July 22, 2021 Meeting Agenda

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1 Capacity Estimation

1.1 Summary Statistics

Table 1: Summary Statistics for each work type. Share Plea is the share of days in which we observe at least one plea. ShareTrial and ShareEmpty are defined similarly. Share is the work type's share of all work types.

WorkType	Days	Share	SharePlea	ShareTrial	ShareEmpty
AW	125.50	0.01	0.04	0.00	0.96
CP	3,112.67	0.25	0.03	0.00	0.97
CP CC	10.17	0.00	0.00	0.00	1.00
CP/PCR	14.50	0.00	0.03	0.00	0.97
CPNJ	1,300.33	0.11	0.03	0.00	0.97
CPNJ CC	11.00	0.00	0.36	0.00	0.64
CPNJ/GS	0.50	0.00	1.00	0.00	0.00
CPNJ/PCR	289.50	0.02	0.04	0.00	0.96
Capital PCR	11.00	0.00	0.00	0.00	1.00
GS	4,160.67	0.34	0.64	0.05	0.34
GS CC	75.67	0.01	0.39	0.07	0.56
GS CP CC	53.00	0.00	0.36	0.06	0.58
GS(SGJ)	70.67	0.01	0.33	0.07	0.65
GS(SGJ) CC	0.33	0.00	0.00	0.00	1.00
GS(SGJ) CP	5.00	0.00	0.60	0.00	0.40
X	765.00	0.06	0.01	0.00	0.99
X-	1.00	0.00	0.00	0.00	1.00
XX	80.00	0.01	0.00	0.00	1.00
in chambers	1,488.50	0.12	0.01	0.00	0.99
na	546.00	0.04	0.03	0.00	0.97

1.2 Judge schedules leading up to trials

Suppose a judge j sentenced a trial on day d in county c. I looked at judge j's activity in county c in the three weeks leading up to d and I counted the number of empty days we observed. I did this for all trials and plotted a histogram of the number of empty days. The first includes all trials, and the second is only for trials that happened on non-GS days. I also looked at the distribution of the work types of the empty days preceding the trials. **Takeaway:** 5 seems to be the most common

number of empty days preceding a trial, for both all trials and non-GS trials. I am not sure what to make of the distribution of the work types of the days preceding the trials. For non GS trials, the most days leading up to the trial are GS, for all trials, most days leading up to the trial are CP, followed by GS.

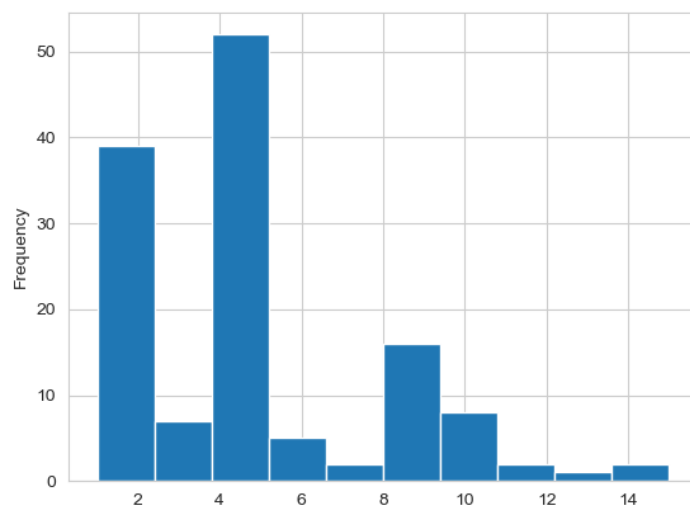Figure 1: Histogram of number of empty days in county preceding trial, all trials

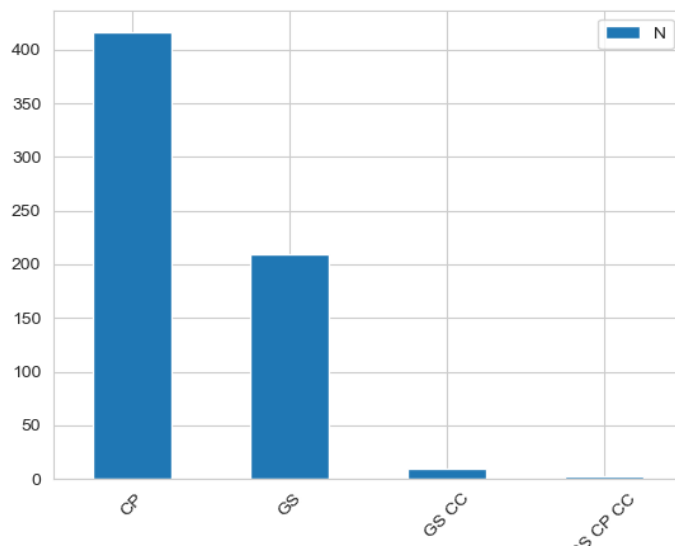Figure 2: Distribution of work type of empty days preceding a trial, all trials

Figure 3: Histogram of number of empty days in county preceding trial, non-GS trials
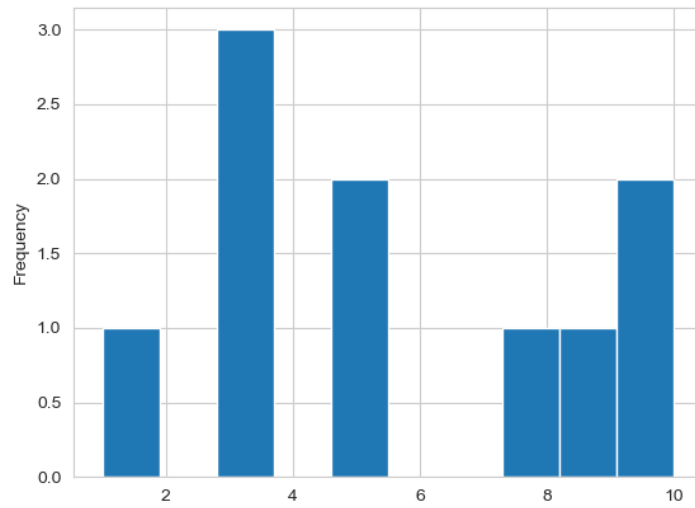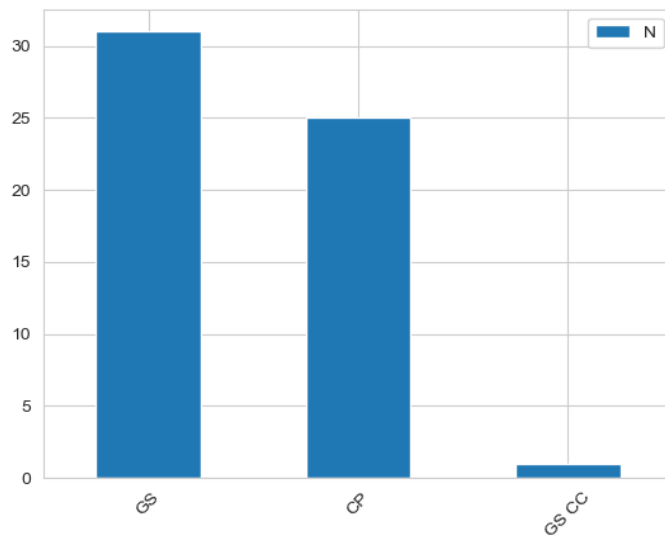

Figure 4: Distribution of work type of empty days preceding a trial, non-GS trials

2 Trial Scheduling in Simulation

2.1 Travel probability

Table 2: Probability of being in county, in circuit, and out of circuit for each judge

JudgeID	County	Circuit	Out of Circuit
Judge 1	0.38	0.10	0.52
Judge 10	0.08		0.92
Judge 11	0.66	0.20	0.15
Judge 12	0.25	0.05	0.70
Judge 13	0.23	0.22	0.55
Judge 14	0.15	0.05	0.80
Judge 15	0.09		0.91
Judge 16	0.22	0.07	0.71
Judge 17	0.44	0.34	0.23
Judge 18	0.37	0.13	0.50
Judge 19	0.16		0.84
Judge 2	0.13		0.87
Judge 20	0.24	0.18	0.58
Judge 21	0.31	0.21	0.47
Judge 22	0.29	0.15	0.55
Judge 23	0.44	0.20	0.37
Judge 24	0.42	0.11	0.47
Judge 25			1.00
Judge 26	0.32	0.18	0.50
Judge 27	0.41	0.20	0.39
Judge 28	0.23	0.14	0.62
Judge 29	0.27	0.22	0.51
Judge 3	0.20	0.07	0.73
Judge 30	0.35	0.08	0.56
Judge 31	0.15		0.85
Judge 32	0.11		0.89
Judge 33	0.27	0.12	0.61
Judge 34	0.24	0.17	0.58
Judge 35	0.41	0.08	0.51
Judge 36	0.15		0.85
Judge 37	0.13		0.87
Judge 38	0.15		0.85
Judge 39	0.12		0.88
Judge 4	0.38	0.08	0.54
Judge 40	0.67	0.15	0.19
Judge 41	0.75	0.15	0.10
Judge 42	0.24	0.07	0.69
Judge 43	0.26	0.22	0.52
Judge 44	0.26	0.15	0.59
Judge 45	0.26	0.23	0.51
Judge 46	0.02	0.03	0.95
Judge 47	0.41	0.20	0.39
Judge 48	0.14		0.86
Judge 49	0.31	0.19	0.50
Judge 5	0.11		0.89
Judge 50	0.18	0.02	0.79
Judge 6	0.11		0.89
Judge 7			1.00
Judge 8	0.21	0.16	0.63
Judge 9	0.24	0.08	0.68

2.2 Trials by Resident vs Non-Resident Judges by County

To determine each judge's home county, I used Rhys's home circuit assignments to determine each judge's home circuit. For those judges that had a home circuit, I made their home county the county to which they are assigned to the most days according to the calendar data. In the histograms below, the blue bars are the number of trials heard by a non-resident judge, and the red bars are the number of trials heard by a resident judge. Overall, it still looks like it is common for non-resident judges to hear trials in each county.