Issues with Recovery and Recharge in Higher Education

CFaR033-15

Principal Investigators:

Glen Haubold
Associate Vice President, Facilities and Services
New Mexico State University
Principal, GHaubold Consulting

David Reynolds, P.E.
Associate Vice President, Facilities
University of North Texas

New Mexico State University
Duck Pond and Spiritual Center

Preface

New Mexico State University (NMSU) Associate Vice President of Facilities and Services Glen Haubold has nearly forty years of experience in facilities management in both higher education and private industry, literally growing up in a university physical plant; his father had been the Director at Texas Christian University (TCU) for 17 years when he retired in 1988.

Associate Vice President of Facilities David Reynolds, P.E., joined the University of North Texas in 2010 after a 30-year career in the United States Air Force where he was responsible for facilities operations, maintenance, and construction.

Recovery and recharge is widely used as a funding mechanism in university facilities management to recapture costs in the facilities unit, and the purpose of this paper is to study issues and challenges involved with the use of this mechanism, particularly in times of constrained and reduced budgets. Higher education is changing rapidly, and the goal is to broaden the knowledge base about chargebacks while generating a discussion regarding the advantages and disadvantages associated with different budgetary models of recapturing costs.

The audience, therefore, is the institutional chief financial officers who may want to learn more about the background and impact of the different chargeback mechanisms as well as the facilities leadership who have a desire to evaluate and advocate for different models. One consideration when developing the approach to the survey was to question whether or not the chief financial officers should be interviewed, but after careful thought, the authors chose instead to interview the chief facilities officers. This paper is, after all, about the impact both pro and con that different methodologies of chargebacks have upon the operation of the facilities unit, and as such, the conclusions are intended both for the top financial officer and the facilities team who must reap the benefits and/or bear the consequences of any mechanism that is ultimately deployed.

Most importantly, after talking with peers, reviewing the survey results, and especially after reading the survey comments, it became obvious that for some facilities departments, recharge and recovery have simply become a necessity to offset budget shortfalls. In addition, a common set of definitions across the industry is lacking, leading to challenges in having a comprehensive and meaningful discussion.

The format for this paper is as follows:

Executive Summary: provides an overview of the research and summarizes the results.

Research Project Statement/Abstract: sets forth the project statement, objectives of the study and a synopsis of the conclusions.

Narrative: elaborates on the methodology used in the research, discusses the responses, and is the heart of the report.

Conclusion: discusses the findings as well as suggesting areas for further inquiry.

University of North Texas
Business Leadership Building

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EXHIBITS

New Mexico State University
Hadley Hall Administration Building

A Research Project Statement/Abstract

Title:
Issues with Recovery and Recharge in Higher Education

Statement of the problem:
Recovery and recharge were generally initiated as a methodology to recapture and recover costs incurred for "non-maintenance" minor remodeling in the 1980s. Many institutions used this cost recovery to finance the addition of staff. As institutional physical plant departments grew more sophisticated and evolved into the professional management organizations that they are today, growth of "construction crews" and the full recovery of administrative costs allowed departments to expand further through billing for non-maintenance work.

Because it is assumed that the facilities organization can typically perform this work less expensively than outside contractors, this arrangement can conserve precious funds for the university and provide true cost allocation. On the other hand, many institutions have used this approach to expand staff or weather budget cuts to the point where it has become challenging to "feed the monster." In many cases, staff that should be focused on maintenance are now actively seeking "billable work" to keep the facilities budget in the black with what essentially have become transfer payments.

Statement of purpose:
The investigation will explore the role that recovery and recharge play in the overall facility budget as well as the benefits and challenges that this creates for the facilities unit.

Null hypothesis:
There are no significant issues with respect to recovery and recharge mechanisms as practiced by many institutions in higher education.

Research question:
Are there significant issues with respect to recovery and recharge mechanisms as practiced by many institutions in higher education?

Methodology or statistical treatment:
Institutions will be surveyed with a list of questions that will be evaluated anecdotally. One of the principal investigators is a long-time member of APPA and has taught Supervisor's Toolkit at several institutions annually for a number of years. Because this author has had an interest in recovery and recharge since the 1980's when many universities began building staff through this methodology, quite a bit of anecdotal information from other schools has been gathered.

The co-investigator recently moved to higher education from the federal government with 30 years of experience in facilities operations, maintenance, and construction. His previous agency also faced challenges with recovery and recharge rates as well with the impact to annual budgets. This experience, coupled with chargeback issues at his current university, provides an opportunity for comparisons and contrasts.

With different backgrounds and disparate longevity in Higher Education Facilities Management, the Principal Investigators bring a unique perspective to this project.

Review of related literature and research:
Donald J. Guckert and Jeri Ripley King conducted a research project under the auspices of APPA's Center for Facilities Research and published ***The Charge of the Rate Brigade: A Rate Template for In-House Construction Labor*** in the July/August 2004 issue of Facilities Manager. The Education Advisory Board published ***Facilities Charge Backs: Considerations for Implementing Chargebacks for Facilities Services*** in 2015.

Anticipated results of the study:
It is expected that many institutions will report that recovery is pursued to meet budget to the extent of being unable to spend sufficient time on the core function of maintenance.

Benefits to education/facilities management/APPA:
The primary benefit will be a better understanding for university senior level administration as to how their facilities budgets are funded, as well as the pros and cons of different models.

Estimated length of time to complete research project:
The original goal for delivery of this report was in the spring of 2016, but institutional priorities delayed delivery until summer of 2017.

Resources available for completion of the project:
Contact information available through APPA, on institutional websites, and information from APPA publications will be used.

Conclusions:
Recharge and recovery provides a means for the facilities unit to recapture those costs deemed necessary by the institution. Three primary conclusions were reached as a result of this research:

1. <u>There are no standard approaches to using or computing recharges</u>; regardless of the chargeback methodology used, care must be taken to monitor and adjust the burden placed on the facilities budget to avoid neglecting the maintenance and/or other core functions, particularly in times of decreasing budgets;

2. <u>The cost model employed should be a conscious and informed decision by the university leadership;</u> alternative models to full cost recovery such as incremental cost recovery or "materials only" mechanisms can provide for easier adjustment to campus budgetary swings, but for institutions using a fully allocated cost model, this would require either a reduction in staff and/or increased facilities budgets; and,

3. <u>APPA and member institutions would benefit from additional research into the overall impact that recharge and recovery have on institutional and facilities budgets as well as to the frequently used benchmarks in the APPA Facilities Performance Indicators (FPI)</u>; a section on recharge and recovery that included definitions and rate preparation methodologies could be considered for the APPA Body of Knowledge.

B Executive Summary

Glen Haubold, associate vice president of facilities and services at New Mexico State University (NMSU), and David Reynolds, P.E., associate vice president of facilities at the University of North Texas (UNT), were familiar with the 2004 article in Facilities Manager by Donald J. Guckert and Jeri Ripley King, The Charge of the Rate Brigade: A Rate Template for In-House Construction Labor. This excellent analysis detailed their research into recharge, and in their conclusion, Guckert and King wrote:

> Determining rates that permit full cost recovery for in-house construction can provide your organization with the information it needs to decide how to manage its funds. Full cost recovery for in-house construction services may or may not be a goal of your institution. However, if less than full cost recovery has not been an informed decision, facilities management organizations may be unwittingly losing budgetary ground by subsidizing elective improvements.[1]

It was known that many institutions – including New Mexico State University and the University of North Texas – had taken this advice to heart and implemented this recommendation. This study was undertaken to determine what impact this and other cost recovery models have had in the long term, because once a facilities unit begins using chargebacks to make up budgetary ground, anything less means that the department is operating in a deficit. Since a fully allocated mechanism of rate development captures overhead costs, there may be a tendency over time to gradually fund the expansion of organizational overhead.

With the assistance of APPA, survey questions were created and sent to each institutional representative. Eight-six responses were received in addition to seven email conversations. One person called personally to remain fully anonymous.

The first finding of this research project confirms there are significant issues with respect to recovery and recharge mechanisms as practiced by many institutions in higher education, primarily because there is no standard approach. The specific model is a management decision, but adequate maintenance may be at risk at institutions while the facilities unit pursues recharge work, unless specific emphasis is being placed upon practices associated with the process.

In addition, there are many models available to bill for non-maintenance work, with advantages and disadvantages associated with each. With many universities experiencing enrollment declines, corresponding loss of revenue, and dwindling state support, it is important that the model selected support the institutional goals. A clear understanding of the overall impact to facilities and the university budget is critical to making an informed decision.

Finally, consistency of understanding of the subject is a challenge, as institutions define the terminology differently. A lack of consistent methods as well as reliance on past historical practices at many universities cast doubt on the efficiency of recharge methods in place, and the lack of common definitions disrupts benchmarking efforts. Additional research and guidance would assist APPA member institutions.

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[1] Donald J. Guckert and Jeri Ripley King, **The Charge of the Rate Brigade: A Rate Template for In-House Construction Labor**, Facilities Manager, (July/August 2004).

University of North Texas
Hurley Administration Building

C Narrative

Background

It was not all that far back in time that an institutional physical plant simply took care of every facilities need on campus. Similarly, football fans will remember when the larger public institutions subsidized the football teams with virtually unlimited scholarships. During the 1970s, to address concerns about what appeared to be uncontrolled institutional spending, the legislatures and/or governing bodies in nearly every state began enacting statutes and guidelines that essentially dictated that public funds could only be used for public education. For a public institution, this meant that subsidies to auxiliaries such as student unions, dormitories, and athletics had to be eliminated. Although not required to, many private institutions followed suit and mandated that their auxiliaries be operated on a self-supporting basis.

Concurrently, and guided by APPA, the physical plant operation was growing into a professionally managed organization. As Guckert and King pointed out in their CFaR study:

> Thirty years ago, most in-house construction work was funded through annual operating budgets. As budgets tightened, this approach began to give way to charging a fee for services. Now, recharging for in-house construction labor is recognized as necessary to protect maintenance and operations budgets from being eroded by the costs of elective improvements.[2]

This move was also typically coupled with clear definitions of services covered by the facilities organization, i.e., statements, communications, and publications of what constituted "billable" and "non-billable work."

Definitions

Data gathering for this research quickly identified that chargebacks are not well defined. In fact, APPA does not provide a definition for chargebacks or reimbursements in its glossary of terms. While the authors intended to focus on chargebacks or reimbursements for work accomplished by the maintenance shops for either auxiliary or state-funded entities, responses to the survey were delivered with varied understandings. For instance, many universities have a fee-based system to support construction whether for state-funded or auxiliary construction activities.

Additionally, some universities have a chargeback to Auxiliaries that is sometimes called a cost-share agreement, whether for maintenance, operations, or construction. Definitions of terms were one of the early challenges in the development of the survey questions. To understand the issues associated with chargebacks, some key definitions are needed.

> **Auxiliary Enterprise Funds (Auxiliary Funds):**
> Funds for activities that furnish a service to students, faculty, or staff for which charges are made that are directly related to the cost of the service. Auxiliary enterprises are managed as essentially self-supporting activities. Examples are residence halls, food services, student health services, intercollegiate athletics, college stores, and college unions.
> (Texas Higher Education Coordinating Board)

[2] Guckert and King, **The Charge of the Rate Brigade: A Rate Template for In-House Construction Labor**

Chargeback:
Reimbursement via interdepartmental transfer, or other financial transaction from non-facilities departments to the facilities organization. The term **IDT** (**I**nter**D**epartmental **T**ransfer) is also used interchangeably with **chargeback**.

Educational and General Space (E&G):
Net-assignable area which is used for academic instruction, research, and support of the institution's mission. It does not include auxiliary enterprise space, space that is permanently unassigned, or space used for operations independent of the institution's mission.
(Texas Higher Education Coordinating Board and others)

Elective improvements:
User requested services for non-maintenance items, including anything from a new outlet to new shelving to a remodel project.

Responsibility Centered management (RCM):
Decentralized financial management model that aligns financial responsibility with the natural decentralization of authority.
(Texas Tech University definition by Mallory Barnes and Kyle Clark)

Shop Rate:
Reimbursement hourly rate for facilities cost of providing departmental services. Departmental services are those for which the facilities unit does not receive a budget allocation and therefore must be funded by the requesting department. Shop rates are based on the actual average pay and benefits of the Facilities employees performing the work. Rates may include the cost of labor, fringe benefits, and a charge for consumable supplies such as nails, bolts, and hand tools that cannot be easily charged to individual work orders.
(Based upon University of Texas San Antonio Facilities organization definition)

Recharge:
Any budgetary mechanism used by the institution to replenish or fully fund a facilities operation. The term **IDT** (**I**nter**D**epartmental **T**ransfer) is also used interchangeably with **recharge**.
(definition by Haubold and Reynolds)

History
It is also helpful to briefly review history; as mentioned above, recharge was originally initiated to protect maintenance budgets. Those that were involved with this exercise at the time, however, will recall that deployment of this mechanism meant that additional staff could be added without a budgetary increase. In the absolute sense, then, this recharge served to protect the maintenance function by adding an additional layer of staff that was available to perform non-maintenance work. The explosion of electronic devices in the 1990s meant that electrical outlets were at a premium and every institution added electrical outlets across campus at a feverish rate; recharge allowed for this work to be accomplished less expensively and expeditiously.

What follows is from a primer on recharge prepared for the leadership at New Mexico State University that is meant to illustrate how staff were added at “no cost.”

Consider a facilities organization staffed with 100 employees with average earnings of $20,000 each.

The first block has a rate calculation that includes overhead of $100,000; the yellow block is the “Shops Budget.” The University would budget $2,600,000 to fund this operation.

Rate Calc		
Salaries	$	2,000,000
Expenses	$	500,000
OH	$	100,000
Total Budget	$	2,600,000
/ FTE	$	26,000
/1642 productive hours	$	15.83

Shops Budget		
Recovery		-
Salaries	$	2,000,000
Expenses	$	500,000
Shop Budget	$	2,500,000

Recovery hours	-
Total hours	164,200
percent recovery	0.000%

Employees:		100
Average Salary:	$	20,000
Administrative OH:	$	100,000
Facility square feet		1,000,000

Recharge = 0 * 1,642 * 15.83 = 0

Once upon a time, there was no recovery. Life was simple.

Consider the addition of 20 FTE using the most common rate methodology; also note that the hourly rate will actually decrease slightly.

Rate Calc		
Salaries	$	2,400,000
Expenses	$	500,000
OH	$	100,000
Total Budget	$	3,000,000
/ FTE	$	25,000
/1642 productive hours	$	15.23

Shops Budget		
Recovery		(400,000.00)
Salaries	$	2,400,000
Expenses	$	500,000
Shop Budget	$	2,500,000

Recovery hours	32,840
Total hours	164,400
percent recovery	19.976%

Employees:		120
Average Salary:	$	20,000
Administrative OH:	$	100,000
Facility square feet		1,000,000

Recharge = 20 * 1,642 * 15.23 = $500,153

There was a lot of electrical work, so 20 FTE were added at a salary of $20k, and the administration was told that salaries would be earned.

These 20 FTE will generate $500,153 in “recharge” – (20 FTE * 18.25 rate * 1,642) = $500,153.

Assuming no increase in office staff or overhead, the 20 new FTE will cover the $400,000 in increased salary while generating $100,000 in additional dollars to fund overhead and expenses. For simplification, the assumption in this illustration is that shop expenses will not increase because all 20 FTE are working “recharge projects” and thus passing along material costs to billable customers.

This mechanism as illustrated is clearly and undisputedly an overall “win” for the organization. The campus gets the benefit of less expensive in-house labor, and the central budget realizes a reduction of $100,000 in funding for the facilities operation. The university investment would be reduced to $2,500,000 with a corresponding savings of $100,000.

This should be qualified that the reduction of $100,000 is conditional on the existing overhead staff being positioned to manage the increased staffing and charge back operations. If the existing supervisory and overhead staff are already pushed to their limit, the organizational capacity may not be able to handle this increased effort, and the savings that would otherwise be realized may be needed to support increased overhead demands.

In many cases, overhead staff were added as the $100,000 was “tapped into,” which then subsequently became included in the next year’s rate. More about the challenge this creates will be discussed later.

Why Study Chargebacks

There are three basic reasons that chargebacks are of interest:

1. Chargebacks, from the authors’ personal experiences and polling of peers, can be a lightning rod with academic units;
2. Facilities management teams may not be staffed and trained to properly manage the accounting related to chargebacks; and,
3. University leadership may not fully recognize the “tax burden” of chargebacks on maintenance teams, budget office staff, and the overall university budget.

Recharge

In addition to the institutions surveyed while compiling this study, Associate Vice President Haubold has completed consulting jobs for two different institutions, taught over twenty APPA Supervisor’s Toolkit at fourteen universities, and been employed with four universities. Through these contacts, classes, and the initial email, voluminous amounts of anecdotal information had been gathered, not the least of which relates to the many different methods used by institutions to address non-maintenance work.

Some schools do not recharge for what most would consider non-maintenance work. One respondent to the initial email anonymously said that he nearly lost his position for bringing this budgetary challenge to the attention of management, because outsourcing was a hot button with their bargaining unit. Some universities simply do not perform any non-maintenance work, choosing instead to contract out, while others will perform minor construction as “fill-in work” as time is available.

Another school will only accept non-maintenance work on an overtime basis. The school does not have a labor rate, only a direct cost, and the in-house staff will only perform non-maintenance work after hours. Considering that the rule of thumb identified by Guckert and King for a fully loaded rate was twice the regular hourly rate, if one considers overtime at one-and one-half times the regular hourly rate, this method may be a “win-win” situation for employees as well as customers. However, it must be noted that in this case, the institution is ignoring overhead expenses during the normal workweek to plan, organize, and process the recharge work.

Yet others responded that non-maintenance work was performed when time was available and that only materials were charged. The authors heard about many different models, and the most widely used approaches are discussed later in the paper.

Burden or Benefit

In the higher education facilities management world, recharge turned out to be an often ill-defined and misunderstood compilation of topics with myriad rules to navigate for facilities staff, university budget officials, and customers. Respondents used many terms; recharge often involved work "for others" by the traditional maintenance shops in a physical plant organization but was also used to refer to fees for construction design and management. Chargebacks, recharge, and recovery were used interchangeably, but whether the word refers to support to academic units for non-maintenance tasks (improvements), construction, or to maintenance services for auxiliary enterprises, recharge is a topic of customer and staff concerns, creates management challenges, and may be viewed as an unseen tax on many of the academic and support functions.

State funded universities often have a reimbursement process for work performed by state funded staff for non-state funded enterprises such as auxiliaries, and in many case for state funded entities in the university.

In this research project survey of 86 institutions, nearly 78% had some form of chargeback. Examples included maintenance or repair work done for athletics, residence or dining organizations, and transportation and parking. Similarly, many universities have a fee-based structure to support construction on campus by requiring construction teams to "charge" a fee to help offset construction staff and equipment expenditures. How these chargebacks are defined and managed varies across universities, as the data from this research survey indicates.

Almost half or forty-five percent of the eight-six respondent institutions did not focus their recharge or chargebacks only on elective work. This article will leave discussions on auxiliary reimbursements and construction fees for a future research project and focus this article on recharge for maintenance staff supported efforts to academic components of the university. The principles of cost recovery are essentially the same, however.

Examples of elective work that were provided were:

> When the staff at School "A" are asked to make elective improvements, the user pays for materials and there is not a charge for labor under the premise that the staff salaries are already funded. In this case, the materials budget is "recharged."
>
> School "B" staff completes remodels and small elective improvement projects for many units across campus, and the hourly rate billed is at a shop rate that is higher than the direct salary of the employee, as the organization captures administrative overhead, capitalization of tools, equipment, etc. The total cost of materials, and shop rate is thus "recharged."

Methodology

The research began with an email to a private list consisting mostly of retired military who maintained contact with one another, as well as with another email to the APPA list server. From those first emails, seventeen people responded with an interest in the subject and were willing to help by providing additional details.

After several discussions by phone and email to help frame the inquiries, a question set was developed. These questions were tested on the respondents; five completed the questions and lengthy conversations were held with two others. These were the questions along with what would ultimately turn out to be a very typical and representative response:

> **Does your Facilities organization have a chargeback system?**
> Yes; originally developed in FY00 with rough CPI (Consumer Price Increases). We have no records of how the rates were developed in FY00. I am getting push back from the auxiliaries, but that is to be expected. They feel certain costs are an institutional expense (the AVP's Office, Finance, Personnel and Payroll, GIS/Cad, FS IT, etc.), i.e., pretty much all of the overhead costs and they feel they should only pay for the labor. I have an upcoming meeting with the Central Budget Office to get their institutional philosophy on what should be included in the charge out rate.
>
> **Is it targeted only for elective improvements?**
> No; applied to all services including the state funded services. We are setting ourselves up to bill like an enterprise and accounting for all costs.
>
> **Does your Facilities organization have an Interdepartmental transfer (IDT) budget goal associated with chargebacks?**
> No; we do budget for our recharge work knowing that we will always have some and all work units are expected to meet those budgetary requirements or reduce expenses to match the revenue.
>
> **If so, is it calculated based upon staff available to earn revenue, or is it a carryover requirement from past years' budgets**?
> We kind of review what has taken place historically and aim to keep that level of work pretty steady. I try to reduce this work as much as possible and focus on our strengths – maintenance. They are plenty of construction firms out there but very few good maintenance organizations. If we push too much on recharge then the supervisors worry about their recharge requirements and don't worry as much about meeting their maintenance requirements. This was kind of a cultural issue to undo since when I arrived they were totally focused on bringing in revenue.
>
> **If you have an IDT goal, do you have sufficient staff to earn the revenue? How much revenue must you earn? How many personnel are required to earn this revenue?**
> We match the revenue to expenses and if the revenue is not there then we try to get out of the business and reduce expenses – typically reducing staff.
>
> **Have you seen positive impacts from your chargeback system? Give examples**.
> By sharing the overhead costs with the auxiliaries and chargeback work we freed up some state funds that we dedicated to a preventive maintenance shop and a dedicated training budget.

Have you seen negative impacts from your chargeback system? Give examples.
There is pushback from the auxiliary units as described above who feel that the department overhead is a state expense and not a true cost of doing business.

Do you have a recommendation on how to balance chargebacks and centralized funding?
I focus on our forte – doing maintenance and then doing enough recharge to cover our total expenses. For example, if we build a new facility and it justifies .4 FTE of a plumber then we need .6 FTE worth of recharge work to justify the full FTE. In some cases I buy out the existing recharge work from a shop. Again, if we build a new facility and need .4 FTE of a plumber and if I have .4 FTE in the plumbing shop doing recharge work then I reduce the recharge work and move the .4 FTE in recharge back to maintenance.[3]

The responses above were typical, and these particular answers were listed because they so eloquently illustrated the general consensus and final conclusions. Note that the issues were:

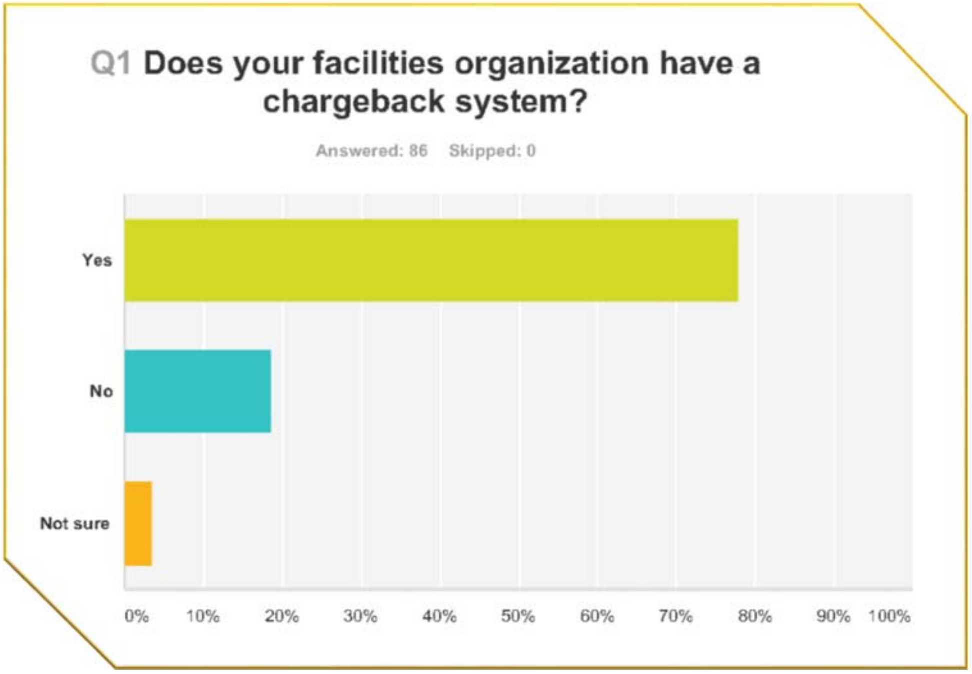
1. If all overhead should be included in the rate calculation;
2. An emphasis on recharge impacted maintenance when not managed; and,
3. There was a lack of institutional clarity as to the process and how it should function.[4]

Even though the responses were very consistent, the APPA membership was then surveyed with the assistance of APPA and 86 institutions replied with information about their chargebacks. In general:

1. 16 of 86 respondents had no recharge system;
2. 48 of 86 respondents with recharge had no financial target or goal for chargeback revenue;
3. 32 of 86 respondents had an annual target for reimbursements to satisfy university interdepartmental transfer goals; and,
4. All respondents provided some comments on their financial systems.

[3] These were edited to remove identifying information and to improve readability but not for content
[4] While anonymous, these responses were from an APPA Fellow

Results from the Survey

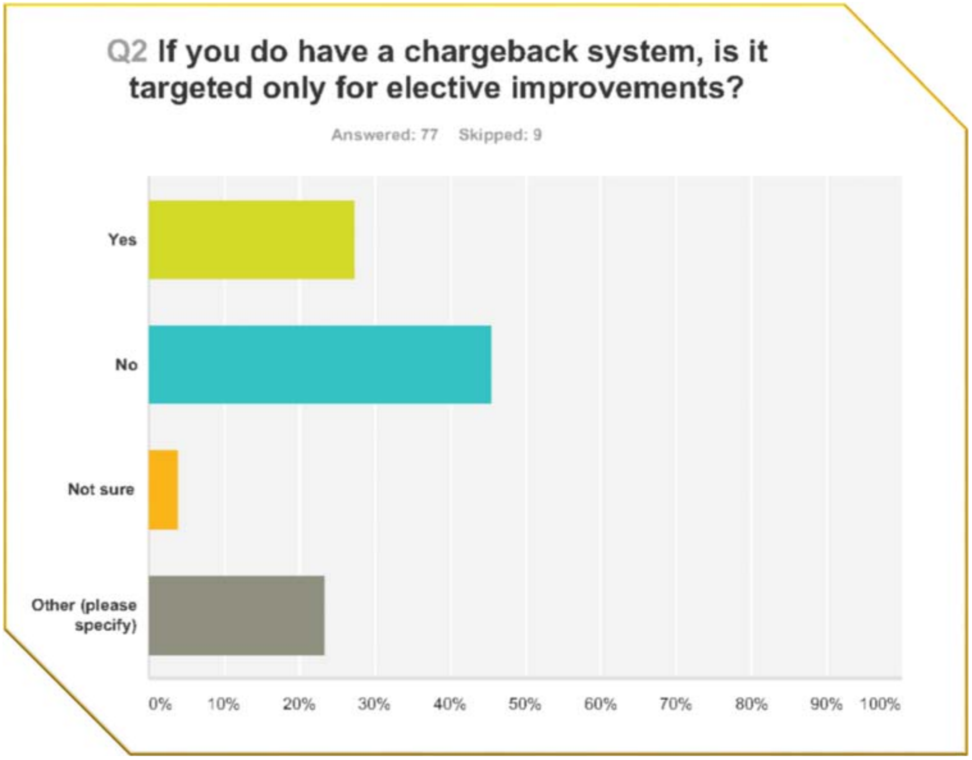


The first question was if the facilities organization had a chargeback system. Not unexpectedly, most of the respondents answered affirmatively.

A brief comment about survey accuracy is in order. Many attempts at explaining survey accuracy fall short when response rate is confused with sample size. In this case, survey size and sample size are identical in that the survey was sent to the entire population, and under the initial assumption that the APPA Institutional Representatives would be the most knowledgeable about the overall impact of recharge on the organization. The survey was sent to these 1,080 Institutional Representatives, and 86 responded. Nine had previously responded, so the response rate is approximately 8%. Roughly speaking, 88 respondents would have put the survey at the 95% confidence level +/- 10% margin of error.

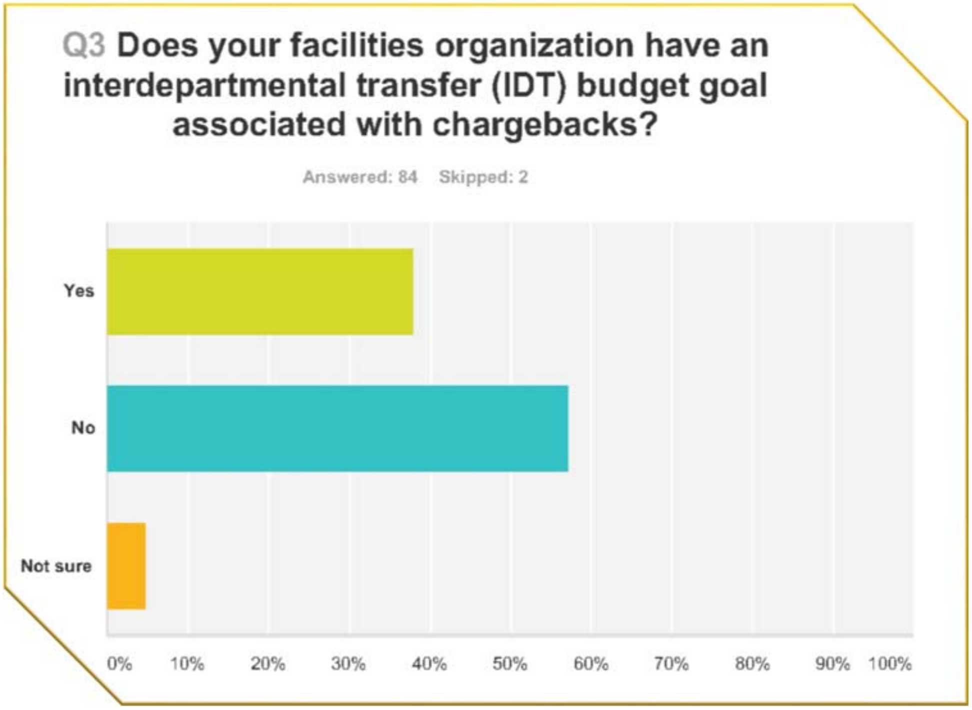
There are other factors that determine survey accuracy, of course, but the likelihood is that 68-88% of APPA institutions employ some methodology of recharge. Implementation at that level would indicate the importance of increasinge the knowledge base. Furthermore, those who do not use recharge at some level may be interested in learning more about the different methodologies that are used by others.

In any event, this research was intended to be qualitative rather than quantative.



Question #2 was whether the chargeback system was only used for elective improvements. In hindsight, given the challenge with differences in terminology, definitions should have been provided that would help clarify the questions.

For example, two respondents answered “No” simply because their recharge mechanism involved maintenance for auxiliaries and was considered “non-elective.” The responses did begin to affirm the wide variety of methodologies and approaches in use.



Realization set in that definitions and terminology were clear challenges to the conversation with this question. Most university facilities units have a recharge system in place and yet only 32 respondents stated that they had an interdepartmental transfer goal. Given some thought, however, if a unit has both a recharge system and a budget, by definition, there should be some internal goal, even if it is a "soft" one.

The email response quoted earlier provided some insight into what seemed to be a paradox:

> No; we do budget for our recharge work knowing that we will always have some and all work units are expected to meet those budgetary requirements or reduce expenses to match the revenue.

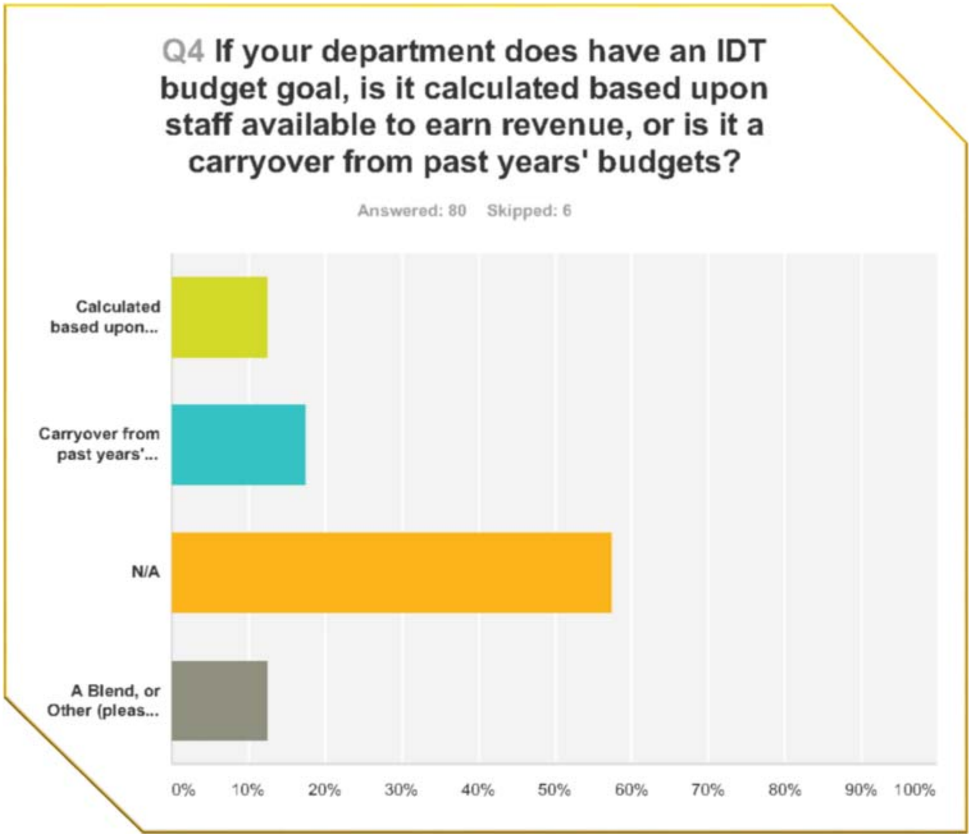
A response to question #4 was:

> No goal. But we use past years performance to estimate future work, and budget against those numbers for staffing and overtime.

Yet another to question #4 was:

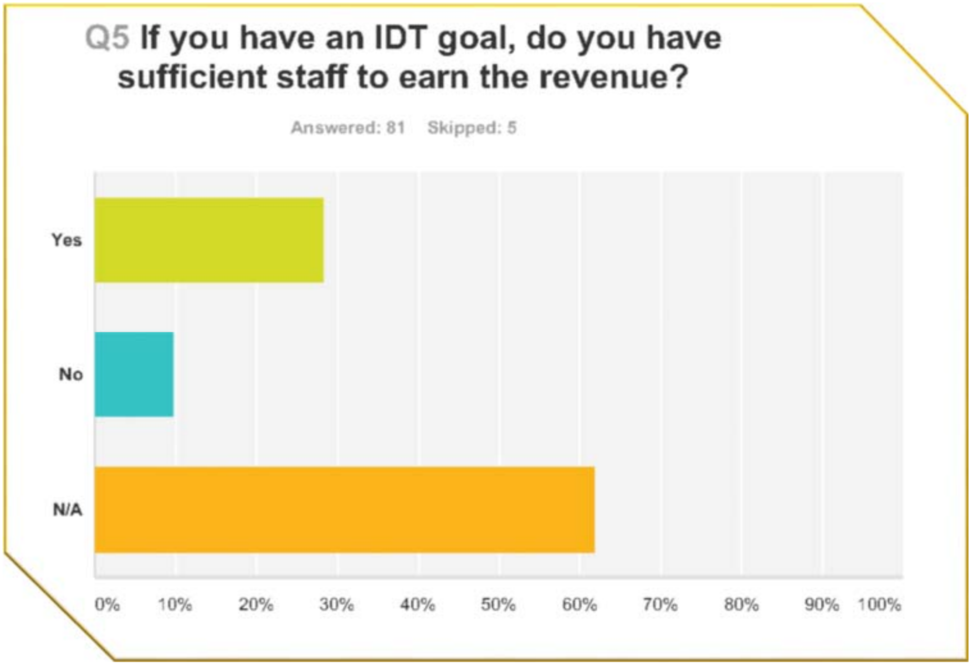
> We start the year under budget each year which includes positions in the chargeback account. Must at least recoup the positions total.

In other words, from the responses received it would appear that recharge is treated as "icing on the (budget) cake" for a little over half of the respondents. Thinking this through yields a perspective on rate development; if rates are developed as described in the NMSU example and as suggested by King and Guckert, the starting point is based on FTE and so by definition, there must be a goal.

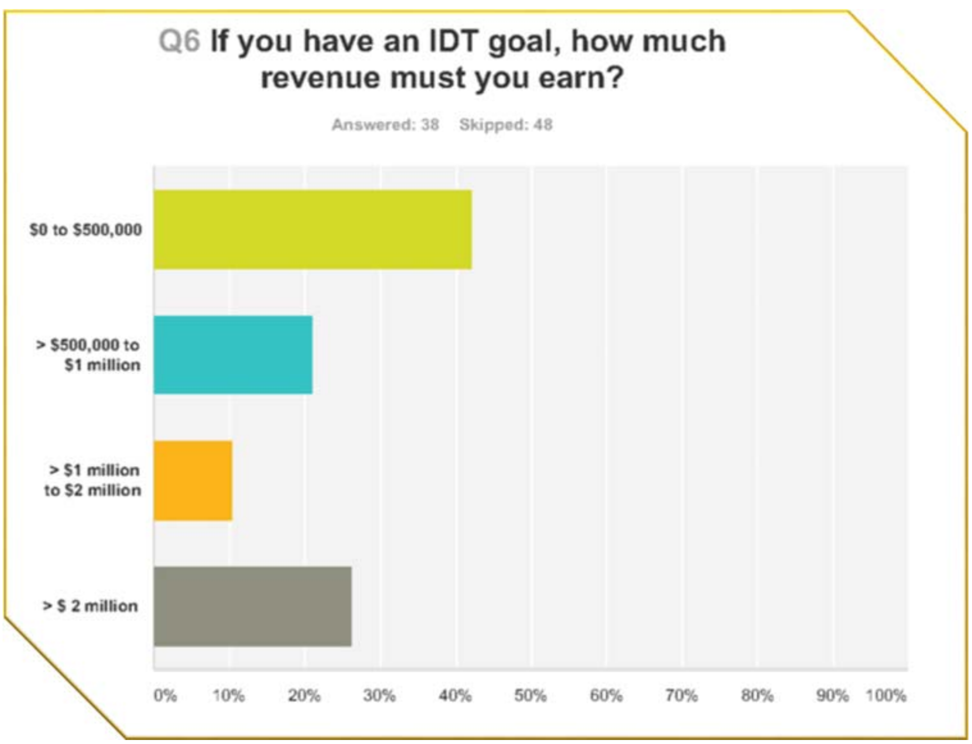


Question #4 piggybacks onto the previous question. This response provides insight into a common process and is consistent with other comments:

> Our budget goal is based on current staff, which drives the amount of revenue required to make payroll. We also have a rough estimate of materials needed to support the different types of revenue generating work (PM, new construction, and non-maintenance).

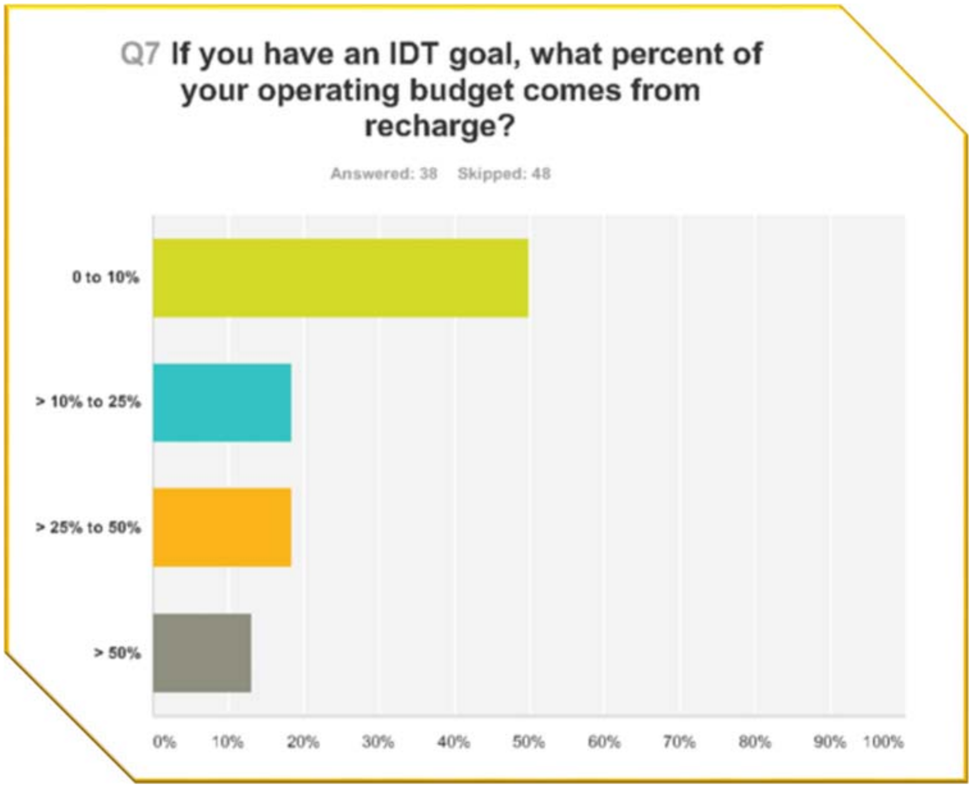


Given the large numbers that did not have a goal and that did not respond to the question about calculations, it is not surprising that over 60% answered this question as N/A. Twenty-three did state that their staff was adequate to earn the needed revenue.



Again, given the previous responses, 38 answers to this question would be reasonably expected.

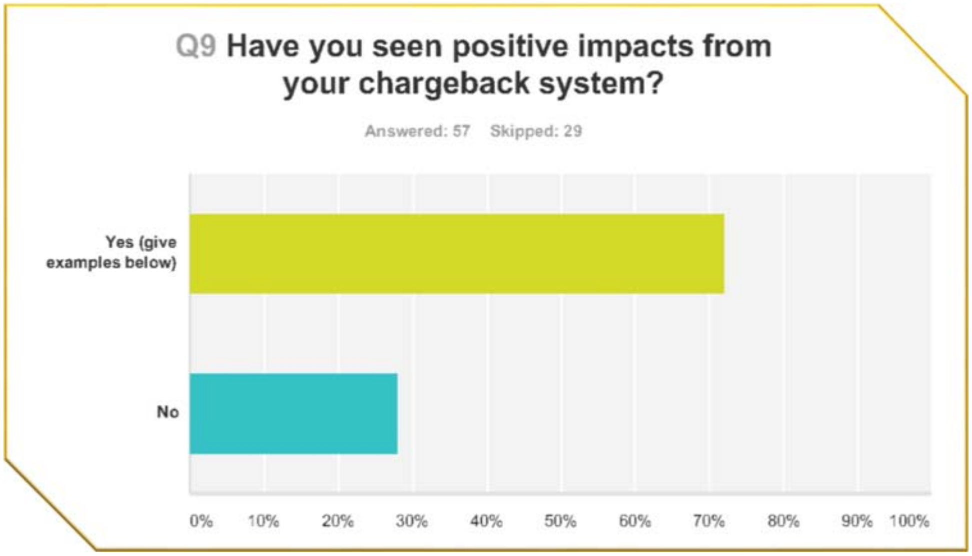
Interestingly, it appears that some institutions rely extensively on recharge while others do not and may view recharge as a small amount of additional or surplus funds. That would also explain why so many universities stated that the organization had no goal as well supporting the conclusion that for many, recharge is a source of "supplemental" funds.



Question #7 attempted to quantify the percentage of operating budget that is derived from chargebacks, and thus the dependency on this funding source. When coupled with question #6 that asked about dollar volume, these responses are consistent and reinforce the view that some schools are very dependent upon recharge while others are not.

Question #8 asked, "If you have an IDT goal, how many personnel (staff FTEs) are required to earn this revenue?" Responses ranged from zero (one answer) to 206 (one response).

Dependence upon recharge and recovery varies widely, which has some implications for the APPA FPI since there is no adjustment mechanism.



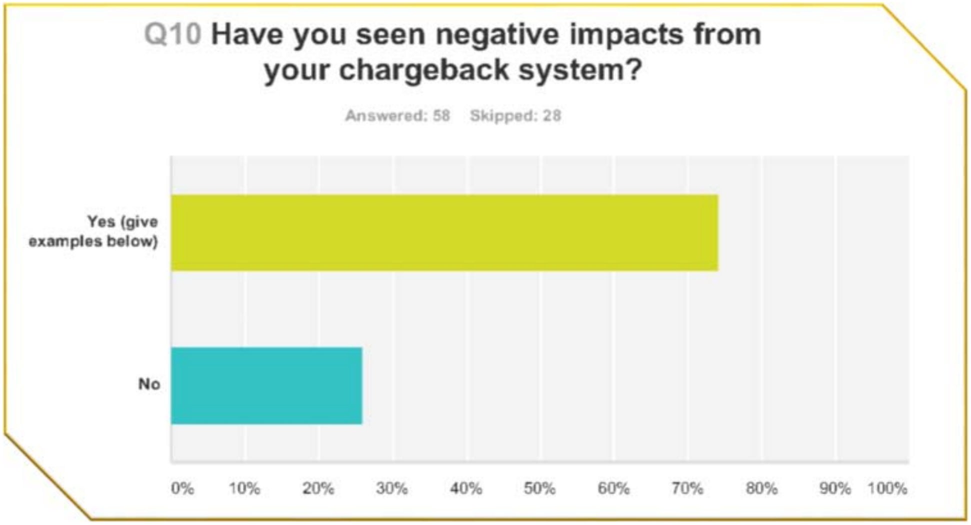
The advantages and disadvantages were pretty much as expected.

Savings for the university was noted as a positive benefit as was revenue for facilities. One person responded that the practice allowed for a focus on maintenance, and another told us that recharge kept productivity competitive.

This comment supported the sense that many treat recovery as supplemental funding: "Chargebacks have been a great source of supplementary revenue. It enables us to retool, supplement our fleet carts, and temporarily increase staffing during peak periods."

The casual tone of the response begs the question, however, and lends credence to the concern that a few schools may not be calculating rates in a prudent and defensible manner.

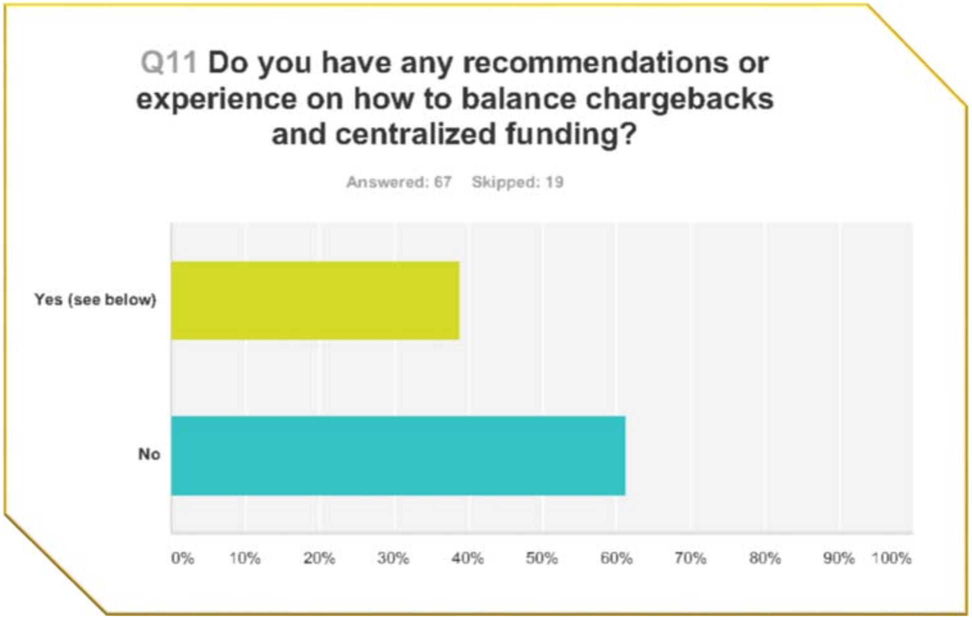
This one said it all*:* "It helps cover costs that general appropriations would not otherwise."



Naturally, one comment was: “The usual ‘why do we have to pay for these services’ - We charge too much.”

Another person summarized the responses with disadvantages quite nicely:

1. Depending upon maintenance priorities, we may not meet our budgeted recoveries in some areas of M&O.
2. Customers generally question the validity of the charges (extra work running reports on detailed billing, leadership working with customers to resolve billing disputes, etc.).
3. Customers generally question the billing rate of labor and hours expended (labor efficiency).
4. Not frequent, but when billing errors occur, it damages FM integrity.
5. Setting recovery budgets based upon historical may or may not be adequate to address major unplanned repairs / maintenance.

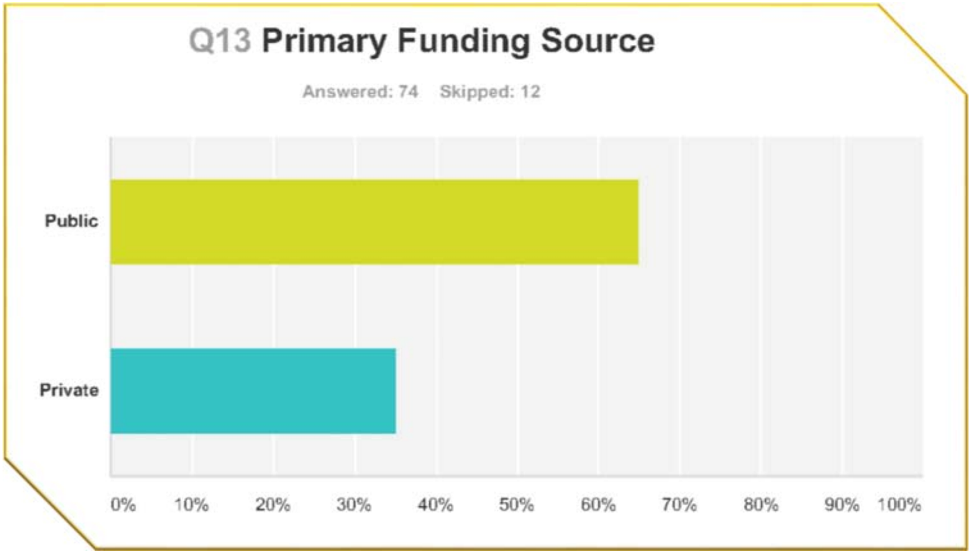


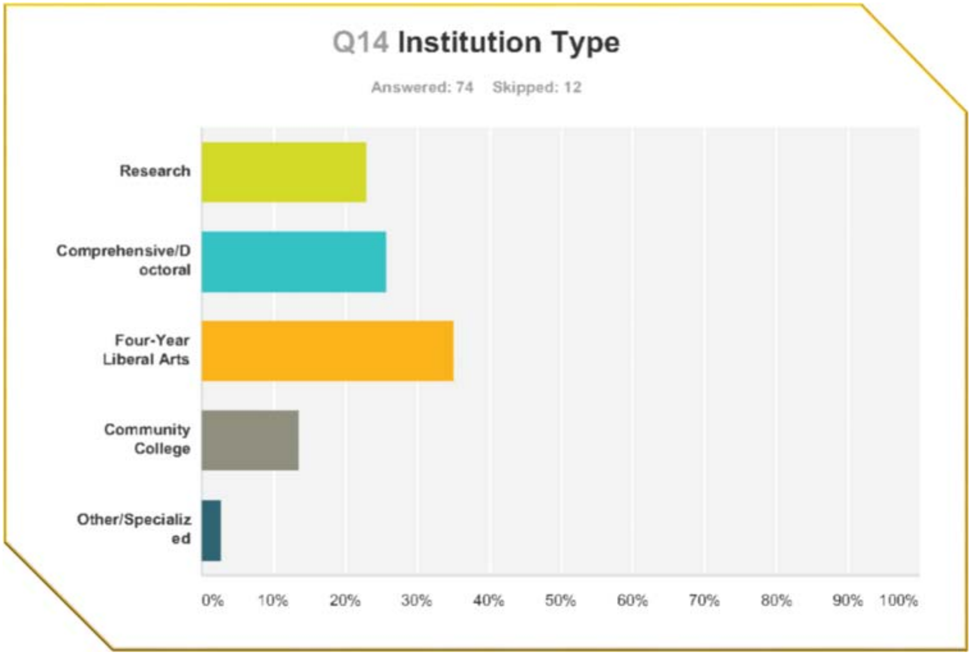
Over 60% of Question #11 respondents had no recommendations on the subject. The approximately 40% who did respond made strong recommendations for formal, well defined business processes to manage chargebacks. Several questioned the use of chargebacks versus a university wide priority system for determining expenditures and construction priorities. For those using chargebacks, several foot-stomped having visible, accurately calculated shop rates.

This was the authors' personal favorite: "Be sure that you have a very competent budget and financial manager on your staff."

Another favorite was: "Routine services could be quantified over a one year period and if agreed upon, funding transfer could happen annually." New Mexico State University has actually started down this path with great success among campus users, because it reduces the workload involved with billing for each call and the frustration involved with repeat calls.

Question #12 asked for the two-digit postal code for the state or province. Responses were varied, indicating a good sampling that included Nova Scotia and Ontario.





Questions #13 and #14 are self-explanatory in their depiction of funding source and institution type. One might expect a higher incidence of charge-backs in public institutions and this may partially explain the higher percentage of survey responses from public institutions. Institution type does not appear to have had an influence on responses, however.

Summary of Responses to Survey Questions

Question	Answered	Skipped
Does your facilities organization have a chargeback system?	86	0
If you do have a chargeback system, is it targeted only for elective improvements?	77	9
Does your facilities organization have an <strong>interdepartmental transfer (IDT) budget goal associated with chargebacks?	84	2
If your department does have an IDT budget goal, is it calculated based upon staff available to earn revenue, or is it a carryover from past years' budgets?	80	6
If you have an IDT goal, do you have sufficient staff to earn the revenue?	81	5
If you have an IDT goal, how much revenue must you earn?	38	48
If you have an IDT goal, what percent of your operating budget comes from recharge?	38	48
If you have an IDT goal, how many personnel (staff FTEs) are required to earn this revenue? (insert whole number with no commas or periods)	33	53
Have you seen positive impacts from your chargeback system?	57	29
Have you seen negative impacts from your chargeback system?	58	28
Do you have any recommendations or experience on how to balance chargebacks and centralized funding?	67	19

This table is a summary of how many responses there were to each of the survey questions. While it is difficult to draw significant conclusions from this table, the last three of the four questions about an interdepartmental transfer (IDT) goal garnered a significant number of “no responses,” despite the fact that the first question about having enough staff to meet the goal drew a large number of answers.

Since the survey was sent to the chief facilities officers, it may be that the amount of revenue, percentage of operating budget, and number of staff devoted to recharge may not be readily known.

Demographic Comparison

Demographics	HauboldReynolds Survey	APPA Overall
FTE Range		
< 5,000	33%	47%
5,001 to 10,000	13%	24%
10,001 to 20,000	27%	17%
> 20,000	25%	11%
Institution Type		
Research	22%	21%
Comprehensive	25%	5%
4 year liberal arts*	35%	19%
Community College	13%	15%
Other **	3%	38%
Primary funding source		
Public	65%	53%
Private	35%	47%

* includes Baccalaureate
** includes Masters, Special, and Special Medical

This table is a summary of the demographics of the survey respondents when compared to the APPA demographics. It was anticipated that recharge and recovery would be of more interest to the larger schools, and that turned out to be the case. Based on early conversations, the authors also thought that this topic would appeal to the public institutions, and while that does appear to be true, this was not as dramatic as expected.

Educational Advisory Board

In 2015, the Educational Advisory Board published ***Facilities Charge Backs: Considerations for Implementing Chargebacks for Facilities Services*** in 2015.[5] These are from the advantages and disadvantages in their paper:

Chargebacks Can Promote Greater Accountability, Transparency, and Cost Savings

- Chargebacks may offer several advantages over centralized funding models

- Institutions can structure chargebacks to incentivize (or disincentivize) certain behaviors. For example, to encourage units to reduce their energy use, institutions can offer chargeback-free upgrades to replace older systems with newer, more efficient systems that will pay for themselves over time.

Chargebacks May Create Complexity and Trigger Faculty Frustration

- Despite the many possible advantages of chargebacks, chargeback models may lead to a variety of counterproductive incentives and unintended consequences-most of which can be mitigated using the strategies outlined in this report.

- Chargebacks may create a tenuous, “client-vendor” relationship between departments and academic units. This may lead wealthy units to “opt-out,” believing that they can secure better services on their own or through external vendors. These opt-outs diminish shared resources, damaging economies of scale and possibly leading to lower-quality service for less-wealthy disciplines

These simply echo the many responses as well as illustrating yet other ways of describing the process.

[5] The Education Advisory Board (EAB); ***Facilities Charge Backs: Considerations for Implementing Chargebacks for Facilities Services*** (2015 with permission from EAB).

D Models/Further Research

Fully Allocated

A fully allocated cost model based upon recovering overhead costs might be the most common model, and benefits from stability. However, according to Sightlines, higher education is anything but stable. In their annual report, "**The State of Facilities in Higher Education**:"

> College and university enrollments are, in aggregate, either stable or declining. In light of the building boom of recent years, many campuses now have more space to maintain and fewer students to fill it.
>
> The changes in enrollment vary by type of institution, with both comprehensive universities and small institutions experiencing a leveling or even decline in enrollment. Research institutions, however, continue to increase enrollment, and at a pace that exceeds the available space. Colleges and universities in certain geographic areas, like Texas, are likewise seeing a growth in student enrollment and need additional space to accommodate the required academic programs and student services.[6]

Even where enrollment is growing, it would be the rare campus where staff are added at the same rate. That is important as relates to recharge and recovery. As Guckert and King point out,

> Adjustments for surpluses or deficits should be treated as operational overhead in the rate calculation. When institutional policy permits a balance to be carried forward, or divides a loss over several years, this can have an impact on the rates. It is important to recognize that, in a break-even environment, overages can reduce future rates, and losses can drive up future rates.[7]

Indeed, if the examples provided earlier are considered, the shop rates are calculated based upon available FTE (full time equivalent). Yet, the response to budget challenges in higher education is many cases is a "hiring freeze" or "waiver process." As this is being written, the state of Texas is under a hiring freeze and New Mexico State University has a waiver process in place that lengthens the hiring process significantly. If budgets were constructed around a labor rate with a definite number of FTEs, an inability to hire replacement personnel will almost by definition generate a budget deficit that can only be offset by seeking larger amounts of recharge and chargebacks in subsequent years. While it is true that an amount for vacancies can (and should) be "built into the rate," it must be noted that doing so will increase the overall hourly rate and the impact may not be well understood by the business office in either in the facilities unit or at the university level.

In addition, note that where institutional policy allows a balance or deficit to be carried forward, a deficit will drive the rate up. In the same manner, additional funds can be added to the Facilities budget simply by increasing the rate and working more hours of recharge.

One approach to control this would be to reduce staff to lower the recovery burden, but in many cases, staff for compliance and other oversight activities has been added through the rate process

[6] Sightlines, **The State Of Facilities In Higher Education: 2016 Benchmarks, Best Practices, & Trends**, www.sightlines.com/insight/state-of-facilities-2016/, (2016)
[7] Guckert and King, **The Charge of the Rate Brigade: A Rate Template for In-House Construction Labor**

to address many unfunded mandates. Consequently, it is not simply a matter of reducing staff that are paid for as direct labor, but also one of reducing employees that contribute to overhead.

The fully loaded cost model works well in times of stable or level budgets, but much less so when revenue is a large percentage of an overall budget that is shrinking, particularly if an increase in overhead was funded through recharge.

On the positive side, because the construction and small remodel workload varies, some institutions hedge against those fluctuations in construction by staffing to and targeting the “baseline” demand (versus the average or peak), and then relying on outsourced options or scheduling practices over seasonal demand cycles in order to manage the IDT target.

Review Panel

An alternate model for accomplishment of enhancement work is used by at least one of the United States military services. In the Air Force, improvements are prioritized and funded from central budgets with input coming from the customers and the administration in what is termed a “Work Request Review Panel” or for larger projects, a “Facilities Board.” The prioritization process not only considers the institution’s annual enhancement funds but also facilities staff availability and capacity, so that predictability can be added to the work execution. By providing a disciplined, holistic approach, the process attempts to ensure that asset management principles are applied to the decision making progress. As one former military engineer states, “the last dollar goes to the highest and best use.” The tradeoff argument is that academic units do not directly control their facility enhancement desires.

RCM

Responsibility centered management or RCM, has been touted by some as an answer. With this model, enhancement funds are managed by individual academic units, who then decide on the improvements. Survey responses did not provide any insight into the effectiveness of the RCM model and it may be worthy of a future APPA study. Some argue that RCM puts the customer in charge of their facility needs, and that the department should know best. However, one can offer a counter argument that the typical academic customer may not take a balanced approach to their facility needs. Facility spending controlled by academic units may not serve the best interest of the greater university community. Finally, academic facilities or infrastructure may suffer with such trade-offs as academic salaries and equipment in lieu of facility stewardship.

These were other common alternative methodologies that are used:

Full outsource

Some of the institutions find it easier to simply just outsource any non-maintenance work. After conducting this research and reading the survey, it becomes obvious why this may be attractive. This approach definitely protects the maintenance function and budget, although most likely the costs are higher for non-maintenance work. The term “most likely” is used here, because when all time and costs are fully allocated, the facilities unit is not always the lowest cost when compared to outside providers. The authors would contend that this may be the only way to accurately allocate the true costs.

Materials only

Another approach is to simply charge for materials when performing non-maintenance work. This leads to challenges in deciding what work is performed and does little to protect the maintenance hours. On the other hand, this methodology is certainly customer centric, as the requesting unit receives "free labor." Also, this can be a workaround in those states that prohibit state-funded employees from charging labor against bond issuances or other appropriations under the logic that the employees are already being paid.

Incremental staffing

This approach simply assumes that the overhead already exists and that the additional positions funded through recharge are layered on top of the existing organizational costs for overhead. The rate then would be calculated using direct hourly labor costs, consumables, and fringe, but not overhead. This would "leave some money on the table" during good times, but protects overhead during periods of retrenchment. Most notably, converting to this methodology from a fully allocated recharge model would require additional institutional funds.

Icing on the cake

It became apparent that a number of facilities units simply treat recharge as "icing on the cake." The rates are developed without an hourly target, sometimes by comparing internal rates to local contractor wage rates. The volume of recharge is relatively small, and chargebacks are used in a positive manner, i.e., departments receive the benefit of the lower cost of labor, employees get a break from the monotony of maintenance, and the department supplements the budget. Other than that rates should be calculated in a consistent and systematic way, there are many advantages to this model. It should be noted, however, that the percentage of the facilities budget that is funded "centrally" would be higher when compared to the fully allocated cost model.

An Institutional Decision

During the numerous discussions with staff at other institutions and after the peer review, the authors received a number of comments pointing out that any model other than the fully allocated model essentially subsidizes the non-maintenance and/or remodel work.

The counterpoint is that while this approach advocates for recovering all of the costs incurred by the facilities organization, those still may not be all expenses necessary to conduct the organizational business. While a few facilities groups may pay the true cost of institutional support for items like legal counsel or advertising for RFPs, most institutions provide some unreimbursed services to their facilities operation. Thus, the question perhaps is not so much whether or not to subsidize, but to what degree.

From the survey, it appears that more institutions than not feel that there is value to having a workforce available to do small remodels quickly, and thus are willing to subsidize these costs to some extent because the in-house group often brings institutional knowledge, as well as an understanding and willingness to work around campus activities.

In any event, when all costs are fully allocated or close to it, the in-house Facilities staff may not be less expensive than private contractors, and there are actually many reasons why higher education administrative operations may well never be as efficient as their counterparts in private industry. At some point, the institution must choose to place some value on having in-house staff, begin seriously comparing costs to external vendors in search of the lowest price, or find a mid-point with workload balancing.

Recommendations for Further Research

There are always questions to be asked and to follow-up on. The first issue was, as mentioned, how the facilities in-house staff compares to contractors in terms of cost, efficiency, and quality. Anecdotally, the authors suspect generally that while the campus labor may be less expensive by the hour in most cases, the amount of time to complete projects may be longer, and the quality of the work usually somewhat higher. None of this would be true in every case, and it is purely conjecture. Further research would be interesting, to say the least.

An additional look at transactional costs would be helpful when designing or choosing a model. For example, some schools require a work order with an index or account number for every non-billable activity. If Athletics or an Auxiliary is “too hot,” the HVAC shop charges to respond and repair. On the other hand, other universities may use a “per FTE” or “per GSF” (gross square foot) calculation to complete a budget transfer once a year, usually in advance. An example would be where an Auxiliary enterprise would pay for a certain number of FTE in salaries or an average rate per GSF, and this would have the advantage of (1) allowing all parties to budget accordingly in advance (2) eliminating frustration with “call backs” and (3) significantly reducing the transaction costs.

The authors can think of several relatively simple ways to adjust staffing benchmarks so that recharge and recovery can be incorporated into staffing level calculations, and additional research could test this. This would improve the comparative data in the Facilities Performance indicators.

E Conclusion

The goal of the study was to ascertain if there are significant issues with respect to recovery and recharge as practiced by many institutions in higher education, and information had been gathered anecdotally, through conversations with facilities officers, and at weeklong Supervisor's Toolkits. With the assistance of APPA, a survey was conducted of member institutions, and this confirmed that there is a lack of definition of "chargebacks" across the university facilities landscape.

Reviewing the responses and drawing conclusions was challenging, given the varied budget methodologies in higher education and the need for a common definition of terms. After reviewing the data and having follow-up conversations with some of the respondents, there were three conclusions that rose to the top:

- There are no standard approaches to using or computing recharges.
- The cost model employed should be a conscious and informed decision by the chief financial officer and chief facilities officer.
- APPA and member institutions would benefit from additional research into the overall impact that recharge and recovery have on institutional budgets and from clarification to the frequently used benchmarks in the APPA Facilities Performance Indicators (FPI).

There are no standard approaches to using or computing recharges.

A common model is "full cost recovery." Alternative models such as incremental cost recovery or "materials only" mechanisms can provide for easier adjustment to campus budgetary swings than a fully allocated model, but for most institutions this would require either a reduction in staff and/or increased facilities budgets. Regardless, there is no standard approach nor is there any guidance in the APPA Body of Knowledge.

The authors believe that there is immense benefit to keeping the amount of recharge small as percentage of the overall budget. If chargebacks must be large to meet budget, as is the case at many research institutions, sophisticated systems must be set in place to provide oversight and management.

In addition, at the conclusion of the research, the authors feel compelled to point out that charges made against federal research grants should be through rates developed in accordance with guidance documents. Additional information would be of immense value to the APPA membership, particularly to those institutions that support research through small remodels.

The cost model employed should be a conscious and informed decision by the chief financial officer and chief facilities officer.

Extreme care must be taken to monitor and adjust the burden placed on the facilities budget to avoid neglecting the maintenance and/or other core functions.

Perception across Campus

Conversations with higher education facilities leaders and comments gathered from this research project survey indicated concerns from their customers with chargebacks. These range from the facility manager's favorite, "*Why do you charge so much?*" to "*Why do you have to charge me, we both work for the same organization?*" The central theme is a lack of understanding across many institutions of why chargebacks exist and the even greater inability of the facility manager to explain chargebacks in a way that a customer can understand.

The APPA survey associated with this research project reinforces that chargebacks can be challenging. In survey questions 9 and 10, respondents stated that 75% had experienced negative impacts with their chargeback system, although 75% also said they had seen positive impacts!

It is critical to explain this process fully to the institutional users that is readily understandable.

Workload Management and Federal Compliance

> We set up our processes and policies in accordance with A-110 so that we're compliant with A-21, so that we don't end up in trouble with A-133.[8]

All of the older guidance circulars were consolidated into the Office of Management and Budget Uniform Guidance document in 2013, but the rate setting process should be a formal, defined process, particularly when billable work is performed against federal research grants. In hindsight, a question about the OMB Guidance would have been a telling indicator for this research.
Another challenge is if the facilities organization is staffed, trained, and equipped to manage chargebacks. It is certainly arguable as to whether the typical facilities staff has the training and structure to properly manage chargebacks. Inadequate salaries for facilities business support staff may be a first indicator that chargeback financial management may be a challenge.

A second and quick indicator that may be used to test an organization would be to ask if the institution has current shop rates and if so, how long it has been since the rates were reviewed and updated. Shop rates must be current for the institution to be prepared for chargebacks. One institution uses the newspaper "help wanted" section to establish rates, which may not be defensible if challenged.

Further, if the university budget office cannot help define (or can no longer remember) where annual income generation targets came from or how these were calculated, your institution may not be properly managing chargebacks. In this research survey, of the 38 universities that use IDTs (InterDepartmenTal charge), half indicated that greater than 10% of their budget depended upon an IDT program.

This research survey asked, "If your department does have an IDT budget goal, is it calculated based upon staff available to earn revenue, or is it a carryover from past years' budgets?"

Based upon nearly 58% of respondents indicating that neither is the basis for their IDT budget goal, there appears to be some confusion about IDT goals for chargebacks. Written comments to

[8] NMSU Sponsored Projects website, spa.nmsu.edu, (2017)

this question demonstrated that institutions used a blended approach or answers were provided that indicate earning IDT revenue is a challenge based upon staffing and workload.

Some facilities managers have found that the organization now lacks sufficient staff to accomplish both maintenance tasks and perform enhancement work. This is especially challenging when the same budget cuts that removed enhancement funding from the facilities and departmental budgets also reduced facilities staff. Further exacerbating the situation can be “chargeback” budget targets that facilities managers must earn to balance their budgets. For instance, some universities establish annual monetary goals for the facilities team to reach just to “break even” on their budget.

Shop staffing may be another indicator of challenges with chargebacks. If chargeback work cannot be accomplished without impacting preventive maintenance and timely responses to urgent work, there may be issues to address. In the grand scheme, chargebacks are often used to pay for staff. If staff numbers are constrained, this may result in a long term drain on the condition of facilities when staff cannot perform preventive maintenance – and this may be considered a hidden tax on the university’s capital: its facilities.

Transfer Payment or Tax

In their 2004 article, Guckert and King wrote that discussions at the APPA Institute for Facilities Management generated a recognition among attendees:

> Many of the institute’s attendees have been surprised to discover that, despite having a recharge system in place, they are indirectly subsidizing in-house construction efforts with their maintenance and operations budgets by not capturing all of the costs associated with providing the services.[9]

An unexpected tax burden from chargebacks may exist for a number of reasons. The examples the co-authors have seen first-hand include work prioritization and interdepartmental budget transfer targets that are not in synch with staffing.

Insufficient facilities staff to earn IDT goals and meet basic work requirements such as preventative maintenance (PM) and repairs is a strong indicator of a tax on infrastructure and facilities. In terms of man-hours, something has to be sacrificed (“taxed”) to support the model and with insufficient staffing for requirements, infrastructure will pay the price. Work prioritization can be skewed with an enhancement program driven by customer funding, instead of central management prioritization. For instance, if the maintenance staff has limited manpower to accomplish PM’s and repairs and a customer funded enhancement project takes priority when an academic unit has funds, other areas may suffer. It can be argued that this scenario can lead to degradation of infrastructure and facilities in historically underfunded departments or those with lower external donor levels. Institutional leadership may need to decide if it will allow donations to drive where and when university improvements take place or if the administration will review requirements and place work where it is of greatest benefit to the university.

[9] Guckert and King, **The Charge of the Rate Brigade: A Rate Template for In-House Construction Labor**

Interdepartmental transfers (IDTs) have been taking place for decades as alluded to in the Guckert and King article. Turnover in facilities staff and adjustments to budgets over the years can lead to misunderstanding of the original guidance behind IDT's. In chasing IDT's, an organization without a strong understanding of the requirement and a robust accounting system can find itself creating vast amounts of work for its budget and accounting staff. Accounting systems tracking unnecessary IDT's can place a burden on the business office staff. This is especially significant if such personnel are not well trained or prepared for such financial tracking. Significant training is necessary to ensure IDT's are managed properly.

The bottom line at many universities is that budgets drive the chargeback system. At one of the co-authors' institutions, years of budget cuts in the early 2000's led to a move away from centralized funding for enhancements and a move to academic department funding for such work. Over time, this led to challenges with staffing and budgets. One might ask if chargebacks are the right answer to budget cuts. While they are often an appealing option from a first-blush financial view, other models exist that may work, although none are without challenges.

APPA and member institutions would benefit from additional research into the overall impact that recharge and recovery have on institutional budgets and from clarification to the frequently used benchmarks in the APPA Facilities Performance Indicators (FPI).

A section in the APPA Body of Knowledge on recovery and chargebacks might be considered, as there appears to be a lack of common definition of chargeback terms within the APPA lexicon. This is a bit surprising considering the 2004 article by Guckert and King and the extensive APPA Body of Knowledge. Conversely, considering the number of APPA institutions and the disparate administrative leadership that comes with hundreds of different universities and no single "governing" body, this might not be surprising. Just as one of the benchmarking companies for university facilities has called for a standard nomenclature in university facilities discussions of capital investment, perhaps there should be a standard nomenclature for reimbursement terminology.

NACUBO, the National Association of College and University Business Officers, offers training sessions for learning how to calculate rates to remain in compliance with OMB (Office of Management and Budget) Uniform Guidance. Personal experience and anecdotal information tells us that, all too often, the rates for non-billable work are set using local labor rates or some other informal process, and then used to bill small remodels, occasionally indiscriminately.

With 78% of 86 institutions surveyed reporting a recharge system and with 45% of responding institutions indicating their recharge is targeted not only at elective improvements but other work as well, a case can be made for a much more in-depth analysis of this topic. Pitfalls loom for facility organizations exercising recharge if proper planning and processes are not in place and institutions may be exposed to unintended consequences of decentralized funding if senior administrators are not aware of the challenges. The lack of a common lexicon, familiar to facilities professionals as well as financial administrators, deans, and presidents may lead to unintended results.

The APPA Body of Knowledge (BOK) is the authority used by many to make the case to senior institutional leadership, and a section that defines terms for recovery and recharge would be of immense assistance to facilities officers. In addition, there is still a widespread disparity of the use of recharge that creates challenges for facilities officers and university business managers who may lack a true understanding of the mechanism. Without a methodology to normalize the data, different calculations skew the comparisons in the APPA FPI. All would benefit from additional research.

Capstone

The authors concluded the information gathering for this study at the APPA/PCAPPA/BayAPPA 2017 Annual Conference in San Francisco by having conversations with Mike Johnson, associate vice president for facilities at the University of Arkansas, and Matt Adams, president of FM^2. They talked about the reorganization of the University of Arkansas Facilities Department that began in 2000, and that one of the drivers was a dependence on recharge to the detriment of maintenance.[10] What made this conversation extremely valuable to the research was that their analysis included full details and a comprehensive understanding of all issues; their conclusion illustrated the dichotomy of the solutions available to being excessively dependent on recharge.

As a result of their study, the University of Arkansas moved to Zone Maintenance to separate the maintenance function from the construction personnel, while at the same time recalculating rates upwards to fully allocate costs. It should be noted that increasing rates allows for additional costs to be recaptured and/or the number of hours devoted to the task to be reduced. In other words, an over-reliance on recharge hours can be remedied by adding institutional funding to the budget or by simply charging more.

This conversation was the capstone to the conclusions.

Labor rates must be well understood and managed as a component of the overall facilities budget; the decision as to which of the multiple models available for use should be an informed decision at the university leadership level based upon the viability of the methodology over many years; and, to have a meaningful conversation will require a common dictionary of terms.

Guckert and King set a high standard in their work, **The Charge of the Rate Brigade: A Rate Template for In-House Construction Labor,** and the lofty goal of this research is to contribute to the available information on the subject and be deemed worthy of following in their footsteps.[11] The authors hope that additional information will be added to the APPA Body of Knowledge to facilitate the discussion of these challenges with university leadership.

[10] Draper and Associates, **University of Arkansas - Physical Plant Operations Reorganization/Reengineering**, draperandassociates.com/engagements/uark_reeng.html, (2000)

[11] Guckert and King, **The Charge of the Rate Brigade: A Rate Template for In-House Construction Labor**

New Mexico State University
Hardman Jacobs
Undergraduate Learning Center

F From the Authors

Glen Haubold started his career in higher education as a student in the Physical Plant at Texas Christian University (TCU) converting metal filters for air-conditioning to fiberglass ones. He remembers one of the early chargeback models as asking customers on campus to pay for materials if more than one ten-foot section of wire mold was used to relocate an electrical outlet.

As might be imagined, there was considerable resistance to such a change at the time.

Haubold subsequently has been employed as the energy manager at TCU, the utilities maintenance manager at Texas Woman's University, the associate director of facilities maintenance at the University of North Texas, and the associate vice president of facilities and services at New Mexico State University. All four universities used different models for recovery and chargebacks.

After 30 years' experience in facilities operations, maintenance, and construction with the United States Air Force, David Reynolds, P.E., moved to higher education as the associate vice president of facilities at the University of North Texas. His previous agency had also faced the challenge of recovery and recharge rates and their impact to annual budgets.

Haubold worked for the University of North Texas until 2008, reporting to Reynolds' predecessor. At the time, UNT had a recovery burden that required earning approximately $2 million in non-maintenance recharge to meet budget. Upon arriving at NMSU, Haubold learned that NMSU Facilities and Services was required to earn nearly $4 million in recovery to balance the budget.

Glen Haubold, associate vice president for facilities and services, New Mexico State University:

Writing this paper really was a labor of love, and I very much appreciate the collaboration with David. We made as much effort as was humanly possible to objectively review the data and to maintain the highest level of research objectivity, although in the interest of full disclosure, we must confess that we have strong feelings about the subject.

My interest in this subject started during the 1980s when we initiated a system for recharge at Texas Christian University (TCU) that billed for materials when more than a ten-foot stalk of wire mold was used to extend or relocate an electrical outlet. Up until that time, the Physical Plant simply took care of requests across campus. Even then, the number of people who wanted outlets moved only nine feet to avoid the charge was surprising.

Texas Women's University used a different methodology. During the timeframe from 1995 until 2001, we would execute projects – usually for Housing – when time permitted and only after they purchased materials. The logic was that the facilities staff were being paid regardless, although obviously, this work took time away from maintenance.

In 2001, I moved across town to the University of North Texas (UNT). Although the calculations were fairly basic, we charged fully loaded rates and were required to earn a little over $2 million to balance the budget. When the Guckert and King article was published in Facility Manager magazine, we had our rates recalculated. And, because facilities was doing a significant number of small remodels at the time, the argument for recharge was employed to create a “self-funded, soft money” construction crew. These initiatives made achieving the recharge target much easier, although it was still a challenge.

In 2008, after accepting a position with New Mexico State University (NMSU), I learned that NMSU Facility Operations had to earn close to $4 million. NMSU had nearly $200 million in research at the time, and most of this recharge amount was earned through activities related to research support and remodels. In addition, NMSU employees are able to earn recharge on small projects funded through the deferred maintenance funding process, something that is not allowed in at least one state.

One of my first assignments at NMSU was to benchmark staffing, and I found it very difficult to use the APPA Facilities Performance Indicators (FPI) because approximately half of the staff positions at NMSU were funded by recharge activities. After contacting my counterparts at our peer institutions that participated in the FPI, I learned that some had adjusted their staffing for recharge and some had not. For that reason, NMSU ultimately engaged a 3rd party firm for benchmarking.

NMSU has seen an enrollment decline in recent years, and has experienced a decline in state revenues as well. Since our facilities unit is based on fully loaded rates, our reductions cannot be limited to just shop personnel and we thus had to find a way to reduce overhead.

That has been a significant challenge, because most of the overhead is related to areas that would drastically impact compliance or administrative oversight. Consequently, we have mostly reduced in the administrative staff area.

Three years ago now, the facilities unit at NMSU also assumed oversight of the Athletic and Auxiliary maintenance and custodial departments on campus, transferring the personnel, salaries, fringe benefits, materials budget, and equipment. This transfer was made with an incremental cost methodology that spreads the overhead out over a larger number of employees. Time will tell, but this should drive down the shop rates for the campus. However, it also means that the facilities unit is no longer billing Athletics and Housing with fully loaded hourly rates for routine maintenance, and we have seen a strain on facilities budgets.

<u>David Reynolds, P.E., associate vice president for facilities, University of North Texas</u>:

Working with Glen Haubold on this project and interacting with other higher-ed facilities professionals since I joined the University of North Texas has been a both enjoyable and educational endeavor. The last four years have been professionally rewarding and created some wonderful new friendships working with Glen, my many former USAF counterparts now in higher-ed, and the network of higher-ed professionals I have become involved with through APPA, CAPPA and Texas APPA (TAPPA).

Coincidentally, like Glen, my father was a facilities professional. My dad, Col (Retired) P.G Reynolds, Jr. was an architectural engineer and a career facilities officer in the United States Air

Force from the late 1950's to the early 1980's. In the USAF, the career field is referred to as "Civil Engineers" and I fell into my father's career field when I joined the USAF in 1983. For 30 years I served in Civil Engineering or installation management organizations from Texas to California and Germany to Iraq.

During my military career I worked with shop rates and specialized funding rules and budgets for non-appropriated funds (NAF) and military family housing (MFH), much like managing university auxiliary funds. Military facility institutions use shop rates to establish reimbursement rates for NAF and MFH work that federally funded employees might support if reimbursements take place. Ensuring that reimbursements took place, generally early in the fiscal year, helped offset salary and overhead costs for many members of the organization staff.

While I expected many similarities between university facilities management and USAF installation management, I was taken aback by the lack of common definitions across universities and the many nuances of accomplishing the same business processes. In the military, while I could count on some "county options" as I moved from installation to installation, business processes, especially financial processes, were not surprisingly, very similar as they operated from the same Air Force Instructions (AFI's) for both Facilities and Financial staffs. APPA serves an important role by sharing its Body of Knowledge which allows higher-ed institutions to have some similarities in facilities business processes. What I have not discovered in my short time in higher-ed is the strong linkage between facilities and finance at the professional organization or common business language level. I trust this research project will be one small step in building that linkage.

University of North Texas
Murchison Performing Arts Center

G Acknowledgements

The authors wish to acknowledge Steve Glazner, director of knowledge management at APPA, for his assistance and guidance in preparing this paper. This research would not have been possible without his efforts generating and summarizing the survey of Institutional Representatives. We greatly appreciate Ted Weidner, associate professor of construction engineering and management at Purdue University and president of Facilities Asset Consulting, who was our mentor and advisor on the project and freely shared his extensive experience.

A special debt is owed to Donald J. Guckert, P.E., APPA Fellow, and associate vice president and director, facilities management, and Jeri Ripley King, assistant director, facilities management, at the University of Iowa. Their article started this conversation, and we hope that our study is worthy of following in their trailblazing path. We also extend our congratulations to Don as the incoming president-elect of APPA, and to Jeri for being named as an APPA Fellow.

Norm Young, associate vice president of facilities planning and management at the University of Hartford and vice president of information and research for APPA, kept us motivated with his encouragement, and we truly appreciate the eight-six professionals who took the time to respond to the survey. We did personally extend our gratitude to the thirty-four who provided their email address as well as to those who responded to our initial email solicitation.

Finally, we wish to thank our respective university leadership, Angela Throneberry, former senior vice president of administration and finance at New Mexico State University, and Bob Brown, vice president of finance and administration at the University of North Texas, for providing time off for us to attend conferences and hold volunteer offices in the APPA family of organizations. Their constant encouragement to develop ourselves personally led to this research and the writing of this paper.

Our sincere desire is that our efforts will once again validate the benefits of our participation in APPA.

1 Initial Email

From: Glen Haubold
Sent: Monday, April 11, 2016 2:09 PM

Subject: RE: Recharge, recovery, and CFaR

Thank you. As we mentioned in the first email, David L. Reynolds, P.E., the Associate Vice President for Facilities at the University of North Texas and I are gathering information for our CFaR Research Project about the impact of recovery and recharge on facilities budgets.

The Center for Facilities Research (CFaR) was established in 2002 by APPA to organize and consolidate research in educational facilities management. The mission of CFaR is to advance the body of knowledge of facilities management through research, discovery, and innovation. To accomplish this mission, CFaR has been established by APPA to function through its Directors and project-specific Peer Review Panels.

Our question is:

"*Are there significant issues with respect to recovery and recharge as practiced by many institutions in higher education?*"

We want to hear about the impact that Recovery and Recharge has on your organizations – the good, the bad, and the ugly – and we want to hear about how you calculate it. Of course, if you don't bill or have other creative ways of doing this, we would want to hear about that, too.

As we use the term, standard maintenance and operations are those maintenance activities that are funded through what most states call the E&G, or educational and general funding. Elective improvements are user requested services for non-maintenance items, anything from a new outlet to a remodel. Chargeback, interdepartmental transfer, or recharge refers to the budgetary amounts.

Two examples we have already:

When the staff at School A are asked to make elective improvements, the user pays for materials and there is not a charge for labor under the premise that the staff salaries are already funded. In this case, the materials budget is recharged.

School B staff completes remodels and small elective improvement projects for many units across campus, and the hourly rate billed is at a shop rate that is significantly higher than the direct salary of the employee, as the organization captures administrative overhead. The total cost of materials, and shop rate is recharged.

I included an article on this subject for your reading pleasure and that will help clarify some of the points. We request that you answer the below questions. In our draft and final published documents we will not identify universities by name.

1) Does your Facilities organization have a chargeback system?

2) Is it targeted only for elective improvements?

3) Does your Facilities organization have an Interdepartmental transfer (IDT) budget goal associated with chargebacks?

4) If so, is it calculated based upon staff available to earn revenue, or is it a carryover requirement from past years' budgets?

5) If you have an IDT goal, do you have sufficient staff to earn the revenue? How much revenue must you earn? How many personnel are required to earn this revenue?

6) Have you seen positive impacts from your chargeback system? Give examples.

7) Have you seen negative impacts from your chargeback system? Give examples.

8) Do you have a recommendation on how to balance chargebacks and centralized funding?

If you have any questions, please ask Dave or me, our emails are ghaubold@nmsu.edu and david.reynolds@unt.edu. Our goal is to have all comments summarized by the end of April so we can start writing! Thank you for your help.

Glen Haubold
Associate Vice President for Facilities

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FACILITIES AND SERVICES
ONE TEAM / ONE GOAL
575-646-2101 OFFICE
GHAUBOLD@NMSU.EDU

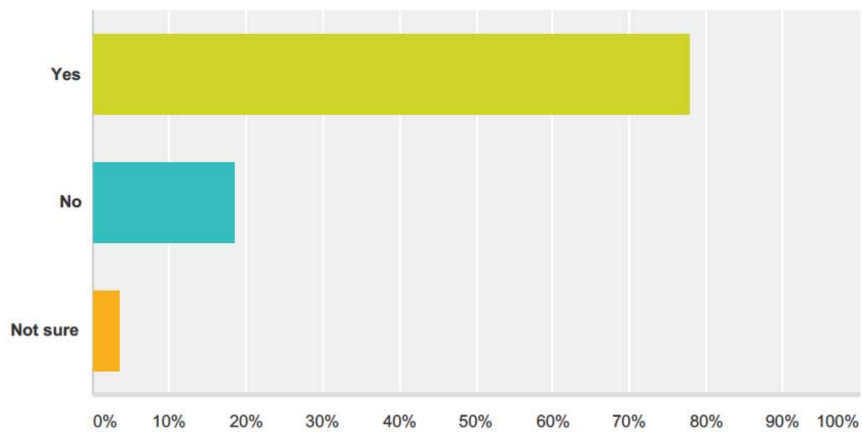
NMSU is all about Discovery!

2 Survey Responses

CFaR Recharge and Recovery ("Chargeback") Survey SurveyMonkey

Q1 Does your facilities organization have a chargeback system?

Answered: 86 Skipped: 0

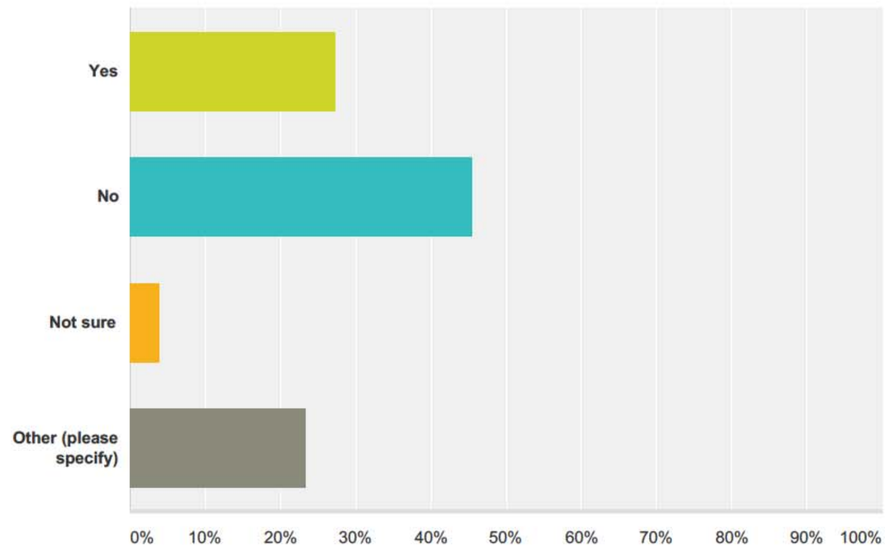


Answer Choices	Responses	
Yes	77.91%	67
No	18.60%	16
Not sure	3.49%	3
Total		86

CFaR Recharge and Recovery ("Chargeback") Survey — SurveyMonkey

Q2 If you do have a chargeback system, is it targeted only for elective improvements?

Answered: 77 Skipped: 9



Answer Choices	Responses	
Yes	27.27%	21
No	45.45%	35
Not sure	3.90%	3
Other (please specify)	23.38%	18
Total		**77**

#	Other (please specify)	Date
1	Total costs for chargebacks for elective improvements and Project Management costs for all capital projects large or small no matter how they are funded	7/13/2016 11:53 AM
2	N/A	7/13/2016 7:35 AM
3	Elective, or if the users want the service sooner than could otherwise be accomplished with in-house labor	7/11/2016 11:01 AM
4	We don't charge back for construction/renovation; only housekeeping	7/11/2016 10:50 AM
5	Elective improvements and services to Ancillaries	7/11/2016 8:12 AM
6	Vandalism, departmental equipment and work associated with rental events	7/6/2016 12:26 PM
7	Usually elective, but some are for the benefit of self-sustaining departments or operations.	7/5/2016 11:39 AM
8	Can be elective and/or expedited requests not planned for near term funding.	7/3/2016 11:17 AM
9	Non-academic entities are charged for all services provided.	7/1/2016 9:57 PM
10	For E&G chargebacks are made only for elective improvements. However, we also are the "vendor of choice" to perform maintenance for Housing and Residential Life, and all work performed for HRL, to include routine maintenenace, is charged.	6/30/2016 5:52 PM

CFaR Recharge and Recovery ("Chargeback") Survey

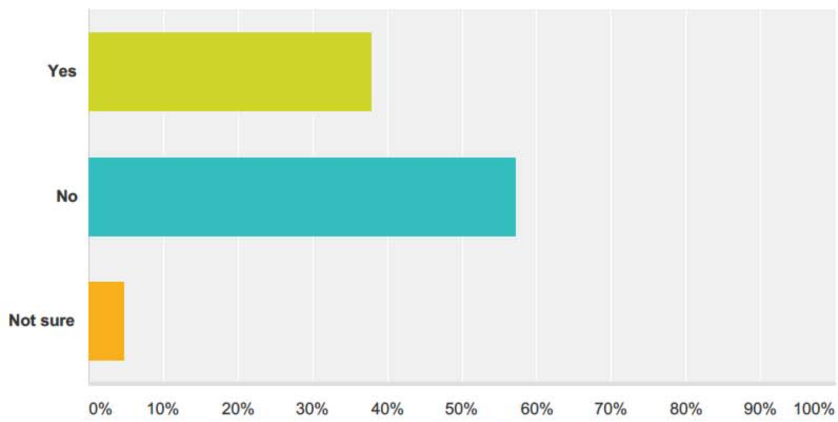
SurveyMonkey

11	We have a chargeback system for maintenance for auxiliaries and fee funded departments in addition to elective improvements.	6/29/2016 9:43 PM
12	only vandalism and capital improvements are seperately funded or charged back	6/29/2016 5:44 PM
13	Yes on State funded facilities. No on Auxiliaries; they are billed for all maintenance/improvement activities	6/29/2016 5:32 PM
14	Applied selectively, mostly for elective improvements and reimbursable damages to the residence halls	6/29/2016 3:47 PM
15	No procedures on what gets charged or not. Only auxiliaries.	6/29/2016 3:33 PM
16	Anything customer requested that is not maintenance related	6/29/2016 3:13 PM
17	All non-core services	6/29/2016 2:34 PM
18	Typically yes, but there are other circumstances when there is no charge back.	6/29/2016 2:15 PM

CFaR Recharge and Recovery ("Chargeback") Survey SurveyMonkey

Q3 Does your facilities organization have an interdepartmental transfer (IDT) budget goal associated with chargebacks?

Answered: 84 Skipped: 2

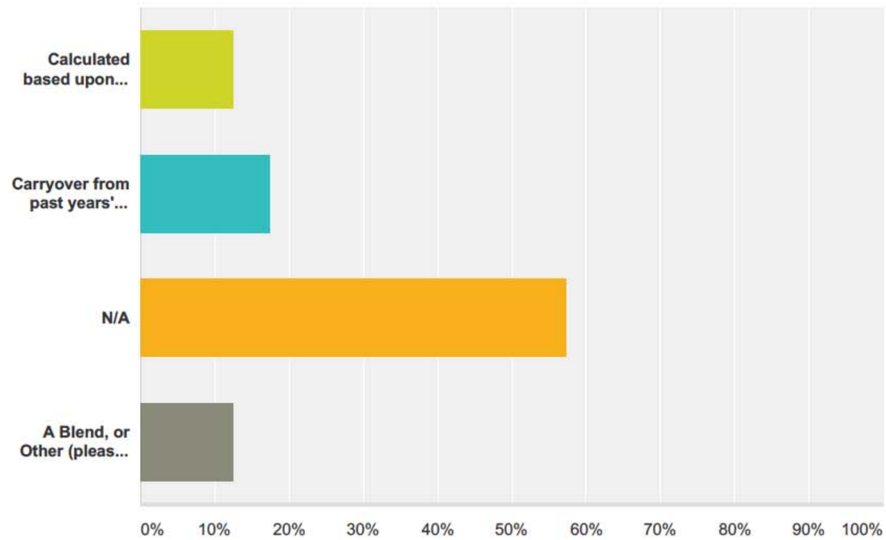


Answer Choices	Responses	
Yes	38.10%	32
No	57.14%	48
Not sure	4.76%	4
Total		84

CFaR Recharge and Recovery ("Chargeback") Survey SurveyMonkey

Q4 If your department does have an IDT budget goal, is it calculated based upon staff available to earn revenue, or is it a carryover from past years' budgets?

Answered: 80 Skipped: 6



Answer Choices	Responses	
Calculated based upon staff available to earn revenue	12.50%	10
Carryover from past years' budgets	17.50%	14
N/A	57.50%	46
A Blend, or Other (please specify)	12.50%	10
Total		**80**

#	A Blend, or Other (please specify)	Date
1	Our budget goal is based on current staff, which drives the amount of revenue required to make payroll. We also have a rough estimate of materials needed to support the different types of revenue generating work (PM, new construction, and non-maintenance)	7/27/2016 10:52 AM
2	We are not fully funded so we rely on departmental requests for services.	7/18/2016 7:32 AM
3	Staff remaining available after covering normal operations, maintenance, and repairs, adjusted for expected revenue based on overall University funding trend (up, down, unchanged).	7/12/2016 10:54 AM
4	We start the year under budget each year which includes positions in the chargeback account. Must at least recoup the positions total.	7/12/2016 10:49 AM
5	Combination of staff available to earn revenue, outside contractor costs for labor we do not have, and costs of materials used.	7/12/2016 8:37 AM
6	We need to cover payroll	7/11/2016 1:29 PM
7	It is a blend. We calculate based on staff available, but if we get additional requests for service, then we can hire temps to augment the work force.	7/11/2016 8:12 AM

CFaR Recharge and Recovery ("Chargeback") Survey SurveyMonkey

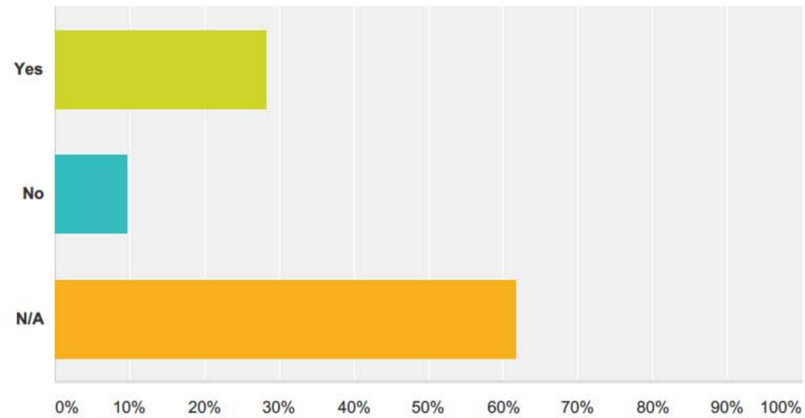
8	Some programs are established to recover labor cost for M&O staff positions. All others are based upon prior fiscal year budget recoveries (3 year average).	7/5/2016 7:02 AM
9	No goal. But we use past years performance to estimate future work, and budget against those numbers for staffing and overtime.	6/30/2016 5:52 PM
10	Our IDT goal is a conservative number based on the previous year. The goal is always less than the previous actual and can be adjusted if we anticipate changes in future demand. We hire staff based on this goal and want to make sure we always recover enough to cover our staff. We use contracted help to fill in the gap from what our staff can do and the demand.	6/29/2016 2:08 PM

CFaR Recharge and Recovery ("Chargeback") Survey

SurveyMonkey

Q5 If you have an IDT goal, do you have sufficient staff to earn the revenue?

Answered: 81 Skipped: 5

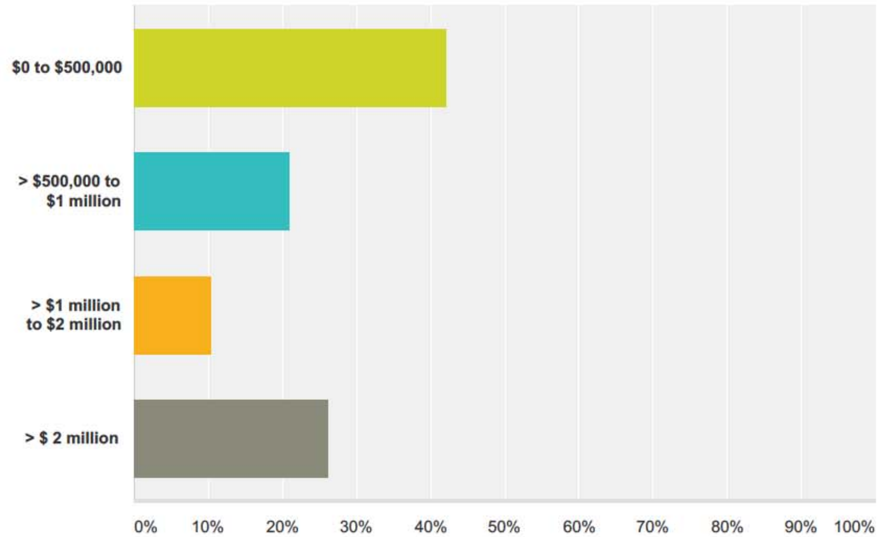


Answer Choices	Responses	
Yes	28.40%	23
No	9.88%	8
N/A	61.73%	50
Total		**81**

CFaR Recharge and Recovery ("Chargeback") Survey SurveyMonkey

Q6 If you have an IDT goal, how much revenue must you earn?

Answered: 38 Skipped: 48

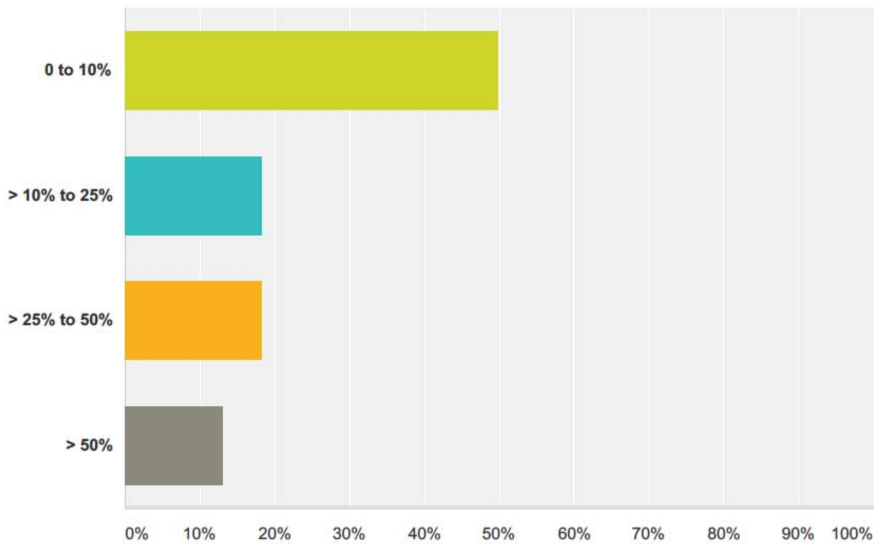


Answer Choices	Responses	
$0 to $500,000	42.11%	16
> $500,000 to $1 million	21.05%	8
> $1 million to $2 million	10.53%	4
> $ 2 million	26.32%	10
Total		**38**

CFaR Recharge and Recovery ("Chargeback") Survey SurveyMonkey

Q7 If you have an IDT goal, what percent of your operating budget comes from recharge?

Answered: 38 Skipped: 48



Answer Choices	Responses	
0 to 10%	50.00%	19
> 10% to 25%	18.42%	7
> 25% to 50%	18.42%	7
> 50%	13.16%	5
Total		38

CFaR Recharge and Recovery ("Chargeback") Survey SurveyMonkey

Q8 If you have an IDT goal, how many personnel (staff FTEs) are required to earn this revenue? (insert whole number with no commas or periods)

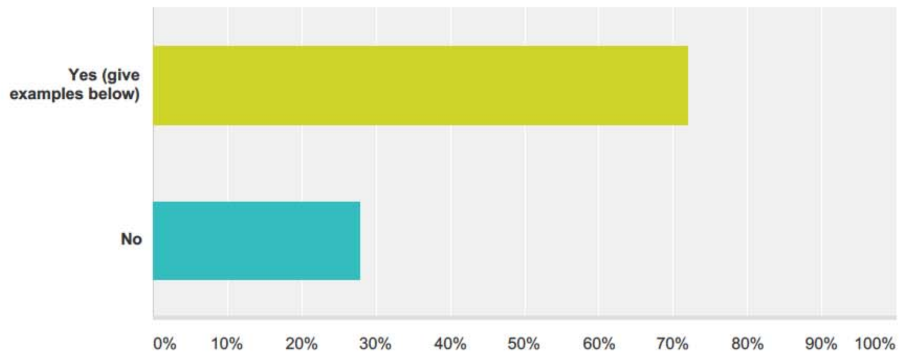
Answered: 33 Skipped: 53

#	Responses	Date
1	206	7/28/2016 1:30 PM
2	65	7/27/2016 10:56 AM
3	10	7/13/2016 2:08 PM
4	N/A	7/13/2016 7:35 AM
5	6	7/12/2016 5:29 PM
6	17	7/12/2016 11:03 AM
7	10	7/12/2016 10:52 AM
8	60	7/12/2016 8:44 AM
9	1	7/11/2016 7:03 PM
10	150	7/11/2016 1:35 PM
11	60	7/11/2016 11:12 AM
12	100	7/11/2016 8:19 AM
13	5	7/5/2016 6:15 PM
14	132	7/5/2016 12:04 PM
15	20	7/5/2016 9:28 AM
16	12	7/5/2016 7:08 AM
17	80	7/3/2016 11:24 AM
18	12	7/1/2016 10:01 PM
19	11	7/1/2016 9:40 AM
20	N/A	6/30/2016 5:52 PM
21	2	6/30/2016 12:39 PM
22	12	6/29/2016 10:45 PM
23	N/A	6/29/2016 9:48 PM
24	20	6/29/2016 6:32 PM
25	5	6/29/2016 5:44 PM
26	212	6/29/2016 4:29 PM
27	52	6/29/2016 4:27 PM
28	0	6/29/2016 3:34 PM
29	4	6/29/2016 2:39 PM
30	20	6/29/2016 2:38 PM
31	78	6/29/2016 2:32 PM
32	80	6/29/2016 2:02 PM
33	NA	6/29/2016 2:02 PM

CFaR Recharge and Recovery ("Chargeback") Survey | SurveyMonkey

Q9 Have you seen positive impacts from your chargeback system?

Answered: 57 Skipped: 29



Answer Choices	Responses	
Yes (give examples below)	71.93%	41
No	28.07%	16
Total Respondents: 57		

#	Provide examples of positive impacts from your chargeback system:	Date
1	Since the customer is paying for our services, I feel like we tend to be more efficient.	7/28/2016 1:30 PM
2	- Cost of project management is now captured to arrive at a true total project cost and not hidden in our operating budget. - Personnel levels can be matched to the Project activity. - Those departments in the University community who do not undertake projects do not indirectly subsidize (through the Physical Resources operating budget) departments that do many projects.	7/13/2016 2:08 PM
3	N/A	7/13/2016 7:35 AM
4	Small project cost savings as compared to negotiating with a general contractor.	7/12/2016 5:29 PM
5	Alignment of budget with primary responsibility. FM organization budgeted only for primary responsibility of operations, maintenance, and repairs. Cost of any other desired work borne by requesting department, which forces discipline in allocating resources and setting priorities.	7/12/2016 11:03 AM
6	Some deferred maintenance and routine operations is accomplished through chargeback revenue.	7/12/2016 10:52 AM
7	More accurate accounting of costs by facility. More scrutiny over prioritizing requests as funds holder is more inclined to maximize available budget.	7/12/2016 8:44 AM
8	Facilities charges back for request that are above and beyond normal maintenance and damages in Residence Halls.	7/11/2016 1:39 PM
9	Keeping productivity competive	7/11/2016 1:35 PM
10	When a department is charged for the project, there seems to be more careful consideration as to the true necessity of the work.	7/11/2016 1:23 PM
11	Allows us to regulate elective work and focus on maintenance	7/11/2016 11:54 AM
12	To the extent that we over-recover our chargeback budget we then have excess funds for other operations	7/11/2016 11:12 AM
13	Able to accomplish department funded projects quickly and effectively without impacting operations and maintenance budgets or manpower.	7/11/2016 11:04 AM

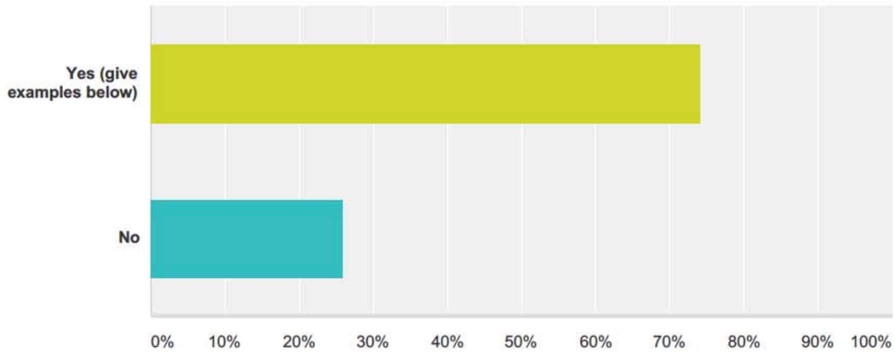
CFaR Recharge and Recovery ("Chargeback") Survey | SurveyMonkey

14	In eliminating most chargebacks and going to a one page guideline, our relationships with the Campus Community has improved remarkably and the University Assets are being serviced. We have initiated several SLA's in support of this initiative.	7/11/2016 10:59 AM
15	Incentivize more flexible timelines by passing on cost associated with quick turn around;	7/11/2016 10:23 AM
16	It can discourage frivolous requests & provide funding for necessary improvements that are not within our department funding. It allows overtime or temp staff for outside event staffing to offset a drain on our staff commitment to campus maintenance.	7/11/2016 10:16 AM
17	Facilities budgets are not made to absorb the costs keeping our budget freed up for necessary costs.	7/11/2016 10:05 AM
18	Our chargeback system was reviewed in 2008 and it was identified that we were not recovering all of our costs, so our methodology was corrected. Full cost recovery means that the operating budget is no longer subsidizing the elective improvements and ancillaries, so we are able to provide better day-to-day service.	7/11/2016 8:19 AM
19	Auxiliaries and the central administration budget office now have a better understanding of the actual cost to do business.	7/5/2016 12:04 PM
20	It helps cover costs that general appropriations would not otherwise.	7/5/2016 11:41 AM
21	It controls department's appetite for purely optional projects.	7/5/2016 9:28 AM
22	Full funding and cost sharing by departments both have increased, especially with guaranteed maximum price (GMP) cost estimate implementation a number of years ago and with anything left over returned 100% to client unless customer requested change orders impact scope & cost. If not any scope change and GMP costs exceeded then FM has to cover the costs above GMP estimate.	7/3/2016 11:24 AM
23	Have a core unit. We are good at what we do, if more come on we have on call construction contractor	7/1/2016 9:40 AM
24	1. Morale improvements by allowing staff to build creatively, rather than just "fix broken things". 2. Additional overtime work for staff (chargeback work is largely performed on overtime) 3. In some trades, better quality work than contractors (not all trades)	6/30/2016 5:52 PM
25	Chargebacks have been a great source of supplementary revenue. It enables us to retool, supplement our fleet carts, and temporarily increase staffing during peak periods	6/30/2016 8:44 AM
26	Separating recharge from Maintenance has been helpful to find the necessary focus for each group. The system controls requests based on customer funds.	6/29/2016 10:45 PM
27	Revenue is provided to cover the cost of maintenance which must be paid by auxiliaries and fee funded organizations as well as elective work, which allows us to hire additional staff to do this work, allowing us to continue to focus on having non-recharge staff performing maintenance..	6/29/2016 9:48 PM
28	Vandalism charge backs tend to call attention and help resolve student related concerns. Project Appropriation requests are signed off by the customers and their reporting VP, and this helps contain scope creep. many times that dept must fund or fund raise.	6/29/2016 5:50 PM
29	Adds value to the services if they are billed out. The departments know that it will cost them if they initiate the work request.	6/29/2016 5:34 PM
30	Workforce flexibility - Ability to task any member of the workforce to support any customer Financial integrity - Ensure customers pay for services received and ensure E&G and Aux aren't subsidizing one another Near full cost visibility - Transparency of cost with customers	6/29/2016 4:29 PM
31	Allows us to perform small construction tasks at a much lower cost to customers than would be otherwise possible (with outsourcing)	6/29/2016 4:27 PM
32	Has helped to avoid some budget overages and helped recover costs beyond regular maintenance funded by our S&E budget. Can serve as a deterrent to "frivolous" requests due to the requester's unwillingness to pay.	6/29/2016 3:56 PM
33	A more reasonable ask from the Faculties since they control the expenditure	6/29/2016 3:34 PM
34	cost recovery helps keep requestor from asking for more than what is necessary	6/29/2016 2:39 PM
35	User pay for non-core services puts the money and choices in their hands so they have control of their resources.	6/29/2016 2:38 PM
36	We are able to serve auxiliary operations and more department (especially research) needs.	6/29/2016 2:13 PM
37	Engagement of building manager in identifying work that is most relevant to the program.	6/29/2016 2:02 PM

CFaR Recharge and Recovery ("Chargeback") Survey — SurveyMonkey

Q10 Have you seen negative impacts from your chargeback system?

Answered: 58 Skipped: 28



Answer Choices	Responses	
Yes (give examples below)	74.14%	43
No	25.86%	15
Total Respondents: 58		

#	Provide examples of negative impacts from your chargeback system:	Date
1	Of course, some of our customers think that we cost too much and take to long to provide services.	7/28/2016 1:30 PM
2	Budget cuts and university practices pushed a lot of overhead into the self sustaining (chargeback budget). Our hourly rate is relatively high to cover that overhead, and customers complain about how expensive we are - but don't want to endorse budget adjustments which would allow a rate reduction	7/27/2016 10:56 AM
3	Our new work order system has helped because of the increased transparency for the customer and work performed.	7/18/2016 2:26 PM
4	Our accounting systems do not allow us to itemize charges, which creates a sense among our customers that we charge "too much".	7/18/2016 11:09 AM
5	- The usual "why do we have to pay for these services" - We charge to much	7/13/2016 2:08 PM
6	N/A	7/13/2016 7:35 AM
7	We use state paid maintenance staff to work on construction when the construction crew is deficient and vice versa. Labor is reconciled monthly between state paid and the in-house construction crew.	7/12/2016 5:29 PM
8	Complaints from requesting departments, in particular when budget under pressure, of both need to pay for requested work, and the cost of the work. Lack of context in which to compare hourly rates, i.e. private companies providing similar services. Incentive to work around Facilities department.	7/12/2016 11:03 AM
9	Campus perception that we're charging too much and therefore our department has a lot of money.	7/12/2016 10:52 AM
10	A chargeback system can cause an attitude by the charging entity to not care as much about the costs. It also creates numerous financial transactions within an organization.	7/12/2016 8:44 AM
11	Enterprise funded E&G units totally resist being charged for services and improvements, when they are collecting student fees for O&M and improvements.	7/11/2016 4:43 PM
12	Sometime Facilities is overruled on what can be charged back and these charges hit the operations budget	7/11/2016 1:39 PM
13	Departments always complaining about the cost of items	7/11/2016 1:35 PM
14	Campus are often confused by chargebacks. Some areas of chargeback i.e. student damage are billed but don't come back to facilities go to general fund. Practice makes it difficult to trace whether charges were actually filed by groups.	7/11/2016 11:54 AM

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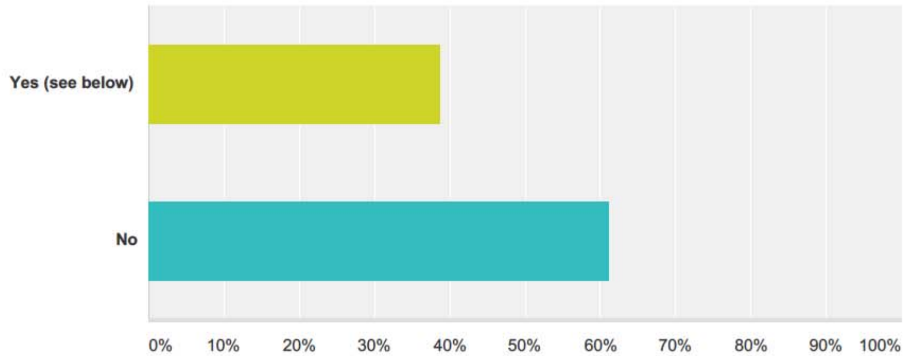
Q11 Do you have any recommendations or experience on how to balance chargebacks and centralized funding?

Answered: 67 Skipped: 19



Answer Choices	Responses	
Yes (see below)	38.81%	26
No	61.19%	41
Total		**67**

#	(Please specify)	Date
1	Be sure that you have a very competent budget and financial manager on your staff.	7/28/2016 1:31 PM
2	1. Define core services and fund them through the university budget (or administrative services fee) 2. Fund labor and charge for materials	7/27/2016 10:58 AM
3	Load the budget at the start of the year or charge the Auxiliaries 1/12 each month and then periodically review for any performance issues.	7/18/2016 2:28 PM
4	In an environment that does not have Activity Based Budgeting, chargebacks still have a role to play. Those who use services that can be classified as non core services (e.g. project management) should be charged on an ad hoc basis. Fee for service is appropriate for services that are not universal in the institution.	7/13/2016 2:16 PM
5	Monthly reconciliation is necessary by the Business Manager and reviewed with Financial Services. This provides a "reviewer" who can understand the process and assist with campus users seeing "Joe" perform maintenance and other times charge-back construction.	7/12/2016 5:32 PM
6	Be transparent in rates, charging, and "free" and reimbursable services. Clearly align responsibilities with centralized funding provided. Be consistent.	7/12/2016 11:05 AM
7	A blended approach that incorporates the best aspects of chargeback methods (i.e. accounting fidelity) and centralized funding (i.e. more consolidated single control) can be implemented. For example, a facilities maintenance account can be centralized for managing maintenance/repair investments, but used with a chargeback rate system to ensure costs are allocated by facility. The organization managing the central maintenance/repair account can be the same entity responsible for the chargeback rates which will drive a natural tendency to be efficient.	7/12/2016 8:50 AM
8	Utilize SLA's, simplify Billing, and eliminate except for elective jobs. The Facilities Budget could be enhanced by the SLA transfer up front.	7/11/2016 11:04 AM
9	We centrally fund renovations; this greatly minimizes the schools from wasting monies doing what they want versus what they need. If needed and supported at University level; it is funded centrally. We don't want a huge staff; particularly for construction; the private sector can provided that. The in-house staff only does small approved projects that that have been reviewed and justified. We subsidize those projects.	7/11/2016 10:59 AM

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10	It requires cabinet level support & agreement to have a consistent application & should be revisited frequently to make changes & communicate those appropriately.	7/11/2016 10:20 AM
11	I believe that chargebacks are an essential part of holding user departments accountable for their total cost of operations. When any discretionary service or project is "free" to the users, then there will inevitably be abuse.	7/11/2016 8:23 AM
12	Eveective budget management practices. developing a solid budget, develop a good budget status report, and hold resource managers (shop supervisors, etc.) accountable.	7/5/2016 12:06 PM
13	Absent clear direction regarding who pays for what and why our departments would consume all of our time and we would not be available for basic maintenance and cleaning. We do have a specific explanation and that helps a great deal.	7/5/2016 9:31 AM
14	I'm very new to the Asst. VC for Facilities position. I will be formulating a strategy over the next 12 months to propose reduced chargebacks. This will be a significant cultural shift, that if occurs, will take several years to implement.	7/5/2016 7:11 AM
15	First you have to get the process explained/marketed/sold/implanted across the campus and then start working to make it work smoothly targeted for your actual conditions and the workforce allocated. General E&G preventative maintenance is fully funded centrally and a zone maintenance workforce delivers the PM/small work orders (less than 8-12 hours)/hot & cold/reactive/goodwill process, shop forces are fully supported by outside charge-backs that can include charge-back work to support larger repair/renewal/stewardship projects in Zone Maintenance.	7/3/2016 11:31 AM
16	Use outside resources such as contractors, skilled trades temp labor, or job order contracting for charge back. These resources can be scaled up and down with demand better that in-house resources.	7/1/2016 4:43 PM
17	Stay in their own swim lane. The general fund handles "free" maintenance and the charge back shop handles all renovations or alterations.	6/29/2016 10:48 PM
18	Our shop rates are based on the average salaries and benefits of employees assigned to perform reimbursable/recharge work (plus a $2 per hour charge for gloves, rags, boxes of bolts and other items that can't be charged easily to individual work orders), and we assign staff based closely on the types of work and hours performed for recharge historically. We track our chargeback account balances at monthly operations review meetings, and balance the recharge account by adding or removing staff from the account as necessary similar to a pilot who adds or removes power to assure a safe landing. Typically, additional staffing adjustments are made for major events and activities (larger projects, festivals, major event support). We have an annual shop rate update mechanism approved by our president's cabinet, which allows us to adjust our rates annually so our rates are never more than a year out of date.	6/29/2016 10:05 PM
19	Facilities ideally should have full control of the funds associated with maintaining, cleaning, and powering space; and work to an agreed upon level of maintenance. Ideally that would be managed care or comprehensive stewardship. It should also have a capital renewal funding source. Those priorities could have a broader input from customer sources related to aesthetics and program delivery, but not building functionality.	6/29/2016 5:57 PM
20	I prefer the revolving account approach vs the recovery approach. The ability to manage the business side of our operation is much cleaner.	6/29/2016 4:36 PM
21	Have a good charge/ no charge list agreed upon by all stakeholders, especially Academic Affairs.	6/29/2016 4:29 PM
22	Facilities and planning services needs to be pre-loaded into discussion/planning processes much sooner. Most charge back related function on this current campus is limited, time specific driven, and generally grant related adding additional complexities.	6/29/2016 3:37 PM
23	Routine services could be quantified over a one year period and if agreed upon , funding transfer could happen annually	6/29/2016 2:41 PM
24	It all depends on the University's resource allocation model and how well it is understood.	6/29/2016 2:39 PM
25	implement Service Level Agreements to match services with resources and revenues.	6/29/2016 2:35 PM
26	Clear policies, goals and communication make this work.	6/29/2016 2:03 PM

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Q12 State or Province location for your institution (use 2-digit postal code)

Answered: 73 Skipped: 13

#	Responses	Date
1	Wisconsin	7/28/2016 1:31 PM
2	WA	7/27/2016 10:58 AM
3	OH	7/18/2016 2:28 PM
4	TN	7/18/2016 11:10 AM
5	IN	7/18/2016 7:33 AM
6	Ontario	7/13/2016 2:16 PM
7	PA	7/13/2016 7:37 AM
8	FL	7/12/2016 5:32 PM
9	IL	7/12/2016 11:05 AM
10	95	7/12/2016 10:53 AM
11	IL	7/12/2016 8:50 AM
12	MA	7/12/2016 8:16 AM
13	CA	7/11/2016 7:04 PM
14	30	7/11/2016 4:44 PM
15	OH	7/11/2016 2:26 PM
16	33	7/11/2016 1:43 PM
17	IL	7/11/2016 1:24 PM
18	OR	7/11/2016 11:55 AM
19	Va	7/11/2016 11:14 AM
20	89	7/11/2016 11:05 AM
21	CT	7/11/2016 11:04 AM
22	VA	7/11/2016 10:59 AM
23	mo	7/11/2016 10:24 AM
24	90263	7/11/2016 10:24 AM
25	GA	7/11/2016 10:20 AM
26	WA	7/11/2016 10:16 AM
27	Illinois	7/11/2016 10:06 AM
28	NS - Nova Scotia	7/11/2016 8:23 AM
29	TX	7/7/2016 1:58 PM
30	MN	7/6/2016 12:32 PM
31	CA	7/5/2016 6:17 PM
32	MO	7/5/2016 2:50 PM
33	AZ	7/5/2016 12:06 PM
34	Minnesota	7/5/2016 11:42 AM
35	MN	7/5/2016 9:31 AM

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36	AR	7/5/2016 7:11 AM
37	AR	7/3/2016 11:31 AM
38	53190	7/1/2016 10:02 PM
39	WI	7/1/2016 4:43 PM
40	Kansas	7/1/2016 9:40 AM
41	RI	6/30/2016 5:55 PM
42	FL	6/30/2016 3:26 PM
43	Wyoming	6/30/2016 12:42 PM
44	OR	6/30/2016 12:40 PM
45	87505	6/30/2016 11:56 AM
46	Washington	6/30/2016 10:47 AM
47	Arkansas	6/30/2016 8:46 AM
48	NY	6/30/2016 7:53 AM
49	MI	6/29/2016 10:48 PM
50	TX - 78	6/29/2016 10:05 PM
51	MO	6/29/2016 6:34 PM
52	PA	6/29/2016 5:57 PM
53	PA	6/29/2016 5:45 PM
54	UT	6/29/2016 5:34 PM
55	VA	6/29/2016 4:36 PM
56	NC	6/29/2016 4:29 PM
57	TX	6/29/2016 3:58 PM
58	82601	6/29/2016 3:42 PM
59	CA	6/29/2016 3:37 PM
60	WV	6/29/2016 3:35 PM
61	AB	6/29/2016 3:35 PM
62	07	6/29/2016 3:20 PM
63	PA	6/29/2016 3:15 PM
64	NY	6/29/2016 2:59 PM
65	british columbia canada	6/29/2016 2:41 PM
66	SK	6/29/2016 2:39 PM
67	BC	6/29/2016 2:35 PM
68	90049	6/29/2016 2:19 PM
69	MA	6/29/2016 2:16 PM
70	UT	6/29/2016 2:15 PM
71	PA	6/29/2016 2:10 PM
72	08	6/29/2016 2:07 PM
73	29	6/29/2016 2:03 PM

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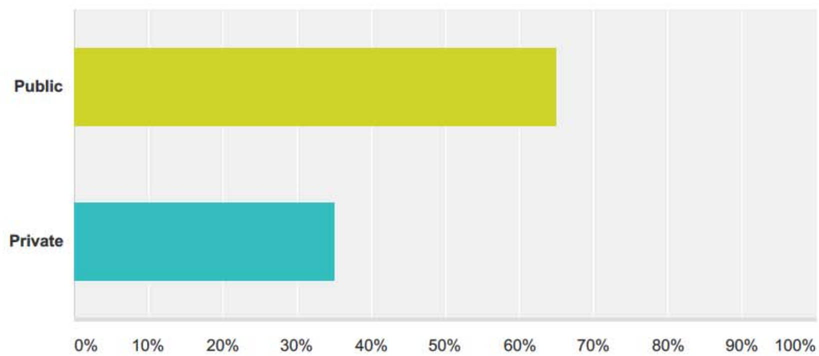
Q13 Primary Funding Source

Answered: 74 Skipped: 12



Answer Choices	Responses	
Public	**64.86%**	48
Private	**35.14%**	26
Total		**74**

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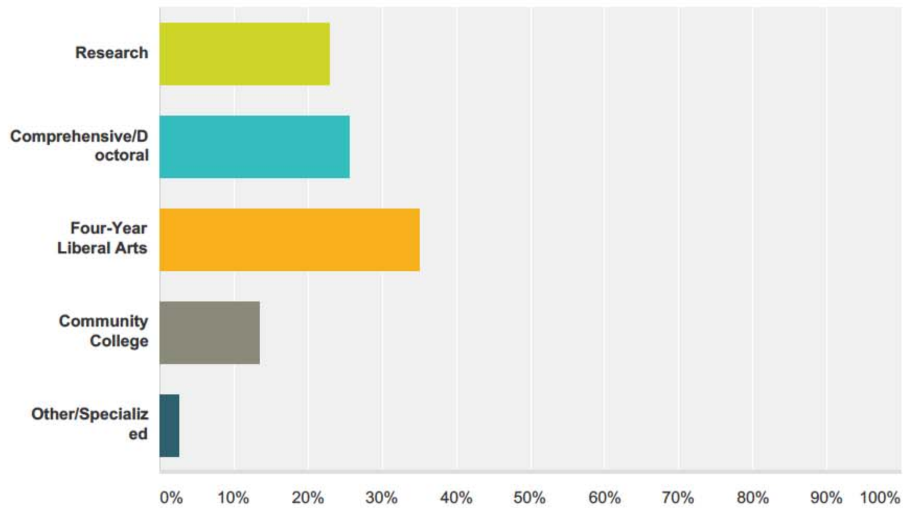
Q14 Institution Type

Answered: 74 Skipped: 12



Answer Choices	Responses	
Research	22.97%	17
Comprehensive/Doctoral	25.68%	19
Four-Year Liberal Arts	35.14%	26
Community College	13.51%	10
Other/Specialized	2.70%	2
Total		**74**

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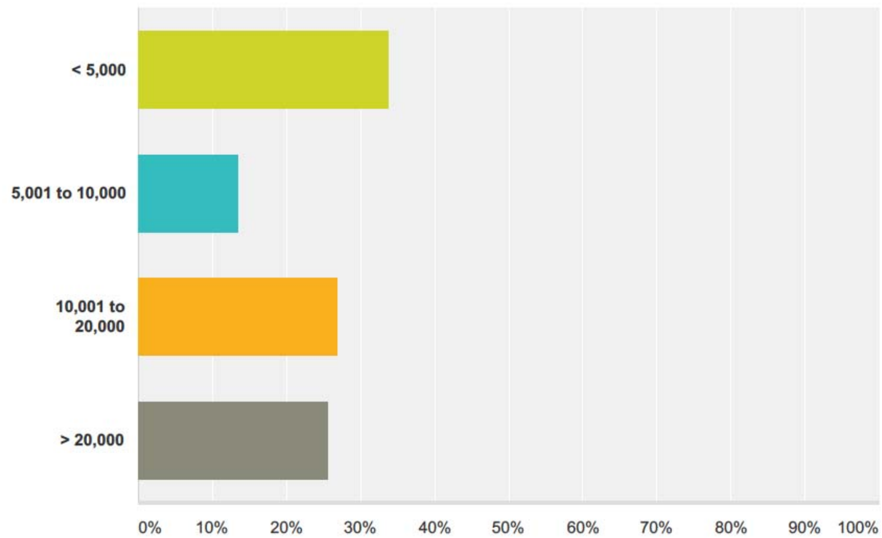
Q15 Student FTE Range

Answered: 74 Skipped: 12



Answer Choices	Responses	
< 5,000	**33.78%**	25
5,001 to 10,000	**13.51%**	10
10,001 to 20,000	**27.03%**	20
> 20,000	**25.68%**	19
Total		**74**

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Q16 Would you be willing to discuss with us further? If so, please list your name and phone or e-mail below.

Answered: 37 Skipped: 49

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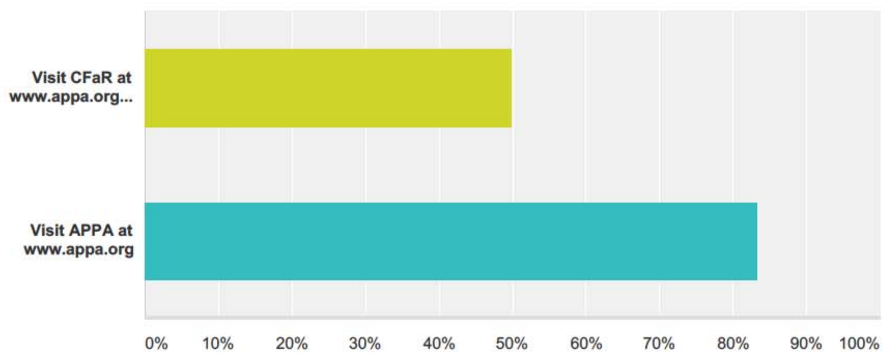
Q17 THANK YOU FOR PARTICIPATING IN OUR SURVEY!

Answered: 12 Skipped: 74



Answer Choices	Responses	
Visit CFaR at www.appa.org/research/cfar	50.00%	6
Visit APPA at www.appa.org	83.33%	10
Total Respondents: 12		