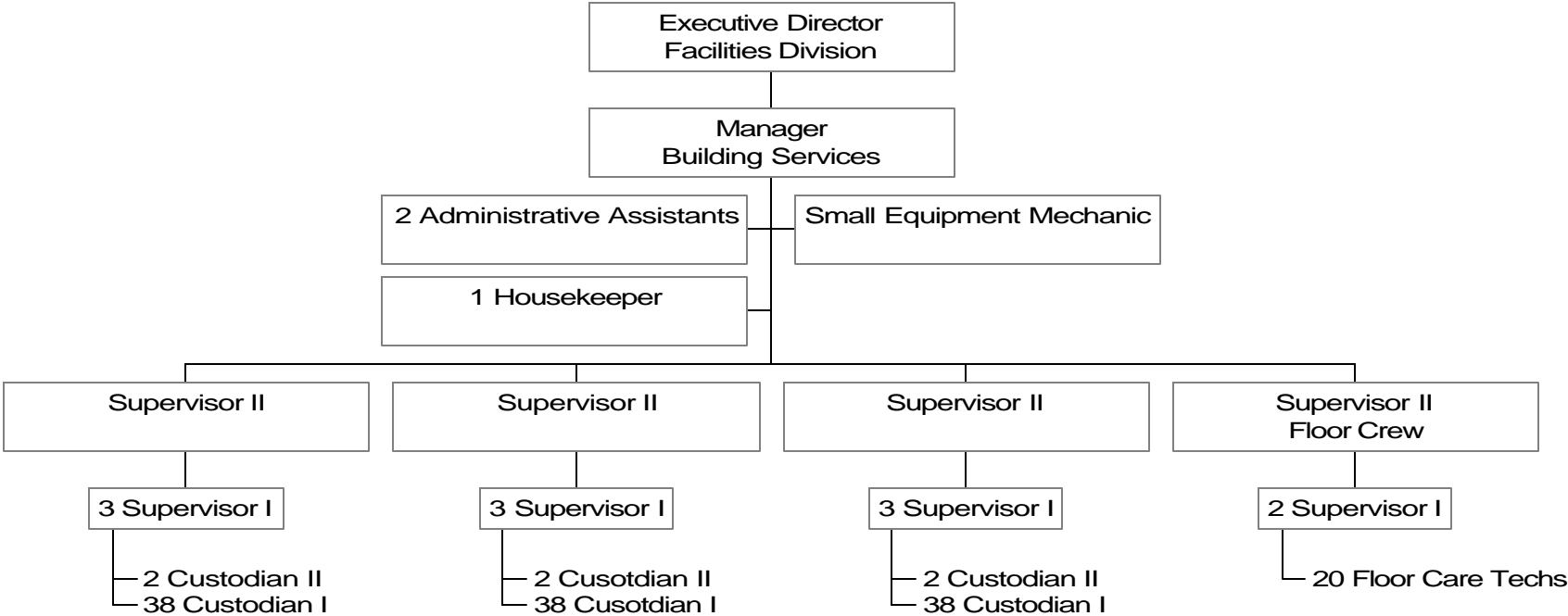
Facilities Division Existing Maintenance and Operations Organization



Facilities Division Existing Design/Development Organization



Facilities Division Existing Building Services Organization



Labor Classification Distribution

The classification table below illustrates the distribution of the management/supervisory positions contrasted to the operative level positions for the various operating units. In some cases the operating units have vacant positions that, for whatever reason, have not been filled but are still authorized positions.

<u>Position Classification</u>	<u>Operating Unit</u>								<u>Total</u>
	<u>Support</u>	<u>Admin</u>	<u>HR</u>	<u>Design/Dev</u>	<u>Const</u>	<u>M&O</u>	<u>Custodial</u>	<u>Grounds</u>	
Director		1	1	1	1	1			5
Manager	2	1	1	1	1	4	1	1	12
Assistant Manager	2				1	1			4
Superintendent					1	2		1	4
Supervisor II							4		4
Supervisor	2				8	17	11	5	43
Assistant Supervisor						8			8
Sub total Non-Operative Level									80
Operative Level Worker	24	9	4	17	40	159	144	37	434
Total	30	11	6	19	52	192	160	44	524

The above data indicates a supervisory/worker ratio of approximately 1:5. This means that for approximately every five (5) workers there is a supervisory position. The industry standard ratio is more in the range of 1:12, and in some cases 1:20. Other data indicates that there are forty-two (42) overhead positions in the Facilities Division.

There is a serious disparity between the actual number of FTE positions authorized to be filled, and vacant positions being carried on the books that cannot be filled because the funding for these positions is no longer in place.

Financial and Budgeting

The total operating budget for FY 00/01 for the Facilities Division is \$30,598,825.00, with the stipulation of annual Interdepartmental Receivables of \$5,000,000.00 from various sources and types of work on campus. This reduces the actual net operating budget to \$25,598,825.00.

The \$5,000,000.00 Interdepartmental Receivables is obtained from the following allocations to the various operating units:

<u>Operating Unit</u>	<u>% Inter. Receivables</u>	<u>\$/year</u>
Utilities	45%	\$2,250,000
Maintenance & Operations	27%	\$1,350,000
Building Services	5%	\$ 250,000
Project Construction	18%	\$ 900,000
Grounds	2%	\$ 100,000
Other (transportation, pest control)	3%	\$ 150,000

Other than Utilities charges, the other operating units generate the required Interdepartmental receivables (income) for the Facilities Division by providing labor and materials to non-academic and non-educational and general fund buildings on campus. Much of the income is generated by the completion of renovation and construction type work, and also providing maintenance expertise to the operating entities on campus that have only minor maintenance capabilities.

The necessity to generate \$2,750,000 for the operating units means that the money they generate must be subtracted from their individual operating budgets. Hence, the Maintenance and Operations unit appears to have been allocated an annual operating budget of \$8,868,869, when in reality this unit has to expend \$1,350,000 on non-facilities division facilities in order to get credited, by back-charging for labor and materials, for their budgeted non-departmental income.

The same statement can be made for the other operating units shown on the above chart. This necessity to generate these credits can cause the operating units to lose focus on their real mission, and to expend too much time and management attention on doing the reimbursable work.

The annual operating budget is comprised of operational costs (parts, materials, outside contracts, and the like) and wages, salaries, and fringe benefits. The Directors of the various operating units have very little budget authority. The

operating budgets are closely controlled centrally, creating some resentment on the part of the operational management and supervisory staff.

Annual Operating Budget – Facilities Division – FY00/01

Cost Center	\$ Operations	\$ Labor	\$ Total
Maintenance and Operations	3,174,267	5,694,602	8,868,869
Project Construction	225,000	1,414,190	1,639,190
Administrative Services	50,000	140,462	190,462
Building Services	1,248,841	3,075,577	4,324,418
Landscape Services	200,000	1,045,625	1,245,625
Miscellaneous Support Svcs.	564,893	808,896	1,373,789
Design/Development	160,000	522,558	682,558
Purchased Utilities	11,418,076	158,427	11,576,503
Miscellaneous	250,000	163,617	413,617
Human Resources	45,000	188,794	233,794
Sub-Total	17,386,077	13,212,748	30,598,825
Interdepartmental Receivables	(5,000,000)		(5,000,000)
Net Operating Budget	12,386,077	13,212,748	25,598,825

Construction and Renovation

New construction and renovation projects of differing scope and size are a very important part of the Facilities Division. Private contractors, the Project Construction Group of the Facilities, and personnel from the Maintenance and Operations Group complete the construction and renovation work.

The Maintenance and Operations Group completes about \$1,000,000 worth of construction and renovation work annually. The Project Construction Group is required to complete about \$900,000 worth of work (billable) annually, creating the necessity to subsidize this group with about \$700,000 of money that could be devoted to the maintenance and operations of the facilities at AU.

Private contractors and the Project Construction Group are currently involved in about \$123,000,000 worth of construction projects. Over \$7,000,000 per year will be provided to meet deferred maintenance needs over the next five years, and projects amounting to almost \$500,000,000 for the next ten years are being considered. The Construction Group also provides all of the project management for construction, once the Design/Development Group lets the contract for the work.

The Design and Development Group is responsible for the design and project budgets for a large majority of the construction and renovation work. This group has several vacancies on the design staff, and is being hindered in its ability to insure that the necessary design work is completed in a timely manner. The

length of time required to issue a Personal Services Contract also reduces the efficiency of the group when utilizing the services of outside design consultants.

The current “queue time” for a project to enter into the design process is over forty-five (45) days, and some design projects can go several months later than planned before being completed.

Performance Benchmarks

There is some value in being able to compare certain operating characteristics with other institutions to validate current practices, or identify where further investigation is needed. The consultant has collected data from many institutions, and is aware of exactly what the data means, and what is included and what is excluded in the data. There is no viable and practical way to insure absolute sameness of data, as each institution operates to its own particular requirements of its own facilities.

The data used to establish the Performance Benchmarks shown later in this section are derived from several similar institutions, of comparable size, age and types of facilities, and similar operational problems and constraints. These benchmarks are not intended to establish the effectiveness or efficiency of the operation of the Facilities Division, but are being used to insure that the AU performance characteristics at least fall within an acceptable range of variance, and if not, why?

The Performance Benchmarks used for this study will compare AU with seven (7) similar institutions, and will compare with the averages of all eight (8) of the institutions. Detailed charts can be found in the Exhibits Section of this report.

Performance Benchmarks for the basic components of traditional maintenance and upkeep of the facilities and grounds of a major higher education institution, excluding any construction, renovation, or non-related activities, such as the Mail department.

<u>Performance Benchmark</u>	<u>Average</u>	<u>Auburn</u>
Total annual operating costs/gross square foot	\$3.44	\$3.63
Total annual custodial costs/gross square foot	\$1.09	\$1.13
Total annual maintenance costs/gross square foot	\$1.77	\$1.84
Total annual grounds costs/improved acre	\$5,687	\$2,224
Total annual administrative costs/gross square foot	\$.28	\$.41
Percent of total costs – Custodial	32.4%	29.0%
Percent of total costs – Maintenance	43.0%	51.0%
Percent of total costs – Grounds	9.6%	8.0%
Percent of total costs – Administrative	8.5%	11.0%
Gross square feet/FTE custodial worker	36,635	20,943
Gross square feet/FTE maintenance worker	59,423	31,652

The above data indicates that, with the exception of the annual costs for grounds maintenance, the amount of money being spent on maintenance and cleaning is above the average of the benchmarked institutions. It should also be noted that the daily workload for the average custodial worker is 43% less than the average custodial worker, and the daily workload for the average maintenance worker is 47% less than the average maintenance worker.

BASIC FINDINGS

Our on-site observations and discussions form the basis for most of the findings and conclusions about the day-to-day operations of the Facilities Division. We realize that the Facilities Division has undergone a tremendous amount of change over the past twenty years, due to the growth of the university, and the increased demands being placed upon the Facilities Division. A report of this nature cannot address the effectiveness of the past performance of the group, other than to acknowledge that the Facilities Division has undergone many positive changes and transformations in the past to react to changing requirements and responsibilities.

There are obviously some problems with the overall quality of the work being performed, as identified in the Customer Satisfaction Survey, and with our on-site inspections. The facilities are not very clean, although the facilities being cleaned by a contractor appear to be cleaner than the other facilities. Maintenance is not being routinely done, and there is a lack of overall predictive maintenance. Many of the facilities are at the point where major money will need to be invested to restore them to a viable condition.

The situation is not drastic, but neither can it be ignored. We believe that a majority of the staff is trying hard to do a good job, and is being hampered by a lack of a clear vision and mission statement for the Facilities Division, among other things. The lack of a clear direction and definition of purpose creates the situation where priorities often get shifted to meet daily demands, and the ability to be proactive to the work is hampered, and the organization ends up being almost totally reactive in nature.

A prime example of the reordering of priorities can be seen in the lack of a comprehensive planned and preventive maintenance program for the facilities and the mechanical systems. The benchmarks indicate that sufficient staffing for the maintenance function is not a problem, and yet, even with the available staff, PM type work is the first to be sacrificed in the name of renovation or construction work. The adherence to a practical and effective planned maintenance program requires a great deal of management will and dedication.

The Facilities Division seems to be suffering from an identity crisis, i.e., is it a major construction company, or is it a large maintenance company? The line between maintenance and renovation/construction has become blurred and undefined. For example, there is sufficient maintenance staff available to implement a comprehensive zone maintenance program with a practical and effective planned maintenance program. There is not sufficient staff available to accomplish this, **and** to do the number and complexity of the projects they have been enlisted to complete.

Overall priorities are not clearly developed, nor have they been defined for the management staff of the Facilities Division. For example, there is considerable labor dedicated to the floor crew of the Building Services group. This crew stays booked up doing special project work for customers that can pay for the extra work (and help meet the requirement to generate a certain amount of income) and are not doing the necessary work in the public spaces and other areas of the facilities on a scheduled basis. The daily maintenance of floors depends to a large extent on the original condition of the floor. If the floor is in good shape then the day-to-day maintenance is made much easier.

Many procedures have been implemented to meet some pressing need or to alleviate a bad situation at some point in time, but have long since become

obsolete and redundant. There seems to be some reluctance to redo procedures so that the system serves the people instead of the people serving the system. A case in point is the number of signatures required for a project or construction budget, and the number of signatures required for a Personal Services Contract.

Each operating unit has some sort of clerical staff to keep time records, close out work orders, and do other financial accounting and clerical duties. There is a commonality to these tasks, and a consolidation of effort should help reduce the cost of these duties, and simplify the flow of necessary information.

The administrative costs as a percentage of total costs were higher than the average in the benchmarking standards. These administrative costs do not reflect the total of forty-two (42) full-time workers who would be classified as overhead for purposes of comparison with other institutions.

The Facilities Division has its own dedicated Human Resources staff that was formed to meet a particular need at a particular time. It may very well be that the situation requiring this dedicated staff has changed or no longer exists.

Many of the management and supervisor personnel feel that the HR function is too slow and unwieldy, and is not meeting the needs of the operation. This has led to a level of frustration with the process. Our observations lead us to the conclusion that unless normal HR duties such as hiring, training, and the like can be done much more efficiently and effectively by the dedicated HR group than by the AU Human Resources, then nothing is gained by spending this extra money on this particular operation. We do not understand why it should take several years to fill some vacant positions.

The overall morale of the workforce could be improved. There is still a significant amount of resentment and misunderstanding over the implementation of the new compensation plan. Many older employees feel they were not treated fairly, and their efforts to correct the situation have been ignored.

Our understanding of the situation is that the compensation plan had a second part, the ability to earn extra merit pay by meeting or exceeding performance goals. There are very few performance standards in place, so it would be difficult to implement any sort of pay for performance plan when the performance has not been defined. There is no mechanism in place to evaluate performance and reward the high performers.

There is no comprehensive, practical, and relative management and supervisory program in place anywhere in the Facilities Division. The management and supervisory staff would be very enthusiastic about such a program, but it cannot be a canned program or a program for the entire university community. It must be a well thought-out program that reflects the needs of the current staff and

reflects the unique nature of the difficulties in managing and supervising in a facilities operation.

The lack of performance standards and a system whereby they can be enforced has caused many of the supervisory and some of the management personnel to adopt the attitude that people cannot be held responsible for their actions, no matter how negative the action or how negative the impact on the rest of the workforce. When management loses its motivation to hold people responsible for their actions, progress and improvement in the organization is practically impossible. Managers and supervisors must, after the necessary training, be allowed to manage and supervise. To require them to do less is a very poor choice of options.

The current organization of the maintenance and operations group is based to a large extent on the central shop concept. This uses the various skill levels of the various trades a vehicle for assigning work from the work request system. There is the possibility that many of the work requests will result in multiple trades being involved in the repair, adding to the travel time, and reducing the overall productivity of the staff. The central shop concept also requires a supervisor for practically each trade, thereby decreasing the supervisor to worker ratio and resulting in a "top heavy" organization.

In the recent past, a study was conducted of the Building Services department, and recommendations were made concerning reorganization, training, supervisory development, and quality assurance. With the assistance of outside management, most of the recommendations were being implemented. A customized training program was developed to allow consistent and quality training for the working staff; a supervisory development program was put into place and was enthusiastically received by the Supervisor I's, but few others. A comprehensive quality assurance program was developed and was in the process of being implemented.

When the engagement of the outside management ended, all progress in the Building Services department also ended. The situation was allowed to revert back to pre-study days, and the positive changes being implemented were lost due to a lack of will and commitment to improve this very important department.

The Building Services department is not alone in not receiving effective training and supervisory development. There is an overall divisional lack of effective programs. Much has been said about implementing training programs, but very little has actually been accomplished. The lack of worker training is also affecting the safety practices of the division.

We could find no evidence of a dedicated safety program, or anyone in the organization responsible for safety issues. Workers are not routinely required to wear safety gear as a matter of practice, or policy. There is not formal written

safety policy or program in effect. This situation puts the Facilities Division at risk considering job related injuries and potential legal actions.

The University Planning function should be upgraded to include the integration of a comprehensive master plan that reflects the needs of the facilities, combined with the program needs of the various colleges. The overall master plan will require a strategic component as well, and should include and complement the work currently being done to establish the Auburn University “brand”.

The deferred maintenance plan for the facilities that is normally the responsibility of the Facilities Division is obsolete, and incomplete. Building conditions change, as do the requirements for major maintenance and renovation. The on-going maintenance and annual updating of this plan should be the responsibility of the proposed Design/Construction Services Group.

RECOMMENDATIONS

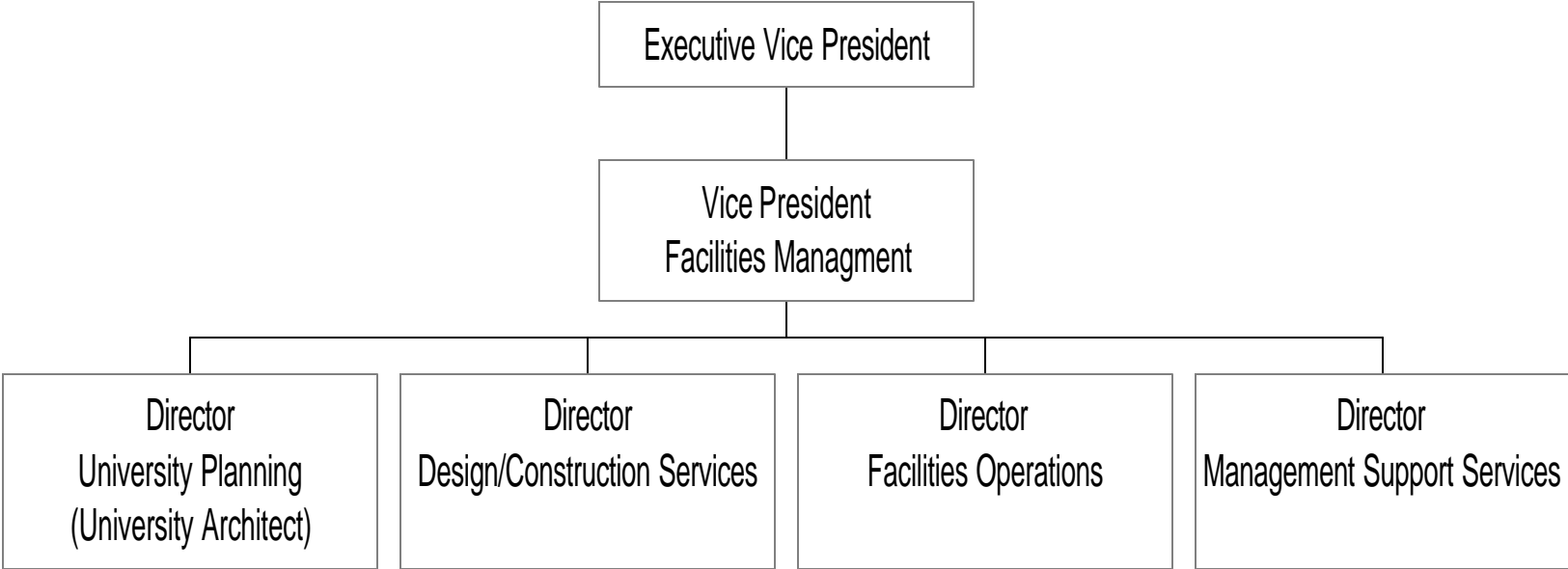
The recommendations contained in this report will be practical and can be implemented within a reasonable period of time. They will require some substantial change and the adoption of a different philosophy regarding the management of the facilities at Auburn University.

1. Rename the Facilities Division to the Facilities Management Division, reflecting its importance to the Auburn community.
2. Elevate Facilities to “cabinet level”, reflecting a division that has a \$30,000,000 million annual operating budget, has approximately 500 full-time employees, manages the design and construction of projects with a value of several hundred million dollars, and will be required to provide the right kind of facilities management leadership for Auburn University into the 21st century.
3. This elevation to “cabinet level” is based on the recommendation to create a Vice President of Facilities position. This will allow for the consolidation of all facilities management functions under a single university officer, and will allow unrestricted and clear communications with the Board of Trustees, and will facilitate the implementation of a comprehensive master plan for Auburn University.
4. All facilities management functions should be consolidated under the Vice President of Facilities Management, including University Planning.
5. The Facilities Management function should be reorganized at practically every level to reflect a new emphasis on consolidation and individual responsibility. The new organization should reflect fewer levels of

- management, and should stress communication between the workforce and management.
6. The organization charts for the proposed reorganization are shown later in this section of the report. The recommended organization will consist of four (4) distinct operating units reporting to the Vice President of Facilities. A Director will manage each unit. The proposed consolidated operating units are:
- **University Planning** – headed by the University Architect
 - **Design/Construction Services** – responsible for the integrated design/construction/project management function
 - **Facilities Operations** – responsible for the day-to-day maintenance and upkeep of the Auburn facilities, grounds, utilities, and infrastructure
 - **Management Support Services** –responsible for the financial, work management, materials management, and indirect functions that are intended to support the other three operating divisions

The proposed overall Facilities Management Organization is shown on the following page:

Proposed Organization Facilities Management Division



7. The four (4) basic operating groups will have the basic responsibilities of:

University Planning:

- Develop and maintain comprehensive university master plan
- Integrate deferred maintenance plan with programming needs
- Real estate transactions and real estate management
- Facilities plans/infrastructure/database management
- Project budgeting/site selection
- Prepare Board material for Vice President of Facilities Management

Design/Construction Services:

- Cradle to grave project management for all projects
- Individual Managers of Design and Construction
- All design, contracted and in-house construction, and project management for AU
- Expanded construction staff (from M&O staff)
- Expanded design staff
- Construction staff to be totally self-sustaining by generation of fees

Facilities Operations:

- Facilities Maintenance
- Grounds Maintenance – expanded responsibility
- Energy Management
- Building Services
- Assume no or very little construction responsibility

Management Support Services:

- Financial affairs, cost accounting, plant fund accounting, interface with AU general ledger
- Work control/ clerical/network administration
- Materials management
- Outside contract administration
- Payroll/compensation/benefits
- Budgeting
- Bulk of HR staff to AU Human Resources
- Training/Safety coordinator
- Quality assurance coordinator

8. Specific recommendations for Facilities Maintenance:

- Reduction of central shop concept and implementation of zone maintenance, utilizing a majority of maintenance generalists with some trades in each zone. This will require four (4) maintenance zones staffed with 11 FTE per zone. The zones will be supported by a central support shop, with three groups of ten (10) FTE each, as well as the specialized shops such as asbestos, insulation,

welding, and the like. This will require one Manager, four (4) zone supervisors, three (3) central support shop supervisors, and one (1) supervisor for the specialized shops.

9. Specific recommendations for Grounds Maintenance:

- Expand role of the Grounds Maintenance unit to include grounds maintenance, event support, moving, construction support, vehicle maintenance, and heavy equipment operation.
- Install four (4) grounds maintenance zones with 5 groundskeepers assigned to each zone, and responsible for individual areas with each zone. Implement a quality assurance program dedicated to regular inspections and numeric scoring of the work. (This program should be implemented for the entire Facilities Operations Group).
- Place more emphasis on more color for the dormant seasons and develop a long-range campus beautification plan.

10. Specific recommendations for Building Services:

- Revisit the original plan for improvement, planning to implement the parts of the plan that are still pertinent.
- Reduce the levels of management to one (1) manager, eight (8) supervisors
- Staff with 103 custodians and 15 floor technicians
- Implement a Relief and Projects Supervisor, and a departmental Training and Quality Assurance Supervisor

11. The Facilities Management Division should develop a mission statement that is indicative of the goals and purpose of the divisions, and can be memorized by every employee and recited upon demand.

12. Performance standards and performance goals should be developed and implemented. These should form the basis for a training program and subsequent employee evaluation program.

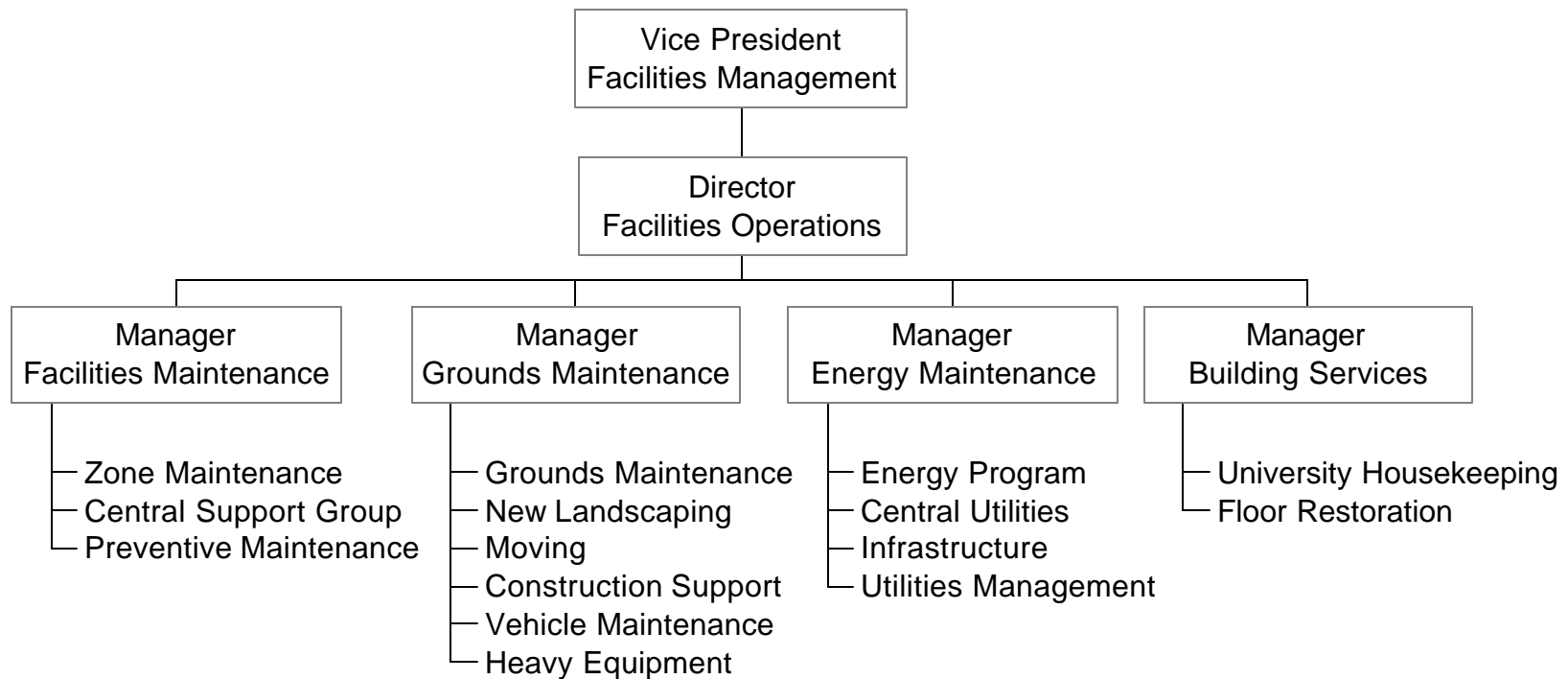
13. Consideration should be given to reconsidering the merit pay program, but only after the installation of effective performance measurement and evaluation techniques.

14. The deferred maintenance plan should be revised, updated, and coordinated with the programming needs of the faculty to insure an integrated master plan.

15. The priorities for the facilities maintenance group need to be reordered to allow the orderly completion of the necessary preventive maintenance tasks, reducing equipment downtime, and increasing operational efficiency.

16. We recommend the development of a “Maintenance Apprenticeship Program” that will provide the very good employees in the lower paying jobs an opportunity to enter the apprentice training program, and eventually graduate to the maintenance department in a higher paying job utilizing new maintenance skills. This will allow AU to “home grow” many of its future maintenance employees, and reduce the problems currently being experienced with trying to find, hire, and retain qualified employees with the proper work ethic and right attitude.
17. The design process can be simplified and made more effective by developing and utilizing a comprehensive set of Auburn University design and specifications standards.
18. These design standards will form the basis for all design work, and will simplify the construction of the specifications documents, as they will all be standard.
19. The implementation of the new management software is a very important project, and its successful implementation should result in a reduction in the necessity for as many support personnel as are utilized at the present. We believe two work control technicians could work at the front reception desk, and handle all the work as well as perform the required receptionist and telephone operator functions.
20. Consideration should be given to the expansion of the CMMS at a later date, utilizing more of the modules allowing total integration of every facet of the Facilities Management responsibility into the system.

Functional Organization Chart Proposed Facilities Operations

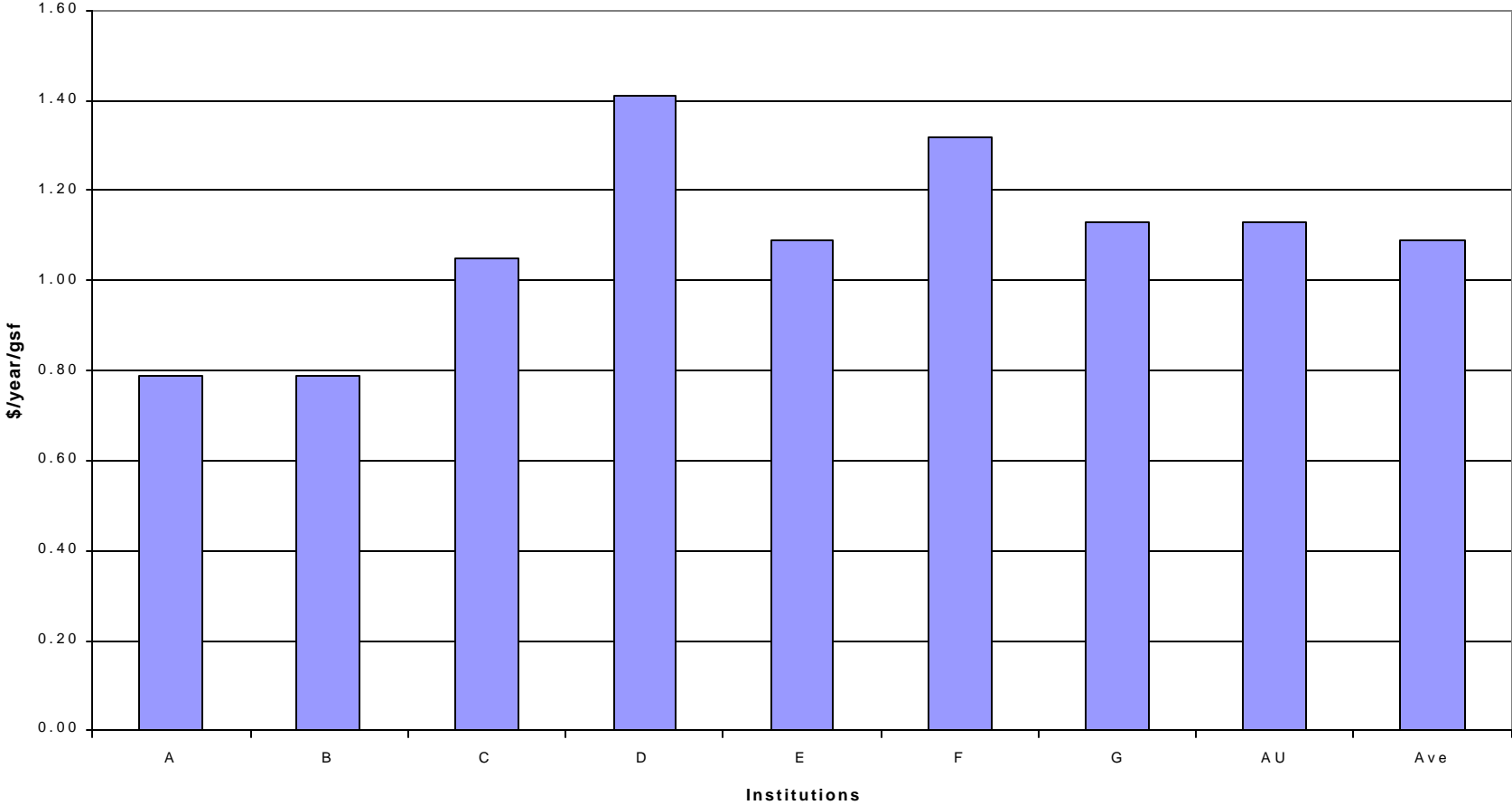


EXHIBITS

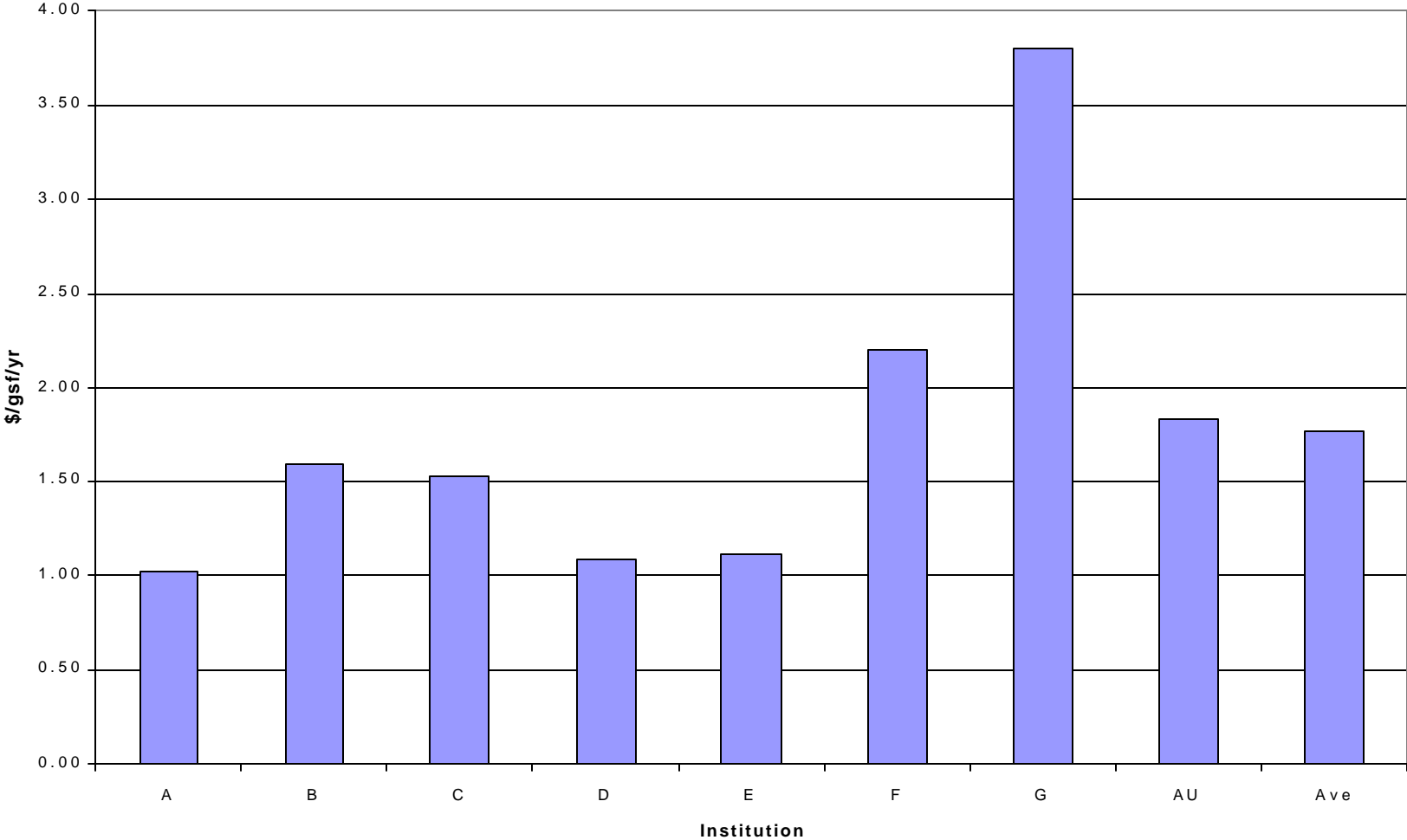
Performance Benchmarking Charts

The following charts illustrate a graphic display of the Performance Benchmarks used in this report. The benchmarks are from similar institutions in size, age and type of facilities, and complexity. These benchmarks were used because the consultant generated the data to establish the benchmarks, and can verify the benchmarks represent almost identical data.

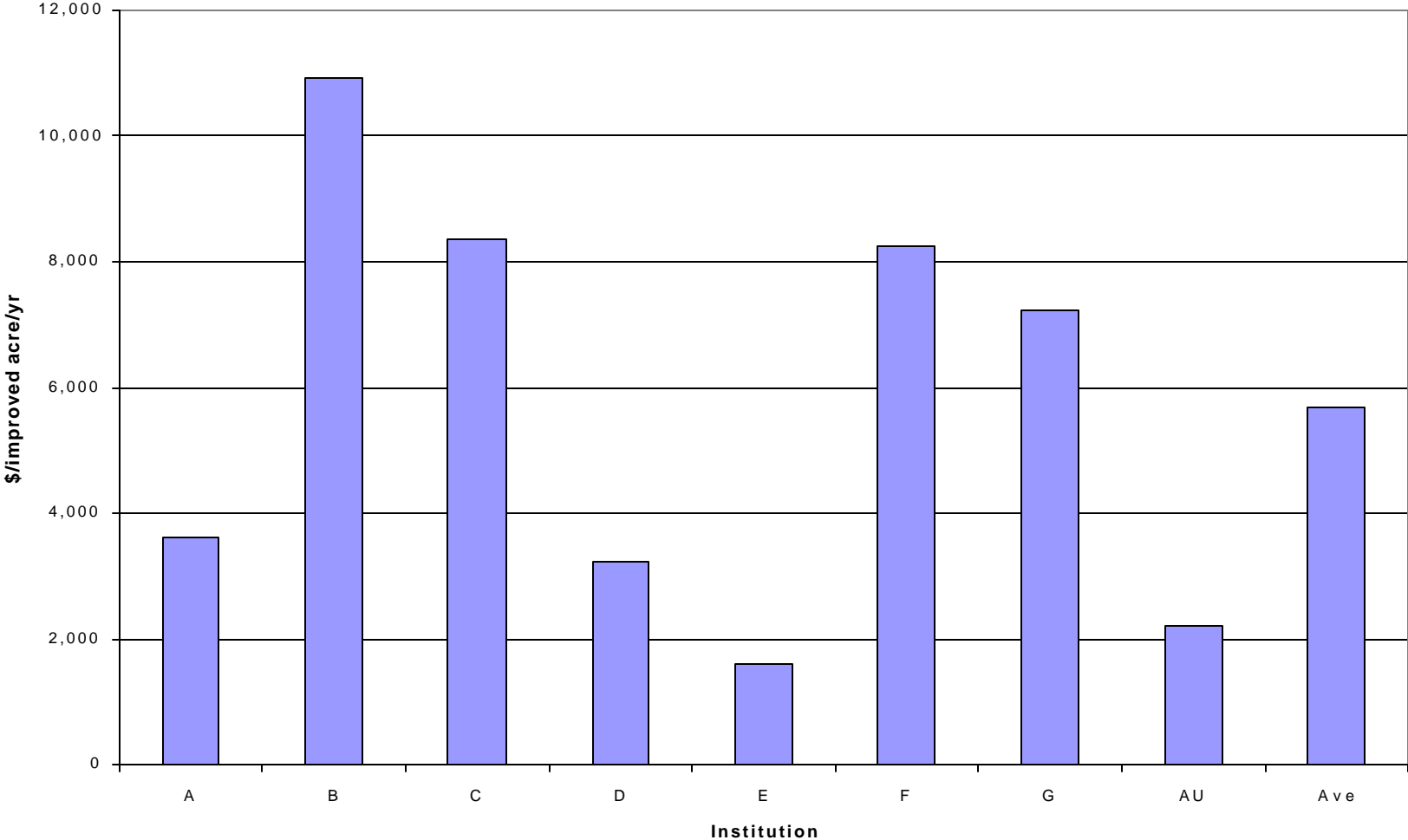
Cost/GSF/Year - Custodial



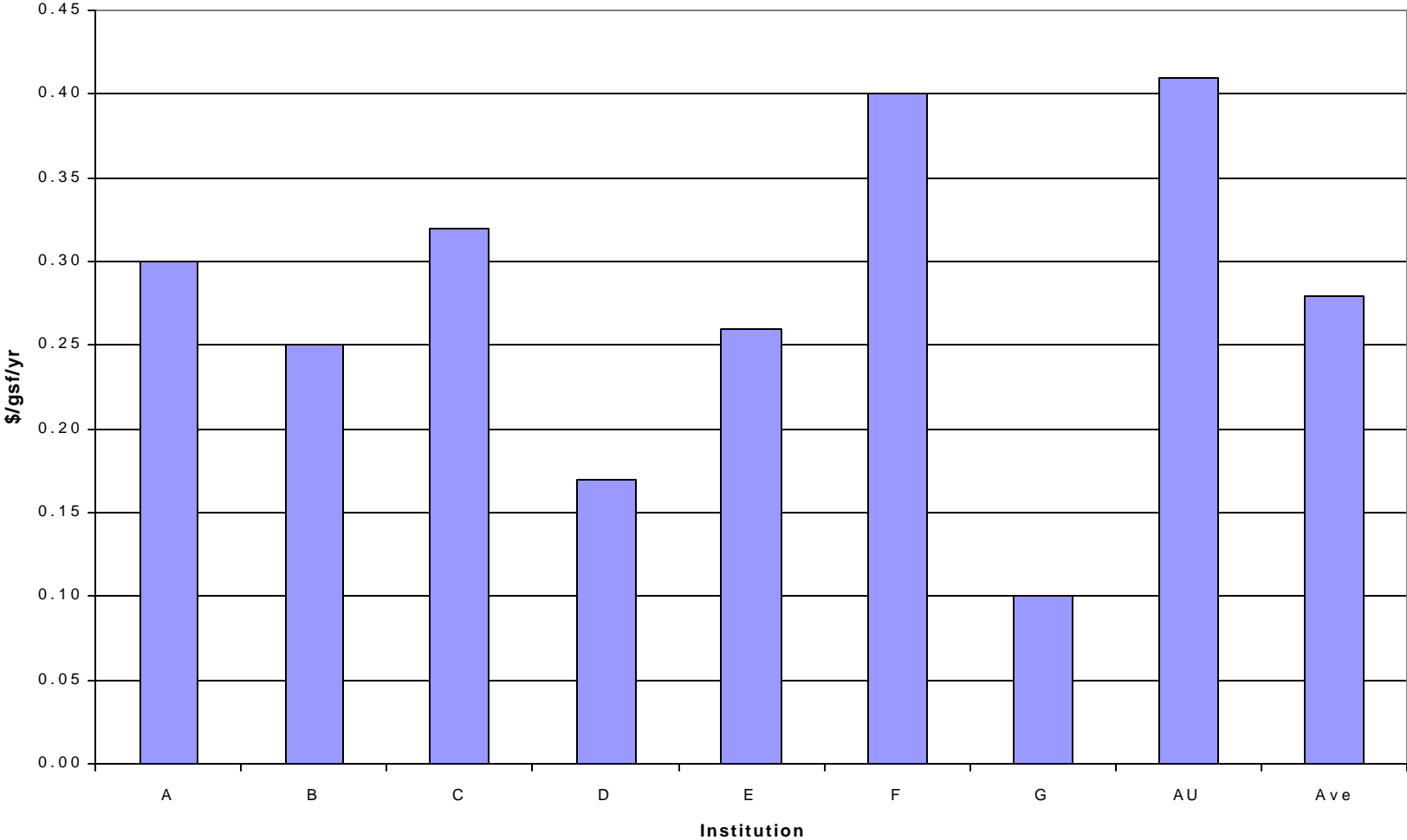
Cost/GSF/Year - Maintenance and Operations



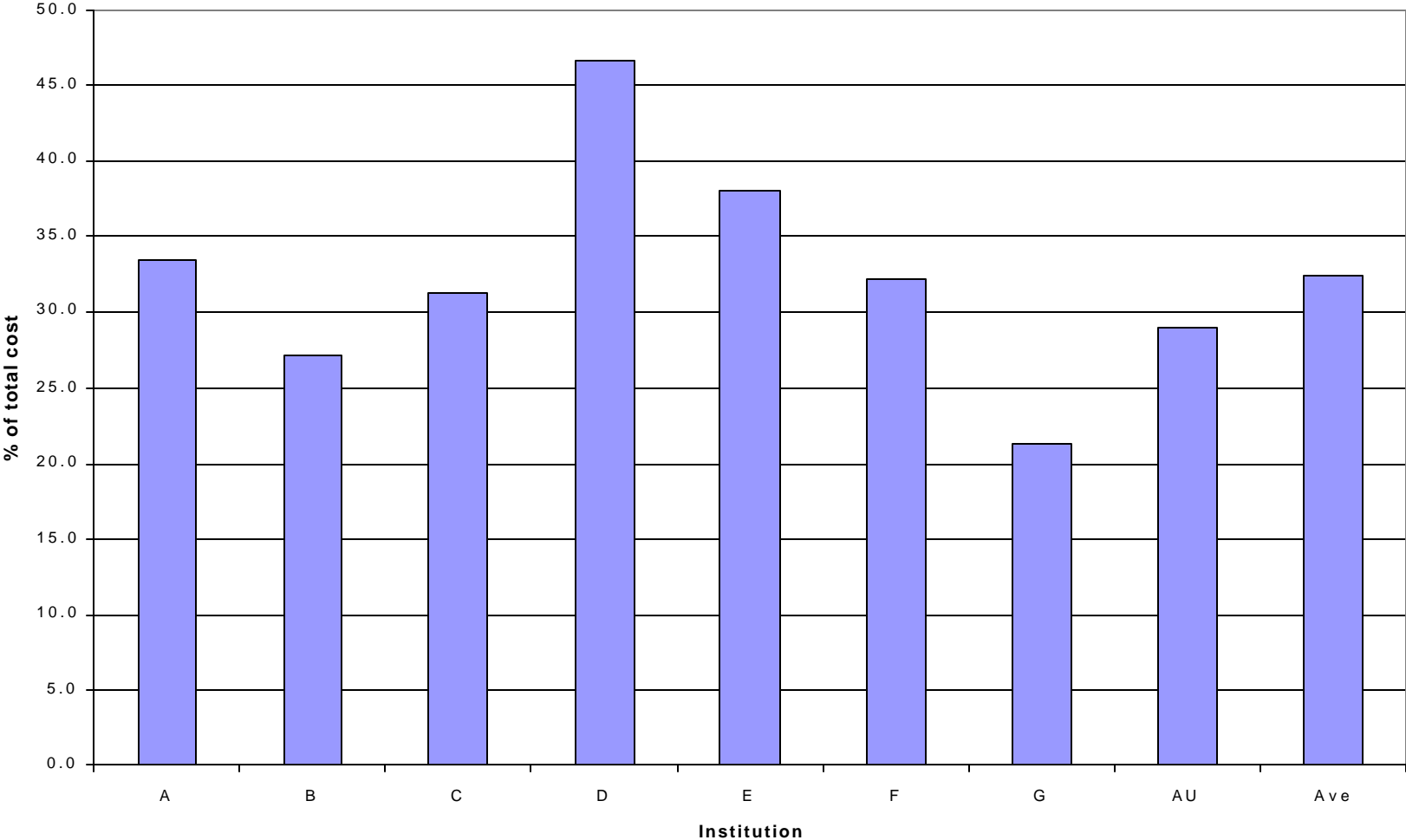
Cost/Improved Acre/Year - Grounds Maintenance



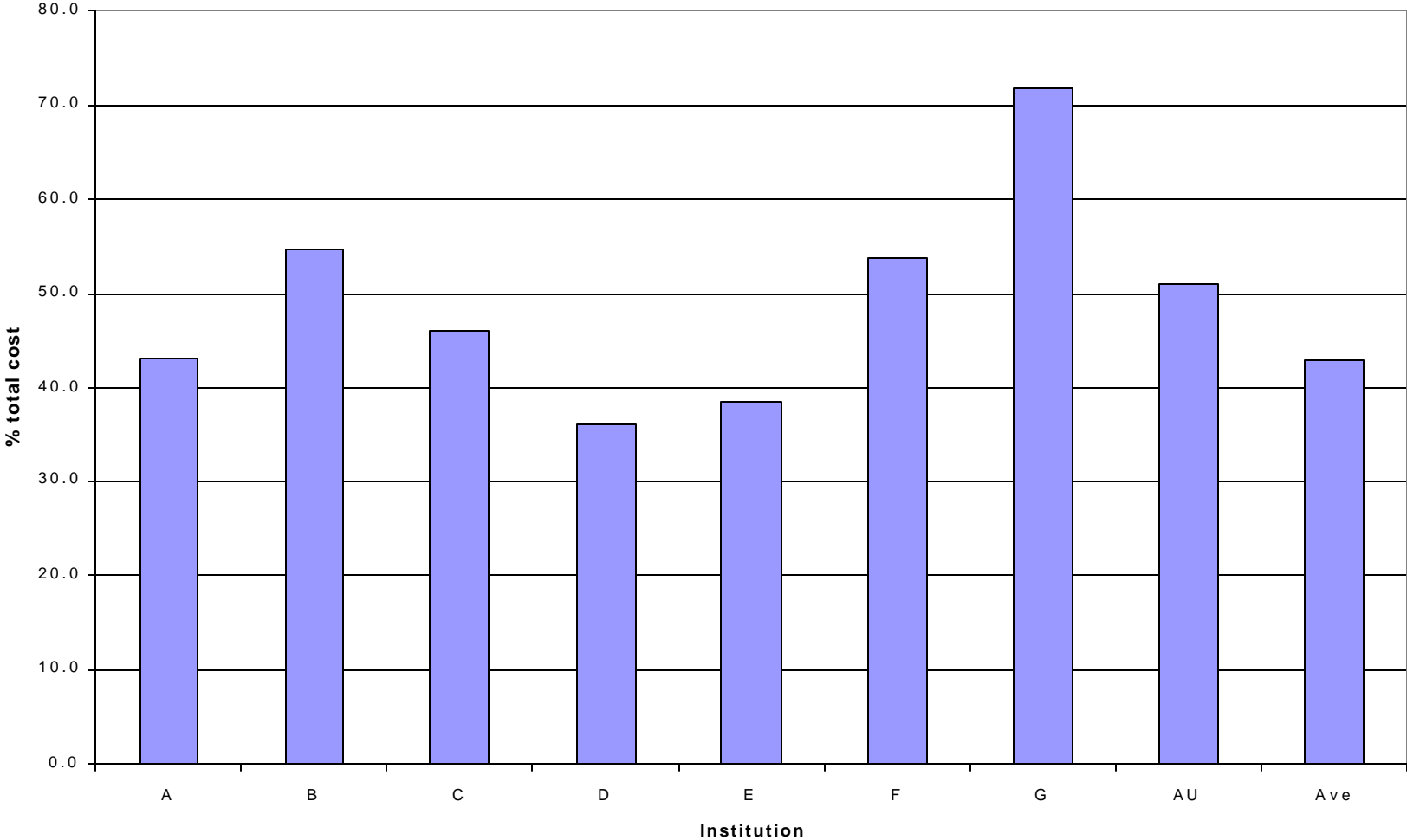
Cost/GSF/Year - Administrative



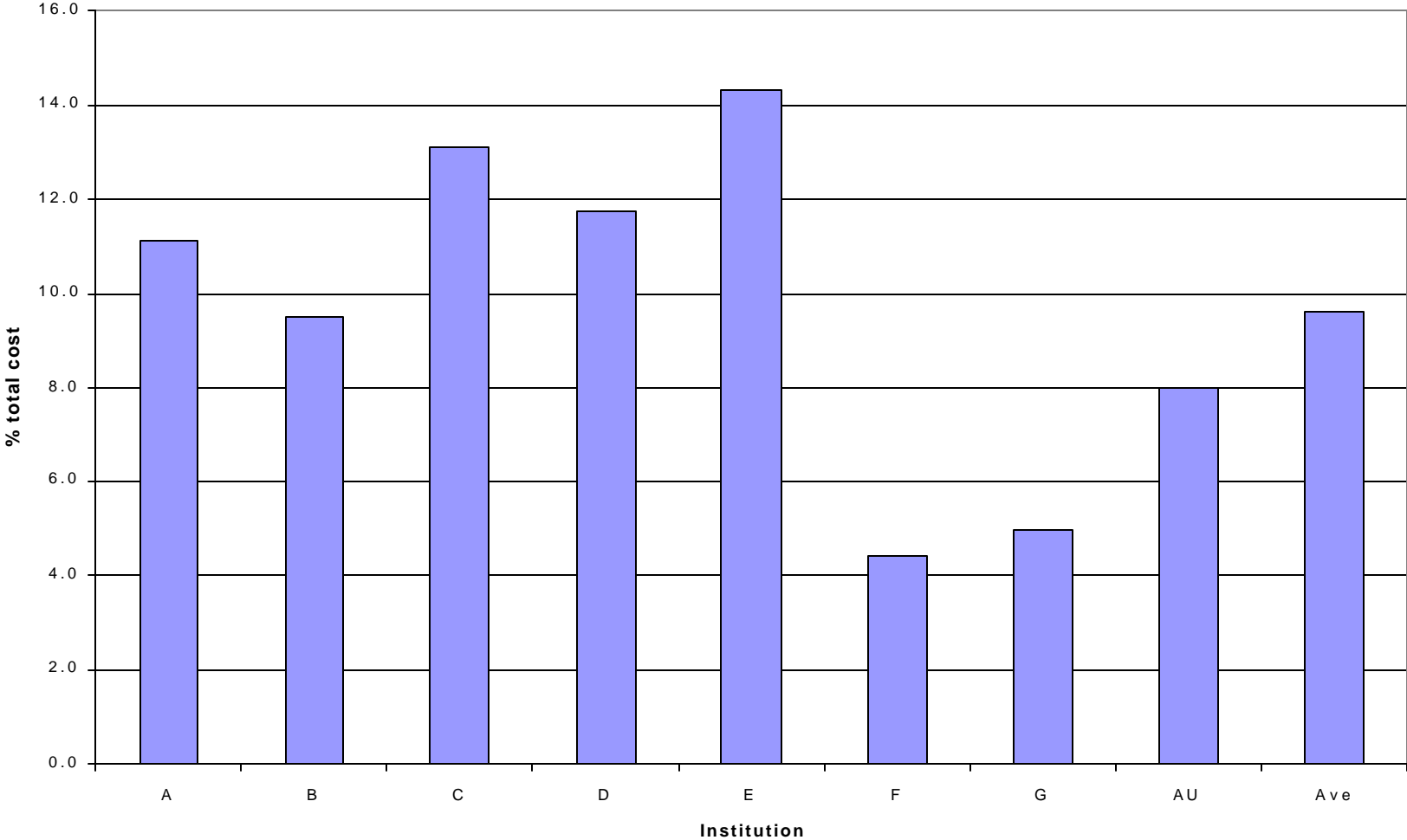
% of Total Cost - Custodial



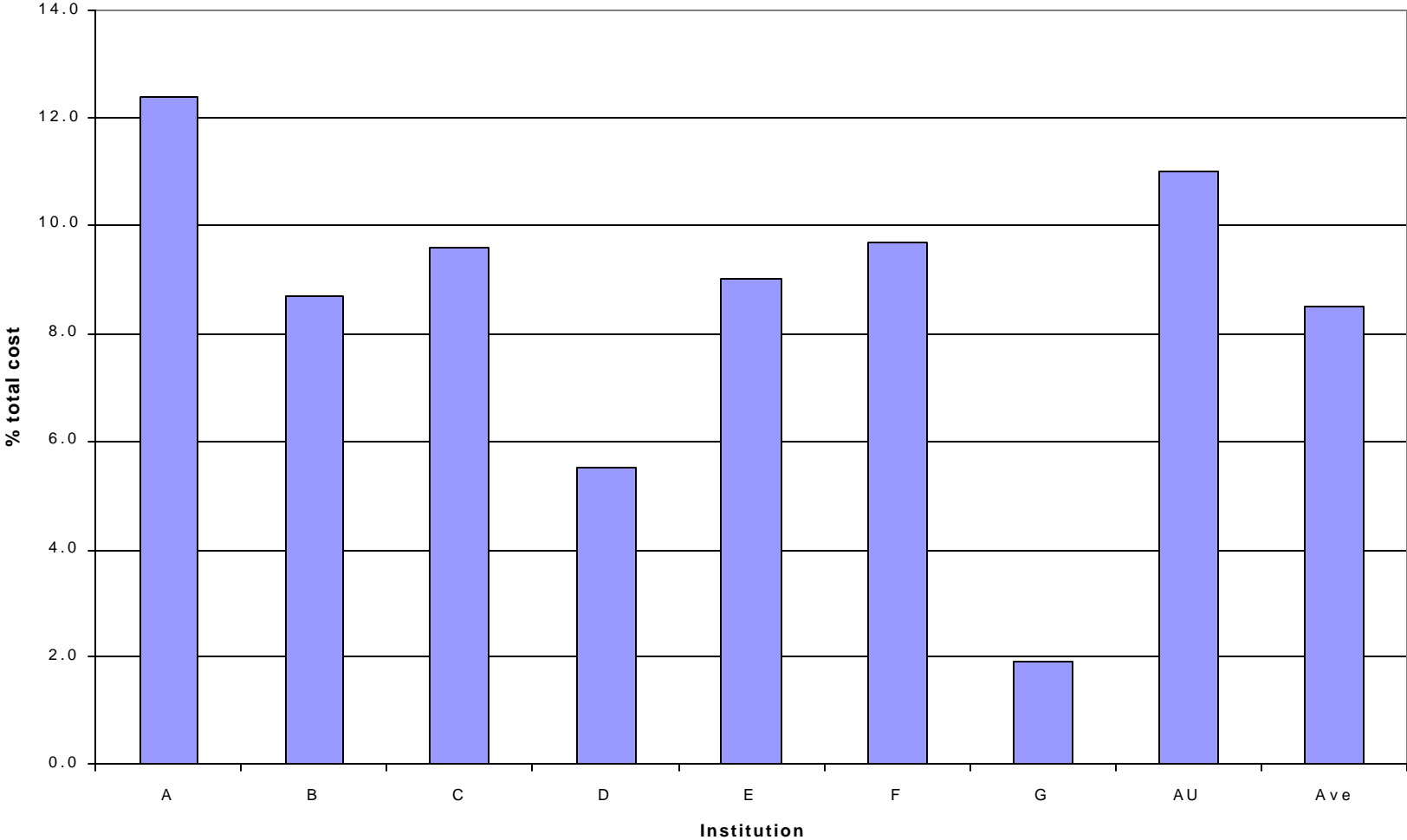
% of Total Cost - Maintenance and Operations



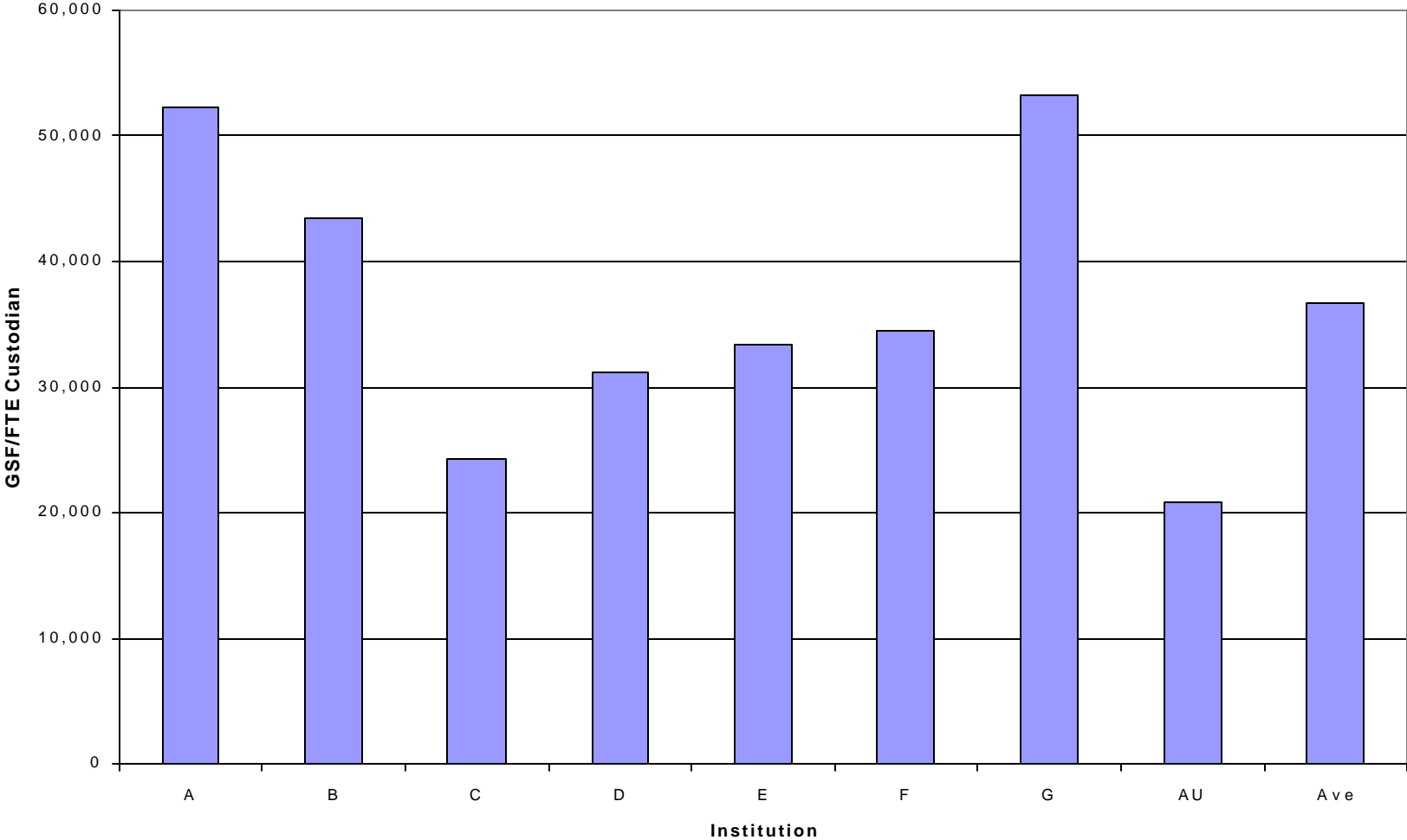
% of Total Costs - Grounds Maintenance



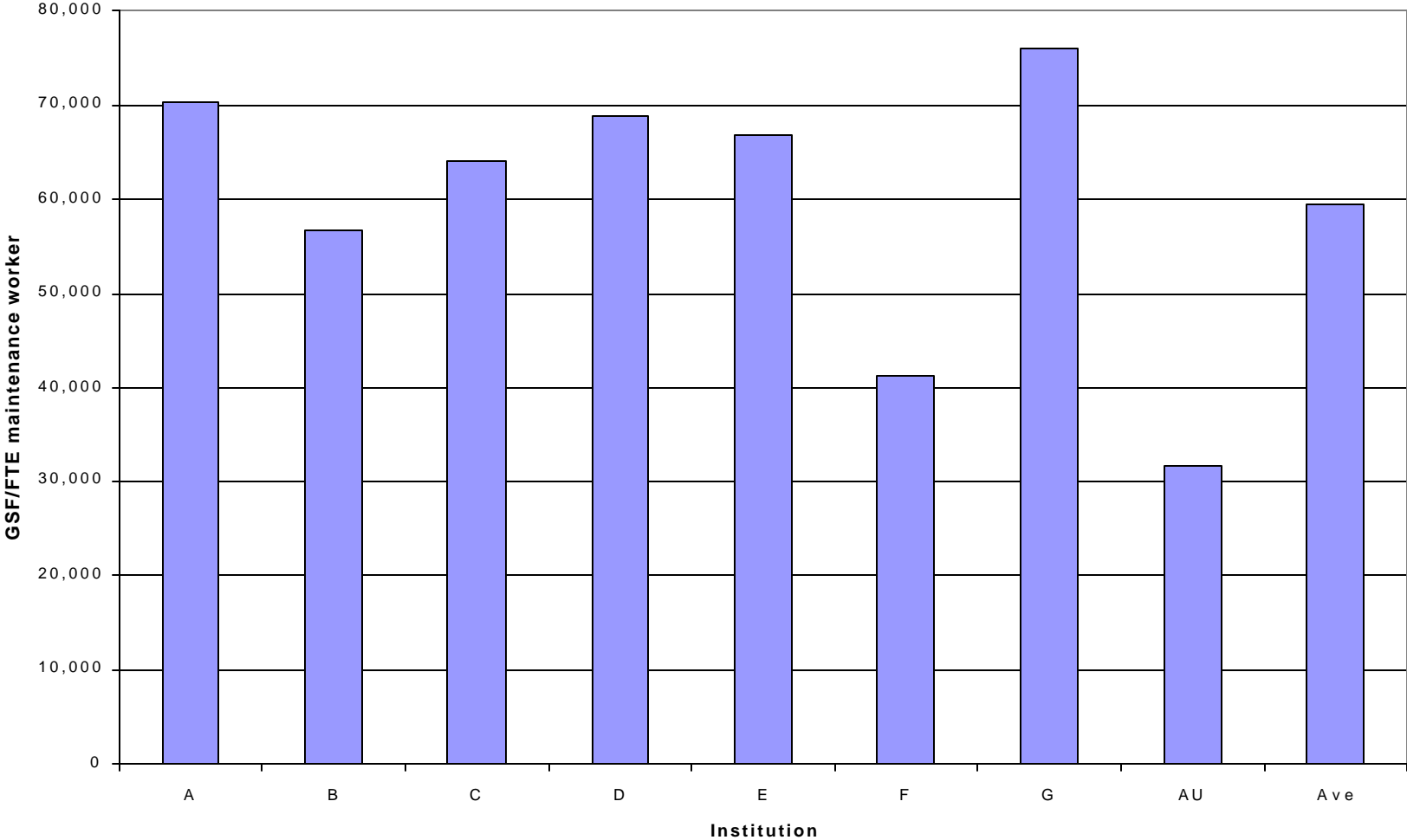
% of Total Costs - Administrative



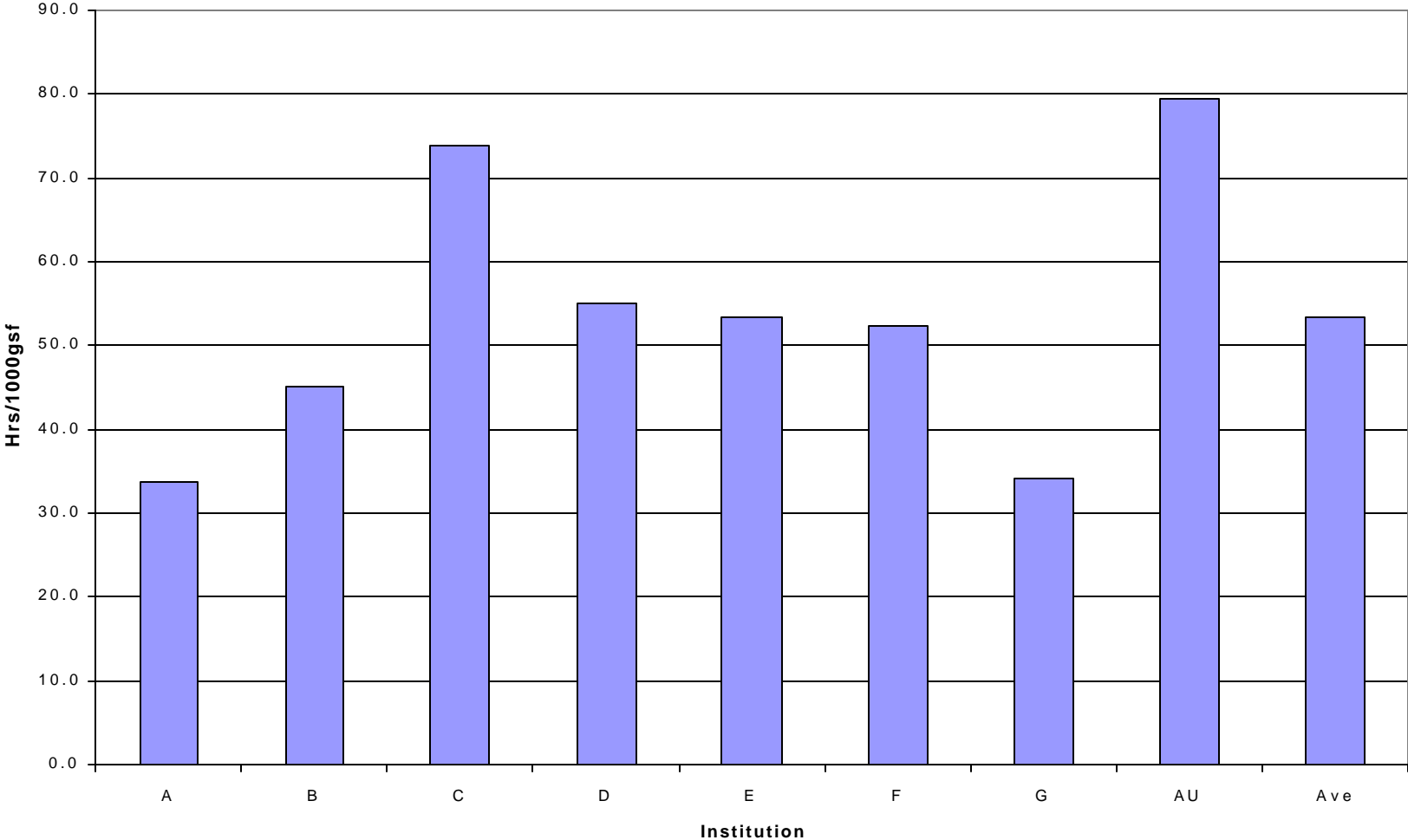
GSF per FTE Custodian



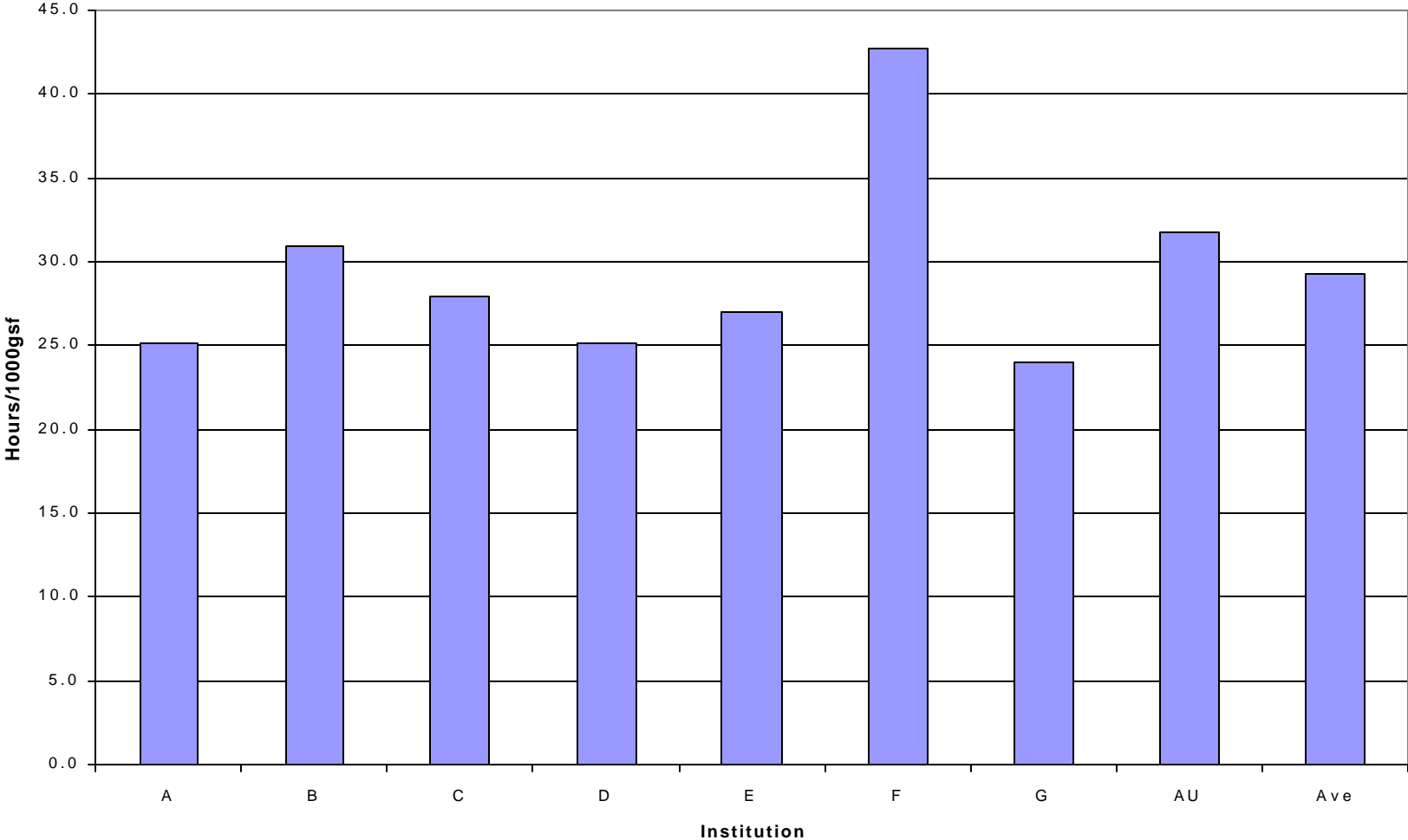
GSF/FTE Maintenance Worker



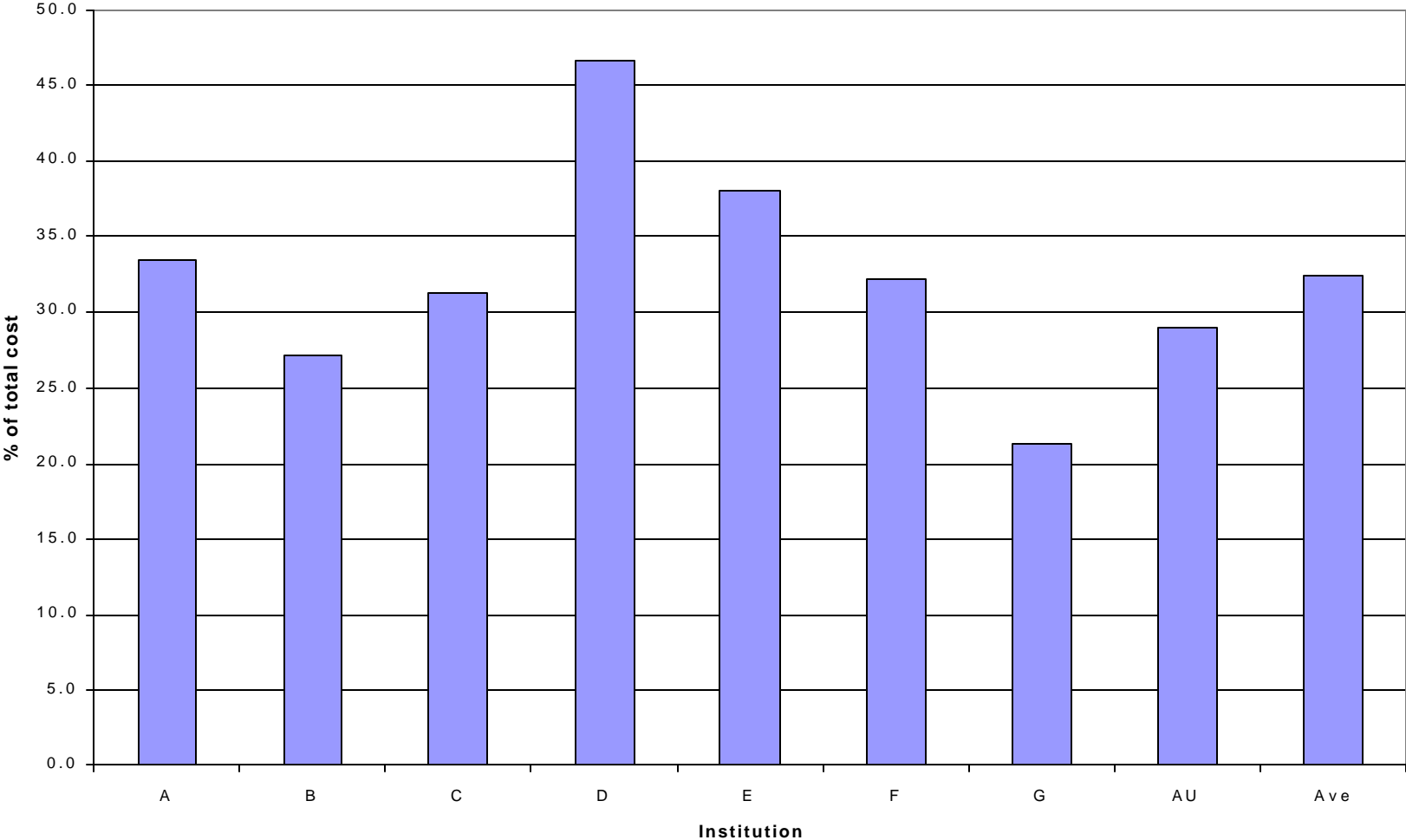
Hours/1,000 GSF - Custodial



Hours/1,000 GSF - Maintenance



% of Total Cost - Custodial



REPORT ON CUSTOMER SATISFACTION SURVEY

Report on Customer Satisfaction Survey

For

**Facilities Division
Auburn University**

October 26, 2000

Prepared by:

**Jerald L. Deriso, P.E.
Consultant in Facilities Management**

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This initial Customer Satisfaction Survey (CSS) for the Facilities Division of Auburn University can be used to gauge the customer's perception of the level of service provided by the Facilities Division. The ultimate objective of conducting a survey of this type is to identify those areas in which the customers have expressed a negative opinion of the particular service and determine the cause for the dissatisfaction. Then, changes can be implemented to improve the service to the customer for the individual operational units of the Facilities Division.

This survey asked for evaluations for three separate operational entities of the Facilities Division:

- Facilities Operations
- Design/Development
- Construction

The analysis of the data generated by the survey indicates a relatively high degree of dissatisfaction by the customer with the performance of the Facilities Division. This level of dissatisfaction is evident in all three of the operational entities.

Facilities Operations:

Positive ratings (Excellent or Good) for the overall Facilities Operations were 59%, with negative ratings (Poor or Very Poor) overall of 16%. Many universities that measure customer satisfaction establish **positive** rating goals of **70%** or greater, **neutral** rating goals of **20%** or less, and **negative** rating goals of **10%** or less.

If these standards are applied against the results of this CSS, then the results are not encouraging.

Only two of the nine categories had less than 10% negative ratings – Mail Services and Handling of requests by the help desk. These two categories were, coincidentally, the only two categories to meet or exceed the 70% goal for positive ratings.

Almost a quarter of the respondents thought the completion of service requests took too long, and less than half of the respondents expressed approval for the length of time to complete service requests. Keeping people informed continuously when there is a delay in the completion of their work should improve these ratings.

The Quality of Building Maintenance was also rated extremely low (22% negative and only 46% positive). The age and overall condition of a facility can often have a negative impact on the ratings for general maintenance.

Moving services also had one of the larger negative ratings (22%), although over twice as many respondents (54%) gave a positive rating.

Although discouraging, the ratings for the Facilities Operations can be improved by identifying operational problems and attitudes, and correcting these over a period of time. There are some basic organizational issues that should be studied with the goal of bringing the Facilities Division more in line with progressive and highly rated facilities organizations. Staffing, management skills, procedures, policies, customer relations, and the other variables relating to facilities operations should be carefully evaluated with the goal of performance improvement. It is not inconceivable to make the achievement of improvement goals a condition of employment within the Facilities Division.

Design/Development and Construction:

The ratings for these operational entities indicate problems of a different and more serious nature. **Not one** of the eight (8) categories met the goal of 70% for positive ratings and 10% for negative ratings. These ratings should be viewed by Auburn University management personnel and totally unacceptable.

The overall positive rating for Design/Development was only 45%; the overall positive rating for Construction was not much better at 46%. The overall negative ratings indicated almost one-third of the respondents disapproved of the job being done by either group; 29% for Design/Development and 32% for Construction.

Ratings such as those received for these two entities indicate there could be staffing and work-loading problems. If there has been a steady increase in the number and complexity of renovation and construction projects without an attendant increase in staff size, then the problems indicated by the survey are bound to occur.

The level of staffing may be one of the factors driving the negative ratings, but the organization, policies, procedures, training, competence, adherence to traditions, performance standards and measurements, and accountability should also be carefully evaluated in order to identify changes that should be made in these departments to increase the quality and quantity of service delivered to the customers at Auburn University.

A primary recommendation is to continue to conduct this survey on at least an annual basis, and establish comparative statistics in the surveys hereafter. This practice will allow you to develop a meaningful trending data base.

INTRODUCTION

In July 2000 a seventeen question “Auburn University Facilities Evaluation Questionnaire July 2000” was distributed to members of the Auburn University Administration, Deans/Directors/Department Heads, and Faculty. Almost thirty percent (30%) of the questionnaires were returned and analyzed. This is an excellent response to a survey of this kind.

The survey instrument was divided into question relating to the Operations aspect of the Facilities Division, the Design/Development Department, and the Construction Department.

The purpose of conducting this customer satisfaction was two-fold:

1. Measure the current level of customer satisfaction with the performance of the Facilities Division units described above;
2. Establish a data baseline to allow the comparison of data from similar surveys in the future.

The results of this survey can be used to identify areas of the Facilities Division that need a review of their performance and operational metrics to develop a plan for improving the quality level of the service provided to the customer by the operational unit.

Goals and objectives can be set for the performance indicators for each individual unit, and an annual customer satisfaction survey can be used to complete a very important part of management and supervisory performance evaluations.

The following guidelines were used to evaluate the levels of satisfaction expressed by the respondents:

- Positive Rating: A rating of Good or Excellent
- Neutral Rating: A rating of Fair (this equates to an “average” rating)
- Negative Rating: A rating of Poor or Very Poor

The ratings can also be compared to a letter grading system:

<u>Rating</u>	<u>Letter Grade</u>
Excellent	A
Good	B
Fair	C
Poor	D
Very Poor	F

Not every respondent furnished a response to each item of evaluation. For the Operations Aspect, the consultant analyzed 2,964 responses out of a possible 3,600; for the Design/Development Department 488 responses out of a possible 1,600 responses; and for the Construction Department 447 responses out of a possible 1,600 responses.

Many institutions that measure Customer Satisfaction adopt the rating and performance standards of:

- **Positive- 70% or greater**
- **Negative- 10% or less**
- **Neutral- 20% or less**

These standards can be achieved if customer service and work quality are continuously stressed and measured by management and supervision. Meeting the standards requires extraordinary communicative skills and practices by the entire Facilities staff.

Consequently, management, supervision, and workforce are expected to meet or exceed these goals as a condition for advancement, pay raises, and, in some cases, continued employment.

Thank you for the opportunity to prepare this report.

Respectfully submitted,

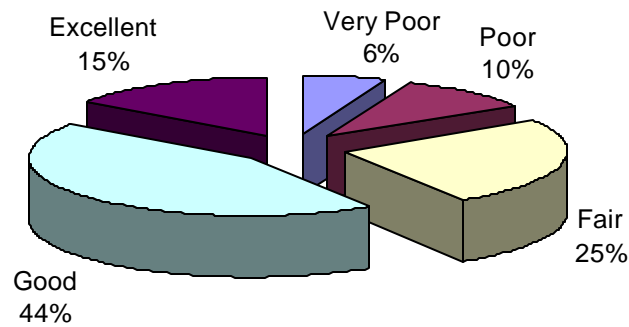
Jerald L. Deriso, P.E.
Consultant in Facilities Management

THE DATA

Facilities Operations

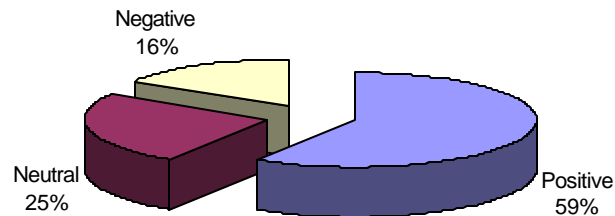
Current level of satisfaction – overall total ratings

<u>Rating</u>	<u>% Of all responses</u>
Very poor	6%
Poor	10%
Fair	25%
Good	44%
Excellent	15%



Current levels of satisfaction – positive/negative

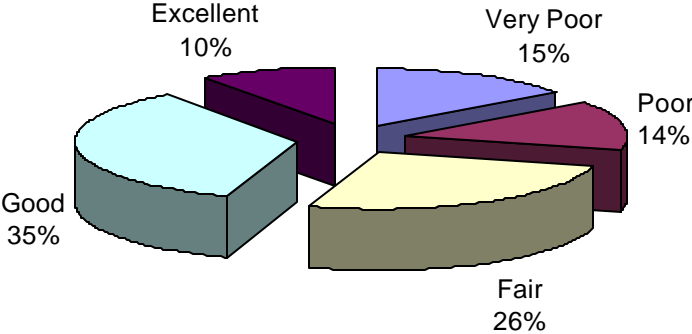
<u>Rating</u>	<u>% Of all responses</u>
Positive	59%
Neutral	25%
Negative	16%



Design and Development

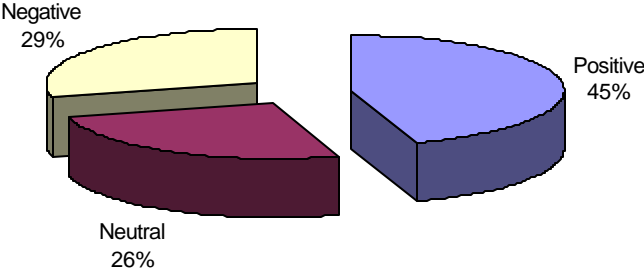
Current levels of satisfaction – overall total ratings

<u>Rating</u>	<u>% Of all responses</u>
Very Poor	15%
Poor	14%
Fair	26%
Good	35%
Excellent	10%



Design and Development - Current levels of satisfaction – positive/negative

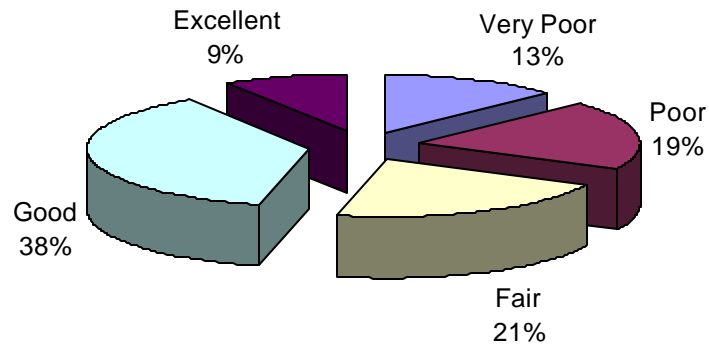
<u>Rating</u>	<u>% Of total responses</u>
Positive	45%
Neutral	26%
Negative	29%



Construction

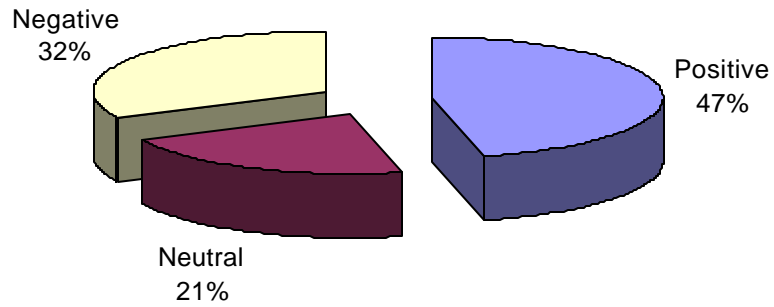
Current levels of satisfaction – overall total ratings

<u>Rating</u>	<u>% Of total responses</u>
Very Poor	13%
Poor	19%
Fair	21%
Good	37%
Excellent	9%



Construction - Current levels of satisfaction – Positive/negative

Rating	% Of total responses
Positive	46%
Neutral	21%
Negative	32%



Current Levels of Satisfaction – Facilities Operations

Percent of total responses

<u>Category of Service</u>	<u>Very Poor</u>	<u>Poor</u>	<u>Fair</u>	<u>Good</u>	<u>Excellent</u>
1. Courteous and accurate handling of requests to our help-desk.	3%	5%	22%	56%	14%
2. Timely completion of service work	8%	16%	31%	34%	11%
3. Correctly performed work on first response	9%	9%	25%	44%	13%
4. Quality of Housekeeping (Custodial and floor services)	8%	10%	24%	37%	20%
5. Quality of General Building Maintenance	6%	16%	33%	38%	8%
6. Quality of Grounds/Landscaping Maintenance	5%	7%	25%	49%	14%
7. Quality of Pest Control Services	6%	11%	25%	47%	12%
8. Quality of Mail Services	1%	4%	12%	53%	30%
9. Quality of Moving Services	9%	13%	24%	41%	13%

Current Levels of Satisfaction – Design/Development and Construction

<u>Design and Development</u>	<u>Very Poor</u>	<u>Poor</u>	<u>Fair</u>	<u>Good</u>	<u>Excellent</u>
1. Timeliness of design services	28%	16%	28%	18%	9%
2. Adequacy of design in meeting program objectives	10%	10%	27%	42%	11%
3. Sufficient opportunity for input during design process	10%	12%	23%	39%	16%
4. Accuracy of budget estimating	12%	15%	28%	41%	4%
Construction					
5. Adherence to the construction schedule	18%	22%	21%	34%	6%
6. Did the quality meet your expectations	6%	15%	17%	44%	12%
7. Communication of project status	17%	22%	20%	30%	10%
8. Completion of punch-list items	10%	16%	27%	40%	7%
8. Completion of punch-list items	10%	16%	27%	40%	7%

Current Levels of Satisfaction – Facilities Operations

Percent of total responses

<u>Category of Service</u>	<u>Negative</u>	<u>Neutral</u>	<u>Positive</u>
1. Courteous and accurate handling of requests to our help-desk.	8%	22%	70%
2. Timely completion of service work	24%	31%	45%
3. Correctly performed work on first response	18%	25%	57%
4. Quality of Housekeeping (Custodial and floor services)	18%	24%	57%
5. Quality of General Building Maintenance	22%	33%	46%
6. Quality of Grounds/Landscaping Maintenance	12%	25%	63%
7. Quality of Pest Control Services	17%	25%	59%
8. Quality of Mail Services	5%	12%	83%
9. Quality of Moving Services	22%	24%	54%

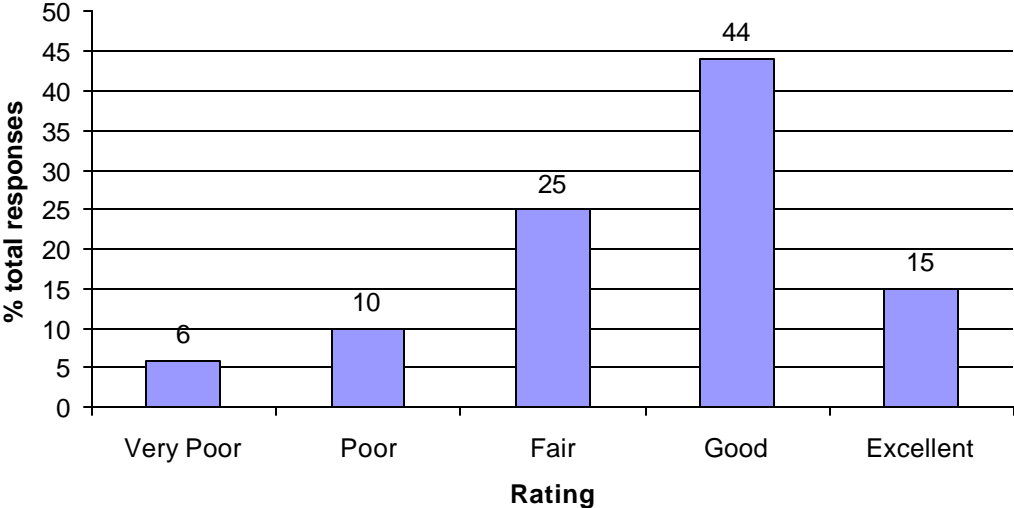
Current Levels of Satisfaction – Design/Development and Construction

<u>Design and Development</u>	<u>Negative</u>	<u>Neutral</u>	<u>Positive</u>
1. Timeliness of design services	44%	28%	27%
2. Adequacy of design in meeting program objectives	20%	27%	53%
3. Sufficient opportunity for input during design process	22%	23%	55%
4. Accuracy of budget estimating	27%	28%	45%
Construction			
5. Adherence to the construction schedule	40%	21%	40%
6. Did the quality meet your expectations	21%	17%	56%
7. Communication of project status	39%	20%	40%
8. Completion of punch-list items	26%	27%	47%

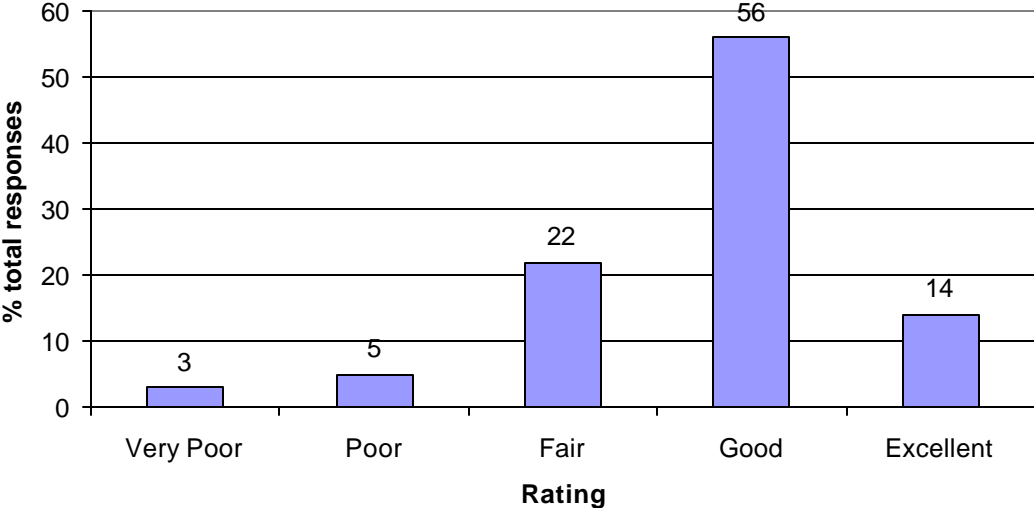
Graphic Display of Data

Facilities Operations

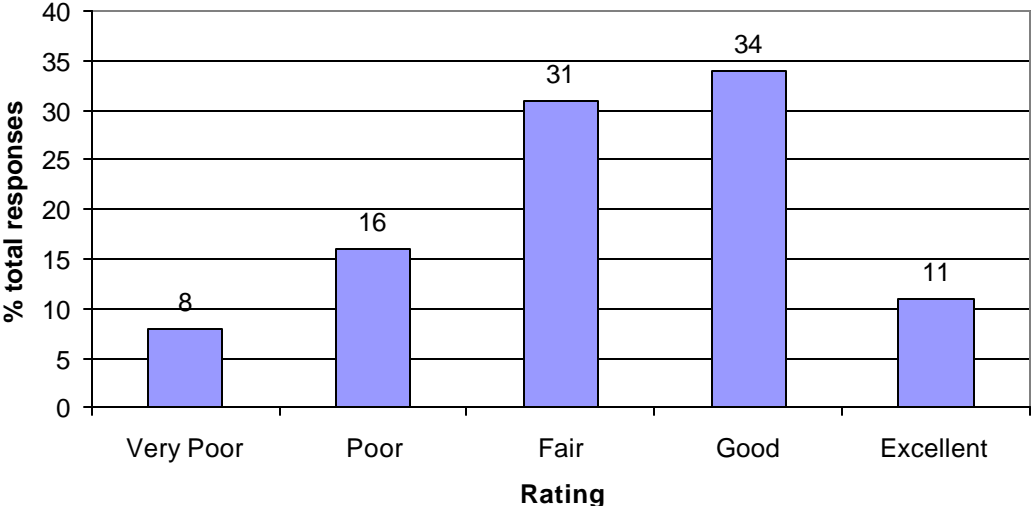
Overall levels of satisfaction



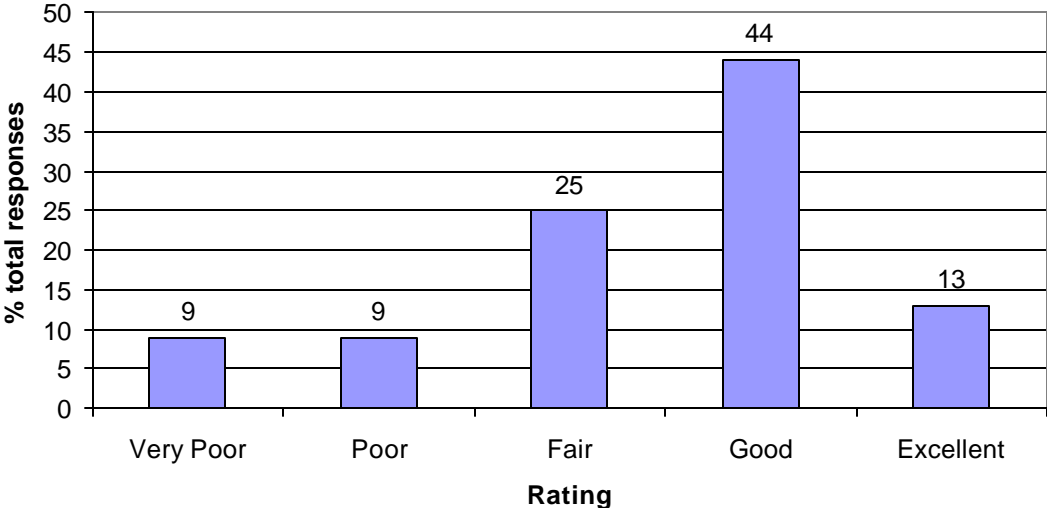
Courteous and accurate handling of requests to our help-desk



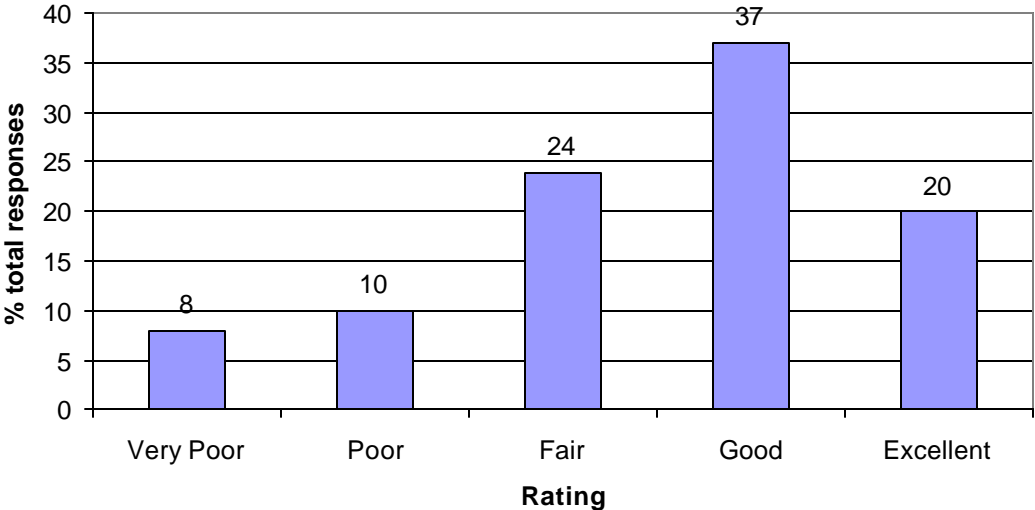
Timely completion of service work



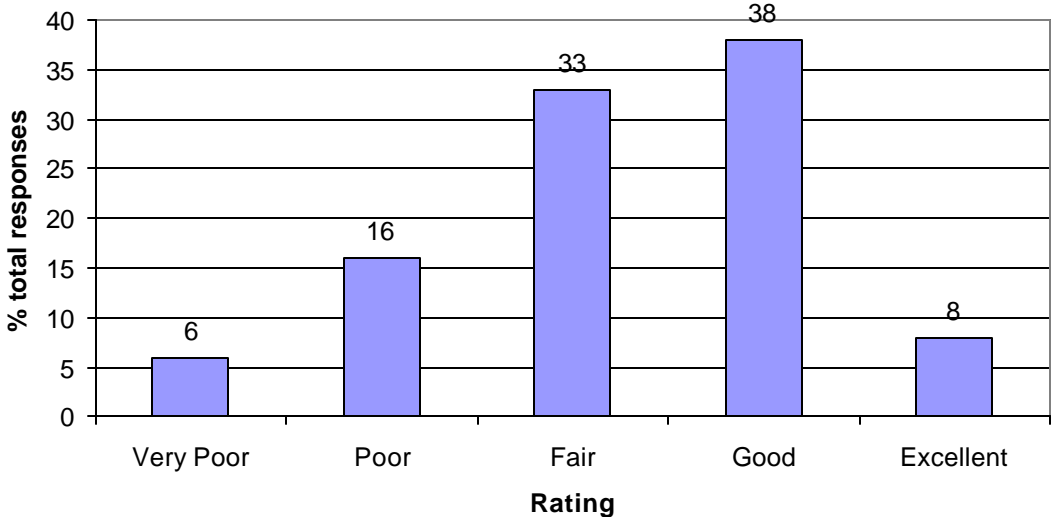
Correctly performed work on first response



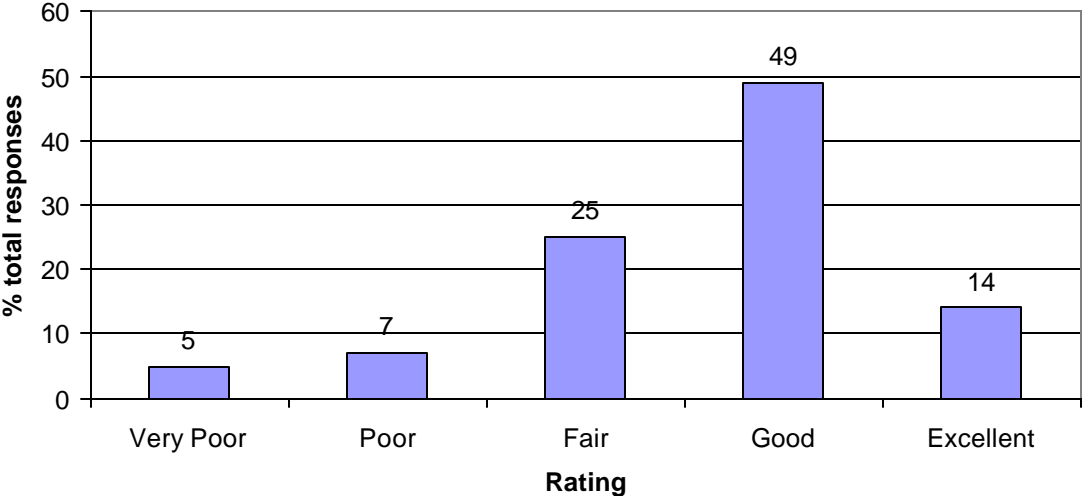
Quality of Housekeeping (Custodial and Floor Services)



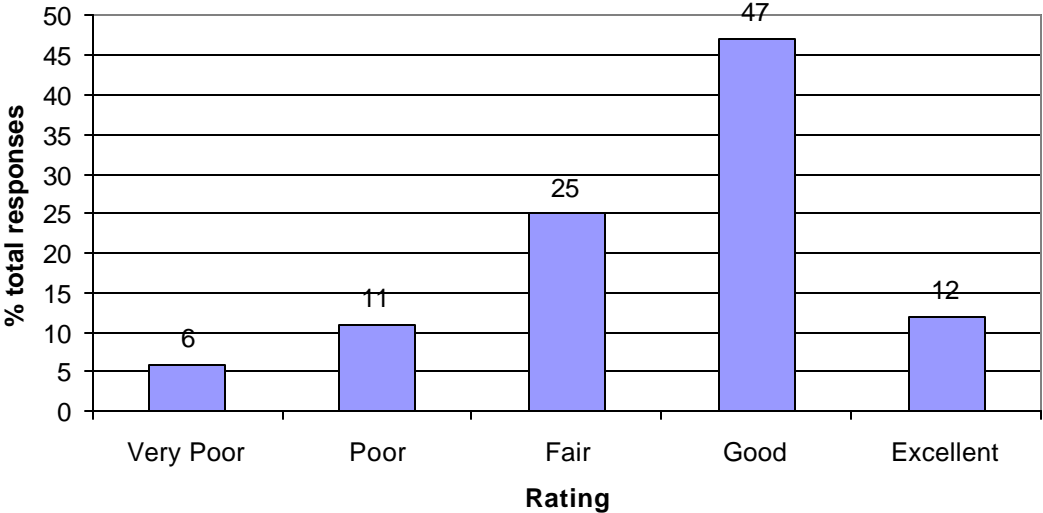
Quality of General Building Maintenance



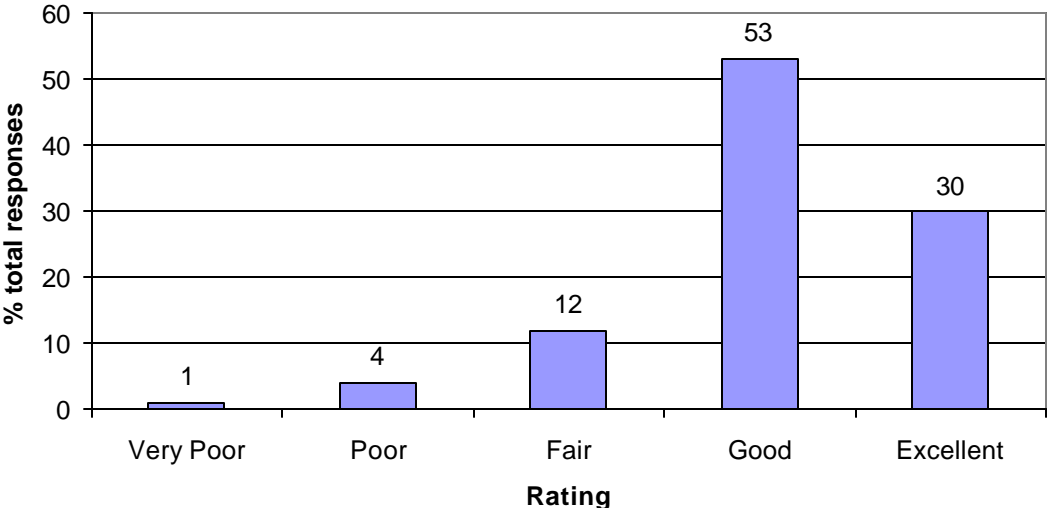
Quality of Grounds/Landscaping Maintenance



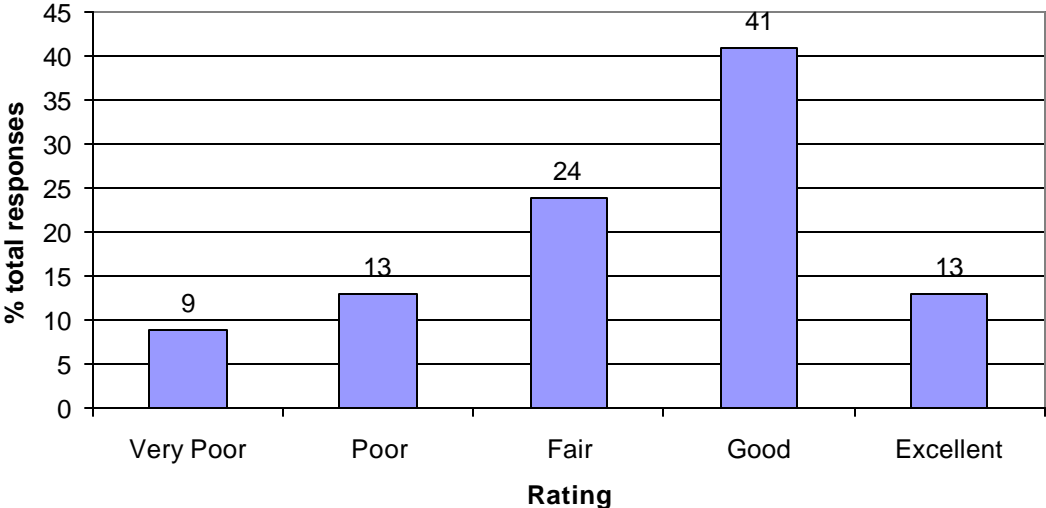
Quality of Pest Control Services



Quality of Mail Services

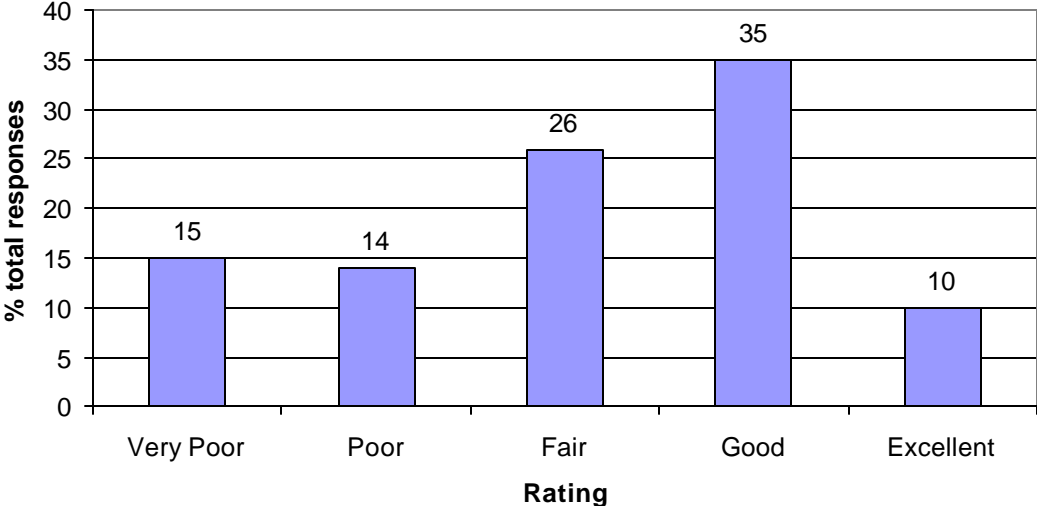


Quality of Moving Services

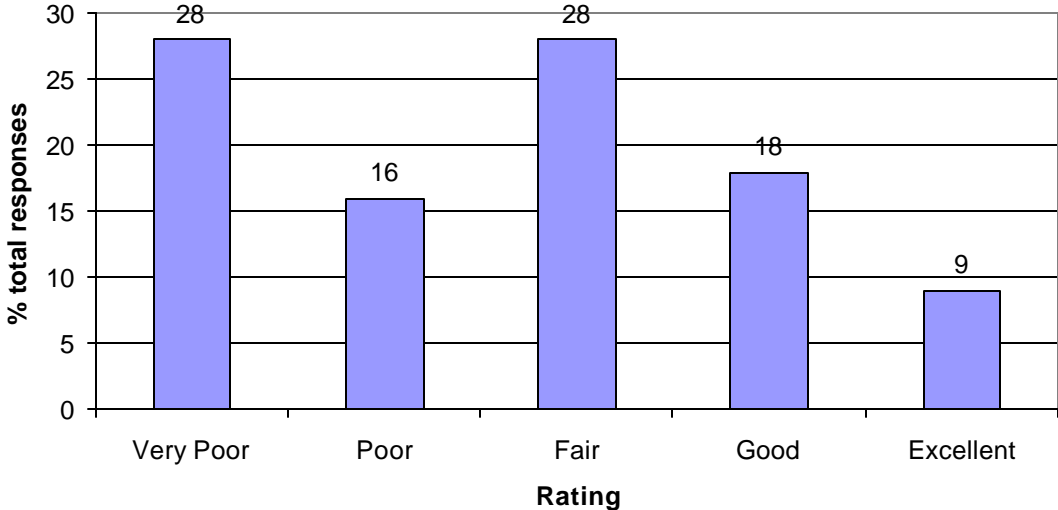


Design/Development:

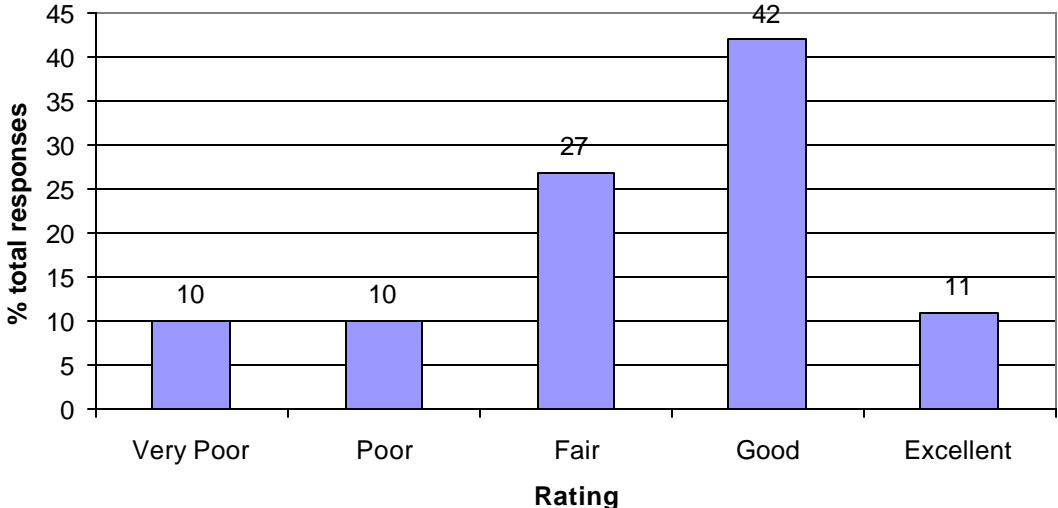
Overall Levels of Satisfaction



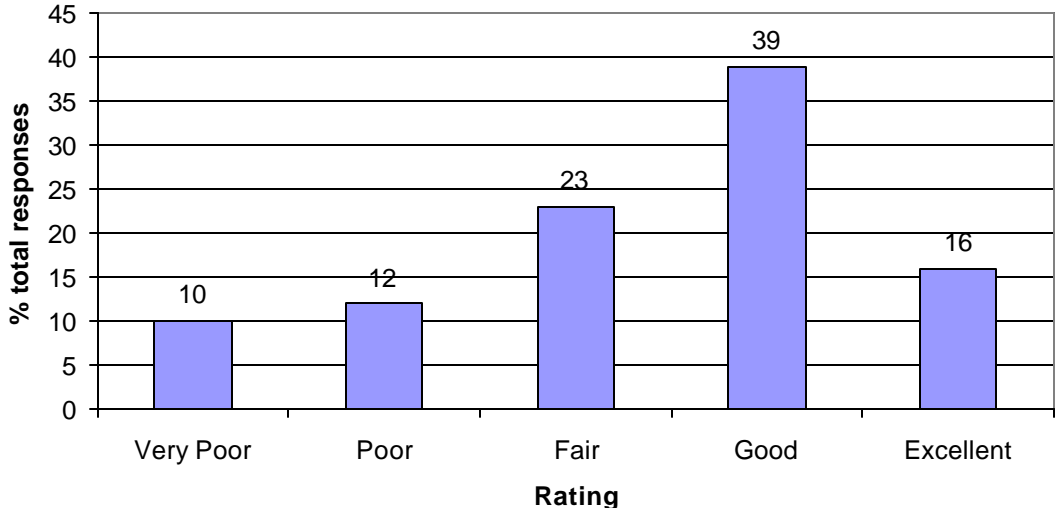
Timeliness of design services



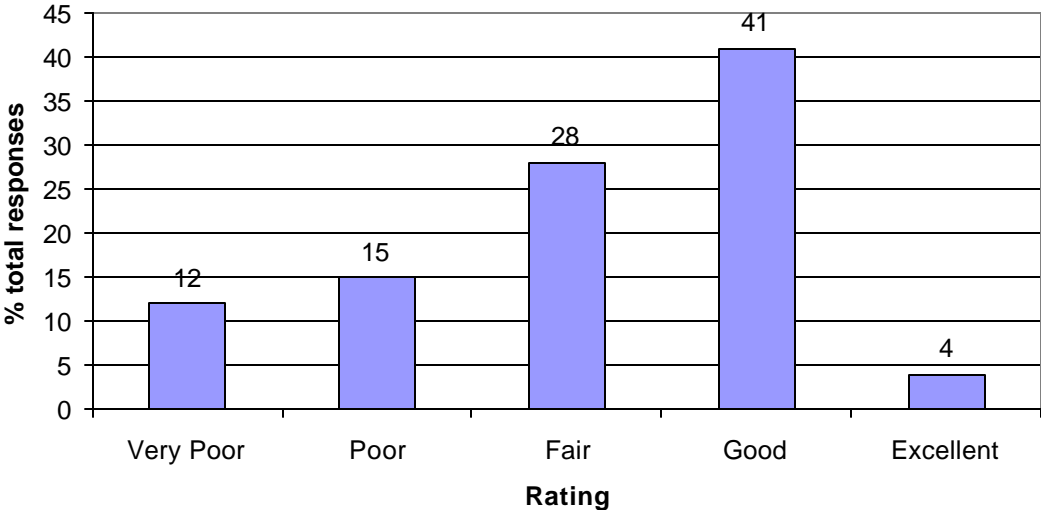
Adequacy of design in meeting program objectives



Sufficient opportunity for input during design process

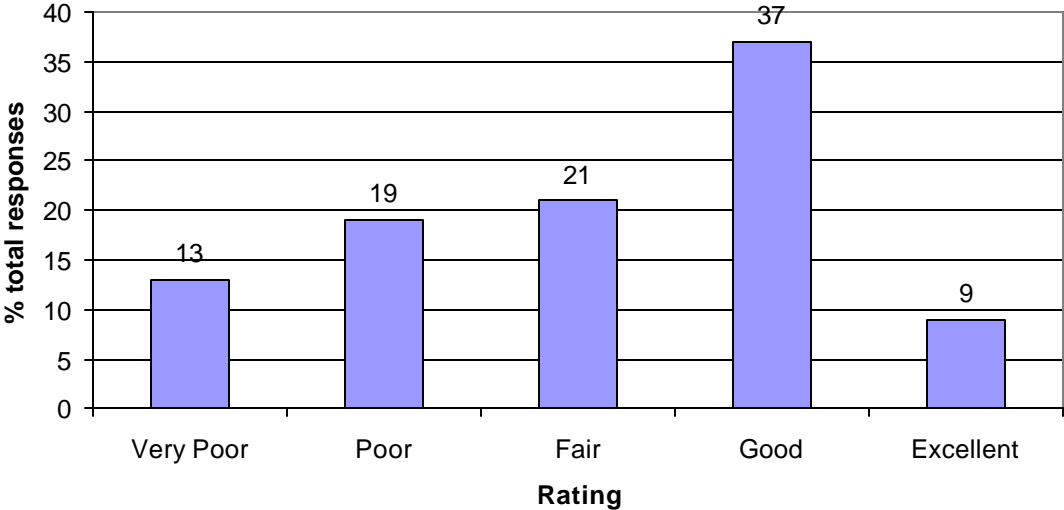


Accuracy of budget estimating

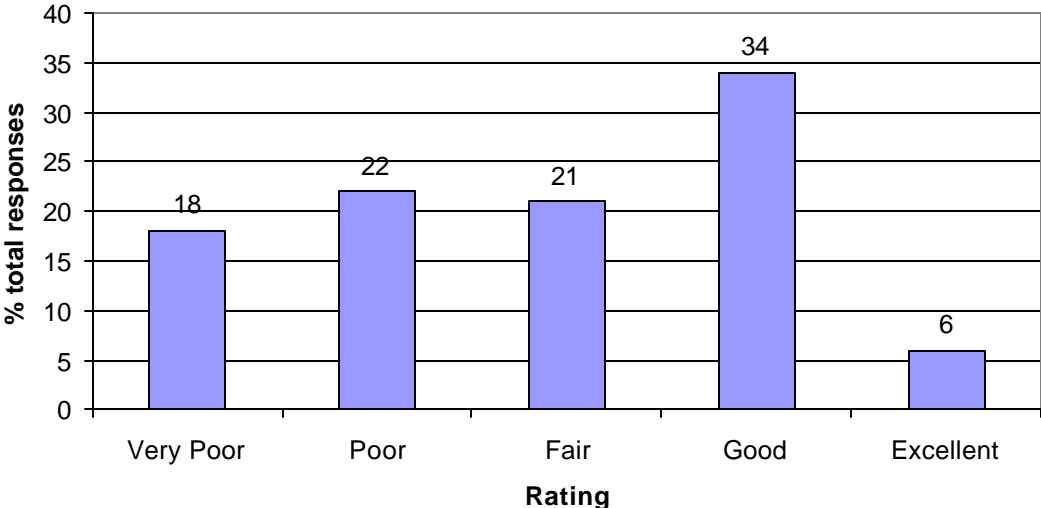


Construction

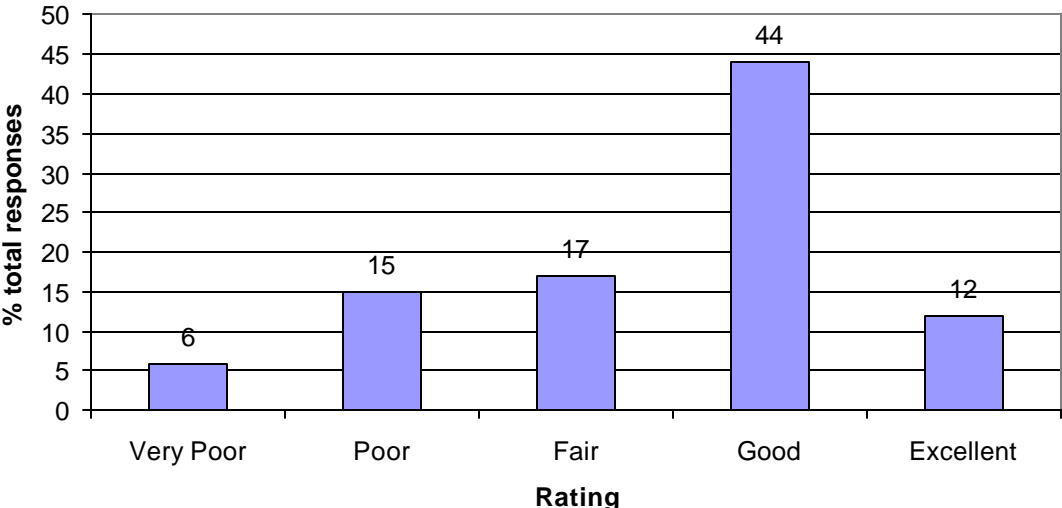
Overall Levels of Satisfaction



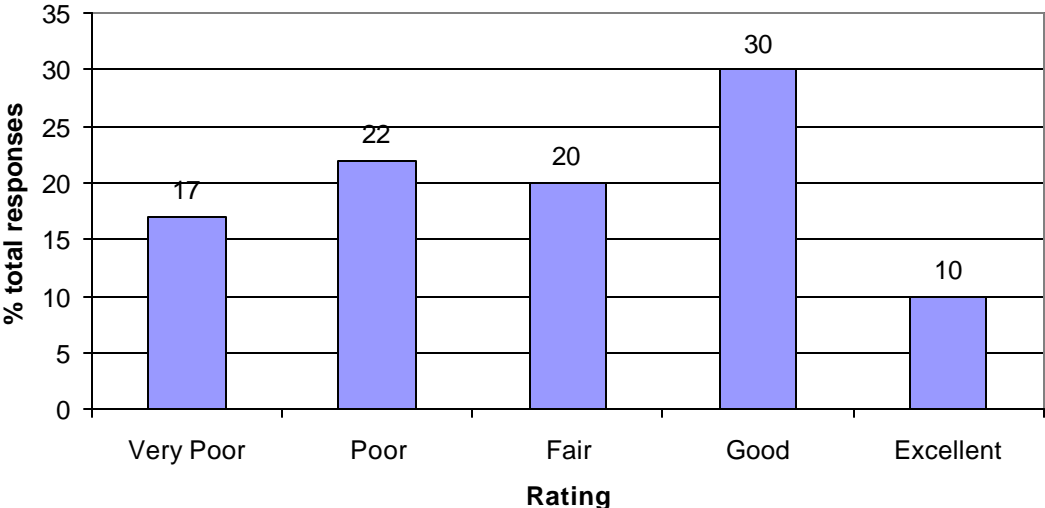
Adherence to the construction schedule



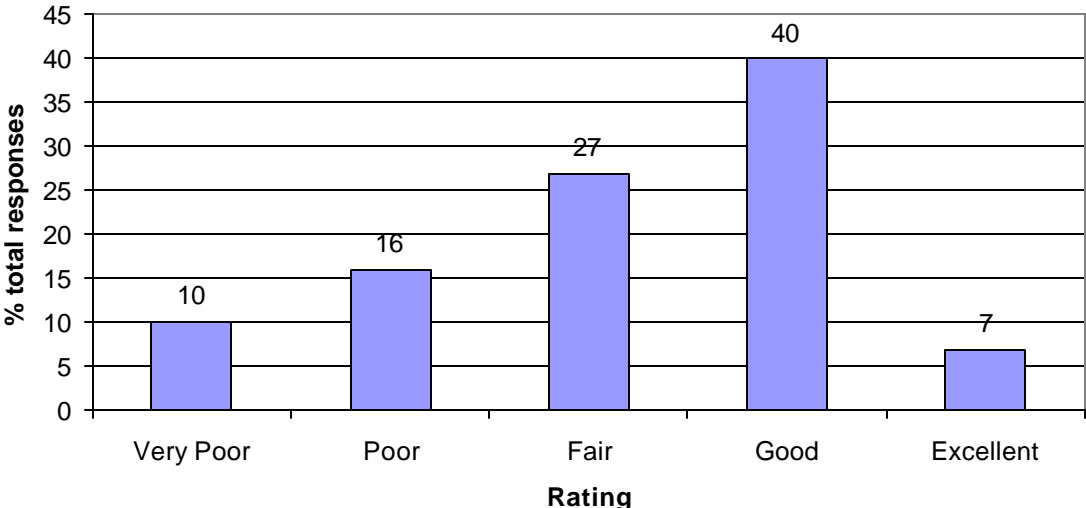
Did the quality meet your expectations



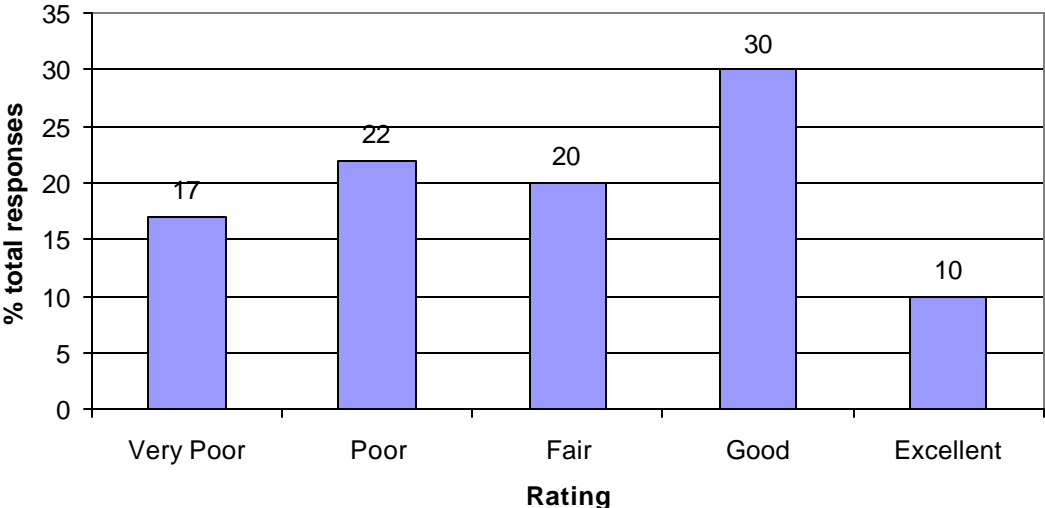
Communication of project status



Completion of punch-list items



Communication of project status



Completion of punch-list items

