

Correlation of Household Income to High School Graduation Rate

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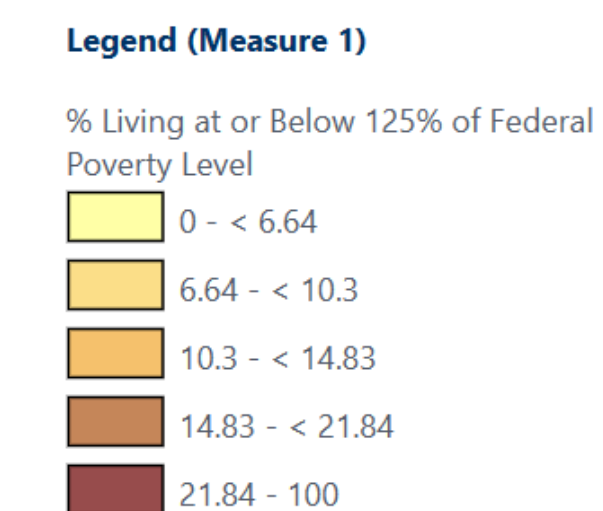
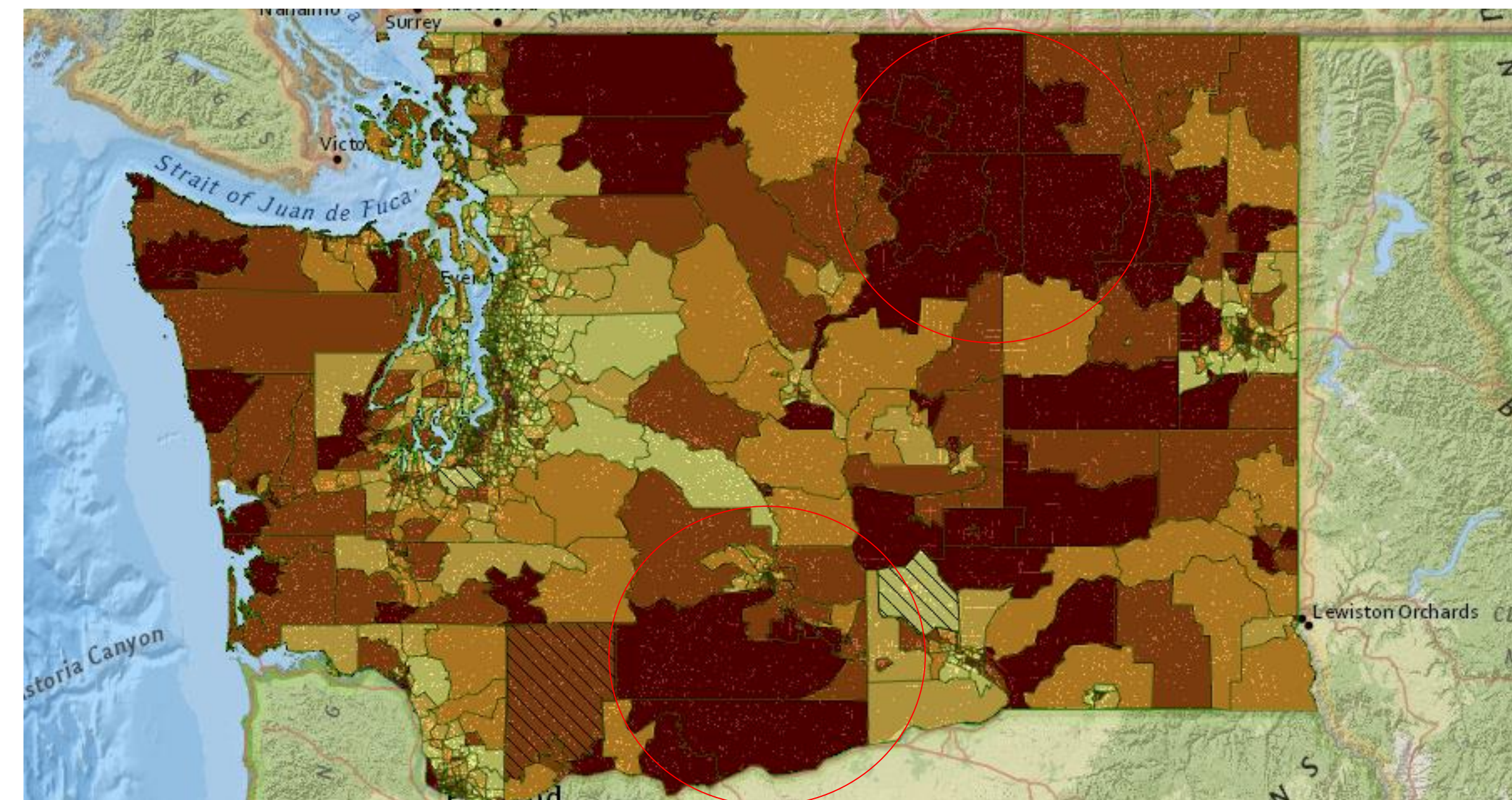
Abstract

Washington state is quite good when it comes to graduation rates, but in certain areas, the rate is significantly less. Why is it like this? Let us try to figure out how we can make the graduation rate higher in all regions. Every person deserves at the very least a high school diploma, as without one, it is hard to get into any type of jobs, or any professional field, making it hard to survive without any income.

Background

The high school graduation rate in Washington State is 92.35% and currently ranks #18 in the US in terms of high school graduation rates [1]. The ranking of Washington State may be a bit surprising, as around Puget Sound, Washington's schooling is quite good. However, factoring in the entire state gets lower results. People commonly will associate the most populated regions in a state with the entire state, which is not a good view to have when it comes to full state analysis. Most places where the graduation rate is lower than average are clustered in Eastern or very Southern Washington, whereas the higher-than-average rates are in West Washington and sometimes North Washington. In places with higher graduation rates, the income of people tend to be higher, and when the graduation rate is lower, the income is usually lower as well.

Data Analysis



When it comes to the graduation rates by demographics - Near Puget Sound, especially King County, the rate of people with no high school diploma is quite low. However, the farther you get, especially in Central Washington, the percentage spikes up very visibly (significant areas have a circle). The cause of this can be from many reasons, but a cause that seems plausible is the income of students and their families.

Figure 4

The correlation can be drawn in a few places, like Southern and Northern Washington. Although it may not be the primary cause, it can be a cause of people not graduating high school [3].

Supporting Data

The figure here is a measure of people with no high school diploma

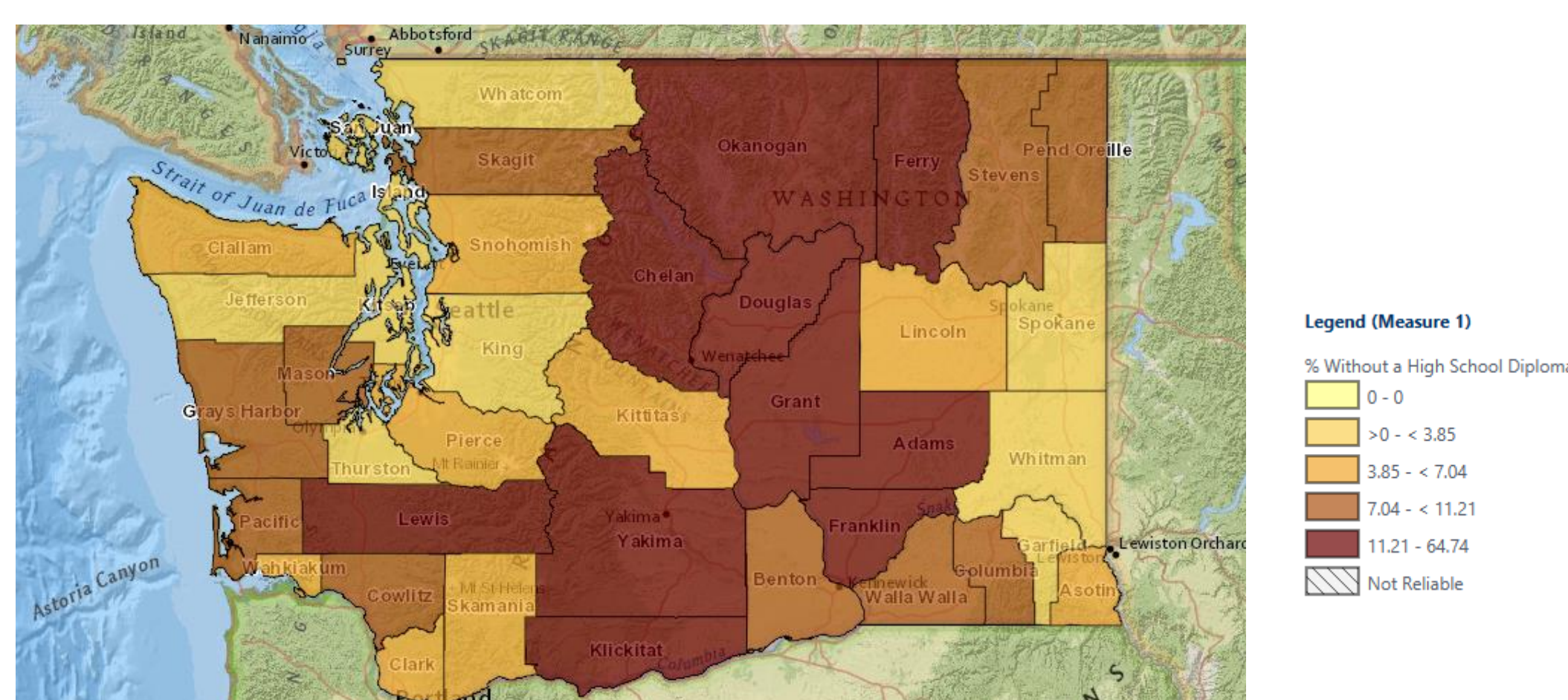


Figure 1

Washington Tracking Network (WTN); Map View

The figure above is a measure of people with no high school diploma.

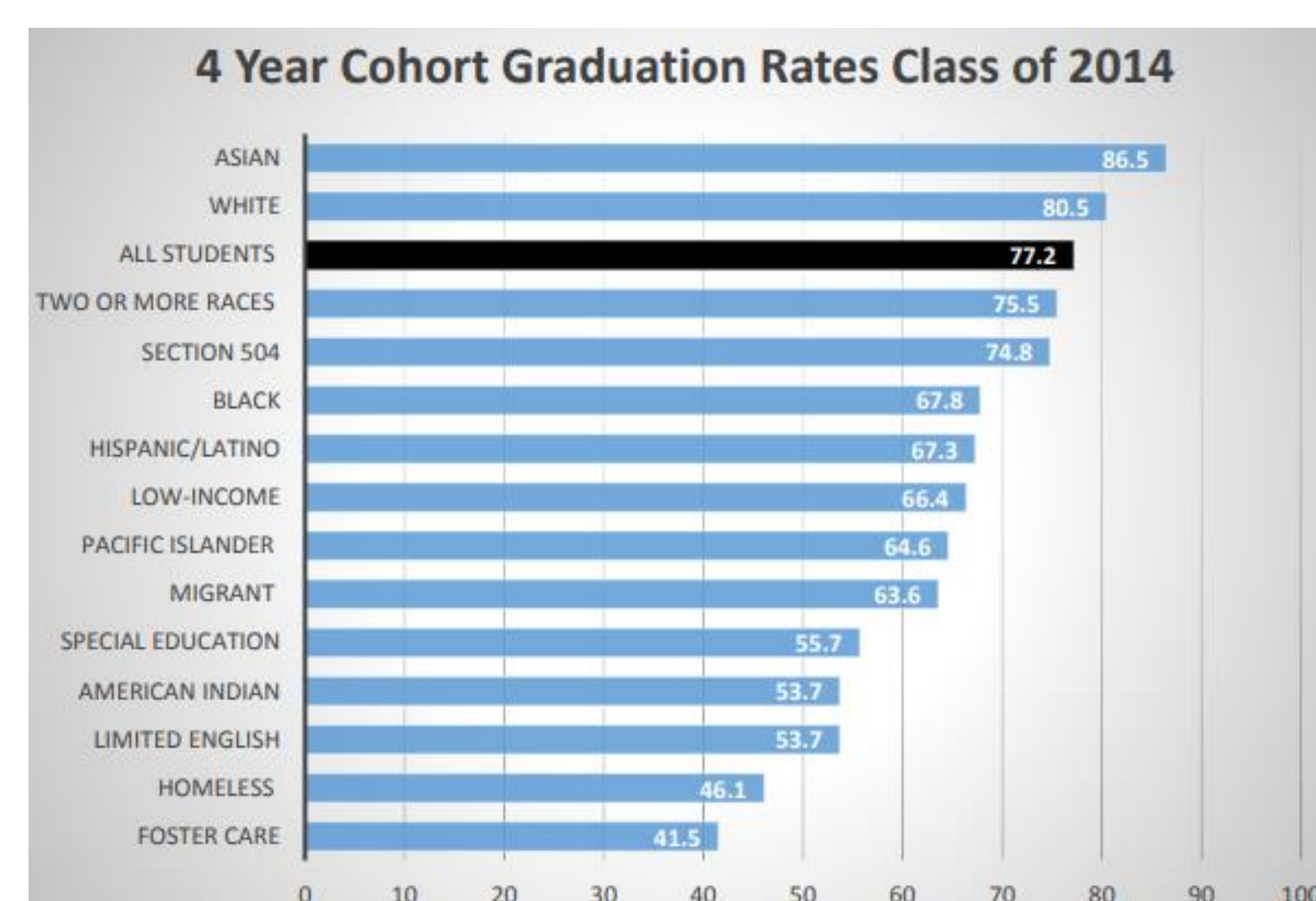


Figure 2

Student Group	Received High School Diploma	Graduated w/ Associates Degree	Total All Graduates	Adjusted Cohort	Adjusted 4-Year Cohort
All Students	67,034	932	67,966	84,048	80.9%
Am. Indian/AK Native	725	3	728	1,206	60.4%
Asian	5,786	81	5,867	6,519	90.0%
Pacific Islander	674	2	676	913	74.0%
Black	2,924	12	2,936	3,948	74.4%
Hispanic	12,858	99	12,957	17,240	75.2%
White	39,549	678	40,227	48,543	82.9%
Two or More Races	4,516	57	4,573	5,668	80.7%
Students with Disabilities	6,341	2	6,343	10,279	61.7%
Students w/out Disabilities	60,693	930	61,623	73,769	83.5%
English Learner	3,958	12	3,970	6,190	64.1%
Non English Learner	63,076	920	63,996	77,858	82.2%
Low Income	30,604	267	30,871	42,831	72.1%
Non Low Income	36,430	665	37,095	41,217	90.0%
Migrant	1,605	2	1,607	2,270	70.8%
Non Migrant	65,429	930	66,359	81,778	81.2%
Section 504	4,143	26	4,169	5,346	78.0%
Non Section 504	62,891	906	63,797	78,702	81.1%
Homeless	3,411	6	3,417	6,154	55.5%
Non Homeless	63,623	926	64,549	77,894	82.9%
Foster Care			307	666	46.1%
Non Foster Care			67,659	83,382	81.1%
Female	33,885	617	34,502	41,056	84.0%
Male	33,149	315	33,464	42,992	77.8%

Figure 3

Figure 3 is a measure of high school graduation rates across different demographics of people in 2019 [2] [3]. In both Figure 2 and Figure 3, the highest rates are in Asian and White, and the lowest rates are in Homeless and Foster Care. Even with a 5 year gap between the two graphs, the data is still mostly the same.

Possible Solutions

There are a few solutions for this problem so that we can help students graduate high school.

1. Having more resources available to students outside of school hours. Students who struggle need more help than just the general school hours to improve. Having resources such as more books or even tutoring could greatly help these students. The state should provide more funding for free textbooks and free tutoring for students, as tutors cost money and low-income families cannot afford it.
2. Help struggling students before they enter high school. In my experience, most students who struggle have done so early on in middle school usually and cannot all be fixed in just high school years. Identifying students who are having trouble in school before high school and giving them the proper tools to fix it can help them graduate high school.
3. Have free transportation for all students or maybe just low-income students. An issue some people face is they live in rural areas and schools are far away, so they cannot go there easily and may not own a car. From September 1st 2022, students can take transit for free from the Washington Transportation Funding Package. [4]. However, transit does not usually reach into rural areas and is only concentrated in urban areas. Having free transportation would enable everyone to be able to get to school.

References

- [1] High School Graduation Rates by State | Wisevoter (2023) <https://wisevoter.com/state-rankings/high-school-graduation-rates-by-state/>
- [2] Ritter, B. (Spring 2015). Factors Influencing High School Graduation. https://wsac.wa.gov/sites/default/files/2015.12.3.Ritter_Graduation_Issue_Brief.pdf
- [3] U.S. Department of Health and Human Services. High School Graduation, <https://health.gov/healthypeople/priority-areas/social-determinants-health/literature-summaries/high-school-graduation>
- [4] Community Transit. (2024). Youth Riders. <https://www.communitytransit.org/riding-with-kids>