



Not Just Metrics, Great KPIs Help Tell Your Story!

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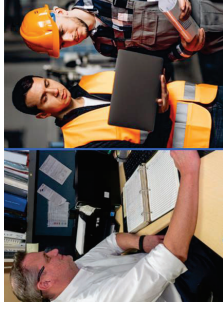
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Course Description

In today's competitive education environment, it isn't enough to establish and track facilities Key Performance Indicators (KPIs). You have to understand how your KPIs contribute to the overall mission, vision & strategy of the institution, and use KPIs to "Tell your story" to obtain the resources you need to provide the highest level of facility support so your school succeeds in reaching it's short and long term goals. We present proven approaches to make KPIs work for you & your school.



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APPA
LEADERSHIP IN EDUCATIONAL FACILITIES

Learning Objectives

1. Aligning your Strategic Facilities Plan with Division and Institutional Strategic Plans
2. Development of Effective Key Performance Indicators Aligned with Institutional Goals
3. Tracking and Reporting Key Performance Indicators to "Tell Your Story"
4. Assuring Continuous Performance Improvement and the Success of the Institution

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APPA
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Planning

Integrated Facility
Strategic Planning

Facility Planning &
Development

Master Planning

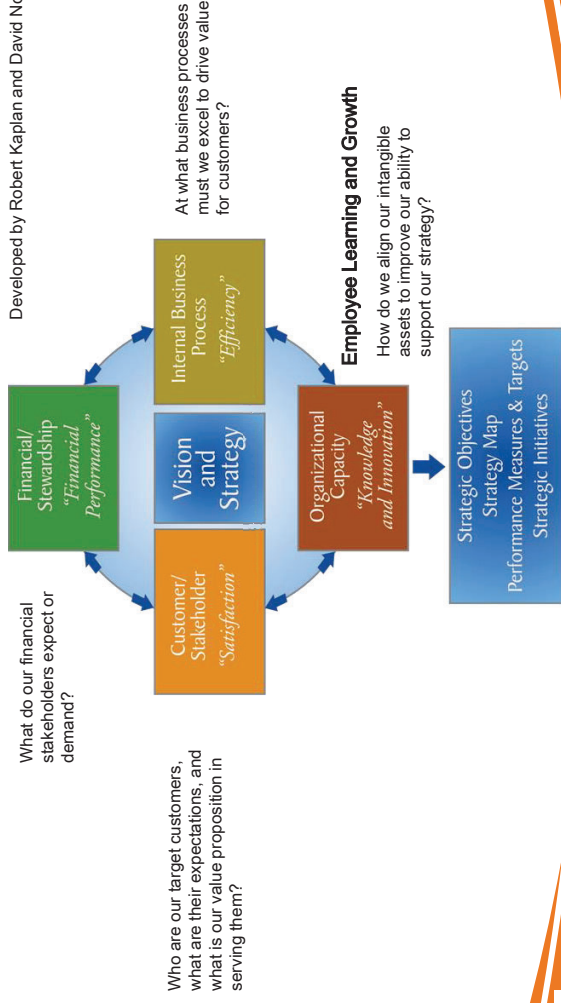
Formal Work Management
Planning

“Strategic and operational planning consists of **the overall planning process**, the identification of **goals and actions necessary to achieve success**, and the **deployment of those actions to align the work of the organization**. The **successful facilities organization anticipates** many factors in its strategic planning efforts; changing customer expectations, business and partnering opportunities, technological developments, institutional master plans, programmatic needs, evolving regulatory requirements, building organizational capacity, and societal expectations among other criteria.”

- APPA Facility Management Evaluation Program (FMEP)

The Balanced Scorecard Approach

Developed by Robert Kaplan and David Norton in the early 1990's



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Example: Institutional Strategic Initiative V: Expanding Resources and Infrastructure

Goal 1: Retain and Recruit faculty and staff who are committed to our vision, mission, and values who diligently contribute to excellence.

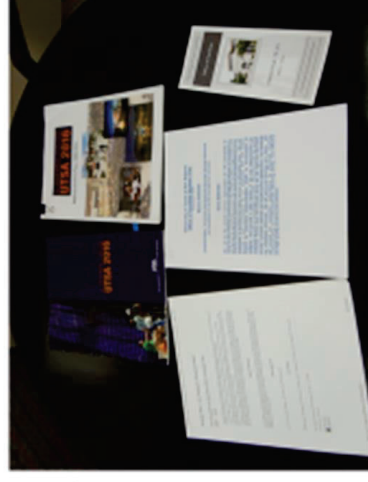
Business Affairs Goal 2: Cultivating human capital that is aligned with our mission, vision, and values through the identification, recruitment, retention, management and development of our staff, and promoting an organizational culture of excellence wherein our employees might excel

Business Affairs Goal 5: Practicing stewardship and transparency and ensuring compliance

Facilities Strategic Goal #6

Develop internal hiring practices to attract, recruit and retain qualified staff committed to our vision, mission, and values, and who contribute to excellence. (SI I G 2, SI II G 4,

SI V G 1, BA G 2, BA G 5)



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STRATEGIC GOALS

Goal #1
Implement a comprehensive preventive maintenance program for all UTSA building systems and infrastructure.

Goal #2
Provide high quality new capital construction and facility renovations.

Goal #3
Develop and effectively manage long range Facilities construction and renovation plans.

Goal #4
Support institutional energy conservation and environmental sustainability initiatives, and continue to enhance design specifications to move toward more energy efficient and environmentally sustainable campus facilities and infrastructure.

Goal #5
Establish Facility process improvement initiatives to enhance efficiency and effectiveness of services and activities and measure progress through monthly operations reviews.

Office of Facilities

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San Antonio, TX 78249-0673
(210) 458-4260 • (210) 458-4266 fax
<http://facilities.utsa.edu>

The University of Texas at San Antonio

Office of Facilities



STRATEGIC PLAN

2010 — 2011

"Your Partner for Successful Solutions"

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VISION STATEMENT

We will be the premier service organization for the University of Texas at San Antonio community through the delivery of excellence in all that we do and all that we are. The UTSA facilities organization will embrace technological advances that enhance the performance of our employees to provide first class service to our customers and create a work environment for our employees that will nurture respect for individual responsibilities, foster an environment of integrity and provide a high quality of life and opportunities for employee growth, development and advancement. We will provide top quality customer service that will include doing the job right the first time; having a positive attitude and professional appearance; and keeping our customers informed. We will exceed our customers' expectations by consistently listening, communicating and enthusiastically delivering timely, cost effective and high quality products and services.

MISSION STATEMENT

UTSA Facilities - Promoting learning and discovery through teamwork and excellence in facility management services.

CORE VALUES

We Value:

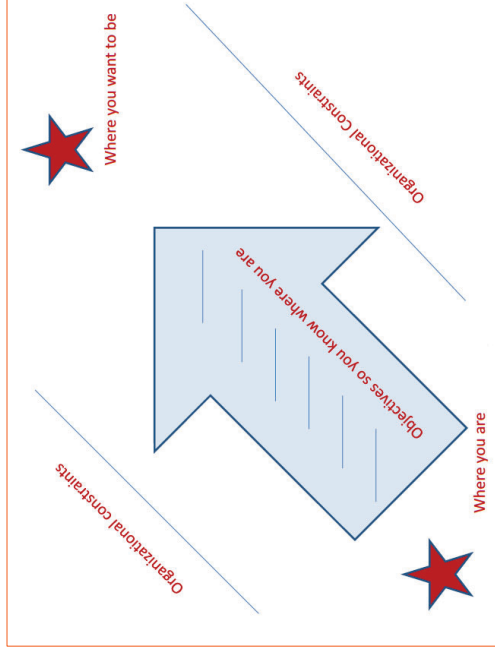
- Integrity**
 - Honesty
 - Fairness
 - Credibility
 - Ethical behavior
- Excellence**
 - Quality and Craftsmanship
 - Continuous improvement of processes and work methods
 - Efficiency
 - Effectiveness
 - High return on investment (ROI)
- Inclusiveness**
 - Diversity
 - Individual dignity
- Respect**
 - Value employee opinions and input
 - Meeting customer needs and expectations
 - Balancing lifestyles (work & home)
 - Nurturing individual strengths of our personnel

- Collaboration**
 - Teamwork
 - Partnering and communication with customers and stakeholders
- Innovation**
 - Creative solutions
 - Openness to new ideas
- Professionalism**
 - Good work ethic
 - Being proactive
 - Quality performance
 - Thoroughness
 - Professional appearance



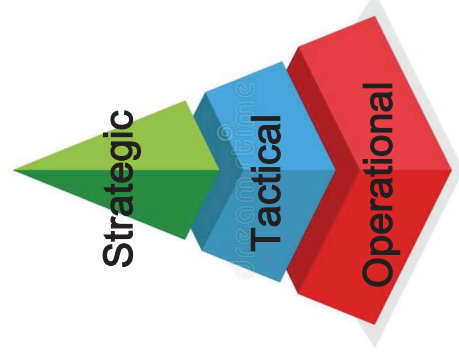
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Planning



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Planning



Senior Leadership Team
(SLT)

- Vision
- Mission
- Core Values

Directors, Supervisors, Managers
(cross functional planning groups)

- SWOT
- Strategic Themes

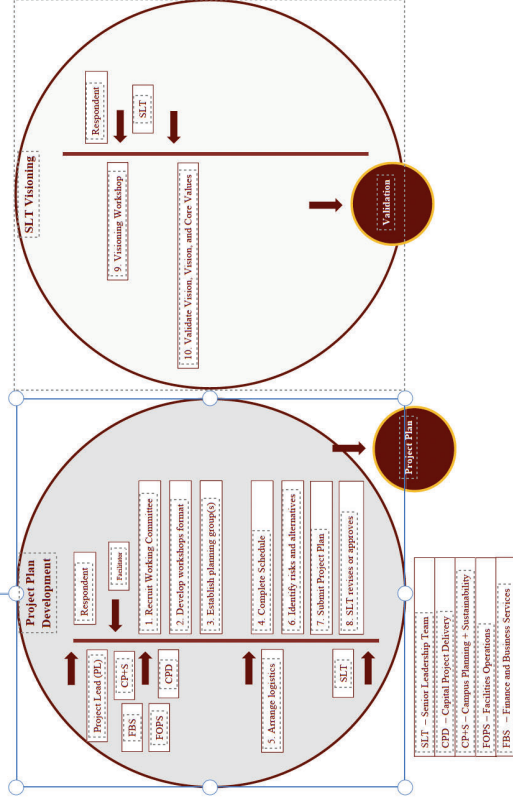
Directors, Supervisors, Managers,
and Front Line Staff (functional
groups)

- Goals and Objectives
- KPIs
- Project Plans

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08/07/2017

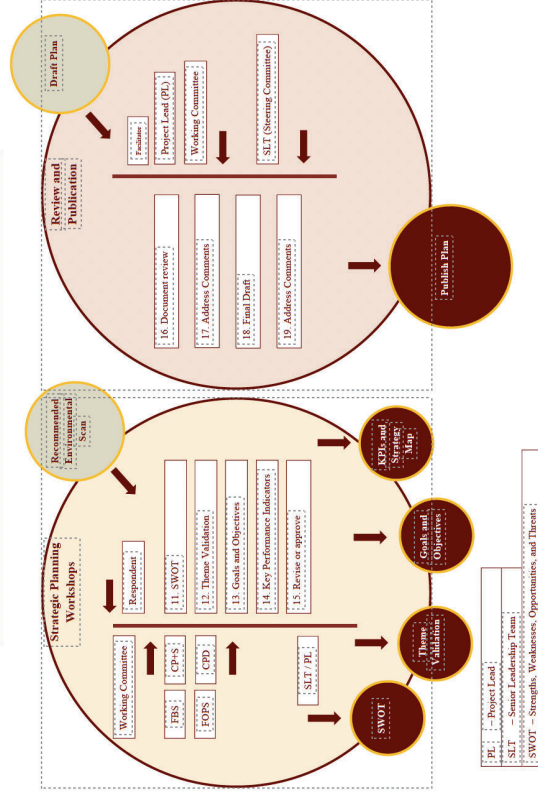
Strategic Planning Process



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08/07/2017

Strategic Planning Process



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Learning Objectives

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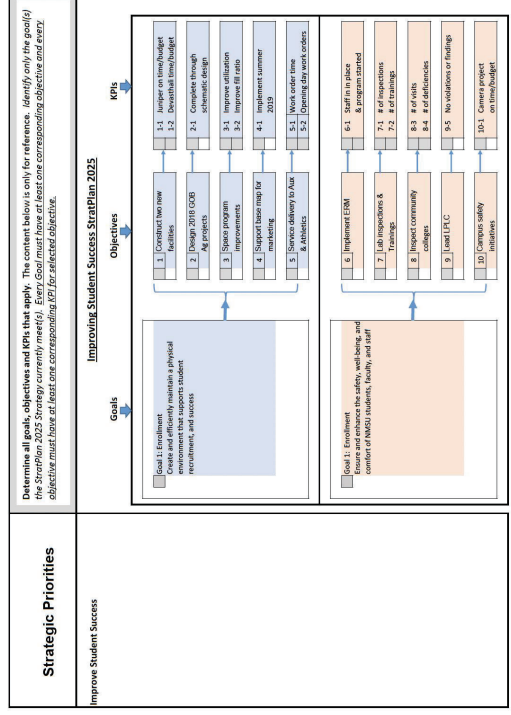
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Facilities and Services

StratPlan 2025 Goals, Objectives and KPIs.

12/17/2018



Facilities AVP
co-chaired
Institutional
Strategic Plan

Implemented
alignment tool

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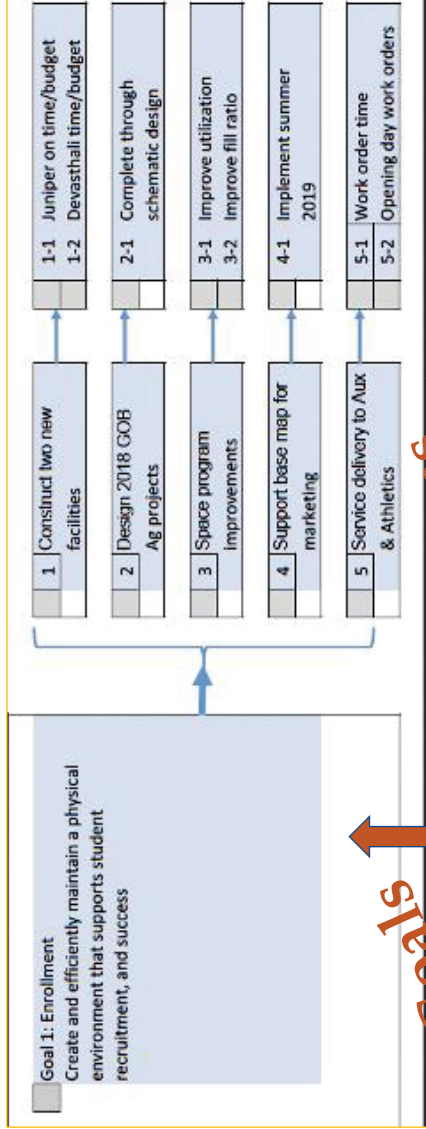
Alignment Tool

Determine all goals, objectives and KPIs that apply. The content below is only for reference. Identify only the goal(s) the StratPlan 2025 Strategy currently meet(s). Every Goal must have at least one corresponding objective and every objective must have at least one corresponding KPI for selected objective.		
Goals	Objectives	KPIs
<u>Improving Student Success StratPlan 2025</u>		




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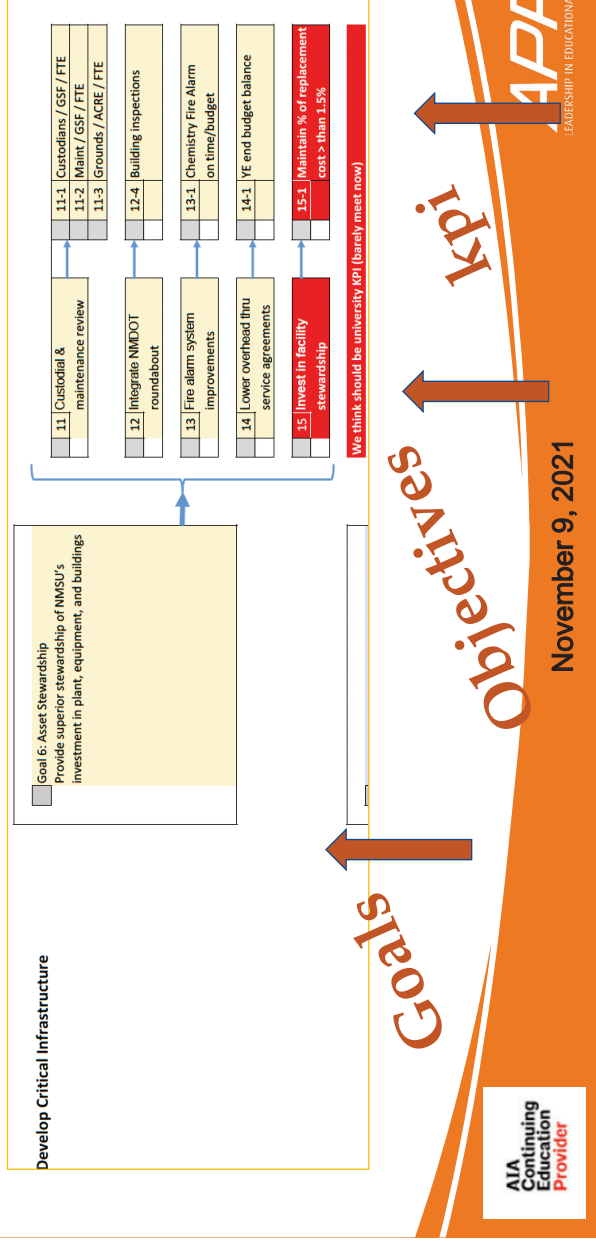
Alignment Tool






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Alignment Tool



UT-San Antonio Strategic Facilities Plan - Strategic Goals

Goal #1 – Implement a comprehensive preventive maintenance program for all UTSA building systems and infrastructure

- Goal #2 – Provide high quality new capital construction and facility renovations
- Goal #3 – Develop and effectively manage long range Facilities construction and renovation plans
- Goal #4 – Support institutional energy conservation and environmental sustainability initiatives and continue to enhance design specifications to move toward more energy efficient and environmentally sustainable campus facilities and infrastructure
- Goal #5 – Establish Facility process improvement initiatives to enhance efficiency and effectiveness of services and activities and measure progress through monthly operations reviews

Goal #6 – Develop internal hiring practices to attract, recruit, and retain qualified staff committed to our vision, mission, and values, and who contribute to excellence

- Goal #7 – Implement programs that support and develop students and staff and enhance the learning environment
- Goal #8 – Embrace a culture of customer service and exceed expectations of stakeholders/partners



Goal #6 – Develop internal hiring practices to attract, recruit, and retain qualified staff committed to our vision, mission, and values, and who contribute to excellence

Elements of UTSA Facilities Hiring Process

1. Supervisory curriculum was established to provide formal supervisor training, including hiring process, for all supervisors
2. Developed job descriptions and career paths for all positions and job families
3. Posted positions with APPA, IFMA, diverse groups (Hispanic Contractors Association, union halls), and HR Web site
4. Established 3-5 member applicant review committee made up of staff and customers who were impacted by selection
5. Top applicants (on paper) were invited to an interview with a separate group of 3-5 members, consisting of staff and customers impacted by the selection
6. Once 2-3 finalists were identified, hiring manager was brought in (*for the first time*) to interview and make the final selection.

Goal #1 – Implement a comprehensive preventive maintenance program for all UTSA building systems and infrastructure

Initiatives

1. Hired a first rate mechanical engineer to oversee the development and implementation of the comprehensive preventive maintenance program.
2. Established a dedicated preventive maintenance shop with skilled trades who could not be pulled to do corrective/reactive maintenance.
3. Used APPA Maintenance Staffing Guidelines maintenance levels to establish PM work orders incrementally in priority order to get the best “bang for the buck”:
 - Level 1 – Statutory
 - Level 2 – Mission-Critical
 - Level 3 – Mission-important
 - Level 4 – Significant
4. Developed key performance indicators for PM schedule compliance and backlog
5. Established and tracked more than 20,000 preventive maintenance work orders per year

Option 1: Dedicate Staff Exclusively to Preventive Maintenance

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Improving Completion Rate with Dedicated Team

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UTSA's Preventive Maintenance Team

Mechanics

Electricians

Plumber

General Maintenance Staff

Supervisor

- UTSA has one team for 5.4 million GSF and 29,000 students
- Team completes all PM work excluding work on boilers, refrigeration units, and fire safety systems

UTSA's Preventive Maintenance Program by the Numbers

20%

Percentage of maintenance staff assigned to PM team

58%

Percentage of total PM work orders under team's purview

93%

Preventive maintenance completion rate

”

"I used to be called after hours three to five times a week when things failed. Now, I can't remember the last time I was called at night or on the weekend."

Dave Riker, Associate Vice President for Facilities
University of Texas at San Antonio

”

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Sources: University of Texas at San Antonio, San Antonio, TX; Facilities Forum interviews and analysis.



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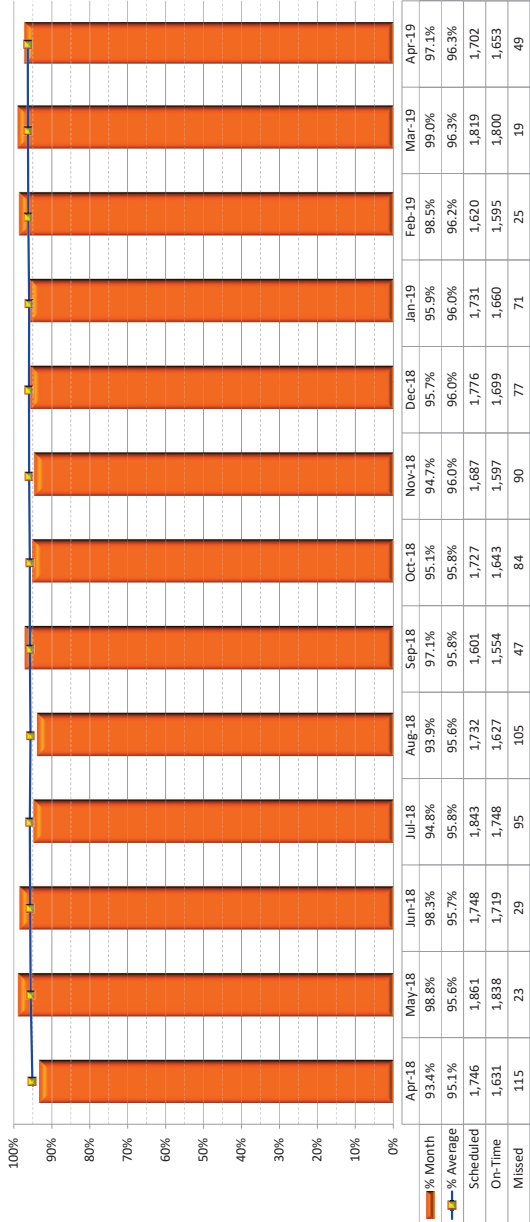
S.M.A.R.T. Key Performance Indicators



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Preventive Maintenance Schedule Compliance - Tri Campus

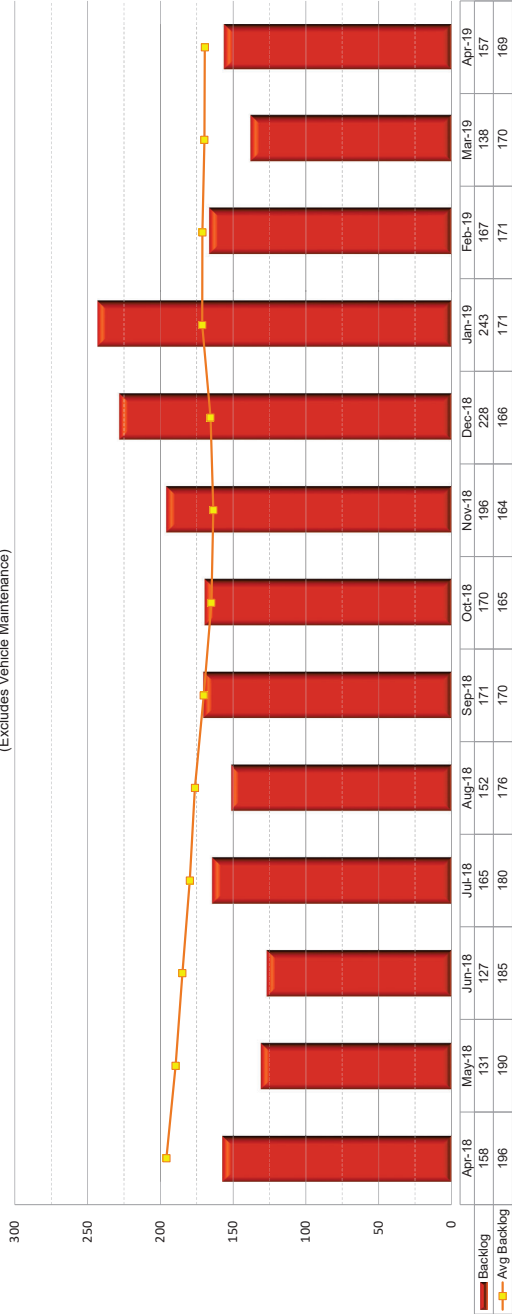
(Excludes Vehicle Maintenance)



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Preventive Maintenance Backlog – Main Campus

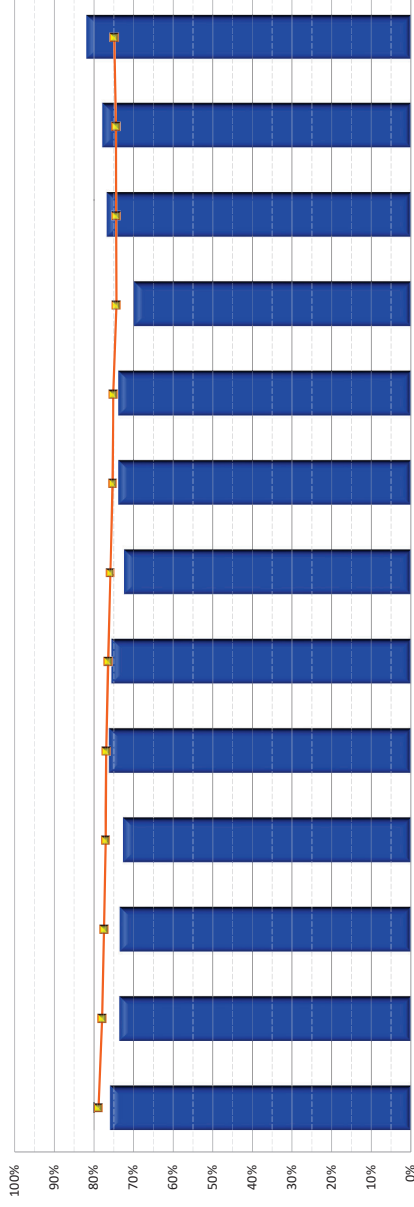
(Excludes Vehicle Maintenance)



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Corrective Maintenance Schedule Compliance - Tri Campus (Excludes Vehicle Maintenance)

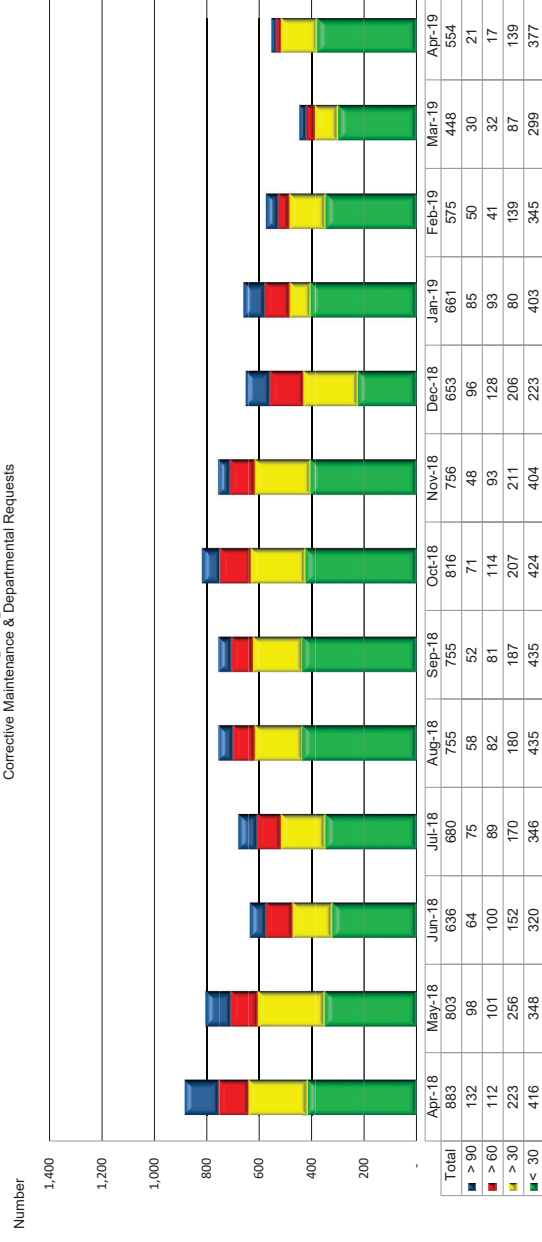
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Work Order Aging - Main Campus Corrective Maintenance & Departmental Requests

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Maintenance Dashboard KPIs - April 2019



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Customer Focus

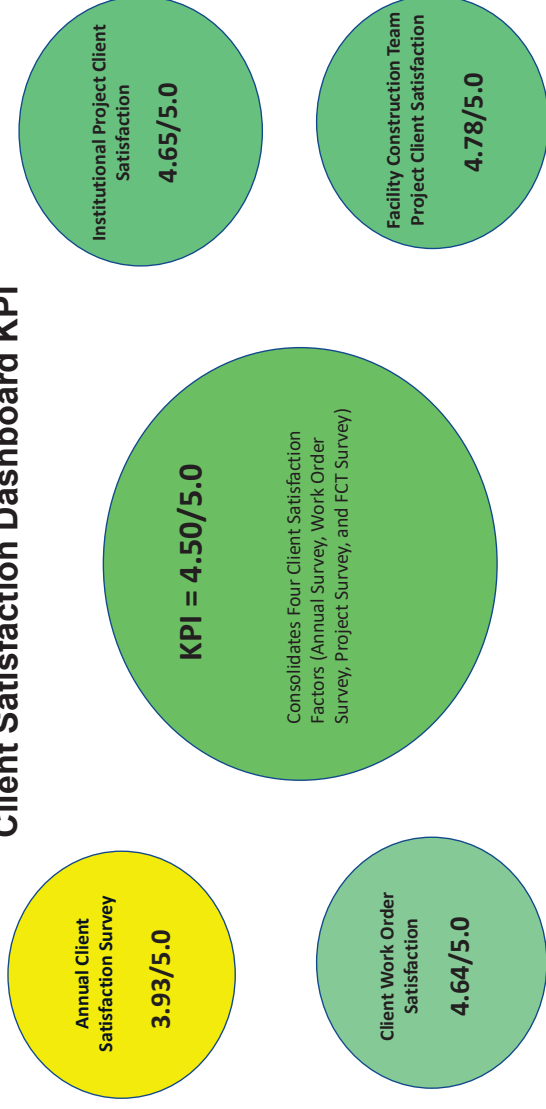
"The new Paradigm of world class to meet competitiveness for companies is customer focus.
The three areas of customer focus are:

1. Customer Satisfaction (**Meeting customer's expectations**)
2. Customer Delight (**Exceeding customer expectations by providing goods, products, & services beyond normal expectations, delighting the customer**)
3. Customer Success (**Going beyond exceeding expectations or delight and assuring customer success**)

- Christopher Ahoy, APPA Fellow, Customer-Driven Operations Management

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Client Satisfaction Dashboard KPI



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Facilities Mgmt. Dashboard Metrics April 2019



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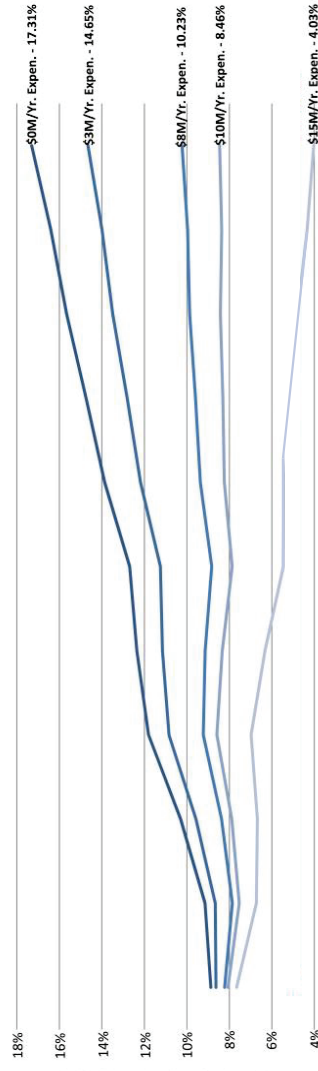
KPI Value to Facilities

Measures with high value to the Facilities organization?



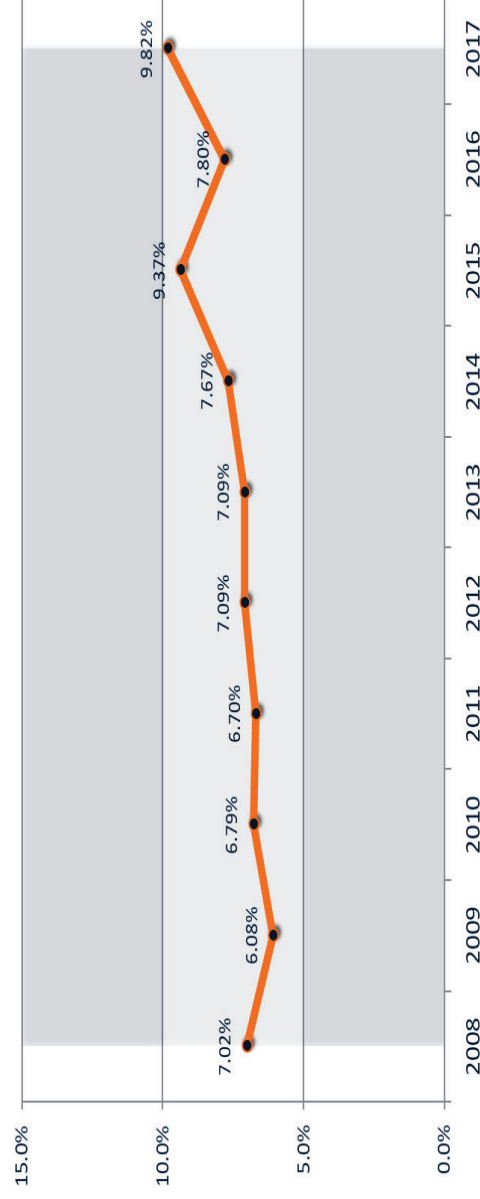
- “Course Correction” – Adjusting operations to improve schedule performance and quality of results
- Budget Allocation – Communicating budget requirements and demonstrating good stewardship of scarce resources
- Energy Efficiency – Identifying potential energy savings and demonstrating efficiency
- Others?

Capital Renewal



- Existing Capital Renewal Needs are \$110M or 8.9% of the Current Replacement Value (CRV) of the Campus.
- To maintain existing ratio of Renewal Needs to Replacement Value will require an annual capital renewal expenditure of \$10M

Facilities Condition Index (FCI) History



Metrics that can help drive an organization toward operational excellence

- Tuveson and Hodges

Metric Description	Std.	Metric Description	Std.
Facility Condition Index (FCI)	<0.05	Stockroom Turns / Year	2 - 3
Deferred Maintenance Backlog	Trend	Annual Training Hours	>40 hrs.
On-the-job Wrench Time	>60%	Maint. Cost / Replacement Cost	3 - 4%
PM / CM Ratio	70 / 30	Percent Return Work	<5%
Unscheduled Maintenance Downtime	<2%	Mean Time Between Failures	Trend
PM Schedule Compliance	>95%	% Failures Assessed: Root Cause	>75%
CM Schedule Compliance	>90%	Maintenance OT Percentage	5-15%
Unscheduled Man-Hours	<10%	% WO Covered by Estimates	>90%
WO Turn-Around Time	Trend	On-Site Supervisor Time	>65%
Emergency Response Time	<15 min. ²	Stockroom On-Time Delivery	>97%
Stockroom Service Level	>97%	Material / Part Performance	>98%

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Creating a high-performance FM organization:

- ❖ Fully supports strategic business initiatives
- ❖ Enhance operational efficiencies and effectiveness
- ❖ Reduce costs
- ❖ Optimize process performance
- ❖ Maximize return-on-investment (ROI)
- ❖ Minimize total cost of ownership (TCO)
- ❖ Maximize asset value and life cycle
- ❖ Continuously monitor improved performance excellence
- ❖ Build pride - and attract and retain the best employees

Operations Review Meeting

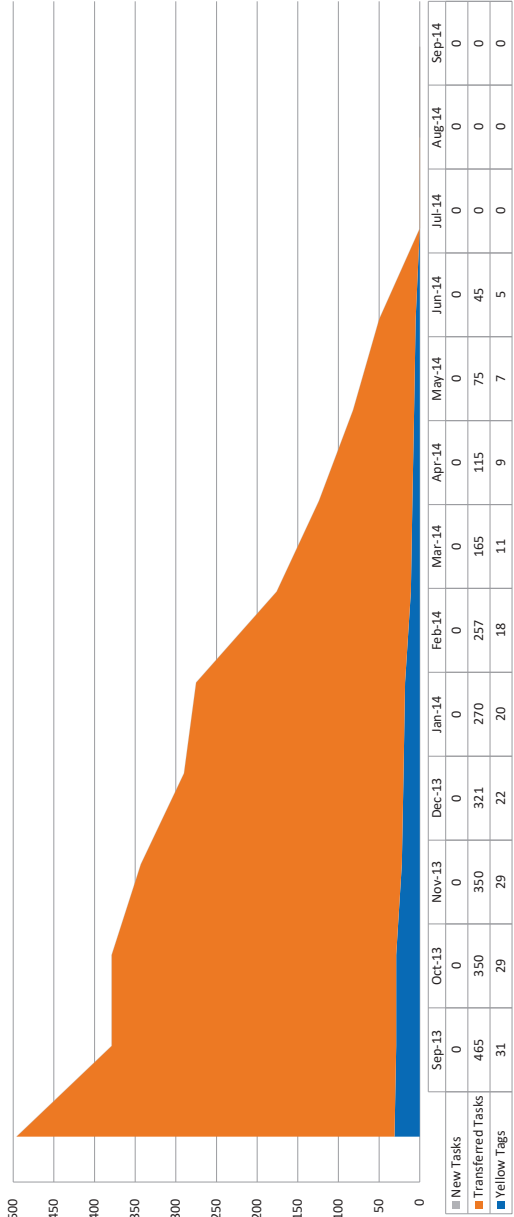
April 2019

Data

Facilities..... Your Partner for Successful Solutions

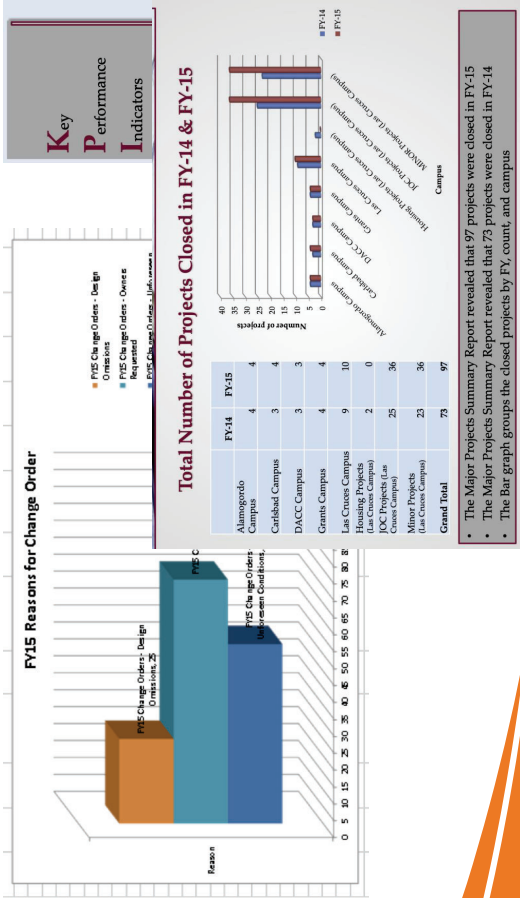
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Fire Protection System Yellow Tag Deficiencies



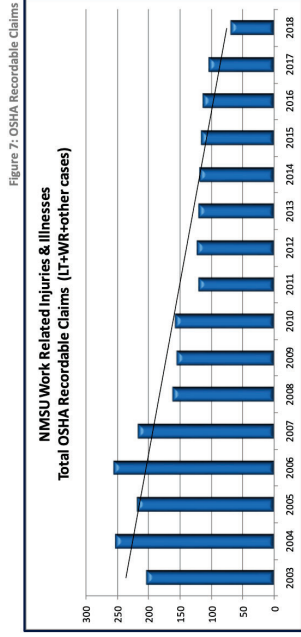
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Annual Reports



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Annual Reports

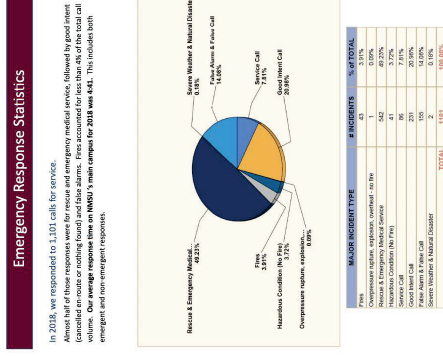
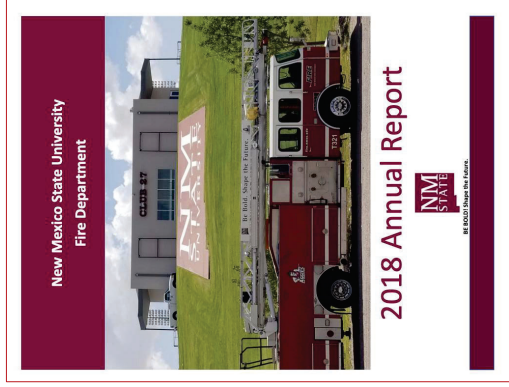


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Annual Reports



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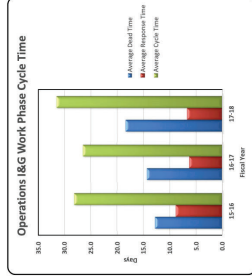
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Cycle Time



- Goal 10% Reduction in All Cycle Time Measure
- Performance Measures:
 - Cycle Time: 28.3% Increase
 - Response Time: 6.3% Increase
 - Dead Time: 12.3% Increase
 - Missed goal
 - Expended resources to obtain recovery funds by performing project work.
 - Focused on SLA agreements
- Improvement Measures:
 - Review and revise scheduling process
 - Fill vacant positions in a timely fashion

All About Discovery!™
New Mexico State University

2

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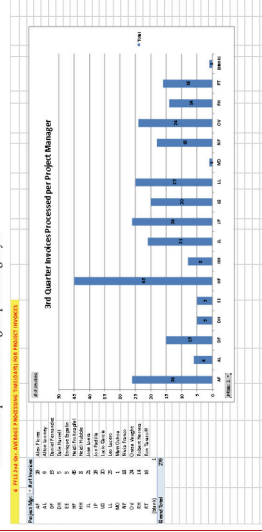
March 2015

A detailed review was performed on the cycle time report and a new metric was created to track cycle time on maintenance tasks. To obtain a true reporting of maintenance tasks the standing monthly work orders for Custodial, Grounds, and Solid Waste & Recycle operational phases were removed. After removing the phase the total number of open phases at the end of Fiscal year FY13-14 was 975 which equates to a backlog of 36,550 hours. At the end of this reporting period, March 3, 2015 the number of open phases was 1605 which equates to a backlog of 58,003.5 hours. The average time per maintenance phase was 2.2 hours in Fiscal Year 13-14 and currently 2.1 hours per phase in Fiscal Year 14-15. The maintenance backlog in hours for Fiscal Year 13-14 was 2,445 hours and currently it is 3,370.5 hours.

The following table identifies the category of maintenance performed as percent of total work. Operations has a comparison for the current fiscal year and the last 2 fiscal years.

Fiscal Year	13-14	14-15	14-15 Exceeding Capital and Construction 90.02%
MAINTENANCE	96.94%	97.47%	97.69%
ACCESS	1.32%	0.78%	0.55%
ALARM	1.21%	0.21%	0.30%
CORRECTIVE	28.14%	18.10%	19.76%
CUSTOMER SERVICE	2.81%	2.55%	0.03%
DISPATCH	2.56%	2.75%	0.03%
EMERGENCY	2.56%	2.75%	0.03%
HAZARDOUS WASTE	0.15%	0.04%	0.01%
PEST CONTROL	1.85%	1.59%	0.10%
PREVENTIVE	1.37%	1.59%	6.22%

3) PD&E Invoicing – We track PD&E invoices from the point when FS Accounting date stamps and attaches a routing slip for signature routing to the time we send to AFR for payment. We currently are processing our invoices in an average of 6 days. We can use this metric to improve our average of processing days.



- 4) **Requisitions Processing** – This metric is similar to the one above where we are tracking the average number of days it takes to process a requisition from the time it is given to our office to key in Banner to when a PO number is issued by Purchasing. Average number of days is 4.61 days.

Newsletters

[illegible]

Page 4

The positive results showed satisfaction of the participants with the use of the generative comments—many which were not included in the original comments received and were generated by the system. The majority of errors were from minor errors, such as misspellings. The results of the study were very encouraging in that the use of the system was able to generate comments in a very short time to keep findings and answers consistent. The results of the study were very encouraging in that the use of the system was able to generate comments in a very short time to keep findings and answers consistent. The results of the study were very encouraging in that the use of the system was able to generate comments in a very short time to keep findings and answers consistent.

Figure 2: The Overall Satisfaction of the Study

Level of Satisfaction	Percentage of Satisfaction
Very Dissatisfied	0
Dissatisfied	0
Satisfied	100
Very Satisfied	100

Figure 3: The Overall Satisfaction of the Study

Level of Satisfaction	Percentage of Satisfaction
Very Dissatisfied	0
Dissatisfied	0
Satisfied	100
Very Satisfied	100

Figure 4: The Overall Satisfaction of the Study

Level of Satisfaction	Percentage of Satisfaction
Very Dissatisfied	0
Dissatisfied	0
Satisfied	100
Very Satisfied	100

Figure 5: The Overall Satisfaction of the Study

Level of Satisfaction	Percentage of Satisfaction
Very Dissatisfied	0
Dissatisfied	0
Satisfied	100
Very Satisfied	100

Figure 6: The Overall Satisfaction of the Study

Level of Satisfaction	Percentage of Satisfaction
Very Dissatisfied	0
Dissatisfied	0
Satisfied	100
Very Satisfied	100

Figure 7: The Overall Satisfaction of the Study

Level of Satisfaction	Percentage of Satisfaction
Very Dissatisfied	0
Dissatisfied	0
Satisfied	100
Very Satisfied	100

Figure 8: The Overall Satisfaction of the Study

Level of Satisfaction	Percentage of Satisfaction
Very Dissatisfied	0
Dissatisfied	0
Satisfied	100
Very Satisfied	100

Figure 9: The Overall Satisfaction of the Study

Level of Satisfaction	Percentage of Satisfaction
Very Dissatisfied	0
Dissatisfied	0
Satisfied	100
Very Satisfied	100

Figure 10: The Overall Satisfaction of the Study

Level of Satisfaction	Percentage of Satisfaction
Very Dissatisfied	0
Dissatisfied	0
Satisfied	100
Very Satisfied	100

Figure 11: The Overall Satisfaction of the Study

Level of Satisfaction	Percentage of Satisfaction
Very Dissatisfied	0
Dissatisfied	0
Satisfied	100
Very Satisfied	100

Figure 12: The Overall Satisfaction of the Study

Level of Satisfaction	Percentage of Satisfaction
Very Dissatisfied	0
Dissatisfied	0
Satisfied	100
Very Satisfied	100

Figure 13: The Overall Satisfaction of the Study

Level of Satisfaction	Percentage of Satisfaction
Very Dissatisfied	0
Dissatisfied	0
Satisfied	100
Very Satisfied	100

Figure 14: The Overall Satisfaction of the Study

Level of Satisfaction	Percentage of Satisfaction
Very Dissatisfied	0
Dissatisfied	0
Satisfied	100
Very Satisfied	100

Figure 15: The Overall Satisfaction of the Study

Level of Satisfaction	Percentage of Satisfaction
Very Dissatisfied	0
Dissatisfied	0
Satisfied	100
Very Satisfied	100

Figure 16: The Overall Satisfaction of the Study

Level of Satisfaction	Percentage of Satisfaction
Very Dissatisfied	0
Dissatisfied	0
Satisfied	100
Very Satisfied	100

Figure 17: The Overall Satisfaction of the Study

Level of Satisfaction	Percentage of Satisfaction
Very Dissatisfied	0
Dissatisfied	0
Satisfied	100
Very Satisfied	100

Figure 18: The Overall Satisfaction of the Study

Level of Satisfaction	Percentage of Satisfaction
Very Dissatisfied	0
Dissatisfied	0
Satisfied	100
Very Satisfied	100

Figure 19: The Overall Satisfaction of the Study

Level of Satisfaction	Percentage of Satisfaction
Very Dissatisfied	0
Dissatisfied	0
Satisfied	100
Very Satisfied	100

Figure 20

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Learning Objectives

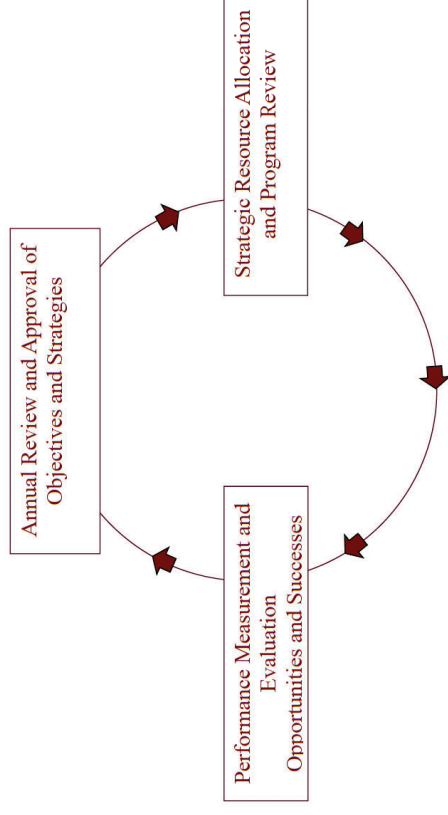
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4. Assuring Continuous Performance Improvement and the Success of the Institution



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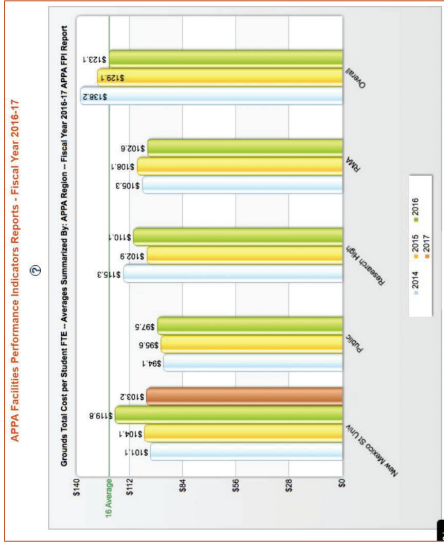
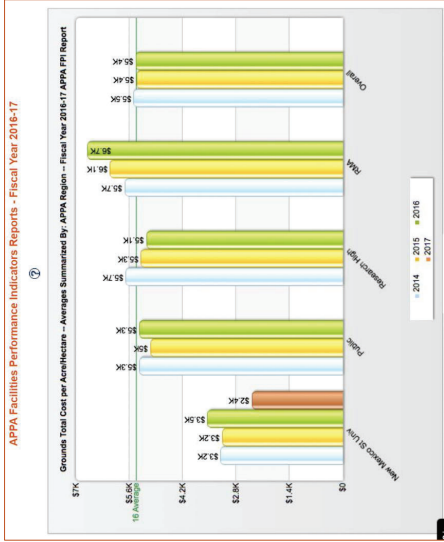
Continuous Improvement



Importance of Relevance

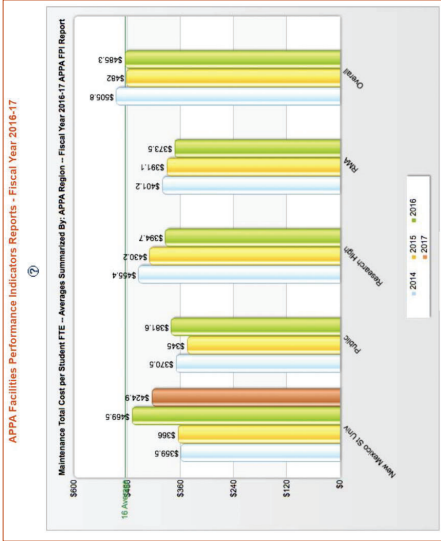
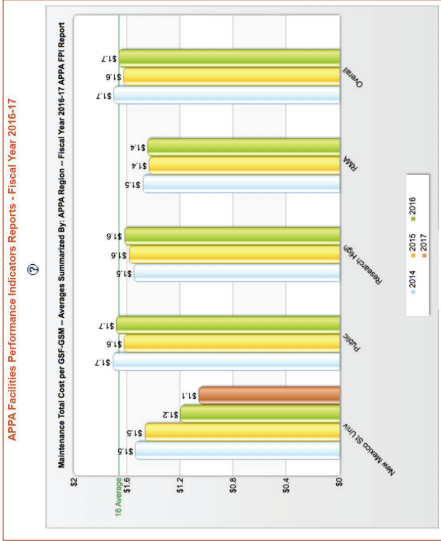
- Changed denominator of many Facilities KPIs from per GSF to per Student
- Board directed
- Significantly changed outcomes

Importance of Relevance



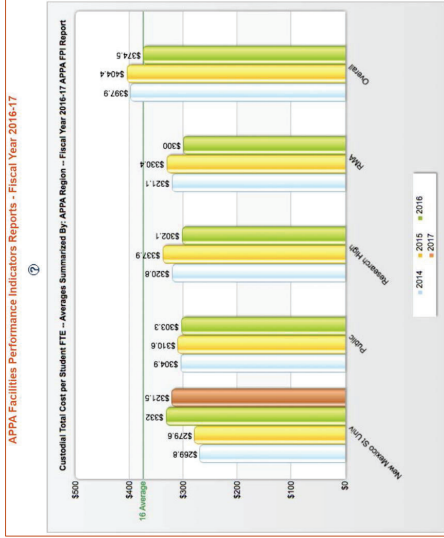
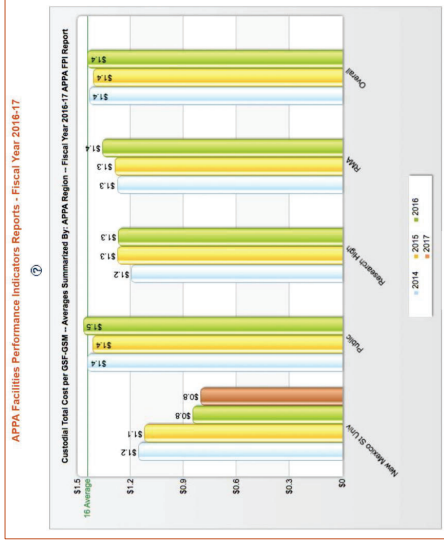
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Importance of Relevance



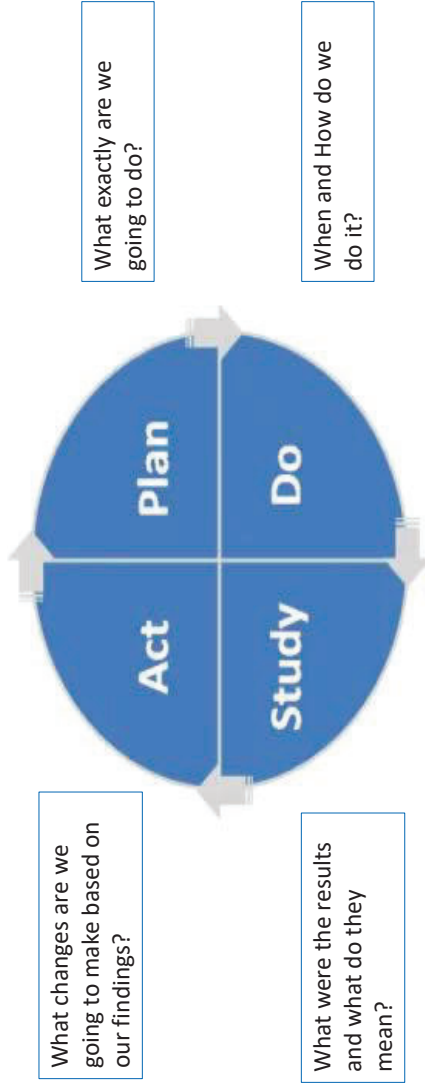
November 9, 2021

Importance of Relevance



The Shewhart or Deming Cycle

By Walter A. Shewhart and W. Edwards, Deming



Plan-Do-Study-Act (PDSA) Cycle

https://www.youtube.com/watch?v=1hCWdJ_w9Ws
(6:21)

Seven Common Quality Management Tools

- Cause and Effect Diagram (a.k.a. Fishbone or Ishikawa Diagram)
- Pareto Chart
- Scatter Diagram
- Flow Chart or Process Map
- Histogram
- Checklist
- Control Chart or Process Control Chart

Process Management

“Effective process management addresses **how the facilities organization manages key product and service design, delivery processes, and continuous improvement**. Process management includes various systems or “**core competencies**” such as **work management, performance standards, estimating systems, planning , design, and construction of new or renovated facilities, space management, event management, and other key processes that affect facilities functions.**”

- APPA FMEP

“If you can’t describe what you are doing as a process, you don’t know what you’re doing.”

- W. Edwards Deming

“Excellent firms don’t believe in excellence, only in constant improvement and constant change.”

- Tom Peters

Outcomes...or

Performance Results

"The performance of a facilities organization can be assessed in a number of ways: **campus appearance, customer satisfaction, employee satisfaction, effectiveness of systems operations, financial results, and supplier/business partner results.** Having **measurement tools** in place to assess such performance is critical in an environment of continuous improvement."
- APPA FMEP

In Japanese, "Kaizen" literally means "Change good".

"kai" means "Change, "zen" means "Good"

Together they represent "*Continuous Improvement*"

"If you are not getting better, you are getting worse." – Tiger Woods

"It is not necessary to change. Survival is not mandatory." – W. Edwards Deming

Measurement & Analysis

Assessment and information analysis describes how your organization uses **information and analyses to evaluate and drive performance improvements.** Of interest are **types of tools used, and how the tools are used** to measure and enhance organizational performance.

- APPA FMEP

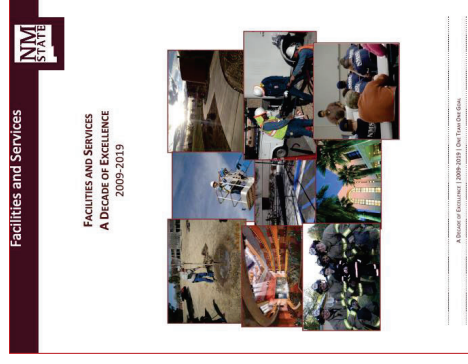
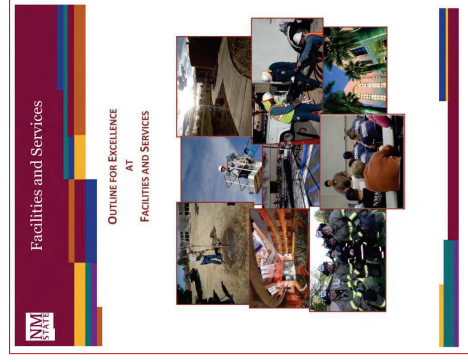
"When you can measure what you are speaking about and express it in numbers, you know something about it; but when you cannot express it in numbers, your knowledge is of a meager and unsatisfactory kind..."
- Lord Kelvin

Benefits to UTSA

Experienced Incredible dividends

- Provided roadmap toward excellence and enhanced customer satisfaction
- Facilities received 2016 APPA Award for Excellence
 - Employee pride soared (gold medals, placed APPAAFE on uniforms)
- Helped identify issues to address before they became major challenges
- Nearly eliminated catastrophic systems outages and equipment failures
- Allowed Facilities to improve services while budgets remained flat

Results of Continuous Improvement



This concludes The American Institute of Architects Continuing Education Systems Course

COURSE CODE: APPAAFS2021J

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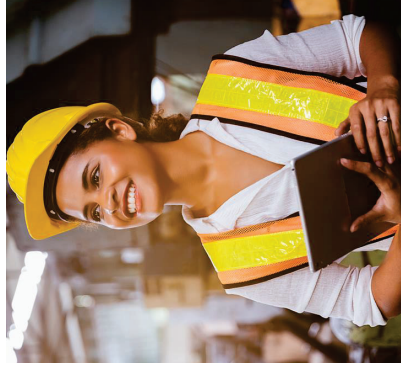
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UTSA
The University of Texas at San Antonio™

UTSA's Graduate Facilities Management Program

- 100% Online, taught asynchronously
- Focused on “Excellence”, taught by Practicing FM Subject Matter Experts
- Fifteen semester credit hour (SCH) graduate certificate program (5 Courses)
- Designed to be part of IFMA recognized, ABET Accredited Master’s Degree
- Master of Science Degree Consists of ten courses, 3 SCH each (Total of 30 SCH)
- Five certificate courses make up half of Masters (M.S.) Degree Curriculum
- M.S. Degree first offered Fall 2021

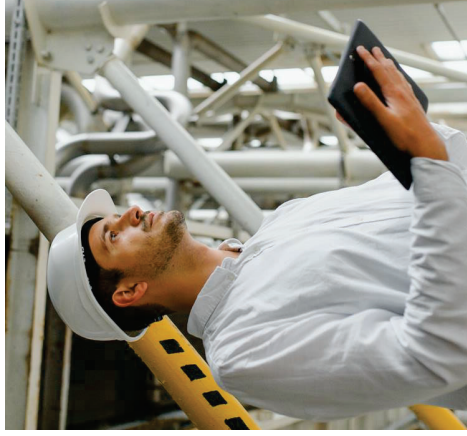


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APPAA
LEADERSHIP IN EDUCATIONAL FACILITIES

UTSA's Graduate Facilities Management Program



- Two 8-week Fall & Spring Semester sessions
- One 8-week Summer session
- Low Overhead to keep costs reasonable (Most text books available online)
- \$550 per semester credit hour
- 10% APPA and IFMA tuition discount
- Partnered with APPA on discounted pricing for Certified Education Facilities Professional (CEFP)
- Approved by Texas Veterans Commission so vets can use Montgomery or Post 9/11 GI Bill

For more information contact:
dave.riker@utsa.edu

Dave Riker
210-458-3220

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Not Just Metrics, Great KPIs Help Tell Your Story

Thank you for your attention, interest, and participation in today's presentation.

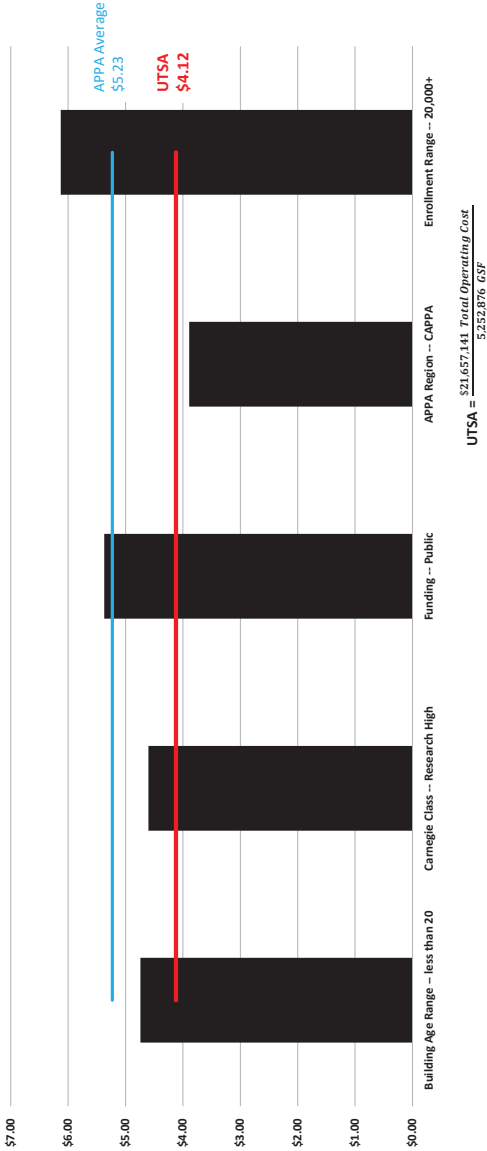
Are there questions?

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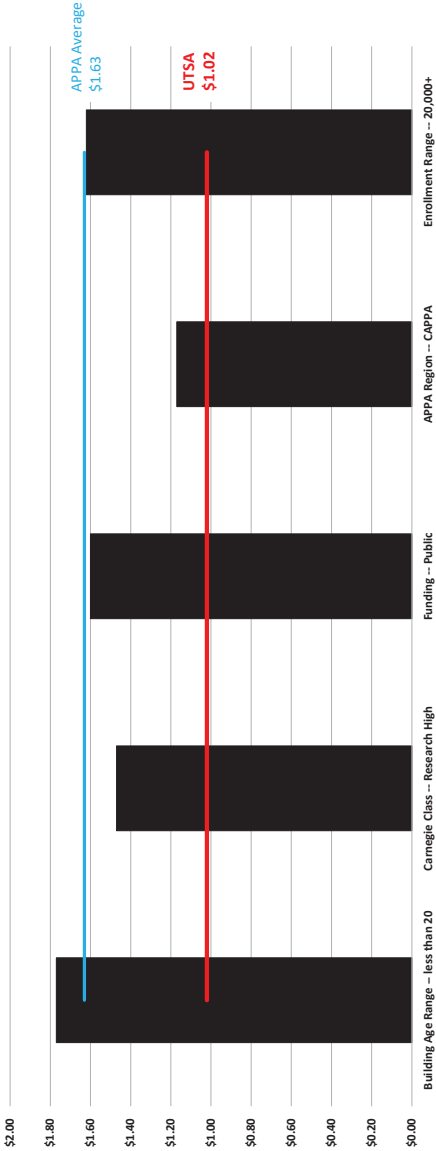


Total Operating Cost Per GSF (excluding Purchased Utilities)

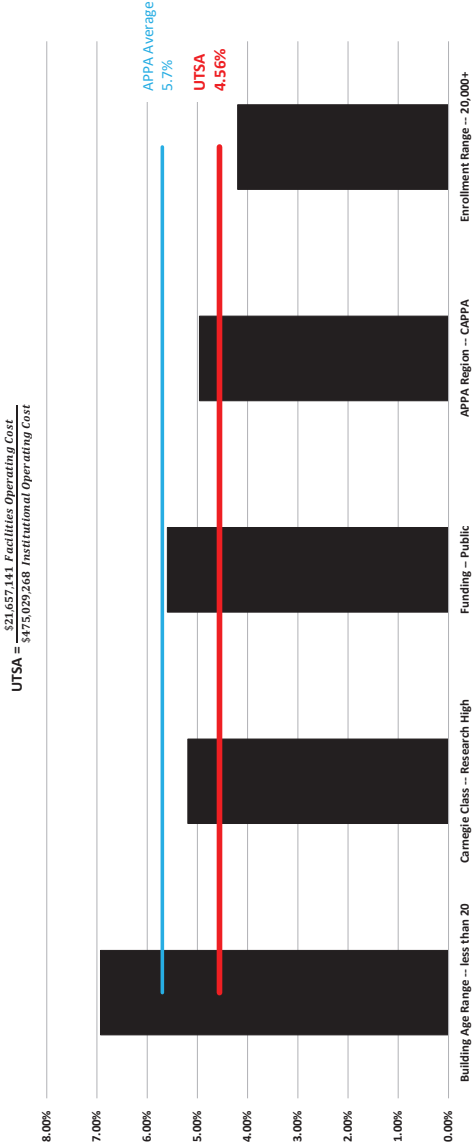


Maintenance Cost per Gross Square Foot

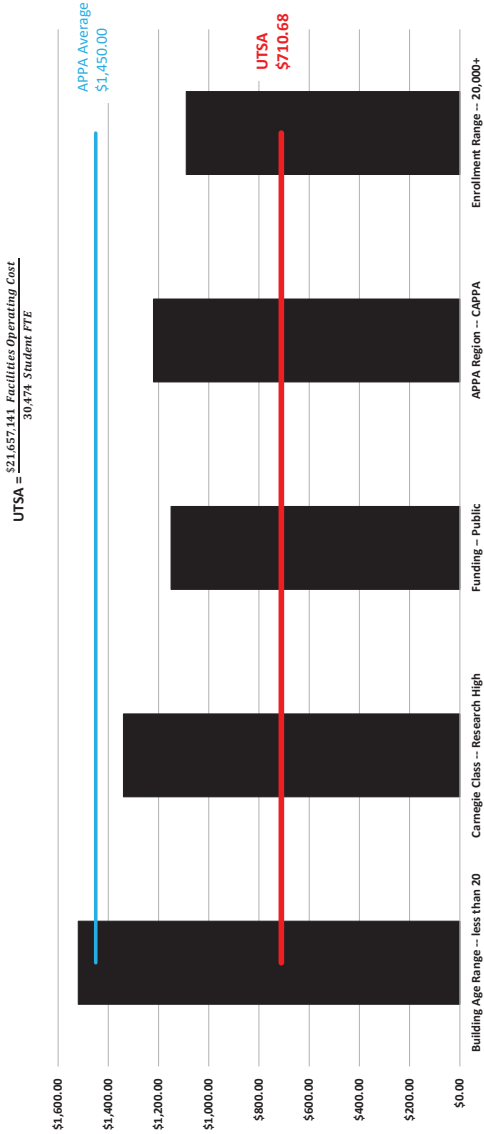
UTSA = $\frac{\$5,349,630 \text{ Maintenance Operating Cost}}{5,252,876 \text{ GSF}}$



Ratio of Total Facilities Expenditures to Gross Institutional Expenditures

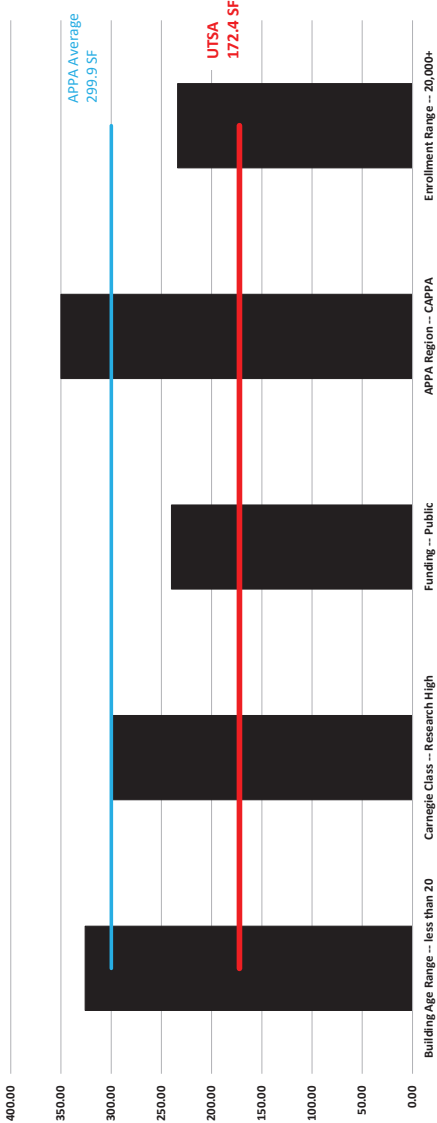


Total Operating Cost per Student Full Time Equivalent



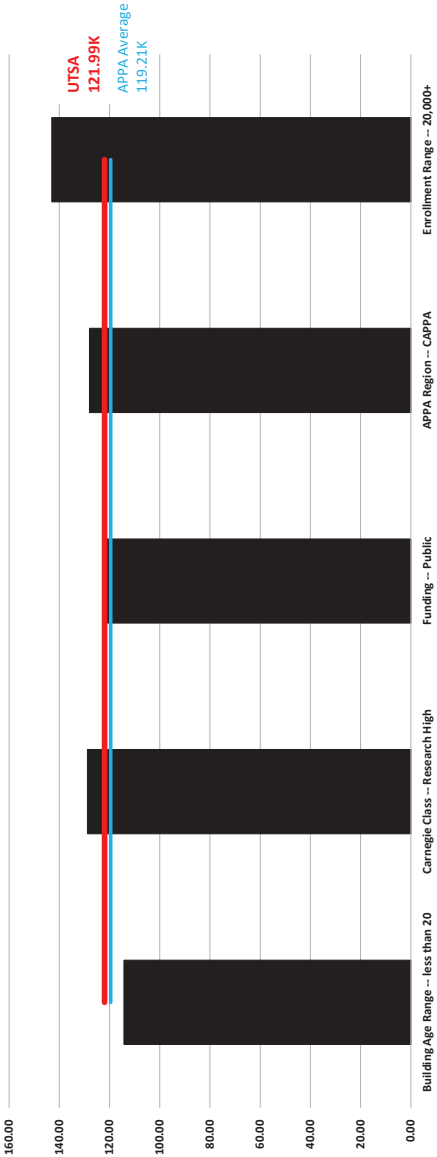
Average Gross Square Feet per Student FTE

UTSA = $\frac{5,252,876 \text{ GSF}}{30,474 \text{ Student FTE}}$



BTU per Gross Square Foot

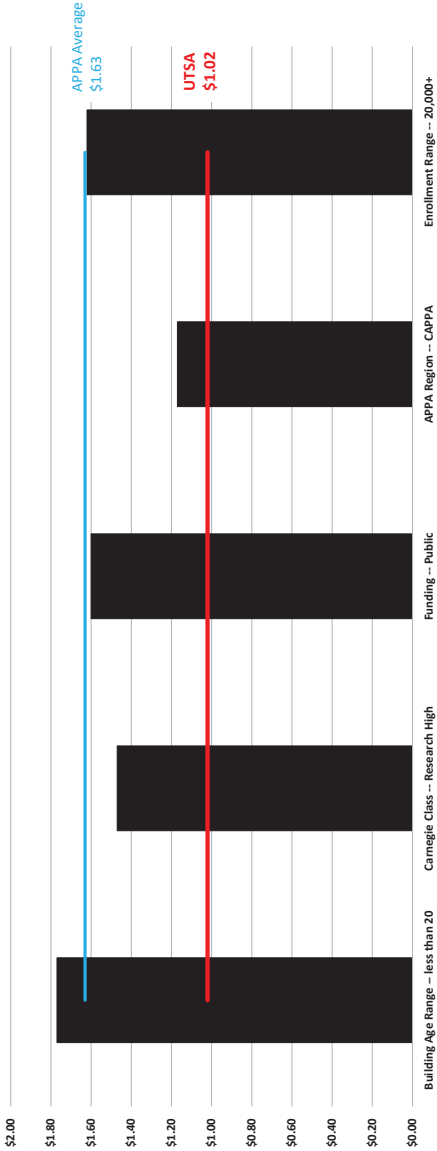
UTSA = $\frac{640,796 \text{ MM BTU}}{5,252,876 \text{ GSF}}$



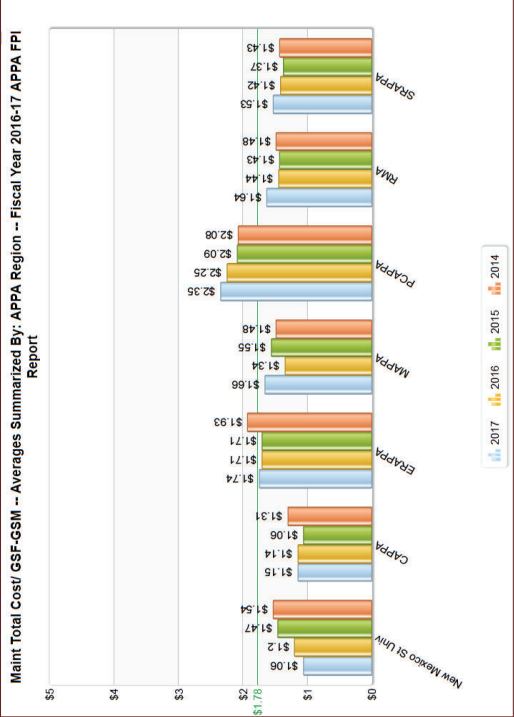
Note: This is total BTU/GSF and not the same as the Energy Utilization Index (EUI). UTSA FY13 EUI is 170.9 considering chiller plant inefficiency factored in.

Maintenance Cost per Gross Square Foot

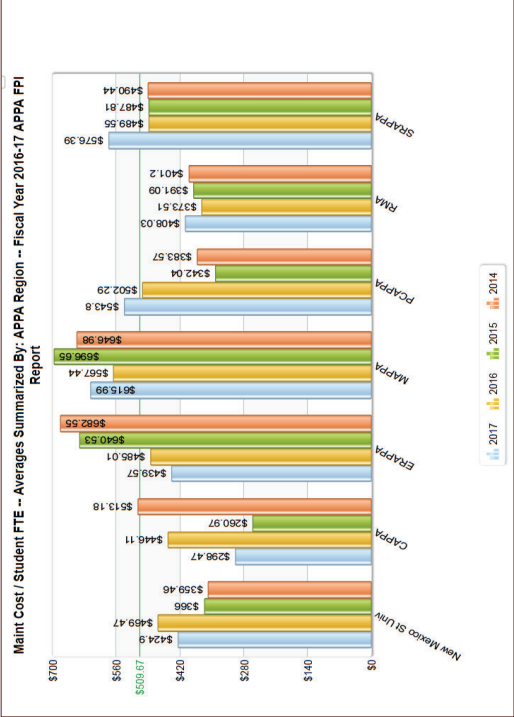
UTSA = $\frac{\$5,949,630 \text{ Maintenance Operating Cost}}{5,252,876 \text{ GSF}}$



NMSU “Big Three” Historically

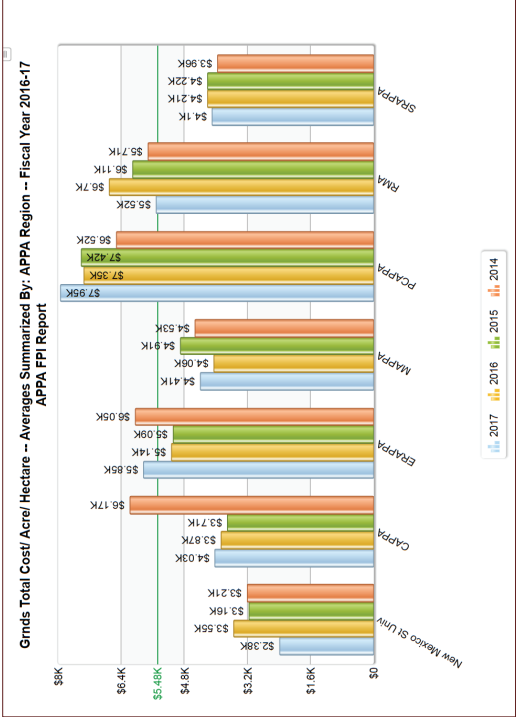


NMSU “Big Three” Historically



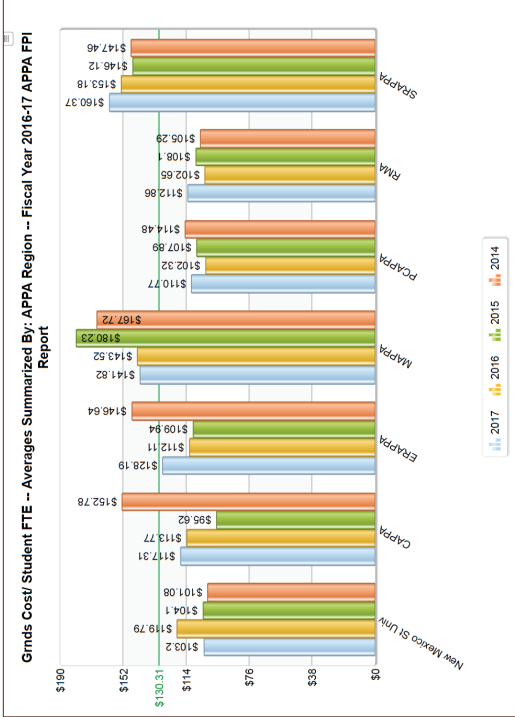
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NMSU “Big Three” Historically



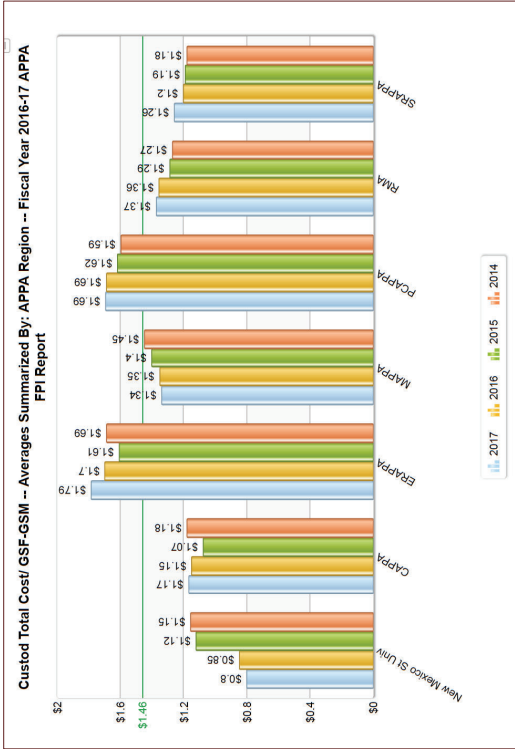
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NMSU “Big Three” Historically



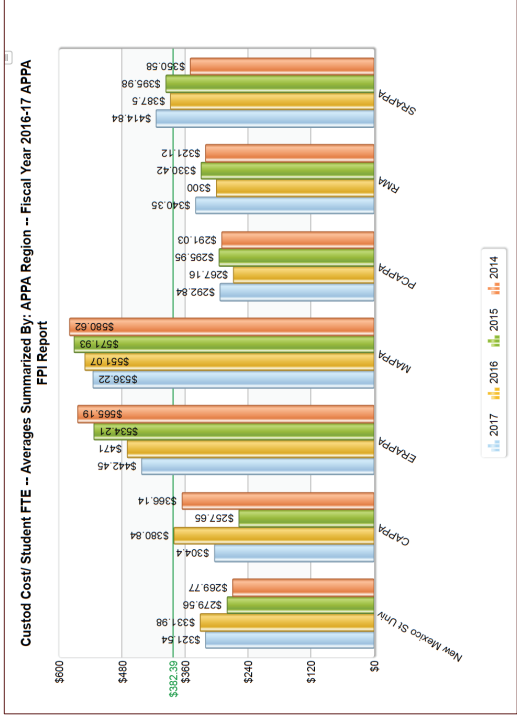
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NMSU “Big Three” Historically



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NMSU “Big Three” Historically



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