

WA Plug-in Electric Vehicle Update through November 2018

For the past several years, WSDOT has provided a semi-annual update on the number of plug-in electric vehicles (PEV) registered in the state. Department of Licensing provides raw registration data to WSDOT.

DOL recently undertook significant background research to ensure their dataset captures all the correct vehicles and subsequently rewrote their code based on this research. This effort captured many previously missed vehicles.

In addition to providing a late 2018 count of registrations, this update replaces all prior updates with new historical information. In other words, please do not compare numerical results in this update with previous numerical results.

This write up includes the following analyses:

- Total registrations of battery electric vehicles (BEV) and plug-in hybrid electric vehicles (PHEV)
- Percentage split between BEV and PHEV registration
- Year-over-year PEV registration growth
- BEV and PHEV registrations by model and by model year
- PEV registration counts by county

NOTE: Throughout this summary, annual results are by calendar year with the exception of 2018, which is based on the 12 months ending November 30, 2018.

Highlights

- As of November 30, 2018, there were 41,091 plug-in electric vehicles registered in Washington State.
 - Battery electric vehicles (BEV): 27,368
 - Plug-in hybrid electric vehicles (PHEV): 13,723
- Since December 2017, PEV registrations have increased by 37 percent.
- King County has broken the 20,000 mark with 22,801 PEVs.
- The split between BEVs and PHEVs remains about 2 BEVs for every one PHEV.
- Of all PEV sales, about 16% are used vehicles.
- The top selling PEV in 2018 is the Tesla Model 3, with 4,174 new registrations as of November 30.

Plug-in Electric Vehicle Registrations

Exhibit 1 shows the number of battery electric vehicle (BEV) and plug-in hybrid electric vehicle (PHEV) registrations by year. Exhibit 2 shows the total number of PEV registrations and the percent of those that are BEV and PHEV. Exhibit 3 reports the annual percent increase in the number of PEVs registered in the state.

Exhibit 1 – Total Plug-in Electric Vehicle Registrations¹

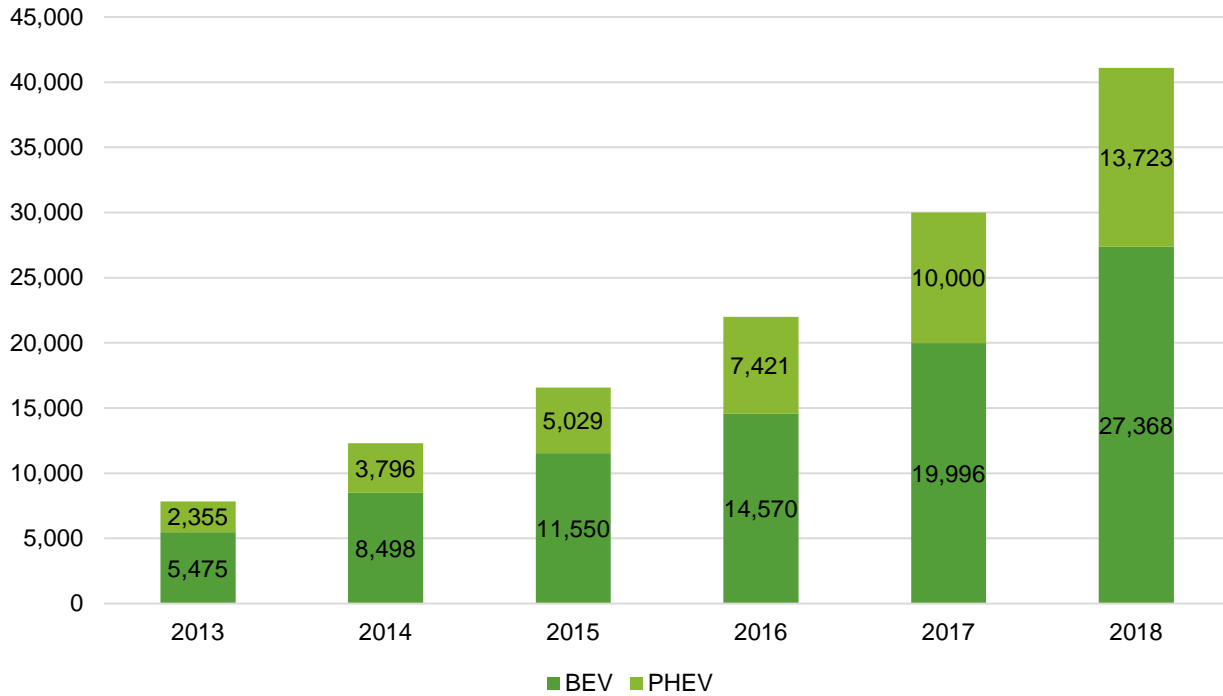


Exhibit 2 – Total PEV Registrations and BEV/PHEV Split

| | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
|-------|-------|--------|--------|--------|--------|--------|
| Total | 7,830 | 12,294 | 16,579 | 21,991 | 29,996 | 41,091 |
| BEV | 70% | 69% | 70% | 66% | 67% | 67% |
| PHEV | 30% | 31% | 30% | 34% | 33% | 33% |

¹ The year 2018 represents 12 months of registrations as of November 30, 2018

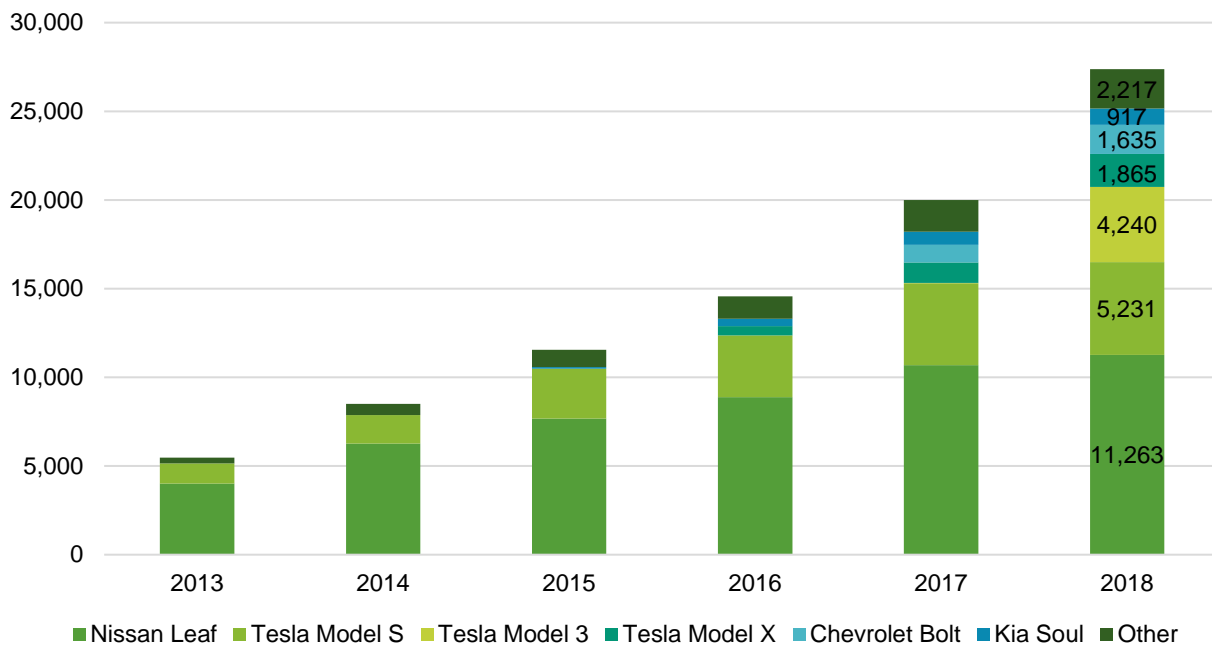
Exhibit 3 – Annual Increase in PEV Registrations

| | 2014 | 2015 | 2016 | 2017 | 2018 |
|---------|------|------|------|------|------|
| All PEV | 57% | 35% | 33% | 36% | 37% |
| BEV | 55% | 36% | 26% | 37% | 37% |
| PHEV | 61% | 32% | 48% | 35% | 37% |

Vehicle Registrations by Make and Model

Exhibits 4 and 5 show the number of vehicle registrations each by model for both BEVs and PHEVs, respectively. Exhibits 6 and 7 display vehicle registration data by make, model, and model year for BEVs and PHEVs.

Exhibit 4 – Battery Electric Vehicle Registrations by Model²



² For a full list of registrations by model see the chart on page 5.

Exhibit 5 – Plug-in Hybrid Electric Vehicle Registrations by Model

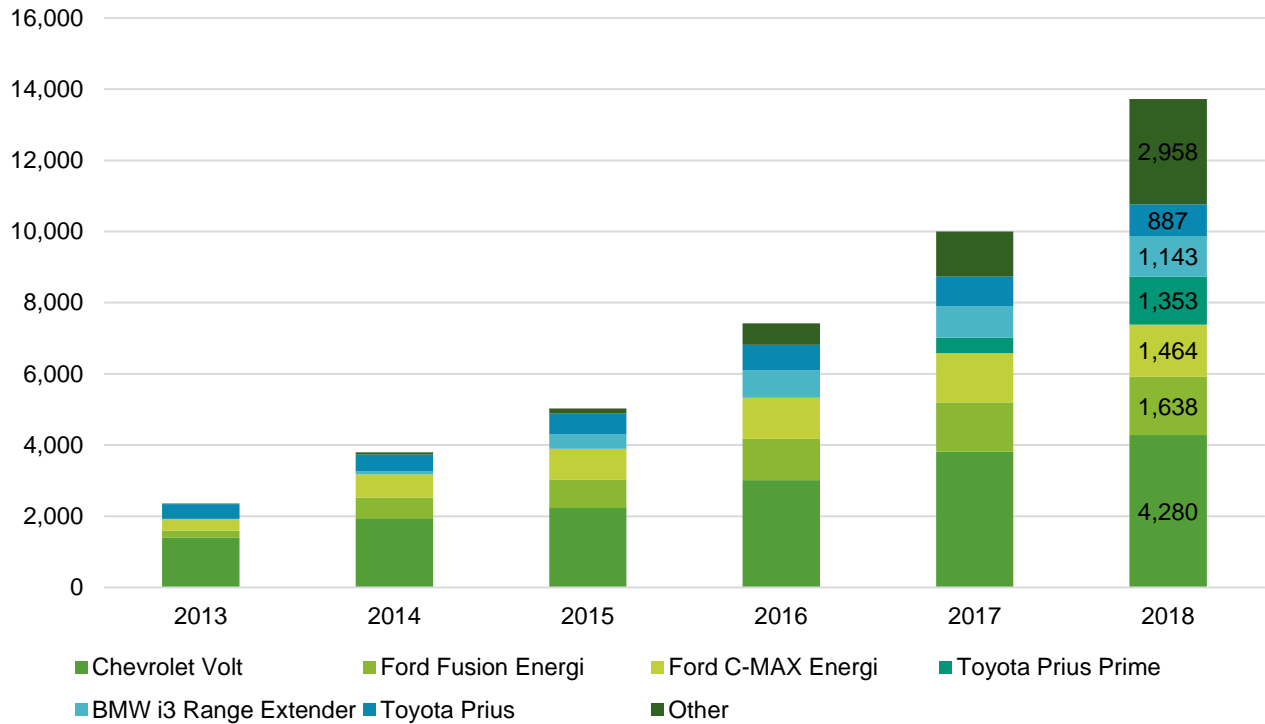


Exhibit 6 – Battery Electric Vehicle Registration by Vehicle Model and Model Year

| Make/Model | 2008-2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|------------------|--------------|--------------|--------------|--------------|--------------|--------------|-------------|
| Azure Dynamics Transit Connect Electric Van | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| BMW i3 | 0 | 0 | 165 | 138 | 25 | 107 | 61 | 0 |
| Chevrolet Bolt | 0 | 0 | 0 | 0 | 0 | 1,192 | 443 | 0 |
| Chevrolet Spark | 0 | 0 | 62 | 72 | 15 | 0 | 0 | 0 |
| Fiat 500e | 0 | 142 | 114 | 263 | 9 | 4 | 0 | 0 |
| Ford Focus | 15 | 105 | 80 | 29 | 39 | 21 | 3 | 0 |
| Hyundai Ioniq Electric | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 |
| Kia Soul | 0 | 0 | 0 | 19 | 495 | 305 | 98 | 0 |
| Mercedes-Benz B250e | 0 | 0 | 0 | 0 | 6 | 5 | 0 | 0 |
| Mercedes-Benz B-Class Electric Drive | 0 | 0 | 39 | 26 | 0 | 0 | 0 | 0 |
| Mercedes-Benz Smart Fortwo Electric Drive | 0 | 38 | 111 | 43 | 13 | 9 | 15 | 0 |
| Mitsubishi i-MiEV | 59 | 0 | 16 | 0 | 12 | 1 | 0 | 0 |
| Nissan Leaf | 1,624 | 2,417 | 850 | 2,311 | 1,493 | 1,291 | 1,269 | 8 |
| Tesla Model 3 | 0 | 0 | 0 | 0 | 0 | 46 | 4,194 | 0 |
| Tesla Model S | 159 | 913 | 744 | 1,034 | 894 | 947 | 540 | 0 |
| Tesla Model X | 0 | 0 | 0 | 0 | 607 | 681 | 577 | 0 |
| Tesla Roadster | 67 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Toyota RAV4 EV 2WD | 10 | 26 | 26 | 0 | 0 | 0 | 0 | 0 |
| Volkswagen E-Golf | 0 | 0 | 0 | 126 | 71 | 17 | 0 | 0 |
| BEV Total | 1,942 | 3,641 | 2,207 | 4,061 | 3,679 | 4,630 | 7,200 | 8 |

Exhibit 7 – Plug-in Hybrid Vehicle Registration by Vehicle Model and Model Year

| Make/Model | 2008-2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|-----------------------------------|------------------|--------------|--------------|--------------|--------------|--------------|---------------|-------------|
| Audi A3 e-tron | 0 | 0 | 0 | 0 | 183 | 165 | 116 | 0 |
| BMW 330e iPerformance | 0 | 0 | 0 | 0 | 12 | 112 | 40 | 0 |
| BMW 530e iPerformance | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 0 |
| BMW 530e iPerformance xDrive | 0 | 0 | 0 | 0 | 0 | 0 | 101 | 0 |
| BMW 740e xDrive | 0 | 0 | 0 | 0 | 0 | 3 | 7 | 0 |
| BMW i3 Range Extender | 0 | 0 | 396 | 298 | 127 | 203 | 119 | 0 |
| BMW i8 Coupe | 0 | 0 | 13 | 32 | 13 | 5 | 0 | 0 |
| Cadillac ELR Coupe | 0 | 0 | 73 | 0 | 14 | 0 | 0 | 0 |
| Chevrolet Volt | 661 | 936 | 537 | 319 | 81 | 1,293 | 453 | 0 |
| Chrysler Pacifica | 0 | 0 | 0 | 0 | 0 | 100 | 413 | 0 |
| Fisker Karma | 22 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Ford C-MAX Energi | 0 | 449 | 318 | 280 | 235 | 182 | 0 | 0 |
| Ford Fusion Energi | 0 | 236 | 367 | 246 | 389 | 290 | 110 | 0 |
| Honda Accord Sedan Plug-In Hybrid | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 |
| Honda Clarity | 0 | 0 | 0 | 0 | 0 | 0 | 390 | 0 |
| Hyundai Ioniq Plug-in Hybrid | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 |
| Hyundai Sonata | 0 | 0 | 0 | 0 | 43 | 25 | 0 | 0 |
| Kia Niro | 0 | 0 | 0 | 0 | 0 | 0 | 180 | 0 |
| Kia Optima | 0 | 0 | 0 | 0 | 0 | 59 | 37 | 0 |
| Mercedes-Benz c350e | 0 | 0 | 0 | 0 | 0 | 3 | 9 | 0 |
| Mercedes-Benz GLC350e 4matic | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 |
| Mercedes-Benz GLE550e 4matic | 0 | 0 | 0 | 0 | 3 | 8 | 13 | 0 |
| Mini Cooper SE Countryman All4 | 0 | 0 | 0 | 0 | 0 | 0 | 46 | 30 |
| Mitsubishi Outlander | 0 | 0 | 0 | 0 | 0 | 0 | 127 | 0 |
| Porsche 918 Spyder | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| Porsche Cayenne S e-Hybrid | 0 | 0 | 0 | 15 | 45 | 41 | 6 | 0 |
| Porsche Panamera 4 e-Hybrid | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 0 |
| Porsche Panamera S e-Hybrid | 0 | 0 | 10 | 16 | 5 | 0 | 0 | 0 |
| Porsche Panamera Turbo S e-Hybrid | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 |
| Toyota Prius | 399 | 266 | 166 | 56 | 0 | 0 | 0 | 0 |
| Toyota Prius Prime | 0 | 0 | 0 | 0 | 0 | 854 | 499 | 0 |
| Volvo XC60 AWD | 0 | 0 | 0 | 0 | 0 | 0 | 110 | 0 |
| Volvo XC90 AWD | 0 | 0 | 0 | 0 | 94 | 100 | 80 | 0 |
| PHEV Total | 3,024 | 5,528 | 4,093 | 5,324 | 4,923 | 8,073 | 10,088 | 38 |

Electric Vehicle Registrations by County
Exhibit 8 - WA Battery Electric Vehicle (BEV) Registration by County

| County | Tesla | Nissan | Chevrolet | Kia | Fiat | BMW | Other | Total BEV |
|----------------------------|---------------|---------------|------------------|------------|-------------|------------|--------------|------------------|
| Adams | 0 | 2 | 2 | 0 | 0 | 0 | 1 | 5 |
| Asotin | 4 | 8 | 0 | 0 | 0 | 0 | 1 | 13 |
| Benton | 71 | 115 | 18 | 3 | 1 | 1 | 13 | 222 |
| Chelan | 51 | 63 | 12 | 2 | 1 | 1 | 3 | 133 |
| Clallam | 37 | 70 | 25 | 2 | 0 | 1 | 12 | 147 |
| Clark | 473 | 524 | 76 | 24 | 33 | 15 | 54 | 1,199 |
| Columbia | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 2 |
| Cowlitz | 31 | 33 | 6 | 4 | 2 | 1 | 1 | 78 |
| Douglas | 23 | 25 | 2 | 0 | 0 | 0 | 1 | 51 |
| Ferry | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 3 |
| Franklin | 9 | 24 | 6 | 0 | 0 | 1 | 2 | 42 |
| Garfield | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| Grant | 12 | 13 | 3 | 0 | 0 | 0 | 5 | 33 |
| Grays Harbor | 15 | 20 | 4 | 5 | 8 | 0 | 5 | 57 |
| Island | 125 | 88 | 26 | 7 | 6 | 3 | 10 | 265 |
| Jefferson | 39 | 90 | 27 | 4 | 3 | 0 | 8 | 171 |
| King | 7,687 | 6,098 | 926 | 554 | 309 | 388 | 504 | 16,466 |
| Kitsap | 289 | 480 | 82 | 41 | 13 | 11 | 34 | 950 |
| Kittitas | 31 | 14 | 4 | 2 | 0 | 0 | 1 | 52 |
| Klickitat | 13 | 5 | 6 | 0 | 0 | 0 | 2 | 26 |
| Lewis | 37 | 42 | 6 | 3 | 1 | 0 | 3 | 92 |
| Lincoln | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 2 |
| Mason | 41 | 47 | 8 | 5 | 1 | 1 | 6 | 109 |
| Okanogan | 7 | 6 | 3 | 0 | 0 | 0 | 0 | 16 |
| Pacific | 8 | 4 | 4 | 0 | 0 | 0 | 1 | 17 |
| Pend Oreille | 1 | 3 | 0 | 0 | 0 | 0 | 0 | 4 |
| Pierce | 520 | 680 | 129 | 53 | 36 | 16 | 73 | 1,507 |
| San Juan | 45 | 101 | 16 | 0 | 4 | 1 | 14 | 181 |
| Skagit | 104 | 108 | 35 | 5 | 6 | 0 | 8 | 266 |
| Skamania | 9 | 6 | 1 | 0 | 0 | 1 | 0 | 17 |
| Snohomish | 991 | 1,447 | 150 | 128 | 37 | 41 | 103 | 2,897 |
| Spokane | 148 | 191 | 35 | 5 | 17 | 3 | 17 | 416 |
| Stevens | 10 | 5 | 1 | 0 | 1 | 0 | 1 | 18 |
| Thurston | 230 | 353 | 95 | 39 | 23 | 7 | 37 | 784 |
| Wahkiakum | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Walla Walla | 18 | 17 | 4 | 0 | 0 | 0 | 3 | 42 |
| Whatcom | 201 | 448 | 44 | 23 | 19 | 3 | 33 | 771 |
| Whitman | 9 | 8 | 2 | 0 | 0 | 0 | 0 | 19 |
| Yakima | 37 | 25 | 4 | 1 | 4 | 0 | 9 | 80 |
| Unknown or Out of State | 74 | 98 | 20 | 7 | 6 | 1 | 7 | 213 |
| Total | 11,403 | 11,263 | 1,784 | 917 | 532 | 496 | 973 | 27,368 |

Exhibit 9 – WA Plug-in Hybrid Vehicle (PHEV) Registration by County

| County | Chevrolet | Ford | Toyota | BMW | Chrysler | PHEV Total | BEV Total | Grand Total |
|-------------------------|--------------|--------------|--------------|--------------|------------|---------------|---------------|---------------|
| Adams | 1 | 2 | 0 | 1 | 0 | 5 | 5 | 10 |
| Asotin | 2 | 1 | 4 | 0 | 0 | 9 | 13 | 22 |
| Benton | 72 | 70 | 38 | 14 | 10 | 225 | 222 | 447 |
| Chelan | 31 | 2 | 10 | 4 | 0 | 58 | 133 | 191 |
| Clallam | 46 | 21 | 34 | 2 | 10 | 122 | 147 | 269 |
| Clark | 257 | 205 | 124 | 78 | 28 | 804 | 1,199 | 2,003 |
| Columbia | 0 | 0 | 2 | 0 | 0 | 2 | 2 | 4 |
| Cowlitz | 36 | 31 | 16 | 3 | 0 | 94 | 78 | 172 |
| Douglas | 14 | 11 | 7 | 0 | 0 | 36 | 51 | 87 |
| Ferry | 2 | 0 | 0 | 1 | 0 | 3 | 3 | 6 |
| Franklin | 22 | 20 | 8 | 2 | 4 | 59 | 42 | 101 |
| Garfield | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Grant | 12 | 17 | 8 | 3 | 5 | 49 | 33 | 82 |
| Grays Harbor | 14 | 25 | 12 | 3 | 2 | 61 | 57 | 118 |
| Island | 93 | 67 | 43 | 10 | 5 | 237 | 265 | 502 |
| Jefferson | 34 | 29 | 25 | 2 | 5 | 106 | 171 | 277 |
| King | 1,729 | 1,184 | 963 | 966 | 258 | 6,335 | 16,466 | 22,801 |
| Kitsap | 199 | 122 | 79 | 36 | 30 | 543 | 950 | 1,493 |
| Kittitas | 14 | 2 | 6 | 1 | 1 | 29 | 52 | 81 |
| Klickitat | 9 | 7 | 7 | 1 | 1 | 29 | 26 | 55 |
| Lewis | 31 | 12 | 14 | 2 | 2 | 68 | 92 | 160 |
| Lincoln | 2 | 2 | 0 | 2 | 0 | 6 | 2 | 8 |
| Mason | 46 | 19 | 18 | 8 | 1 | 103 | 109 | 212 |
| Okanogan | 4 | 10 | 5 | 0 | 1 | 23 | 16 | 39 |
| Pacific | 5 | 2 | 9 | 1 | 0 | 18 | 17 | 35 |
| Pend Oreille | 0 | 4 | 1 | 0 | 0 | 6 | 4 | 10 |
| Pierce | 458 | 372 | 216 | 111 | 45 | 1,341 | 1,507 | 2,848 |
| San Juan | 21 | 11 | 16 | 6 | 1 | 66 | 181 | 247 |
| Skagit | 54 | 51 | 39 | 17 | 4 | 185 | 266 | 451 |
| Skamania | 4 | 3 | 7 | 1 | 0 | 16 | 17 | 33 |
| Snohomish | 471 | 403 | 226 | 112 | 65 | 1,445 | 2,897 | 4,342 |
| Spokane | 137 | 86 | 40 | 28 | 11 | 338 | 416 | 754 |
| Stevens | 14 | 4 | 2 | 2 | 0 | 22 | 18 | 40 |
| Thurston | 222 | 139 | 115 | 28 | 14 | 580 | 784 | 1,364 |
| Wahkiakum | 0 | 2 | 0 | 0 | 0 | 2 | 1 | 3 |
| Walla Walla | 24 | 10 | 8 | 3 | 2 | 52 | 42 | 94 |
| Whatcom | 110 | 77 | 90 | 15 | 4 | 356 | 771 | 1,127 |
| Whitman | 14 | 4 | 8 | 3 | 0 | 31 | 19 | 50 |
| Yakima | 32 | 23 | 14 | 6 | 0 | 86 | 80 | 166 |
| Unknown or Out of State | 44 | 52 | 26 | 19 | 4 | 173 | 213 | 386 |
| Total | 4,280 | 3,102 | 2,240 | 1,491 | 513 | 13,723 | 27,368 | 41,091 |