

# ASR Replication Preliminary - All Charges

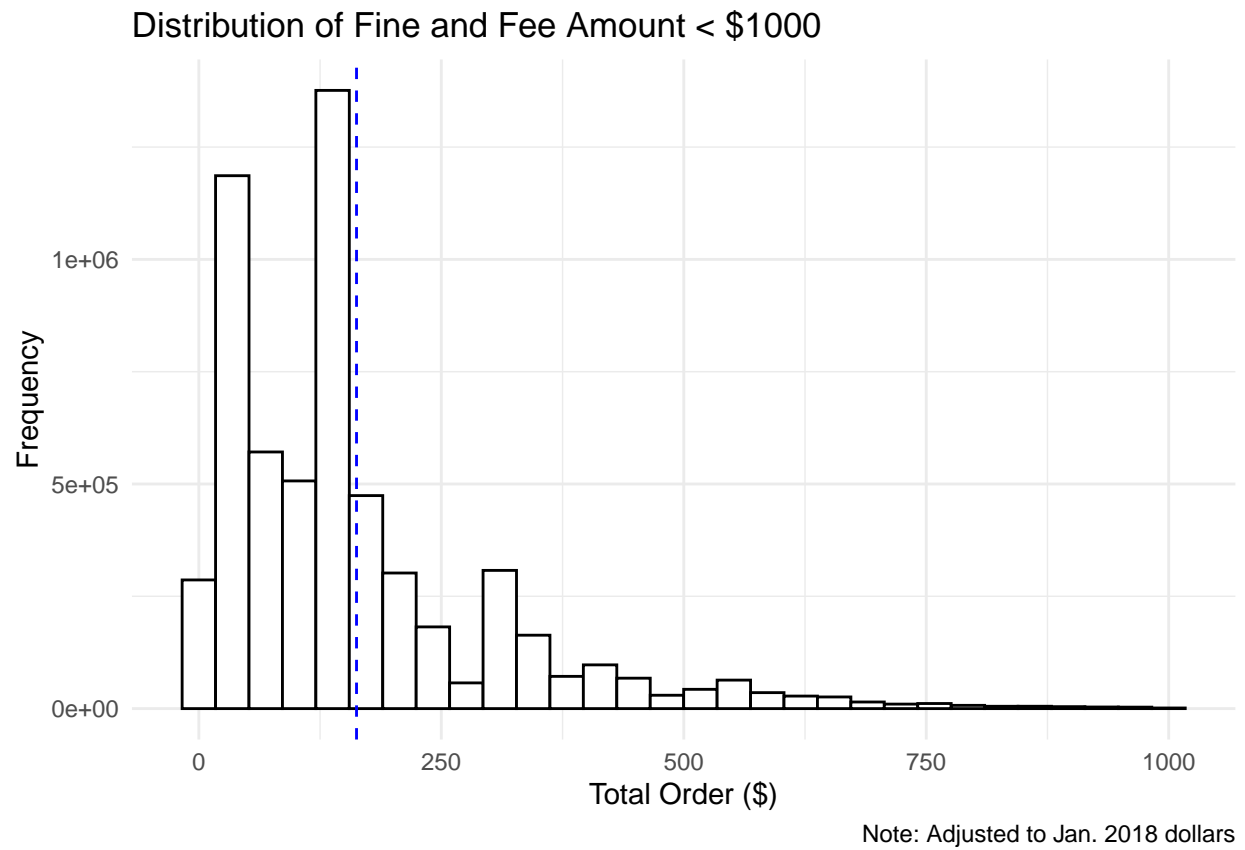
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This analysis represents a preliminary attempt to replicate and extend the Harris et. al. ASR paper. The Minnesota data is situated at the case level from 2010-2015. The full data series extends back to 2004, but VIBES data in the two most populous MN counties, Hennepin and Ramsey, are missing and inconsistent until 2010. Additionally, while data at the conviction level would be more comparable, we do not have data at the conviction level for much of the VIBES data. Parts I and II consist of sets of mixed models that intend to replicate the models in the paper as closely as possible using the Minnesota data. This analysis uses the full sample (petty misdemeanor, misdemeanor, gross misdemeanor, felony). We also include an extension set of mixed models to Native American populations, with hypothesized interactions with alcohol-related and hunting and fisheries violations to examine if the courtesy stigma and stereotype congruence effects found in the Black and Latino models extend to Native American populations.

A few differences are of note: “SRA score” and “offender score”, or comparable measures, are not readily available in the MCAO data. We decided to preliminarily use the number of prior offenses as a proxy for “offender score” and the degree of charge (e.g., gross misdemeanor) as an indicator of offense severity akin to “SRA score”. Additionally, we use a more expansive offense type categorization for our Native American extensions, including both alcohol-related and hunting and fisheries violations in addition to violent and drug indicators. Hunting and fisheries violations were not included in the felony level analyses, as no felony-level hunting or fisheries violations were documented for Native American defendants, which does not allow the estimation of that specific interaction.

## Distribution of Fines and Fees



## Descriptive Statistics

Table 1: Descriptive Statistics - All Charges

Statistic	N	Mean	St. Dev.	Min	Pctl(25)	Pctl(75)	Max
Total Fine/Fee	5,981,037	170.797	478.362	0.000	53.110	197.290	369,598.100
Priors	6,155,750	47.410	2,259.824	0	1	7	160,684
Petty Misdem.	6,097,406	0.645	0.478	0.000	0.000	1.000	1.000
Misdem.	6,097,406	0.305	0.460	0.000	0.000	1.000	1.000
Gross Misdem.	6,097,406	0.024	0.153	0.000	0.000	0.000	1.000
Felony	6,097,406	0.026	0.160	0.000	0.000	0.000	1.000
Age	6,155,750	36.874	14.001	15	25	47	115
Male	5,232,111	0.660	0.474	0.000	0.000	1.000	1.000
White	6,145,209	0.270	0.444	0.000	0.000	1.000	1.000
Asian	6,145,209	0.019	0.136	0.000	0.000	0.000	1.000
Black	6,145,209	0.117	0.321	0.000	0.000	0.000	1.000
Hispanic	6,145,209	0.030	0.170	0.000	0.000	0.000	1.000
Native Am.	6,145,209	0.017	0.128	0.000	0.000	0.000	1.000
Other Race	6,145,209	0.548	0.498	0.000	0.000	1.000	1.000
Trial	6,117,958	0.00005	0.007	0.000	0.000	0.000	1.000
Violent	6,097,485	0.025	0.156	0.000	0.000	0.000	1.000
Alcohol/DUI	6,097,485	0.046	0.210	0.000	0.000	0.000	1.000
Drug	6,097,485	0.020	0.139	0.000	0.000	0.000	1.000
Hunt/Fish	6,097,485	0.005	0.069	0.000	0.000	0.000	1.000
Other Offense	6,097,485	0.904	0.294	0.000	1.000	1.000	1.000
Percent Minority	6,143,428	14.182	6.049	1.348	8.292	18.930	50.801
Percent Vote Republican	6,143,428	39.900	8.171	31.633	35.716	47.431	58.858
Percent Law and Justice	6,138,447	15.246	2.861	8.467	13.370	18.393	22.683

## Bivariate Correlations

Table 2: Pairwise Correlations

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13
Total Fine/Fee	1												
Priors	0	1											
Petty Misdem.	-0.17	0	1										
Misdem.	0.13	0	-0.89	1									
Gross Misdem.	0.09	0	-0.21	-0.1	1								
Felony	0.05	0	-0.22	-0.11	-0.03	1							
Age	-0.05	0.01	0.18	-0.17	-0.01	-0.05	1						
Male	0.02	0.01	-0.08	0.05	0.03	0.05	0.02	1					
White	0.05	-0.01	-0.18	0.12	0.11	0.09	-0.11	0.05	1				
Asian	0.01	0.01	-0.01	0.01	0.01	0	-0.03	0.01	-0.08	1			
Black	0.01	0	-0.12	0.1	0.03	0.05	-0.09	0.01	-0.22	-0.05	1		
Hispanic	0.02	0	-0.08	0.07	0.02	0.03	-0.05	0.02	-0.11	-0.02	-0.06	1	
Native Am.	0.02	0	-0.12	0.08	0.05	0.07	-0.04	-0.02	-0.08	-0.02	-0.05	-0.02	1
Other Race	-0.06	0.01	0.3	-0.22	-0.13	-0.15	0.2	-0.06	-0.67	-0.15	-0.4	-0.19	-0.14
Trial	0	0	-0.01	0	0	0.02	0	0	0	0	0.01	0	0
Violent	0.03	0	-0.22	0.06	0.12	0.37	-0.04	0.06	0.08	0	0.07	0.03	0.07
Alcohol/DUI	0.1	0	-0.28	0.17	0.36	0.02	-0.09	0.04	0.13	0	-0.01	0.02	0.04
Drug	0.03	0	-0.09	0	-0.01	0.28	-0.08	0.04	0.07	0	0.02	0.01	0.03
Hunt/Fish	0	0	-0.09	0.1	0	-0.01	0.01	0.04	0.01	0	-0.02	-0.01	0
Other Offense	-0.1	0	0.38	-0.17	-0.32	-0.34	0.13	-0.09	-0.17	0	-0.03	-0.03	-0.08
Percent Minority	-0.06	0.01	0.24	-0.19	-0.07	-0.1	0.11	-0.05	-0.26	0.03	0.14	-0.03	-0.01
Percent Vote Republican	0.04	-0.01	-0.22	0.17	0.07	0.08	-0.11	0.04	0.22	-0.04	-0.12	0.03	0.04
Percent Law and Justice	0.02	0	-0.05	0.03	0.02	0.03	-0.02	0	0.08	0.04	-0.02	0	0.01

### Table 3 Replication

Table 3: Harris et. al. ASR Table 3 Replication - All Charges

	Total Fine and Fee Order (log)
Priors	0.00000
Petty Misdem.	0.073***
Misdem.	0.309***
Gross Misdem.	0.643***
Age	-0.238***
Male	0.021***
Black	-0.203***
Hispanic	0.057***
Asian	0.012**
Native Am.	-0.154***
Other Race	0.065***
Trial	-0.353***
Alcohol.DUI	0.365***
Drug	0.682***
Hunt.Fish	0.254***
Other Offense	0.199***
Percent Minority	-0.0002
Percent Vote Republican	0.001
Percent Law and Justice	-0.012*
Constant	5.407***
L1 Variance	1.73
L2 Variance	0.03
<i>N</i>	4,947,998

\*p < .05; \*\*p < .01; \*\*\*p < .001

Table 4: Harris et. al. ASR Table 4 Replication - All Charges

	Total Fine and Fee Order (log)			
	(1)	(2)	(3)	(4)
Priors	0.00000	0.00000	0.00000	0.00000
Petty Misdem.	-0.016***	-0.010*	-0.025***	-0.005
Misdem.	0.259***	0.264***	0.248***	0.277***
Gross Misdem.	0.804***	0.810***	0.797***	0.838***
Age	-0.254***	-0.254***	-0.255***	-0.258***
Male	0.026***	0.025***	0.027***	0.028***
Black	-0.250***	0.179***	-0.212***	-0.230***
Trial	-0.344***	-0.312***	-0.244**	0.044
Violent	-0.329***	-0.333***	-0.087***	0.707***
Percent Black	-0.025**	-0.025**	-0.024*	-0.018
Percent Vote Republican	-0.001	-0.002	-0.001	-0.001
Percent Law and Justice	-0.010	-0.011*	-0.010*	-0.012*
Black*Percent Black		-0.043***		
Black*Violent			-0.980***	
Violent*Percent Black				-0.184***
Constant	5.919***	5.921***	5.923***	5.877***
L1 Variance	1.74	1.74	1.74	1.73
L2 Variance	0.03	0.03	0.03	0.03
N	4,947,998	4,947,998	4,947,998	4,947,998

\*p &lt; .05; \*\*p &lt; .01; \*\*\*p &lt; .001

Table 5: Harris et. al. ASR Table 5 Replication - All Charges

	Total Fine and Fee Order (log)			
	(1)	(2)	(3)	(4)
Priors	0.00000	0.00000	0.00000	0.00000
Petty Misdem.	0.190***	0.190***	0.190***	0.192***
Misdem.	0.434***	0.434***	0.435***	0.438***
Gross Misdem.	0.939***	0.939***	0.940***	0.943***
Age	-0.234***	-0.234***	-0.234***	-0.234***
Male	0.020***	0.020***	0.020***	0.020***
Hispanic	0.056***	0.098***	0.055***	0.057***
Trial	-0.438***	-0.438***	-0.439***	-0.429***
Drug	0.146***	0.146***	0.143***	0.472***
Percent Hispanic	0.002	0.003	0.002	0.004
Percent Vote Republican	0.001	0.001	0.001	0.001
Percent Law and Justice	-0.014**	-0.014**	-0.014**	-0.014**
Hispanic*Percent Hispanic		-0.006***		
Hispanic*Drug			0.061**	
Drug*Percent Hispanic				-0.065***
Constant	5.525***	5.523***	5.525***	5.516***
L1 Variance	1.75	1.75	1.75	1.75
L2 Variance	0.03	0.03	0.03	0.03
N	4,947,998	4,947,998	4,947,998	4,947,998

\*p &lt; .05; \*\*p &lt; .01; \*\*\*p &lt; .001

Table 6: Harris et. al. ASR Table 5 Replication - All Charges

	Total Fine and Fee Order (log)			
	(1)	(2)	(3)	(4)
Priors	0.00000	0.00000	0.00000	0.00000
Petty Misdem.	0.174***	0.175***	0.175***	0.173***
Misdem.	0.375***	0.377***	0.376***	0.375***
Gross Misdem.	0.653***	0.653***	0.652***	0.653***
Age	-0.220***	-0.220***	-0.220***	-0.220***
Male	0.017***	0.017***	0.017***	0.017***
Native Am.	-0.160***	-0.234***	-0.117***	-0.160***
Trial	-0.444***	-0.443***	-0.445***	-0.444***
Alcohol.DUI	0.507***	0.508***	0.523***	0.497***
Hunt.Fish	0.085***	0.089***	0.086***	0.073***
Percent NA	0.004	-0.002	0.005	0.003
Percent Vote Republican	0.002	0.002	0.002	0.002
Percent Law and Justice	-0.014**	-0.014**	-0.014**	-0.014**
Native Am.*Percent NA		0.019***		
Native Am.*Alcohol.DUI			-0.360***	
Native Am.*Hunt.Fish			0.073	
Alcohol.DUI*Percent NA				0.007***
Hunt.Fish*Percent NA				0.006**
Constant	5.449***	5.467***	5.444***	5.452***
L1 Variance	1.74	1.74	1.74	1.74
L2 Variance	0.03	0.03	0.03	0.03
N	4,947,998	4,947,998	4,947,998	4,947,998

\*p &lt; .05; \*\*p &lt; .01; \*\*\*p &lt; .001