

Vehicle Stops Report: 2024

University of Missouri

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1 State Results

Table 1: Rates by Race for Missouri

	Total	White	Black	Hispanic	Native American	Asian	Other
Population							
2023 ACS pop.	4945676	3893895	529653	214552	13584	106044	337617
2023 ACS pop. %	100	78.73	10.71	4.34	.27	2.14	6.83
2020 Decennial pop.	4775612	3723642	514169	197173	18642	104558	217428
2020 Decennial pop. %	100	77.97	10.77	4.13	.39	2.19	4.55
Totals							
All stops	1282528	984190	217871	46655	2171	14372	17269
Resident stops	640014	523042	86318	19447	877	5684	4646
Searches	61389	46038	11651	2988	88	358	266
Contraband	13355	10368	2278	574	17	64	54
Arrests	49421	33228	12680	2877	70	303	263
Citations	532132	377384	117743	24313	755	6283	5654
Rates							
Stop rate	25.93	25.28	41.13	21.75	15.98	13.55	5.11
Stop rate, residents	12.94	13.43	16.3	9.06	6.46	5.36	1.38
Search rate	4.79	4.68	5.35	6.4	4.05	2.49	1.54
Contraband hit rate	21.75	22.52	19.55	19.21	19.32	17.88	20.3
Arrest rate	3.85	3.38	5.82	6.17	3.22	2.11	1.52
Citation rate	41.49	38.34	54.04	52.11	34.78	43.72	32.74

Notes: The American Community Survey five-year population estimates for ages 16+ as of 2022 are used for Missouri. For comparison, the 2020 Decennial Census population estimates for ages 18+ are also shown in the table.

The ACS only provides race-specific Hispanic estimates for White, meaning non-White Hispanic residents are double-counted in the race percentages above.

Stop rate = (stops / 2023 population) X 100.

Stop rate, residents only = (stops by residents / 2022 population) X 100.

Search rate = (searches / stops) X 100.

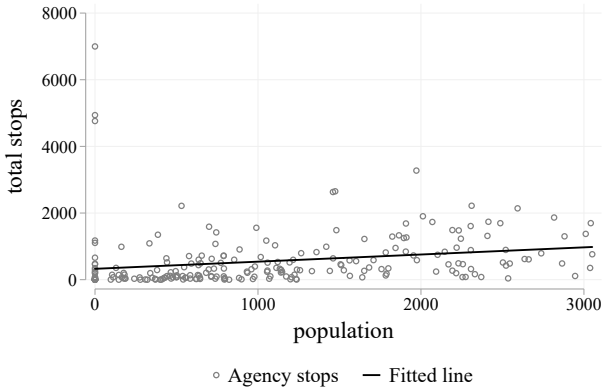
Contraband hit rate = (searches with contraband found / total searches) X 100.

Arrest rate = (arrests / stops) X 100.

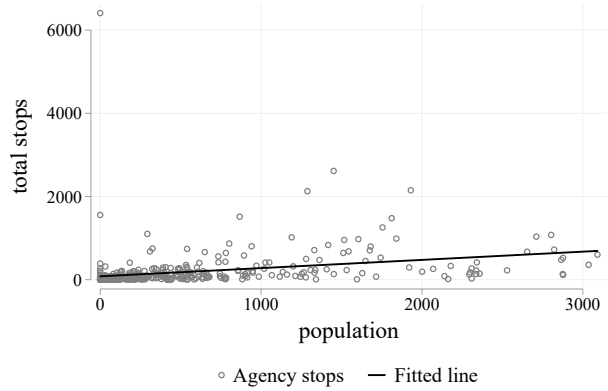
Citation rate = (citations / stops) X 100.

Figure 1: Total stops across agencies for Missouri

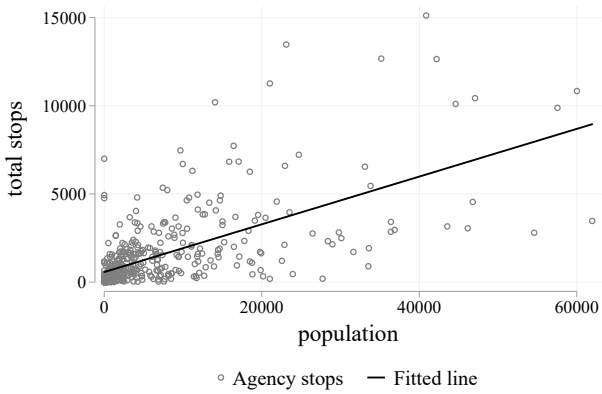
(a) Total stops, pop. below median



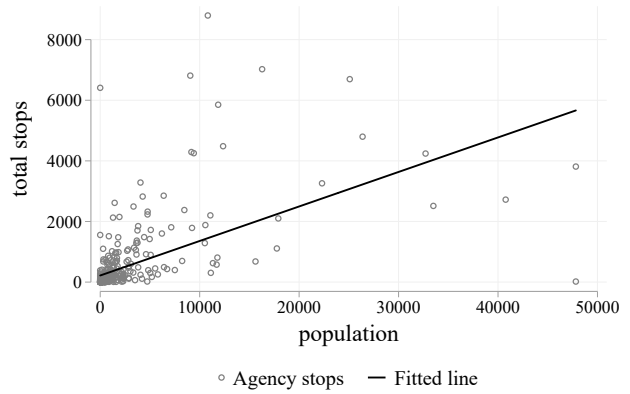
(b) Non-white total stops, pop. below median



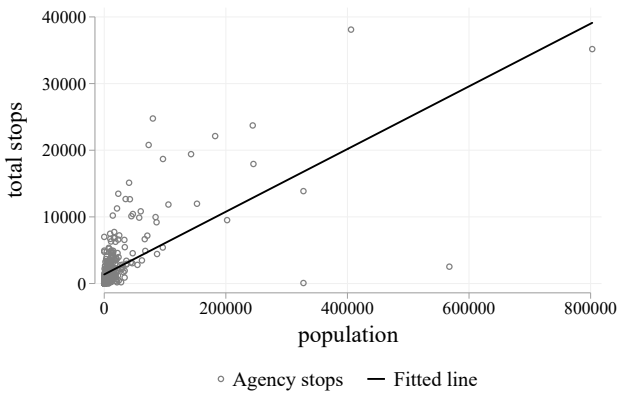
(c) Total stops, pop. below 95th percentile



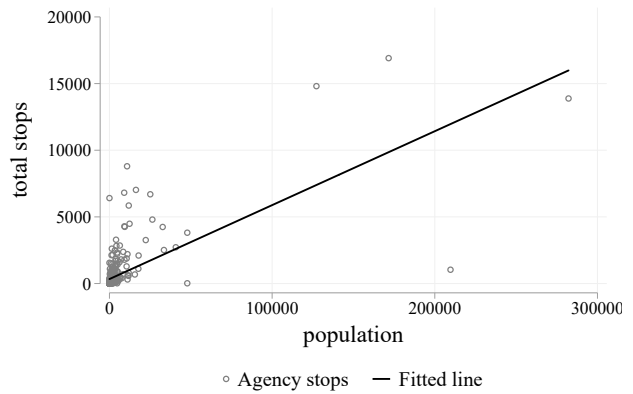
(d) Non-white total stops, pop. below 95th percentile



(e) Total stops, all



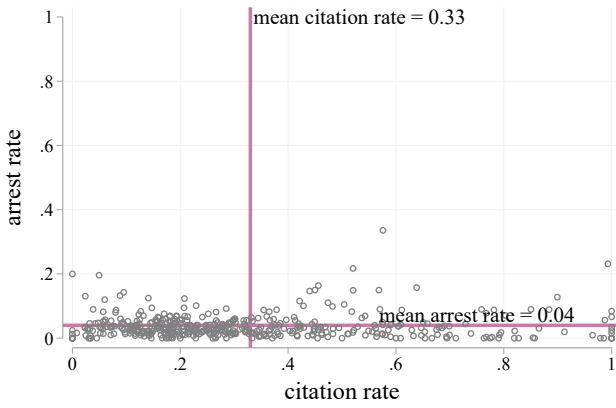
(f) Non-white total stops, all



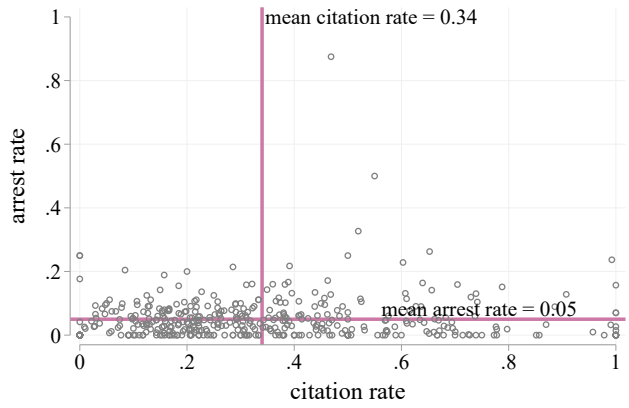
Notes: Figure (a) depicts the total number of stops for all agencies with a total population less than the median population size (3,241 persons) in Missouri plotted against population size. Similarly, Figure (b) shows the total number of non-white stops by the non-white population size for each agency for those same agencies. Figures (c) and (d) follow the same format but for agencies with a total population less than the 95th-percentile (66,599 persons). Finally, graphs (e) and (f) graph all agencies, except the Missouri State Highway Patrol which covers the entire state. Population is measured using the 2023 American Community Survey 5-year estimates for Missouri. The ACS only provides race-specific Hispanic estimates for White, to avoid double counting we calculate the total non-White population as the total population minus the White population for each agency. Agencies without population (e.g., university police) are considered to have a population of zero.

Figure 2: Citation, arrest, search, and hit rates across agencies for Missouri

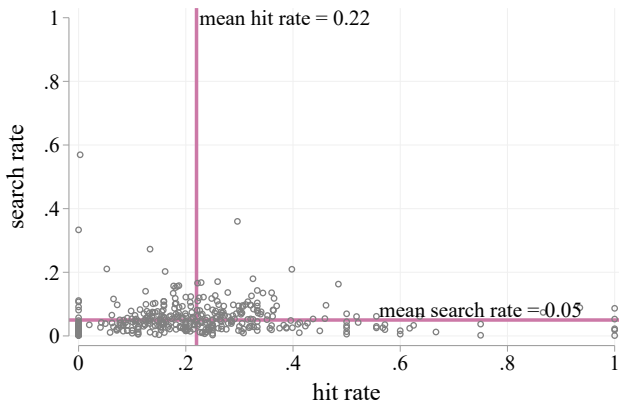
(a) Arrest and citation rate



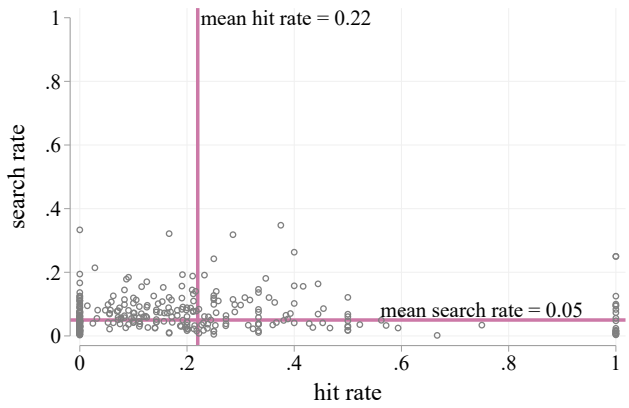
(b) Non-white arrest and citation rate



(c) Search and hit rate

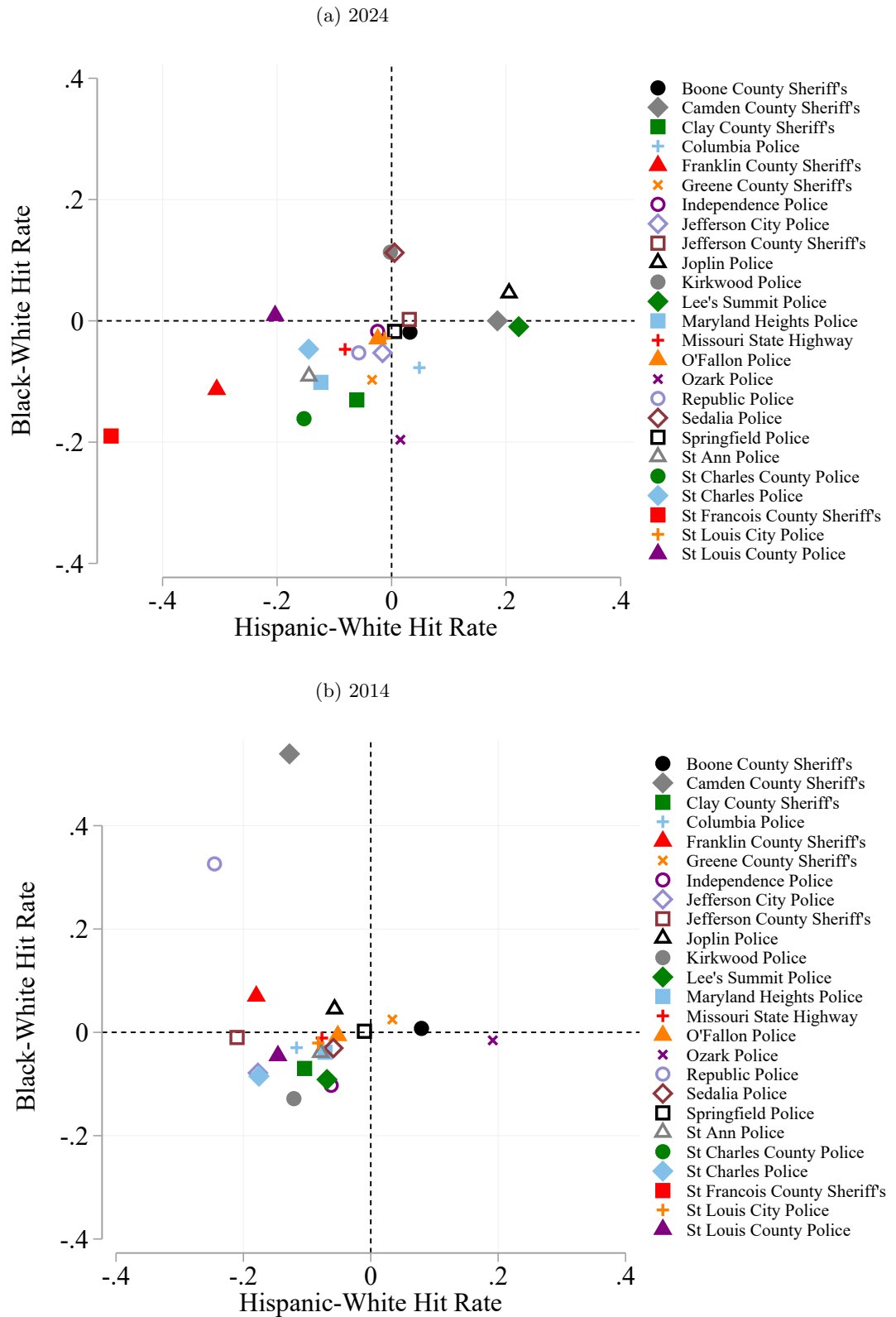


(d) Non-white search and hit rate



Notes: Figure (a) graphs the arrest rate and citation rate for all agencies in Missouri. Similarly, Figure (b) graphs the arrest rate and citation rate for all non-white stops. Figure (c) graphs the search rate and hit rate for all agencies in Missouri. Similarly, Figure (d) graphs the search rate for all non-white stops and hit rate for all non-white searches. The reported mean equally weights each agency and is not a population-weighted mean.

Figure 3: Relative hit rates for the top 25 agencies with the most searches



Notes: The race specific hit rate is calculated as the number of searches that find contraband divided by the total number of searches for a specific race. The difference between the Black and White hit rates and the Hispanic and White hit rates are plotted on the y- and x-axis, respectively.

Table 2: Disparity Index for Missouri

	Total	White	Black	Hispanic	Native American	Asian	Other
Population							
2023 ACS pop.	4945676	3893895	529653	214552	13584	106044	337617
2023 ACS pop. %	100	78.73	10.71	4.34	.27	2.14	6.83
2020 Decennial pop.	4775612	3723642	514169	197173	18642	104558	217428
2020 Decennial pop. %	100	77.97	10.77	4.13	.39	2.19	4.55
Stops							
All stops	1282528	984190	217871	46655	2171	14372	17269
Resident stops	640014	523042	86318	19447	877	5684	4646
Disparity index							
All stops ACS	.	.975	1.586	.839	.616	.523	.197
Resident stops ACS	.	1.038	1.259	.7	.499	.414	.106
All stops DEC	.	.984	1.578	.881	.434	.512	.296
Resident stops DEC	.	1.048	1.253	.736	.351	.406	.159

Notes: 2024 Disparity index is based on 2019-2023 average population estimates from the U.S. Census Bureau's American Community Survey (ACS) for ages 16+ for Missouri. The ACS only provides race-specific Hispanic estimates for White, meaning non-White Hispanic residents are double-counted in the race percentages above. For comparison, the 2020 Decennial Census population estimates for ages 18+ are also shown in the table. Disparity index = (proportion of stops / proportion of population). A value of 1 indicates no difference between the share of stops and share of local population for a given group. Values greater than one indicate over-representation in the share of stops relative to local population, while a value less than 1 indicates under-representation.

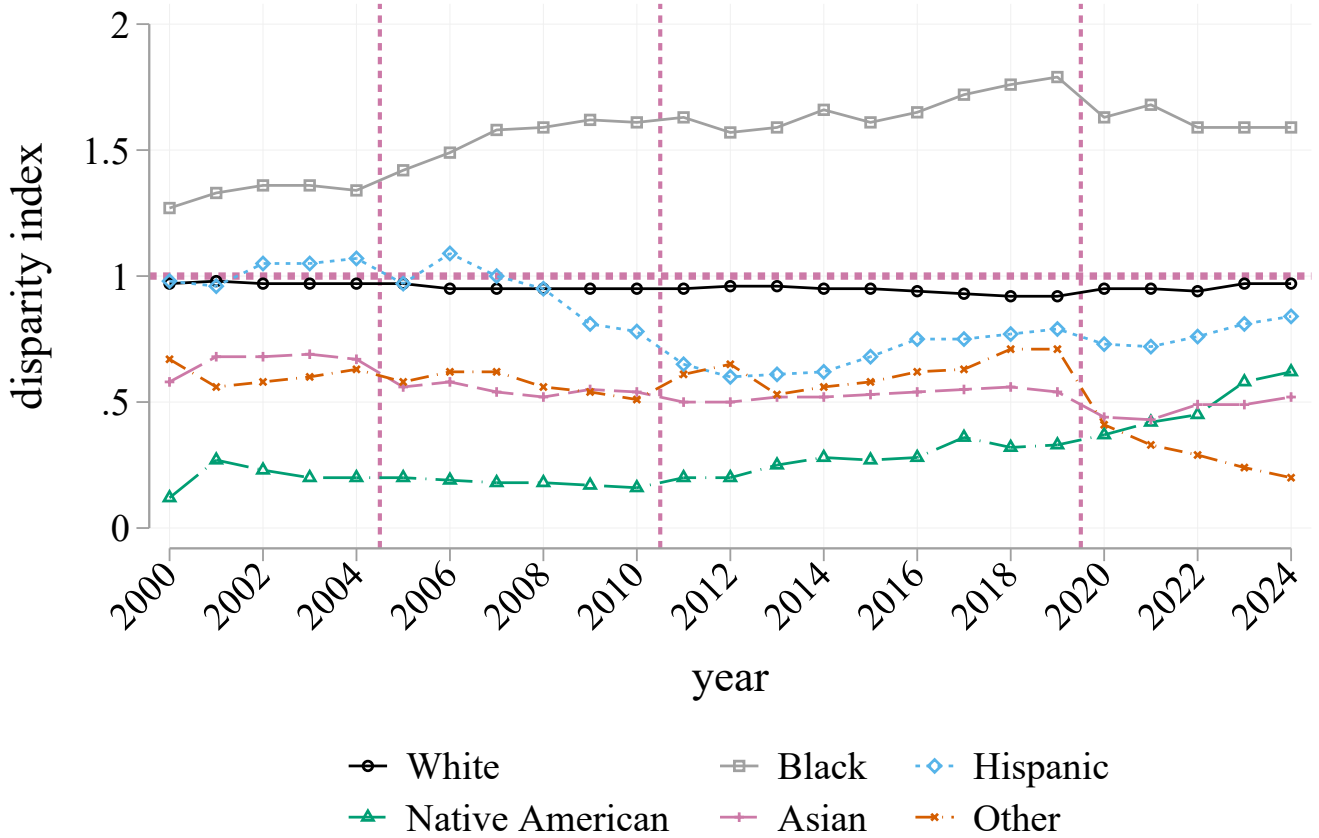
Table 3: Disparity Index from 2000 to 2024 for Missouri

	White	Black	Hispanic	Native American	Asian	Other
2000	.97	1.27	.98	.12	.58	.67
2001	.98	1.33	.96	.27	.68	.56
2002	.97	1.36	1.05	.23	.68	.58
2003	.97	1.36	1.05	.2	.69	.6
2004	.97	1.34	1.07	.2	.67	.63
2005	.97	1.42	.97	.2	.56	.58
2006	.95	1.49	1.09	.19	.58	.62
2007	.95	1.58	1	.18	.54	.62
2008	.95	1.59	.95	.18	.52	.56
2009	.95	1.62	.81	.17	.55	.54
2010	.95	1.61	.78	.16	.54	.51
2011	.95	1.63	.65	.2	.5	.61
2012	.96	1.57	.6	.2	.5	.65
2013	.96	1.59	.61	.25	.52	.53
2014	.95	1.66	.62	.28	.52	.56
2015	.95	1.61	.68	.27	.53	.58
2016	.94	1.65	.75	.28	.54	.62
2017	.93	1.72	.75	.36	.55	.63
2018	.92	1.76	.77	.32	.56	.71
2019	.92	1.79	.79	.33	.54	.71
2020	.95	1.63	.73	.37	.44	.41
2021	.95	1.68	.72	.42	.43	.33
2022	.94	1.59	.76	.45	.49	.29
2023	.97	1.59	.81	.58	.49	.24
2024	.97	1.59	.84	.62	.52	.2

Notes: In the years 2000 - 2004 the disparity index was calculated using the 2000 Decennial Census (ages 16+), 2005 - 2010 uses the annual updates from Geolytics Inc, and 2011 - 2019 use the 2010 Decennial Census for persons (ages 16+). Hispanics may be of any race. Other includes persons of two or more races or unknown race. The 2020, 2021, 2022, 2023, and 2024 disparity indices are based on the most recent 5-year population estimates from the American Community Survey (ages 16+) for Missouri (2015-2019, 2016-2020, 2017-2021, 2018-2022, and 2019-2023 respectively).

Disparity index = (proportion of stops / proportion of population). A value of 1 indicates no difference between the share of stops and share of local population for a given group. Values greater than one indicate over-representation in the share of stops relative to local population, while a value less than 1 indicates under-representation.

Figure 4: Disparity Index from 2000 to 2024 for Missouri



Notes: In the years 2000 - 2004 the disparity index was calculated using the 2000 Decennial Census (ages 16+), 2005 - 2010 uses the annual updates from Geolytics Inc, and 2011 - 2019 use the 2010 Decennial Census(ages 16+). Hispanics may be of any race. Other includes persons of two or more races or unknown race. The 2020, 2021, 2022, 2023, and 2024 disparity indices are based on the most recent 5-year population estimates (ages 16+) from the American Community Survey for Missouri (2015-2019, 2016-2020, 2017-2021, 2018-2022, and 2019-2023 respectively). Changes in the population are noted by the vertical dashed lines before 2005, 2011, and 2020.

Disparity index = (proportion of stops / proportion of population). A value of 1 indicates no difference between the share of stops and share of local population for a given group. Values greater than one indicate over-representation in the share of stops relative to local population, while a value less than 1 indicates under-representation.

Table 4: Number of Stops by Race for Missouri

	Total	White	Black	Hispanic	Native American	Asian	Other
All Stops	1282528	984190	217871	46655	2171	14372	17269
Resident Stops	640014	523042	86318	19447	877	5684	4646
Non-Resident Stops	642514	461148	131553	27208	1294	8688	12623
Reason for Stop	.	.	.	.	.	.	.
Moving	708575	545672	112300	28989	1337	10829	9448
Equipment	167012	130134	26592	6062	330	1502	2392
License	432729	323283	88746	12080	521	2559	5540
Investigative	37625	25158	9221	1868	57	367	954
Called for Service	10160	6802	2530	479	11	89	249
Officer Initiative	18129	12467	4249	906	41	137	329
Det./Crime Bulletin	1423	892	399	67	2	22	41
Other	8218	5373	2072	414	8	118	233
Stop Outcome	.	.	.	.	.	.	.
Searches	61389	46038	11651	2988	88	358	266
Contraband	13355	10368	2278	574	17	64	54
Arrests	49421	33228	12680	2877	70	303	263
Citation	532132	377384	117743	24313	755	6283	5654
Warning	989652	794414	135936	35839	1640	10645	11178
No action	36716	25378	8425	1867	81	375	590
Citation/warning violation	.	.	.	.	.	.	.
Moving	739796	570750	115503	31699	1381	11317	9146
Equipment	224033	175685	35256	8488	362	1886	2356
License/Registration	586999	439656	114960	21930	685	3903	5865
Arrest violation	.	.	.	.	.	.	.
Outstanding warrant	20634	13107	6716	602	20	102	87
Drug Violation	5458	4478	804	140	7	12	17
Resist Arrest	1956	1196	666	76	1	8	9
Off Against Person	2376	1733	506	114	1	5	17
Traffic	14620	9133	4039	1302	16	55	75
DWI/BAC	14692	10844	2348	1222	36	160	82
Property	1129	664	390	62	1	3	9
Other	3615	2399	945	236	1	10	24
Officer Assignment	.	.	.	.	.	.	.
General Parol	1085013	843822	174227	39500	1811	12337	13316
Dedicated Traffic	157612	110597	36282	5473	224	1597	3439
Special Assignment	40719	30610	7367	1674	127	421	520
Location of Stop	.	.	.	.	.	.	.
Interstate hwy	159405	107926	36696	9575	363	3221	1624
US hwy	2844415	2809439	22919	8006	315	2065	1671
State hwy	301991	253143	34040	9025	457	2623	2703
County road	79570	58372	17342	1652	128	846	1230
City street	481449	353239	96115	17675	837	5181	8402
Other	46366	32909	10570	741	57	452	1637
Driver Gender	.	.	.	.	.	.	.
Male	793942	604307	131118	35653	1554	9624	11686
Female	488427	379962	86560	10990	607	4731	5577
Driver Age	.	.	.	.	.	.	.
17 and under	47728	40727	4428	1349	55	364	805
18-29	435589	317664	84942	19852	923	5383	6825
30-39	309765	226382	62100	13180	519	3230	4354
40-64	414657	333475	59628	11596	605	4769	4584
65 and over	74849	66249	6583	666	59	610	682

Notes: Data reported by the agency to the Attorney General's Office covering all traffic stops in 2024.

Table 5: Search statistics for Missouri

	Total	White	Black	Hispanic	Native American	Asian	Other
Probable cause	.	.	.	.	.	.	.
Consent	25469	20541	3623	1016	39	136	114
Inventory	5709	3690	1521	413	6	34	45
Drug/alcohol odor	2518	1784	508	176	3	15	32
Incident to arrest	29749	20099	7344	1894	49	232	131
Plain view contra.	2421	1760	464	160	5	15	17
Reas. susp-weapon	1308	703	515	75	3	8	4
Drug-dog alert	2690	2291	293	82	4	11	9
Other	1163	930	178	37	1	6	11
What searched	.	.	.	.	.	.	.
Driver	17757	11904	4485	1107	33	147	81
Car/property	9884	7698	1486	538	15	92	55
Driver & Property	29996	22687	5681	1340	40	118	130
Search duration	.	.	.	.	.	.	.
0-15 minutes	52023	37735	10894	2745	80	336	233
16-30 minutes	5044	4128	656	209	8	18	25
31+ minutes	788	615	122	37	2	3	9
Contraband found	.	.	.	.	.	.	.
Drugs	10010	8224	1421	288	11	38	28
Alcohol	2596	1884	412	261	5	19	15
Currency	157	81	52	18	0	3	3
Weapon	1556	868	623	52	0	4	9
Stolen property	449	289	139	17	1	0	3
Other	865	726	83	45	1	2	8

Notes: Data reported by the agency to the Attorney General's Office covering traffic stops in 2024.