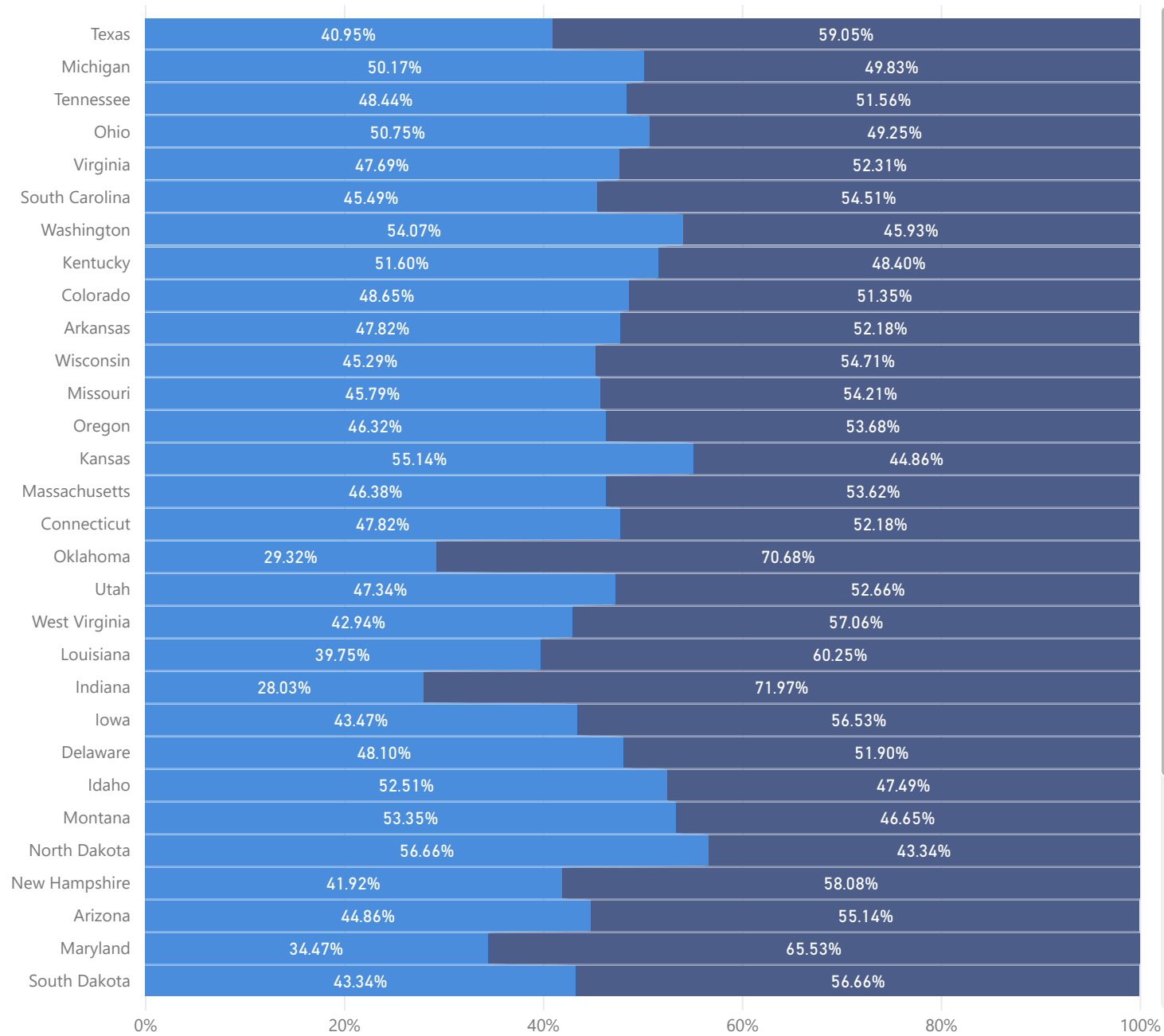


Forecasted Homicide Offenses By State

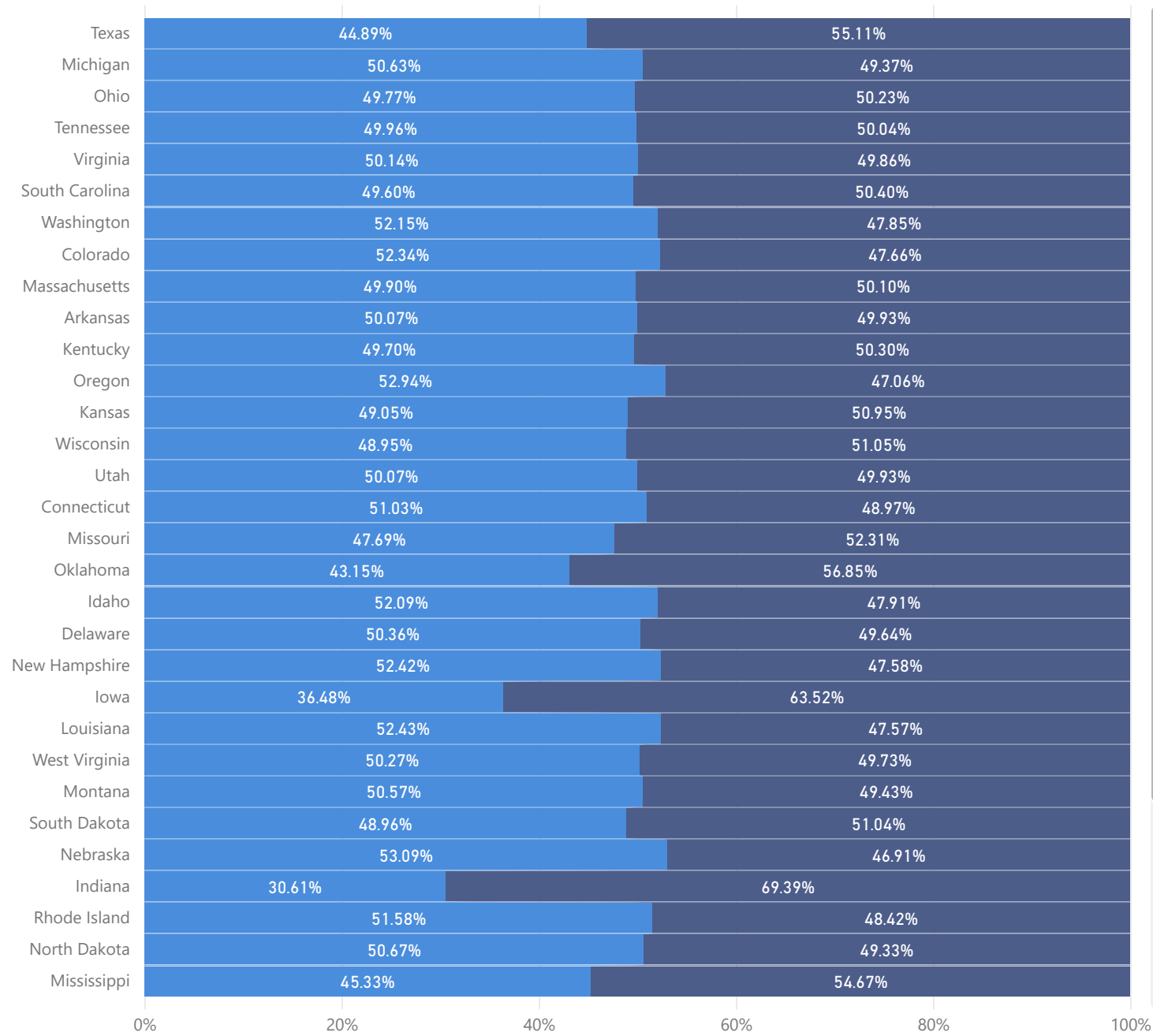
Forecast FBI NIRBS Reported [2019]



State	Forecast	Actual
Wisconsin	190	230
West Virginia	63	84
Washington	268	228
Virginia	440	483
Vermont	13	19
Utah	69	77
Texas	697	1005
Tennessee	533	567
South Dakota	24	31
South Carolina	409	490
Rhode Island	22	26
Pennsylvania	2	0
Oregon	128	148
Oklahoma	71	171
Ohio	515	500
North Dakota	33	25
New Hampshire	32	44
Nebraska	20	17
Montana	39	34
Missouri	177	209
Mississippi	17	63
Minnesota	14	86
Michigan	623	619
Massachusetts	106	122
Maryland	26	50
Maine	7	14
Louisiana	53	81
Kentucky	263	247
Kansas	106	86
Iowa	49	64

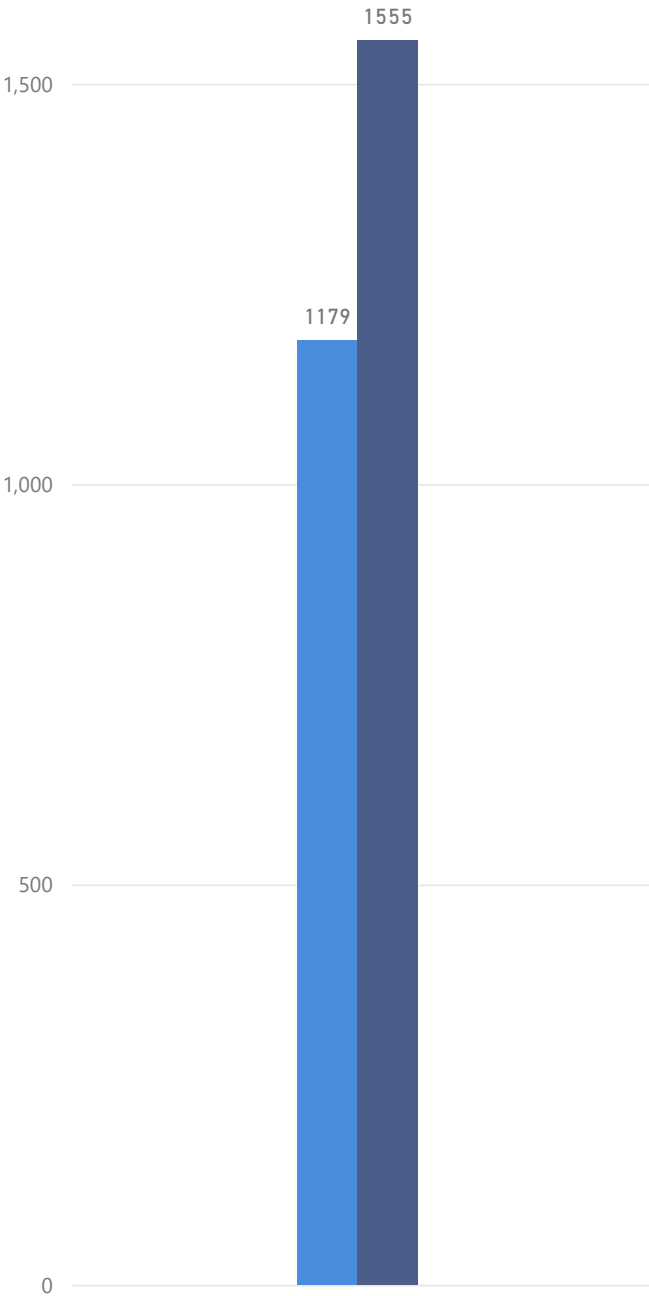
Forecasted Homicide Offenses By State

● Forecast ● FBI NIBR's Reported [2019]



State	Forecast	Actual
Texas	213,009	261,463
Michigan	162,518	158,443
Ohio	149,585	150,976
Tennessee	145,679	145,891
Virginia	106,584	106,000
South Carolina	96,496	98,035
Washington	90,489	83,034
Massachusetts	63,508	63,770
Arkansas	61,176	60,998
Colorado	64,992	59,182
Kentucky	46,385	46,936
Kansas	40,054	41,605
Wisconsin	37,386	38,985
Oregon	43,575	38,742
Oklahoma	24,749	32,609
Utah	31,904	31,808
Iowa	16,733	29,136
Connecticut	30,238	29,018
Missouri	26,127	28,658
Indiana	11,129	25,231
Minnesota	6,207	19,106
Delaware	17,733	17,480
Idaho	18,898	17,379
New Hampshire	17,682	16,052
Louisiana	16,395	14,872
West Virginia	12,957	12,816
South Dakota	12,053	12,567
Montana	12,633	12,349
North Dakota	10,807	10,521
Mississippi	8,707	10,501

● Autoregression ● Linear Regression



6719

FBI NIBRS 2019

1.18K

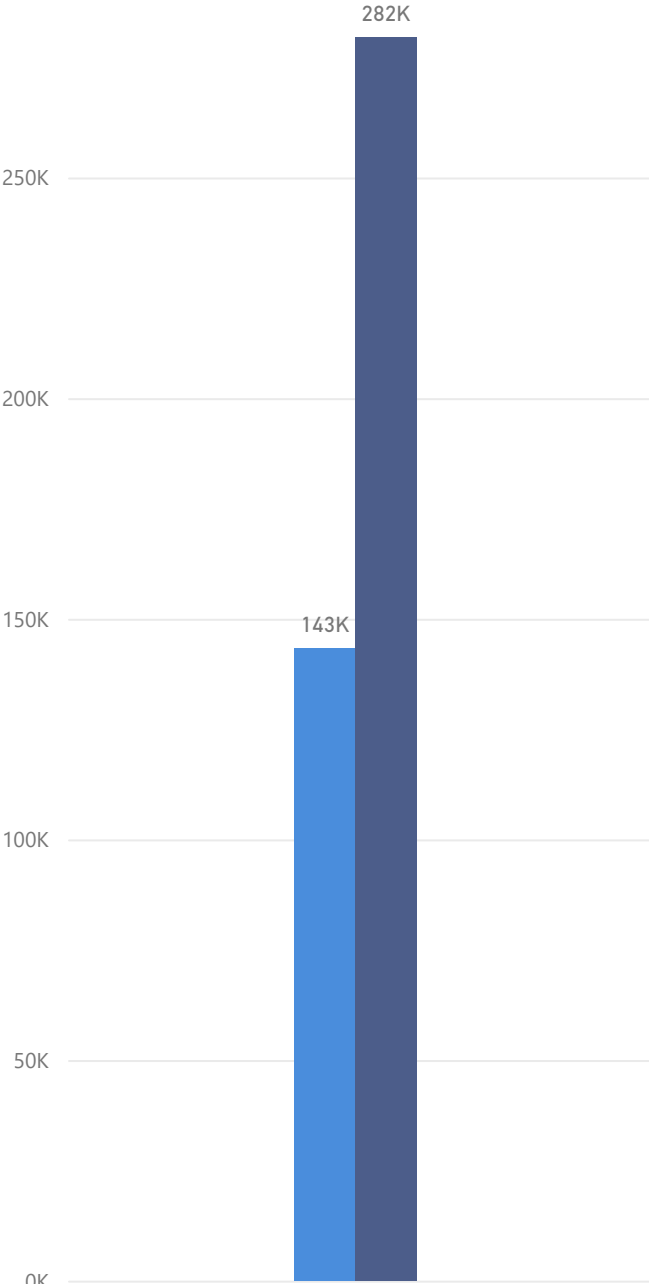
Autoregression MAE

1.55K

Linear Regression MAE

State	AR Forecast	LR Forecast
Texas	696.91	441.68
Michigan	623.10	598.14
Tennessee	532.60	582.46
Ohio	515.13	607.36
Virginia	440.32	522.75
South Carolina	408.96	443.64
Washington	268.40	260.57
Kentucky	263.33	334.57
Colorado	261.50	264.82
Arkansas	231.88	261.29
Wisconsin	190.41	216.32
Missouri	176.53	173.11
Oregon	127.71	130.39
Kansas	105.69	104.04
Massachusetts	105.53	84.93
Connecticut	80.66	51.46
Oklahoma	70.92	76.57
Utah	69.21	72.14
West Virginia	63.22	79.96
Louisiana	53.44	62.93
Indiana	51.01	45.14
Iowa	49.22	89.50
Delaware	49.12	63.29
Idaho	44.23	43.32
Montana	38.89	41.54
North Dakota	32.69	24.68
New Hampshire	31.76	19.82
Arizona	28.48	23.57
Maryland	26.31	27.00
South Dakota	23.71	28.04

Autoregression Linear Regression



2M
FBI NIBRS 2019

143.35K
Autoregression MAE

281.80K
Linear Regression MAE

State	AR Forecast	LR Forecast
Michigan	162,518.18	153,076.57
Tennessee	145,678.75	147,796.68
Ohio	149,584.84	143,909.93
Texas	213,008.56	112,565.07
Virginia	106,583.58	101,757.75
Washington	90,489.32	94,597.89
South Carolina	96,496.16	92,172.04
Colorado	64,991.90	65,780.43
Arkansas	61,176.31	59,815.04
Massachusetts	63,508.42	59,072.75
Kentucky	46,384.90	50,958.54
Oregon	43,574.71	42,148.11
Kansas	40,054.04	36,589.79
Wisconsin	37,386.30	34,834.14
Utah	31,903.55	30,711.32
Oklahoma	24,749.02	26,751.46
Iowa	16,732.56	24,547.04
Connecticut	30,238.42	24,484.07
Missouri	26,127.11	23,284.39
Idaho	18,897.54	17,418.21
Delaware	17,732.62	16,776.54
Louisiana	16,394.65	16,107.46
New Hampshire	17,681.57	15,944.14
West Virginia	12,957.23	14,256.89
Montana	12,633.47	13,247.82
South Dakota	12,052.51	12,112.25
Rhode Island	11,090.06	10,609.50
North Dakota	10,806.94	10,507.36
Nebraska	11,135.89	9,141.57
Indiana	11,128.84	8,278.51