



# A Picture is Worth a Thousand Queries

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Medical University of South Carolina



# Medical University of South Carolina

School of Rock

**750 Medical Residents**

*70 residency programs*



**6 Colleges**

*Dental Medicine, Graduate Studies, Health Professions, Medicine, Nursing, and Pharmacy*



**\$2.6b Annual Budget**  
**\$250m Research Funding**

*With an annual economic impact of more than \$3.8 billion*



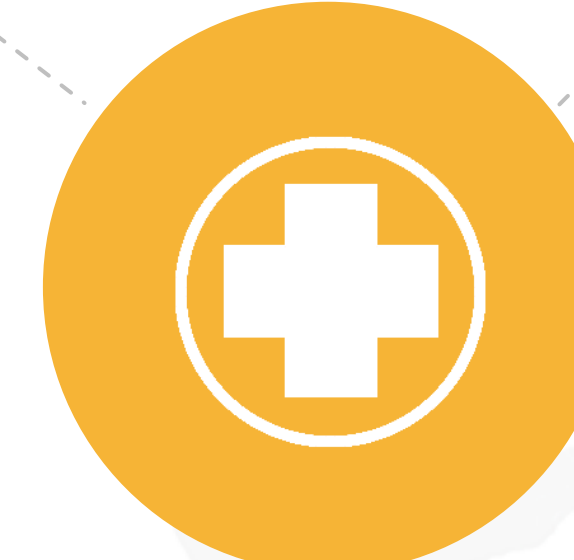
**3,000 Students**

*Students earn degrees at the baccalaureate, master's, doctoral and other professional levels.*



**16,000 Employees**

*Including more than 1,700 faculty members*



**1,500 Beds**  
**100 Outreach Locations**

*On March 1, 2019, MUSC acquired 4 community hospitals doubling patient beds.*

# MUSC Facilities

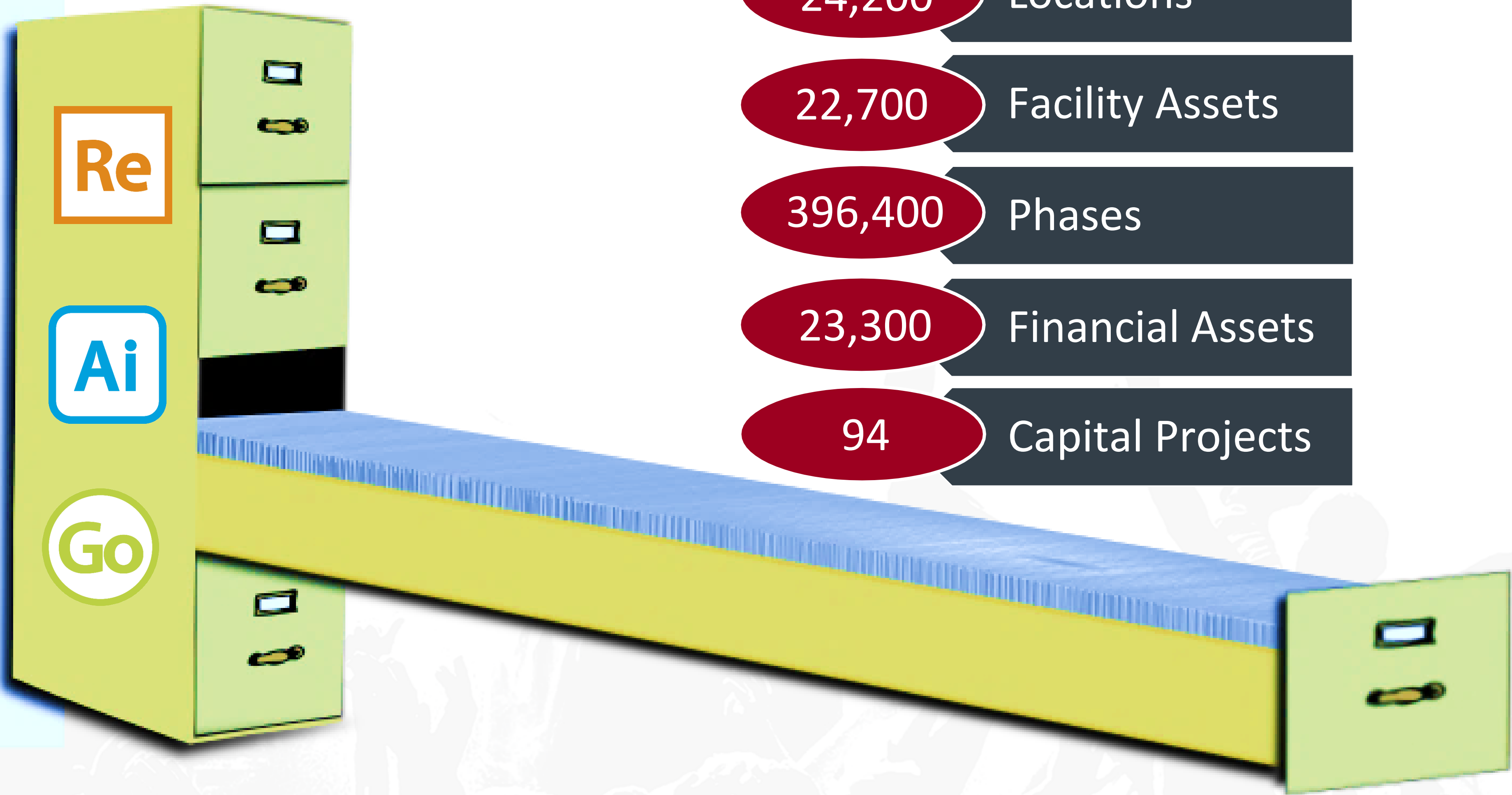
Integrated University and Hospital support





# The Expensive File Cabinet

In AiM since 2013





# Queries, Queries, Everywhere...

And we're still late with our PMs

The screenshot shows the WorkDesk interface with a sidebar menu on the left containing categories like Work Management, AIMport, Asset Management, Capital Projects, Contract Administration, Customer Service, Finance, Human Resources, Inventory, Preventive Maintenance, Project Management, Property, Time and Attendance, and System Administration. The main content area is divided into several sections: Administrator Messages (showing a message from 3/27/19 7:54 AM), Quick Search (with input fields and search results), PM DAILY ASSIGNMENT (listing work management tasks with status indicators), UNIVERSITY PMs (listing tasks with status indicators), HOSPITAL PMs (listing tasks with status indicators), Approvals (showing 45 Timecards), Personal Query Listing (listing various queries like AC PM SHOP - OPEN EXTERNAL CHARGE), and Report Listing (listing reports like 001-INVENTORY REORDER).

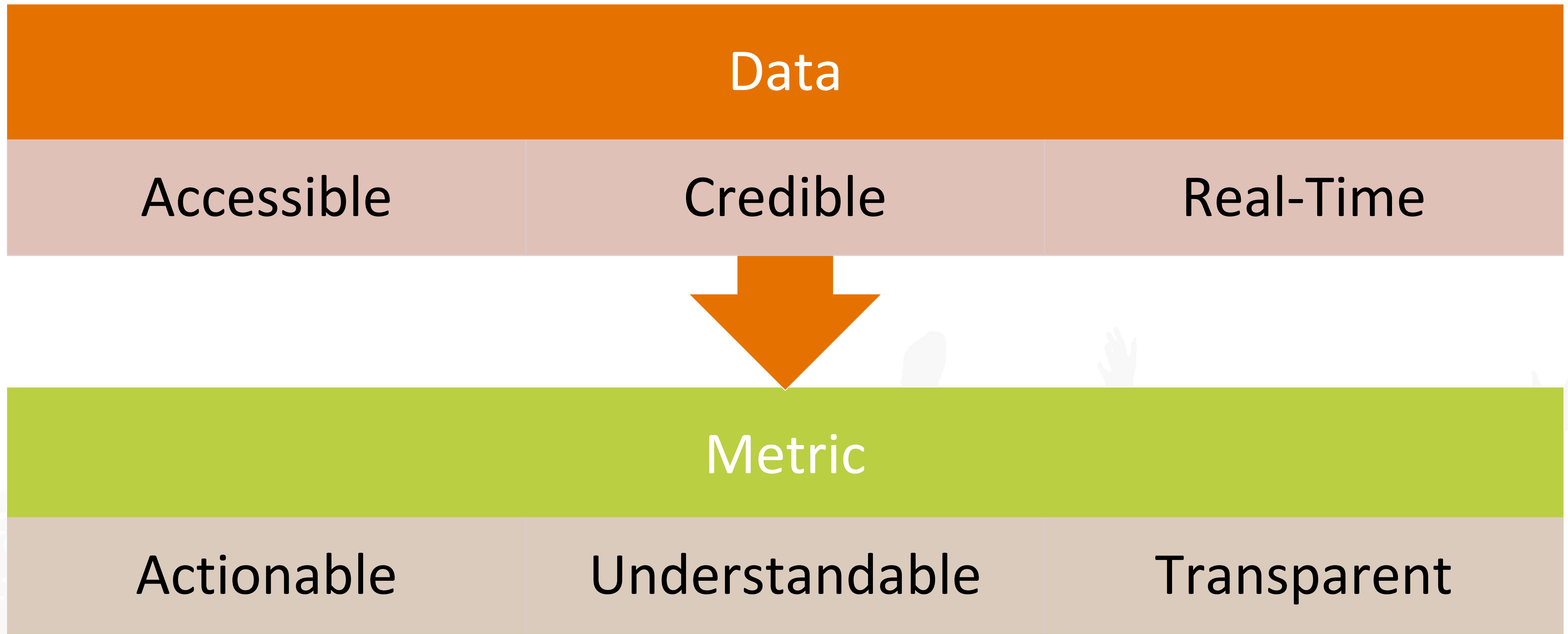
This screenshot provides a detailed view of the PM tasks. It is organized into three main sections: UNIVERSITY PMs, HOSPITAL PMs, and AC Shop Work Management. Each section contains a list of tasks with status indicators (red and green squares) and descriptions. For example, under UNIVERSITY PMs, tasks include '454 Work Management -- Phase -- AC SHOP - UNASSIGNED UNIVERSITY PMS DUE IN 35 DAYS' and '174 Work Management -- Phase -- AC SHOP - UNIVERSITY PMS DUE IN 14 DAYS'. Under HOSPITAL PMs, tasks include '277 Work Management -- Phase -- AC - UNASSIGNED HIGH RISK PM DUE IN 35 DAYS' and '4 Work Management -- Phase -- AC SHOP - HIGH RISK PMS DUE TODAY'. Under AC Shop Work Management, tasks include '168 Work Management -- Phase -- AC CM AWAITING RESOURCES' and '60 Work Management -- Phase -- AC SHOP CM NEW OLDER THAN 90'.

A word cloud featuring various terms related to healthcare, regulation, and accreditation. The words are arranged in a dense, overlapping manner, with some words being significantly larger than others. The color palette is primarily orange and brown, with some words in dark red. The background is white with faint, light blue silhouettes of people's hands and arms reaching upwards.

countries status processes DHEC name  
Medicare internal hospitals order exceeds  
Research standards Once Sciences meeting  
Environmental ensure receive agency animals  
validation deficiencies responsible process regulatory  
approved Control surveys Medicaid Laboratory deeming meet  
goal Assessment inspection government Risk-Based Health management  
maintain document Joint Commission care  
fee reflects  
meets quarterly organization compliant science state Guide ways  
Department Council life AAALAC site certified policies  
random CMS U.S. investigations programs organizations  
federal safety survey patient conduct animal hospital  
reimbursement command patients compliance  
recovery Services quality

# Know your goal

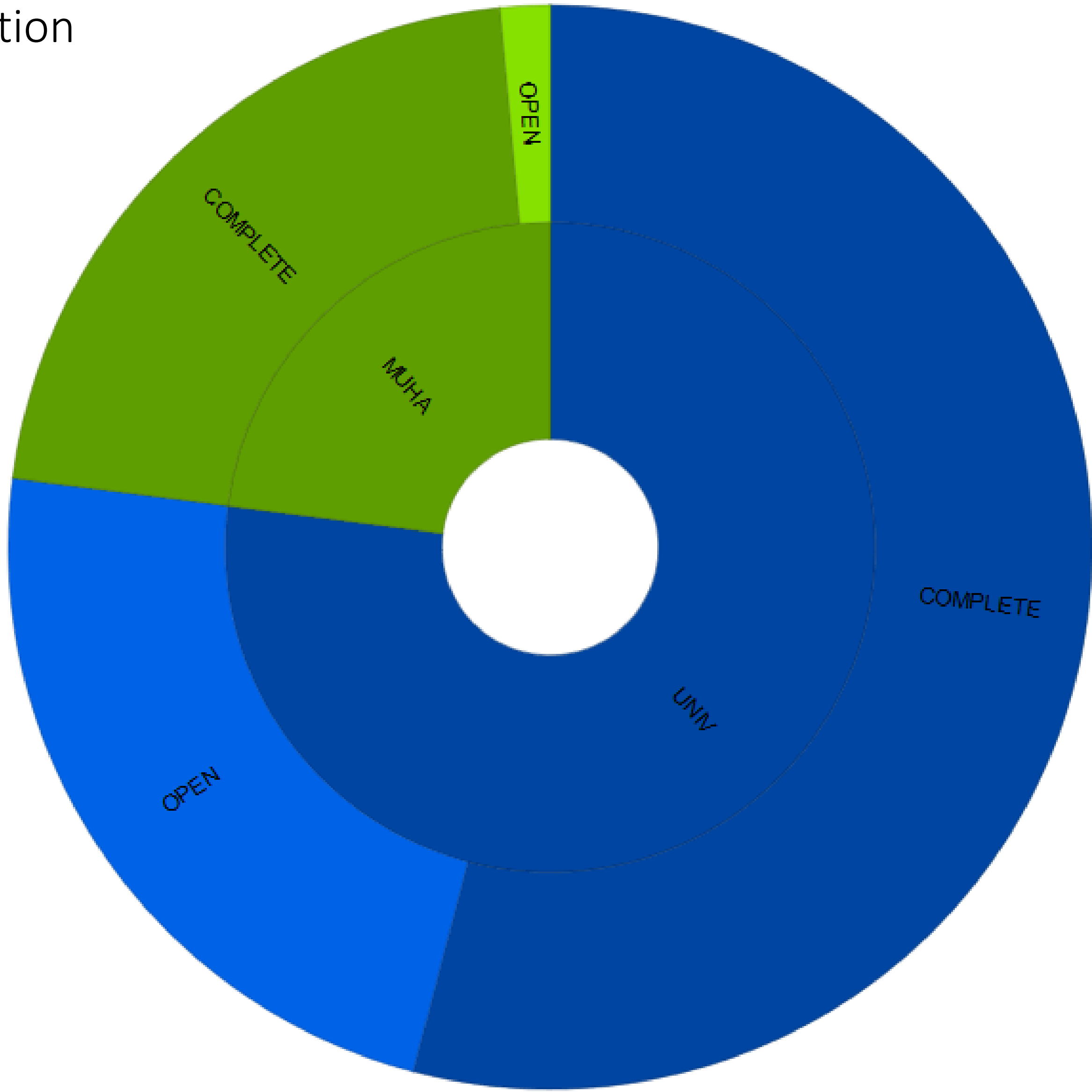
Metrics are what you measure and what you measure is what you manage to





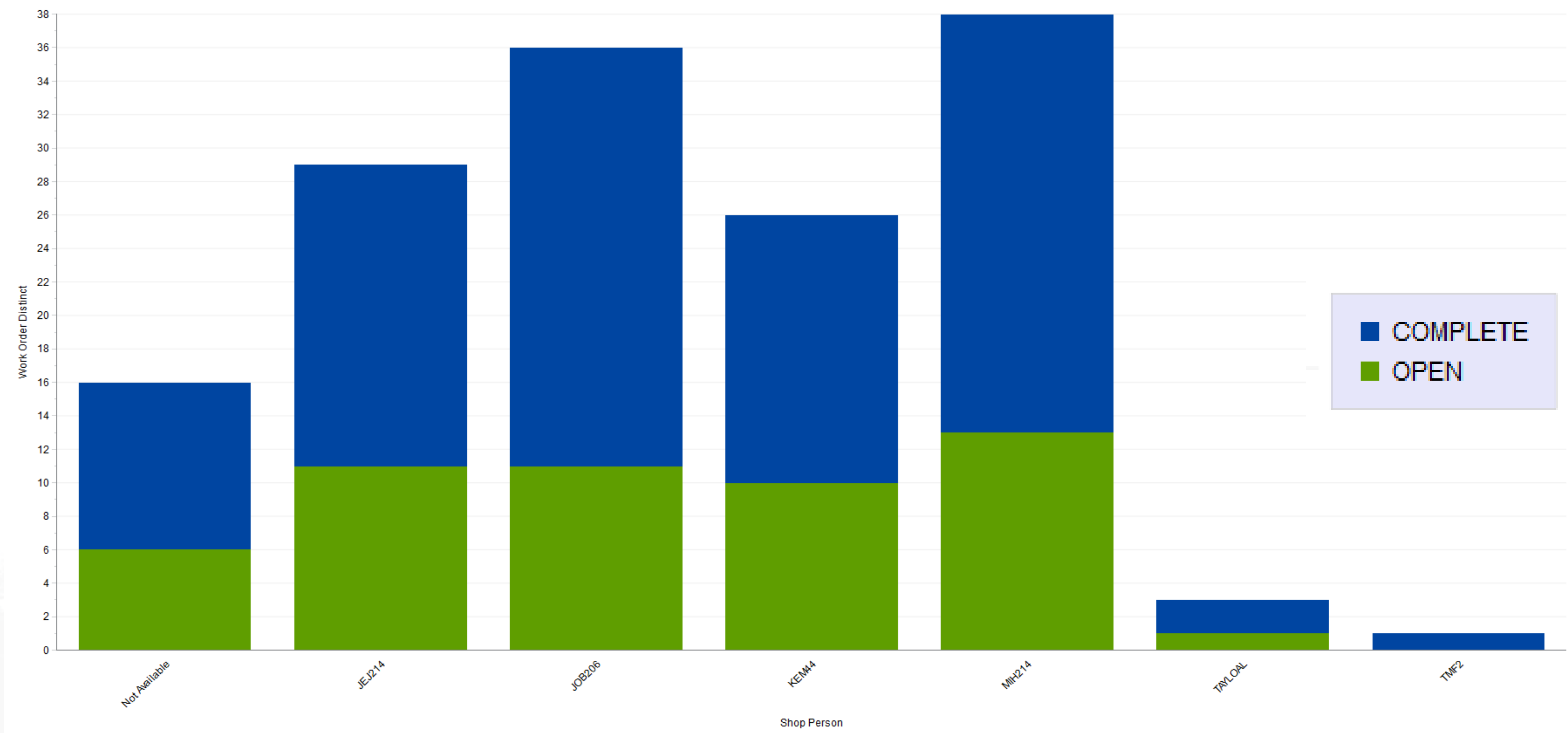
# Shop Progress

PM priority and completion



# Shop Person Progress

Assess PM distribution and completion



# Boiler Shop Dashboard

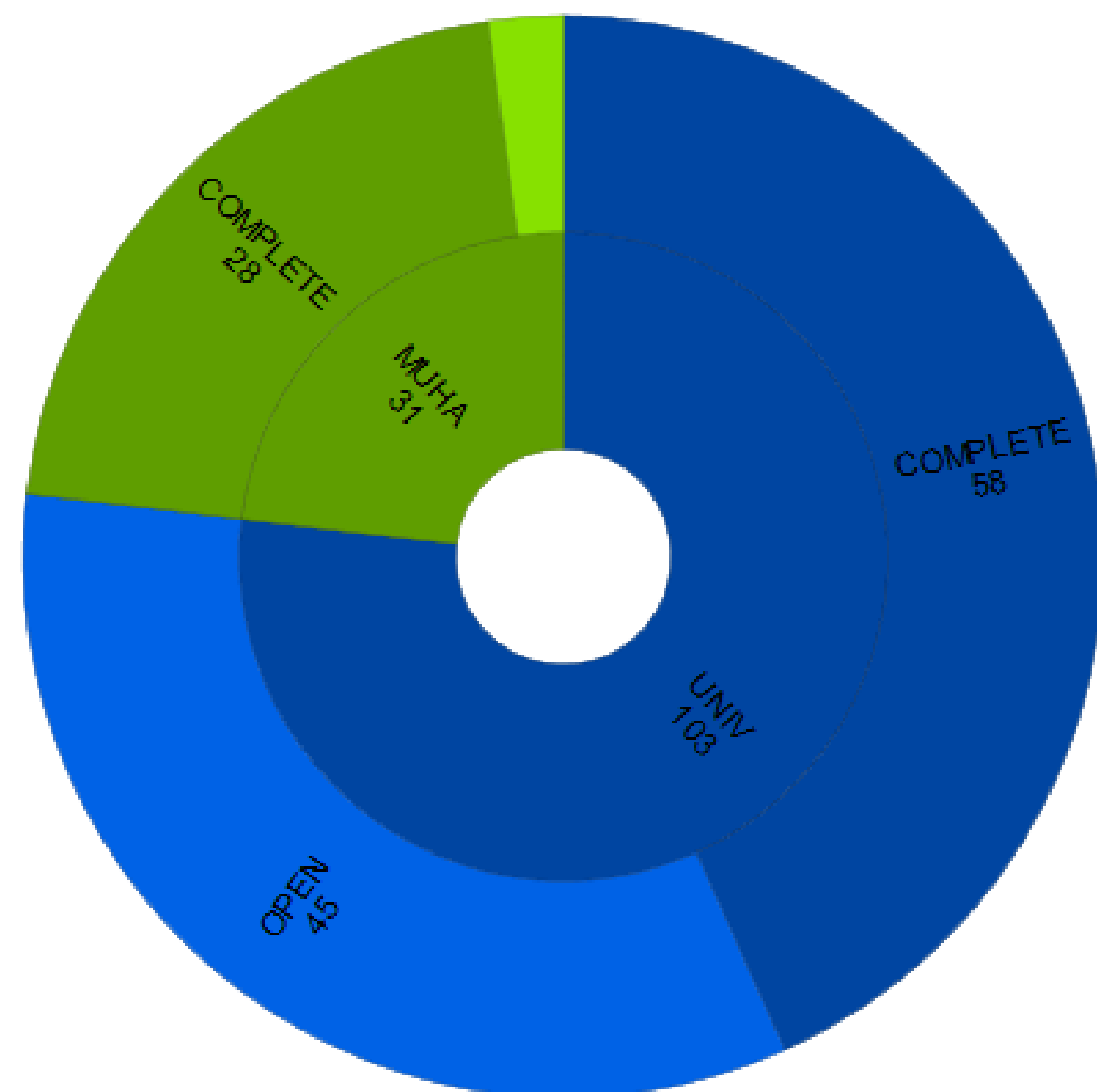
Average 135 Preventive Work Orders per month

> Prompts

## PM Progress by Shop

3 Filters

Actions



## Active PM Progress by Shop Person in BOILER ROOM

2 Filters

Actions



## Current Month PMs for <default>

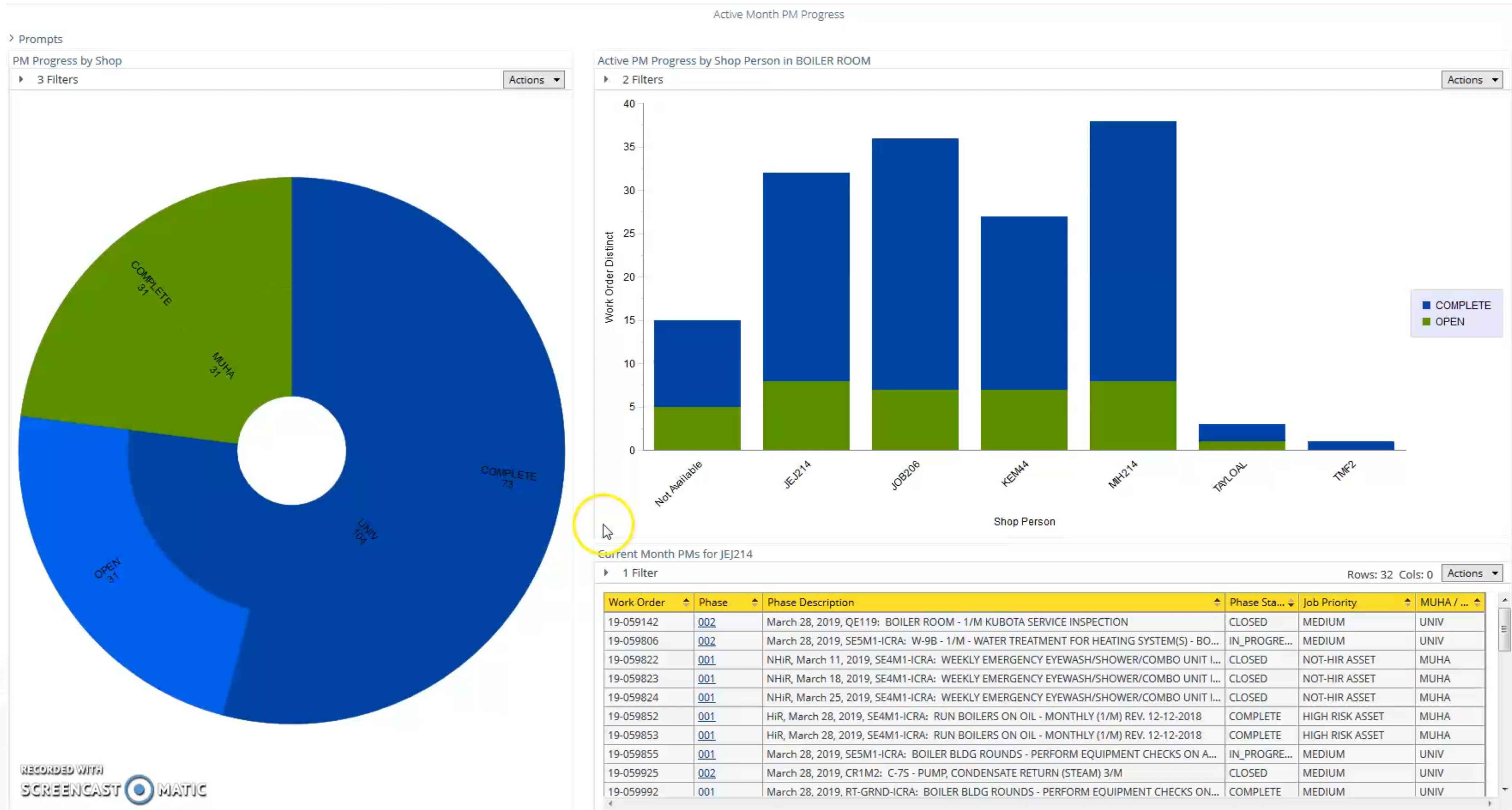
1 Filter

Rows: 43 Cols: 0

Actions

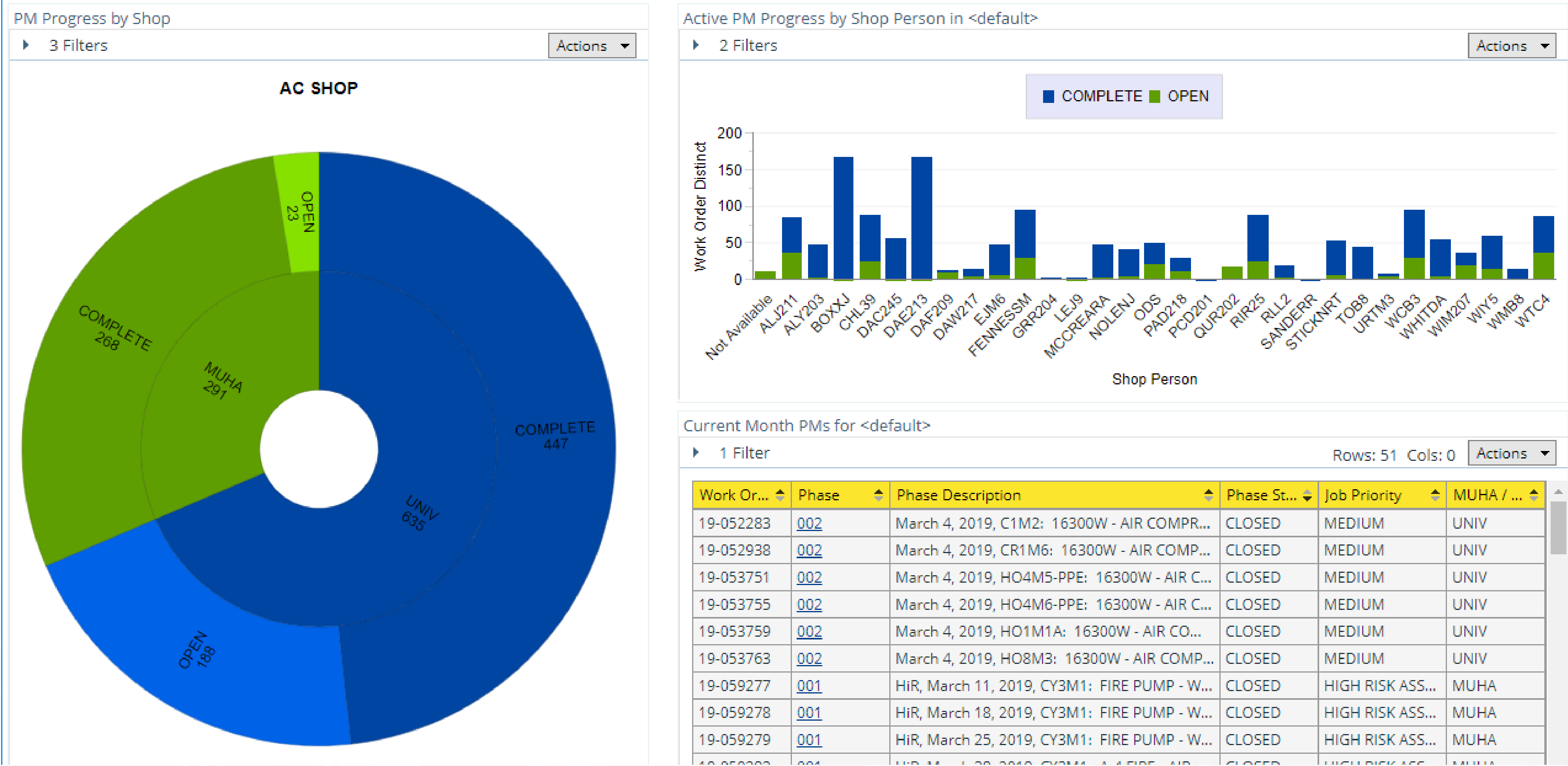
| Work Or... | Phase               | Phase Description                  | Phase St... | Job Priority | MUHA / ... |
|------------|---------------------|------------------------------------|-------------|--------------|------------|
| 19-052283  | <a href="#">002</a> | March 4, 2019, C1M2: 16300W - A... | CLOSED      | MEDIUM       | UNIV       |
| 19-052938  | <a href="#">002</a> | March 4, 2019, CR1M6: 16300W - ... | CLOSED      | MEDIUM       | UNIV       |
| 19-053751  | <a href="#">002</a> | March 4, 2019, HO4M5-PPE: 1630...  | CLOSED      | MEDIUM       | UNIV       |
| 19-053755  | <a href="#">002</a> | March 4, 2019, HO4M6-PPE: 1630...  | CLOSED      | MEDIUM       | UNIV       |





# HVAC Shop Dashboard

Over 900 Preventive Maintenance Work Orders per month



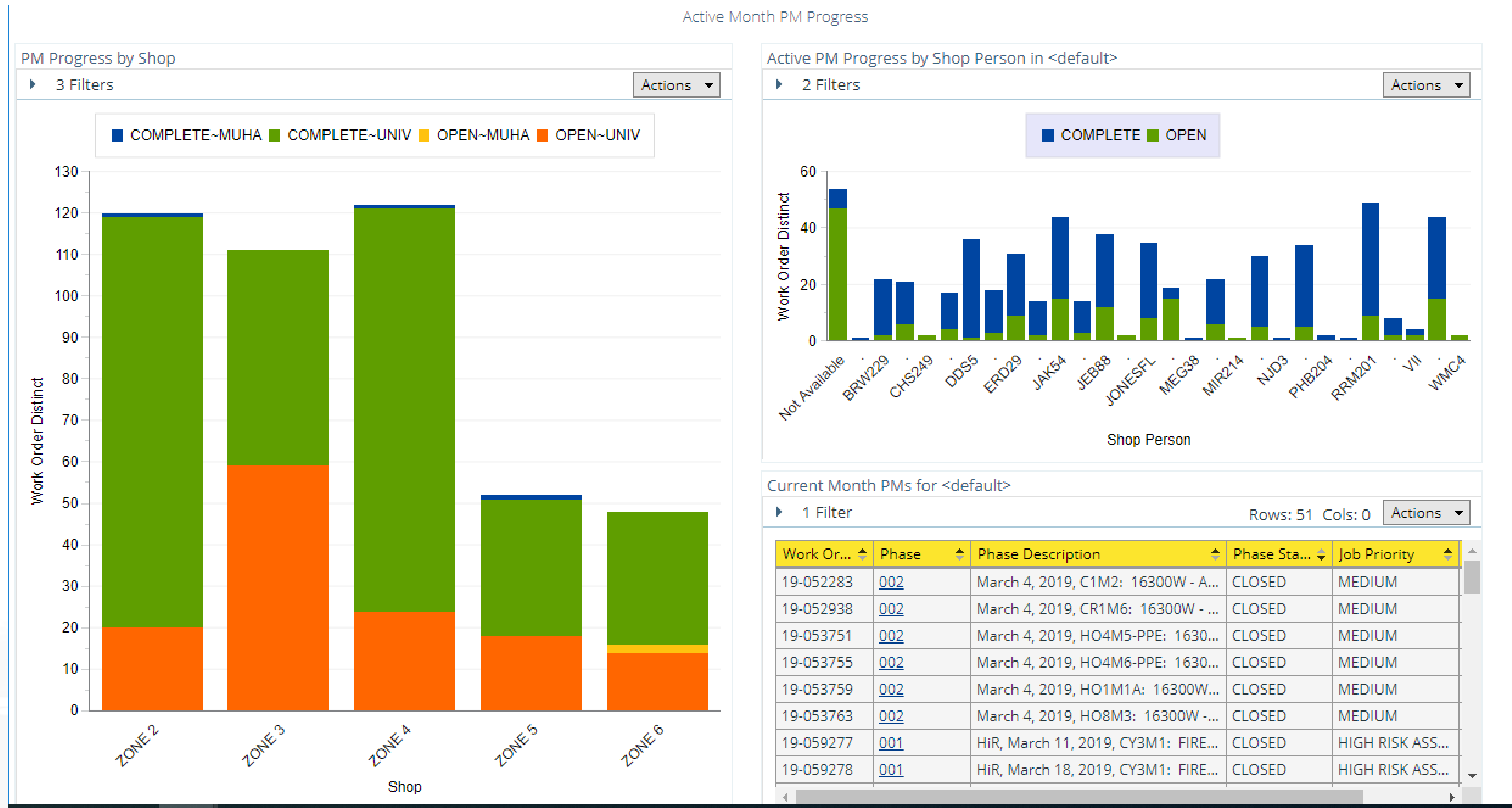


# Driving Process





# Manager PM Dashboard



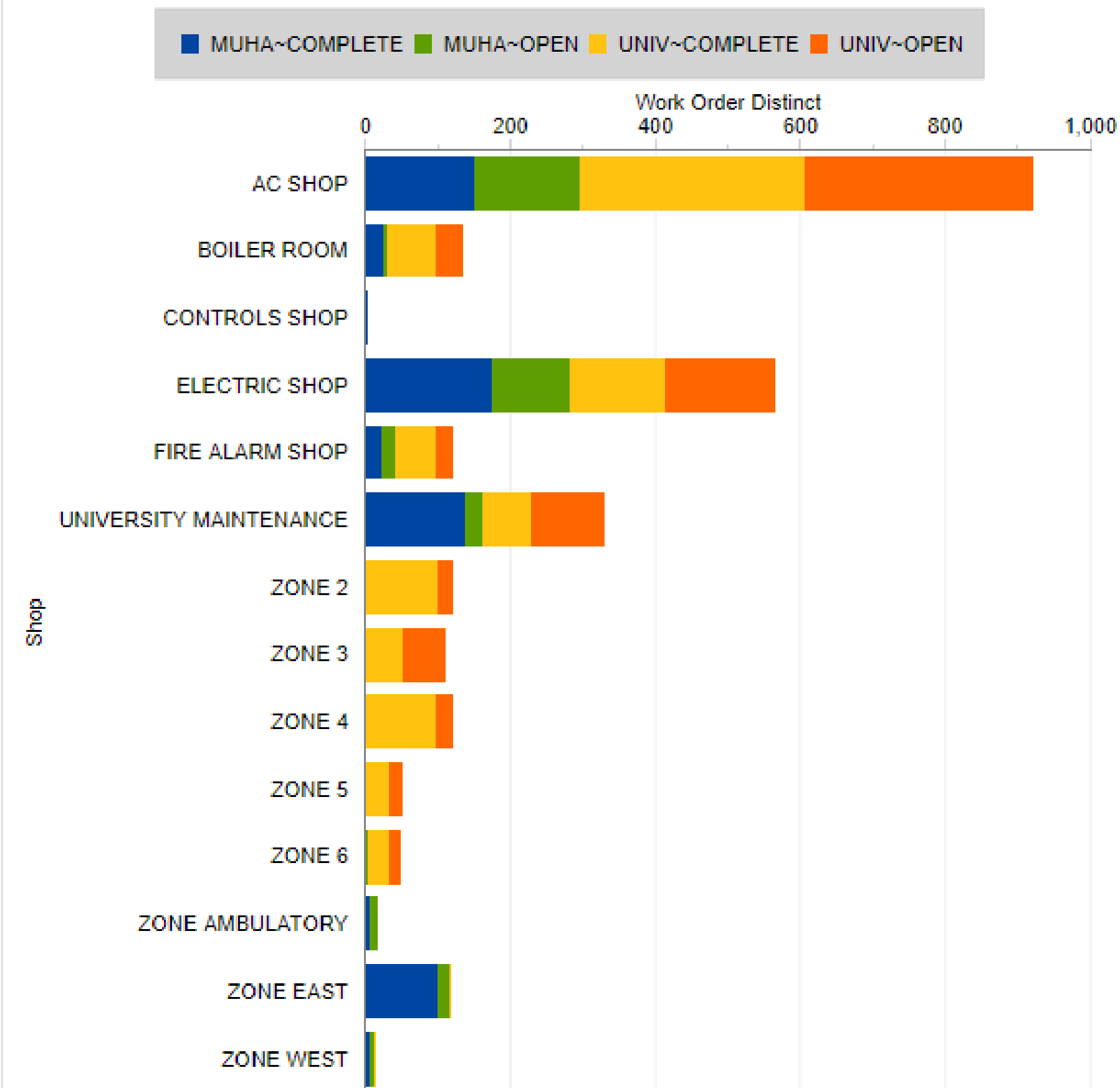
# Executive PM Dashboard

## Current PM Progress

### Current Month PM Progress by Shop

3 Filters

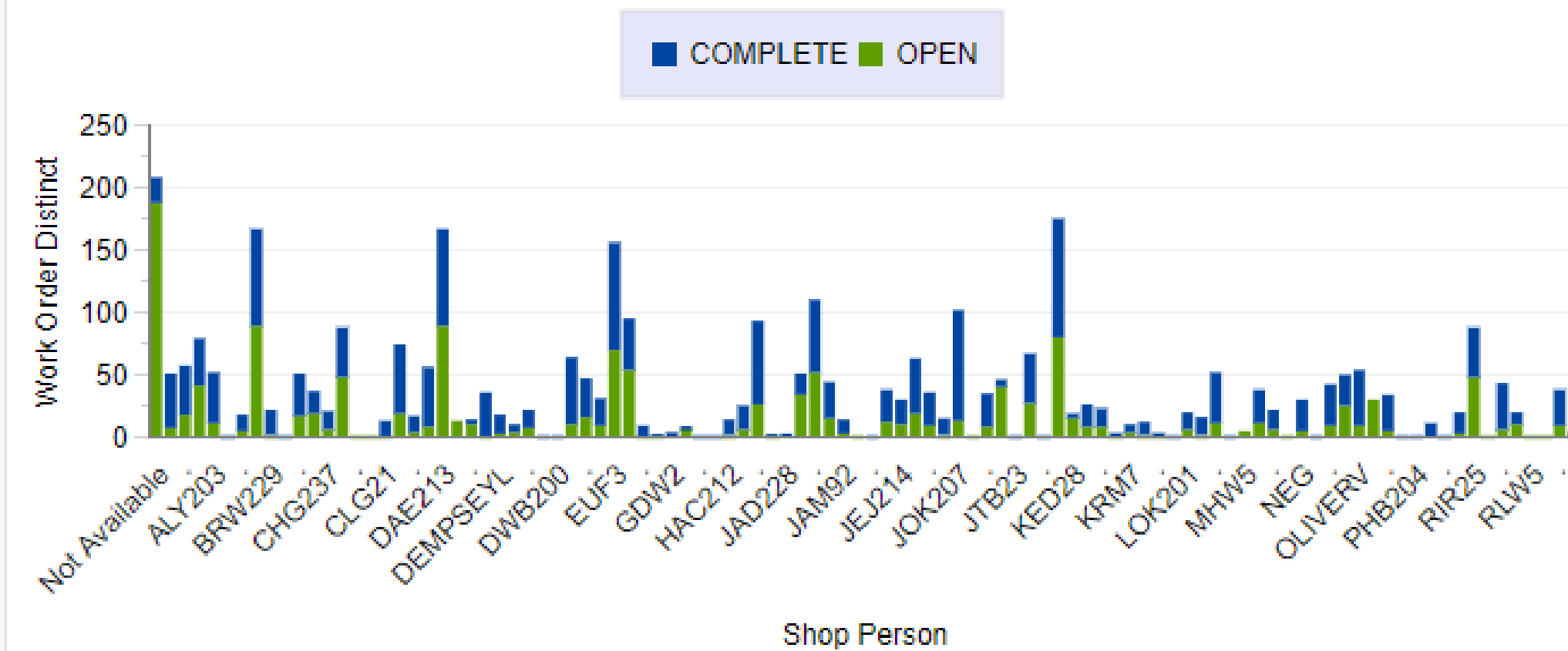
Actions



### Current Month PM Progress by Shop Person in <default>

2 Filters

Actions



### Current Month PMs for <default>

1 Filter

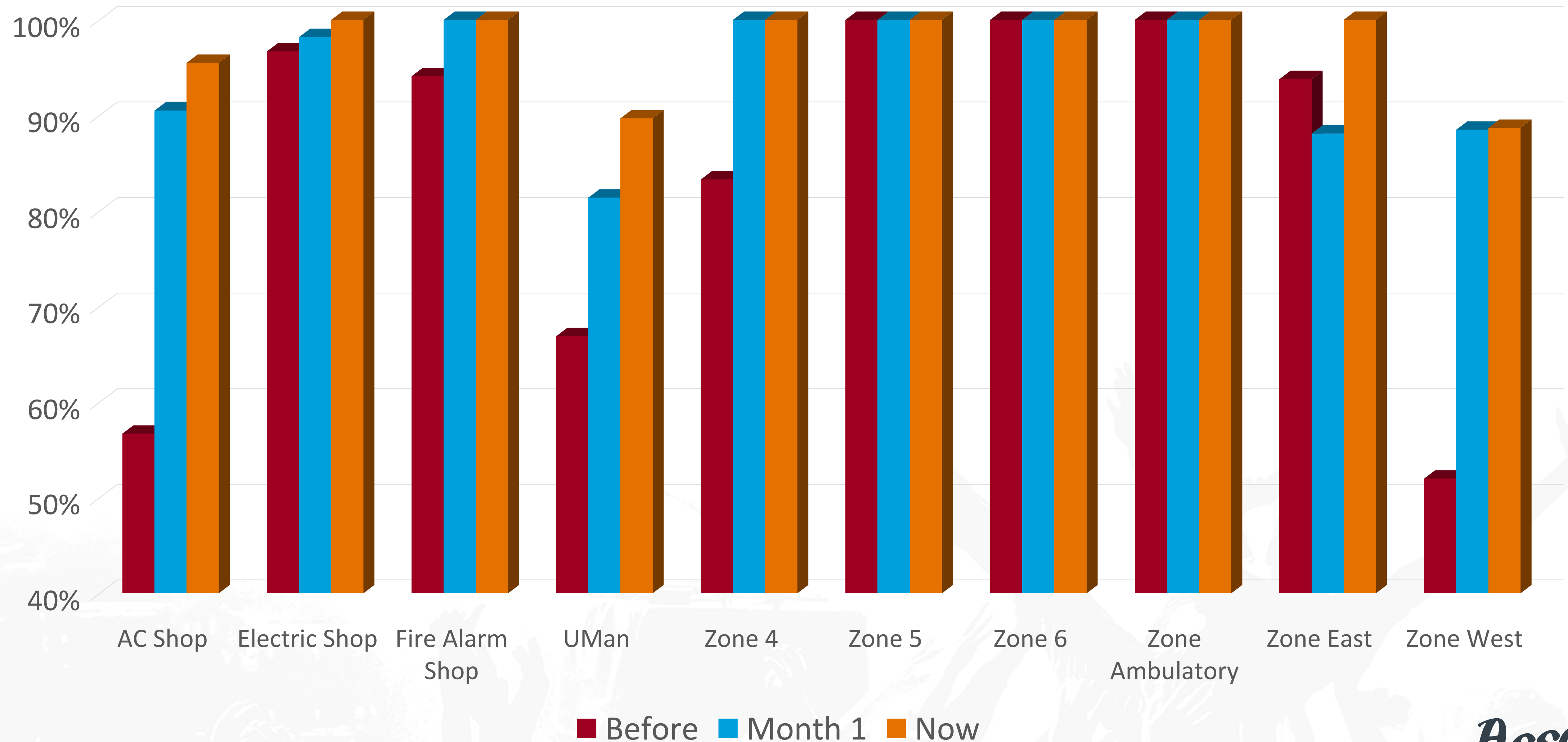
Rows: 51 Cols: 0

Actions

| Work Or... | Phase               | Phase Description                   | Phase Sta... | Job Priority     | MUHA / ... |
|------------|---------------------|-------------------------------------|--------------|------------------|------------|
| 19-052283  | <a href="#">002</a> | March 4, 2019, C1M2: 16300W - A...  | CLOSED       | MEDIUM           | UNIV       |
| 19-052938  | <a href="#">002</a> | March 4, 2019, CR1M6: 16300W - ...  | CLOSED       | MEDIUM           | UNIV       |
| 19-053751  | <a href="#">002</a> | March 4, 2019, HO4M5-PPE: 1630...   | CLOSED       | MEDIUM           | UNIV       |
| 19-053755  | <a href="#">002</a> | March 4, 2019, HO4M6-PPE: 1630...   | CLOSED       | MEDIUM           | UNIV       |
| 19-053759  | <a href="#">002</a> | March 4, 2019, HO1M1A: 16300W...    | CLOSED       | MEDIUM           | UNIV       |
| 19-053763  | <a href="#">002</a> | March 4, 2019, HO8M3: 16300W - ...  | CLOSED       | MEDIUM           | UNIV       |
| 19-059277  | <a href="#">001</a> | HiR, March 11, 2019, CY3M1: FIRE... | CLOSED       | HIGH RISK ASS... | MUHA       |
| 19-059278  | <a href="#">001</a> | HiR, March 18, 2019, CY3M1: FIRE... | CLOSED       | HIGH RISK ASS... | MUHA       |

# Affecting Outcomes

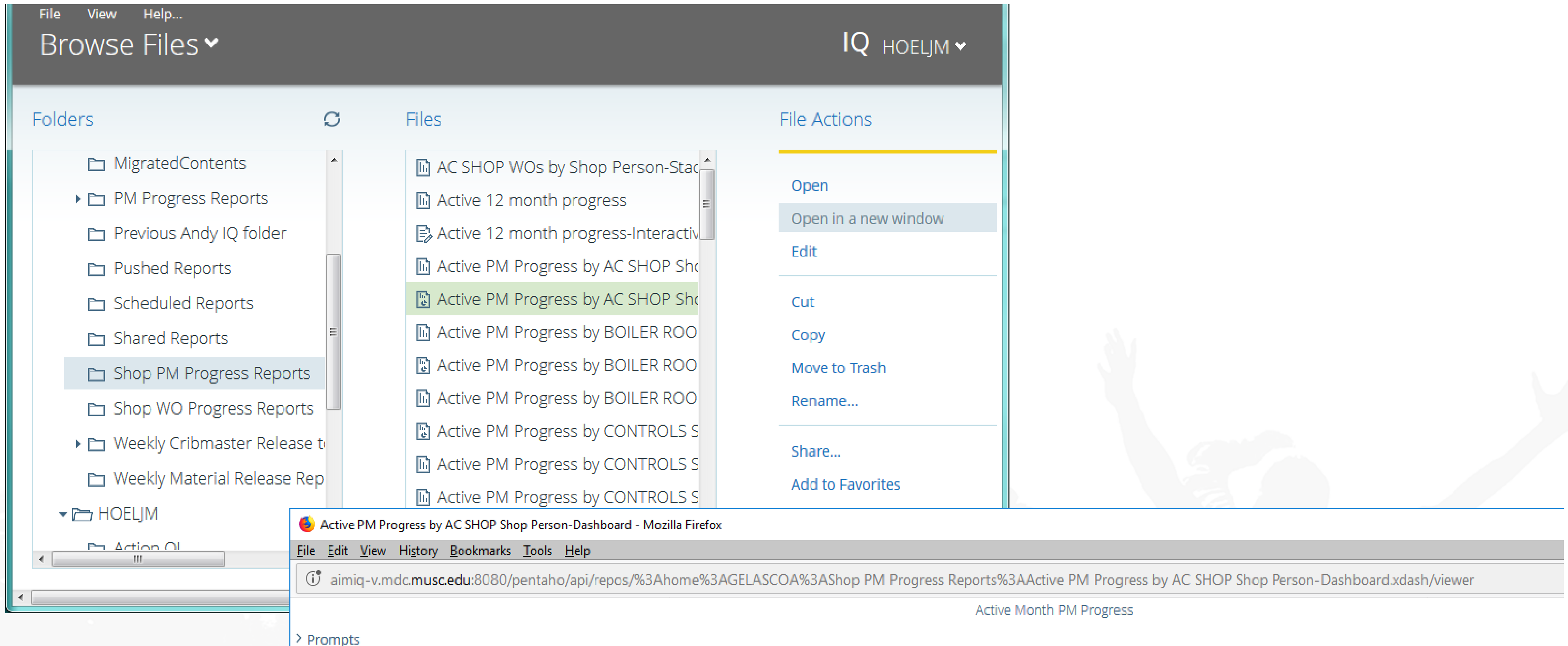
Overall on-time completion went from 80% to 97%





# Sharing is caring

Share each report and dashboard with the relevant people



Ah, Push It  
Push it real good

AiM

Report Manager

Andrew

About

Help

Logout

Save

Cancel

View

Extra Description

Roles

Screens

User Defined Fields

Related Documents

1101

Last Edited by Andrew Gelasco On 09/20/2018 11:09 AM

AC SHOP PM Progress Dashboard

Report URL

http://aimiq-v.mdc.musc.edu:8080/pentaho/api/repos/%3Ahome%3AGELASCOA%3AShop%20PM%20Progress%20Reports%3AActive%20PM%20Progress%20by%20AC%20SHOP%20Shop%20Person-Dashboard.xdash/viewer

Work Management

Accounts Payable

Asset Management

Capital Planning and Project Management

Contract Administration

Customer Service

Environmental Health & Safety

Energy Management

Estimating

Fixed Asset Management

Finance

Green and Sustainability

Human Resources

Inventory

Key & Access Control

Lease

Motor Pool

Preventive Maintenance

Planning and Needs Analysis

Project Management

Property

Purchasing

Space Management

Time Management

AiMport

System Administration

Workdesk

Active

Yes

Report Type

External

Title

AC SHOP PM Dashboard

AiM

Roles

Done

Cancel

1101

AC SHOP PM Progress Dashboard

Role

Remove

Add

Role

Description

APPROVALS-AC SHOP

AC SHOP APPROVALS

EF-SYSADMIN - LOCAL

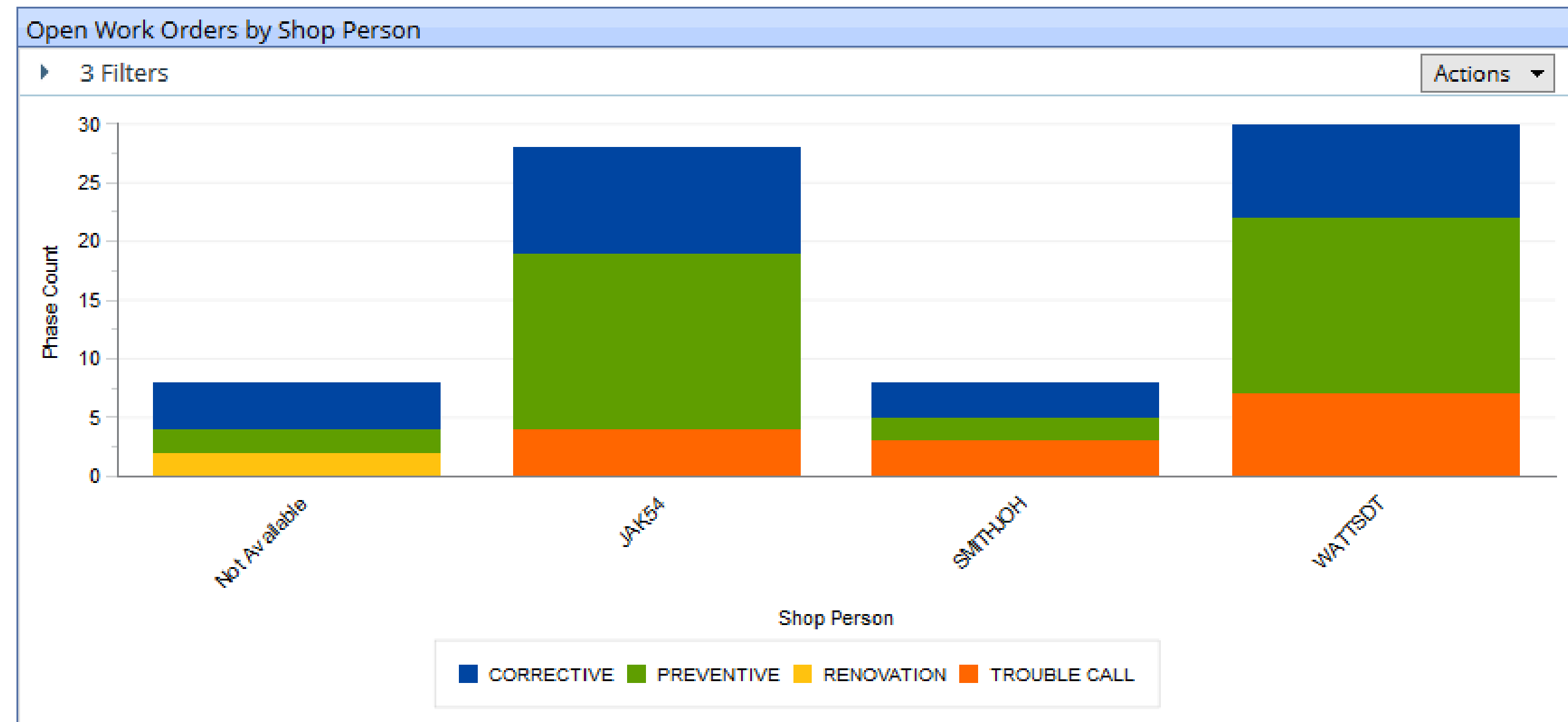
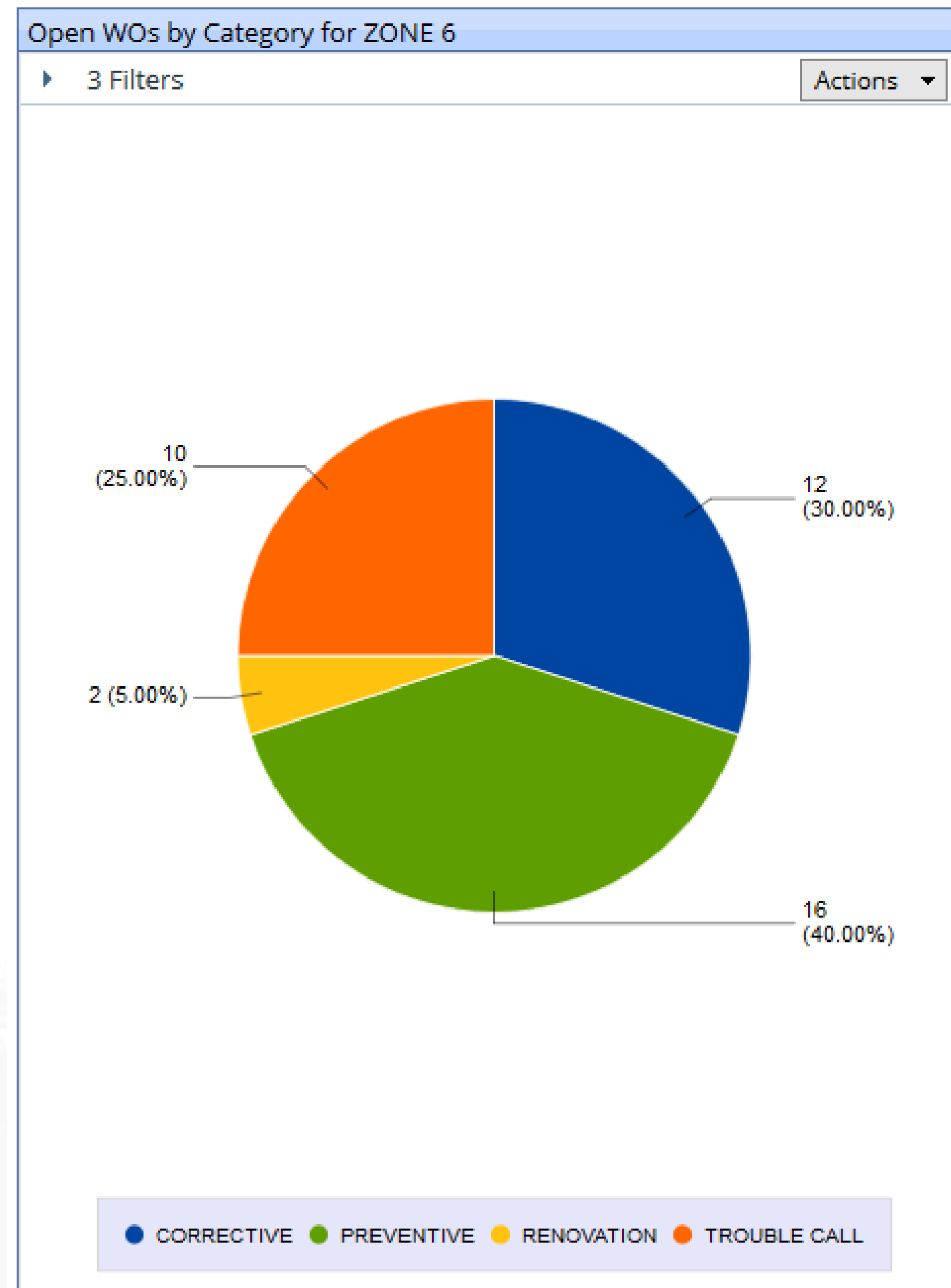
ENGINEERING AND FACILITIES SYSTEM ADMINISTRATOR

[www.Assetworks.com/IWMS](http://www.Assetworks.com/IWMS)  
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Asset 2019  
World

# Workload Distribution

## Work Order distribution by Category



Open WO Detail for JAK54

3 Filters Rows: 28 Cols: 0 Actions

| Work Or... | Phase               | Phase Description  | WO Category | Phase ... | Job Prio... |
|------------|---------------------|--|-------------|-----------|-------------|
| 18-006104  | <a href="#">001</a> | 236-EF100B: REPLACE HOT WATER HEATER IN SUITE 100                    | CORRECTIVE  | NEW       | MEDIUM      |
| 19-003479  | <a href="#">001</a> | SC-GRND: HOT MISCELLANEOUS ITEMS FOR 2018-2019                       | CORRECTIVE  | NEW       | MEDIUM      |
| 19-003480  | <a href="#">001</a> | BA-GRND: PSYCH INSTITUTE MISCELLANEOUS ITEMS FOR 2018...             | CORRECTIVE  | NEW       | MEDIUM      |
| 19-003481  | <a href="#">001</a> | C-GRND: CHP-C MISCELLANEOUS ITEMS FOR 2018-2019                      | CORRECTIVE  | NEW       | MEDIUM      |
| 19-057233  | <a href="#">001</a> | CH1JA1: replace ceiling tile where sprinkler leak was repaired ja... | CORRECTIVE  | NEW       | HIGH        |
| 19-059264  | <a href="#">002</a> | March 28, 2019, CT-GRND: E-19 Z6 BPLS 129 - 56 COURTNEY              | PREVENTIVE  | NEW       | MEDIUM      |

---

```
SELECT p.proposal AS 'Work Order',  
       p.sort_code AS 'Phase',  
       p.description AS 'Phase Description',  
       CONVERT (date, p.beg_dt) AS 'Est Start Date',  
       CONVERT (date, p.end_dt) AS 'Due Date',  
       p.shop Shop,  
       s.shop_person AS 'Shop Person',  
       p.status_code AS 'Phase Status',  
       p.pri_code AS 'Phase Priority',  
       p.order_type AS 'WO Type',  
       p.category AS 'WO Category',  
       p.bldg Building,  
       p.location_code Location,  
       w.wo_pri_code AS 'Job Priority',
```

---

## Custom IQ data source



### **Be concise**

*Leverage IQ by beginning with a concise data source*



### **Alias for clarity**

*Feed the metric data that is transparent and easy to understand*



### **Keep it simple**

*Don't make your team dig for information and don't show extraneous details*



# Filter

Job Priority defines compliance reporting values

---

```
"MUHA / UNIV" =  
  CASE  
    WHEN w.wo_pri_code IN ('HIGH RISK ASSET','LOW RISK ASSET','NOT-HIR ASSET')  
    THEN 'MUHA'  
    WHEN w.wo_pri_code IN ('HIGH','MEDIUM','LOW')  
    THEN 'UNIV'  
    ELSE 'OTHER'  
  END,
```

---

# Group

Consolidate statuses to 'active', 'complete', and 'canceled'

---

```
"Active Status" =  
  CASE  
    WHEN p.status_code IN ('NEW', 'IN_PROGRESS','AWAITING_RESOURCES','ATTEMPTED')  
    THEN 'OPEN'  
    WHEN p.status_code IN ('COMPLETE','CM REQUIRED','CM CREATED','CLOSED')  
    THEN 'COMPLETE'  
    ELSE 'CANCELLED'  
  END,
```

---

# Join your tables and embed fixed criteria

## Why fix criteria?

*To prevent users from unwittingly messing up*



## PM only

*WHERE p.category = 'PREVENTIVE'*



## Current calendar month

*AND MONTH(p.end\_dt) = MONTH (GETDATE())*



## Current year

*AND YEAR(p.end\_dt) = YEAR (GETDATE())*



---

```
FROM ae_p_phs_e p
JOIN ae_p_pro_e w
    ON w.proposal = p.proposal
LEFT OUTER JOIN ae_p_pro_s s
    ON s.proposal = p.proposal
    AND s.sort_code = p.sort_code
WHERE  p.category = 'PREVENTIVE'
AND MONTH(p.end_dt) = MONTH (GETDATE())
AND YEAR(p.end_dt) = YEAR (GETDATE())
```

---



“Be excellent to each other.” ~ Bill S. Preston, Esq.  
“Party on, dudes!” ~ “Ted” Theodore Logan

