

Ohio Department of Public Safety
Human Resources / Ohio State Highway Patrol
Civilian Hiring Process



Black Belt Report Out: DMAIC

Patrick Wilson, Presenter

Background

- The Ohio State Highway Patrol (OSHP) has an Office of Personnel, and the Ohio Department of Public Safety (ODPS) has a Human Resource Department
- Both are responsible for Hiring practices
- OSHP is a Division of ODPS; therefore, all employees must enter through the ODPS HR process

Defining the Initial Problem

- OSHP reported that too much time was necessary for ODPS HR personnel to process a “Request to Fill” (RTF) from OSHP for civilian positions
 - RTF: The time necessary from the point that the OSHP has determined that a new or vacated position will need to be posted in NEOGOV for applicants to respond
- Other ODPS Divisions also expressed the same concern

Identifying Further Problems

- Additionally, information from HR is not readily available or communicated to hiring managers
- ODPS HR has asked for an IT solution to build a system that would track the progress from vacancy to hire
- The amount of time preceding an RTF (from vacancy to RTF) was not available from any Division except OSHP

What Data was Available

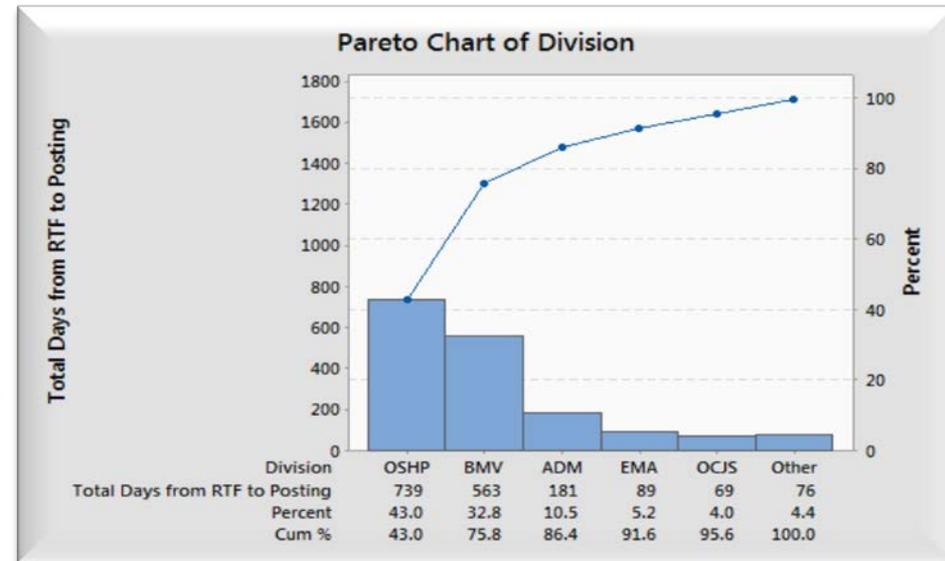
- OSHP takes a long time to process individuals before and after they submit requests to HR
- HR data was able to give time elements from the time an RTF was requested until posted in NEOGOV
- The time from posting in NEOGOV until actual hire date could be checked and calculated from available data in PeopleSoft

Study of Available Data

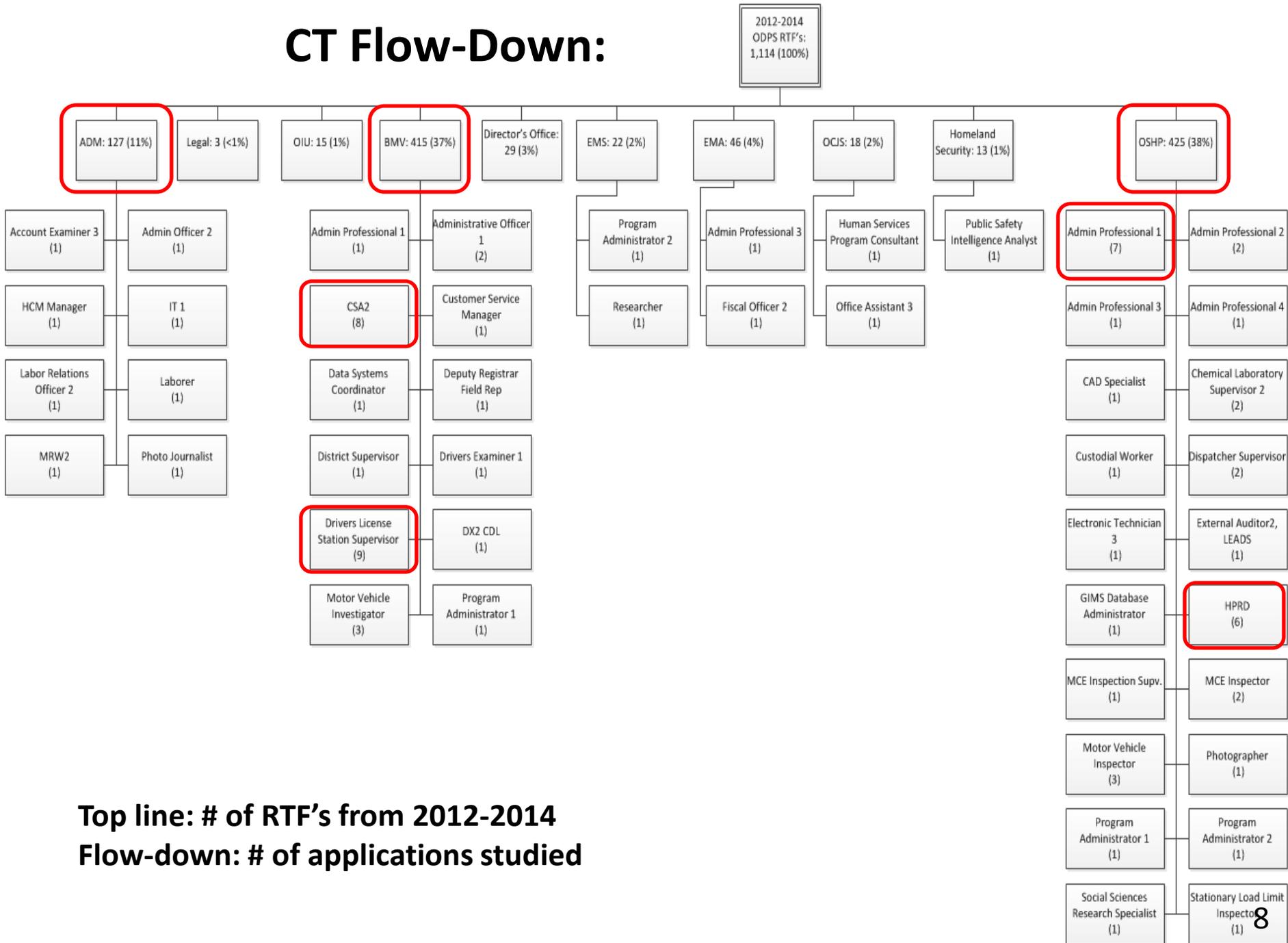
- RTF's from 2012 – 2014 were studied
 - Averaged 371 RTF's per year from all Divisions
- Division breakdowns:
 - OSHP – 38%
 - BMV – 37%
 - Admin – 11%
 - All other ODPS sections accounted for less than 4% each

Sample Data Chosen

- Using the results of the available data and the averages over the past three years of data, 20% of the RTF's were randomly selected, manually checked and compiled
 - OSHP – 37 samples
 - BMV – 31 samples
 - Admin – 8 samples
 - All others – 7 samples

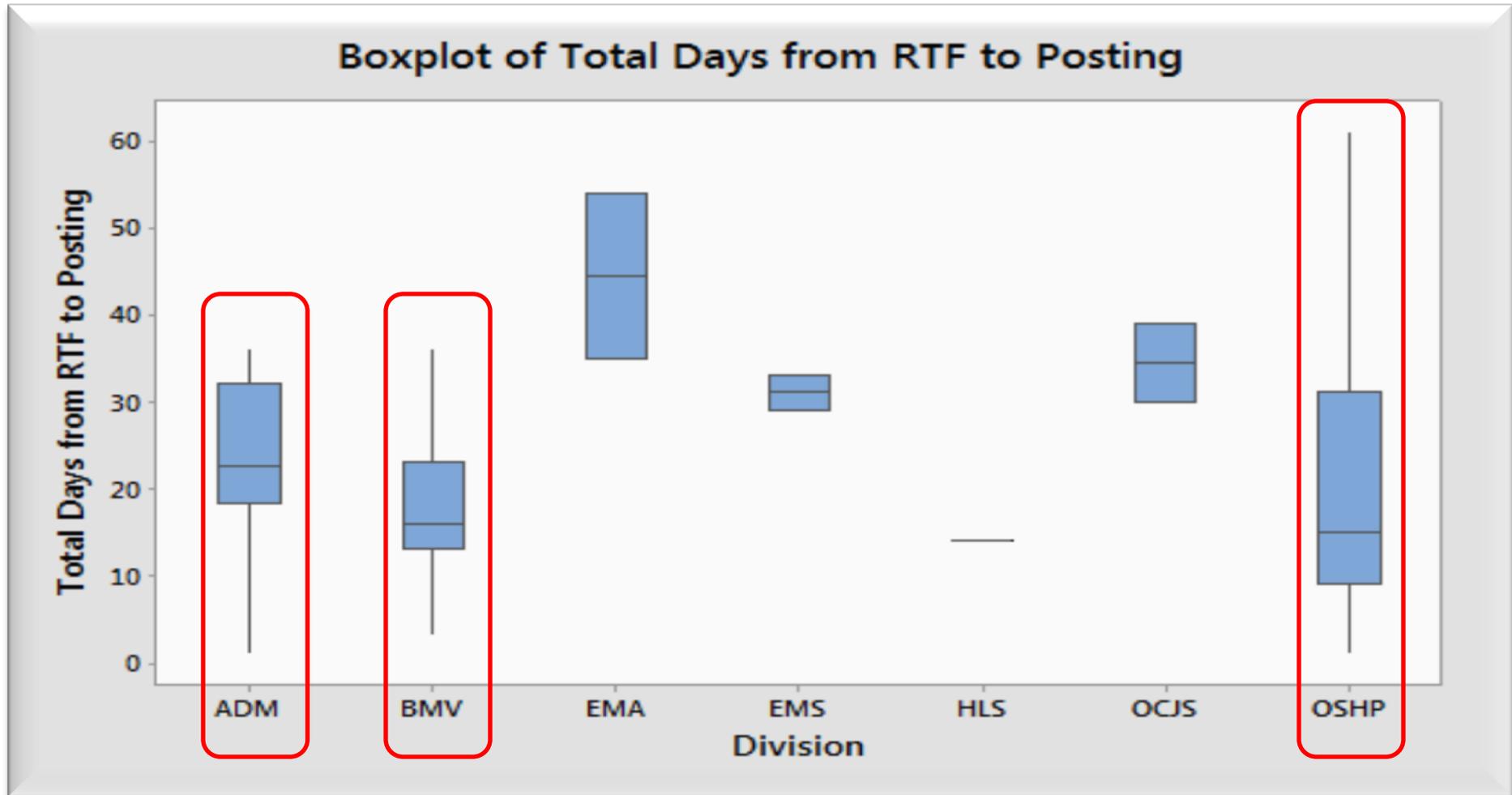


CT Flow-Down:



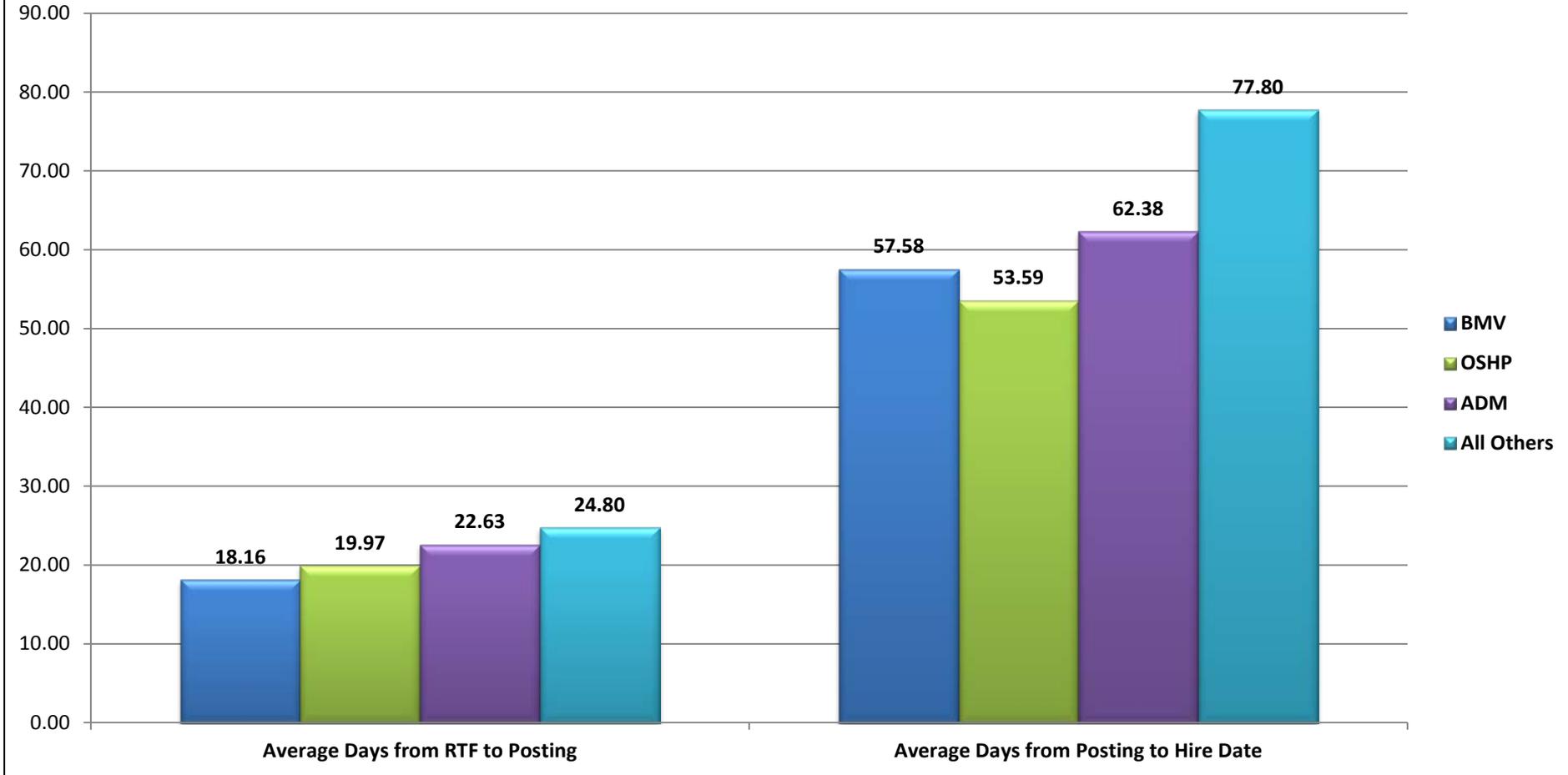
Top line: # of RTF's from 2012-2014
Flow-down: # of applications studied

Boxplot of Data

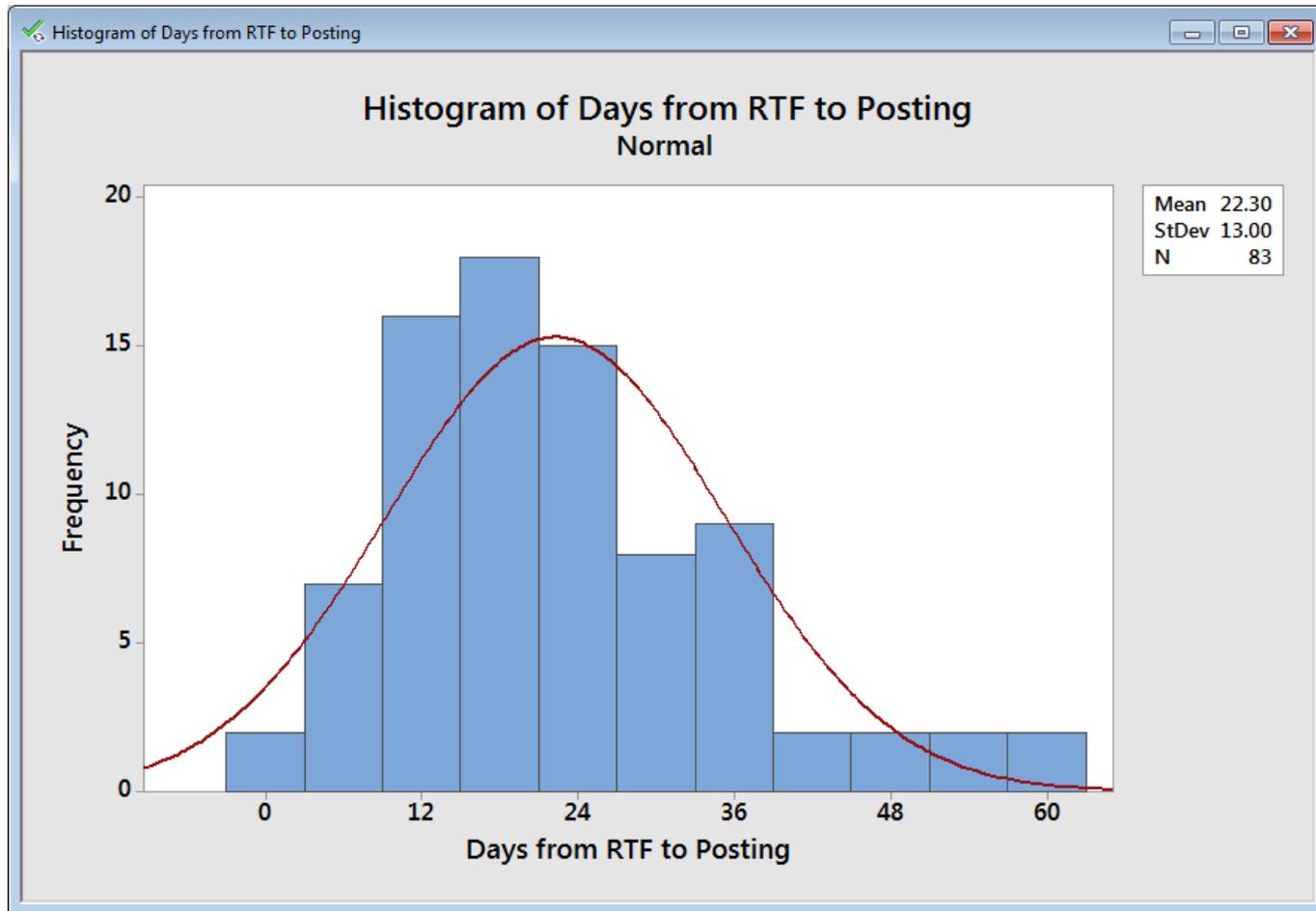


Results of the Study

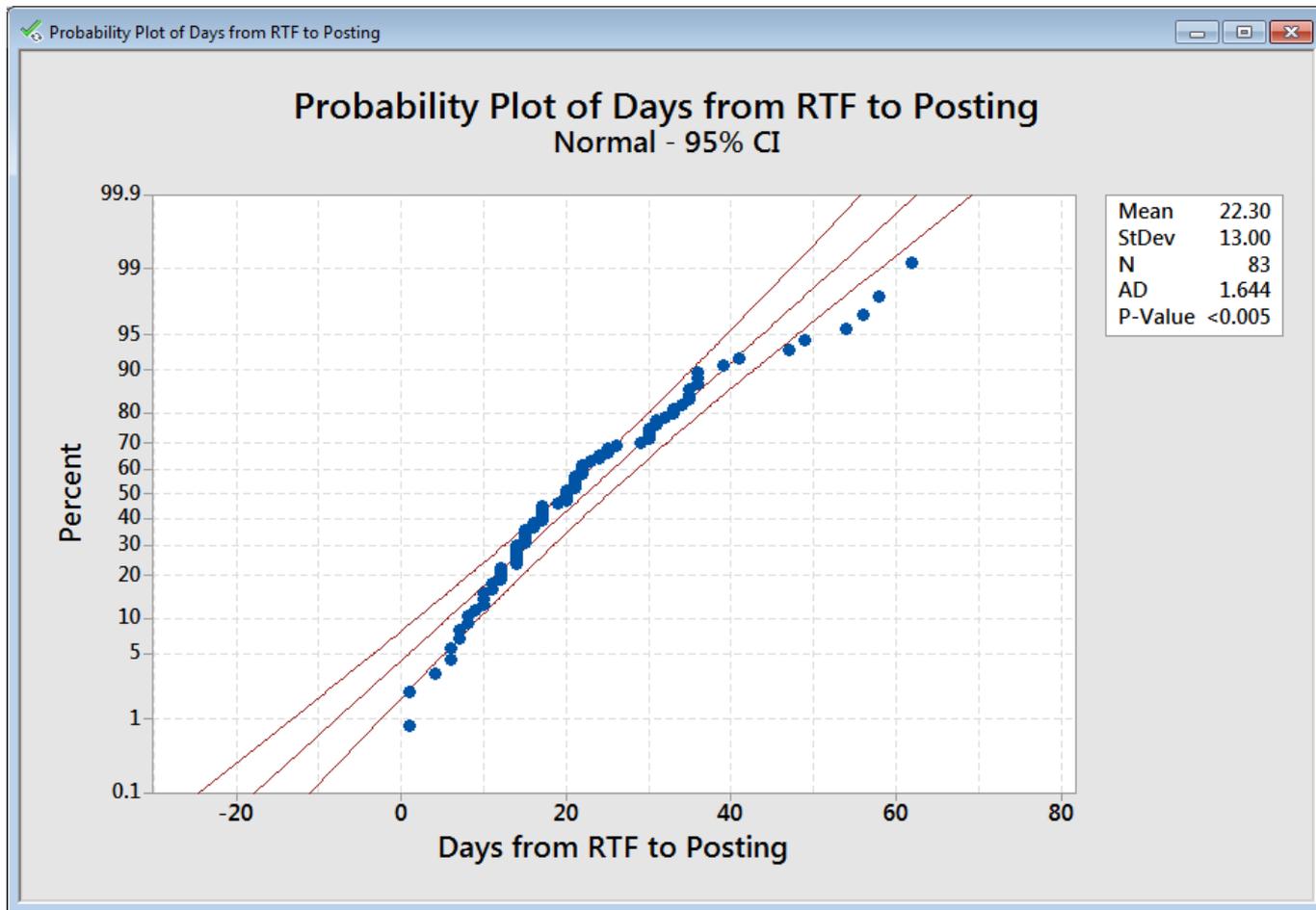
Average Days from RTF to Posting, and Posting to Hire
Total of 83 Samples Reviewed (37 OSHP, 31 BMV, 8 ADM, 7 All Others)



RTF to Posting Data Reviewed: Histogram



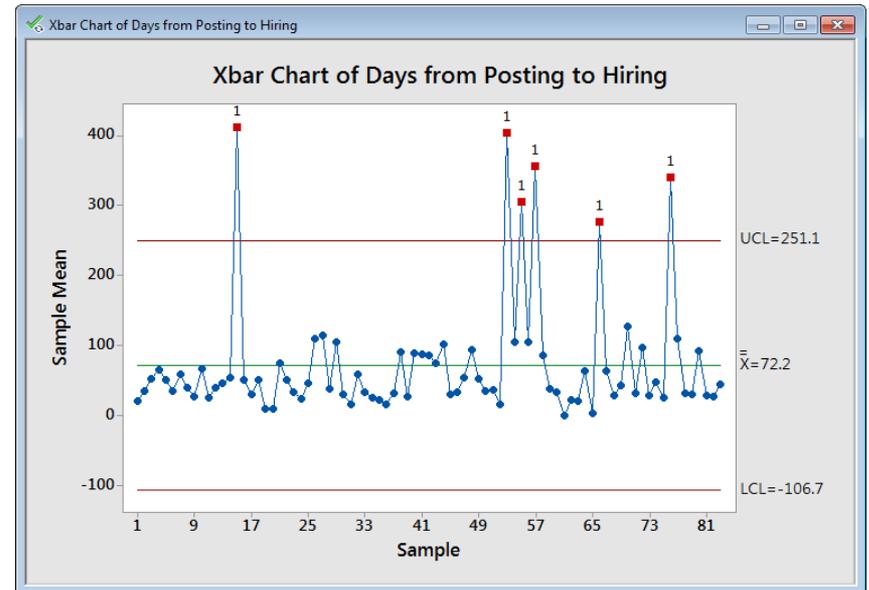
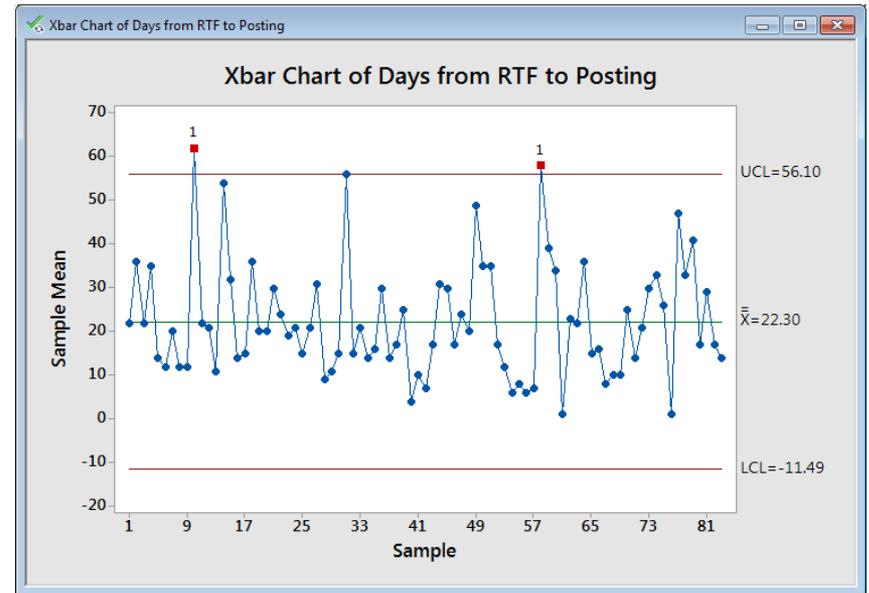
RTF to Posting Data Reviewed Further: Probability Plot



Control Charts: RTF to Posting / Posting to Hire

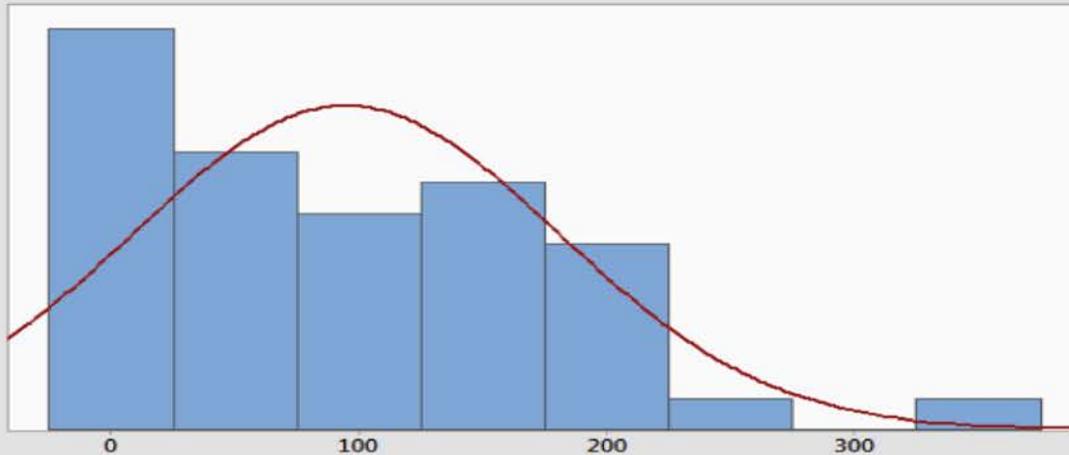
Division	Position	RTF to Posting
OSHP	Admin Prof 2	62 days
OSHP	HPRD	58 days

Division	Position	Posting to Hire
OSHP	Admin Prof 4	413 days
OSHP	HPRD	404 days
OSHP	HPRD	356 days
OSHP	HPRD	357 days
OSHP	MCEI	277 days
OSHP	Photographer	341 days



Vacancy to Hire Data Reviewed: Was the Data Normal?

Summary Report for Days from Vacated to Hired



95% Confidence Intervals



Anderson-Darling Normality Test

A-Squared 1.45

P-Value <0.005

Mean 94.711

StDev 85.546

Variance 7318.119

Skewness 0.859472

Kurtosis 0.208948

N 45

Minimum 1.000

1st Quartile 15.000

Median 82.000

3rd Quartile 160.500

Maximum 349.000

95% Confidence Interval for Mean

69.010 120.412

95% Confidence Interval for Median

30.000 119.891

95% Confidence Interval for StDev

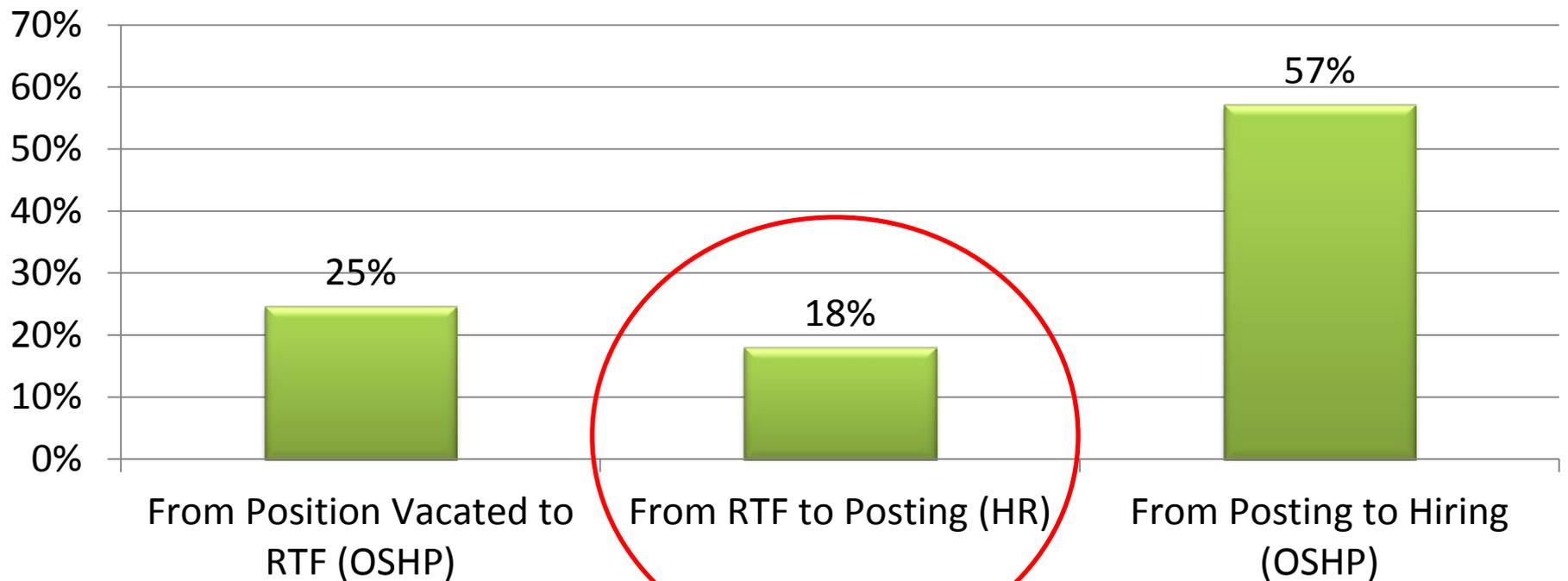
70.820 108.062

1. The Data is not normal
2. Data is Right-skewed

Time Spent Per Section – OSHP vs. ODPS HR

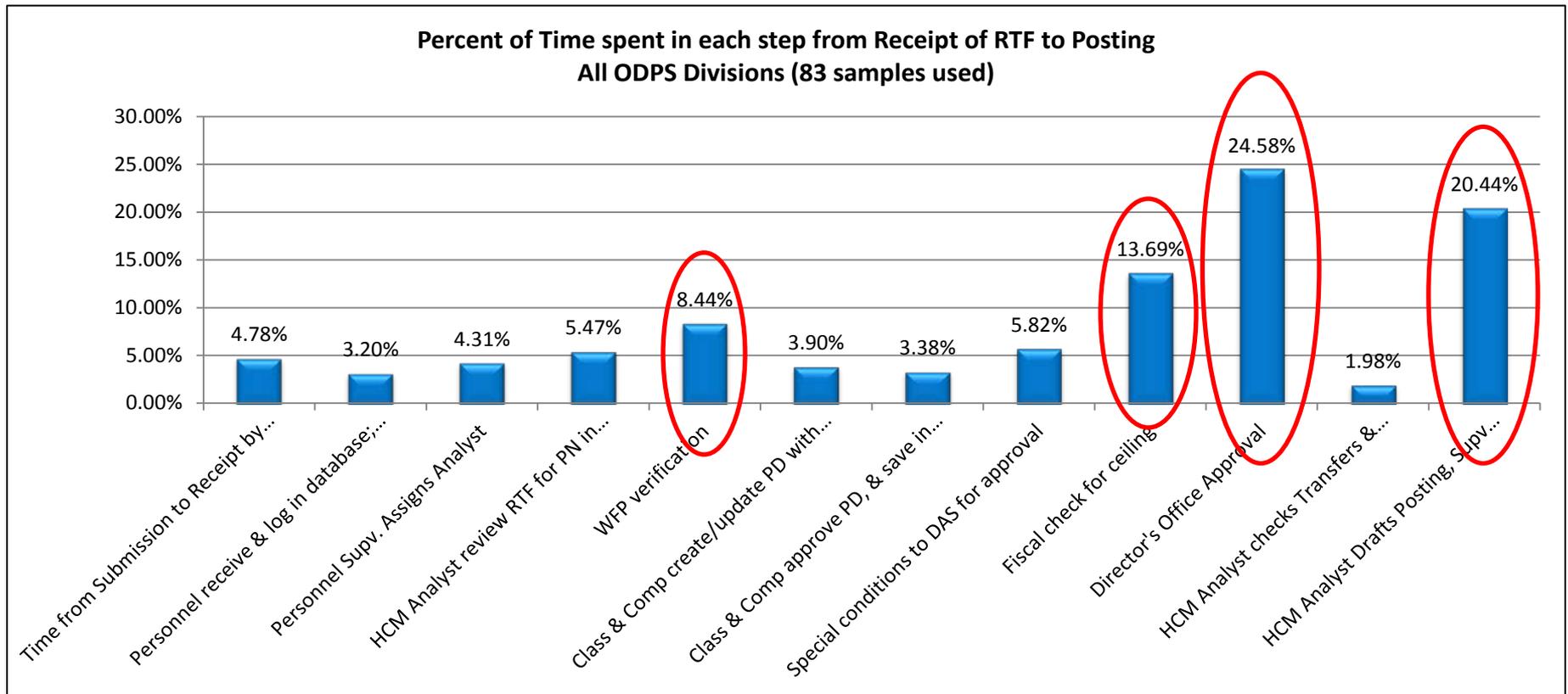
- Since OSHP data was available from vacancy to RTF, this data was evaluated with the following results:

**OSHP Civilian Hiring Process:
Percent of Time Spent in Each Section**



Time From RTF to Posting

- A breakdown of the time spent while in the hands of HR shows 12 data points that could be checked over all samples evaluated



Goals Determined

- Produce a "Time to Hire" process that will drive the creation of a Hiring database
- Improve Communications from HR to Directors and Other Customers - seek out a Preferred Method
- Decrease the number of calls placed by customers to HR to check on the status of "Request to Fill" positions

Project Charter Developed



LEANOhio Project Charter

Project/Event Title
Project Facilitator
Facilitator Agency
Project Mentor
Project Type:
Project Champion/Sponsor:
Project Agency
Charter Last Updated Date:

OSHP - ODPS HR Hiring Process Review
 Patrick Wilson
 Ohio Department of Public Safety
 Steve Wall / Anna Karousis
 Black Belt
 Capt. Charles Linek, John Audet
 Ohio Department of Public Safety
 11/21/2014

What is the Process this Project is intended to Improve?

The project is intended to track and improve the time it takes for the ODPS HR section to process and hire civilian applicants, particularly OSHP civilian applicants.

Business Case

The ODPS HR section needs a good system to track the "time to hire" an applicant, and currently does not have this process established.

Problem/Opportunity Statement:

It currently takes too much time for ODPS HR personnel to respond to the request from OSHP to process a "Request to Fill" – the time necessary from the point that the patrol has determined that a new or vacated position will need to be posted on NEOGOV for applicants to respond. Other ODPS Divisions also have expressed that it takes too long for HR to make postings, and information is not readily available. In addition, the OSHP takes a long time to process individuals before and after they submit requests to HR.

SCOPE (DEFINE BOUNDARIES)

First step in the process:
 A vacancy occurs, or a new position is created.
Last step in the process:
 A person is hired and has reported for duty.

Goals and Objectives: What are the three intended outcomes for this Project?

Produce a "Time to Hire" process
 Improved Communications to Directors and Other Customers - seek out a Preferred Method
 Decrease the number of calls placed by customers to HR to check on the status of "Request to Fill" positions
What potential issues could become roadblocks to success for this Project?

Describe any legal or rule-related boundaries that need to be kept in mind.

Union regulations regarding posting requirements - some dictate that they must post for a given period of time.

Who are the primary customers of the process?

ODPS Divisions: OSHP - 38%; BMV - 37%, Admin - 14%, EMA - 4%, EMS - 2%, OCJS - 2%, HLS - 1%, OIU - 1%, Others - 1%

Who are the major stakeholders of the process?

OSHP, ODPS HR (ODPS HR processes all ODPS hires, while OSHP Personnel office processes specific OSHP personnel)

Definition of the defect (if applicable)

The time it takes to process a "Request to Fill" is approximately 21 days on average; the preferred time this should take on average is 5 days or less

Performance Metrics: What measures will tell you if you are successful.	Performance Metrics			
	Current	Goal	Final	% Change
Number of phone calls made annually to ODPS HR to request status of RTF's	184	30	TBD	TBD
Average Days necessary to process an RTF (# days from Request to Posting)	21	5	5	-76%
Average Days from Vacancy to Person hired and reported for duty	130	60	TBD	TBD
Provide any available baseline data relating to the following additional measures - as applicable	Current	Goal	Data	% Change
Process Time			Final	
Cost				
Delays				
Error rate/Rework Rate				
Backlog				
Customer Survey Results				
Other				

Intangible Benefits
 Increase in morale between OSHP Personnel and ODPS HR Offices, improved processing time for potential candidates for hire, shorter time of vacancy for a position.

Financial Benefits

To be determined - the process mapping session will help us determine the actual costs we now experience, and the cost savings will be determined after comparing the costs of the new process.

Project Status

Beginning stage - Process Mapping session held October 2-3, 2014.
 Future State re-design session held November 13, 2014.

Project Champion/Sponsor Sign-Off: I am committed to supporting this project and implementing the teams improvements.

Initial Approval _____
 Mid-Point Approval _____

Original Scope Determined

- Using the data available, and considering the problem statements submitted, it was determined that a Process Mapping session would be convened between OSHP and the ODPS HR sections, “making the invisible visible”
- First Step: Vacancy is Created
- Final Step: Position is Filled

Team Creation

Sponsor/Champion		
John Born	Director	ODPS
Joe Montgomery	Assistant Director	ODPS
Kaizen Leader or Process Owner		
Patrick Wilson	LEAN Ohio Black Belt Candidate	ODPS
Charles Linek	Captain	OSHP
John Audet	HCM Administrator 2	ODPS HR
Team Members		
Laura Mourné	PA3	OSHP
Elizabeth Dziatkowicz	HCM Manager	ODPS HR
Jeffrey Carman	Staff Lieutenant	OSHP
Jennifer Pletcher	HCM Analyst	ODPS HR
Angela Lang	HCM Analyst	ODPS HR
Gina Recinella	HCM Analyst	ODPS HR
Kolleen Scott	HCM Analyst	ODPS HR
Janet Jackson	HCM Analyst	ODPS HR
Jennifer McLendon	HCM Analyst	ODPS HR
Kathleen Merrick	HCM Analyst	ODPS HR
Amber Saviers	HCM Analyst	ODPS HR
Lydia Frey	Admin Asst. 4	OSHP
Ryan Chapman	Staff Lieutenant	OSHP OIS
Gamel Brimah	Sergeant	OSHP
Andre Swinerton	Lieutenant	OSHP
Kathy Ludowese	Fiscal Officer 4	ODPS
Subject Matter Experts		
Julianne Lee	HCM Administrator 1	ODPS HR
Customers / Fresh Perspectives		
Geoff Dutton	Exec Dir PISGS	ODPS
Carol Ellensohn	DD3	OCJS
Arnie Schropp	Retired PISG Director	
Lisa Valentine	AP4	ODPS
Approvers		
Brigette Charles	Major	OSHP
Mark Gibson	Deputy Director	ODPS

Process Mapping Session Scheduled for all Team Members

Subject: Process Mapping: OSHP Civilian Hiring Process

When: Thursday, October 02, 2014 8:30 AM-4:00 PM (UTC-05:00) Eastern Time (US & Canada).

Where: DPS ConfC5-2

Good morning,

The Process Improvement Team has been asked to set up a Process Mapping session in response to a study conducted on the OSHP Civilian Hiring Process currently in place. This process currently involves the persons who have been invited to this meeting, including personnel from the OSHP Office of Personnel and the ODPS HR section. The goal of this Process Mapping session is to capture the precise steps necessary to complete the process, along with all variances in the process.

Initially, this is intended to be a one-day session, but depending upon the results, a second day of the session may be necessary.

A copy of the Process Improvement Team study is attached to this invitation for your review.

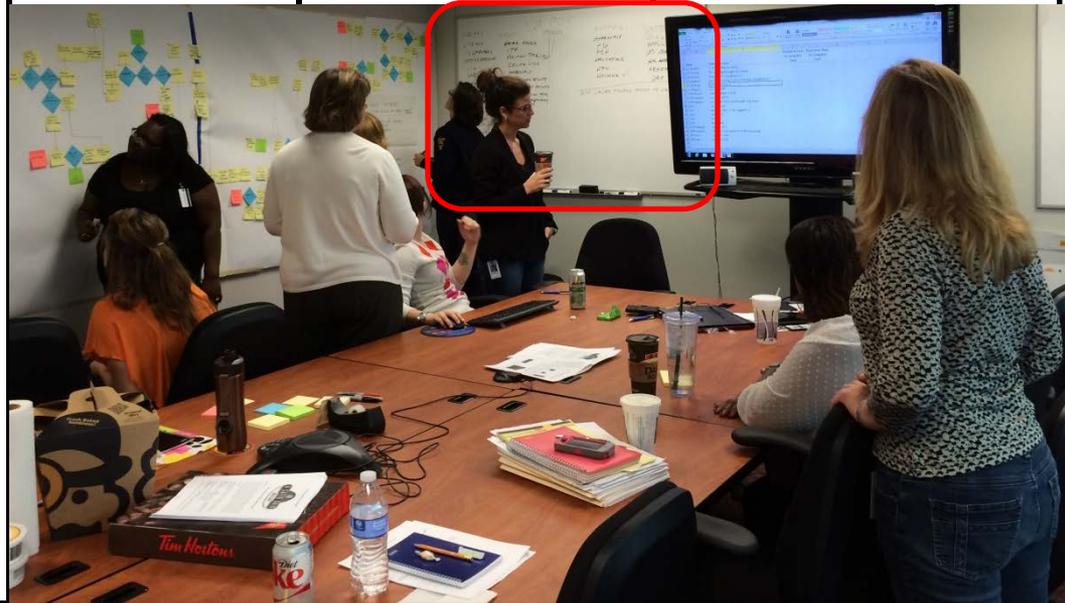
<< File: HR Hiring Process Study.docx >>

Thanks.

Patrick

SIPOC – as Identified by the Team

Suppliers	Inputs	Process	Outputs	Customers
Divisions DPS Employees Outside Agencies OIS Investigators Drug Testing HCM Analysts Director's Office Governor's Office DAS Fiscal Talent Management Doctors Employee Development Training NEOGOV Previous Employers References OAKS	Background Results RTF Position Title/PD Ceiling Levels Polygraph Results Drug Test Results Hearing / Vision Tests Tests / Proficiency Posting WFP		Approvals PD PCN Applications WFP Reference	Divisions Applicants DPS Employees HCM Analysts NEOGOV DAS



Process Mapping Session

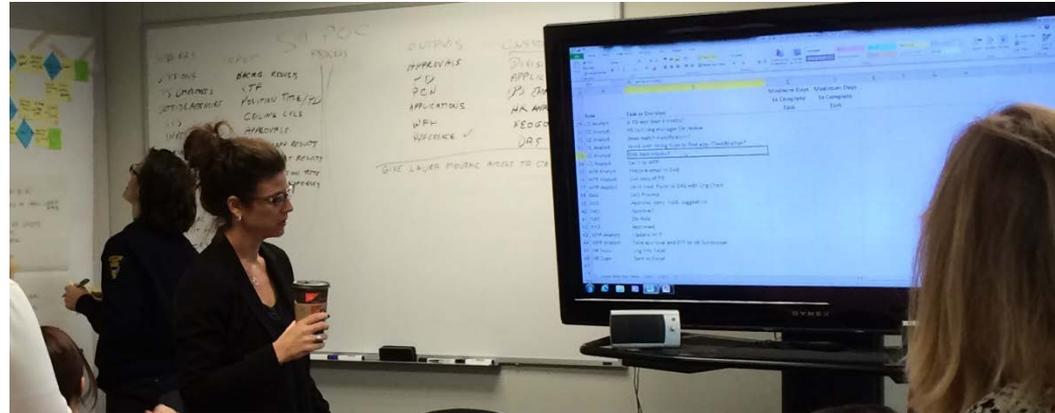


Points of Waste Identified by Team

- Inventory or Information – 10
- Motion – 7
- Underutilization – 5
- Waiting – 27
- Over-Processing – 12
- Defects – 2

Time to Complete Steps Captured

- The team was challenged to come up with the minimum and maximum times necessary to complete each step
- This was used to calculate the total amount of time necessary for different job positions to be filled
- In the future state, the time saved will be calculated and reported in follow-up studies



	A	B	C	D	E
1	Step #	Role	Task or Decision	Minimum Days to Complete Task	Maximum Days to Complete Task
7	6	HCM Analyst	HR Receives RTF Electronically	0.1	0.1
8	7	HCM Analyst	HR logs on the master	0.1	1.0
9	8	HCM Analyst	Creates file	0.1	1.0
10	9	HCM Analyst	Adds the data points	0.1	1.0
11	10	HCM Analyst	Walks to personnel supv	0.1	1.0
12	11	HR Supv	Reviews for red flags	0.1	1.0
13	12	HR Supv	Red Flags Found?	0.0	0.0
14	13	HR Supv	Resolves issues	0.1	3.0
15	14	HR Supv	Assign to HR Analyst	0.1	0.1
16	15	HR Supv	Walks to Analyst	0.1	0.1
17	16	HR Analyst	Verify or Create PN	0.1	1.0
18	17	HR Analyst	Was a PN found?	0.0	0.0
19	18	HR Analyst	Creates PN in OAKS	0.1	1.0
20	19	HR Analyst	Adds to weekly spreadsheet	0.1	1.0
21	20	HR Analyst	Walk to Workforce Devel.	0.1	0.1
22	21	HR Analyst	WFP verifies PN on Plan	0.1	1.0
23	22	HR Analyst	Does it match WF Plan?	0.0	0.0
24	23	HR Analyst	Send modification form to division	0.1	1.0
25	24	Hiring Supv.	Return Modification Form	1.0	4.0
26	25	HR Analyst	Update Plan	0.1	1.0
27	26	HR Analyst	Carry to Class & Comp	0.1	0.1

Voice of the Customer

- Hiring managers surveyed for acceptable times
- Results:
 - From RTF to Hire: 45-60 days
 - From RTF to Posting: 7-8 working days
 - Survey confirmed the existence of communications gaps

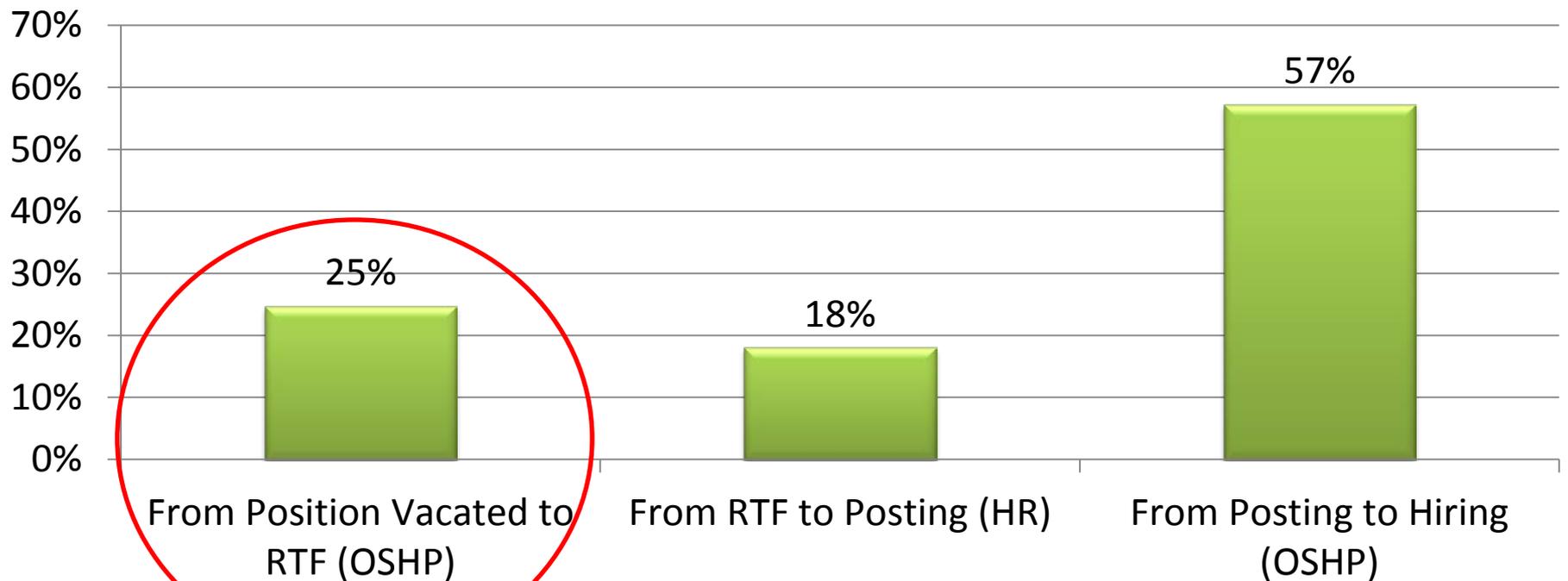
Follow-up Session Held Nov. 13, 2014

- Key elements to improve in Future State:
 - Combine roles in HR
 - Eliminate as much waste as possible
 - Reduce handoffs
 - Speed up the processing time by reducing the number of steps, decisions, and hand-offs
 - Improve communications between Divisions and HR staff
 - Involve the Voice of the Customer from surveys conducted

Redefining the Scope

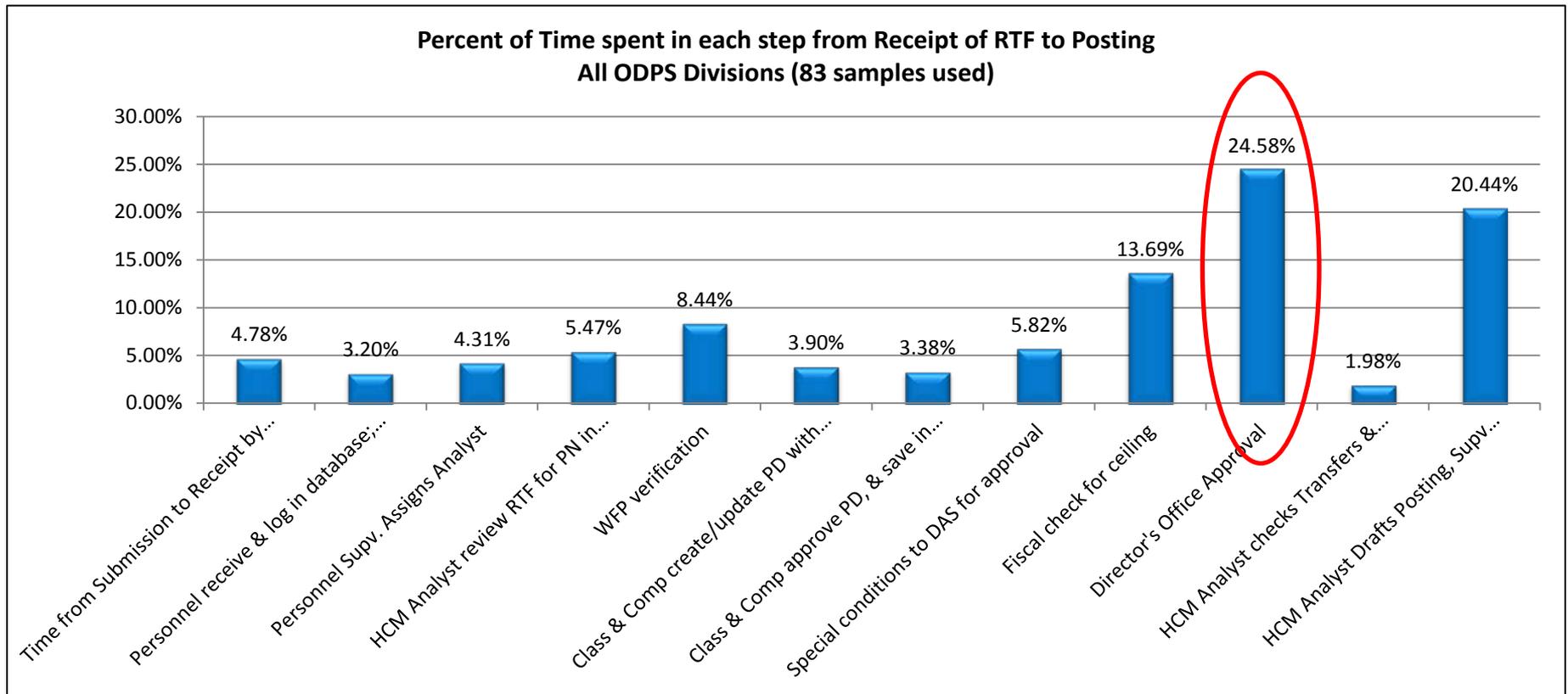
- The team determined that the scope of the future state should begin with the RTF, not the Vacancy
- This will allow Divisions more time to determine the need for a vacancy to be filled

**OSHP Civilian Hiring Process:
Percent of Time Spent in Each Section**

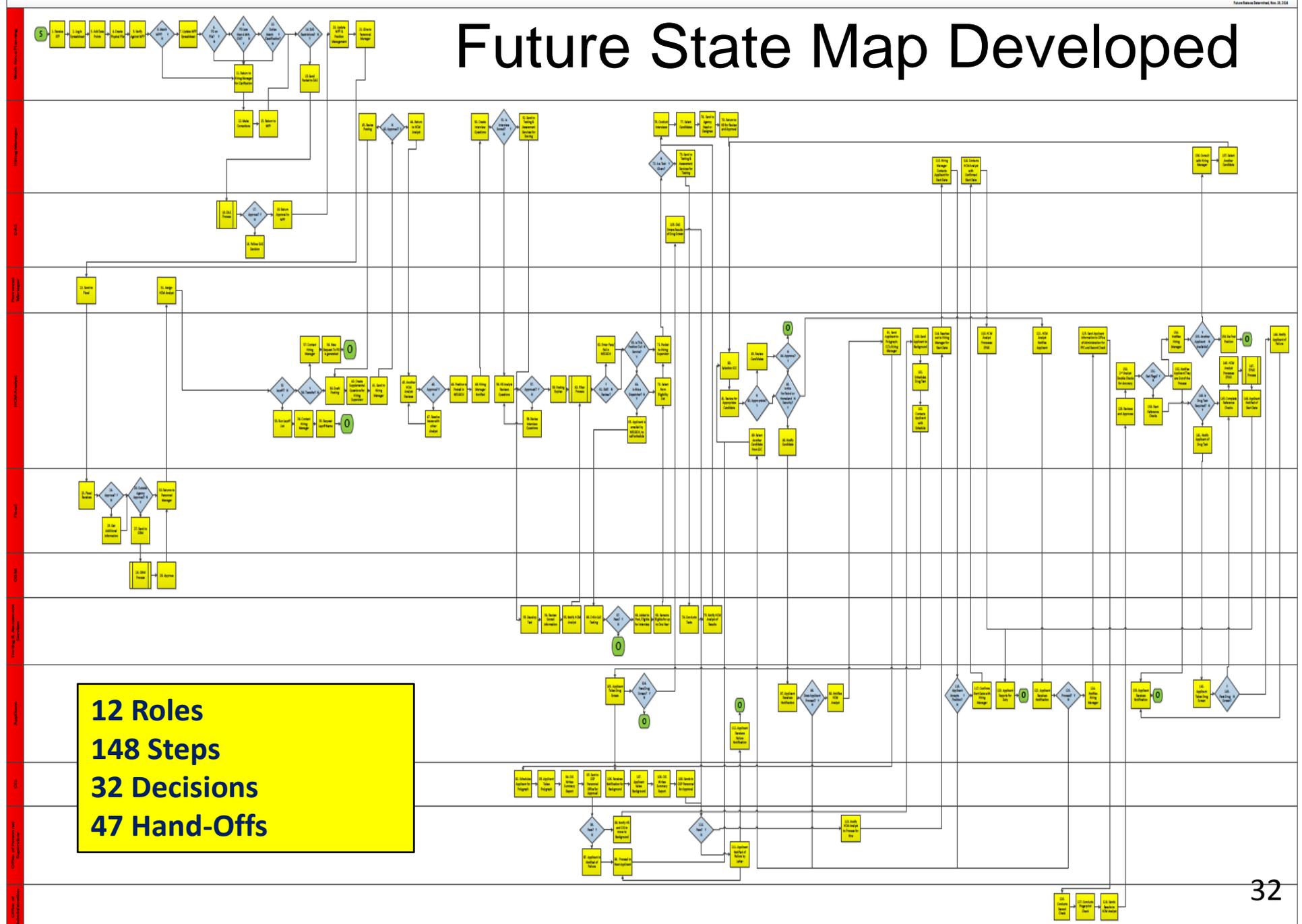


Time Spent in Director's Office Removed

- Although this is still necessary, it was determined that this step should be moved to the beginning of the process in a conversation with Division directors, prior to the RTF
- This allows this step to be outside the scope of the future design



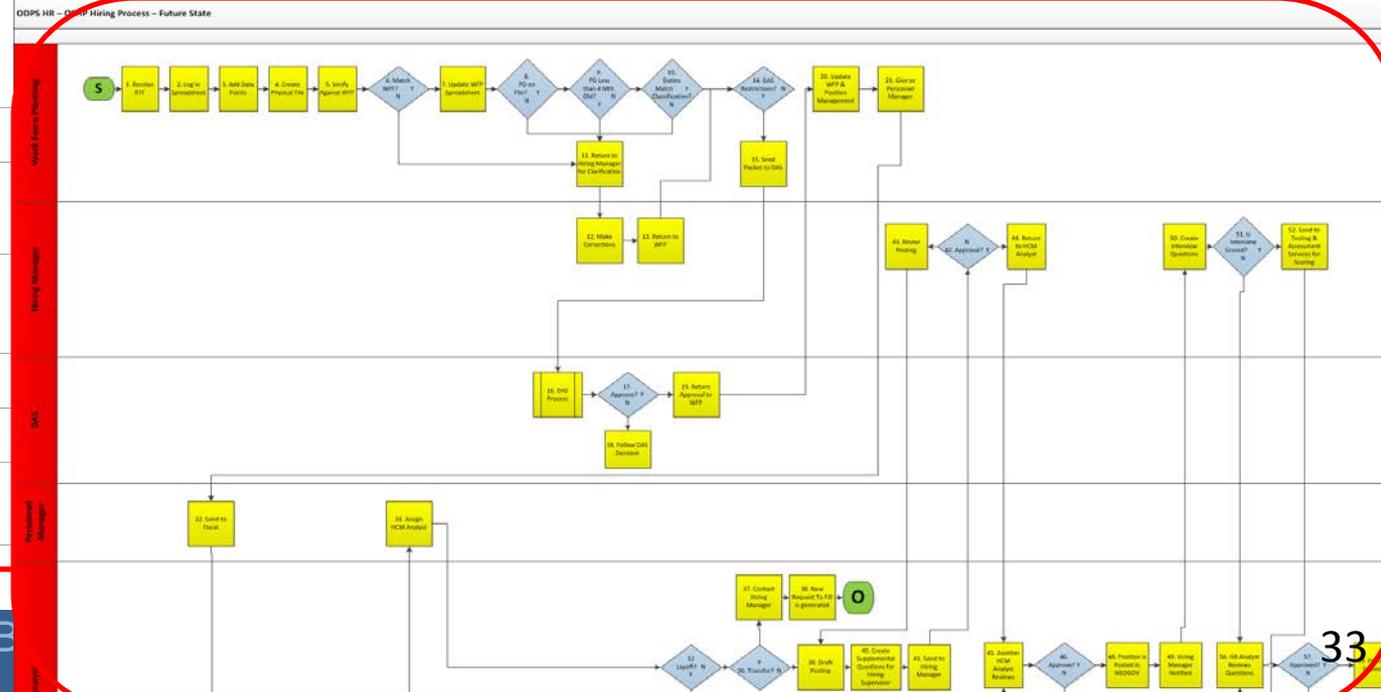
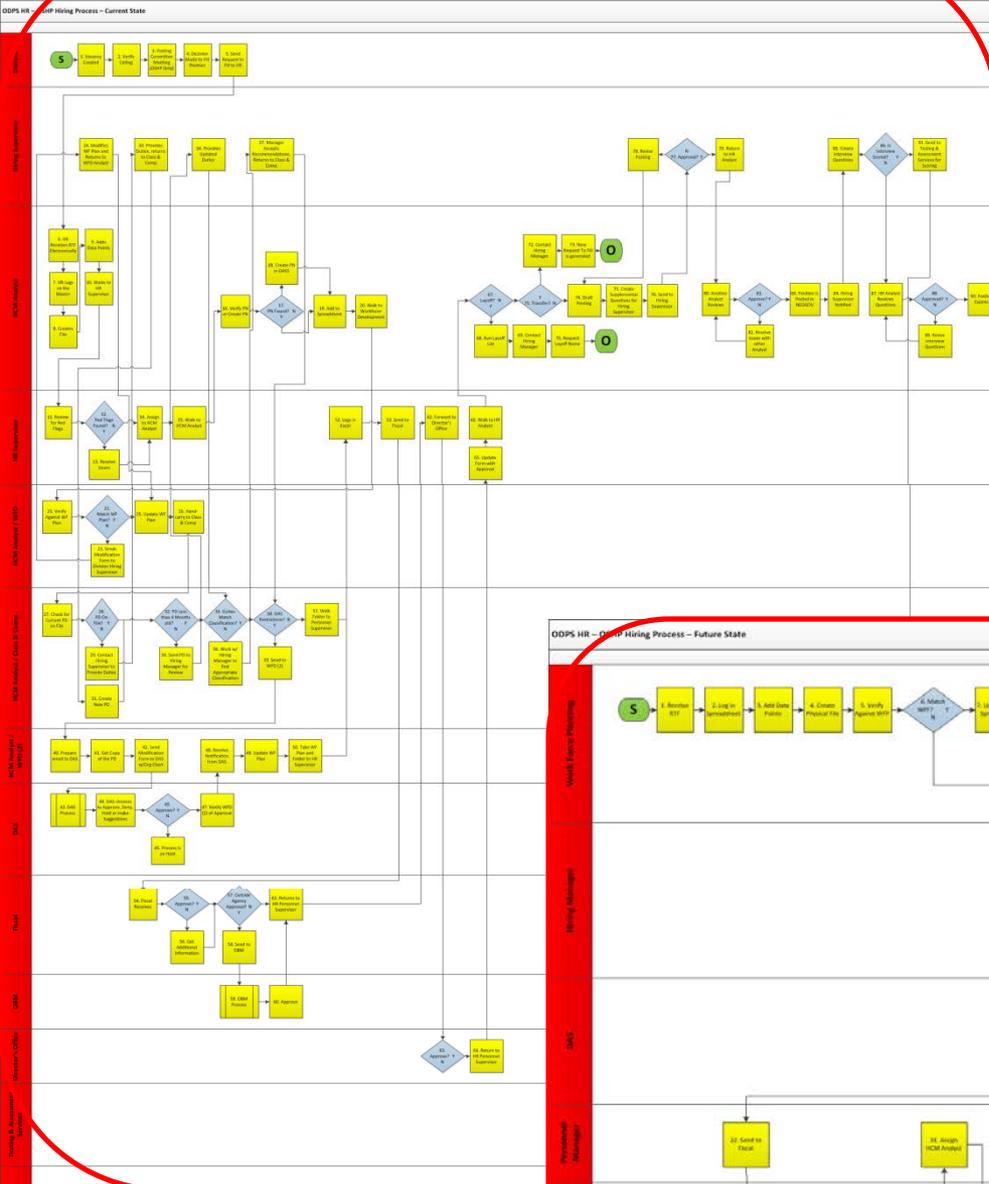
Future State Map Developed



12 Roles
148 Steps
32 Decisions
47 Hand-Offs

Current vs. Future State Comparisons from RTF to Posting

- 42% Reduction of Steps
- 39% Less Time spent on processing
- 52% Fewer Handoffs



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Old and New Comparisons

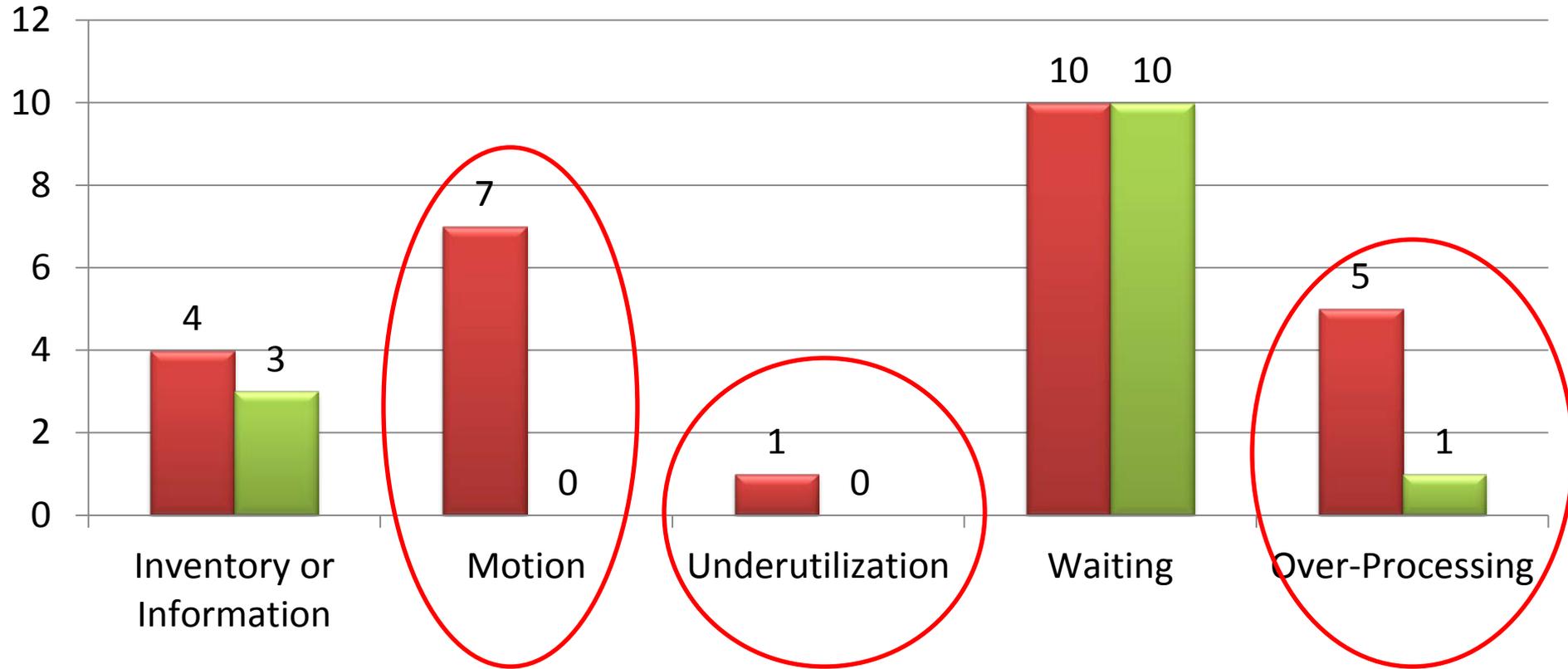
Old Process

- 17 Roles
- 189 Steps
- 35 Decisions
- 91 Hand-Offs

New Process

- 12 Roles
- 148 Steps
- 32 Decisions
- 47 Hand-Offs

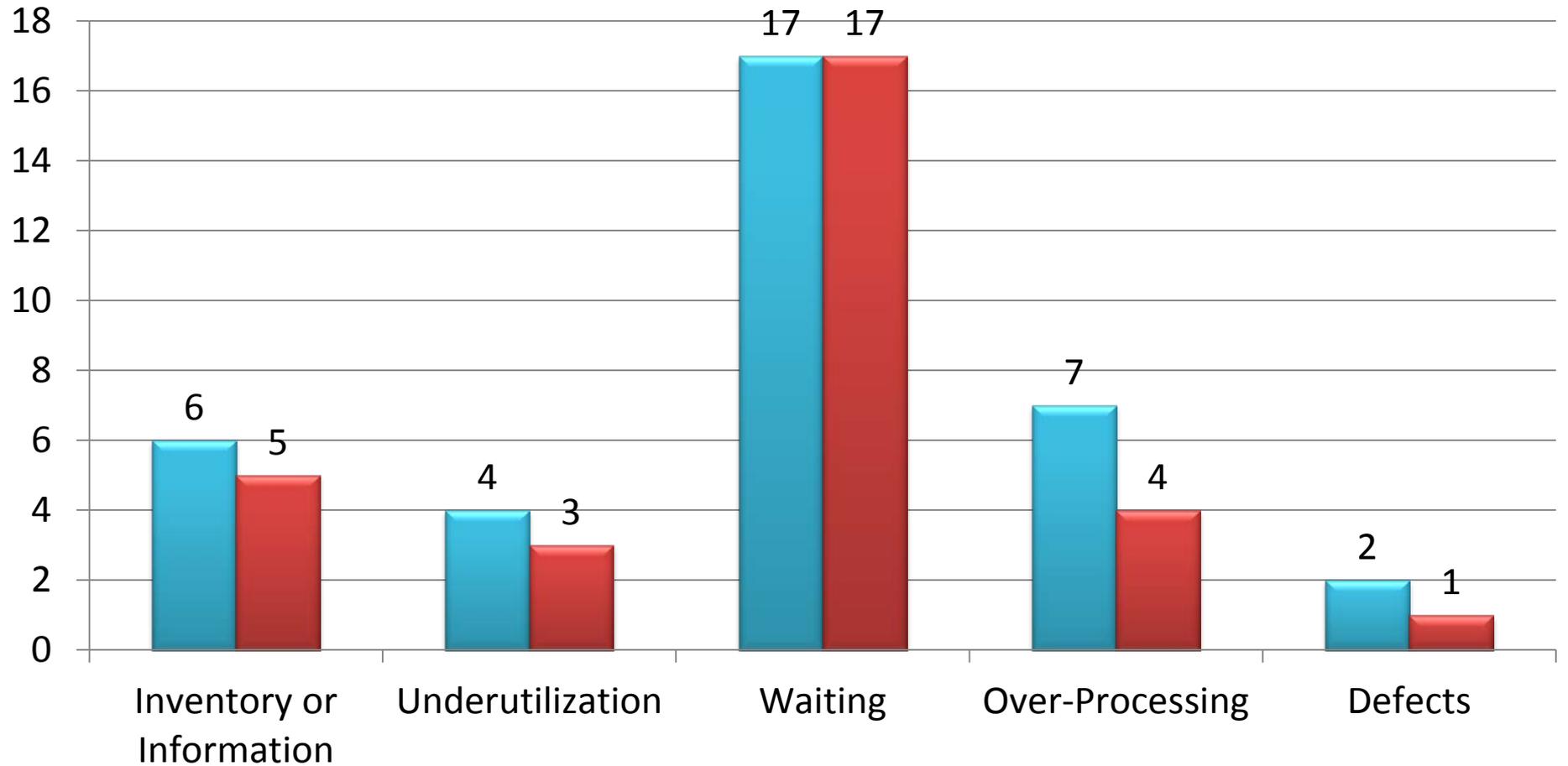
Reduced Points of Waste in Process Steps for HR



■ ODPS HR / Current State

■ ODPS HR / Future State

Reduced Points of Waste in Process Steps of Other Roles

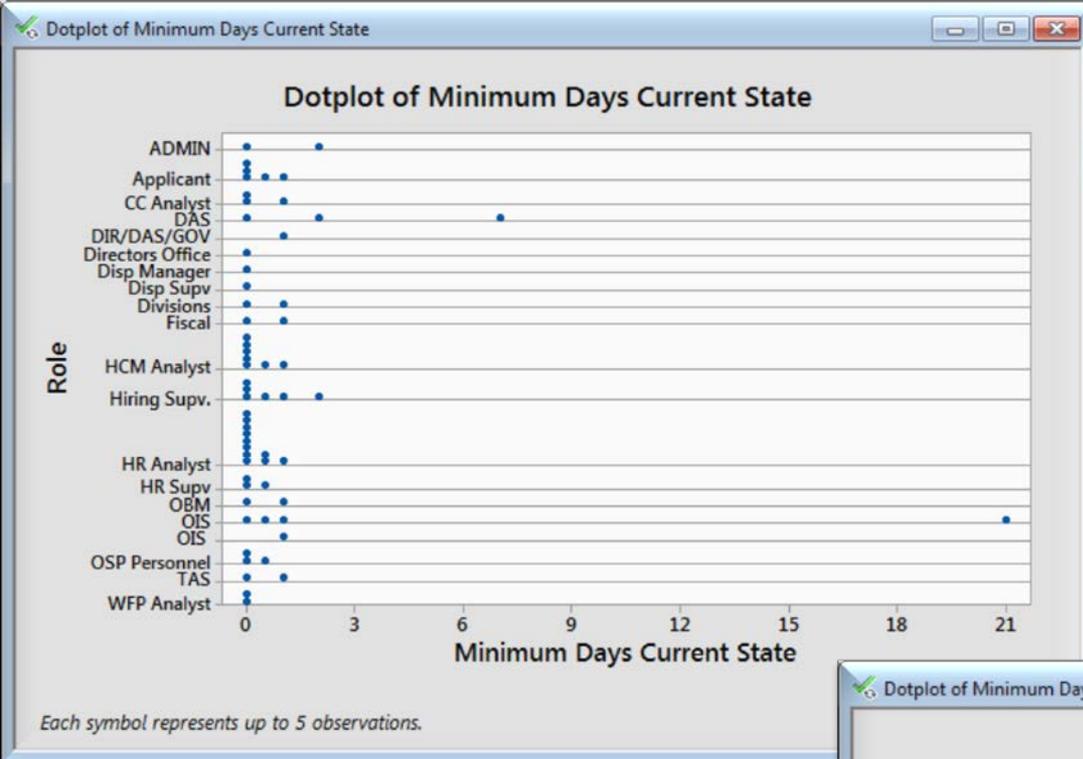


■ Other Roles / Current State

■ Other Roles / Future State

Breakdown of Waste (TIMUWOOD)

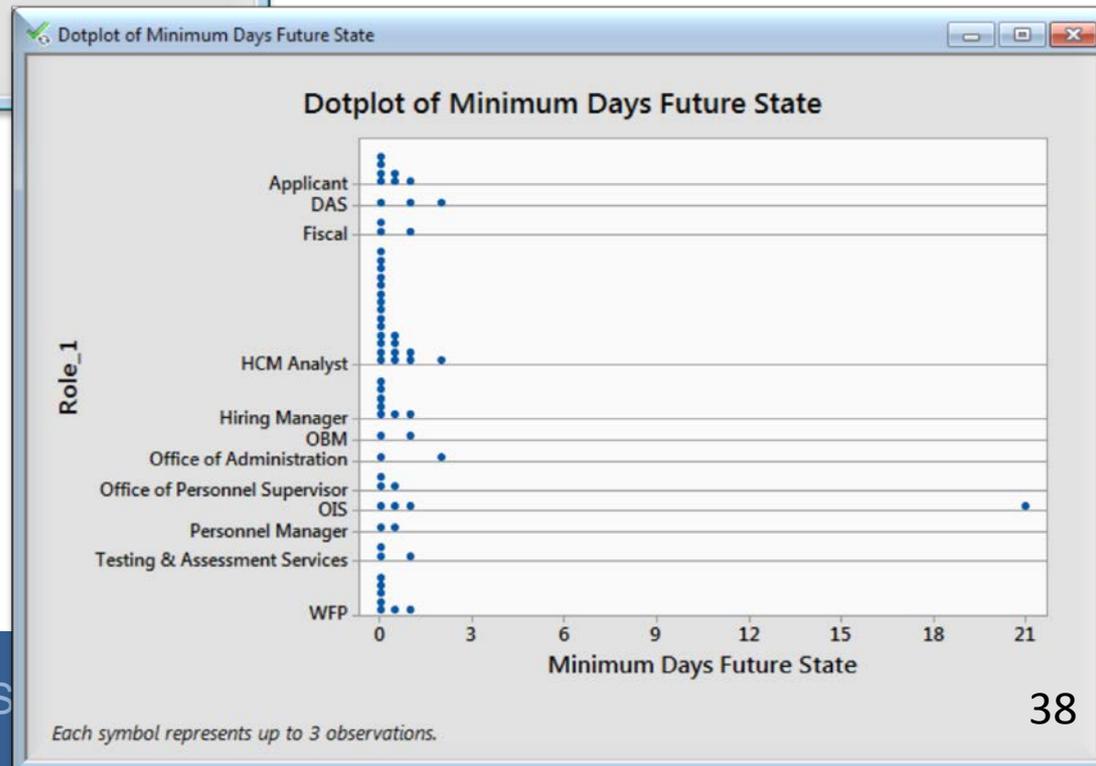
Points of Waste	Current State	Future State	Reduction of Waste
Time	0	0	0%
Inventory or Information	10	8	-20%
Motion	7	0	-100%
Underutilization	5	3	-40%
Waiting	27	27	0%
Over-Production	0	0	0%
Over-Processing	12	5	-58%
Defects	2	1	-50%
Overall Totals	63	44	-30%

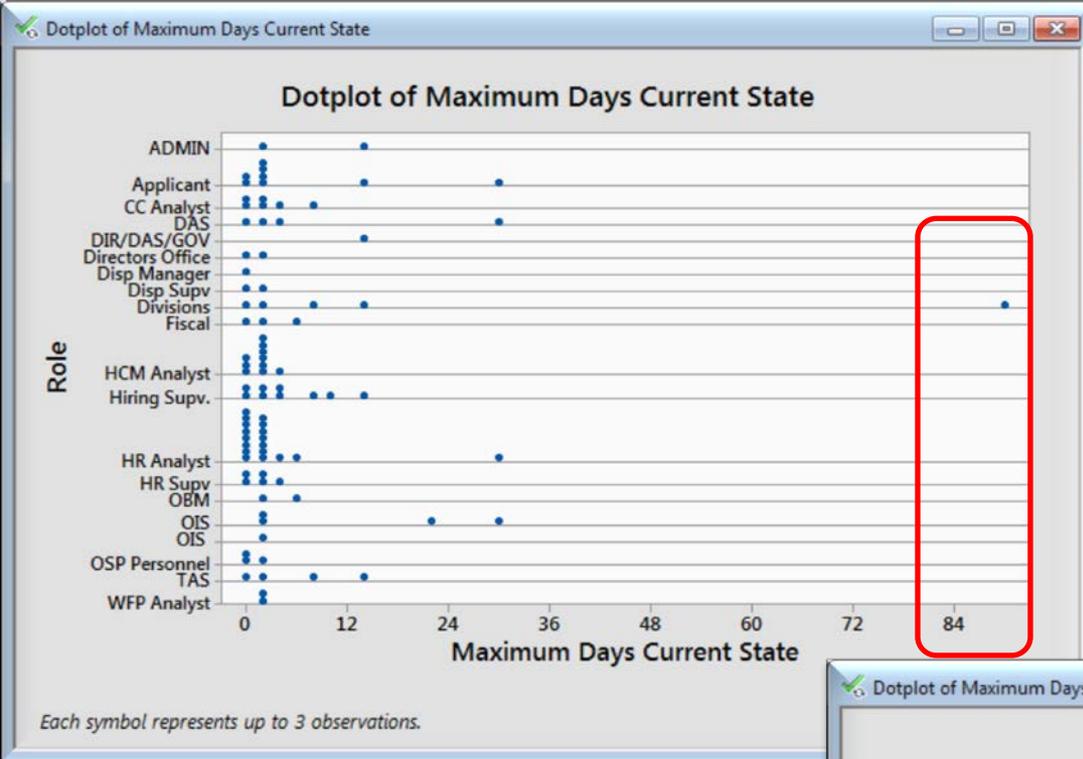


Graphical Comparisons of Time Differences – Minimum Days

Future State – Minimum Days shows some improvements:

- Fewer Roles in Future State
- Each dot in the Current State graph represents 5 observations
- Each dot in the Future State graph represents only 3 observations

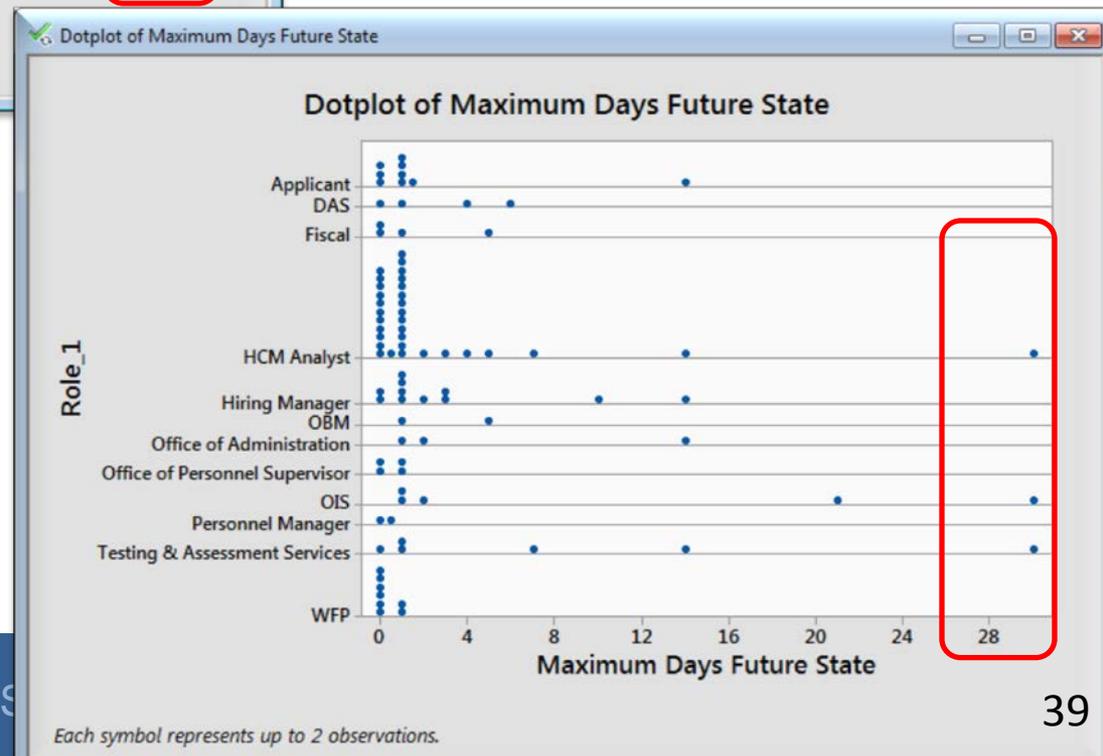




Graphical Comparisons of Time Differences – Maximum Days

Future State – Maximum Days shows greater improvements:

- Fewer Roles in Future State
- Combined Roles allow HCM Analyst's work to be processed faster
- Less Time over several Roles
 - Former Maximum was over 84 days in length
 - New Maximum is 30 days



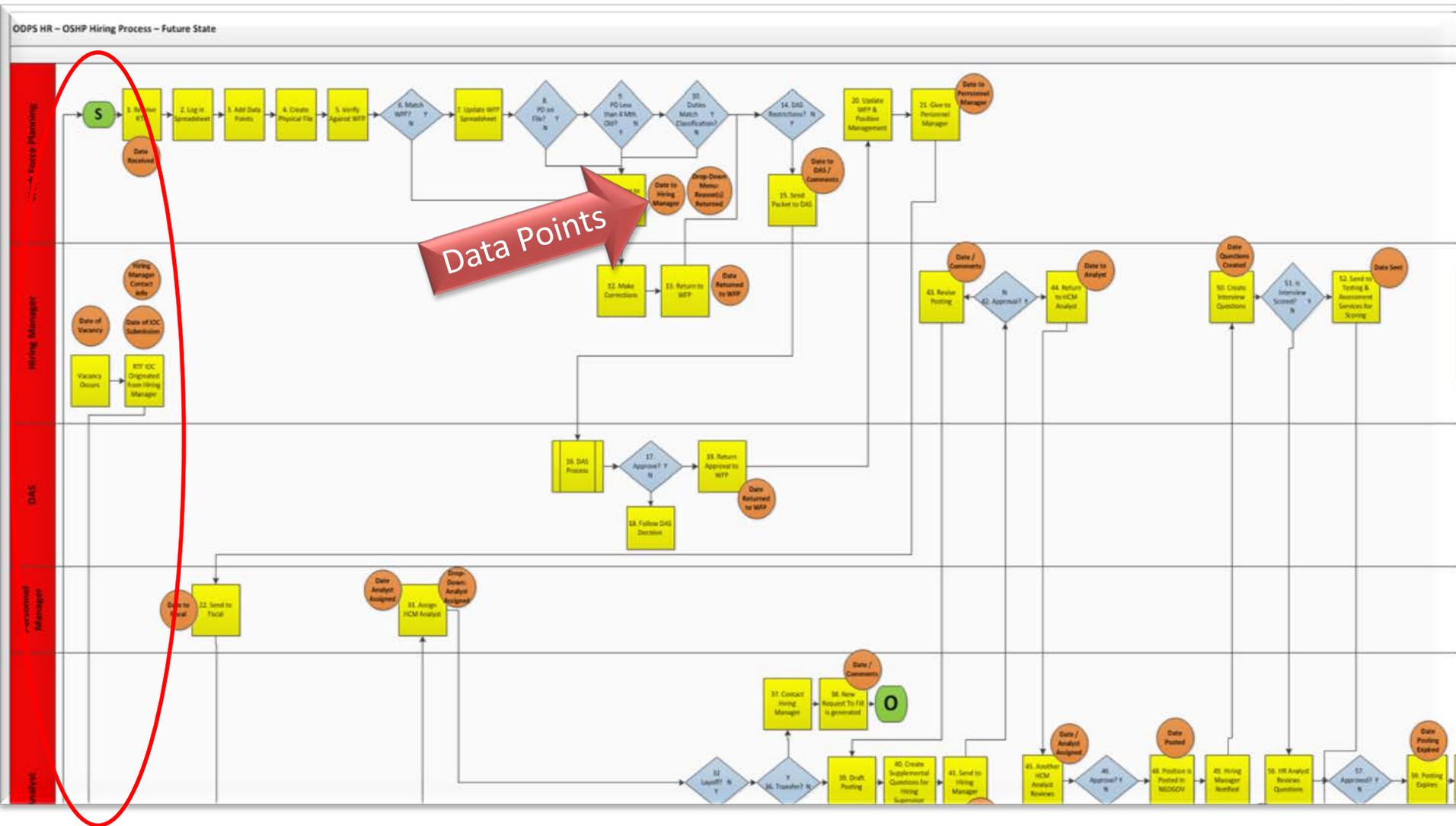
New Process Improvements

Metrics	Current State	Future State	Results
Steps in the Process	189	148	-22% Fewer Steps
Decisions	35	32	-9% Fewer Decisions
Hand-Offs	91	47	-48% Fewer Hand-Offs
Time from Vacancy to RTF	2.1 – 111 days	0 days (*)	Future State will begin with RTF, not Vacancy
Time from RTF to Posting in NEOGOV	9 – 111 days	4.6 – 39.6 days	-49% to -64% less time
Time from Posting in NEOGOV to Hire	12.4 – 243.1 days	11.4 – 239.8 days	-1% to -8% less time

Communications Plan Developed

- The team determined that they could begin communicating with the hiring managers by email when each step of the process changes hands
- These points are being added to the process map and will be the source of the data points that will be used for the proposed IT solution originally sought by ODPS HR

Data Points Added to Process Map



Benefits of New Process

- The new streamlined process will allow IT developers to automate the new process beginning January 2015
- The Improved Communication Process will keep all customers aware of status of current hiring requests
- Calls to HR Staff will be reduced, and potentially eliminated with the proposed IT solution

What This Means to Customers

- ODPS Divisions can expect new job postings in NEOGOV to be completed up to 64% faster
- Applicants can expect to be contacted sooner because their applications are being handled more efficiently and communicated more thoroughly between HR and Hiring Managers
- IT solutions can now be made because the process has been streamlined

Goals Achieved

Produce "Time to Hire" database

- A "Time to Hire" IT solution will now be developed with an improved process in place

Improve Customer Communications

- Better Communications established; to improve in the future with IT Solution in place

Decrease number of calls to HCM Analysts

- Calls should be eliminated with the Communications changes implemented, sharing information better and faster

More Work Remains

- While progress has been made, areas of waste remain in some of the unchanged portions of the future state
- Points of waste that are considered “Non-Value Added but Necessary” need to be reviewed for other areas of improvement

Points of Waste	Hiring Manager	DAS	Personnel Manager	HCM Analyst	Fiscal	Testing & Assessment Services	Applicant	OIS	Office of Personnel Supervisor	Office of Administration
Inventory or Information	1	0	0	3	0	0	1	0	3	0
Underutilization	0	0	0	0	0	0	0	1	2	0
Waiting	2	2	0	10	1	3	3	4	1	1
Over-Processing	3	0	0	1	0	0	1	0	0	0
Defects	0	0	0	0	0	1	0	0	0	0

New Process Implementation

- Changes to the new process began January 1, 2015
- Action register created to check progress on implementation
- IT Solution being created with data points added to the Future State Process Map

Visual Management Display



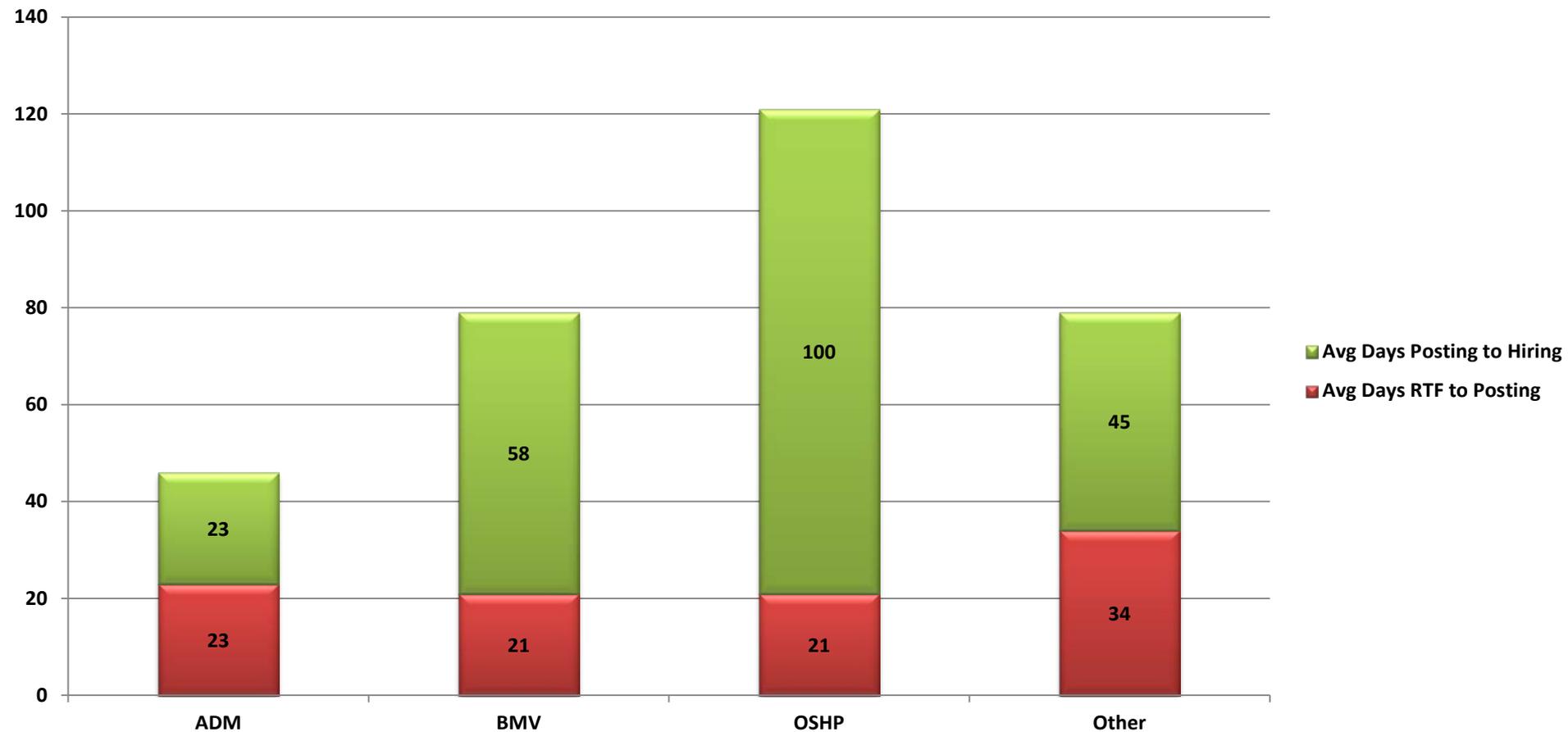
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Action Register

What	By Who	When
Secure Data Tracking Points from Vacancy to RTF	OSHP, ODPS HR, Process Improvement Team, Divisions	December 18, 2014
Implement New Process	ODPS HR	January 1, 2015
Data Tracking of Improved Process	Process Improvement Team	January 1, 2015
Quarterly Reports on Progress	Process Improvement Team	To begin April 1, 2015

Quarterly Report Metrics for Comparison

Current State: Time to Process Hiring Requests, 2012-2014
(83 Samples Surveyed)



Quarterly Report Metrics for Comparison

The 2012-2014 Samples with 2 or more hires per position shown below will be compared to 2015 quarterly totals per position

Row Labels	Number Hired	Avg. Days RTF to Posting	Avg. Days Posting to Hiring
HPRD	6	16	228
Motor Carrier Enforcement Inspector	2	16	141
Motor Vehicle Investigator	3	20	86
Driver License Examiner 1	9	18	70
CSA2	6	22	57
Admin Professional 3	2	33	51
Admin Professional 1	7	18	48
Motor Vehicle Inspector	3	9	46
Admin Professional 2	3	35	45
Administrative Officer 1	2	15	42
Dispatcher Supervisor	2	18	30
Chemical Laboratory Supervisor 2	2	20	10

Thanks to Division Sponsors and Champions

- John Born, ODPS Director
- Joe Montgomery, Assistant Director
- Mark Gibson, Deputy Director
- Major Bridget Charles, OSHP Personnel Commander
- Captain Charles Linek, OSHP Office of Personnel
- John Audet, ODPS HR Director (Retired)
- Kyle Dupler, ODPS Admin & HR Director