WASHINGTON STATE
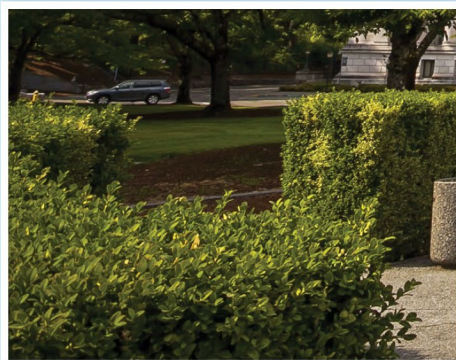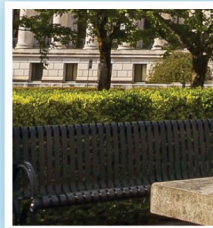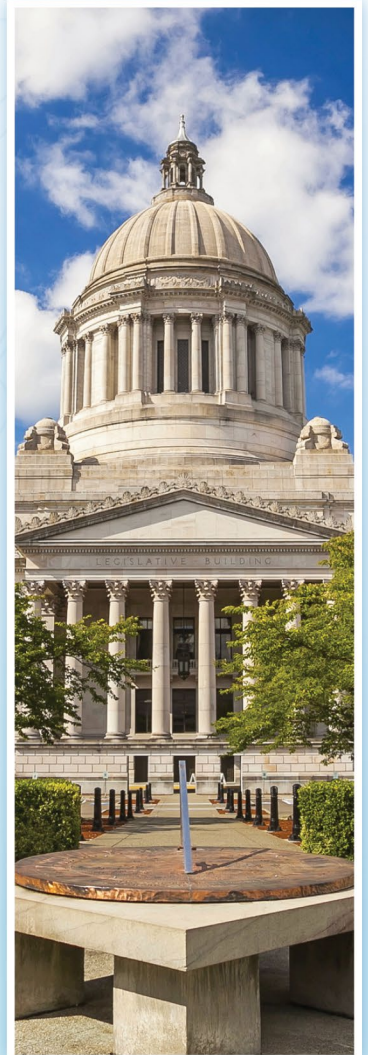# Statistical Analysis Center
Informing a data-driven justice system

Washington's Criminal Justice Funnel

Contents

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Abstract

This report aims to connect data from multiple agencies to detail the relationship between arrests, court cases, and corrections. The report includes a breakdown of event locations and the frequency of offense types along with a comparison to incident reports and media focus.

The Washington Statistical Analysis Center (SAC) applied for and received the 2018 State Justice Statistics Grant from Bureau of Justice Statistics (BJS). Among other projects, the SAC sought the grant to conduct this report on a profile of Washington's criminal justice system.

Here are the main takeaways from this report:

1. The Criminal Justice Funnel is not a pure pipeline; reducing the input on one end does not necessarily affect the total output at any other stage.

2. In each data source that measured counties of arrest, King County, Pierce County, and Spokane County were the top three contributors. When observed per-capita, the three counties with the highest rate of arrests connected to DOC admissions were Cowlitz, Lewis, and Pacific.

3. Incidents that are unlikely to be severe enough to reach DOC may not always result in calls or arrests, but those offenses that are will likely result in a consistent response.

Background

Law enforcement agencies nationwide made an estimated 10,085,207 arrests in 2019[1]. In 2020, the number of people held in state or federal prisons stood at about 1,215,800[2]. The factors that remove individuals from the criminal justice system between their first and final interactions are collectively referred to as the "Criminal Justice Funnel". Not all arrests will result in a charging decision, and not every case brought before a court, whether from an arrest or a summons, will result in a conviction. While this phenomenon is widely understood, it is more difficult to define the features of cases and individuals that persist through the system compared to those that do not.

Criminal justice cases can be difficult to track at the individual level. For example, a reported incident may not result in an immediate arrest. Individuals who are arrested and awaiting a court date may commit additional offenses during that time. Court cases may take significant time to resolve, and often add, alter, or drop charges prior to conviction. For these reasons and others, it is often easier to consider the criminal justice system in snapshots of its constituent parts: arrests, cases, sentences, and sanctions. When connecting data sets, this adds another layer of complexity to examining it within a single year.

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[1] https://ucr.fbi.gov/crime-in-the-u.s/2019/crime-in-the-u.s.-2019/topic-pages/persons-arrested#:~:text=Nationwide%2C%20law%20enforcement%20made%20an,1%2C074%2C367%20were%20for%20property%20crimes.

[2] https://bjs.ojp.gov/content/pub/pdf/p20st.pdf

It is also well-established that crime events are not evenly distributed over time or space. A quick look at the Federal Bureau of Investigation's Crime in the United States reports[3] shows significant per-capita variation in the levels of reported crime between states, cities, and years. Smaller scale studies within specific states demonstrate that levels of crime vary between counties as well[4,5]. Given the need to allocate resources and predict caseloads, the distribution of crime in Washington is a natural topic of interest for the agencies tasked with managing it. Past looks at the distribution of Washington's incarcerated individuals by region of origin also show an uneven distribution across and within counties[6].

Multiple agencies compile and maintain Washington's primary criminal justice data sources. While the siloed nature of the state's criminal justice records is necessary for the data's creation and most effective upkeep, it makes it difficult to connect information from two or more stages of the system. In turn, this creates a challenge when attempting to determine which locations contribute the most arrests to specific prisons, or the degree to which charged crimes at arrest ultimately result in a correctional sentence. These types of questions can only be addressed when data from multiple stages of the system are combined and can provide valuable insight on the degree to which the landscape of criminal justice in Washington changes between steps.

Data

This report combines data from a qualitative newspaper headline analysis, the National Incident Based Reporting System (NIBRS), the Washington State Patrol (WSP) the Administrative Office of the Courts (AOC) and the Department of Corrections (DOC). These sources are intended to provide a window into five stages of the criminal justice process: the overall perception of crime, reported crime incidents, actual arrests by law enforcement, actions by the court, and eventual custody. The data lacks specific information on jails and sentencing that does not include confinement. While those outcomes are a prevalent and important piece of Washington's criminal justice process, this report and its findings focus on the path to longer-term confinement and supervision.

The headline analysis featured in this report was performed using Google's Advanced Search tools to collect news articles posted to the web from specific sources containing keywords of interest within the examined

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[3] https://ucr.fbi.gov/crime-in-the-u.s

[4] Meng, Y. (2021). Crime rates and contextual characteristics: A case study in Connecticut, USA. *Human Geographies, 15*(2) 209-228.

[5] https://ncvc.dspacedirect.org/bitstream/handle/20.500.11990/2888/bjs2018_vt_crime_analysis_-_top_five_crimes_by_county_.pdf?sequence=3&isAllowed=y

[6] https://www.prisonpolicy.org/profiles/WA.html

years. Each unique headline that referenced a crime was included in the count, even if the crime discussed did not occur locally. Duplicate search results and headlines that only included a keyword inside a linked story were not included. This method of collection is intended to reflect the regularity that a topic appeared in regional news sources and serves as a source of comparison between how often crimes are discussed in media and how often they occur locally.

NIBRS data is included for Washington between the years 2012 and 2018. This data is reported by law enforcement agencies from around the state, collected and maintained by the Washington Association of Sheriffs and Police Chiefs (WASPC). The SAC hosts a data platform for NIBRS data (provided by WASPC) where this data is available publicly. NIBRS data represents incidents reported to law enforcement agencies, regardless of whether they resulted in an arrest. The inclusion of this data is intended to offer a further backdrop for Washington's arrest, court, and corrections statistics.

Arrest data from WSP's criminal history records was requested for this study, and the variables used were limited to those that are publicly accessible: name, date of birth, date of arrest, location, and offense. The arrests included in the analysis were restricted to those with offense dates occurring between 2012 and 2018. Unique arrest events were defined as an arrest of a specific individual on a specific day; if an arrest event included multiple offenses, those were totaled within the unique arrest event. In the study frame, 1,488,363 unique arrest events were observed in the data among 508,180 unique individuals. WSP data includes information from all arresting non-tribal entities across the state. Its data is fingerprint-based and represents only arrest events that resulted in an in-person booking.

Court data from AOC was also requested and included in this study. The variables were limited to those that are publicly available: name, date of birth, date, court, offense, and disposition. The court records included in the analysis were restricted to those with recorded offense dates occurring between 2012 and 2018 to keep consistency with arrests. Unique court records were defined as a record linked to a specific individual for a specific date of offense; if multiple offenses or dispositions were connected to that day, they were totaled within the unique court record. In the study frame, 2,344,476 unique court records among 786,921 unique individuals. Court data was drawn from AOC's Judicial Information System, which the Seattle Municipal Court does not participate in. It includes all cases filed with the court and does not include potential cases that prosecutors declined to advance.

Data from DOC was requested and included in this study. The variables were also limited to publicly available records: name, date of birth, date of admission, date of release, release location, and admission type. The DOC records included in the analysis were limited to those from 2012 to 2020 to allow additional time for court cases and sentencing to resolve. These records were further limited to only first admissions or readmissions to prison to focus on entries to that part of the criminal justice system. In that time frame, 62,769 DOC records were observed among 49,784 unique individuals.

For purposes of standardizing criminal justice measures against population, this report uses population data for Washington's counties in 2010 and 2020, as collected by the Office of Financial Management[7]. For the purposes of this report, criminal justice data totals between 2012-2018 were compared against the average of county populations from 2010 and 2020. The population totals and the average used for this calculation are displayed in Table 1.

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[7] https://www.ofm.wa.gov/sites/default/files/public/dataresearch/pop/april1/ofm_april1_poptrends.pdf

Table 1. Population Totals for 2010 and 2020

County	2010 Population	2020 Population	Rounded Average
Adams	18,728	20,613	19,671
Asotin	21,623	22,285	21,954
Benton	175,177	206,873	191,025
Chelan	72,453	79,141	75,797
Clallam	71,404	77,155	74,280
Clark	425,363	503,311	464,337
Columbia	4,078	3,952	4,015
Cowlitz	102,410	110,730	106,570
Douglas	38,431	42,938	40,685
Ferry	7,551	7,178	7,365
Franklin	78,163	96,749	87,456
Garfield	2,266	2,286	2,276
Grant	89,120	99,123	94,122
Grays Harbor	72,797	75,636	74,217
Island	78,506	86,857	82,682
Jefferson	29,872	32,977	31,425
King	1,931,249	2,269,675	2,100,462
Kitsap	251,133	275,611	263,372
Kittitas	40,915	46,468	43,692
Klickitat	20,318	22,735	21,527
Lewis	75,455	82,149	78,802
Lincoln	10,570	10,876	10,723
Mason	60,699	65,726	63,213
Okanogan	41,120	42,104	41,612
Pacific	20,920	23,365	22,143
Pend Oreille	13,001	13,401	13,201
Pierce	795,225	921,130	858,178
San Juan	15,769	17,788	16,779
Skagit	116,901	129,523	123,212
Skamania	11,066	11,604	11,335

County	2010 Population	2020 Population	Rounded Average
Snohomish	713,335	827,957	770,646
Spokane	471,221	539,339	505,280
Stevens	43,531	46,445	44,988
Thurston	252,264	294,793	273,529
Wahkiakum	3,978	4,422	4,200
Walla Walla	58,781	62,584	60,683
Whatcom	201,140	226,847	213,994
Whitman	44,776	47,973	46,375
Yakima	243,231	256,728	249,980
Total	6,724,540	7,707,047	7,215,803

Note: Due to missing, incomplete, unmatched, or inconsistent data, results may be under reported.

The data used in this project included solely publicly available administrative data. Excluding more complex variables from this report limits its scope to the presence of arrests and cases rather than their severity or scope. Additionally, each dataset included is reported as observed; it is possible that some datasets have incomplete or missing records that are non-obvious. While some limitations are provided in this report, there are likely more not listed that could impact the information and conclusions that SAC yielded from this work. Data regarding criminal justice activity should be interpreted with caution.

This exempt study was reviewed by the Washington State Institutional Review Board; this study does not intend to generalize any findings and uses public-facing data. The results included below are specific to Washington within the specified years and should not be inferred as indicative of arrests, court cases, or prison terms in any other context.

Criminal justice tables

Selected statistics

To compare, the SAC selected four original Uniform Crime Report offenses to examine in headlines, NIBRS, and observed arrest data. Murder, robbery, burglary, and theft were selected due to their clear definitions in criminal justice data and public discourse. While selecting these four crimes is limited in scope, they represent distinct crime types that can be easily compared across media and official sources. The tables below detail the observations recorded for each of these terms across a different level of knowledge.

Headline analysis

Table 2 displays the number of unique articles that appear under searches using Google's Advanced Search Tools to limit results by news source, topic, and year. The search tool returned an upper limit of 30 articles per source, which masked potentially higher numbers of articles for some topics and years. The Spokesman Review appeared to hit this limit regularly, making an exact count of articles for that source unclear. Even so, murder appears more frequently in articles than other crime topics for all news sources examined, while the frequency of articles on robbery, burglary, and theft appear to fluctuate by year. While this is not a measure

of crime itself and more accurately represents each news sources' product based on what they expect will interest their readership, these numbers still provide a window into how crime is reported and potentially perceived around the state.

Table 2. Total headlines with keyword in search results

Year	Seattle Times				Spokesman Review			
	Murder	Robbery	Burglary	Theft	Murder	Robbery	Burglary	Theft
2012	17	11	8	15	30+	30+	30+	30+
2013	18	9	12	13	30+	19	30+	30+
2014	19	8	8	8	30+	15	7	17
2015	24	19	16	18	30+	16	12	29
2016	19	30+	13	17	30+	30+	15	30+
2017	25	30+	14	18	30+	9	30+	30+
2018	19	20	9	24	19	30+	19	30+

Year	The Columbian				Tri-City Herald			
	Murder	Robbery	Burglary	Theft	Murder	Robbery	Burglary	Theft
2012	12	8	6	8	17	8	4	9
2013	18	15	16	9	30+	1	7	4
2014	17	15	9	9	18	3	3	4
2015	15	14	9	7	4	1	3	0
2016	16	10	14	9	4	6	8	14
2017	15	19	14	13	29	6	7	9
2018	17	9	16	16	30+	9	8	9

Selected NIBRS trends in Washington

The data displayed in Table 3 are drawn from Washington's NIBRS data and it shows the total number of incidents reported for each listed category of crime. These do not include any crimes not reported to the police. In contrast to the trends appearing in the newspaper headline analysis, incidents of murder were far less common than robbery, burglary, and theft. Large differences exist between robbery, burglary, and theft, demonstrating that the realities of known crime incidents are very different than a newspaper headline search would suggest.

Table 3. Washington selected offense NIBRS totals by calendar year

Year	Murder	Robbery	Burglary	Theft
2012	140	3,807	37,859	145,074
2013	127	4,114	38,490	158,504
2014	135	4,327	39,755	179,011
2015	164	4,392	39,686	182,468
2016	177	4,987	42,553	212,370
2017	199	5,002	40,694	217,684
2018	220	5,476	38,556	214,448

Note: Due to missing, incomplete, unmatched, or inconsistent data, results may be under reported.

Selected arrest trends in Washington

Table 4 lists all arrests of each type recorded in WSP's criminal history records between 2012 and 2018. Because multiple people might have been arrested for the same incident, these numbers do not necessarily reflect the count of each crime that may have occurred. This is particularly noticeable for murder, which contains values for arrests that are higher than some incident totals in the NIBRS data above. The number of arrests observed for each offense type generally follow the trend of the number of incidents observed in NIBRS data. Notably, the number of arrests is much closer to the total number of incidents for murder and robbery than they are for burglary and theft.

Table 4. Washington selected offense arrest totals by calendar year

Year	Murder	Robbery	Burglary	Theft
2012	204	2,159	3,486	17,985
2013	194	1,842	3,351	17,199
2014	149	1,839	3,265	16,496
2015	213	1,805	3,307	16,441
2016	179	1,791	3,488	16,091
2017	187	1,918	3,324	15,188
2018	225	1,894	3,583	14,677

Note: Due to missing, incomplete, unmatched, or inconsistent data, results may be under reported.

Justice system statistics

This section includes tables and graphics breaking down the totals from WSP's criminal history records, AOC's court cases, and DOC's admit and release data. Some of the graphics included are map images that cannot be read by ADA accessibility software. The information included on those maps is listed in the "Total" column of each accompanying table.

Arrests in Washington by year

Over the seven years included in this report, WSP's criminal history records included 1,488,363 unique arrest events (see Table 5). 1,020 of these could not be connected to a specific county due to the arresting agency not belonging to any county and, therefore, were excluded. Arrest totals were relatively even across years, with higher numbers of arrests observed in 2012, 2013 and 2018. Of those arrests observed, King County had the highest number of arrests, followed by Pierce and Spokane Counties. When standardized by the average county population between 2010 and 2020, Garfield, Asotin, and Spokane counties had the highest number of arrests in proportion to their populations. Caution should be taken in interpreting these rates because smaller population areas are much more sensitive to shifts in rate due to a smaller number of arrests. A map of the arrest totals per capita by county is included in Appendix 1.

Table 5. Washington Unique Arrest Incident Totals by Calendar Year and County

Arresting County	2012	2013	2014	2015	2016	2017	2018	Total	Arrests per 1,000 Residents
Adams	445	388	663	724	862	750	746	4,578	232.7
Asotin	1,288	1,268	954	1,113	1,168	1,380	1,451	8,622	392.7
Benton	9,704	9,575	9,577	9,124	6,912	7,263	7,694	59,849	313.3
Chelan	2,977	2,753	2,756	2,956	3,017	2,754	3,017	20,230	266.9
Clallam	1,551	1,599	1,582	1,534	1,781	1,812	2,013	11,872	159.8
Clark	14,946	14,815	13,333	12,100	10,896	10,808	10,329	87,227	187.9
Columbia	82	103	112	83	41	36	70	527	131.3
Cowlitz	3,217	2,471	2,802	5,168	5,509	5,341	5,312	29,820	279.8
Douglas	49	48	41	60	123	103	120	544	13.4
Ferry	316	225	244	205	200	213	232	1,635	222.0
Franklin	4,605	4,466	4,543	4,632	4,643	4,566	4,134	31,589	361.2
Garfield	143	144	156	141	174	162	178	1,098	482.4
Grant	4,359	4,088	4,183	4,302	4,373	4,162	4,031	29,498	313.4
Grays Harbor	3,076	3,039	2,948	3,246	3,222	3,137	3,339	22,007	296.5
Island	1,454	1,485	1,292	1,156	1,355	1,342	1,348	9,432	114.1
Jefferson	474	450	578	525	914	1,153	1,028	5,122	163.0
King	53,680	53,606	55,583	53,579	51,978	54,914	57,959	381,299	181.5
Kitsap	7,213	6,952	6,479	5,994	6,490	6,880	7,150	47,158	179.1
Kittitas	2,093	2,003	1,894	1,672	1,743	1,787	1,871	13,063	299.0
Klickitat	538	521	459	451	558	627	770	3,924	182.3
Lewis	3,194	2,870	2,888	2,825	3,151	3,896	4,178	23,002	291.9
Lincoln	317	381	306	381	374	354	323	2,436	227.2
Mason	2,253	2,421	2,226	2,030	2,312	1,638	1,294	14,174	224.2
Okanogan	1,572	1,863	1,776	1,821	1,837	2,462	2,392	13,723	329.8
Pacific	877	669	668	631	624	623	697	4,789	216.3
Pend Oreille	447	437	668	529	609	610	654	3,954	299.5
Pierce	27,031	23,474	19,777	20,949	22,027	21,833	22,417	157,508	183.5
San Juan	141	127	54	39	115	165	175	816	48.6
Skagit	2,895	2,743	2,592	3,579	3,437	3,672	5,290	24,208	196.5
Skamania	530	491	414	337	400	422	418	3,012	265.7
Snohomish	5,930	6,227	5,810	17,612	22,912	23,291	23,978	105,760	137.2
Spokane	39,159	39,108	35,654	21,104	16,309	15,971	16,903	184,208	364.6
Stevens	1,096	1,069	1,040	1,071	1,051	1,100	1,107	7,534	167.5
Thurston	4,139	4,568	5,650	4,743	5,856	7,390	12,816	45,162	165.1
Wahkiakum	120	109	89	110	137	125	85	775	184.5

Arresting County	2012	2013	2014	2015	2016	2017	2018	Total	Arrests per 1,000 Residents
Walla Walla	2,285	2,240	2,020	1,920	2,073	2,247	2,548	15,333	252.7
Whatcom	7,119	7,026	6,294	5,569	4,841	4,564	4,509	39,922	186.6
Whitman	923	853	852	777	824	969	1,100	6,298	135.8
Yakima	9,639	9,498	8,783	9,542	9,239	9,397	9,537	65,635	262.6
Total	221,877	216,173	207,740	204,334	204,087	209,919	223,213	1,487,343	206.1

Note: Due to missing, incomplete, unmatched, or inconsistent data, results may be under reported.

Court cases in Washington by year

The 2,344,476 court cases observed in AOC's data had a similar distribution among counties to WSP's arrest data (see Table 6). King, Pierce, and Snohomish County courts had the highest totals of cases observed across the report years. The total number of cases did vary by year, having a maximum of 388,539 cases in 2012 and decreasing each year except for 2018 which still had a substantially lower total of 309,494 cases. When examined per-capita, Adams, Garfield, and Grays Harbor counties had the highest rate of cases. Once again, caution should be taken when interpreting the rates of less populous counties since they are more prone to larger swings based on a smaller number of cases. A map of case totals by county is available in Appendix 2.

Table 6. Washington unique court case totals by calendar year and county

Case county	2012	2013	2014	2015	2016	2017	2018	Total	Cases per 1,000 residents
Adams	1,656	1,488	1,743	1,945	1,926	1,733	1,604	12,095	614.9
Asotin	1,785	1,578	1,265	1,437	1,429	1,653	1,784	10,931	497.9
Benton	13,780	12,664	11,970	10,876	10,356	10,667	11,497	81,810	428.3
Chelan	4,556	4,815	4,261	4,387	4,258	4,047	4,333	30,657	404.5
Clallam	4,132	3,979	3,633	3,534	3,579	3,573	3,133	25,563	344.1
Clark	24,072	22,329	20,857	19,873	18,767	19,116	20,227	145,241	312.8
Columbia	223	204	219	206	178	219	182	1,431	356.4
Cowlitz	8,893	8,538	8,134	7,570	7,792	7,786	7,654	56,367	528.9
Douglas	2,175	1,955	1,823	2,136	2,244	2,139	2,115	14,587	358.5
Ferry	314	351	320	234	259	364	367	2,209	299.9
Franklin	4,698	4,691	4,534	4,693	4,653	5,528	5,051	33,848	387.0
Garfield	221	186	205	214	239	194	225	1,484	652.0
Grant	6,560	5,800	5,971	6,412	5,972	5,335	5,258	41,308	438.9
Grays Harbor	6,899	6,364	5,694	6,449	6,785	6,834	7,134	46,159	621.9
Island	2,443	2,406	2,028	1,926	1,949	2,035	2,096	14,883	180.0
Jefferson	1,676	1,764	1,511	1,360	1,365	1,251	1,092	10,019	318.8
King	76,632	71,875	66,472	62,919	61,958	59,233	58,487	457,576	217.8

Case county	2012	2013	2014	2015	2016	2017	2018	Total	Cases per 1,000 residents
Kitsap	12,371	10,987	9,670	9,055	9,217	9,484	9,521	70,305	266.9
Kittitas	3,680	3,366	3,129	2,990	3,224	3,082	3,167	22,638	518.1
Klickitat	1,291	1,216	1,078	1,071	1,107	1,056	1,105	7,924	368.1
Lewis	5,858	4,995	4,758	4,697	4,699	5,079	5,108	35,194	446.6
Lincoln	795	837	742	827	843	632	818	5,494	512.4
Mason	4,129	3,621	3,400	3,586	3,444	3,100	2,916	24,196	382.8
Okanogan	3,220	3,207	2,738	3,094	3,115	2,562	2,451	20,387	489.9
Pacific	2,029	1,909	1,824	1,578	1,742	1,615	1,462	12,159	549.1
Pend Oreille	829	773	821	657	729	488	591	4,888	370.3
Pierce	53,780	50,998	46,716	43,927	40,188	40,042	40,908	316,559	368.9
San Juan	395	370	272	288	297	327	365	2,314	137.9
Skagit	10,921	10,955	9,889	9,183	9,424	10,016	9,555	69,943	567.7
Skamania	861	726	597	541	623	505	570	4,423	390.2
Snohomish	38,067	35,269	33,876	29,585	27,787	25,694	24,717	214,995	279.0
Spokane	30,447	28,380	26,391	26,049	24,764	22,189	23,993	182,213	360.6
Stevens	1,977	2,239	2,082	2,205	2,442	2,437	2,481	15,863	352.6
Thurston	14,126	13,817	13,322	12,125	11,595	12,354	12,788	90,127	329.5
Wahkiakum	272	231	162	196	175	215	162	1,413	336.4
Walla Walla	3,672	3,215	2,911	2,853	2,860	2,911	3,135	21,557	355.2
Whatcom	14,874	14,680	13,544	12,418	12,615	11,656	12,142	91,929	429.6
Whitman	2,592	2,209	2,043	1,922	1,915	2,034	1,988	14,703	317.0
Yakima	21,638	20,251	18,335	18,416	16,604	16,528	17,312	129,084	516.4
Total	388,539	365,238	338,940	323,434	313,118	305,713	309,494	2,344,476	324.9

Note: Due to missing, incomplete, unmatched, or inconsistent data, results may be under reported.

DOC non-violator first and readmissions by calendar year

Table 7 breaks down the first admissions and readmissions to DOC observed over the nine years in this report. Due to the potential that an individual can be admitted to prison multiple times, there is a high likelihood of duplicative individuals, and an inflation in numbers. More so, admissions might also include paper admits who often are not held in a secure facility and admissions to non-secure prison facilities, such as work releases and jails. Admission numbers were generally consistent by year except for 2020, which was the start of the pandemic in the United States. While it is best left to more focused reports to catalogue the specific effects of that event, it is the most plausible explanation for this departure from the overall trend.

Table 7. Washington unique DOC admissions by year

Year	First admits and re-admits
2012	7,442
2013	7,943
2014	7,484
2015	7,289
2016	7,206
2017	7,354
2018	7,172
2019	6,667
2020	4,212
Total	62,769

Note: Due to missing, incomplete, unmatched, or inconsistent data, results may be under reported.

Washington's Criminal Justice Funnel

Table 8 summarizes the total observed unique instances at each stage of the criminal justice process and combines them for a rough depiction of the state's criminal justice funnel. More court cases are observed than arrests due to the use of summons and citations in some criminal matters. For the purposes of this tally, "convicted" includes cases with at least one disposition of "amended," "convicted," "deferred," and "diverted". Based on this data, roughly two thirds of the cases observed resulted in at least one conviction between 2012 and 2018. The DOC admissions observed between 2012 and 2020 represented less than 5% of those convictions, with the remainder presumably receiving a sentence of jail, fines, community supervision or other orders.

Table 8. Total observed unique instances by stage

Criminal justice stage	Total	Unique individuals
Arrest (WSP)	1,488,363	508,180
Court (AOC)	2,344,476	786,921
Convicted	1,567,662	588,644
Prison (DOC)	62,769	49,784

Note: Due to missing, incomplete, unmatched, or inconsistent data, results may be under reported.

Connected data

A secondary motivation for this project was to connect data from WSP, AOC, and DOC to analyze the differences between each stage in the criminal justice funnel. This section describes the approach to that effort and the difficulties encountered when interpreting the data.

Methods and limitations

Individual records in WSP, AOC, and DOC data were matched using a combination of first name, last name, and date of birth. Both WSP and AOC data included multiple possible spellings for first and last names; all possibilities from both data sets were tested against each other. Any cases missing a date of birth or resulting in multiple matches between datasets were removed entirely. Matched individuals were then further linked between databases using a match within five days of the date of offense listed to ensure the observed records pertained to the same case.

A total of 934,536 arrest records met the linkage criteria for name and date of birth to be matched with court cases. Of those arrest records, 738,855 matched with court cases and these combined records matched with 40,730 unique DOC admissions. Due to the need to use unofficial identification to perform matches, it is impossible to say whether a non-matched case occurred because no match exists, or because inadequate data existed to combine the records. For that reason, the figures reported below should be interpreted as a non-representative sample of the more well-identified individuals in each data set.

DOC First and re-admits by county of arrest

Table 9 shows first and readmissions to DOC in the linked sample, broken down by the county of original arrest. As with the overall figures for arrests and court cases, the three counties with the highest totals of arrests connected to DOC admissions in this sample are King, Pierce, and Spokane. When observed per-capita, the three counties with the highest rate of arrests connected to DOC admissions were Cowlitz, Lewis, and Pacific. A full map of these rates can be found in Appendix 3. Arrest-to-DOC totals are roughly even across the years, with a drop-off beginning in 2018 and continuing through 2020. While the decrease in admissions in 2020 may be attributable to COVID-19, the lower admissions in 2018 and 2019 are slightly harder to explain. While arrests and court cases were only tracked through 2018 (which may explain a lower number of connected cases in 2019), this does not fully explain the drop of 1,500 connected admissions observed between 2017 and 2018.

Table 9. Unique DOC first and re-admissions by county of arrest

Arresting County	2012	2013	2014	2015	2016	2017	2018	2019	2020	Total	Admissions per 1,000 Residents
Adams	6	11	16	15	11	15	10	4	4	92	4.7
Asotin	29	30	33	39	37	52	20	22	16	278	12.7
Benton	181	160	202	176	210	197	152	119	74	1,471	7.7
Chelan	73	84	77	82	100	106	90	78	52	742	9.8
Clallam	35	54	53	60	67	61	45	37	23	435	5.9
Clark	350	431	400	387	424	377	265	214	105	2,953	6.4
Columbia	1	7	6	5	6	3	1	3	2	34	8.5

Arresting County	2012	2013	2014	2015	2016	2017	2018	2019	2020	Total	Admissions per 1,000 Residents
Cowlitz	201	211	238	175	204	231	185	135	74	1,654	15.5
Douglas	0	1	0	0	0	0	0	0	0	1	0.0
Ferry	3	3	6	1	4	2	5	5	4	33	4.5
Franklin	83	81	85	80	83	94	62	56	36	660	7.5
Garfield	4	5	3	7	2	2	1	1	2	27	11.9
Grant	79	91	119	78	105	104	62	78	51	767	8.1
Grays Harbor	98	91	97	111	102	124	81	76	61	841	11.3
Island	32	26	34	28	34	39	17	24	5	239	2.9
Jefferson	5	15	19	10	17	13	15	15	2	111	3.5
King	610	822	816	796	854	828	556	520	313	6,115	2.9
Kitsap	197	279	243	201	240	267	180	160	70	1,837	7.0
Kittitas	20	41	29	46	43	48	32	17	8	284	6.5
Klickitat	12	8	15	23	21	38	19	9	5	150	7.0
Lewis	119	159	133	138	134	133	113	83	63	1,075	13.6
Lincoln	8	14	13	5	11	9	7	2	3	72	6.7
Mason	65	73	74	54	49	54	42	41	19	471	7.5
Okanogan	34	63	74	68	72	81	58	25	22	497	11.9
Pacific	24	53	31	32	35	56	22	27	7	287	13.0
Pend Oreille	10	7	11	18	11	4	4	2	3	70	5.3
Pierce	563	765	724	668	674	768	580	401	199	5,342	6.2
San Juan	1	3	3	2	1	6	3	1	0	20	1.2
Skagit	91	131	128	147	115	125	99	94	44	974	7.9
Skamania	5	6	10	13	11	9	6	3	0	63	5.6
Snohomish	221	228	236	289	331	391	299	225	140	2,360	3.1
Spokane	450	633	711	691	524	514	389	346	224	4,482	8.9
Stevens	16	33	35	30	23	35	40	23	17	252	5.6
Thurston	191	241	227	287	230	229	198	175	99	1,877	6.9
Wahkiakum	2	7	2	5	3	2	1	0	1	23	5.5
Walla Walla	37	47	39	43	43	37	23	25	23	317	5.2
Whatcom	128	180	190	192	197	208	99	85	52	1,331	6.2
Whitman	10	8	10	12	12	10	9	3	3	77	1.7
Yakima	269	315	327	339	308	307	212	215	124	2,416	9.7
Total	4,263	5,417	5,469	5,353	5,348	5,579	4,002	3,349	1,950	40,730	5.6

Note: Due to missing, incomplete, unmatched, or inconsistent data, results may be under reported.

Key takeaways and limitations

Although this report is not intended to create conclusions about any aspect of the criminal justice system, there are some consistent trends in the data and some lessons learned on connecting these datasets for future projects. In each data source that measured counties of arrest, King County, Pierce County, and Spokane County were the top three contributors. While King and Pierce counties are the two most populous and Spokane is fourth, Snohomish County is the third most populous but ranks well behind Spokane County in the number of arrests. This trend seemingly held consistent with admissions to DOC in the linked sample.

Arrests, court cases, and DOC admissions also fluctuate by year and do not necessarily follow one each other in trends. While arrests were highest in 2012, 2013, and 2018, overall case totals declined from 2012 to 2017 and DOC admissions remained relatively consistent over the same period. In this sense, the Criminal Justice Funnel is not a pure pipeline; reducing the input on one end does not necessarily affect the total output at any other stage. This is likely made possible by the differing levels of severity required at each of the stages observed. Incidents that are unlikely to be severe enough to reach DOC may not always result in calls or arrests, but those offenses that are will likely result in a consistent response.

The arrests and cases examined in this report use official data, which imposes some limits on their interpretation. Arrest data is comprised of fingerprint-based bookings completed by law enforcement agencies around the state and does not include a measure of how many stops or other encounters may end without an in-person booking. Court data includes all cases filed with the courts and does not include instances in which the prosecutor declines to press charges. These missing half-steps are parts of the criminal justice funnel themselves that are not measured in this report, but it is important to remember that they exist and impact individuals between steps.

This report sought to connect multiple criminal justice datasets using the unofficial identification measures of name, date of birth, and date of offense. While this method resulted in many matches, it also has several drawbacks. Not all individuals are as likely to be well-identified, which means that any sample derived is non-representative. Additionally, it is not possible to know whether unmatched cases are due to bad identifier data or the true lack of a matching case. This makes any analyses of filtering between the stages of the criminal justice system difficult. While this report has delivered a snapshot of Washington's Criminal Justice system and offered a sample of a connected dataset, the task of definitively connecting each case between the stages of the Criminal Justice Funnel remains elusive.

Disclaimer

This material utilizes confidential data from WSP, AOC, and DOC. The views expressed here are those of the author(s) and do not necessarily represent those of the WSP, AOC, DOC, or other data contributors. Any errors are attributable to the author(s).

Appendix 1: Unique arrest events per 1,000 residents by county from 2012-2018

Arrests per 1,000

13.4 — 482.4
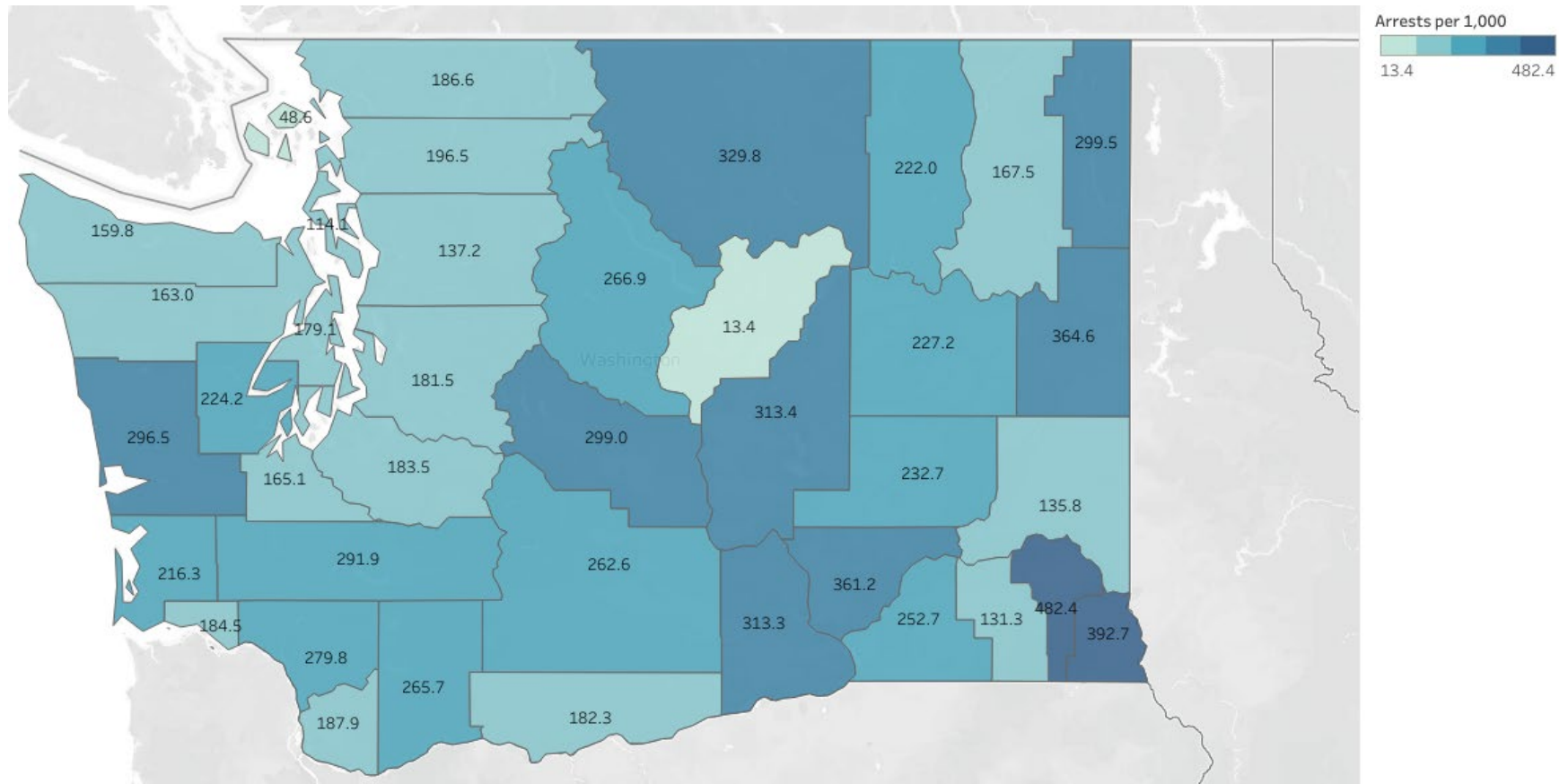
Appendix 2: Unique court case per 1,000 residents by county from 2012-2018
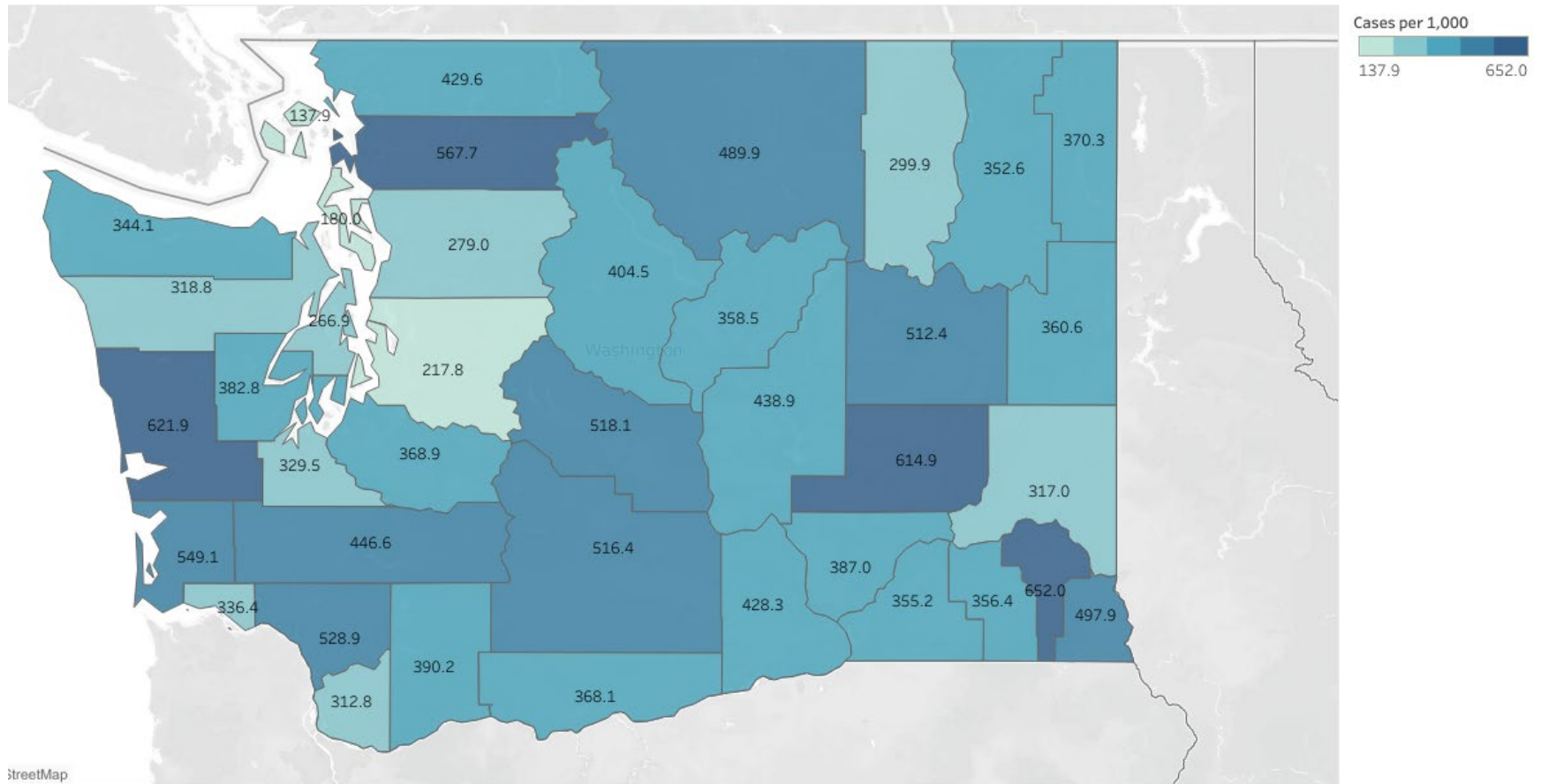
Appendix 3: Arrests connected to a DOC case per 1,000 residents by county from 2012-2020