

# Factors Influencing High School Graduation

*Issue Brief Prepared for the  
Washington Student Achievement Council*

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## CONTENTS

Executive Summary.....	1
Introduction .....	2
General Approach .....	2
Context.....	3
1. Economic Factors and High School Graduation.....	4
2. Importance of Ninth Grade on High School Graduation .....	5
3. Attendance Factor and Student Engagement with School.....	6
4. Course Failure Factor as an Indicator of High School Graduation.....	6
5. Demographic Data and High School Graduation .....	8
Effective Practices.....	10
Research Based Practices and What’s Being Implemented in Washington State.....	10
Local Efforts in Washington .....	11
1. Renton School District, Lindbergh High School .....	11
2. Tacoma Public Schools.....	12
3. Spokane Public Schools.....	13
Conclusion.....	14
Appendix A.....	16
Appendix B .....	17
Appendix C .....	20
Appendix D.....	21
Sources.....	22

## EXECUTIVE SUMMARY

Research shows that although graduation rates have fluctuated over time, the factors that influence high school graduation have remained the same. These include: 1) economic factors 2) demographic factors 3) ninth grade factor 4) the attendance factor and student engagement and 5) course failure factor. There have been state and local efforts to address these challenges and improve graduation rates across the state. Some that have been successful have taken an integrated approach that looks at multiple factors across educational levels to support increased graduation likelihood. Others have used early intervention systems to help students early who are falling off track. Overall, as our student population grows and becomes more diverse, there is a need to better understand demographic differences and the specific needs of student populations.

## INTRODUCTION

The purpose of this brief is to provide information to the Washington Student Achievement Council (WSAC), a state agency. WSAC provides strategic planning, oversight and advocacy to support increased student success and higher levels of educational attainment in Washington. The council proposes improvements and innovations to meet the evolving needs of students, employers and the educational community. The information in this issue brief is intended to support the Council's 2015 Roadmap Report update.

The information gathered here is intended to be helpful for Washington school district personnel, government and non-government agencies, public policymakers, and entities that support increased performance goals and achievement resulting in high school graduation for all students in the State. It looks, therefore, at research that identifies current graduation (and drop-out) rates, who graduates from high school and why, and factors that influence students who do not graduate. With this information, stakeholders can better structure their efforts to assure all students receive the rigor, support, and interventions necessary to graduate from high school ready for further education and career success.

## GENERAL APPROACH

The question that guided this research was: What are the most important factors that influence an on-time high school graduation<sup>a</sup>?

This research began by reviewing recent studies that identify who graduates and who drops out of high school and the factors that characterize student success or failure. More research is available on the numbers and percentages of students who graduate both statewide and nationally than the characteristics of those students, and the factors that improve their success. Some data, however, are available that show several elements repeated across the state and nation regularly. The categories of data for this brief include: 1) Economic 2) Demographic and 3) Student. It should be noted that these three factors cannot be considered singularly. Most students who successfully graduate from high school on time share characteristics from more than one of the categories; most students who are drop-outs also share more than one and possibly all three factors.

To focus the research, key terms included: *factors that predict high school graduation; risk factors for dropping out of high school; and high school completion rates. As factors were identified, key terms included: absenteeism and high school graduation; ninth grade as a critical*

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<sup>a</sup> See Appendix A for definitions.

*year for high school graduation; high school course failure; poverty and economic factors; and on-track for high school graduation.*

The question guiding this research, What are the most critical factors that influence high school graduation? is addressed in this brief by looking at five categories of factors within the categories of data mentioned above. They are:

1. Economic Factors and High School Graduation
2. The Importance of Ninth Grade on High School Graduation
3. The Attendance Factor and Student Engagement with School
4. Course Failure Factor as an Indicator of High School Graduation
5. Demographic Data

Again, these categories are not comprehensive nor exclusive to one another. Many students share multiple factors.

## CONTEXT

Data shows that graduation rates have improved for both the nation and Washington State from the year 2003 to 2010<sup>1 2b</sup>. This holds true for all ethnicities and for both males and females. Some years the rates dropped, but the overall trend during this timeframe is improvement in the graduation rate from 2003 to 2010<sup>3c</sup>. In 2012, the nation reached, for the first time in history, the 80 percent threshold, up about 10 percentage points from the beginning of the decade<sup>4</sup>. Research shows that the primary reasons for improved graduation rates and the reasons for dropping out of high school have remained the same for that period of time<sup>5 6 7 8</sup>. These include, primarily: high absenteeism; low GPA; having been retained one or more years in school; having failed one or more classes in the freshman year; family characteristics; issues related to poverty; school experiences; and being off-track to graduate on time<sup>5 6 9 10</sup>. More studies are now emphasizing the freshman year as most critical for students when it comes to establishing an on-track record for graduation as all factors (absenteeism, course failure, connection to school, and demographic factors) seem to combine, or conspire, in a critical way<sup>7</sup>.

Researchers summarize, more specifically, that on-time graduation was higher for students who were on track for Grade 10 promotion. They had a grade 9 GPA of 2.5 or higher, passed Algebra 1 with a C or higher by grade 8, failed one or fewer semester courses, were absent fewer than

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<sup>b</sup> This was the most recent longitudinal data available.

<sup>c</sup> See Appendix B for graduation rates tables.

eight days, were continuously on-track for grade 9 promotion, were never suspended prior to grade 9, and never moved between schools during middle school. Being eligible for special education services decreased the odds of graduating on time. Other factors that were statistically significant but had a small or negligible effect were: Free and Reduced-price Meals System (FARMS) status, suspension, number of days absent during grade 9, and school mobility. These factors decreased the likelihood of graduating on time<sup>5 6 7 9 10</sup>.

### 1. Economic Factors and High School Graduation

The strongest predictors that a student is likely to drop out are family characteristics such as: socioeconomic status, family structure, family stress (death, divorce, family moves), and the mother's age. Students who come from low-income families, who are the children of single, young, unemployed mothers, or who have experienced high degrees of family stress are more likely than other students to drop out of school. Of those characteristics, low socioeconomic status has been shown to bear the strongest relationship to students' tendency to drop out<sup>5 7 11</sup>.

Academic achievement disparities by family income influence who does and does not graduate on time. Using eligibility for free or reduced-price school meals as a proxy, low-income students in eighth grade score lower than non-low-income students on the National Assessment of Educational Progress mathematics, reading, and science tests<sup>12</sup>. The same data collection system shows low-income eighth graders are more than 40 percent more likely to have had three or more absences in the past month<sup>13</sup>. The National Household Education Survey uses receipt of food stamp (SNAP) benefits as a poverty proxy; data from that source show poor children in grades one through three are nearly three times more likely to repeat a grade<sup>14</sup>. This data set also shows that poor children in kindergarten through third grade are more than twice as likely to have an individualized education plan for special education needs<sup>14</sup>. Finally, youth from families in the bottom quintile of the income distribution are more than four times as likely as those from families in the top quintile to have dropped out of school in the past year<sup>5</sup>. Disparities in test scores between poor and wealthier students have grown in the past ten years; this gap is now larger than the black-white achievement gap in the U.S.<sup>10</sup>.

It is likely that children and students living in poverty will drop out of school and continue the poverty cycle. In 2009, the bottom quintile of low-income students (bottom 20 percent of all family incomes) were five times more likely to drop out of high school than high-income (top 20 percent of all family incomes) students. Child poverty is rampant in the U.S., with more than 20 percent of school-age children living in poor families. And poverty rates for Black and Hispanic families are three times the rates for White families<sup>5</sup>.

Dropouts face extremely bleak economic and social prospects. Compared to high school graduates, they are less likely find a job and earn a living wage, and more likely to be poor and to suffer from a variety of adverse health outcomes<sup>15</sup>. Moreover, they are more likely to rely on public assistance, engage in crime, and generate other social costs borne by taxpayers<sup>15</sup>.

Rumberger, in his article on poverty and high school dropouts, states that family poverty is associated with a number of adverse conditions, including high mobility and homelessness; hunger and food insecurity; parents who are in jail or absent; domestic violence; drug abuse;

and other problems<sup>16</sup>. These are called “toxic stressors” because they are severe, sustained, and not buffered by supportive relationships<sup>17</sup>. Drawing on medical, biological and social science, Shonkoff and Garner show how toxic stress in early childhood leads to lasting impacts on learning (linguistic, cognitive and social-emotional skills), behavior, and health. These impacts likely lead to dropping out, low achievement, chronic absenteeism and misbehavior, and poor behaviors and attitudes (“non-cognitive skills”)<sup>18</sup>.

## 2. Importance of Ninth Grade on High School Graduation

Evidence is growing that students who fall off track during the freshman year have very low odds of earning a high school diploma<sup>7</sup>. Analysis of the progression of students through high school suggests that approximately one-third of the nation’s recent high school dropouts never were promoted beyond ninth grade. For policymakers and educators, the task of increasing high school graduation rates means carefully studying which students experience trouble in ninth grade and the reasons for their difficulty<sup>6 7 19</sup>.

Neild examines four theories about why ninth grade poses difficulties for some students<sup>19</sup>. The first is that ninth grade coincides with life-course changes, such as reduced parental supervision and increased peer influence. The second is that in moving to a new school, students must break the bonds they have formed with their middle school teachers and peers. The third is that some students are inadequately prepared for high school. The final theory is that the organization of some high schools is itself a major source of students’ difficulty (class length, number of courses per day, movement to classes, start-and end-time of the school day). Each theory, says Neild, suggests a particular type of policy response. The strongest evidence, he and others observe, finds inadequate preparation for high school and the organization itself of high schools<sup>19</sup>.

Reform efforts, to this point, have tended to address high school organization, such as number of classes, block scheduling, movement of students or of teachers in the building, early start times and end times of the school day, and time allotment per class, with or without a focus on instructional quality or helping students to catch up on academic skills. Evaluations of these reforms suggest that both school organization and instructional improvement are necessary to keep ninth graders on track to graduation<sup>19</sup>.

High expectations and rigor have been suggested as factors influencing high school graduation and success beyond high school. A rigorous high school curriculum requires challenging instruction and support for each student to meet high standards. Components of a rigorous high school curriculum include higher expectations for all students, with support for low-performing students through intervention programs and extended learning opportunities, and a requirement that each student complete a college- or work-ready curriculum in order to graduate from high school<sup>20</sup>. Rigor includes well-managed classrooms, the expectation to enroll in college-prep courses, academic demands, orderly student behavior, and challenging instruction<sup>21</sup>. The National Council of State Legislators report that the rigor of the high school curriculum is one of the top indicators for whether a student will graduate from high school and earn a college degree. It reports that a study by the U.S. Department of Education in 2005

found the rigor of high school coursework is more important than parent education level, family income, or race/ethnicity in predicting whether a student will earn a postsecondary credential. The report goes on to say that, unfortunately, most recent high school graduates report being only moderately challenged in high school. In the 2005 survey of almost 1,500 recent graduates, just 24 percent of graduates said they were significantly challenged during high school. One in five recent high school graduates said that “expectations were low and...it was easy to slide by<sup>20</sup>.”

Furthermore, Funds of Knowledge report that a critical assumption in educational institutions is “they do not view working-class minority students as emerging from households rich in social and intellectual resources. Rather than focusing on the knowledge these students bring to school and using it as a foundation for learning, schools have emphasized what these students lack in terms of the forms of language and knowledge sanctioned by the schools. This emphasis on so-called disadvantages has provided justification for lowered academic expectations and inaccurate portrayals of these children and their families<sup>22</sup>.”

### **3. Attendance Factor and Student Engagement with School**

The number of absences per student can be monitored very early in the first year of high school—attendance even in the first few weeks or month of the freshman year is related to whether students will eventually graduate<sup>23</sup>.

A study by John Hopkins University identifies attendance as the fundamental indicator of student engagement with school<sup>24</sup>. They connect the ninth grade factor to both attendance and engagement: Though many students fall off-track to success for the first time in ninth grade, poor attendance patterns often begin increasing in middle school and become worse in high school. Recent studies indicate higher rates of chronic absenteeism in grade 8 than in earlier middle grades. They also found that rigorous research on interventions to improve student attendance is in early stages. Evaluation of out-of-school time programs (summer, before- and after-school programs) have found mixed results on school attendance. Their research shows that missing school during the secondary grades can often be traced to low levels of motivation<sup>24</sup>.

Recent discussions of non-cognitive factors affecting academic performance have emphasized the importance of developing an academic mindset to influence academic behaviors such as attendance and exerting effort in class and on homework assignments<sup>18</sup>.

Information about absences may be the most practical indicator for identifying students in need of early interventions<sup>25</sup>. In general, research suggests that missing more than 10% of instructional time is cause for concern. This percentage translates to roughly 2 weeks (10 days) of school per semester in most high schools<sup>25</sup>.

### **4. Course Failure Factor as an Indicator of High School Graduation**

Grades earned are clearly related to students’ likelihood of successfully graduating from high school. On average, students who earn a 2.0 GPA or less in their freshman year have

## FACTORS INFLUENCING HIGH SCHOOL GRADUATION

significantly lower graduation rates than students who earn a 2.5 or higher (on a 4-point scale). Therefore, students with a GPA of 2.0 or less at the end of their first year of high school should be considered at risk for dropping out<sup>26</sup>. Students who fail one or more core courses OR accumulate fewer credits than the number required for promotion to 10th grade are, at that point, off track for graduation<sup>26</sup>.

The table below, taken from Heppen and Therriault's research, shows how course failures and credit accumulation combine to identify individual students as on track or off track for high school graduation.

Number of Semesters with Fs in Core Courses	Number of Credits Accumulated Freshman Year	
	Less than 5.0	5.0 or more
2 or more	Off Track	Off Track
0 or 1 semester	Off Track	On Track

In short, during their freshman year, students must meet the following criteria in order to predict the likelihood of successfully graduating from high school:

- 1) No more than one semester F
- 2) No fewer than the number of credits required to be promoted to 10th grade.

## 5. Demographic Data and High School Graduation

In Washington, males drop out more frequently than females. American Indian students have the highest drop-out rate of all race/ethnicities, followed by Pacific Islander students, Hispanic students, and Black students. Other student populations with high drop-out rates include students in foster care, students in special education, students with limited English, and students who are homeless. Asian students have the lowest drop-out rate.

**Table 3: Adjusted Cohort Dropouts<sup>d</sup> (4-year)**

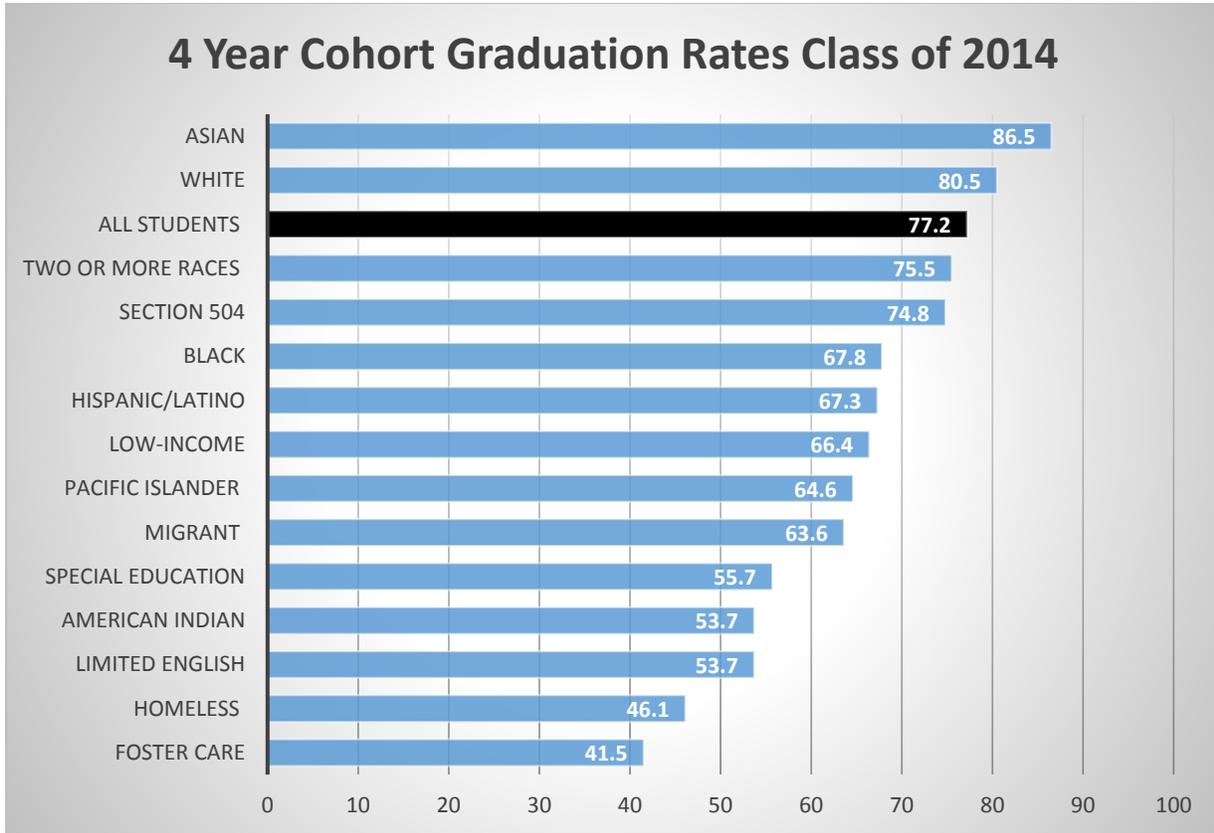
<b>Student Group</b>	<b>Dropouts Year 1</b>	<b>Dropouts Year 2</b>	<b>Dropouts Year 3</b>	<b>Dropouts Year 4</b>	<b>Total Dropouts</b>	<b>Adjusted 4-Year Cohort Dropout Rate</b>
All Students	610	1,104	2,288	5,668	9,670	12.3%
Amer. Indian	22	48	100	177	347	26.6%
Asian	37	52	74	199	362	6.0%
Pacific Islander	10	12	26	78	126	19.0%
Black	48	61	121	339	569	15.1%
Hispanic	153	275	559	1,412	2,399	17.7%
White	317	603	1,249	3,129	5,298	10.8%
Two or More Races	23	53	159	331	566	13.3%
Special Education	69	177	411	1,005	1,662	18.2%
Limited English	97	130	218	577	1,022	23.5%
Low Income	339	785	1,735	4,345	7,204	18.2%
Migrant	14	45	101	239	399	19.9%
504 Plan	19	24	104	293	440	11.9%
Homeless	24	73	185	661	943	31.5%
Foster Care	7	21	78	146	252	34.0%
Female	284	501	948	2,311	4,044	10.5%
Male	326	603	1,340	3,357	5,626	14.0%

Source: OSPI Graduation and Dropout Statistics Annual Report, 2015 Report

<http://www.k12.wa.us/LegisGov/2015documents/GradandDropoutStats2015.pdf>

The chart below depicts the on-time 4 year cohort graduation rate for 2013-14 students. Asian students and whites were the only groups above the average graduation rate for all students, and the student populations with the lowest graduation rates were students in foster care, students who are homeless, limited English students, and American Indian students<sup>d</sup>.

<sup>d</sup> See Appendix C to view data highlights and national comparisons.



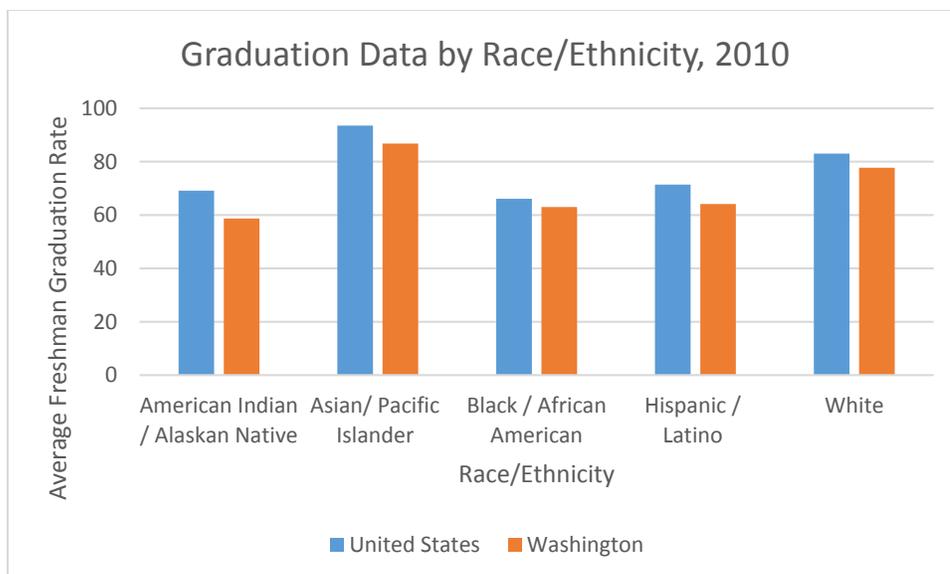
Source: OSPI Graduation and Dropout Statistics Annual Report, 2015 Report  
<http://www.k12.wa.us/LegisGov/2015documents/GradandDropoutStats2015.pdf>

Data also shows that Washington State consistently falls below the national average in numbers of students graduating from high school in in both gender and ethnicity. <sup>e</sup> The chart below shows differences in graduation rates statewide and nationally, by race/ethnicity.

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<sup>e</sup> Appendix B shows nationwide and state level demographic data.

## FACTORS INFLUENCING HIGH SCHOOL GRADUATION



Source: US Dept. of Ed, NCES Dropout, Completers, and Graduation Reports  
[https://nces.ed.gov/ccd/pub\\_dropouts.asp](https://nces.ed.gov/ccd/pub_dropouts.asp)

## EFFECTIVE PRACTICES

### Research Based Practices and What’s Being Implemented in Washington State

Research shows that an integrative approach that identifies and addresses multiple factors and at various educational levels is necessary to support increased graduation likelihood. An integrated approach that looks at multiple factors will address the complex composite of why students do not succeed in school. While each factor needs attention, many factors are present in each individual.

Bowers and Moore each pose an integrated approach that looks at all factors supporting on-time graduation combined (student, family, school, community) as a means of identifying and addressing graduation rates and success. Moore describes an Integrated Student Support System with the intention of addressing multiple factors<sup>9 27 28</sup>:

Influential factors	Core Components	Supports	Short-term Outcomes	Long-term Outcomes
<b>Student</b>	Needs assessment	Physical and mental health	Academic outcomes	High school graduation
<b>Family</b>	Community partnerships	In-school expanded learning Time	Non-academic outcomes	Post-secondary degree or certification

## FACTORS INFLUENCING HIGH SCHOOL GRADUATION

Influential factors	Core Components	Supports	Short-term Outcomes	Long-term Outcomes
<b>School</b>	Coordinated student support	School climate and effectiveness		
<b>Community</b>	Integration within school (commitment)	Parent education and family counseling		
	Data tracking	Social services for families in need		

An integrated approach is supported in a 2015 document prepared by GATE (Graduation: A Team Effort) Foundation. The Foundation proposes an Integrated Student Support Framework. It includes milestone measures in four domains: Kindergarten Ready; K-12 Education Success; Wellness and Civic Engagement; and Post-Graduation Achievement. Milestone measures for these areas include availability of support services, social/emotional skills in students, parent engagement, availability of community-based programs, and college and career preparation<sup>29</sup>.

## LOCAL EFFORTS IN WASHINGTON

In many school districts throughout Washington, efforts are being made to increase high school graduation and reduce drop-out rates. Below three districts that are doing focused and ambitious work to address these issues are highlighted. Two of these districts are urban (Tacoma and Spokane), and one is a suburban high school and district (Lindbergh High school in Renton). It is telling that little or no research was found on efforts in small, rural districts in Washington (which is not to say efforts do not exist). Resources, personnel, and time to document and publish such efforts is more limited in the smaller communities.

### 1. Renton School District, Lindbergh High School

Lindbergh High School in Renton School District, a school of 1,294 students, established a 5-year School Improvement Plan to address increased student achievement and graduation rates. They carefully laid out the District Foundation Beliefs, including (but not limited to) the following: a focus on eradicating the achievement gap; a belief in the potential of all students; the expectation that all administrators be instructional leaders; use of data as a tool; an increase in expectations; and ensuring all students are prepared for post-secondary education and training<sup>30</sup>.

The demographics of the district and how they have changed over the last ten years are reflective of what the research in this paper shows: a decrease in enrollment of less than 4%; a 20.5% increase in students receiving free and reduced lunch; a 4.1% increase in English Language Learners; a 1% increase in Special Education students; a 15% increase in students of color; a drop of almost 5% in the number of classroom teachers; and in 2014, a count of 81% of students remaining in the same school throughout the entire school year.

The district identified goals and strategies in Pre K-12 and others specific to high school as part of their overall 5-year plan. For high school, one goal was to *assure students were College and Career Ready: Each student will graduate with the necessary skills and an appropriate plan to continue to post-secondary options*. Renton School District set measurable targets in order to reach this goal.

Strategies for achievement included creating and implementing a Pre K-12 Renton Early Warning Indicators System so school districts can use data to keep students on the right track. Another strategy was to create a Pre K-12 system of support to address educational planning, exploration of post-secondary options, access to post-secondary options, and enrollment in post-secondary programs<sup>Error! Bookmark not defined.</sup>.

By carefully laying out goals for the high school aligned with district goals, strategies, indicators of progress, timelines, and monitoring techniques, improvement has been indicated by year three (2014) of the five-year plan. All staff is involved and planning teams assigned to the different goals meet regularly to assure progress. Adjustments have been made each year both to the plan and to the activities being implemented.

## 2. Tacoma Public Schools

Tacoma Public Schools presented highlights of their efforts in *Academic Excellent-Graduation Tacoma Public Schools, Strategic Plan Benchmarks 2013*<sup>31</sup>. This document outlined district goals and steps already taken and the next steps being planned. The district's efforts are especially critical given their population, again reflective of the demographics and factors described in this brief.

In Tacoma, the graduation gap for students of poverty (those receiving Free and Reduced Lunch) is 21% higher than the rest of the student population. 23% more Special Education students drop out of school than the general population; 29% of students transferred after grade 9 drop out of high school. Asians and Whites graduate 15% more than other groups<sup>31</sup>.

Additionally, 1,362 senior students were eligible to submit a Collection of Evidence (COE) as a state alternative to passing a High School Proficiency Exam (HSPE) or End-of-Course (EOC) exam in reading, writing, math 1 and/or math 2. Students may choose to retake the tests.

Tacoma Public Schools have already taken steps toward accomplishing raising their graduation rate. These steps include ensuring students have multiple opportunities to demonstrate mastery of standards, collaborating with other departments to ensure more timely follow-up with students, and developing new initiatives. One intervention initiative called "Fresh Focus,"

targets 9<sup>th</sup> grade students and helps them gain the study and academic skills they need to succeed in high school courses. Eligible students are identified as at-risk in 8<sup>th</sup> grade.

In addition, Tacoma Public Schools will be providing teachers with more opportunities for professional development, developing a comprehensive summer school plan that allows for students to gain core academic credit over the summer, monitoring underclassman students' course failure, HSPE/EOC status, and discipline and attendance records, and finalizing the Program Placement Process so additional innovative programs can be added that may impact the dropout and graduation rates in the district.

### 3. Spokane Public Schools

In a document presented to the Gates Foundation, titled Dropout Reduction in Spokane, a community-based public health focus to address high school dropout rates was described<sup>32</sup>. Engaging the community, Spokane believed, would create change. Under-educated students would lead to the continued cycle of poverty described earlier. The district and community leadership collaborated to design a plan for increased graduation and student on-going success.

A 2012 longitudinal study was described in the presentation. It was conducted by Mary Beth Celio on 7,000 Spokane students and found that 809, or 46% of the students who dropped out of high school could be predicted before a student entered high school; 707, or 40% could be predicted while in high school; and only 251, or 14% of student dropouts could not be predicted<sup>32</sup>.

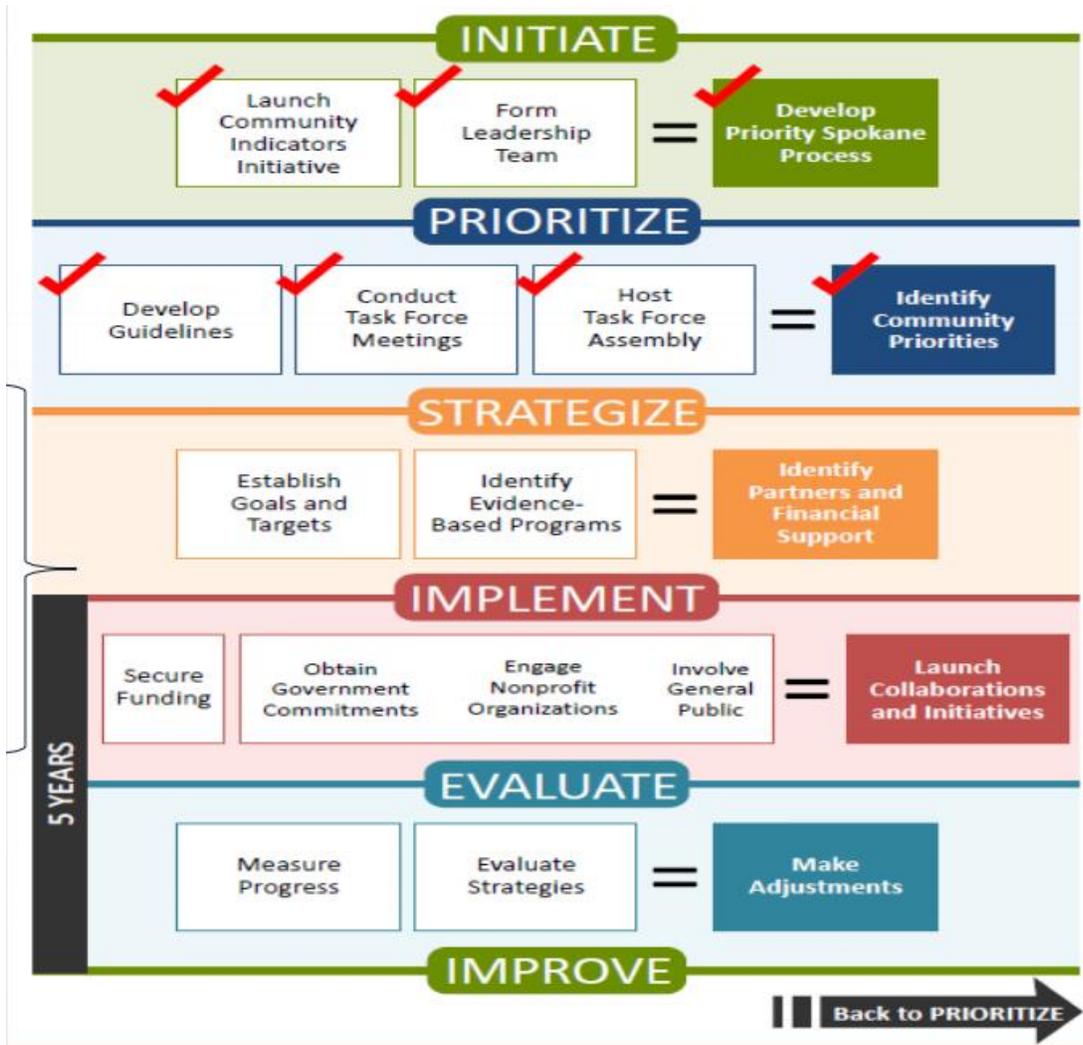
The effort was led by Priority Spokane. Three objectives guided the work of the Spokane Schools and community at large. They were: (1) Identify risk factors that lead to students dropping out of school; (2) Describe evidence-based school and community strategies for improving each risk factor; and (3) Understand policy and system changes needed to improve student attendance<sup>f</sup>.

Each objective and the student indicator led to strategies that involved the community and the school system. The following chart summarizes this information.

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<sup>f</sup> See Appendix D for a visual of youth indicators, or factors that lead to failure to graduate.

## FACTORS INFLUENCING HIGH SCHOOL GRADUATION



Source: Dropout Reduction in Spokane, [http://www-test.ospi.k12.wa.us/GATE/AdvisoryMeetings/2014March/GATEadvisory\\_SpokaneCollectiveDPIR.pdf](http://www-test.ospi.k12.wa.us/GATE/AdvisoryMeetings/2014March/GATEadvisory_SpokaneCollectiveDPIR.pdf)

## CONCLUSION

A person's success at graduating from high school is tightly bound to their success in life. This includes career options, economic stability, mental and physical health, and productive citizenry. Indeed, the success of communities and the nation at large is dependent on all students graduating from high school as a means to this success.

Given this imperative, it is important to acknowledge and act on known factors of whether or not a student will graduate from high school. These factors are based in that child's family characteristics, race/ethnicity, economic status, success in school from early grades going forward, being on track in grade nine, attending school regularly, being connected to school,

and success in academics. A need exists to continue to address demographic differences in schools as in society. As the nation becomes more diverse, so do our school populations. Understanding cultural differences and economic disparities must remain a priority in order to educate all students.

Economics is a two-fold factor. First, students living in poverty are at high risk of dropping out of school. Second, students who drop out of high school continue the cycle of poverty as their future economic and career outlook is much dimmer than those who graduate.

The ninth grade year is critical for students and a predictor of high school graduation. Falling behind during this crucial year means a student not only begins to lag in credit accumulation and academics, but causes personal discouragement that leads to absenteeism, personal feelings of stress, and disconnection from school. These other non-academic factors become forces against graduation. Finally, absenteeism and grades remain crucial to a student staying on track for graduation. A student's connection to school is tied to both of these factors.

An integrated approach that looks at multiple indicators will address the complex composite of why students do not succeed in school. While each indicator and predictor needs attention, many factors are present in each individual.

Overall, additional studies need to be done in the field of predicting and supporting high school graduation. The results need to be acted upon in order to support student success.

## APPENDIX A

For the purpose of this brief, *Graduates* are defined as those students who are reported as diploma recipients. These are individuals who are awarded a regular high school diploma or a diploma that recognizes some higher level of academic achievement. They can be thought of as students who meet or exceed the coursework and performance standards for high school graduation established by a state or another relevant authority<sup>33</sup>.

The definition of a *dropout*, taken from the *Common Core of Data (2013)*, is a student who was enrolled at any time during the previous school year who is not enrolled at the beginning of the current school year and who has not successfully completed school. Students who have transferred to another school, died, moved to another country, or who are out of school due to illness are not considered dropouts<sup>33</sup>.

*Factor* is the term used in this brief to include both the term *indicator* and the term *predictor*. Their definitions are included here.

*Indicators* are defined as measures with an established threshold. A numeric threshold can be assigned to the measure<sup>34</sup>.

*Predictors* are measures that are strongly correlated with improved outcomes, but for which a numeric threshold has not been established<sup>34</sup>.

*Average Freshman Graduation Rate (AFGR)* indicates students enrolled in the freshman year who are still there in their senior year<sup>34</sup>.

*On-track Indicator*: A student is considered on track or off track based on a combination of course failures in core academic courses and credits earned. Students who fail one or more core courses OR accumulate fewer credits than the number required for promotion to 10th grade are considered off track for graduation<sup>26</sup>.

Additional research is needed in this area, especially updated studies. This brief is not intended to be comprehensive, but rather a guide to help focus for further work.

APPENDIX B

GRADUATION RATES SHOWING GRADE 8-10 BASE ENROLLMENT, NUMBER OF 2010 GRADUATES, AND AVERAGE FRESHMAN GRADUATE RATE (AFGR), Washington and United States: Table 1<sup>35</sup>

Number of Graduates 2009-2010	AFGR (Average Freshman Graduation Rate)	Average Enrollment Base Grades 8,9, and 10	8 <sup>th</sup> Grade Enrollment Base 2005-06	9 <sup>th</sup> Grade Enrollment Base 2006-07	10 <sup>th</sup> Grade Enrollment Base 2007-08
<b>WA: 66,046</b>	WA: 77.2	WA: 85,554	WA: 81,440	WA :90,280	WA: 84,942
<b>US: 3,128,022</b>	US: 78.2	US: 3,998,564	US: 3,827,519	US: 4,284,842	US: 3,881,914

GRADUATION DATA 2010 BY RACE BY RACE, Washington and United States: Table 2<sup>35</sup>

Number of Graduates 2009-2010	American Indian/Alaska Native	Asian /Pacific Islander	Hispanic	Black	White
<b>NUMBER OF GRADUATES</b>	WA: 1,437	WA: 5,893	WA: 6,971	WA: 3,130	WA: 46,124
	US: 34,131	US: 167,840	US: 545,518	US: 472,261	US: 1,871,980
<b>Average Freshman Graduation Rate</b>	WA: 58.7	WA: 86.8	WA: 64.1	WA: 63.0	WA: 77.7
	US: 69.1	US: 93.5	US: 71.4	US: 66.1	US: 83.0

DROP-OUT DATA 2010 FOR GRADES 9-12, Washington and United States: Table 3<sup>35</sup>

Number of Drop Outs	Event Drop-Out Rate	Total Enrollment Grades 9-12
<b>WA: 13,960</b>	WA: 4.2	WA: 329,960
<b>US: 514,238</b>	US: 3.4	US: 14,932,370

## FACTORS INFLUENCING HIGH SCHOOL GRADUATION

DROP-OUT DATA SEGREGATED BY GRADE FOR 2010, GRADES 9, 10, 11, 12, Washington and United States Table 4 <sup>35</sup>

Grade	Grade 9	Grade 10	Grade 11	Grade 12
<b>Number of Dropouts</b>	WA: 2,881	WA: 2,792	WA: 3,472	WA: 4,815
	US: 105,756	US: 113,370	US: 117,536	US: 175,806
<b>Event Dropout Rate</b>	WA: 3.4	WA: 3.4	WA: 4.4	WA: 5.8
	US: 2.6	US: 3.0	US: 3.3	US: 5.1

DROP-OUT RATES BY ETHNICITY SCHOOL YEAR 2010, Washington and United States, Table 5 <sup>35</sup>

Ethnicity	American Indian/Alaska Native	Asian/ Pacific Islander	Hispanic	Black	White	2 or More Races
<b>Number of Drop- Outs</b>	WA: 666	WA: 859	WA: 2,588	WA: 1,155	WA; 8,055	_____
	US: 12,044	US: 14,595	US: 150,137	US: 137,287	US: 191,943	_____
<b>Event Drop-Out Rate</b>	WA: 8.2	WA: 3.0	WA: 5.8	WA: 6.1	WA: 3.6	_____
	US: 6.7	US: 1.9	US: 5.0	US: 5.5	US: 2.3	-----

LONGITUDINAL DATA SHOWING 2002-2010 EVENT DROP-OUT RATES, Washington and United States, Table 6 <sup>35</sup>

2002-2003	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010
<b>WA: 6.2</b>	WA: 6.5	WA: 4.5	WA: 5.6	WA: 5.1	WA: 5.7	WA: 4.7	WA: 4.2
<b>US: 3.9</b>	US: 4.1	US: 3.9	US: 3.9	US: 4.4	US: 4.1	US: 4.1	US: 3.4

FACTORS INFLUENCING HIGH SCHOOL GRADUATION

NUMBER OF GRADUATES AND HIGH SCHOOL DROP-OUTS BY GENDER 2010, Washington and United States, Table 7 <sup>35</sup>

Male Graduates	Female Graduates	Male Drop Outs	Male Event Drop-Out Rate	Female Drop Outs	Female Event Drop-Out Rate
<b>WA: 31,353</b>	WA: 32,194	WA: 7,415	WA: 4.5	WA: 5,836	WA: 3.7
<b>US: 1,514,185</b>	US: 1,556,052	US: 280,648	US: 3.8	US: 206,424	US: 2.9

WASHINGTON STATE ADJUSTED 4 YEAR COHORT/ ON-TIME GRADUATION RATES 2009-2014, Table 8 <sup>36</sup>

Student Group	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
<b>Foster Care</b>	*	53.6%	*	41.6%	36.6%	41.5%
<b>Homeless</b>	*	*	*	*	45.1%	46.1%
<b>Limited English</b>	*	52.4%	52.5%	53.9%	50.4%	53.7%
<b>American Indian</b>	52.7%	58%	56.5%	56.8%	52.5%	53.7%
<b>Special Education</b>	55.6%	62.5%	56.6%	57.6%	54.4%	55.7%
<b>Migrant</b>	64.2%	66.4%	64.3%	62.5%	62.3%	63.6%
<b>Pacific Islander</b>	59.8%	57%	66.2%	64.5%	62.3%	64.6%
<b>Low-income</b>	62.7%	69.4%	65.2%	66.2%	64.6%	66.4%
<b>Hispanic/Latino</b>	62.9%	66.9%	64.5%	66.7%	65.6%	67.3%
<b>Black</b>	63.2%	66.7%	65.4%	67.1%	65.4%	67.8%
<b>Section 504</b>	*	83.5%	80.3%	78.1%	75.1%	74.8%
<b>Two or More Races</b>	*	*	73.6%	78.1%	76.2%	75.5%
<b>All Students</b>	73.5%	76.5%	76.6%	77.2%	76%	77.2%
<b>White</b>	76.4%	79.4%	80%	80.4%	79.4%	80.5%
<b>Asian</b>	83.6%	84.9%	82.9%	84.4%	84.1%	86.5%

Note: \* indicates that data for the student group was not available.

## APPENDIX C

Other highlights from the data include:

- The median state AFGR (Average Freshman Graduation Rate) was 78.6 percent.
- Across the United States, the AFGR was highest for Asian/Pacific Islander students (93.5 percent). The rates for other groups were 83.0 percent for White students, 71.4 percent for Hispanic students, 69.1 percent for American Indian/Alaska Native students, 3and 66.1 percent for Black students.
- A comparison of data from 2009–10 to data from the prior school year, 2008–09, shows a percentage point or greater increase in the AFGR for 38 states, including Washington.
- Across the United States, the calculated dropout rate was the lowest for Asian/Pacific Islander students at 1.9 percent and White students at 2.3 percent. The dropout rates for American Indian/Alaska Native, Black, and Hispanic students were 6.7, 5.5, and 5.0 percent respectively.
- Across the United States the dropout rate was higher for males than for females at 3.8 percent and 2.9 percent, respectively. The dropout rate was higher among males in every state<sup>33</sup>.
- Factors that have been shown to increase a student’s risk of dropping out include high rates of absenteeism, low levels of school engagement, low parental education, work or family responsibilities, problematic or deviant behavior, moving to a new school in the ninth grade, and attending a school with lower achievement scores <sup>8 37 38 39</sup>.
- Black and Hispanic youth are more likely than whites or Asians to have dropped out of high school. In 2013, 5 percent of whites ages 16 to 24 were not enrolled in school and had not completed high school, compared with 8 percent of blacks, and 12 percent of Hispanics. The high rate for Hispanics is partly the result of the high proportion of immigrants in this age group who never attended school in the U.S. <sup>8 37</sup>. Asian youth had the lowest rate of all the racial and ethnic groups at three percent<sup>14</sup>.
- Some data suggest that the value of school-based formal education is not universally held. For example, in the National Survey of Latinos, youth with a high school education or less and who were not currently enrolled in school said that the lower education attainment of Latinos reflects their obligation to support a family, their limited English skills, a dislike of school, and the lack of necessity for more education for the career that they want, among other reasons<sup>40</sup>. Other studies suggest that these families value education highly and a recent NCES report also notes Latinos enrolled in postsecondary school in record number following the most recent recession <sup>9 Error! Bookmark not defined.</sup>.

APPENDIX D

**Engaging Community. Creating Change.**



- Welcome
- About Us
- Our Process
- Current Priorities
- Educational Attainment
- Youth Indicators**
- How to Get Involved
- Links
- In the News



### Youth Indicators

Spokane is facing a dropout crisis that threatens our youth and our community. Dropouts are more likely to be unemployed, live in poverty, and receive public assistance. In a knowledge economy, education is the primary means of producing goods and services, consequently incomes, and ultimately wealth. These indicators may best predict academic failure. They were chosen by community leaders through a process of review and comparison of four data sets. Those identified as common, or as particularly important or informative, were selected.

1.1 Public HS Four-Year Graduation Rate	1.7 Students Feeling Safe at School	1.13 Home Environment
1.2 Public HS Continuation Rate	1.8 Absence Due to Lack of Safety	1.14 Low Family Guidance
1.3 Public HS Cohort Drop Out Rate	1.9 Unexcused Absence Rate	1.15 Self-Reported Arrest Rate
1.4 Maternal Education	1.10 Petitions Filed for Truancy	1.16 Students Meeting State Reading Standards
1.5 Interschool Mobility	1.11 Share of Students Who Hate School	1.17 Students Meeting State Math Standards
1.6 Students At Risk for Academic Failure	1.12 Mental Health and Substance Use	1.18 College Bound Scholarship



**Engaging Community - Creating Change**

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