

Green Belt Project Report Out

Alan Ohman

Supreme Court of Ohio

January 19, 2017



# Ashtabula Municipal Court Defendant Time-in-Court Study

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# Court Team

## Supreme Court of Ohio

- Alan Ohman, Administrative Officer
- Tasha Ruth, Manager, CMP
- Colleen Rosshirt, Policy Counsel
- Nikole Hotchkiss, Statistics Analyst

## Ashtabula Municipal Court

- Tonja Amato, Court Administrator
- Nick Dearing, Network Administrator/Deputy Clerk

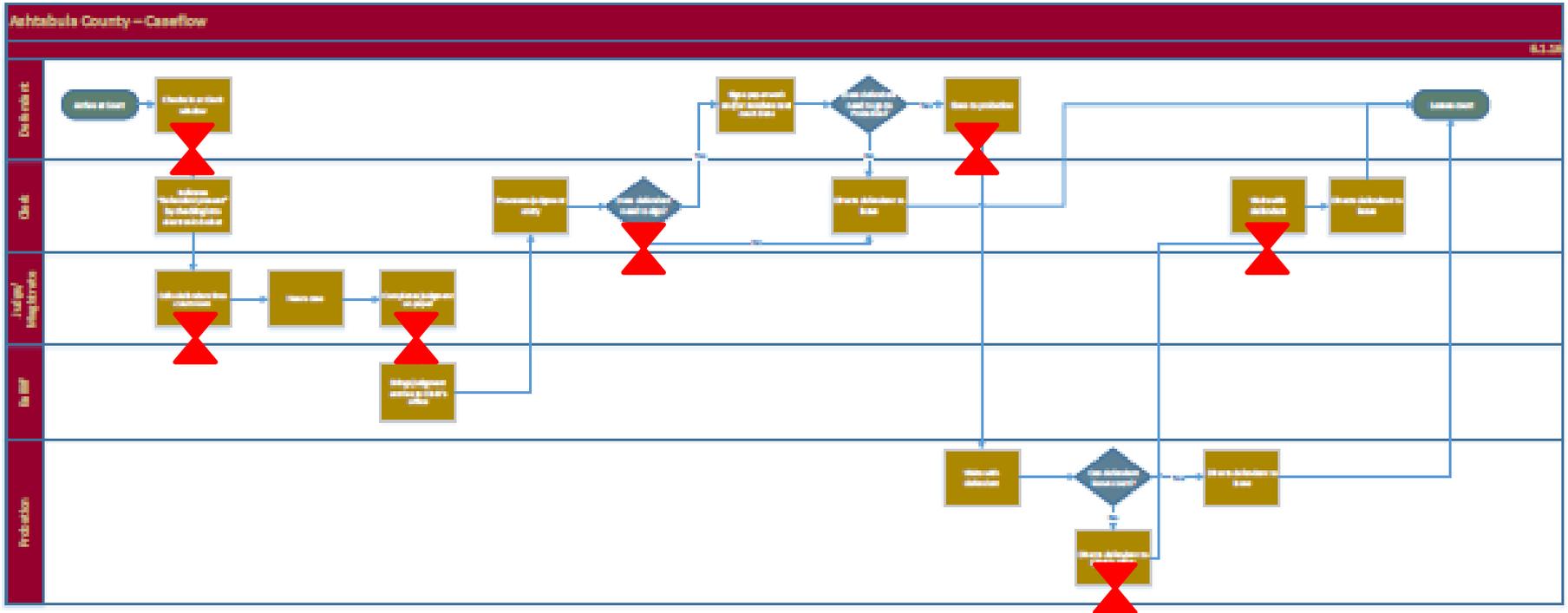
# Background - Scope

- Ashtabula Municipal Court is looking to improve its caseflow efficiency via technology.
- Opportunity statement: with the future addition of the BenchProcessing program, the court looks to increase the speed at which cases are processed through the system and defendants are seen, receive their paperwork, and leave.
- First Step: Defendant enters courthouse.
- Last Step: Defendant receives all necessary paperwork and leaves courthouse.

# Project Goals

- The court's own mission statement: The Ashtabula Municipal Court ***shall be effective and efficient*** when resolving disputes in order to uphold the laws and regulations of the court's jurisdiction and the State of Ohio.
- The court is transitioning to an electronic caseflow system. The primary goal –currently – is collecting data to support the time and effort put into establishing the new system.

# Current-State Process Map



 = step will be altered/eliminated by BenchProcessing software

# Let's Make it Simpler...

## SIMPLER

Sounds like this:	Metrics to collect:	What to ask:	How to display for the event:	How to display after the event:
<p>"It's a really complex, complicated, convoluted process." "No one really understands the full process."</p>	<p>Number of:</p> <ul style="list-style-type: none"> <li>• Process steps</li> <li>• Handoffs</li> <li>• Loopbacks</li> <li>• Decision points</li> <li>• Delays</li> <li>• Forms</li> <li>• Functions</li> <li>• Baseline info</li> </ul>	<ul style="list-style-type: none"> <li>• "How many different forms are used in the process?"</li> <li>• "How many people (offices) are involved?"</li> <li>• "What is the volume? How many of these do you process in a year, a month, or a day?"</li> <li>• "Are there times when volume differs?" (e.g., seasonal fluctuations)</li> </ul>	<ul style="list-style-type: none"> <li>• Present baseline info as raw numbers in scoping document</li> </ul> <p>NOTE: You will not have most of this info at the start of the event</p> <ul style="list-style-type: none"> <li>• Photo with all the forms used, or a chart listing each form</li> <li>• Run chart showing volume by month for past year, in time order</li> <li>• Pie or bar chart showing the different types processed</li> </ul>	<ul style="list-style-type: none"> <li>• Chart showing the "before" and "after" process mapping data</li> <li>• Chart listing each form previously used, with eliminated forms crossed off</li> <li>• "Before" and "after" pictures showing new forms and old forms</li> <li>• Success story or quote from team members communicating the "aha moments" they had when mapping the current-state process</li> </ul>
<p>"This touches so many hands (or work units, offices, agencies)."</p>	<ul style="list-style-type: none"> <li>• Handoffs</li> <li>• Number of staff involved</li> </ul>	<ul style="list-style-type: none"> <li>• "How many people are involved in this process?"</li> <li>• "Is there a lot of back and forth between employees?"</li> </ul>	<ul style="list-style-type: none"> <li>• Present the raw information in the scoping document</li> <li>• Spaghetti map showing work flow between areas</li> </ul>	<ul style="list-style-type: none"> <li>• Spaghetti map showing the new flow compared to the old</li> </ul>
<p>"There seems to be a lot of time where it sits waiting for someone (or something)."</p>	<ul style="list-style-type: none"> <li>• Delays</li> </ul>	<ul style="list-style-type: none"> <li>• "How often is an employee (office) waiting for another to do their portion before they can move forward?"</li> </ul>	<ul style="list-style-type: none"> <li>• This information will most likely come from the current-state process map</li> </ul>	<ul style="list-style-type: none"> <li>• Total delay time compared to the new delay time</li> <li>• Bar chart visually showing the difference</li> </ul>
<p>"Customers are confused." "There are so many forms, and people have to supply the same information over and over again."</p>	<ul style="list-style-type: none"> <li>• Number of forms</li> </ul>	<ul style="list-style-type: none"> <li>• "How many forms do you have?"</li> <li>• "When was the last time these forms were reviewed?"</li> <li>• "What are the main complaints about the forms?"</li> <li>• What questions are usually answered incorrectly?"</li> </ul>	<ul style="list-style-type: none"> <li>• Raw number of forms will be presented already</li> <li>• The focus should be on making the forms clear and concise without duplication</li> </ul>	<ul style="list-style-type: none"> <li>• Quantity comparison will be presented already (see above)</li> <li>• Chart showing the forms used before and the ones used after</li> <li>• Raw count of how many times a customer was asked to supply a piece of simple information (like their name or ID number)</li> <li>• Comparison of form length before and after</li> </ul>

# Data Collection Plan

- Completed by Nick and Tonja as defendants came into court

The screenshot shows an Excel spreadsheet with the following data:

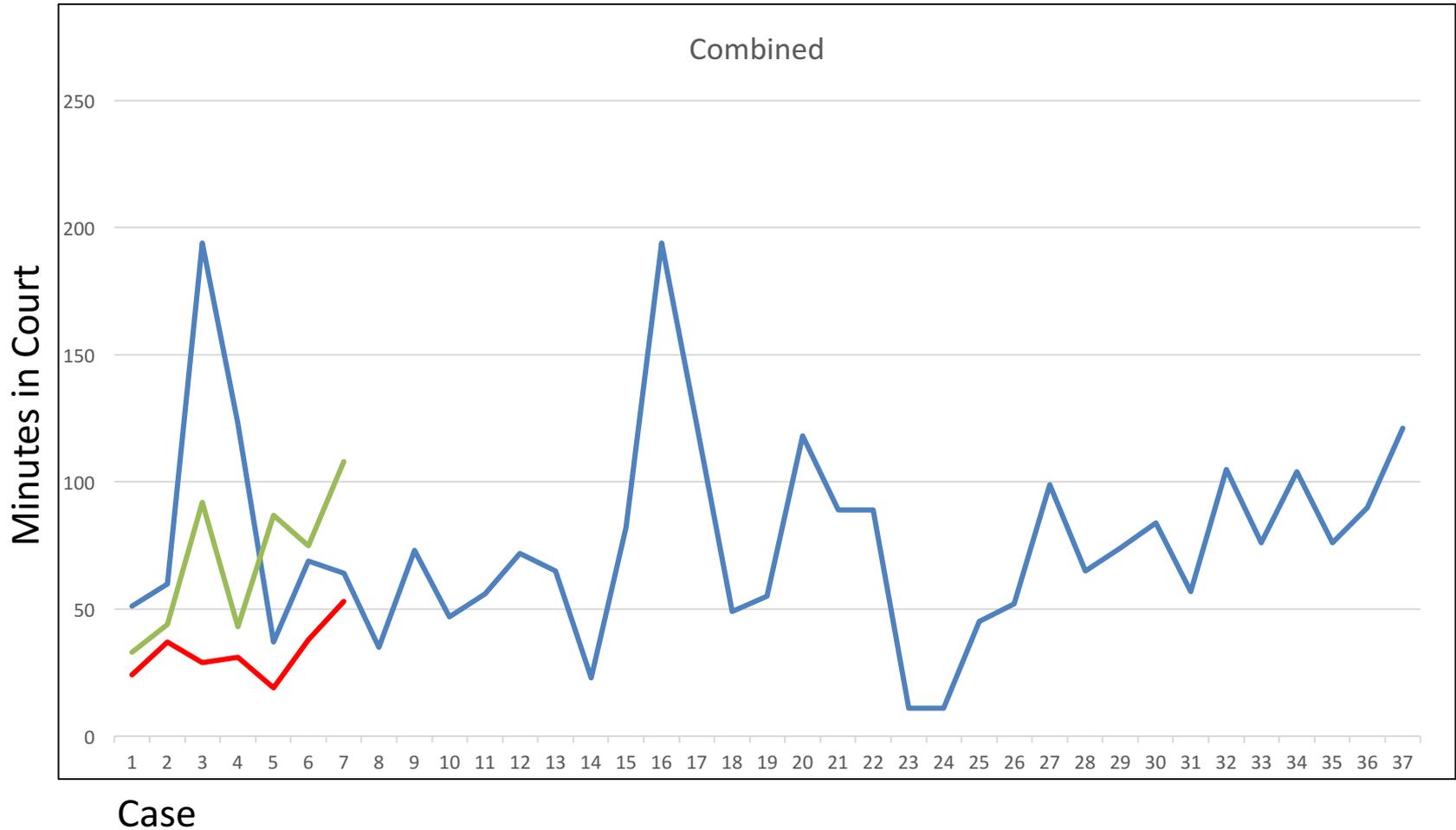
	A	B	C	D	E	F	G
1	Arraignment	Def check in	Def goes into courtroom	Def leaves courtroom	Paperwork to Bailiff	Clerk receives paperwork	Def leaves Clerk
2							
3							
4							
5							
6	Pre-trial	Def check in	Def goes into courtroom	Def leaves courtroom	Paperwork to Bailiff	Clerk receives paperwork	Def leaves Clerk
7							
8							
9							
10							
11	Trial	Def check in	Def goes into courtroom	Def leaves courtroom	Paperwork to Bailiff	Clerk receives paperwork	Def leaves Clerk
12							
13							
14							
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17							
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26							

The bottom navigation bar shows tabs for 'civil', 'Criminal', and 'traffic', with a '+' icon to the right. The 'Criminal' tab is currently selected and highlighted.

# Baseline data

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
	Date	Case #	Type	Def check in	Idle (mins)	Def goes into courtroom	Idle (mins)	Def leaves courtroom (paperwork to bailiff)	Idle (mins)	Clerk receives paperwork	Idle (mins)	Def leaves Clerk	Total Time Def in Court	
1	42564	16CVF00081	Civil	1:56	17	2:13	3	2:16	4	2:20	[n/a]	[not filled]	24	
2	42564	16CVF00294	Civil	1:51	27	2:18	8	2:26		2:28	[n/a]	[not filled]	37	
3	42564	16cvq00425	Civil	2:08	12	2:20	17	2:37	[n/a]	N/A	[n/a]	N/A	29	
4	42575	16cgv00491	Civil	2:38	17	2:55	13	3:08		3:09	[n/a]	N/A	31	
5	42575	16cgv00489	Civil	2:44	11	2:55	6	3:01	2	3:03	[n/a]	N/A	19	
6	42575	16cvq02190	Civil	2:30	19	2:49	16	3:05	1	3:06	2	3:08	38	
7	42575	16cvq00497	Civil	2:37	12	2:49	9	2:58	32	3:30	[n/a]	N/A	53	
8	42562	*16crb01002	Criminal	8:39	17	8:56	26	9:22	1	9:23	7	9:30	51	
9	42562	*16crb00990	Criminal	8:26	32	8:58	19	9:17	1	9:18	8	9:26	60	
10	42563	16crb00126	Criminal	1:48	181	4:49	6	4:55	3	4:58	4	5:02	194	
11	42564	16crb00649	Criminal	2:10	106	3:56	13	4:09	3	4:13	[n/a]	[not filled]	123	
12	42575	16trd02069	Criminal	9:24	6	9:30	22	9:52	2	9:54	7	10:01	37	
13	42575	16trd02023	Criminal	8:58	32	9:30	27	9:57	1	9:58	9	10:07	69	
14	42575	16trd02074	Criminal	9:01	30	9:31	28	9:59	6	10:05	0	**10:05	64	
15	42575	16trd02009	Criminal	9:19	11	9:30	20	9:50	1	9:51	3	9:54	35	
16	42576	16crb012380	Criminal	7:52	60	8:52	6	8:58	1	8:59	6	9:05	73	
17	42576	16crb01284	Criminal	8:43	9	8:52	26	9:18	9	9:19	11	9:30	47	
18	42576	16crb01273	Criminal	8:34	18	8:52	28	9:10	1	9:11	19	9:30	56	
19	42576	16crb00204	Criminal	10:43	45	11:28	5	11:33	13	11:46	9	11:55	72	
20	42576	16trc00623	Criminal	11:00	27	11:27	18	11:40	1	11:46	19	12:05	65	
21	42576	16cra01221	Criminal	11:10	22	11:22	2	11:24	2	11:26	7	11:33	23	
22	42576	16crb00694	Criminal	1:55	57	2:52	5	2:57	3	3:00	17	3:17	82	
23	42576	16crb00126	Criminal	1:48	181	4:49	6	4:55	3	4:58	4	5:02	194	
24	42576	16crb00649	Criminal	2:10	106	3:56	13	4:09	3	4:13	[n/a]	[not filled]	123	
25	42586	16crb01262	Criminal	8:29	28	8:57	7	9:04	5	9:09	9	9:18	49	
26	42586	16crb01266	Criminal	8:35	22	8:57	17	9:14	1	9:15	15	9:30	55	
27	42586	***15crb00979	Criminal	8:37	91	10:08	26	10:34	1	10:35	21	10:56	118	
28	42586	16trd01414	Criminal	2:15	62	3:17	13	3:30	4	3:34	10	3:44	89	
29	42586	16trc01137	Criminal	2:05	72	3:17	9	3:26	8	3:34	14	3:48	89	
30	42586	16trd01201	Criminal	2:40	2	2:42	1	2:43	8	2:51	[n/a]	[not filled]	11	
31	42586	16trd01201	Criminal	2:40	2	2:42	1	2:43	0	2:43	8	2:51	11	
32	42586	16trd01167	Criminal	1:53	25	2:18	4	2:22	8	2:30	8	2:38	45	
33	42586	16crb00030	Criminal	9:57	13	10:10	28	10:38	4	10:42	7	10:49	52	
34	42586	16crb00676	Criminal	10:36	52	11:28	20	11:48	5	11:53	22	12:15	99	
35	42594	16crb01368	Criminal	8:17	35	8:52	21	9:13	1	9:14	8	9:22	65	
36	42594	16cra01369	Criminal	8:24	38	8:52	27	9:19	1	9:20	18	9:38	74	
37	42594	16crb01371	Criminal	8:12	40	8:52	13	9:05	3	9:08	28	9:36	84	
38	42594	16crb01157	Criminal	2:01	22	2:23	5	2:28	8	2:36	22	2:58	57	
39	42594	16crb00771	Criminal	2:30	91	4:01	5	4:06	1	4:07	8	4:15	105	
40	42594	16trc00665	Criminal	2:34	32	3:06	16	3:22	1	3:23	27	3:50	76	
41	42594	15trc04100	Criminal	1:56	64	3:00	9	3:09	11	3:20	20	3:40	104	
42	42594	16cra01283	Criminal	1:23	33	1:56	15	2:11	3	2:14	25	2:39	76	
43	42594	16cra00962	Criminal	1:23	33	1:56	12	2:08	4	2:12	41	2:53	90	
44	42594	16cra01308	Criminal	1:06	59	2:05	12	2:17	2	2:19	48	3:07	121	
45	42564	16trd01912	Traffic	9:22	3	9:25	19	9:44	1	9:45	10	9:55	33	
46	42564	16crb01129	Traffic	9:26	0	9:26	26	9:52	1	9:53	17	10:10	44	
47	42564	16trd01965	Traffic	9:27	0	9:27	66	10:33	1	10:34	25	10:59	92	
48	42564	16trd01925	Traffic	9:29	1	9:30	30	10:00	1	10:01	11	10:12	43	
49	42564	*16cra01161	Traffic	9:30	2	9:32	59	10:31	1	10:32	25	10:57	87	
50	42565	15TRC02239	Traffic	2:00	18	2:18	15	2:33	1	2:34	41	3:15	75	
51	42565	16TRC00964	Traffic	1:30	61	2:31	11	2:42	9	2:51	27	3:18	108	
52														
53														

# Total Cases

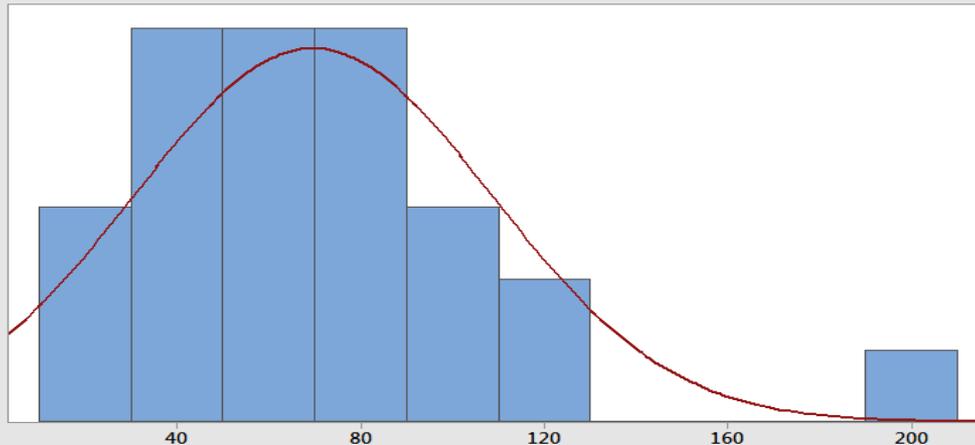


Stop! ~~Hammer~~ Graph Time!

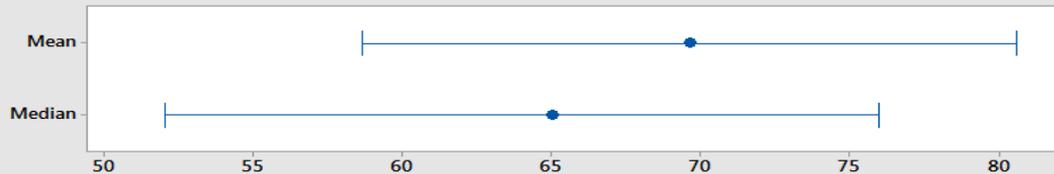


# Stat-Basic Stat-Graphical Summary

## Summary Report for Total Time Def in Court



### 95% Confidence Intervals



### Anderson-Darling Normality Test

A-Squared 0.82  
P-Value 0.031

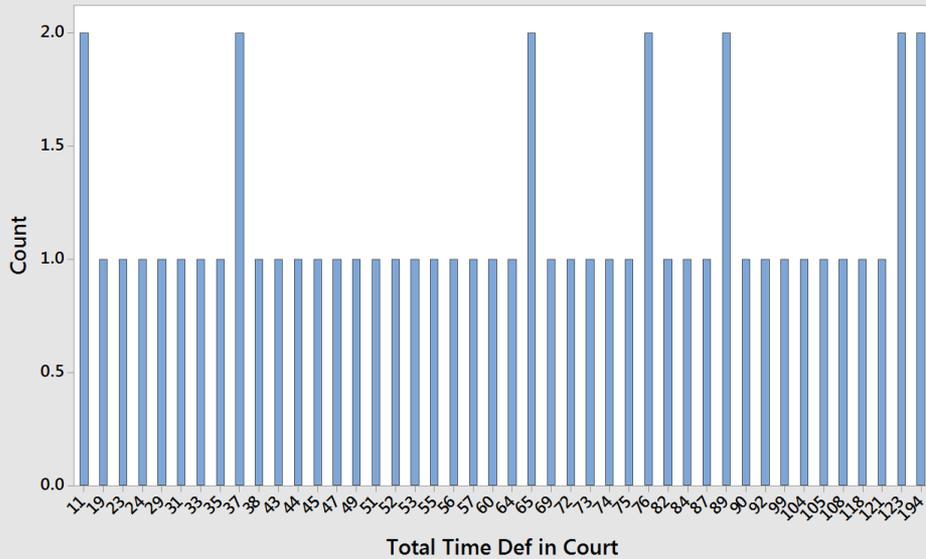
Mean 69.627  
StDev 38.970  
Variance 1518.638  
Skewness 1.22064  
Kurtosis 2.35378  
N 51

Minimum 11.000  
1st Quartile 43.000  
Median 65.000  
3rd Quartile 89.000  
Maximum 194.000

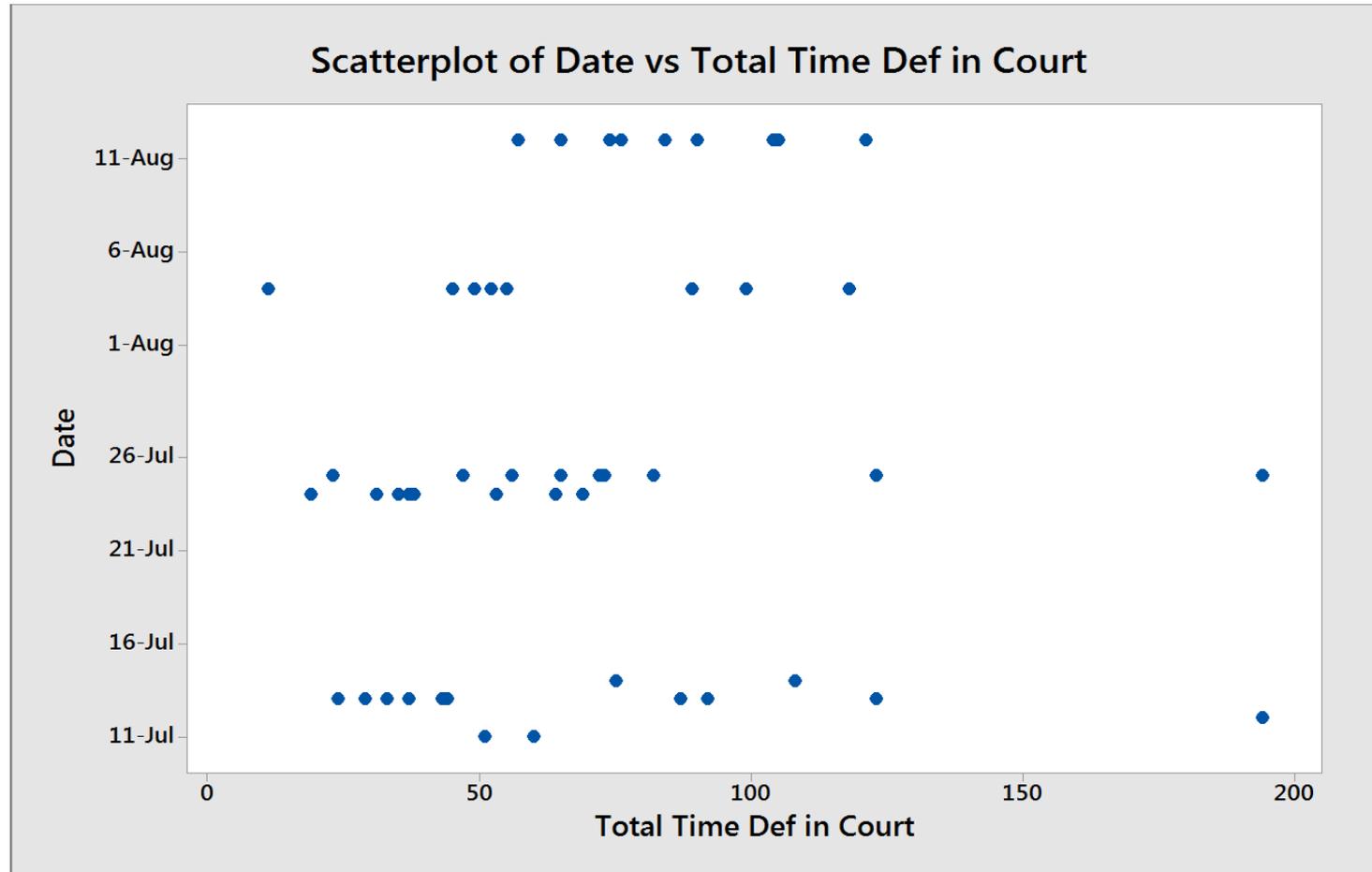
95% Confidence Interval for Mean  
58.667 80.588  
95% Confidence Interval for Median  
52.002 75.998  
95% Confidence Interval for StDev  
32.606 48.442

# Let's see some more of those graphs!

Chart of Total Time Def in Court



# Does date matter?



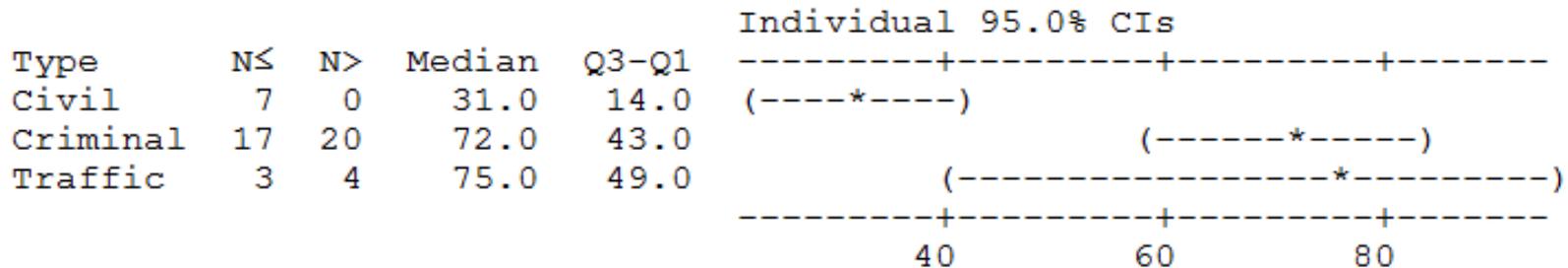
(Not really.)

# Well then...how about case type?

## Mood Median Test: Total Time Def in Court versus Type

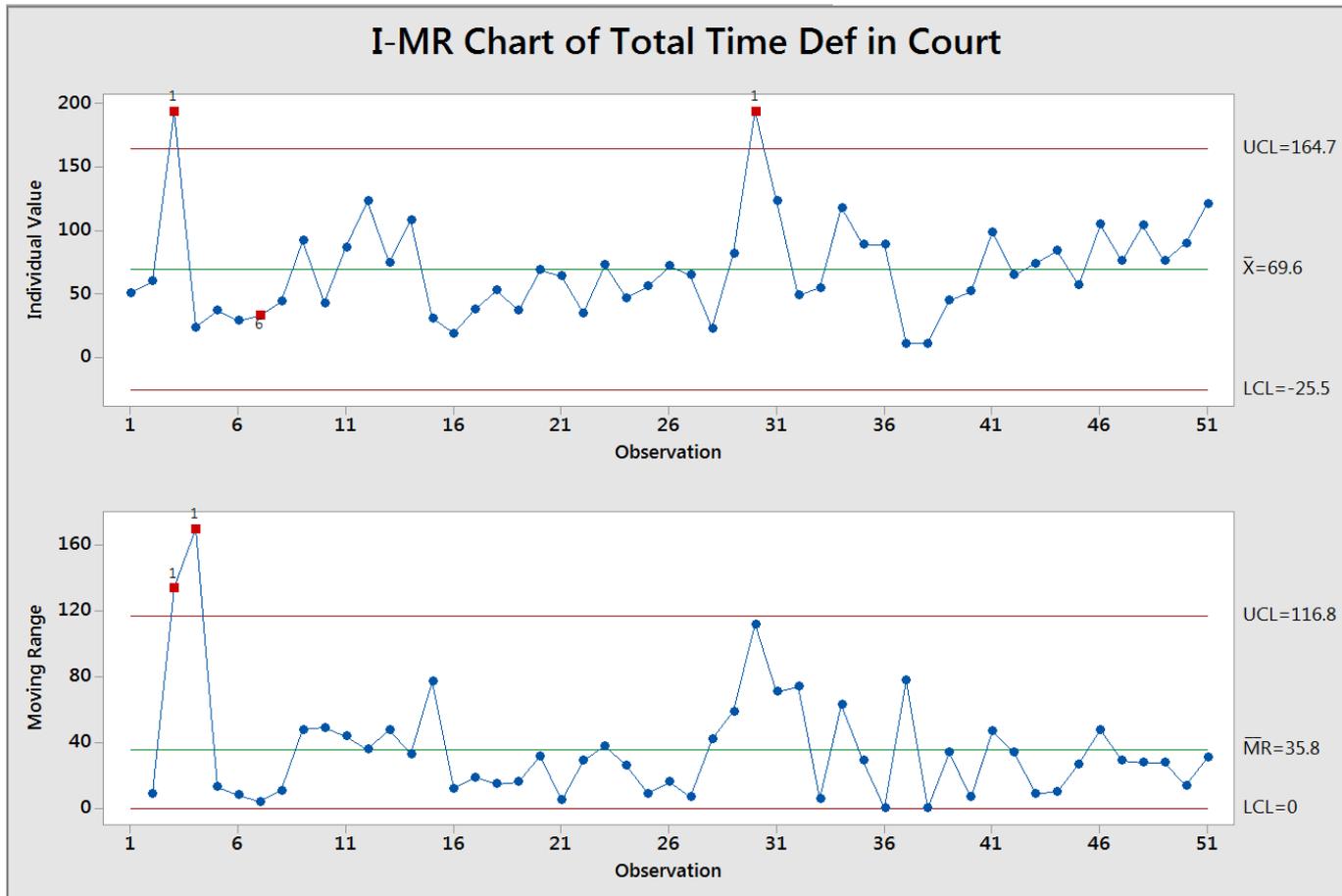
Mood median test for Total Time Def in Court

Chi-Square = 7.23      DF = 2      P = 0.027



(Yep. Kind of.)

# Is this data even in control?!

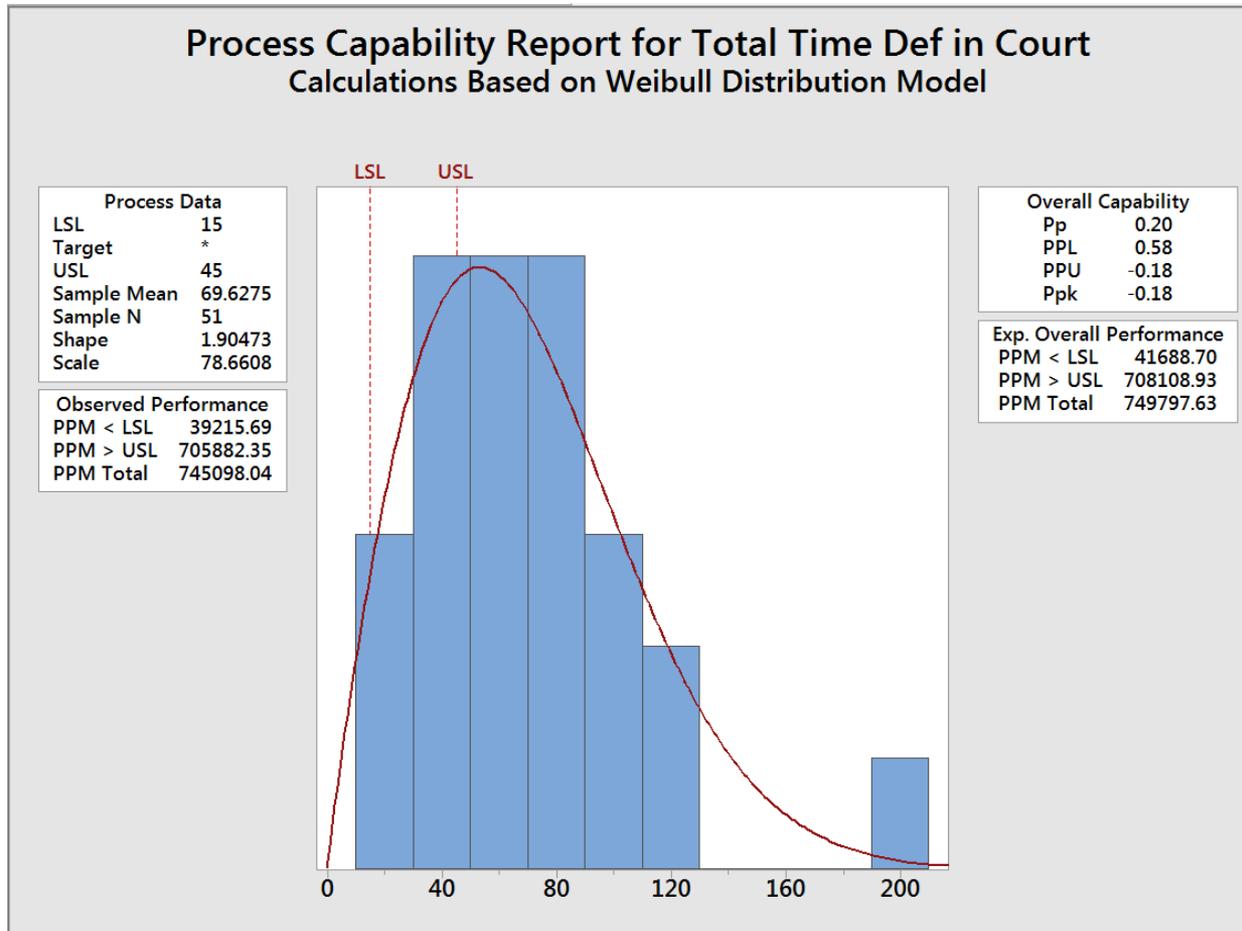


(No. But less out-of-control than expected.)

# Specs Defined

- Following baseline data analysis of all cases, administrators conferred regarding goal time-spent-in-court
- Ultimately determined 0-45 mins. is optimal (covers all case types)

# Okay, so is this data within spec?!



(No. Not even remotely close.)



Courtesy K.C. Green

# As a result...

- We now have data to compare to the future data!
- So tune in next time for Alan's Black Belt project; see his breathtaking, action-packed analysis of baseline vs. implementation data!
- Will the data be in spec? Will BenchProcessing make a significant impact? And, most importantly, will Alan save the day?



*Courtesy NBC*

# Implementation/Future Plan

Task	Who	When	Status
<b>Initiate BenchProcessing software</b>	Nick	Beginning October 2016	Ongoing – rollout to different case types
<b>Time study/ collection</b>	Tonja/Nick	Beginning early 2017	Ongoing
<b>Data analyzed</b>	Alan	TBD	Planning
<b>Final report issued</b>	Alan	TBD	Planning

# Project Benefits - Expected

- **Defendant time-in-court will decrease**
  - **Less frustration by defendant**
  - **More time back at work**
- **Paper filings will decrease**
- **Staff hours reinvested in other projects**
- **Reduction of errors throughout caseflow process**

# Special *thanks* to...

- **Tonja Amato and Nick Dearing**
- **Judge Laura DiGiacomo**
- **Ashtabula Municipal Court employees**
- **SCO Administrative Director Mike Buenger**
- **SCO IT Director Robert Stuart**
- **SCO Case Management Section**
- **Denae Kotheimer (great mentor) and LeanOhio team (great in general)**