

# Development of Formal Weekly Scheduling for Facilities Maintenance

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# What is Weekly Scheduling?

- Not an appointment book
- Not an exact science
- A week-sized batch of **planned, ready-to-go** work orders whose **total estimated hours** matches the projected **available work hours** of the specific **crew** scheduled.

# Why Planning Needs Scheduling to Be Successful

- Efficiencies gained on planned work orders may not translate to overall maintenance efficiency.
  - Missing ingredient: Allocating enough work each week to fill all available hours

# Why Planning Needs Scheduling to Be Successful

- Planning the work does not ensure the work will get done.
  - Scheduling brings the discipline and structure to eliminate the black hole where work orders go to die.
  - Scheduling brings accountability to maintenance supervisors.

# Why Planning Needs Scheduling to Be Successful

- Scheduling brings accountability to planning.
  - Emphasizes the importance of good estimates and coordination.



# The Path to Scheduling Success at SNL

- Recognizing the need
- Developing the process
- Implementing the process
- Measuring success
- Status and results at SNL

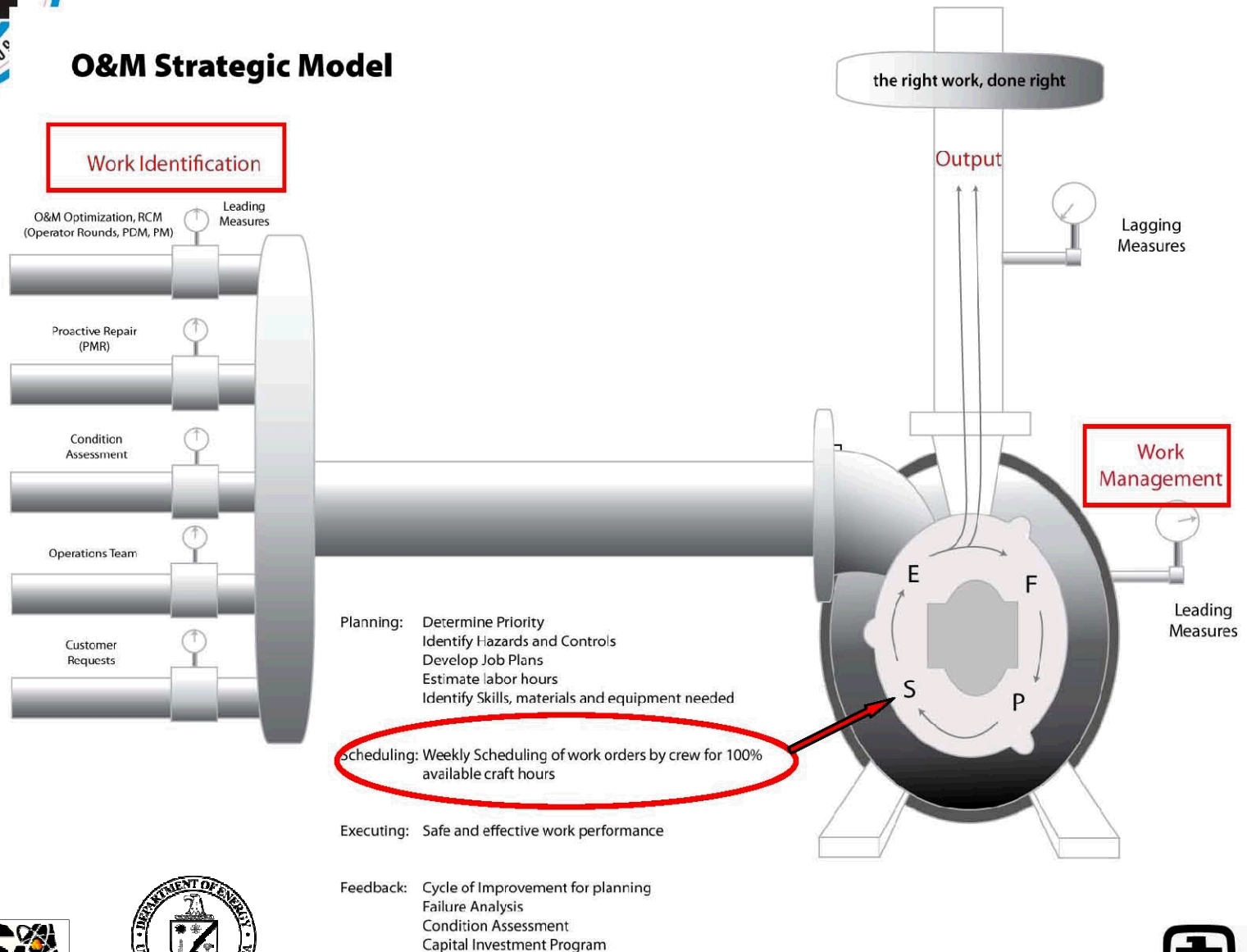
# Recognizing the Need

- Develop a Subject Matter Expert (SME)
- Initiate scheduling dialog (conceptual)
- Create a Business Case and Obtain Management Commitment
- Educate



# Where does it fit in the Big Picture?

## O&M Strategic Model





# What, When, and How ...

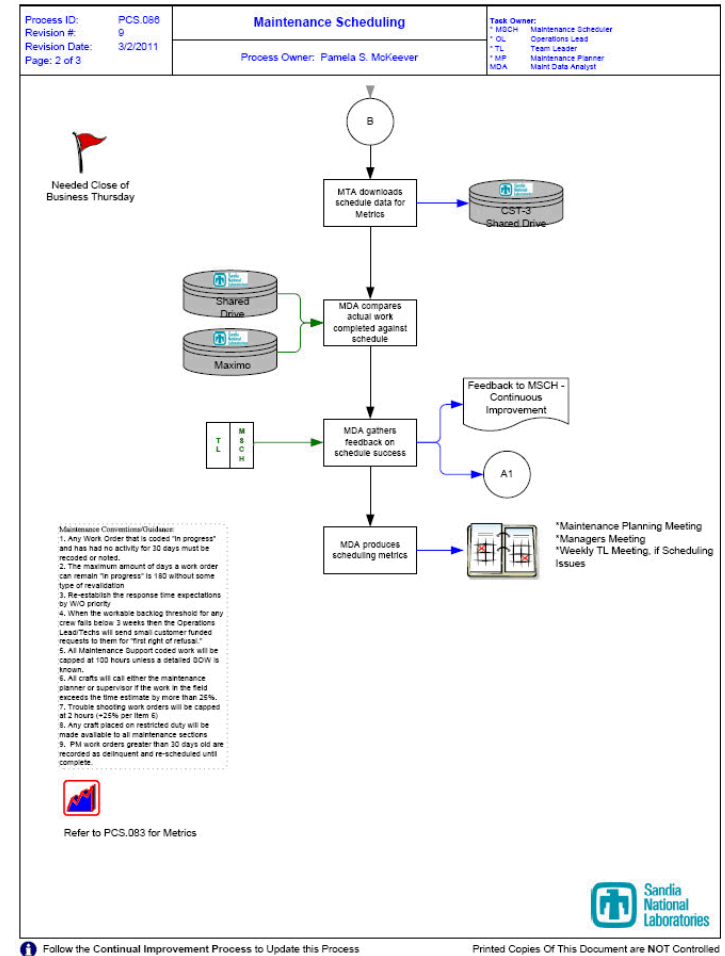
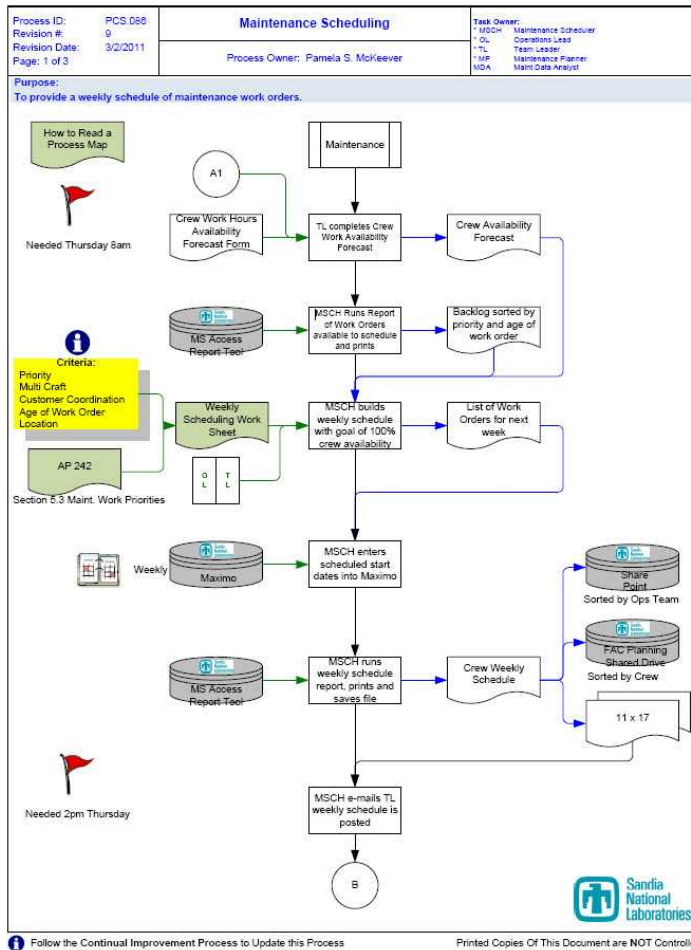
- Process Map (Keep it real.)
  - Integrated
  - Feasible
  - Accountable
  - Instructive
- Communication and Training (Drive them home.)



# Who Does What?

- Planner/Scheduler
  - Review Future Work
  - Create Job Plans and Estimates
  - Review Weekly Schedule
  - Look at Entire Backlog
  - Look at Overall Labor
  - Back up Other Planners
- Supervisor
  - Present Work
  - Assign Work Orders
  - Work from Weekly Schedule Plus Urgent Requests
  - Monitor Progress in the Field
  - Back up Other Supervisors

# Maintenance Scheduling Process Map





# Implementation

- Plan and schedule the implementation
- Provide tools and training
- Practice (Dry run with phased pilot programs)
- Produce Real Weekly Schedule
- Review, discuss, adjust, repeat

# Evolution of SNL Scheduling

- March 2009: Conducted Doc Palmer training on planning/scheduling principles with Team Leads and Planners, and conducted work-sampling training for Wrench Time Team.
- April 2009: Completed Wrench Time Work Sampling to establish Scheduling Baseline.
- May-June 2009: Started a phased transition to pilot scheduling with 11 Maintenance crews.
- July-Sept 2009: Tracked scheduling metrics unofficially to monitor health of implementation and resolve scheduling process bugs.
- Oct. 2009: Began formal tracking of metrics with monthly department and senior management reviews.
- Jan. 2010: Completed programming to automate metrics tracking and reduce manual effort.
- June 2010: Began weekly red/green reviews with Team Supervisors and Planners.
- Jan. 2011: Completed follow-up Wrench Time Study.

# Measuring Success: Are We Doing this Right?

## Leading Measures

- For Planner/Scheduler
  - Percentage of available hours scheduled (Goal=100%)
  - On-time posting of schedules (Goal=100%)
- For Crew Supervisor
  - Percentage of scheduled work orders completed during the week scheduled
  - On-time completion of crew availability forecast (Goal = 100%)
  - Number of “break-in” work orders per week (Goal = Trend Down)

# Planner/Scheduler Leading Measures

## Schedule Performance Measures Planner

Planner Schedule Performance Measures For Week(s) 7/4/2011 To 7/25/2011

Week	Scheduled Hours	Available Hours	Schedule On Time	% Available Hours Scheduled	Comments
<b>ELE HIGH</b>					
7/4/2011	293.80	280	Yes	104.9%	
7/11/2011	365.87	359	Yes	101.9%	
7/18/2011	370.87	368	Yes	100.8%	
7/25/2011	370.40	400	Yes	92.6%	
<b>ELEC LOW</b>					
7/4/2011	268.63	257	Yes	104.5%	
7/11/2011	347.67	320	Yes	108.6%	
7/18/2011	358.00	350	Yes	102.3%	
7/25/2011	411.18	386	Yes	106.5%	
<b>FIRE PRO</b>					
7/4/2011	457.00	425	Yes	107.5%	
7/11/2011	533.18	520	Yes	102.5%	
7/18/2011	527.50	502	Yes	105.1%	
7/25/2011	501.27	480	Yes	104.4%	
<b>GRND RDS</b>					
7/4/2011	445.05	445	Yes	100.1%	
7/11/2011	739.30	724	Yes	102.1%	
7/18/2011	757.55	758	Yes	99.8%	
7/25/2011	709.00	756	Yes	93.8%	
<b>MECH UTL</b>					
7/4/2011	61.00	41	Yes	148.8%	
7/11/2011	162.05	150	No	108.0%	
7/18/2011	214.43	172	Yes	124.7%	
7/25/2011	165.38	172	Yes	107.8%	
<b>MECHAN 3</b>					
7/4/2011	263.78	232	Yes	113.7%	
7/11/2011	359.18	344	Yes	104.4%	
7/18/2011	186.00	520	Yes	35.8%	
7/25/2011	273.43	326	Yes	83.4%	

# Weekly Schedule Report

SWNGSHFT- WEEKLY SCHEDULE- SCHED STARTS FOR WEEK OF : 8/15/2011

WONUM	DESCRIPTION	ORIGRECORDID Followup	BLDG.	WORKTYPE	STATUS	WOPRIORITY	CRAFT	ESTDUR	ACTUALS	EST-ACTUALS	SCHEDSTART	REPORTDATE	TARGET START	TARGET FINISH
20110433284	AUG 700:BOILER PRIMARY HW PUMP PM	0	700	PM	RTG	4	M-R	0.4	0	0.43	8/15/2011	7/1/2011	8/1/2011	8/1/2011
20110433294	AUG 700:BOILER PRIMARY HW PUMP PM	0	700	PM	RTG	4	M-R	0.4	0	0.43	8/15/2011	7/1/2011	8/1/2011	8/1/2011
20110433321	AUG 700: AHU-05 AIR HANDLER UNIT	0	700	PM	RTG	3	M-R	1.7	0	1.72	8/15/2011	7/1/2011	8/1/2011	8/1/2011
20110433176	AUG 700:CW PUMP 82 PM	0	700	PM	RTG	2	M-R	1.0	0	0.95	8/15/2011	7/1/2011	8/1/2011	8/1/2011
20110433267	AUG 700:AHU-2 EQUIPMENT #74 CONF. SP. C7 REQ.	0	700	PM	RTG	3	M-R	1.7	0	1.72	8/15/2011	7/1/2011	8/1/2011	8/1/2011
20110433191	AUG 700:FAN COIL (EQ. RM. E. PENTHOUSE) PM	0	700	PM	RTG	2	M-R	0.5	0	0.50	8/15/2011	7/1/2011	8/1/2011	8/1/2011
20110433202	AUG 700:AHU-3 #73	0	700	PM	RTG	3	M-R	1.7	0	1.72	8/15/2011	7/1/2011	8/1/2011	8/1/2011
20110433219	AUG !!CUSTFUND!! 700:EXHAUST FAN (H2) (NORTH)	0	700	PM	RTG	6	M-R	0.7	0	0.72	8/15/2011	7/1/2011	8/1/2011	8/1/2011
20110433229	AUG 700:RELIEF EXHAUST FAN 83 PM	0	700	PM	RTG	6	M-R	0.4	0	0.40	8/15/2011	7/1/2011	8/1/2011	8/1/2011
20110433238	AUG 700:RELIEF EXHAUST FAN 84 PM	0	700	PM	RTG	6	M-R	0.4	0	0.40	8/15/2011	7/1/2011	8/1/2011	8/1/2011
20110433247	AUG 700:SECONDARY HW PUMP #80 (S) PM	0	700	PM	RTG	4	M-R	0.4	0	0.43	8/15/2011	7/1/2011	8/1/2011	8/1/2011
20110433257	AUG 700:SECONDARY HW PUMP #79 (S) PM	0	700	PM	RTG	4	M-R	0.4	0	0.43	8/15/2011	7/1/2011	8/1/2011	8/1/2011
20110433152	AUG 700:FAN COIL (EQ. RM. S. E.) PM	0	700	PM	RTG	2	M-R	0.5	0	0.50	8/15/2011	7/1/2011	8/1/2011	8/1/2011

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# Weekly Schedule Report

WONUM	DESCRIPTION	ORIGRECORDID	BLDG.	WORKTYPE	STATUS	WOPRIORITY	CRAFT	ESTDUR	ACTUALS	EST-ACTUALS	SCHEDSTART	REPORTDATE	TARGET START	TARGET FINISH
		Followup												
20110434578	AUG 877:PLUMBING / MECHANICAL BLDG INSPECTION	0	877	PM	RTG	6	M-P	3.0	0	3.00	8/15/2011	7/1/2011	8/1/2011	8/1/2011
20110255238	hold for plumber APR 104 518:PLUMBING / MECHANICAL BLDG INSPECTION	0	518	PM	RTG	6	M-P	6.0	0	6.00	8/15/2011	3/18/2011	4/1/2011	4/1/2011
20110434414	AUG J.Fenster: BBS CONDUCT A MINIMUM OF 2 JOB OBSERVATIONS	0	AREAS	OP	RTG	6	M-P	1.0	0	1.00	8/15/2011	7/1/2011	8/15/2011	8/15/2011
<b>SCHED STARTS FOR WEEK</b>		<b>8/15/2011</b>	<b>Subtotal-Scheduled Hrs per Craft(Est-Actual):</b>		<b>16.0</b>									
20110453543	mt1 IN Week 8-15 JUN 810:GROUP RELAMP/REBALLAST	0	810	PM	RTG	7	G5-EL	65.0	0	65.00	8/15/2011	7/27/2011		
20110434394	AUG L Onble: BBS CONDUCT A MINIMUM OF 2 JOB OBSERVATIONS	0	AREAS	OP	RTG	6	G5-EL	2.0	0	2.00	8/15/2011	7/1/2011	8/15/2011	8/15/2011
<b>SCHED STARTS FOR WEEK</b>		<b>8/15/2011</b>	<b>Subtotal-Scheduled Hrs per Craft(Est-Actual):</b>		<b>67.0</b>									
20110434583	AUG 703:ELECTRICAL BLDG INSPECTION	0	703	PM	RTG	6	E-G	12.0	0	12.00	8/15/2011	7/1/2011	8/1/2011	8/1/2011
20110434593	AUG 860, 860A, D, E, F:ELECTRICAL BLDG INSPECTION	0	860	PM	RTG	6	E-G	12.0	0	12.00	8/15/2011	7/1/2011	8/1/2011	8/1/2011
20110481996	864:LV PANEL- MDP PM	0	864	PM	RTG	6	E-G	1.0	0	0.95	8/16/2011	8/2/2011	8/2/2011	8/2/2011
20110481979	864:LV PANEL- H PM	0	864	PM	RTG	6	E-G	1.0	0	0.95	8/16/2011	8/2/2011	8/2/2011	8/2/2011
20110482048	864:LV PANEL- C PM	0	864	PM	RTG	6	E-G	1.0	0	0.95	8/16/2011	8/2/2011	8/2/2011	8/2/2011
20110481913	864:LV CONTROL AIR COMPRESSOR-MOTOR STARTER PM	0	864	PM	RTG	2	E-G	0.5	0	0.52	8/16/2011	8/2/2011	8/2/2011	8/2/2011

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# Weekly Schedule Report

WONUM	DESCRIPTION	ORIGRECORDID	BLDG.	WORKTYPE	STATUS	WOPRIORITY	CRAFT	ESTDUR	ACTUALS	EST-ACTUALS	SCHEDSTART	REPORTDATE	TARGET START	TARGET FINISH
Followup														
20110460162	864.LV EMERG INVERTER - HIGHLITES-SELF TEST- PM		864	PM	RTG	1	E-EL	1.0	0	1.00	8/16/2011	8/1/2011	9/1/2011	9/1/2011
		0												
20110460142	864.LV EMERG INVERTER - HIGHLITES-SELF TEST PM		864	PM	RTG	1	E-EL	1.0	0	1.00	8/16/2011	8/1/2011	9/1/2011	9/1/2011
		0												
<u>SCHED STARTS FOR WEEK:</u>		<u>8/15/2011</u>		Subtotal-Scheduled Hrs per Craft(Est-Actual):						2.0				
Total Scheduled Craft Hrs For The Week(Est-Actual):											543.9			
Total Number of Work Orders Scheduled For The Week:										150				

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# Measuring Success: Are We Doing this Right?

## Leading Measures

- For Planner/Scheduler
  - Percentage of available hours scheduled(goal=100%)
  - On time posting of schedules(goal=100%)
- For Crew Supervisor
  - Percentage of scheduled work orders completed during the week scheduled
  - On-time completion of crew availability forecast (Goal = 100%)
  - Number of “break-in” work orders per week (Goal = Trend Down)

# Crew Availability Forecast

FMOC



SNL/NM FMOC Maintenance													
SWNGSHFT CREW- WORK HOURS AVAILABILITY FORECAST													
<i>Maintenance Team Leaders complete form and submit to Planner by 8:00am on Thursday each week.</i>													
For week of:	8/22/11	to	8/27/11										
For crew:	1844-3/SWNGSHF			By:	ROBERT GRIEGO					Date:	8/16/11		
Craft Type	# Persons		Paid Std Hours	URGENT BREAK-IN FACTOR APPLIED TO EACH CREW		Planned OT hours**		Vacation / Holiday		Training		Other	Available Hours
SSMECH	10	x40=	400	368	+		-	20	-	20	-		328
SSPLUMB	1	x40=	40	36.8	+		-		-	3	-	20	13.8
SSELEC	3	x40=	120	110.4	+		-	15			-		95.4
SSLAMPERS	2	x40=	80	73.6	+		-			5	-		68.6
TOTALS:	16		640	588.8	+	0	-	35	-	28	-	20	505.8
Data to be entered by Team Leader.													
** Planned OT hours applies to scheduled outages beyond the normal work week.													
Availability Factor varies for each crew SWNGSHFT=(1-0.08)= 0.92													

# Schedule Completion Rates (Weekly Tracking)

## Schedule Performance Measures Team Leader

Team Leader Schedule Performance Measures For Week(s) 7/4/2011 To 7/25/2011

04842

### ELE HIGH

Week	Early	On Schedule	# Scheduled	Success Rate	#Blue Completed Breakins	#Completed Breakins	Available Hours	Available Hours OnTime	Comments
7/4/2011	0	62	65	95.4%	4	7	280	Yes	
7/11/2011	7	50	66	75.8%	5	6	359	Yes	
7/18/2011	0	53	60	88.3%	1	1	368	Yes	
7/25/2011	0	53	57	93.0%	9	15	400	No	Avail worksheet not provided. Used max available hours.

### ELEC LOW

Week	Early	On Schedule	# Scheduled	Success Rate	#Blue Completed Breakins	#Completed Breakins	Available Hours	Available Hours OnTime	Comments
7/4/2011	1	40	58	69.0%	11	12	257	Yes	
7/11/2011	2	67	84	79.8%	19	22	320	Yes	
7/18/2011	3	35	56	62.5%	18	19	350	Yes	
7/25/2011	0	58	79	73.4%	25	34	386	Yes	

### FIRE PRO

Week	Early	On Schedule	# Scheduled	Success Rate	#Blue Completed Breakins	#Completed Breakins	Available Hours	Available Hours OnTime	Comments
7/4/2011	0	59	65	90.8%	0	4	425	Yes	
7/11/2011	5	62	74	83.8%	8	9	520	Yes	
7/18/2011	0	54	66	81.8%	9	10	502	Yes	
7/25/2011	2	62	71	87.3%	9	9	480	Yes	



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# Schedule Completion Rates (Weekly Tracking)

Team Leader Schedule Performance Measures For Week(s) 7/4/2011 To 7/25/2011

04843

GRND RDS

Week	Early	On Schedule	# Scheduled	Success Rate	#Blue Completed Breakins	#Completed Breakins	Available Hours	Available Hours OnTime	Comments
7/4/2011	0	25	25	100.0%	3	3	445	Yes	
7/11/2011	1	58	60	96.7%	2	4	724	Yes	
7/18/2011	0	41	43	95.3%	5	8	758	Yes	
7/25/2011	0	42	43	97.7%	5	7	756	Yes	

STRUCT 1

Week	Early	On Schedule	# Scheduled	Success Rate	#Blue Completed Breakins	#Completed Breakins	Available Hours	Available Hours OnTime	Comments
7/4/2011	2	118	133	88.7%	5	10	280	Yes	
7/11/2011	2	75	96	78.1%	5	26	395	Yes	
7/18/2011	2	101	122	82.8%	10	36	385	Yes	
7/25/2011	3	65	76	85.5%	10	22	385	Yes	

STRUCT 2

Week	Early	On Schedule	# Scheduled	Success Rate	#Blue Completed Breakins	#Completed Breakins	Available Hours	Available Hours OnTime	Comments
7/4/2011	5	21	36	58.3%	4	8	252	Yes	
7/11/2011	0	30	44	68.2%	5	6	322	Yes	
7/18/2011	6	16	37	43.2%	4	6	358	Yes	
7/25/2011	1	27	32	84.4%	6	16	388	Yes	

SWNGSHFT2

Week	Early	On Schedule	# Scheduled	Success Rate	#Blue Completed Breakins	#Completed Breakins	Available Hours	Available Hours OnTime	Comments
7/4/2011	1	3	4	75.0%			34	Yes	
7/11/2011	0	6	6	100.0%			74	Yes	
7/18/2011	0	3	4	75.0%			34	Yes	
7/25/2011	0	3	6	50.0%	0	3	54	Yes	



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# Schedule Completion Rates (Weekly Tracking)

Team Leader Schedule Performance Measures For Week(s) 7/4/2011 To 7/25/2011

04844

## MECH UTL

Week	Early	On Schedule	# Scheduled	Success Rate	#Blue Completed Breakins	#Completed Breakins	Available Hours	Available Hours OnTime	Comments
7/4/2011	1	11	13	84.6%	19	52	41	Yes	
7/11/2011	0	85	90	94.4%	18	40	150	Yes	
7/18/2011	1	66	73	90.4%	22	43	172	Yes	
7/25/2011	12	55	71	77.5%	45	53	172	Yes	

## MECHAN 3

Week	Early	On Schedule	# Scheduled	Success Rate	#Blue Completed Breakins	#Completed Breakins	Available Hours	Available Hours OnTime	Comments
7/4/2011	4	48	80	60.0%	42	54	232	Yes	
7/11/2011	3	55	88	62.5%	53	66	344	Yes	
7/18/2011	4	30	46	65.2%	48	56	520	No	Avail worksheet not provided. Used max available hours.
7/25/2011	0	41	56	73.2%	63	82	328	Yes	

## MECHAN 4

Week	Early	On Schedule	# Scheduled	Success Rate	#Blue Completed Breakins	#Completed Breakins	Available Hours	Available Hours OnTime	Comments
7/4/2011	4	49	74	66.2%	29	35	216	Yes	
7/11/2011	2	64	95	67.4%	59	63	520	No	Avail worksheet not provided. Used max available hours.
7/18/2011	5	36	85	42.4%	64	71	154	Yes	
7/25/2011	8	50	92	54.3%	49	58	331	Yes	

## SWNGSHFT

Week	Early	On Schedule	# Scheduled	Success Rate	#Blue Completed Breakins	#Completed Breakins	Available Hours	Available Hours OnTime	Comments
7/4/2011	0	59	97	60.8%	19	24	257	Yes	
7/11/2011	0	142	155	91.6%	24	36	483	Yes	
7/18/2011	0	61	78	78.2%	21	33	293	Yes	
7/25/2011	3	69	84	82.1%	22	59	453	Yes	

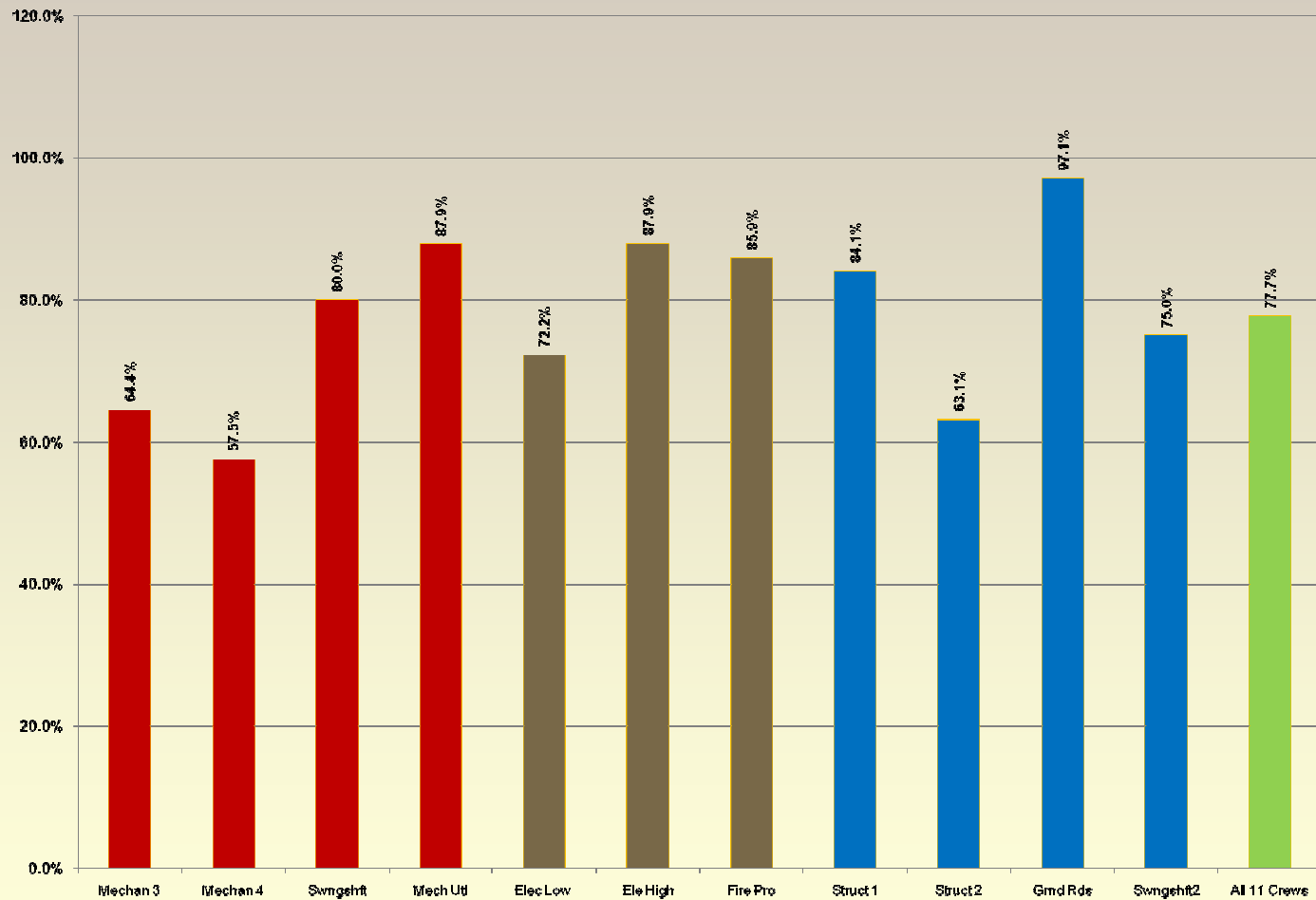


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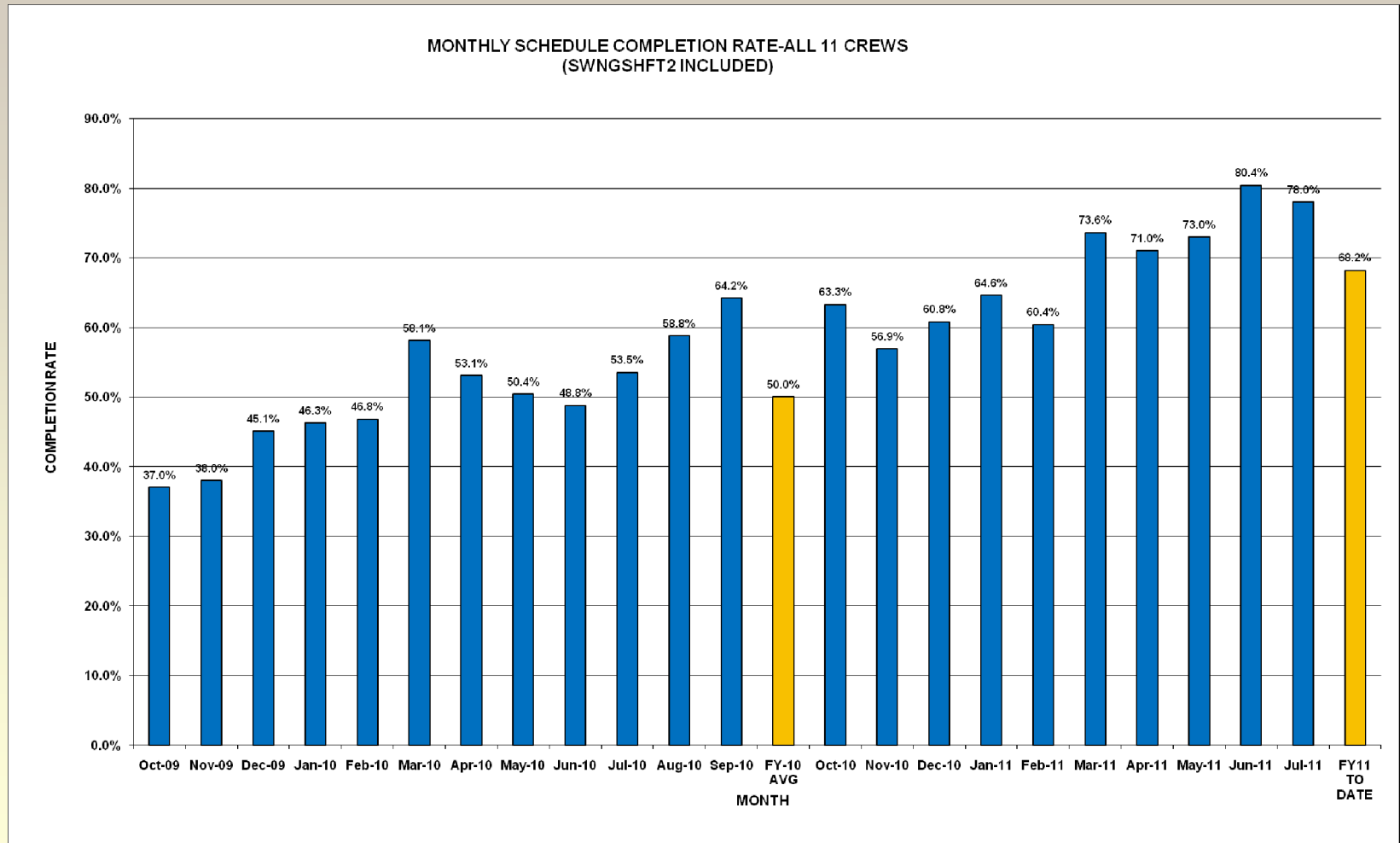
# Monthly Schedule Completion Rates per Crew

Monthly Schedule Completion Rate  
July 2011





# Two-Year Trend of Monthly Schedule Completion Rates (All Crews)

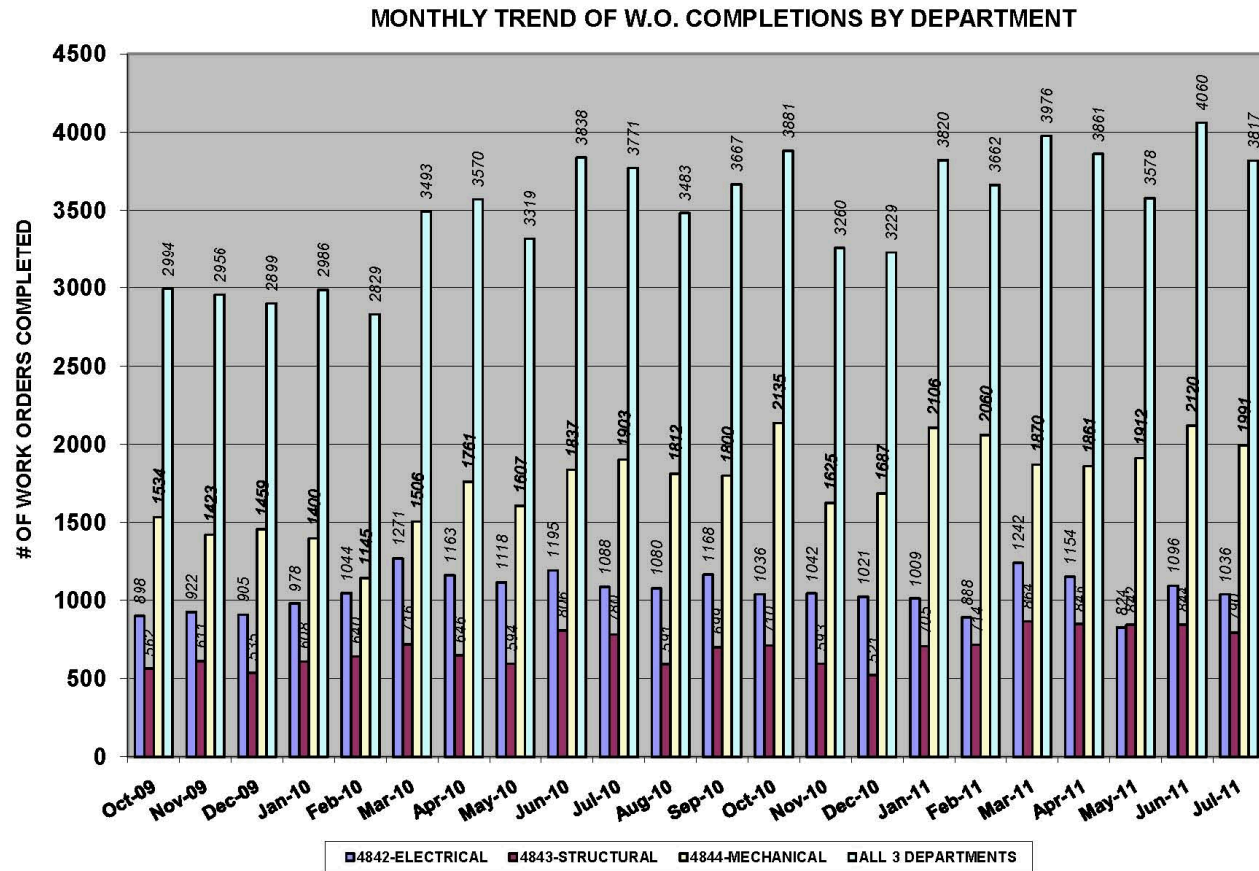


# Measuring Success: Are We Getting More Work Done?

## Lagging Measures

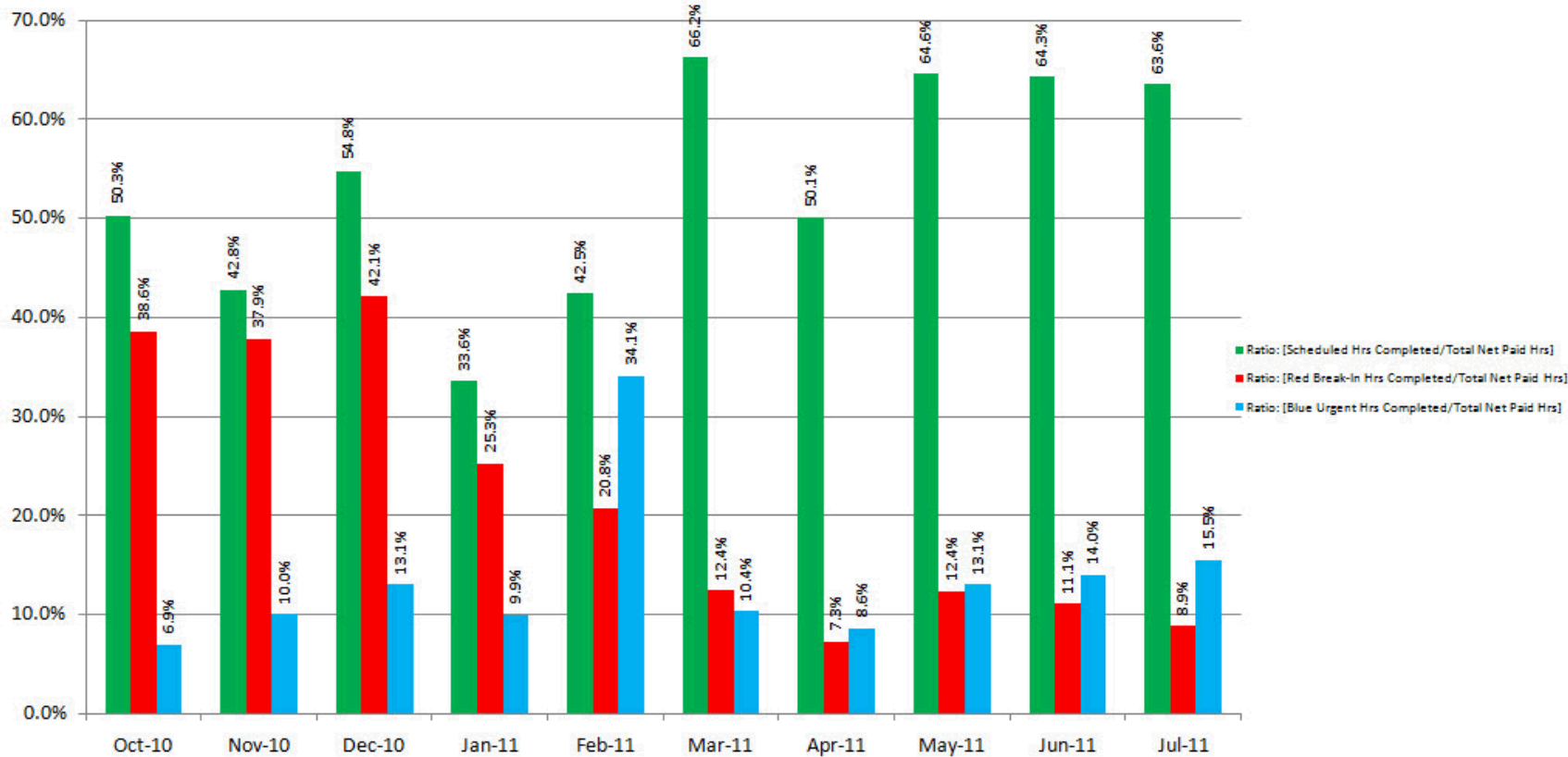
- Number of total work orders completed per month
- Percentage of completed work orders that were planned and scheduled (weighted by actual labor hours)
- Maintenance backlog by crew (measured in weeks)
- Number of work orders/Craftsmen (pre- and post-scheduling)
- Wrench Time (compared to baseline)

# Two-Year Trend of Work Order Completions

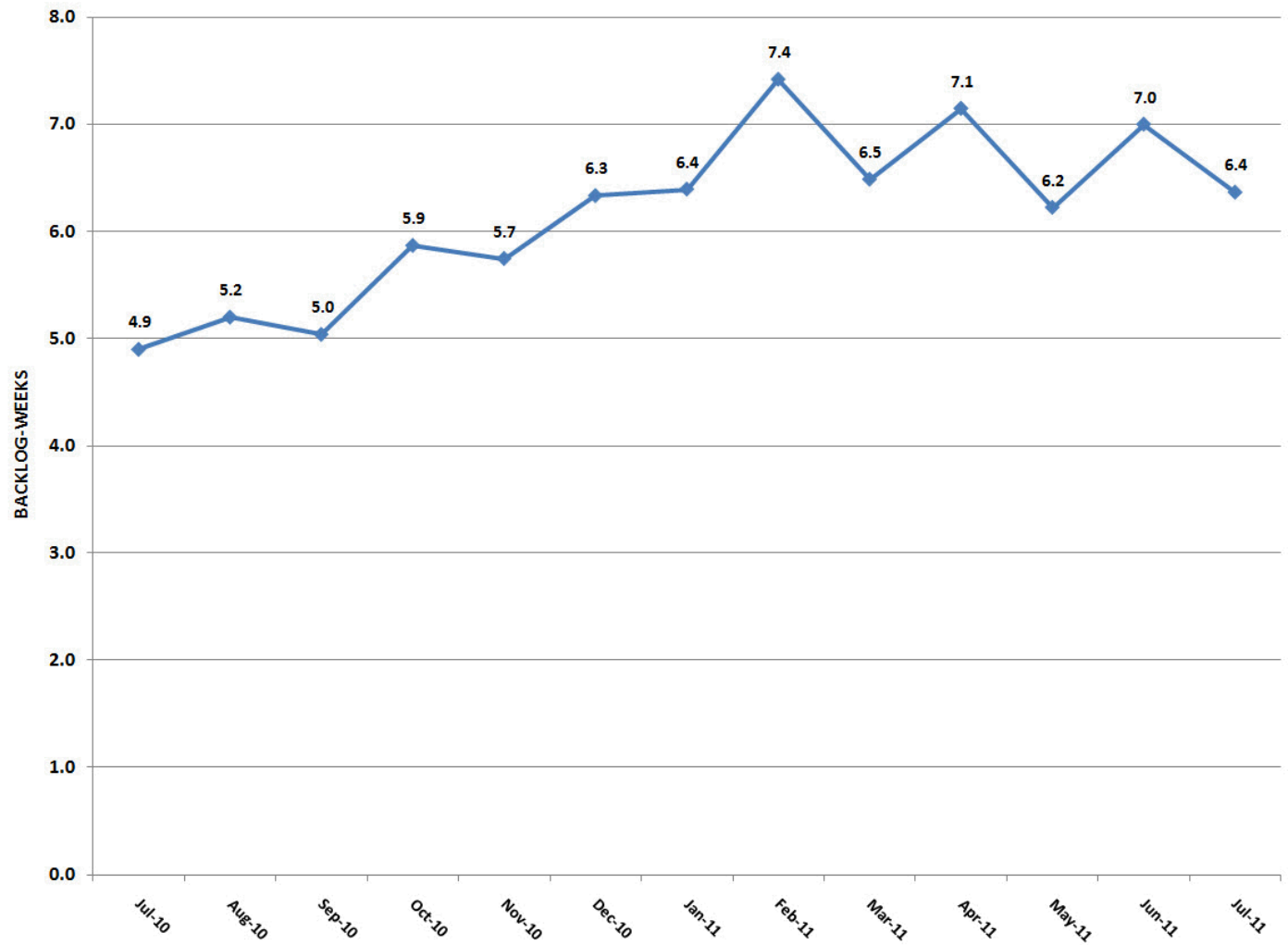


MONTH	TOTAL NET PAID HRS	SCHEDULED HRS COMPLETED	(RED)NON-URGENT BREAK-IN HRS COMPLETED	(BLUE)URGENT HRS COMPLETED	Ratio: [Scheduled Hrs Completed/Total Net Paid Hrs]	Ratio: [Red Break-In Hrs Completed/Total Net Paid Hrs]	Ratio: [Blue Urgent Hrs Completed/Total Net Paid Hrs]
Oct-10	29134	14651.00	11250.5	2022.5	50.3%	38.6%	6.9%
Nov-10	19097	8173.5	7230.3	1914	42.8%	37.9%	10.0%
Dec-10	14168	7760.5	5970.5	1852.5	54.8%	42.1%	13.1%
Jan-11	25161	8450	6354.5	2501.5	33.6%	25.3%	9.9%
Feb-11	19166.5	8137.5	3986.5	6536.5	42.5%	20.8%	34.1%
Mar-11	19213.5	12721.8	2387.2	1998.5	66.2%	12.4%	10.4%
Apr-11	24489	12265.6	1785.8	2117.0	50.1%	7.3%	8.6%
May-11	19084.75	12321.0	2363.3	2492.8	64.6%	12.4%	13.1%
Jun-11	17869.25	11493.8	1981.3	2509.0	64.3%	11.1%	14.0%
Jul-11	22617.25	14375.5	2004	3516	63.6%	8.9%	15.5%

PERCENT OF TOTAL NET PAID HOURS-  
FY11 TREND

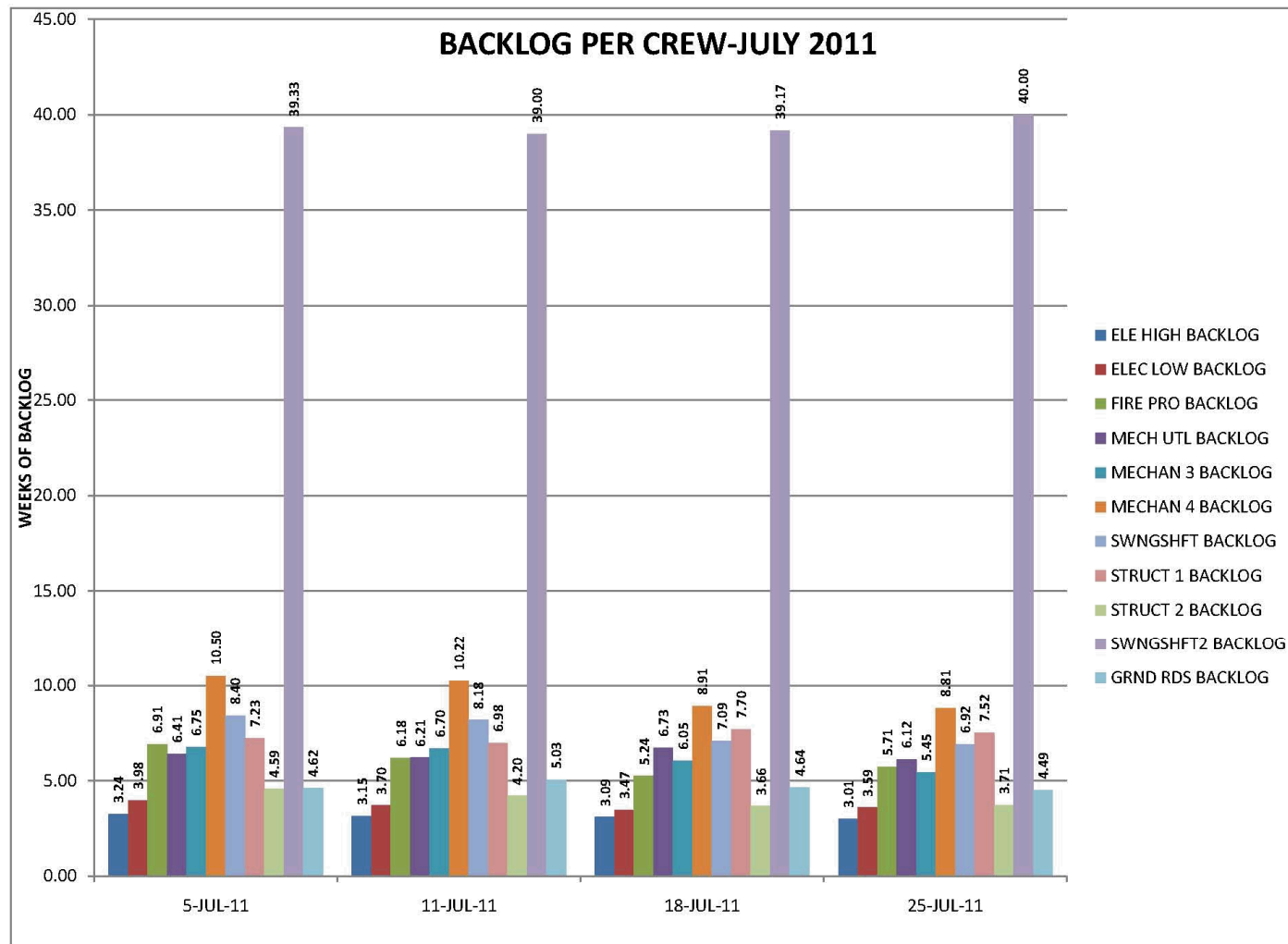


# Backlog Trend for All Crews

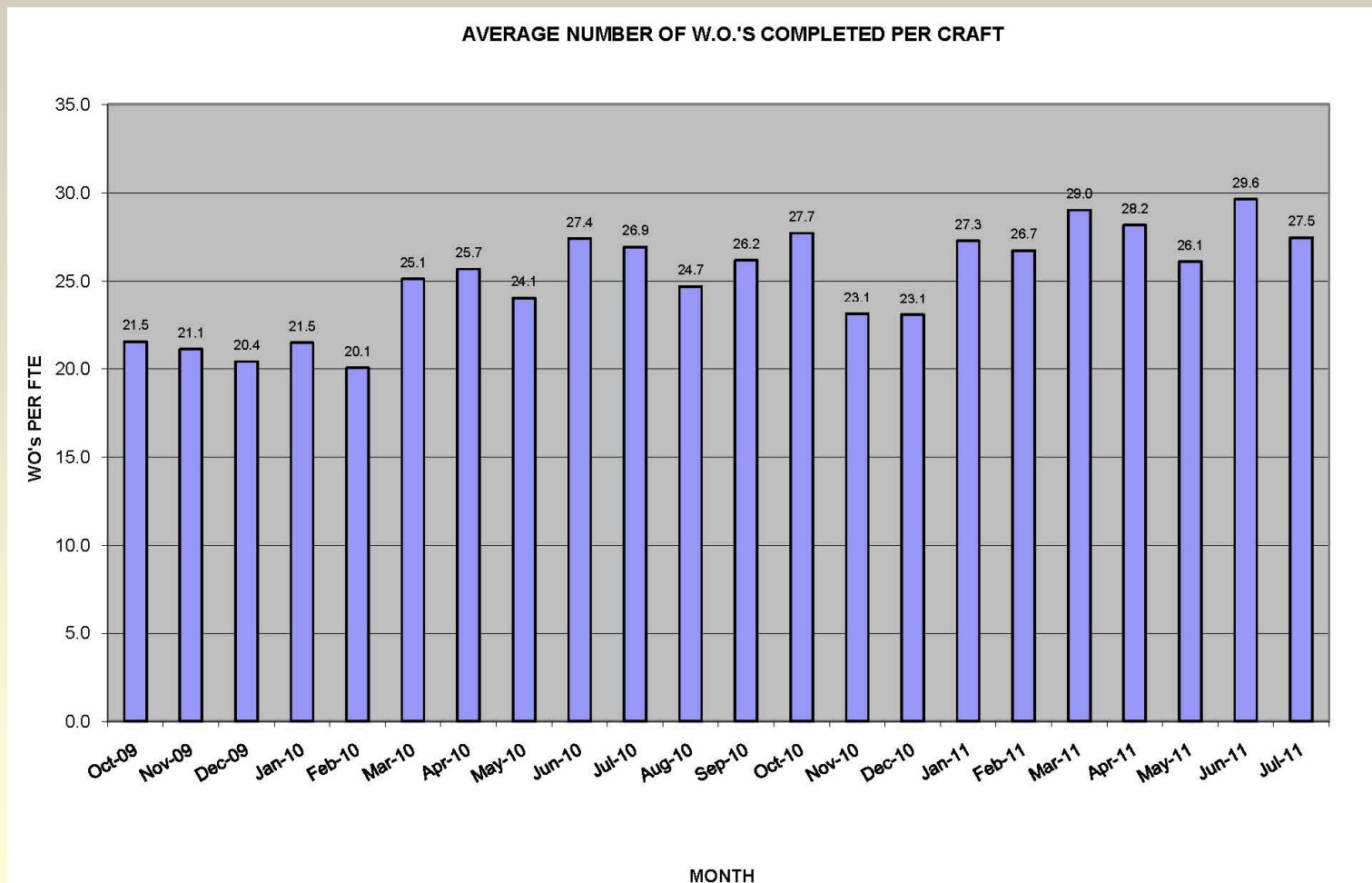




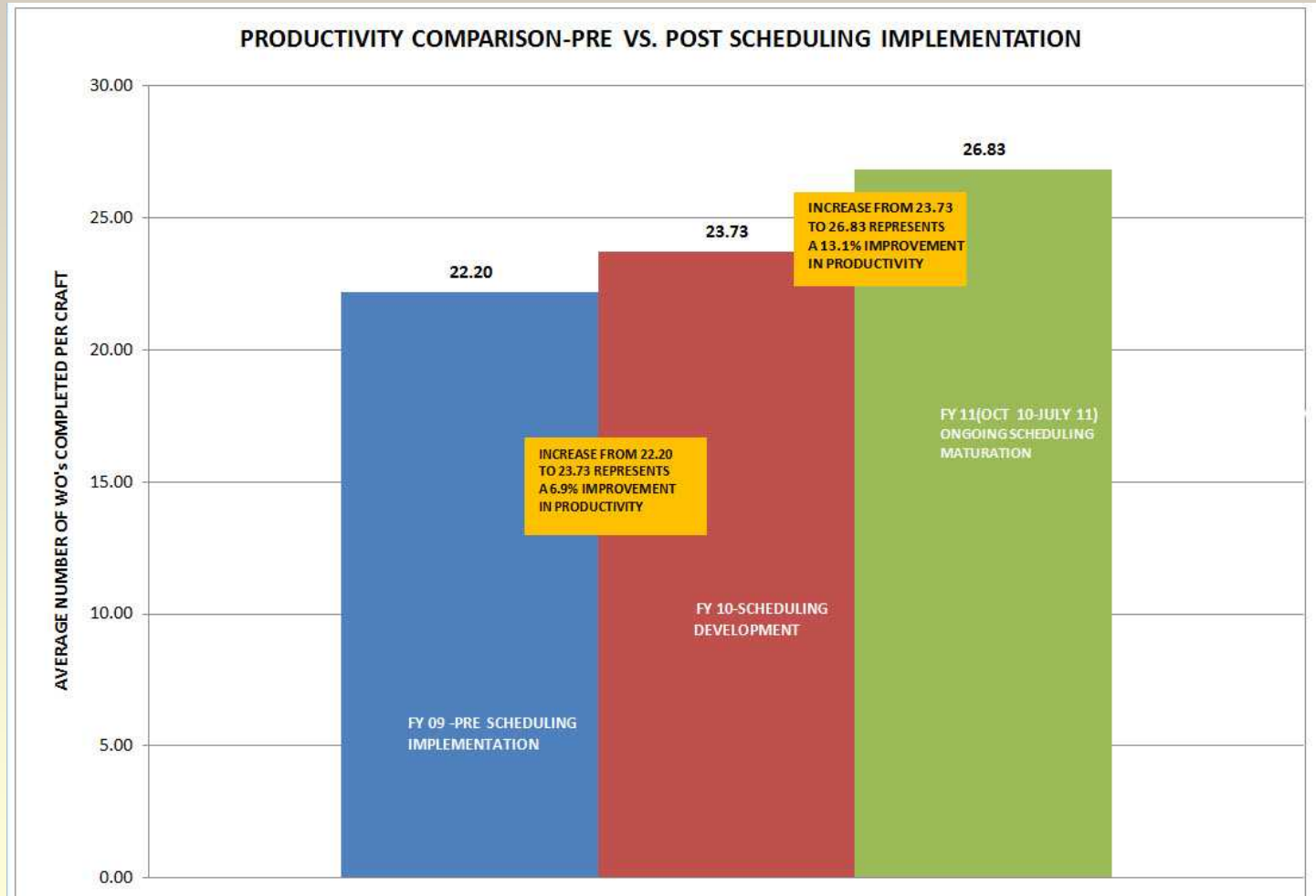
# Weekly Crew Backlog



# Two-Year Trend of Work Orders Completed per Craft

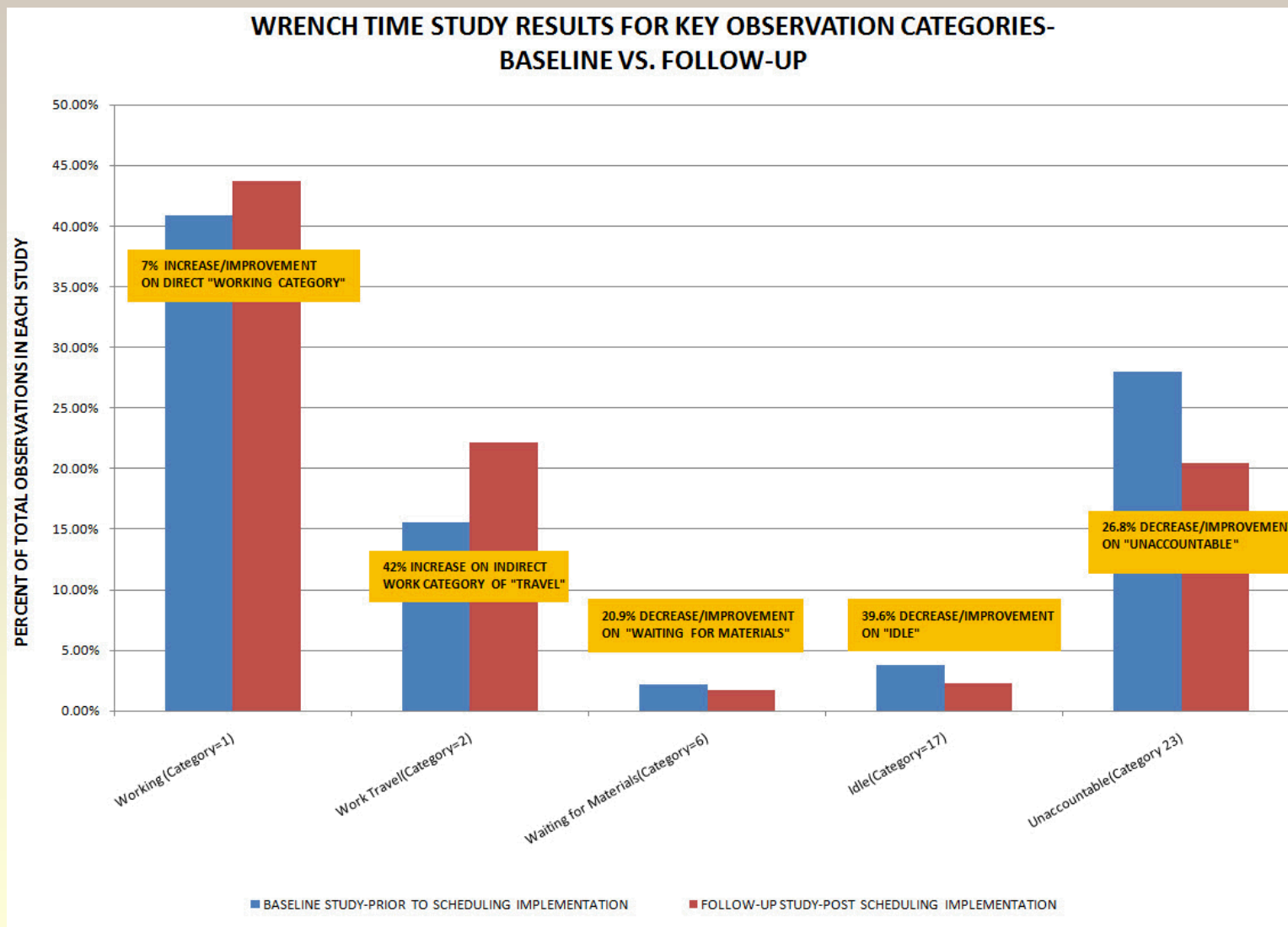


# Productivity Comparison: Pre- vs. Post-Scheduling





# Wrench Time Results to Date



# Making it Stick

- Remove distractions
  - Colocate Planners and Schedulers
  - Eliminate “extra job duties”
- Remove barriers
  - Address and resolve problems
- Reinforce expectations
  - Beware of competing or conflicting metrics
  - Be very clear

# Reinforce Scheduling Process: Review Red/Green Report Weekly with Team Leads and Planners

CREWID MECHAN 3

Week Begin 7/4/2011

Priority	Report Date	Work Order##	Status	Work Type	Estimate	Location	Description
2	6/29/2011	20110410728	COMP	TS	3.0	823	"HISSING" NOISE LIKE WHEN YOU
2	6/28/2011	20110409159	COMP	TS	2.0	832	~Exhaust Fan in Ceiling is Making Squealing Noise
2	6/23/2011	20110405578	COMP	TS	3.9	891	~Water flowing from top of air wash cell deck and onto floor of AHU01
2	6/21/2011	20110403420	COMP	TS	2.5	822	~TROUBLESHOOT AND REPAIR PUMP
2	6/21/2011	20110403419	COMP	TS	2.0	822	~NO HOT WATER TO RESTROOMS
2	6/17/2011	20110400179	COMP	TS	2.0	MO269	Exhaust Fan is Making a Lot of Noise
2	6/6/2011	20110391118	COMP	CM	10.0	BLDGS	~"ATTACH" Collect Data on Water Pipe Flexible Connectors
2	4/6/2011	20110303650	COMP	CM	8.0	892	~Communicate with Engineering and make needed corrections to control HVAC to this space
3	6/30/2011	20110411787	COMP	PMR	8.0	957	NEED TO REPLACE CEL-DECK AND CLEAN WATER DISTRIBUTION
3	6/30/2011	20110411748	COMP	PMR	2.8	890	REPLACE NIO 3/4" CHILLED WATER VALVE
3	6/30/2011	20110411741	COMP	PMR	2.0	827	REPLACE BELTS ON AIR HANDLER
3	6/30/2011	20110411215	COMP	TS	2.0	802	~Too warm in Laura's office
3	6/29/2011	20110410032	COMP	PMR	2.0	891	~PICK UP PORT-A-COOLER
3	6/24/2011	20110406471	COMP	MS	4.0	729	Steve Garcia *CRAFT SUPPORT* Replace Water Pump Rear Bearing
3	6/9/2011	20110394651	COMP	MS	8.0	755	sched 6/14 RC - (Bldg Op) Perform Building Energy Audit (Bldg. 755) - March 2011
3	6/1/2011	20110378258	COMP	OP	4.8	BLDGS	R CANDELARIA WEEKLY OPERATIONS ROUTE
3	6/1/2011	20110378194	COMP	OP	21.0	BLDGS	R CANDELARIA DAILY OPERATIONS ROUTE
3	6/1/2011	20110378153	COMP	OP	7.0	BLDGS	GARICA MONTHLY OPERATOR ROUTE
3	6/1/2011	20110378127	COMP	OP	2.0	BLDGS	BAIRD MONTHLY OPERATIONS ROUTE
3	6/1/2011	20110378059	COMP	OP	5.5	BLDGS	GARCIA DAILY OPERATIONS ROUTE
3	6/1/2011	20110378035	COMP	OP	6.0	BLDGS	WADDLE DAILY OPERATIONS ROUTE
3	6/1/2011	20110378001	COMP	OP	8.3	BLDGS	BAIRD DAILY OPERATIONS ROUTE
3	6/1/2011	20110377961	COMP	OP	2.8	BLDGS	GARCIA WEEKLY OPERATIONS ROUTE
3	6/1/2011	20110377913	COMP	OP	4.6	BLDGS	WADDLE WEEKLY OPERATIONS ROUTE
3	6/1/2011	20110377862	COMP	OP	2.5	BLDGS	BAIRD WEEKLY OPERATIONS ROUTE
3	6/1/2011	20110376720	COMP	PM	1.7	819	~ESCORT REQUIRED 819:CONDENSER FOR VAULT FAN COIL ANNUAL PM
4	6/23/2011	20110405777	COMP	PMR	2.5	875	~REPLACE THE MASTER COOL CELL
5	6/1/2011	20110385509	COMP	PM	2.6	892	~892:HUMIDIFIER (LIEBERT) PM
5	6/1/2011	20110377691	COMP	PM	2.7	878	878:CHEMICAL FEED BOILER (STEAM)

5	6/1/2011	20110377619	COMP	PM	2.7	827	827:CHEMICAL FEED BOILER (STEAM)#1
5	6/1/2011	20110377541	COMP	PM	2.7	827	827:CHEMICAL FEED BOILER (STEAM)#2
5	6/1/2011	20110377475	COMP	PM	2.7	880	880:CHEMICAL FEED BOILER (STEAM)#2
5	6/1/2011	20110377365	COMP	PM	2.7	8864	8864:CHEMICAL FEED BOILER (STEAM) #1
5	6/1/2011	20110377263	COMP	PM	2.7	880	880:CHEMICAL FEED BOILER (STEAM)#1
5	6/1/2011	20110377202	COMP	PM	2.3	880	880:BOILER # 1 (STEAM) PM
5	6/1/2011	20110377141	COMP	PM	2.7	8864	8864:CHEMICAL FEED BOILER (STEAM) #2
5	6/1/2011	20110376735	COMP	PM	0.7	833	~833:FAN COIL ANNUAL PM
6	6/1/2011	20110378414	COMP	OP	1.0	AREAS	A. TROTTER: BBS CONDUCT A MINIMUM OF 2 JOB OBSERVATIONS
6	6/1/2011	20110378398	COMP	OP	1.0	AREAS	S. WADDLE: BBS CONDUCT A MINIMUM OF 2 JOB OBSERVATIONS
6	6/1/2011	20110378366	COMP	OP	1.0	AREAS	S. GARCIA: BBS CONDUCT A MINIMUM OF 2 JOB OBSERVATIONS
6	6/1/2011	20110378350	COMP	OP	1.0	AREAS	B. VANDEMARK: BBS CONDUCT A MINIMUM OF 2 JOB OBSERVATIONS
6	6/1/2011	20110377349	COMP	OP	1.0	AREAS	S. BARGMAN: BBS CONDUCT A MINIMUM OF 2 JOB OBSERVATIONS
6	6/1/2011	20110377075	COMP	OP	1.0	AREAS	T. BAIRD: BBS CONDUCT A MINIMUM OF 2 JOB OBSERVATIONS

Number of Work Orders Scheduled and Completed = 43 For the Week Of Jul 4 2011

Number of Work Orders Scheduled and Completed For All Weeks = 43

Week Begin 7/4/2011

Priority	Report Date	Work Order##	Status	Work Type	Estimate	Location	Description
2	6/29/2011	20110410585	INPRG	PMR	3.5	755	TROUBLESHOOT WHY SLAVE DRIVE IS NOT RECEIVING A START SIGNAL
2	6/29/2011	20110410186	INPRG	TS	2.0	804	Too hot in MRR
2	6/28/2011	20110409162	INPRG	TS	2.0	891	~AC units in 891/1015A are not working
2	6/27/2011	20110407679	COMP	CM	4.4	803	Clean/Clear Coil Blockage after Sheetmetal Craft has provided access in ducting
2	6/27/2011	20110406614	INPRG	TS	2.0	894	Confirming*** Go by Print Shop and turn up fan coil t-stats
2	6/24/2011	20110406306	COMP	TS	2.0	T17	~Too Hot in Hallway of T-17
2	6/20/2011	20110402353	INPRG	CM	7.0	831	REPLACE CONDESER FAN MOTOR-ONLY HOT AIR COMING OUT OF
2	6/20/2011	20110402224	INPRG	TS	2.0	T50	~Mens restroom exhaust fan needs to installed/anchored to prevent vibration on ceiling grid
2	6/8/2011	20110393296	INPRG	PMR	2.5	878	~REPLACE COUPLING SPRING ON bell and gossett HOT WATER PUMP
2	6/7/2011	20110392076	COMP	MS	4.0	890	sched 7/9 MECH. OUTAGE REQUEST #7149 - BLDG. 890
2	3/28/2011	20110265436	INPRG	CM	2.0	T57	~MTRL IN Replace Capacitors and contactors on Both AC units in T57 are non-operational
2	2/1/2011	20110175872	RTG	PM	4.0	840	~840:COOLING TOWER PM
2	2/1/2011	20110175817	RTG	PM	4.0	840	~840:COOLING TOWER PM
3	6/30/2011	20110411791	INPRG	PMR	8.0	957	NEED TO REPLACE CEL-DECK AND CLEAN WATER DISTRIBUTION

# Reinforce Scheduling Process: Review Red/Green Report Weekly with Team Leads and Planners

3	6/30/2011	20110411774	INPRG	TS	3.0	890	Constant Pouding Noise in Ceiling
3	6/29/2011	20110411021	INPRG	TS	2.0	802	A/C no flow AM's but PM's it improves daily
3	6/23/2011	20110405590	INPRG	PMR	1.1	MO307	-INSTALL RETURN/TRANSFER GRILL IN
3	6/23/2011	20110405234	INPRG	MS	4.0	859	-MECH. OUTAGE REQUEST #7195 - BLDG. 859
3	6/22/2011	20110404493	RTG	TS	2.0	842	-Louvers on exhaust fan not operating properly/842
3	6/13/2011	20110396383	COMP	PMR	3.0	880	Need to run Pneumatic line(s) to vault, and install/repair/replace T-stat
3	6/9/2011	20110394921	COMP	CM	39.0	T55	-REPLACE SPLIT DX UNIT FOR IDR
3	6/1/2011	20110378331	INPRG	OP	1.0	BLDGS	R CANDELARIA MONTHLY OPERATIONS ROUTE
3	6/1/2011	20110378314	INPRG	OP	3.0	BLDGS	J GRIEGO MONTHLY OPERATIONS ROUTE
3	6/1/2011	20110378222	INPRG	OP	2.0	BLDGS	J GRIEGO WEEKLY OPERATIONS ROUTE
3	6/1/2011	20110378166	INPRG	OP	12.0	BLDGS	J GRIEGO DAILY OPERATIONS ROUTE
3	6/1/2011	20110378139	INPRG	OP	2.7	BLDGS	WADDLE MONTHLY OPERATIONS ROUTE
3	5/25/2011	20110363379	INPRG	CM	12.0	MO84	-mtrl in 954 Replace A/C Compressor on north unit
3	4/27/2011	20110318588	WMATL	PMR	2.8	851	MTRL IN Replace Solenoid Valves
3	4/13/2011	20110309575	RTG	PMR	2.8	892	MTRL IN Replace "blending valve on main hot water heating system
4	4/14/2011	20110310029	INPRG	PMR	4.0	861	BLDG 861 ROOF: CIRCUIT 2 VOID OF REFRIGERANT/REPAIR LEAK
4	2/2/2011	20110192217	INPRG	PMR	8.0	MO240	-Replace Heating & Compressor Contactors on North end of MO
5	6/24/2011	20110406137	INPRG	CM	2.0	957	-Put faceplate on thermostat in Bldg 957
5	6/1/2011	20110377216	INPRG	PM	2.3	880	880:BOILER # 2 (STEAM) PM
5	6/1/2011	20110376806	INPRG	PM	2.8	890	-HSB 890:FAN COIL RECORD ONLY FOURTH FLOOR (SCIF) AREA PM ESCORT REI
5	5/3/2011	20110335345	INPRG	PM	2.5	891	-891:HUMIDIFIER XT ELECTRODE PM
6	6/1/2011	20110378382	INPRG	OP	1.0	AREAS	D. DOMAN: BBS CONDUCT A MINIMUM OF 2 JOB OBSERVATIONS
6	6/1/2011	20110378334	INPRG	OP	1.0	AREAS	S. PARRA: BBS CONDUCT A MINIMUM OF 2 JOB OBSERVATIONS

Number of Work Orders Scheduled and Not Completed = 37 For the Week Of Jul 4 2011

Number of Work Orders Scheduled and Not Completed = 37

Weak Begin 7/4/2011							
Priority	Report Date	Work Order#	Status	Work Type	Estimate	Location	Description
2	7/8/2011	20110437869	COMP	EM	2.0	808	Ralph C. BURNT CONTACTOR, TERMINAL AND WIRING
2	7/7/2011	20110437691	COMP	TS	2.0	808	Respond to the EOC request re: CH01 Chiller Alarm
2	7/7/2011	20110437688	COMP	TS	2.0	MO219	AC Not working
2	7/6/2011	20110436506	COMP	TS	2.0	842	-Too hot in 842/103
2	7/6/2011	20110436278	COMP	TS	2.0	802	-Too cold in Conference Room & Room 3160K

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2	7/6/2011	20110436003	COMP	TS	2.0	755	-Per the EOC; Htg Water Alarm
2	7/6/2011	20110435988	COMP	TS	2.0	810	-Hot Air is Blowing in Elevator Lobby 4th floor
2	7/5/2011	20110435716	COMP	TS	2.0	875	-5 Swamp Coolers Aren't Working
2	7/5/2011	20110435335	COMP	TS	2.5	8864	ABE T. SEE MIKE ROCCO FOR DETAILS BEFORE RESPONDING TO TROUBLESHOOT
2	7/5/2011	20110435290	COMP	EM	2.0	1008	TIM B. BLDG 1008 3:29AM EOC CALLED RESPOND TO CHILLER SAFETIES ALARM
2	7/5/2011	20110435206	COMP	TS	2.0	878	20110408454
2	7/5/2011	20110435171	COMP	TS	2.0	810	-Cooling Towers Overflowing; Troubleshoot
2	7/5/2011	20110435170	COMP	TS	2.0	891	-Too Hot in Office
2	7/5/2011	20110435088	COMP	EM	2.0	1008	TIM B. EOC CALL SATURDAY 7:10AM CHILLER SAFETIES TRIPPED
2	7/5/2011	20110434640	COMP	TS	2.0	827	-Evap cooler is making noise
2	7/1/2011	20110419032	COMP	TS	2.0	T54	-Too hot T54/5
2	6/30/2011	20110412153	COMP	TS	2.0	878	Troubleshoot PAE-1 exhaust fan fail alarm.
2	6/30/2011	20110412146	COMP	PMR	2.2	875	"URGENT" REPLACE CONTACTOR ON
2	6/30/2011	20110412083	COMP	TS	2.0	956	Resume Normal Heating and Cooling in 956/157
2	6/30/2011	20110411773	COMP	TS	2.0	MO308	Too Hot in Back of Trailer
2	6/30/2011	20110411150	COMP	TS	2.5	894	Check operation of 894 Chilled water make-up PRV
2	6/29/2011	20110410991	COMP	TS	2.0	880	His office is hotter than hallway & surroundings
2	6/29/2011	20110410773	COMP	TS	3.5	864	A/C #1097201 IS NOT RUNNING IN
2	6/29/2011	20110410598	COMP	PMR	1.0	878	-REPLACE T-STAT
2	6/29/2011	20110410042	COMP	TS	2.0	836	Air is Blowing Directly on Her
2	6/28/2011	20110409698	COMP	CM	4.0	856	provide mechanical support for 856: 6/28/11 6:00 PM REPLACE 300 AMP BREAKER IN MDP
2	6/28/2011	20110408884	COMP	TS	2.0	887	Too Hot in Office
2	6/27/2011	20110408581	COMP	TS	2.0	891	-TOO HOT
2	6/27/2011	20110408454	COMP	TS	2.0	891	-Mechanical- Too Hot
2	6/27/2011	20110408290	COMP	TS	2.0	887	-TOO COLD IN 887/1220-37
2	6/27/2011	20110408129	COMP	TS	2.0	862	-A/C IS NOT WORKING IN 862/OFC AREA
2	6/27/2011	20110407774	COMP	TS	3.0	770	-AC Unit is Too Loud
2	6/27/2011	20110407268	COMP	TS	2.0	892	-AC is Not Working
2	6/24/2011	20110406286	COMP	TS	2.0	891	-vents not working
2	6/24/2011	20110406249	COMP	CM	2.0	755	-material on WO 20110404914 FOLLOW-UP: BLDG755 REPLACE CRAC UNIT FUSE
2	6/24/2011	20110406218	COMP	CM	4.2	802	-No Air Flow in Office
2	6/23/2011	20110405778	COMP	TS	2.0	802	Office is too hot
2	6/22/2011	20110403700	COMP	TS	2.0	892	-Too hot in conference room
2	6/16/2011	20110399101	COMP	TS	2.0	827	-Too hot in office - no air flow

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# Reinforce Scheduling Process: Review Red/Green Report Weekly with Team Leads and Planners

2 6/6/2011 20110391129 COMP CM 80.0 BLDGS ~ "ATTACH" Collect Data on Water Pipe Flexible Connectors

Number of Priority 2 Non-PM Work Orders Not Scheduled and Completed = 40 For the Week Of Jul 4 2011

Number of Priority 2 Non-PM Work Orders Not Scheduled and Completed = 40

Week Begin 7/4/2011

Priority	Report Date	Work Order#	Status	Work Type	Estimate	Location	Description
2	2/1/2011	20110178695	COMP	PM	7.0	726	DEFFERED ~726:COOLING TOWER CT-3 (EAST) PM
2	2/1/2011	20110176654	COMP	PM	11.5	726	DEFERRED ~726:COOLING TOWER CT-2 (CENTER) PM
2	12/1/2010	20110094356	COMP	PM	14.1	840	DEFERRED 840:SOUTH CHILLER PM
3	7/5/2011	20110435526	COMP	PM	1.5	864	864:SEPARATOR & FILTRATION SYSTEM COOLING TOWER PM
3	6/30/2011	20110411609	COMP	TS	2.0	T41	BALLANCE AIR FLOWS THROUGHOUT T41
3	6/23/2011	20110405229	COMP	MS	4.0	859	MECH. OUTAGE REQUEST #7195 - BLDG. 859
3	5/3/2011	20110335150	COMP	OP	2.5	BLDGS	J GRIEGO WEEKLY OPERATIONS ROUTE
3	5/3/2011	20110335081	COMP	OP	15.0	BLDGS	J GRIEGO DAILY OPERATIONS ROUTE
4	5/11/2011	20110351668	COMP	CM	1.0	887	~MTLR IN Replace Water Filter for coffee maker
5	6/1/2011	20110376746	COMP	PM	0.7	833	833:FAN COIL ANNUAL PM
6	5/3/2011	20110335292	COMP	OP	1.0	AREAS	D. DOMAN: BBS CONDUCT A MINIMUM OF 2 JOB OBSERVATIONS

Number of Work Orders Not Scheduled and Completed = 11 For the Week Of Jul 4 2011

Number of Work Orders Not Scheduled and Completed = 11





# Questions?