Washington State Institute for Public Policy

110 Fifth Avenue SE, Suite 214 • PO Box 40999 • Olympia, WA 98504 • 360.664.9800 • www.wsipp.wa.gov

December 2020

An Evaluation of the 2016 Act to Promote Attendance and Reduce Truancy

Summary

The 2016 Washington State Legislature modified state law regarding absenteeism and truancy in public K–12 schools and directed WSIPP to evaluate the effectiveness of the act.

WSIPP found no evidence that the legislation has improved student outcomes in general. Unexcused absences increased over the study time period and dropout rates remained steady. We could not rule out the the possibility that outcomes might have been worse had the law not passed, and we were unable to measure long-term outcomes.

We found that schools continue to file truancy petitions at a low rate. Less than a quarter of youth in our sample who qualified as truant had a petition filed with the juvenile court. WSIPP did find access to community truancy boards increased following the law's passage, although the interventions that youth who are truant receive vary significantly across the state.

While we found no general change in dropout rates, the dropout rate for truant youth (both with and without a petition) slightly declined between the first and second year after implementation of the law. The percentage of youth being sent to juvenile detention for truancy also fell from about 6.5% to 3.5%, although that decrease began prior to the year in which the law was required to take effect.

Suggested citation: Barch, M., Knoth, L., & Wanner, P. (2020*). An evaluation of the 2016 act to promote attendance and reduce truancy* (Document Number 20-12-2201). Olympia: Washington State Institute for Public Policy.

The 2016 Washington State Legislature modified state law regarding absenteeism and truancy in public K–12 schools.[1] The legislation changed the legal requirements of courts, schools, and community truancy boards regarding truancy, including requiring that students who have truancy petitions be referred to community truancy boards.

The legislature tasked WSIPP with evaluating the "effectiveness of the act."[2] The following sections fulfill the legislative assignment:

- Section I gives a brief overview of the study;
- Section II provides information on the truancy intervention process and the requirements of the new legislation;
- Section III describes whether and how the requirements of the 2016 and 2017 legislation were implemented; and
- Section IV describes changes over time in student outcomes, looking specifically at unexcused absences, dropouts, truancy petitions, and juvenile detention.

[1] Second Substitute House Bill 2449, Chapter 205, Laws of 2016, Sec. 17.

I. Introduction

Researchers have found that the causes of truancy can be complex and overlapping, with individual, family, school, and community factors all possibly influencing whether a youth chronically misses school.[3] In Washington State, a youth is truant if he or she has five or more unexcused absences in a month or ten in a year.[4] Truancy has been identified as one of the early warning signs of delinquent activity, social isolation, or education failure.[5]

Washington State has compulsory school attendance laws, which require school-aged children to attend school and mandate how schools and courts respond to unexcused absences. As established in the 1995 Becca Bill, schools are required to formally request the juvenile court's involvement via a truancy petition when a student has accrued enough unexcused absences.[6]

In 2016, the Washington State Legislature passed legislation requiring that a youth who had received a truancy petition be first diverted to a community truancy board for intervention before moving forward with hearings in a juvenile court.[7] Those changes were modified by another piece of legislation in 2017.[8] The law changed school responsibilities related to early truancy intervention. It also made it more difficult for juvenile courts to order youth to detention in cases of truancy. Section II of this report describes the truancy intervention process and those legislative changes in more detail.

For those legal changes to have had an impact on student outcomes, they would have first had to cause the practices of schools, courts, and community truancy boards to change. Therefore, Section III describes whether and how those new requirements were implemented across courts and school districts.

[3] Kearney, C.A. (2008). School absenteeism and school refusal behavior in youth: A contemporary review. *Clinical psychology review*, *28*(3), 451-471.
[4] Johnson, K. *(2018). Truancy Report.* Office of Superintendent of Public Instruction.
[5] Vaughn, M.G., Maynard, B.R., Salas-Wright, C.P., Perron, B.E., & Abdon, A. (2013). Prevalence and correlates of truancy in the US: Results from a national sample. *Journal of adolescence*, *36*(4), 767-776.
[6] Engrossed Second Substitute Senate Bill 5439, Chapter 312, Laws of 1995.
[7] 2SHB 2449.
[8] Second Substitute House Bill 1170, Chapter 291, Laws of 2017.

Section IV describes how student outcomes have changed over time, looking specifically at unexcused absences, dropouts, truancy petitions, and outcomes for petitioned youth, including juvenile detention and dropouts. The data presented in this section is descriptive, not causal. In Section III, we found significant variation in the implementation of the legal requirements across the state. With no systematic tracking of what portions of the law were implemented where and when, WSIPP was not able to determine whether the law *caused* the changes in student outcomes.

The 2016 and 2017 legislation altered the stipulated options that schools and courts have for intervening with truant youth. For example, the new legislation requires schools to provide, where appropriate, an approved best practice or research-based intervention for students with between two and five unexcused absences. To aid in the identification of best practices, WSIPP has conducted a systematic review of truancy interventions. The results are available in a separate Meta-Analysis Appendix.[9]

[9] Wanner, P., & Xie, R. (2020). *An evaluation of the 2016 act to promote attendance and reduce truancy—Meta-analysis appendix* (Doc. No. 20-12-2201A). Olympia: Washington State Institute for Public Policy.

II. Legal Requirements

The major steps of the truancy intervention process as required by state law are summarized in Exhibit 1.[10] Some of these steps were already in existence prior to 2016, e.g., the requirement that schools request court involvement via a petition once students have accrued sufficient unexcused absences. Other requirements were created or modified by legislation passed by the 2016 and 2017 Washington State Legislatures. Most of the changes went into effect at the start of the 2017/18 school year.

The stated intent in the 2016 bill was to achieve the following changes:

- *[i]ncreased access to community truancy boards and other truancy early intervention programs...*
- *[i]ncreased quantity and quality of early truancy intervention and prevention efforts...*
- *[a] reduction in the number of truancy petitions that result in further proceedings by juvenile courts... civil contempt proceeding[s] or detention order[s]... [and]*
- *[i]ncreased school attendance.*[11]

The rest of this section describes the changes to schools, community truancy boards, and court legal requirements that were intended to achieve these objectives.

Exhibit 1

Major Steps of the Truancy Intervention Process According to WA State Law

Parental notification
Schools notify parents of an unexcused absence.

School interventions
Schools take steps to reduce or eliminate absences, hold a parent-teacher conference, and conduct a formal assessment of the student's risk and needs.

Truancy petition filing
Schools must file a truancy petition with the juvenile court following seven unexcused absences in a month, or ten in a year.

Community truancy board
Petitioned students are referred to a community truancy board.

Juvenile court intervention
Juvenile courts hold an initial hearing and typically order the student to attend school.

Further court interventions
Juvenile courts may hold additional review and contempt hearings, which could have legal consequences, including juvenile detention.

[10] For a more thorough discussion of the changes in the law, please see the WSIPP's interim report on this topic: Barch, M. (2017). *Evaluation of the 2016 Truancy Prevention and Intervention Act: Initial report* (Doc. No. 17-12-2203). Olympia: Washington State Institute for Public Policy.

[11] 2SHB2449.

Changes Affecting Schools

Some of the major changes of the 2016 and 2017 legislation included requiring schools to do the following:

- Increase the amount of **information schools provide to parents** on the benefits of regular attendance, consequences for truancy, and potential resources;
- Use a **formal assessment tool** to measure the risks and needs of students;[12]
- Take **data-informed steps** to address truant behavior; and
- Use parent-teacher conferences for **elementary school students** following excessive excused absences.[13]

Changes Affecting Community Truancy Boards (CTBs)

Community truancy boards are defined in the law as boards staffed by local community members who work with students to identify barriers and develop plans to improve attendance.[14] These solutions could involve providing the student with transportation or connecting the student with mental health or substance abuse services, among others. Prior to 2016, courts and/or schools could voluntarily establish CTBs.

The new legislation made the following requirements regarding CTBs:

- **Mandatory establishment**: Each juvenile court was required to sign memorandums of understanding with the school districts in their jurisdiction to establish CTBs by the start of the 2017-18 school year. The CTBs could be run by the courts, by the school districts, by individual schools, or through an alternative arrangement.[15]
- **Referral**: Upon receiving a truancy petition, the student must be referred to a CTB prior to moving forward with traditional juvenile court processes.[16] The truancy petition is automatically placed on a temporary hold (i.e., "stayed"). For a more detailed discussion of the petition process, see the Appendix.

Changes Affecting Courts

The new legal requirements also affected the courts, most significantly by requiring courts to exhaust alternative methods before ordering students to juvenile detention.[17]

Some of the legal changes stipulate that schools, CTBs, and courts may use evidence-based practices to intervene with students. While beyond the scope of this main report, we review the evidence on truancy interventions in the Meta-Analysis Appendix.[18]

[12] The assessments may be conducted using the Washington Assessment of the Risks and Needs of Students (WARNS) or another formal assessment tool. WARNS is a tool developed and piloted in Washington that allows schools, courts, and youth service providers to assess the risks and needs of 13-18-year-old youths that may lead to truancy and/or school failure and to target interventions accordingly. See George, T., Coker, E., French, B., Strand, P., Gotch, C., McBride, C., & McCurley, C. (2015). *Washington assessment of the risks and needs of students WARNS user manual*. Washington State Center for Court Research. Olympia: WA, pg. 1.

[13] The parent-teacher conference for *excused* absences is specifically for elementary school students as an early-stage prevention measure.

[14] 2SHB2449, Sec. 5.

[15] Schools with fewer than 300 students have the option to use an alternative coordinated means of intervention.

[16] 2SHB2449, Sec. 8.

[17] 2SHB1170, Sec. 5. The legislation also made some recommendations regarding Secure Crisis Residential Centers.

[18] Wanner & Xie (2020).

III. Implementation

The previous section describes the legal requirements that were intended to improve student outcomes. For those legal changes to have had their desired effects, they needed to be enacted by schools, courts, and community truancy boards. This section provides an overview of implementation across courts and school districts to determine whether those changes took place.

To gather the information in this section, we conducted interviews with juvenile court administrators about their truancy intervention practices; we spoke with 20 of 33 juvenile courts. We also conducted a survey of the 294 public school districts, with a response rate of 32%.[19]

Counties in Washington state vary significantly by size, demographics, wealth, and population density, all of which affect both the reported underlying causes of truancy and the stated capacity of schools and juvenile courts to address those causes.

Some courts in more rural counties reported a lack of services for truant students and transportation problems for students. Courts in urban counties highlighted different problems, including different co-occurring causes of truancy, including sex trafficking. Despite having more resources, courts in more urban counties still described problems encouraging truant students to participate in the available services. Most courts identified a lack of funding for services for truant youth as a significant barrier to effectively addressing truancy. [20]

We found significant variation in how truancy intervention processes occur across the state. Before 2016, some school districts and courts had already implemented what would become the basis of the new law. Others never implemented the new legal requirements or partially implemented them while keeping their existing systems in place.

School Implementation

The 2016 and 2017 legislation required schools to engage in early truancy prevention efforts. This included sending letters to parents with attendance information, using formal assessments for truant students, choosing interventions for students that are data-informed, and holding parent-teacher conferences for elementary school students who have unexcused absences.

[19] These interviews and survey were conducted through the spring of 2020, which resulted in a lower-than expected response rate due to the COVID-19 pandemic. Note that some juvenile courts serve multiple counties, which is why there are 39 counties but only 33 juvenile courts. Additionally, all juvenile courts have multiple school districts that lie within their jurisdictions, but those districts may span county boundaries.

[20] According to RCW 82.14.460, counties may establish a 1/10 of 1% sales tax to use for chemical dependency or mental health treatment programs. In some counties, this funding is used for programs that can serve truant youth. However, in some counties, that money has already been earmarked for other programs or populations, i.e., adults. In other rural counties, the tax basis for a sales tax is much smaller and does not provide for sufficient program funding.

For the most part, whether schools have implemented those requirements is not being systematically tracked.[21] However, we gathered information on whether schools are using WARNS or another formal assessment tool for youth who had received a truancy petition.[22]

Formal Assessment

Out of the 94 responding districts, 30% reported that all students who received a truancy petition were assessed. Almost 20% of districts reported that no petitioned students were assessed, and 10% of districts did not know. The remaining districts reported that some or a few of the petitioned students were assessed.

In interviews, court administrators discussed some of the challenges schools face in conducting formal assessments. Officials reported that some schools do not have staff trained in how to conduct the assessments and in how to use the information from the assessments to select interventions for a student. Some courts require that filed truancy petitions include either a copy of the formal assessment or documentation that it has been completed. As a result, some courts use their staff to conduct formal assessments of petitioned students.

CTB Implementation

CTB Establishment & Referral Rate

Out of the 94 responding school districts, 70% stated they had at least one CTB operating in their district in the 2017/18 school year. That number increased to 90% in the 2018/19 school year. However, it is possible that the school districts that responded to the survey were more engaged with truancy interventions, so this number is likely not representative of the state as a whole. Out of the 20 juvenile court administrators we interviewed, they all identified at least one CTB in their jurisdiction. This is an increase from the 38% of Washington juvenile courts that reported having a CTB identified in a 2015 study.[23] This increase in CTB access was one of the stated intentions of the legislation.

Having at least one CTB in place does not guarantee that all students who have received a truancy petition are referred to a CTB. In some juvenile court jurisdictions, 10% or fewer of petitioned youth are referred to a CTB. In others, close to 100% of petitioned students are sent to a CTB. In the majority of jurisdictions, referral to community truancy boards is used only for the students identified as most likely to benefit from the intervention.

---

[21] OSPI does provide templates in many different languages that schools can use along with additional guidance. OSPI. *Improving attendance for districts & schools.*

[22] Note that the law requires that students be formally assessed once they have reached five unexcused absences. This is a lower threshold than the number of absences at which a student is required to be petitioned. It is likely that more students who are petitioned receive a formal assessment than those who reach that lower threshold, since some courts require that the assessment be completed before they will accept a truancy petition. For a more in-depth study of the users of WARNS in Washington State, see Austin, B.W., & French, B.F. (2018). *The 2018 WARNS user survey.* Learning and Performance Research Center: Pullman, WA.

[23] Coker, E., & McCurley, C. (2015). *Truancy in Washington State: Filing trends, juvenile court responses, and the educational outcomes of petitioned truant youth.* Olympia, WA: WSCCR, AOC.

Intensity of Intervention

The intensity of the intervention provided by CTBs also varies significantly. In some school districts and/or courts, the CTB is a relatively low-intensity intervention. Students who are referred to the CTB meet with the board once for a relatively brief period, possibly as short as 20 minutes. The members who serve on the board are the same individuals for every student who is referred. Students and their parents learn about the consequences of truancy and resources in the community. Courts that use this approach reported that it is very effective at filtering out students who need only a low level-intervention to re-engage with the school.

Some school districts and courts reserve community truancy boards for students who need a more intense form of intervention. Students in these CTBs typically meet several times with board members who have been selected because of the students' specific needs. In jurisdictions where this approach is used, fewer students are referred to CTBs. However, districts or courts often use workshops or some other low-intensity form of intervention for all students who receive a truancy petition. Only a minority of community truancy board provide this more intense level of intervention.

Exhibit 2 highlights the range of approaches taken by courts, school districts, and community truancy boards. The exhibit summarizes the differences in referral rates and intensity of intervention discussed above as well as other areas of variation.

Court Implementation

The 2016 legislative changes affected several aspects of juvenile court processes. Under the new law, a truancy petition should be automatically stayed, (i.e., paused) after it is filed, and the student should be referred to a community truancy board prior to any further court action. Only in instances where school- and CTB-based interventions fail, should the stay on the petition be lifted. At this point, the court typically moves forward with issuing a formal order for the student to attend school and may hold an initial hearing.

Court practices regarding truancy petitions vary. Some of those variations are summarized below. Exhibit 3 highlights the range of approaches taken by courts for serving truant students.

Duration of Stay

When a truancy petition is put on hold, or "stayed," the length of time it is paused varies across courts. This is the period in which the student should be receiving interventions from the schools and/or from CTBs. In a few courts, school districts have discretion in determining how long the stay lasts. In the majority of jurisdictions, there is a standard length of time for the stay (e.g., three months).

Duration of Active Petition

If a student has the stay on his or her petition lifted, then the juvenile court typically assumes jurisdiction. Courts varied regarding the length of time that the petition remained active and they maintained jurisdiction over the student. In many courts, petitions are closed, and courts end their jurisdiction over students at the end of a school year (unless a school district files a request to keep the petition open). A few courts maintain jurisdiction until the student reaches age 18.

Timing of Court Involvement

There was significant variation in how early courts are involved with a truant student. Few courts reported having much contact with specific students prior to the filing of truancy petitions. The few courts that did have early contact were typically in smaller communities. However, many courts work closely with the schools in their jurisdictions to train school staff on the process of filing truancy petitions.

Some courts are actively involved when a truancy petition is filed, even if the petition is stayed. That involvement could be through the assigning of a case manager, as described below. Several courts reported commonly meeting with the student, family, and school officials to determine whether the filing of a truancy petition could be avoided. Most courts are involved in CTBs, either by running those CTBs or by having representatives sit on some or all the boards.

Some courts reported having only low levels of contact with students until after the stay on the petitions were lifted, and the court assumed jurisdiction over the student.

Case Management

In a few courts, students are assigned a case manager upon the initial filing of a petition, and the case manager monitors the student's progress even before the stay on a petition is lifted. In other jurisdictions, youth are assigned a case manager only if the stay is lifted, and the court proceeds with formal hearings on the petition.

Sanctions

Lastly, the requirements imposed by the court varied greatly. In some jurisdictions, judges would rarely issue any requirements other than an order for the youth to attend school. However, most jurisdictions also mentioned the use of additional civil sanctions such as writing an essay on truancy- or an education-related topic, obtaining weekly progress reports from their teachers, participating in drug and alcohol or mental health treatment, or completing community service.

Exhibit 2

Range of Community Truancy Board (CTB) Practices Across Washington

CTB referral rate For school districts with a CTB, what percentage of students with a truancy petition are referred to a community truancy board?	
Fewer than 10%	100%
Centralization of CTBs	
Each CTB is run independently by each school district or school	CTBs are run centrally by the courts or other organization
Role of volunteers	
Volunteers sit on all CTBs. They connect students with resources, internships, and other opportunities in the community	Volunteers are rarely involved. Instead, experts from schools, courts, and highly trained individuals from other service organizations sit on the courts. They have extensive training to deal with students who have experienced adverse childhood experiences (ACES)
Intensity of CTB intervention	
Low intensity: • One time meeting lasting 20 minutes to one hour • Standing group of volunteers who are the same for every student • Can be quickly organized	High intensity: • Multiple follow-up meetings • Tailored group of volunteers chosen for the student's specific needs • Slower to organize
CTB capacity to refer students to services	
CTBs rely solely on public insurance or school-provided services for students.	CTBs have access to grant funding and/or another source of funds to provide some services for students (although funds are still limited)

Exhibit 3

Range of Juvenile Court Practices for Truancy Petitions Across Washington

Length of stay on truancy petition	
Specified by a school district when a truancy petition is filed.	Juvenile court issues consistent stay for all petitions (e.g., three months or until the end of the school year)
Court involvement in CTB	
Court representatives attend infrequently and only upon request from the school district	Court representatives are present at all or nearly all the CTB meetings
Court action after a stay is lifted	
Prosecutor's office organizes a pre-trial conference with a case manager and attempts to finalize court agreement before/without an appearance in front of a judge	Youth and their family are scheduled for a hearing in front of a judge
Truancy case management	
Only the stay on a petition is lifted, the youth may be assigned a case manager or probation officer	Every youth who receives a truancy petition is under supervision either formally or informally by a case manager, even if the petition is initially stayed
Court interventions for truancy petitions	
Attendance agreement ordering the youth to attend school	Slower to organize: • Essay on a truancy- or education-related topic • Community service • Obtaining weekly progress reports from teachers • Participation in one extra-curricular activity • Participation in mental health treatment
School outreach by juvenile court	
Schools responsible for notifying the court if youth continues to miss school. Courts do not actively monitor all youth who are on a petition or at CTB	Court discusses every case filed with the school district by phone or email on a regularly scheduled basis (e.g., every month or every other month)
Length of jurisdiction for petitioned youth	
Petitions are closed and jurisdiction ends at the end of each school year	Petitions are closed and jurisdiction ends when the youth turns 18 years old
Use of detention for truancy petitions	
Never use detention for truancy petitions	Use short detention stays if the youth repeatedly fails to comply with court orders

IV. Student Outcomes

In this section, we describe how several student outcomes have changed from the 2012/13 to the 2018/19 school year.[24] Using panel data regression analysis, we test whether there were statistically significant changes in these outcomes before and after the new truancy legislation, which was largely required to be implemented at the start of the 2017/18 school year. Specifically, we look at the following outcomes:

- Unexcused absences,
- Dropouts,
- Truancy petitions, and
- Outcomes for petitioned students, including dropping out or juvenile detention.

The analyses in this section are descriptive only, meaning that we cannot rule out the possibility that something besides the legal changes to school, CTB, or court requirements caused any of the changes we describe. In order to demonstrate causality, we would have to compare the difference in student outcomes in a group of students who experienced the policy changes against a control group of similar students who did not. The difference in their outcomes could be attributed to the policy change.

Because there was no systematic tracking of when and where policies were implemented, it is not possible to identify which students received the new policy changes (the treatment group) and which students did not (the control group).

This section relies on two primary data sources. First, we use data collected by school districts and compiled by the Office of Superintendent of Public Instruction (OSPI).[25] Second, we use information collected by the juvenile departments of Washington State superior courts.[26] For a discussion of the data, please see the Appendix.

In general, we are interested in the effects of policies that were required to be implemented at the start of the 2017/18 school year. There are only two school years of data available for analysis after this point (2017/18 and 2018/19). As a result, we do not examine long-term changes in student outcomes, i.e., graduation rates.

For some of the graphs in this section, we include only 9th graders. We do this for several reasons. First, practitioners argue that this year is critical in predicting whether students graduate.[27] Second, we are able to look at changes over time for groups of students whose membership is not overlapping, i.e., students are counted in only one column of a bar graph.[28]

[24] 2012/13 is the first schoolyear in which absence data was collected according to a standardized state-wide definition, and 2018/19 was the last year of data available before this study's publication.

[25] This data is collected in the Comprehensive Education Data and Research System (CEDARS) K–12 dataset.

[26] This data is collected the Juvenile and Corrections System (JCS) and by the superior courts in the Superior Court Management Information System (SCOMIS).[26]

[27] Allensworth, E. *Why is ninth grade a critical time for students? A researcher explains.* [Blog post].

[28] Students who do not acquire sufficient credits to graduate 9th grade are still defined as 10th graders in their second year of enrollment.

Third, the preventative aspects of the new policies may have more of an effect on freshmen compared to seniors (who had been attending school under the old policies for three years before the new policies were implemented). By comparing only 9th graders, we are comparing similar groups who had exposure either to the old policies or the new policies in the same grade level.[29] Finally, we found that some interventions and outcomes had the most variance in earlier grade levels, suggesting that the largest impacts of the law may be identified in 9th grade.[30]

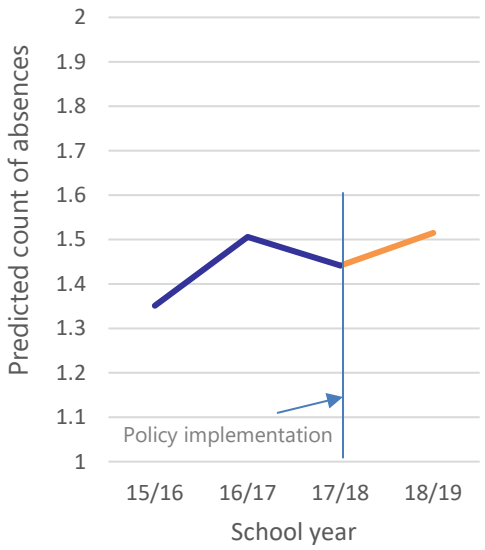
1) Unexcused Absences

We measured student attendance by looking at full-day unexcused absences within a school year.[31] Our analysis starts in the 2012/13 school year, the first year that schools in Washington began collecting information on absences according to a standardized state definition.[32] The information in this section primarily uses regression adjusted counts—for tables with raw numbers, please see the Appendix.

After controlling for student and school district characteristics, we found that the increase in unexcused absences before and after the policy changed in the 2017/18 school year was statistically significant.

Exhibit 4

Regression-Adjusted Count of Unexcused Absences



Based on our regression analysis, all things being equal, students had about 9% more unexcused absences after the policy was implemented in the 2017/18 school year.

Exhibit 4 illustrates the results of the regression analysis, showing a small increase in the regression adjusted count of unexcused absences for high school students over time.[33]

[29] This presumes, of course, that the laws were implemented in 2017/18 for all the students in the analysis. See Section III for a discussion of implementation. This approach eliminates differences in outcomes that may be driven by differences in grade level. This approach also ensures that our students after the policy change did not have exposure in high school to the school truancy intervention policy that existed before implementation.

[30] For example, the rate of petition filings decreases as grade level increases. That is, older youth (i.e., juniors and seniors) are less likely to have a petition filed by the school. OSPI confirmed that this finding is consistent with their prior research on truancy petition filings.

[31] We focus on unexcused absences alone for simplicity, but unexcused and excused absences are closely related, and some school initiatives move to reduce total absences, rather than focusing on unexcused only. We also excluded partial day absences, consistent with OSPI recommendations. See the Appendix for more information.

[32] Absence data was collected before this time, but schools used different definitions to determine what counted as an unexcused absence.

[33] Note that for some graphs we present data from 2015/16 – 2018/19. These are the years for which we have predicted probabilities for students in all grades (9th-13th). The risk of

All else being equal, students in 2015/16 had about 1.3 unexcused absences, while those in 2018/19 had about 1.5.[34] While the regression coefficient comparing the pre-policy to the post-policy is statistically significant, the graph shows an increase from before policy implementation, which suggests that the policy did not cause any increase in absences.

Student Characteristics

Several student characteristics are related to a student's number of unexcused absences.[35] Exhibit 5 summarizes those relationships for characteristics that we found to be statistically significant, excluding race, which is addressed in the following exhibit. Full regression results for all categories that we tested are in the Appendix.

Exhibit 5 illustrates how students who belong to some categories have a statistically significant higher number of unexcused absences compared to students not in that category.

Exhibit 5

Percentage Difference in the Number of Unexcused Absences by Student Characteristics
(Regression Adjusted)

Category	% difference
504 plan	18% more
Disabled	56% more
Free and reduced-price lunch	302% more
Homeless	143% more
Limited English proficiency	38% more

Note:
The differences in the number of absences for these categories are statistically significant ($p < 0.05$).

The number of absences also varies by race, with Asian students having the fewest unexcused absences and Native Hawaiian/Pacific Islanders having the most.[36] Exhibit 6 shows how the regression-adjusted number of unexcused absences varied over time by race.

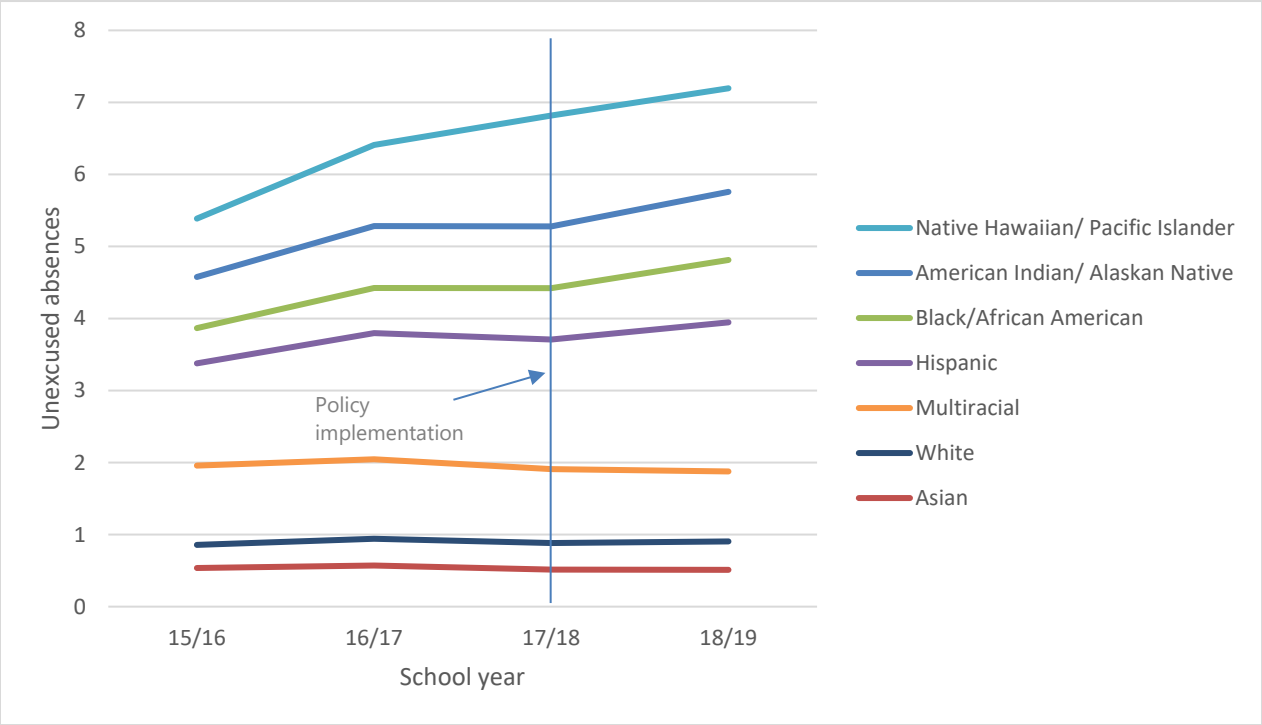
a student experiencing many of the outcomes in this section (e.g., dropping out) varies with grade level, so we restrict the graphs to years in which we a balanced population. Please see the Appendix for a discussion of our student cohorts and data processing.

[35] A 504 plan is a written document for eligible students who have a physical or mental impairment which substantially limits one or more major life activity. The plan describes the accommodations, aids, and services the school must provide in order to ensure the student can experience an appropriate public education, as required by Section 504 of the Federal Rehabilitation Act of 1973.

[36] Note that OSPI race classifications have Hispanic included as a race category. For a description of how we handle race categorizations, see the Appendix.

Exhibit 6

Median Number of Unexcused Absences per High School Student per Year, by Race (Regression Adjusted)



School District Characteristics

On average, unexcused absences increased during the time period of our study. However, that increase was not consistent across all school districts. Some school districts reported relatively flat levels of unexcused absences, while others saw an increase.

Characteristics of school districts that were related to an increase in the average number of unexcused absences included having a high proportion of the following:

- Students of color,
- Students experiencing homelessness,
- Limited English proficiency students,
- Free and reduced-price lunch eligible students and,
- Students with a disabilitys.[37]

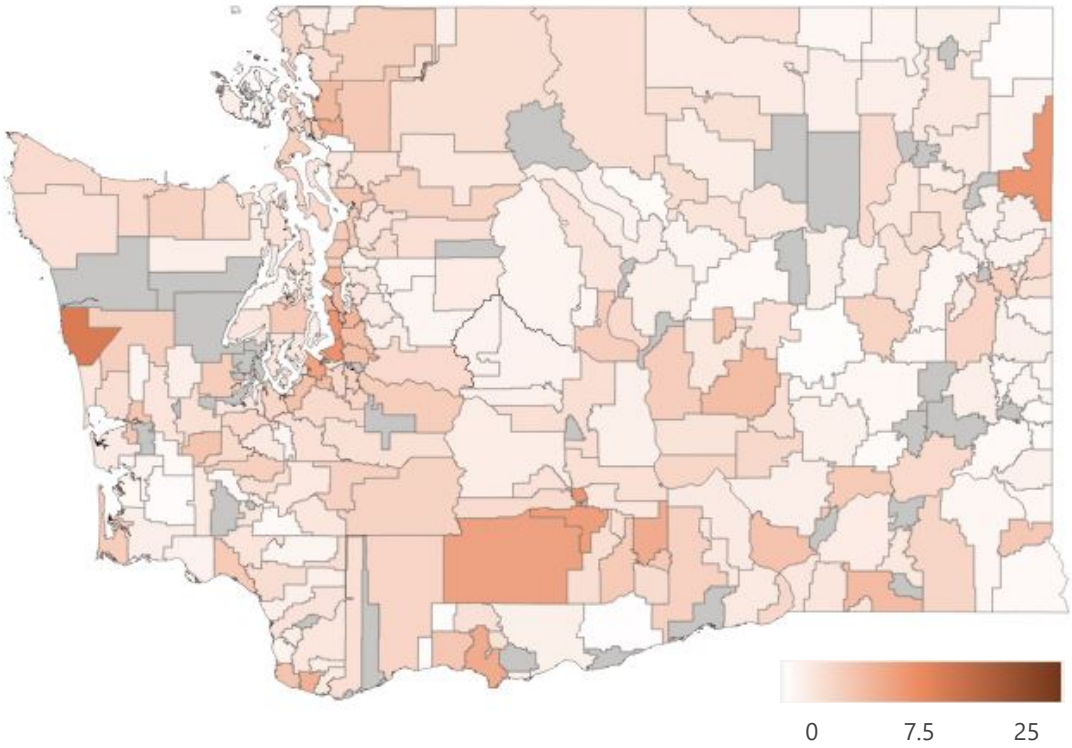
Expenditure per pupil was not related to higher or lower numbers of unexcused absences.

[37] The characteristics listed here are correlated at a statistically significant level ($p < 0.05$).

Exhibit 7 illustrates how unexcused absences varied across school districts in the 2018/19 school year. The bottom 25th percentile of school districts report an average number of two unexcused absences, and the 75th percentile reported more than six.

Exhibit 7

Variation in Average Number of Unexcused Absences,
by School District 2018/19 School Year



Notes:
This heat map shows the magnitude of unexcused absences by school district.
School districts that are more intensely orange have higher than typical numbers of unexcused absences; white districts have very few unexcused absences.
Gray districts were missing data.
Source: Comprehensive Education Data and Research System (CEDARS).

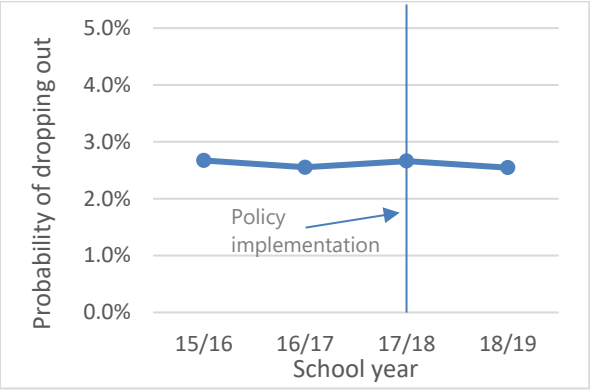
2) Dropouts

While we found that unexcused absences increased slightly during our study period, dropout rates showed little change.[38] After controlling for student and school district characteristics, we found no statistically significant difference in the probability of a student dropping out before and after the policy change.

Exhibit 8 illustrates the results of the regression analysis, showing the probability of dropping out in a single year for high school students over time.

Exhibit 8

Probability of Dropping Out in a Single Year (Regression Adjusted)



Characteristics

We found that some student demographic characteristics are statistically related to the probability of dropping out. Exhibit 9 summarizes how being in a particular category changes a student's probability of dropping out. The full regression results are in the Appendix. Exhibit 9 illustrates how students who belong to some categories have a statistically significant higher regression-adjusted probability of dropping out compared to students not in that category.[39] For example, students who are eligible for free and reduced-price lunch have a 4% chance of dropping out in a single year (all else being equal), while those not eligible and have a 1% chance of dropping out.

Exhibit 9

Probability of Dropping Out in a Single Year (Regression Adjusted)

Category	In category	Not in category
504 plan	3.0%	2.5%
Disabled	4.2%	2.3%
Free and reduced-price lunch	4.0%	1.0%
Homeless	11.0%	1.9%
Gender: Male	3.0%	2.1%
Limited English proficiency	4.2%	2.3%
Migrant	4.0%	2.5%

Note:
The differences listed here are significant at a statistically significant level ($p < 0.05$).

[38] For a discussion of how we categorize dropouts, see the Appendix. Note that students can dropout during one school year and re-engage during the same year or a following year.

[39] These regression-adjusted predicted probabilities may not match those in the observed population. We have constrained the population for years in which we have a balanced panel (grades 9-13). Stata. *xtlogit postestimation.*

Exhibit 10

Probability of a High School Student Dropping Out in a Single Year, by Race (Regression Adjusted)

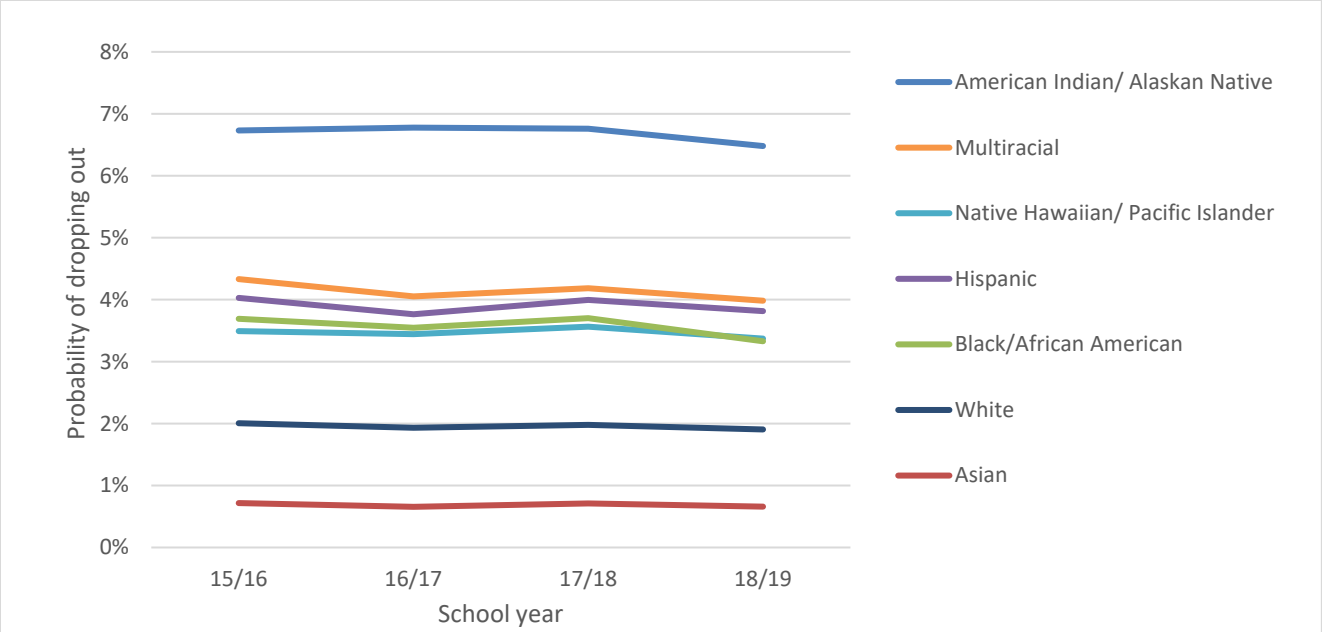


Exhibit 10 shows the change in the regression-adjusted probability of dropping out by race over time. The graph shows that students of some races, particularly American Indian/Alaskan Native students have a higher risk of dropping out, while Asian students have a lower risk of dropping out. Those rates stay mostly constant over time.

School District Characteristics

We found that school districts with high proportions of the following categories of students had higher dropout rates:[40]

- Students of color,
- Students experiencing homelessness, and
- Free and reduced-price lunch eligible students.

School districts with higher expenditures per pupil actually had higher dropout rates, possibly because these schools receive extra funding for Learning Assistance Programs (LAP).[41]

[40] The characteristics listed here are correlated at a statistically significant level ($p < 0.05$) with an increased number of unexcused absences.

[41] LAP services are available for students who score below grade-level standard in ELA or mathematics. Learning Assistance Program (LAP) | OSPI (www.k12.wa.us).

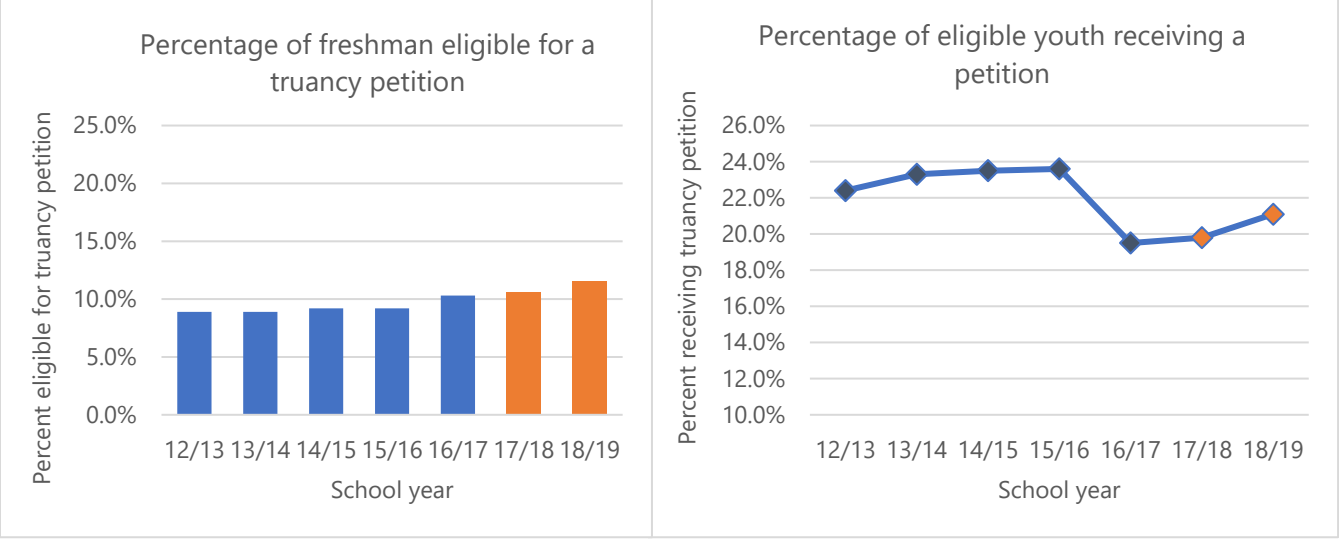
3) Truancy Petitions and Dropouts

Schools must file truancy petitions for students who receive more than seven unexcused absences in a month or ten in a year.[42] A petition is a formal request for court intervention and supervision. However, research shows that only a portion of students with the qualifying number of absences are petitioned.[43] Chronic absenteeism may lead to a higher likelihood of dropping out, and truancy petitions allow for additional interventions administered by juvenile courts that may reduce the likelihood that a student drops out. This section reviews the rate of petition filing for truant youth and the associated dropout rates for truant youth who do or do not receive a truancy petition.

For a description of the truancy petition filing process, see the Appendix. Under the new law, truancy petitions are initially stayed (i.e., placed on a temporary hold), and youth should be referred to a CTB. If youth fail to comply with recommendations from the school and/or CTB, the stay is lifted, and the youth proceeds through the traditional truancy court process. Due to limitations in the data, we could not distinguish between petitions that were dismissed prior to the stay being lifted and those petitions for which the stay was lifted and the youth's truancy case proceeded through the court.

Exhibit 11

Percentage of Freshman Eligible for a Truancy Petition and Rate of Petition Filing for Eligible Youth



[42] RCW 28A.225.015(3).

[43] From 2004/05 – 2012/13, the highest rate of filing for eligible youth was 36.2%. See Klima, T., Miller, M., & Nunlist, C. (2009). *Washington's Truancy Laws: School District Implementation and Costs* (Doc. No. 09-02-2201). Olympia: Washington State Institute for Public Policy and Coker & McCurley (2015).

Petition Filings

Exhibit 11 depicts the percentage of freshmen who met the legal criteria for filing a truancy petition and the percentage of those students who actually received a petition. Consistent with the previous analyses of trends in unexcused absences, the percentage of freshmen who met the legal criteria for filing a truancy petition increased from 8.9% in 2012/13 to 11.0% in 2018/19.[44]

Across all eight freshman cohorts in our sample, less than a quarter of students who qualified as truant had a petition filed with the juvenile court.[45] While the absolute number of truancy petitions filed increased (from 1,665 in 2012/13 to 2,105 in 2018/19), the percentage of students who met the legal criteria for a truancy petition and had a petition filed has fallen, about 1.3% percentage points from the 2012/13 school year to the 2018/19 school year.[46]

In the first year after the passage of the 2016 legislation, there was a substantial decline in the percent of eligible students receiving a petition. In the two years following implementation of the laws, there was a slight increase in the percentage of students who were petitioned.

These findings suggest that schools may have started changing their practices for truancy petitions immediately following the passage of the law, even prior to fully implementing the various required reforms. However, these findings varied across the state.[47]

[44] We have constrained the population to those students who are both enrolled and eligible to receive a truancy petition based on unexcused absences. Some additional students receive truancy petitions but are not eligible. They have been excluded from this analysis (e.g., 204 students in the 2018/19 school year.) For more detail, see the Appendix.

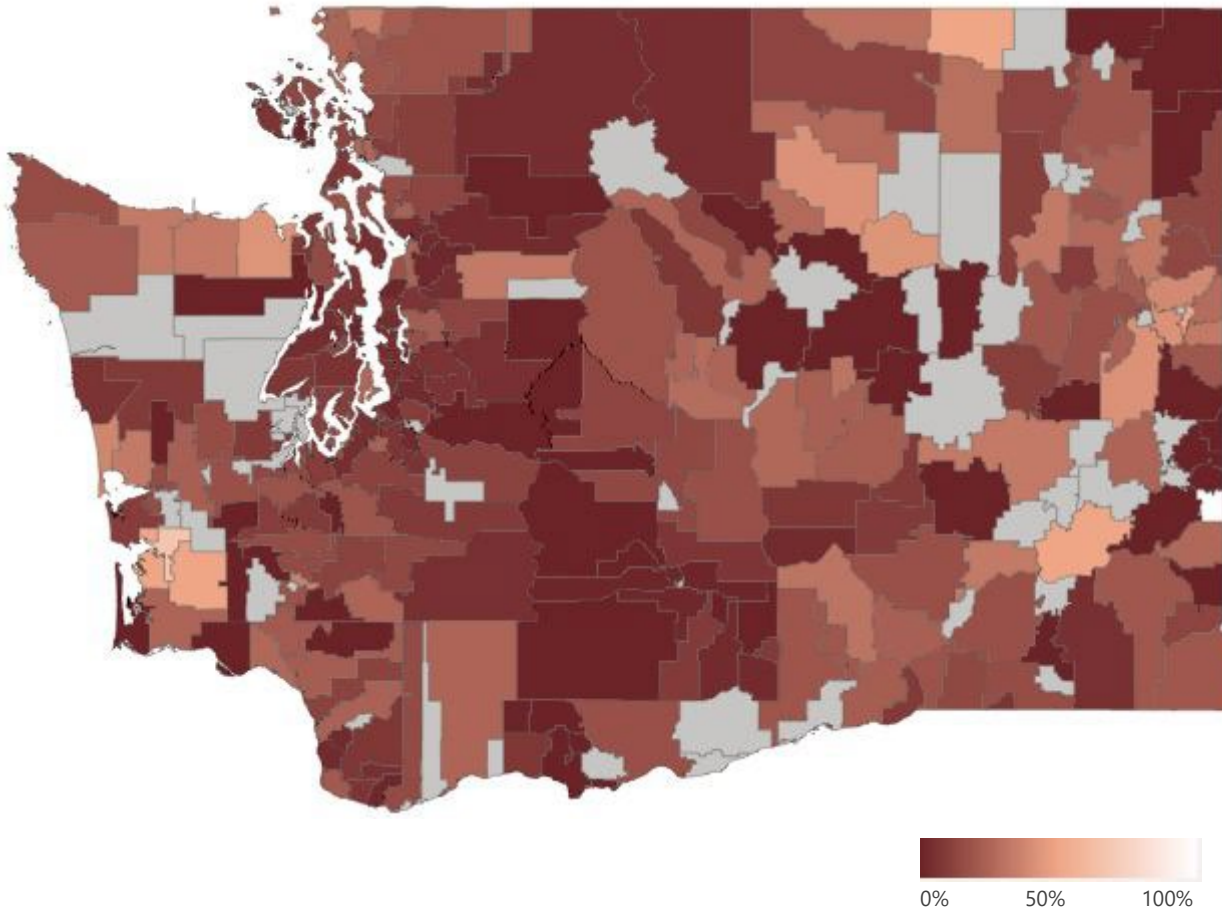
[45] For our analysis, we include both new petitions filed with a juvenile court and petitions filed in previous years (i.e., in middle school) if a new reason for referral was filed during the youth's freshman year. See the Appendix for more details on the processing of juvenile court records.

[46] See the Appendix for more information.

[47] See the Appendix for more information on the differences in petition filings by court jurisdiction.

Exhibit 12

Variation in Percentage of Students Eligible for Petition who Receive a Petition, by School District, 2018/19 School Year



Notes:
The map shows the variation in the percentage of students who had received a truancy petition, out of all enrolled students with enough absences to qualify for a petition. Light-colored school districts had a higher percentage of students receive a truancy petition. Darker districts had a smaller percentage of students receive a truancy petition.
Gray districts had no students eligible for a truancy petition or had no data.
Source: Comprehensive Education Data and Research System (CEDARS).

Exhibit 12 shows significant variation across school districts in the percentage of students who received a truancy petition out of all students enrolled in the 2018/19 school year with a qualifying number of absences. The average school district petitioned only 14% of the students with enough absences to qualify for a petition.

The bottom 25th percentile petitioned only about 3% of students, while the 75th percentile petitioned about 22%.[48]

[48] These percentages are calculated separately for each school district. Therefore, they differ from the statewide percentages that are calculated for the total student population.

Our interviews with juvenile court administrators suggest several possible reasons for the low filing rate of truancy petitions. Some schools are reluctant to involve the court in attendance issues, which may be especially true of small or tribal schools. Courts officials said that some schools expressed reluctance to file truancy petitions to involve students in the criminal justice system, especially their Black male students.

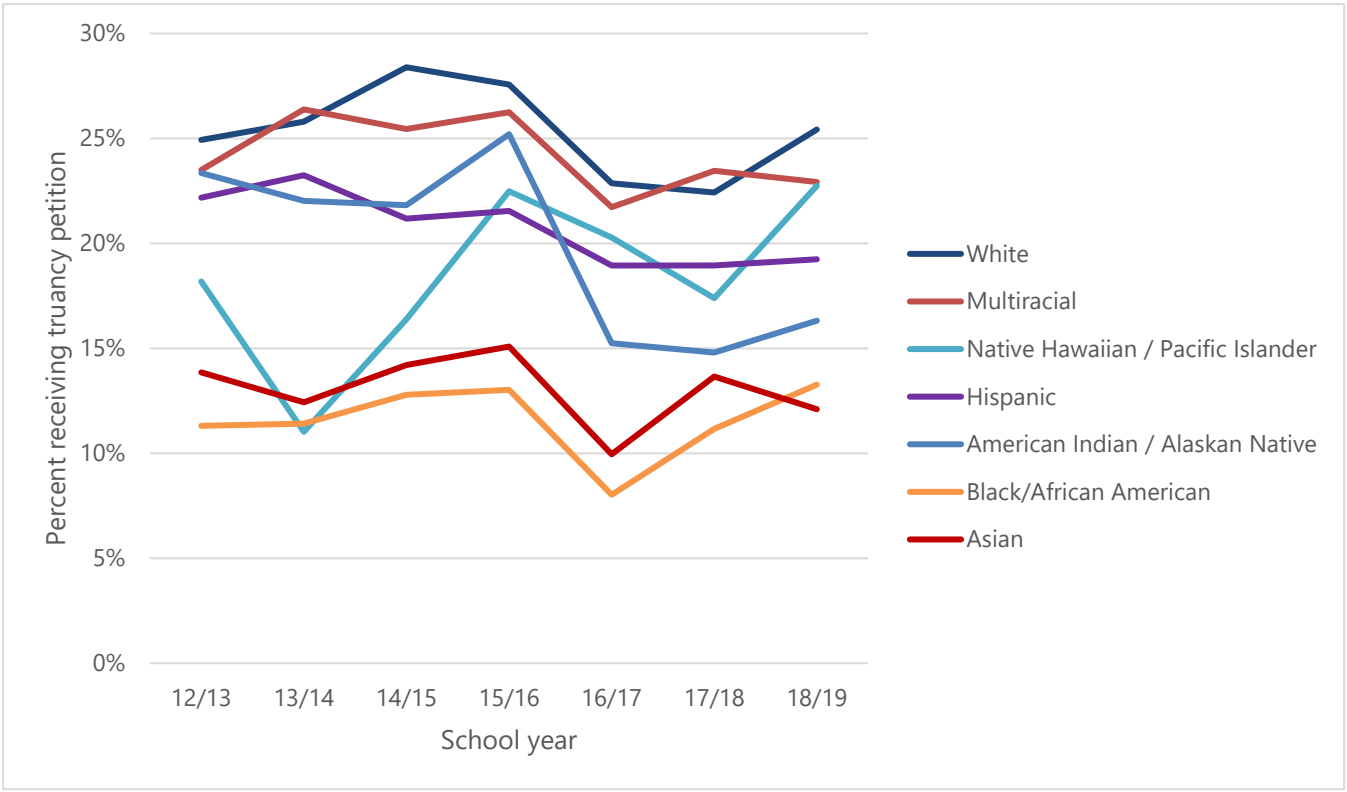
Additionally, some juvenile court administrators explained that schools lack resources, training, and personnel to file petitions on all students.

Exhibit 13 illustrates how truancy petition filing rates vary across student race over time. There is some variation across racial groups in the rate of filing, with Black students receiving the fewest truancy petitions and white students receiving the most petitions in most school years.

Consistent with the general statewide trends, most racial groups experienced a decline in the proportion of qualified students receiving a truancy petition immediately following the passage of the law, with a slight increase in the years following implementation of the law.

Exhibit 13

Variation in Percentage of Students who Receive a Petition per School Year, by Race



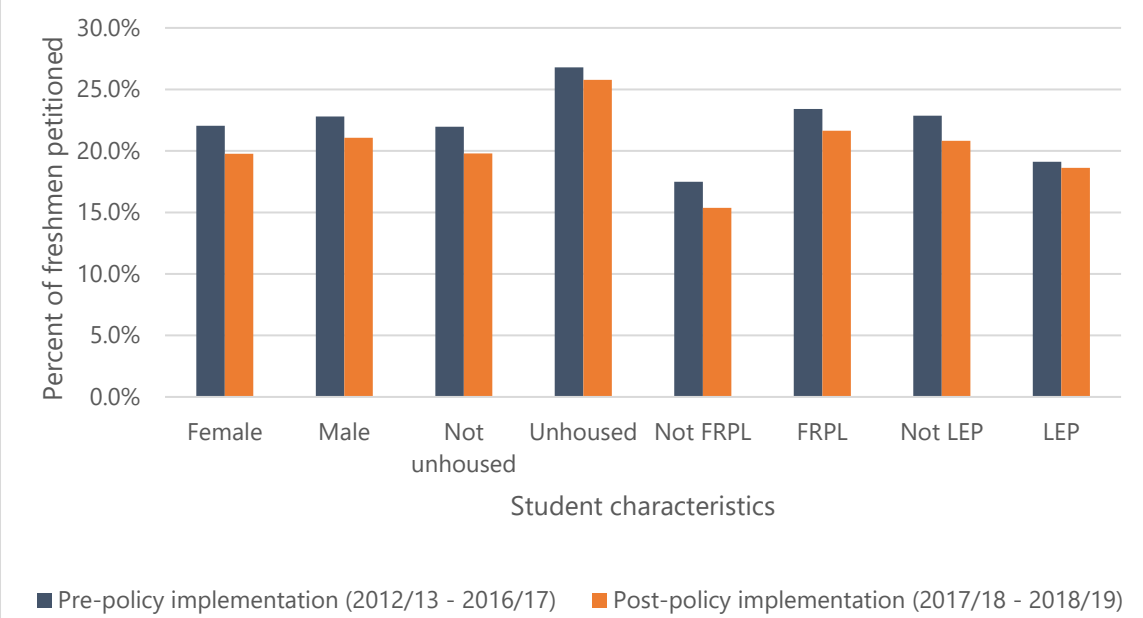
Note:
The population includes only students who were required to receive a truancy petition based on the number of unexcused absences in each year. For example, in the 2018/19 school year, about 26% of all white students who should have received a truancy petition actually did so.

We further examined differences in truancy petition filing by other student characteristics. Exhibit 14 shows the average rate of petition filing for eligible freshmen before and after the implementation of the 2016 legislative changes.

Across all examined characteristics, the rate of petition filing was lower after the policy change. There were no notable differences in the effect of the policy changes for these student characteristics.

Exhibit 14

Change in Percentage of Eligible Freshmen Receiving a Truancy Petition, by Student Characteristics



Notes:
Number of truancy petitions is limited to those received by freshmen who are "eligible," i.e., enrolled during the year in question and received seven or more unexcused absences in a month or ten in a year. Students who received a truancy petition but were either not eligible according to this definition or were not enrolled are excluded.
FRPL = Free and reduced-price lunch.
LEP = Limited English proficiency.

Dropouts by Petitioned Youth

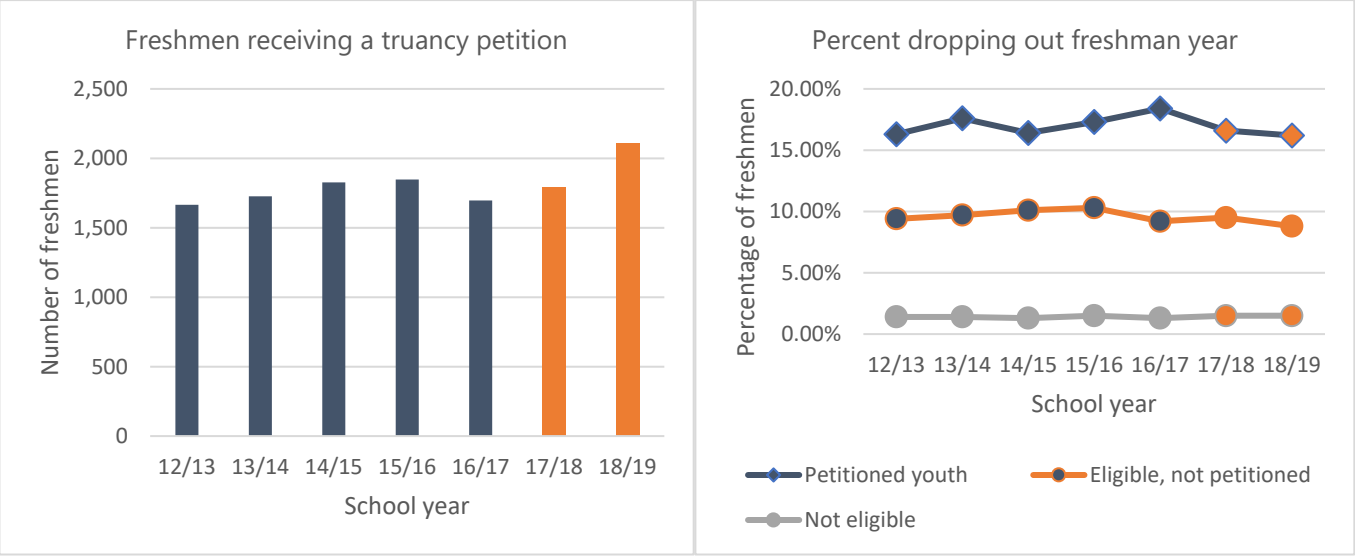
Excessive absenteeism may be a precursor to dropping out. We reviewed the rate of freshman year dropouts based on youths' eligibility for and receipt of a truancy petition. Exhibit 15 shows the freshman dropout rate for the following three groups:

1) Students who were eligible for and received a truancy petition,
2) Students who were eligible for but did not receive a truancy petition, and
3) Students who were not eligible for a truancy petition.

The dropout rate for truant students who received a petition was nearly double the dropout rate for truant students who were not petitioned in all cohorts. While the dropout rate for students who were not truant was stable across all eight cohorts, the dropout rate for truant students (both with and without a petition) slightly declined between the first and second year after implementation of the law.

Exhibit 15

Change in Drop Out Rates for Freshmen Receiving a Truancy Petition



Notes:
Number of truancy petitions is limited to those received by freshmen who are "eligible," i.e., enrolled during the year in question and received seven or more unexcused absences in a month or ten in a year. Students who received a truancy petition but were either not eligible according to this definition or were not enrolled are excluded.
Details on the coding are provided in the Appendix.
Blue bars and nodes represent pre-policy years while orange bars and nodes represent post policy years.
Source: Linked AOC Comprehensive Education Data and Research System (CEDARS) dataset.

Given that only about 20% of truant students actually receive a petition, it appears that schools are filing petitions more often for the students with the highest likelihood of dropping out. This suggests that school districts are prioritizing the use of resources for truancy petitions for students with the highest need for more serious interventions. This was further supported by interviews with juvenile court administrators that indicated some schools reserve CTB resources and formal petition filings for youth who need more significant interventions to address often complex youth risks and needs.

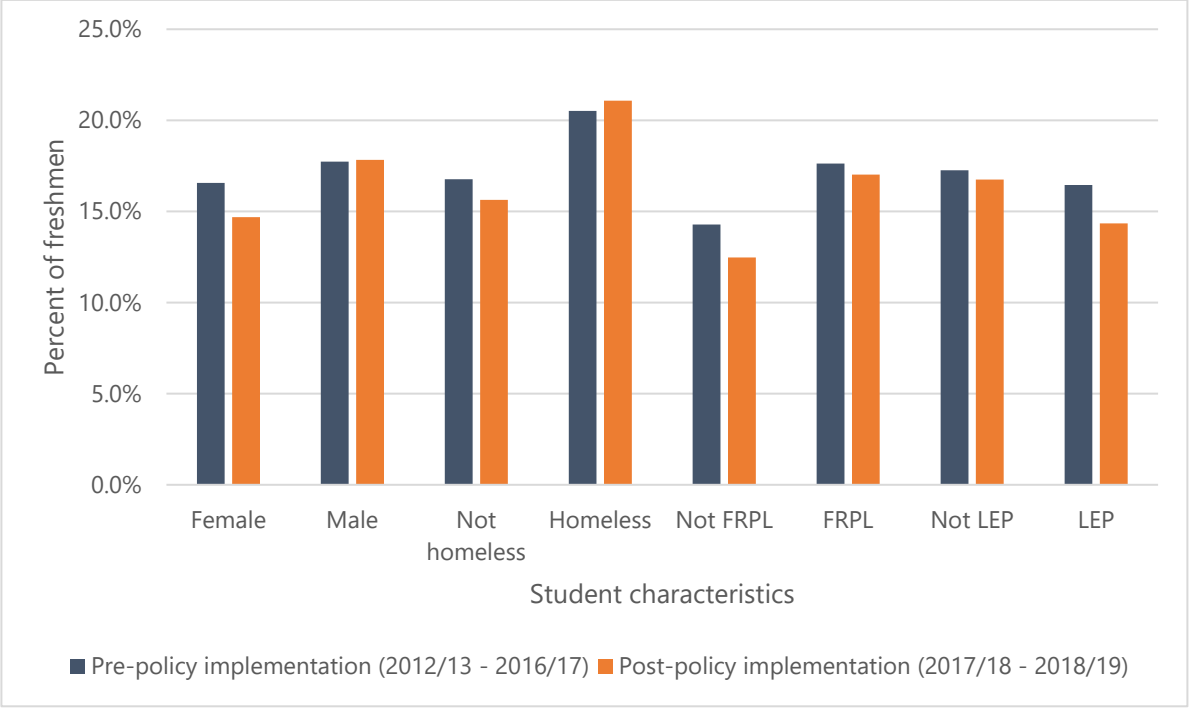
It may also be possible that receiving a petition could cause students to drop out. The stigmatizing effects of youth being arrested for criminal offenses are well documented,[49] but truancy may be an exception since it does not involve an arrest, it is a civil violation and not criminal, and it often does not result in the same punitive sanctions as a criminal violation. Due to the aforementioned limitations in this study, we were unable to complete a causal analysis that would better explain the relationship between truancy petitions and dropping out of high school.

The timing of absences may also impact our findings. Several juvenile court administrators noted that the rate of filing tends to decline towards the end of the school year. It is possible that students who meet the legal criteria for a truancy petition near the end of the school year would not receive a petition but would also not be recorded as dropping out. While these students may meet the minimum requirements to be reported as completing their freshman year, they may fail to enroll in the following year. These students are not counted as dropouts in our analyses.

[49] Bernburg, J.G., & Krohn, M.D. (2003). Labeling, life chances, and adult crime: The direct and indirect effects of official intervention in adolescence on crime in early adulthood. *Criminology*, *41*(4), 1287-1318.

Exhibit 16

Change in Freshmen Dropout Rates for Those Receiving a Truancy Petition, by Student Characteristics



Notes:
Analyses are limited to those Freshman who received a petition and who are "eligible," i.e., enrolled during the year in question and received seven or more unexcused absences in a month or ten in a year. Students who received a truancy petition but were either not eligible according to this definition or were not enrolled are excluded.
FRPL = free and reduced-price lunch.

These analyses do not examine the long-term effects of freshman-year interventions. Future research should evaluate whether and how truancy petitions filed in freshman year may affect 4-year graduation rates and overall high school dropout rates. If early interventions for truant youth are effective, research may identify a larger decline in dropout rates or sophomore, junior, and senior years.[50]

We examined differences in dropout rates for freshmen who received a petition before and after the 2016 legislative changes by student characteristics (see Exhibit 16). Most groups of students showed declines in dropout rates from before to after policy implementation. The exceptions were Males and youth who were experiencing homelessness and who received a truancy petition in freshman year. These groups saw slight increases in dropout rates (0.1% and 0.6%, respectively).

[50] Our analyses did show that school districts were more likely to file a petition for truant youth who were younger. The overall rate of petition filing tends to decrease in 10th, 11th, and 12th grade. In addition, long-term analyses could examine whether youth who meet the legal criteria for truancy at the end of the school year are less likely to enroll in the subsequent school year. See the Appendix for more information.

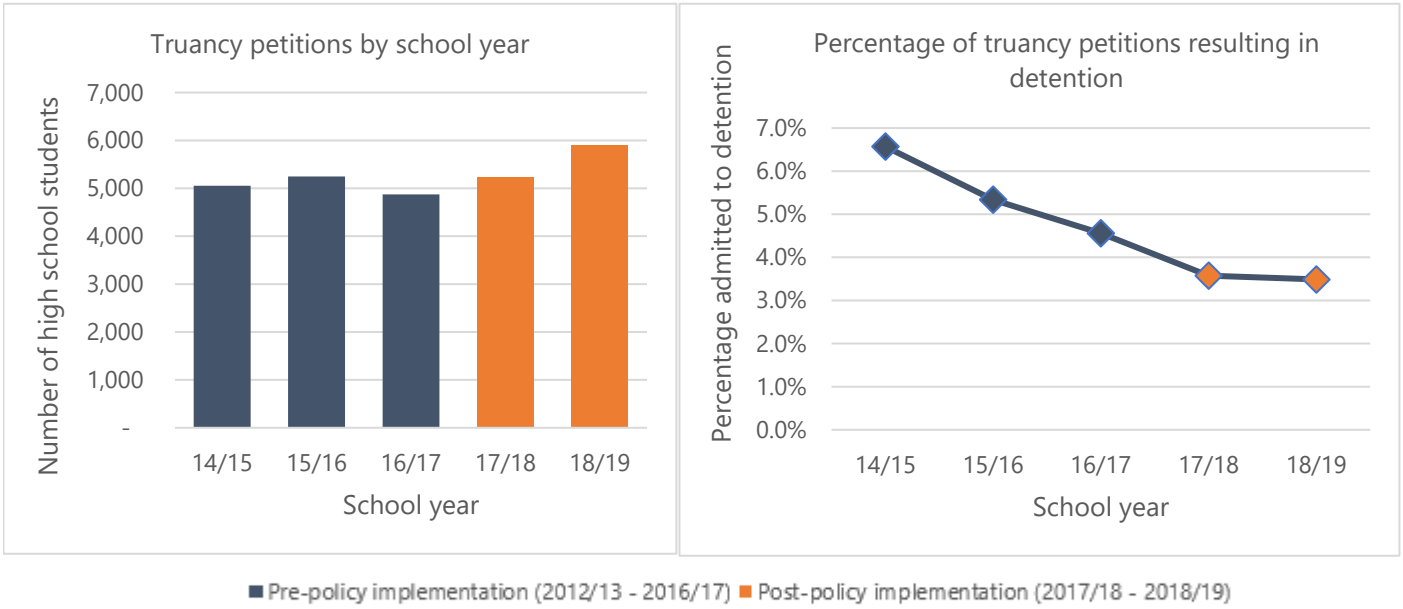
4) Juvenile Detention

If a petition is filed and the stay on the petition is lifted, the juvenile court will proceed with hearings on the case. In most instances, the court will require the youth to enter into a formal agreement with specific conditions such as mandatory attendance.

During our study period, if a youth violated the terms of their court order, the court could file an order of contempt, and the youth may be arrested and sent to confinement in a juvenile detention facility. The 2019 Washington State Legislature ended juvenile detention for truancy cases starting in July of 2020.[51] Using data from the Administrative Office of the Courts (AOC), we examined how many truancy petitions for youth in our study were associated with an admission to a detention facility. For these analyses, we included all truancy petitions while youth were in high school, rather than limiting the analyses to events during their freshman year. In addition, we started our analyses in the 2014/15 school year since that was the first school year that included students in all grades 9-12.

Exhibit 17

Change in Proportion of Detention Admission for Petitioned Youth



Notes:
Petitioned youth is limited to those received by high school students who are "eligible," i.e., enrolled during the year in question and received seven or more unexcused absences in a month or ten in a year. Students who received a truancy petition but were either not eligible according to this definition or were not enrolled are excluded.
Details on the coding are provided in the Appendix.
Blue bars and nodes represent pre-policy years while orange bars and nodes represent post policy years.
Analyses exclude petitions filed in King County due to data limitations in King County's detention records.
Source: Linked AOC Comprehensive Education Data and Research System (CEDARS) dataset.

[51] Engrossed Second Substitute Senate Bill 5290, Chapter 312, Laws of 2019.

Notably, these analyses exclude youth from King County. The King County juvenile detention facility maintains a separate database. King County juvenile detention data was not reportable by AOC at the time data was received. However, King County stopped using detention for contempt orders in truancy cases prior to our study.[52] Therefore, it is unlikely that our findings would change if the King County records were included.[53]

Exhibit 17 shows the percentage of truancy petitions resulting in an admission detention in Washington State from the 2012/13 school year through the 2018/19 school year. Overall, the rate of truancy petitions resulting in an admission to a detention facility peaked in the 2014/15 school year and substantially declined in subsequent years.

The largest declines in the use of detention preceded the implementation of the 2016 truancy legislation. In the two years following implementation, the rate of petitions associated with a detention admission plateaued.

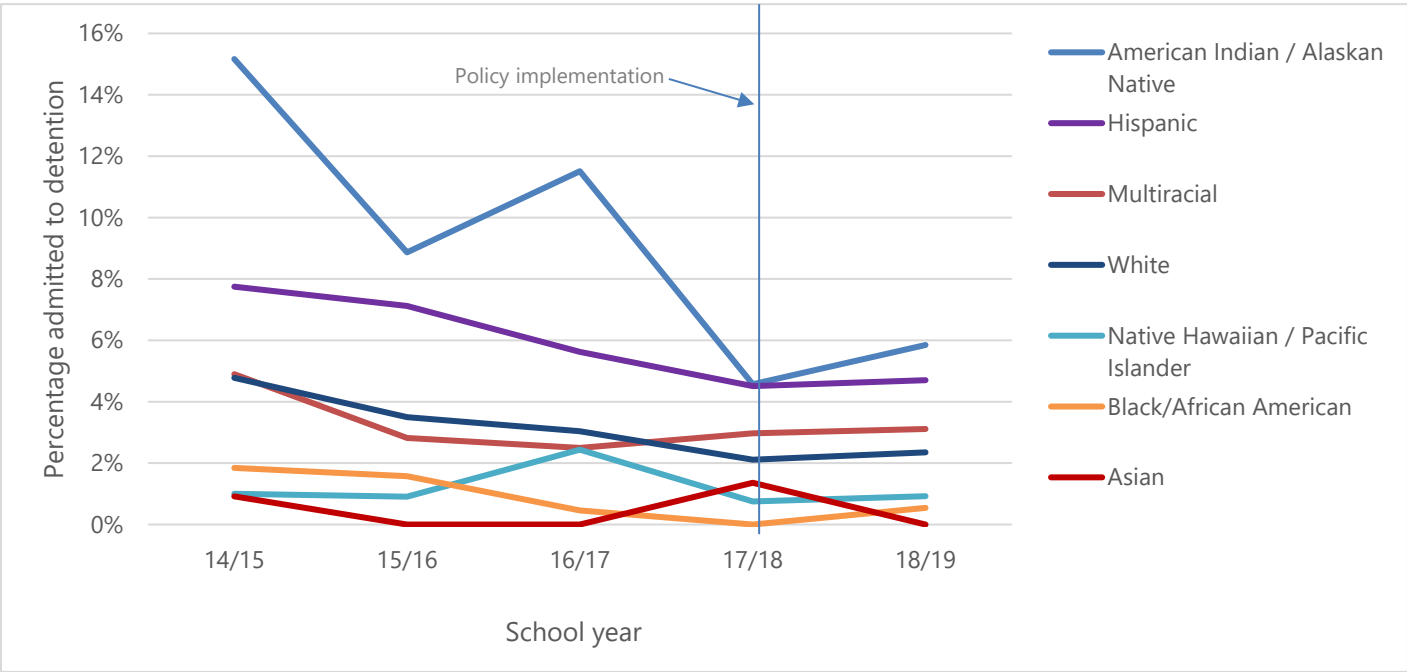
The rate of admission to a detention facility for a truancy petition varied by race. Exhibit 18 shows the different proportions of youth admitted to detention for a truancy petition by race. The largest declines in detention admissions for truancy petitions were for American Indian/Alaskan Native, Hispanic, and white youth.

As with some of the prior analyses, it appears that changes in the use of detention for truant youth were largely initiated prior to the passage of the new legislation. Due to more recent legislative changes, we expect the percent of truancy related detention stays to fall to zero in subsequent years.

[52] C. Lenz, M. Edmiston, & J. Tibbitts King County Family Court Services (personal communication, October 10, 2019).
[53] Including King County records would lower the overall rates of detention but would not affect pre-post differences since their detention rates would not have declined following the 2016 policy implementation.

Exhibit 18

Change in Proportion of Detention Admission by Race



Notes:
Petitioned youth is limited to those received by high school students who are "eligible," i.e., enrolled during the year in question and received seven or more unexcused absences in a month or ten in a year. Students who received a truancy petition but were either not eligible according to this definition or were not enrolled are excluded.
Details on the coding are provided in the Appendix.
Analyses exclude petitions filed in King County due to data limitations in King County's detention records.
Source: Linked AOC Comprehensive Education Data and Research System (CEDARS) dataset.

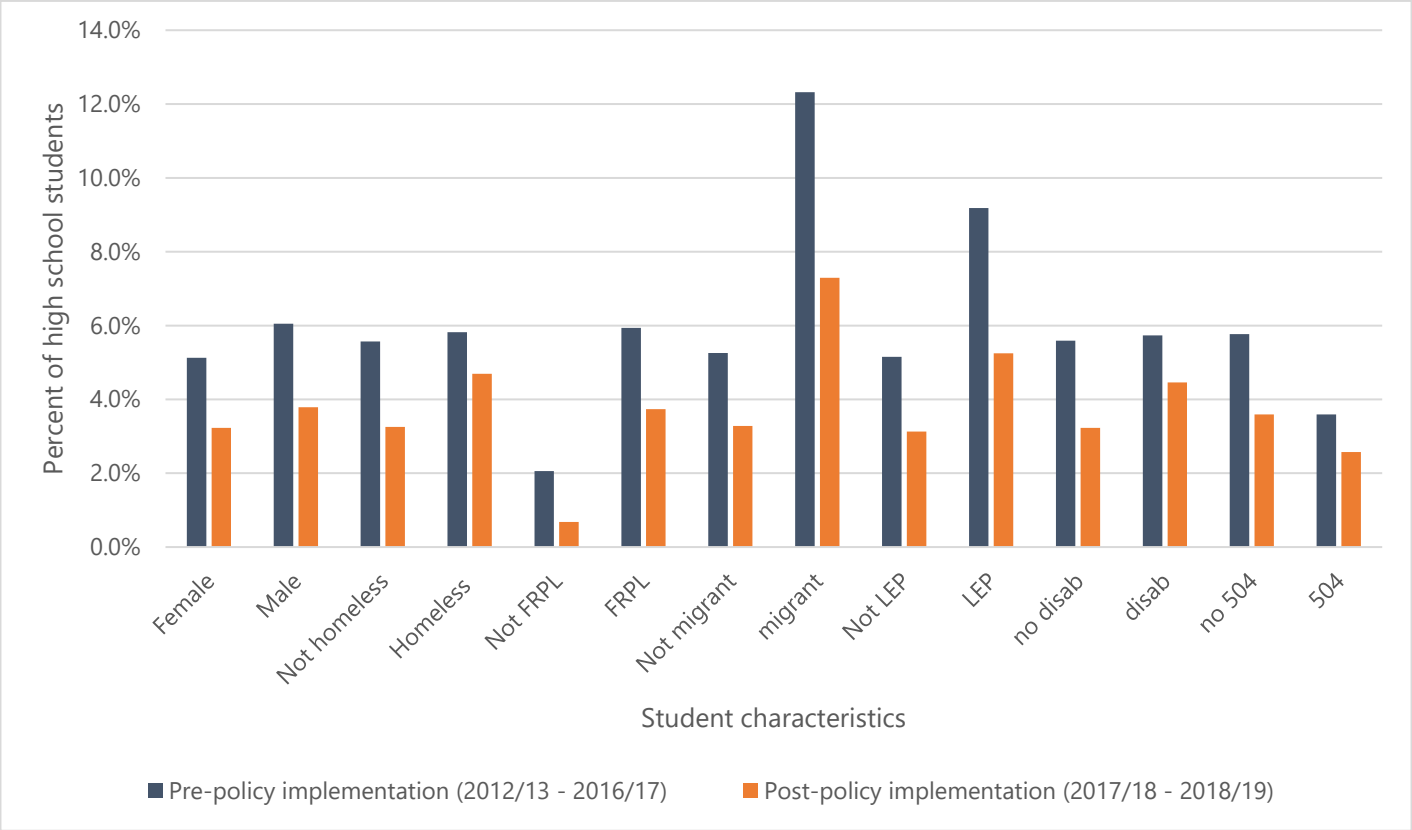
Some juvenile court administrators expressed concern about the elimination of the use of detention for truant youth. In many cases, the threat of a contempt order and admission in detention is the only leverage that the court has to encourage youth to attend truancy hearings and to adhere to the conditions of their truancy-related court orders.

Future research could examine whether the elimination of detention for truancy affects overall compliance with court orders as well as whether changes in compliance lead to a higher likelihood of future unexcused absences and/or dropping out of high school.

We further examined differences in detention admissions for youth receiving a truancy petition by additional student characteristics in Exhibit 19. Across all characteristics, the rate of detention admission declined following the implementation of the 2016 legislative changes. However, the magnitude of these changes varied. Males, students who were not experiencing homelessness, students who qualified for free and reduced-price lunch, migrant students, students with limited English proficiency, students who were not disabled, and students who did not have a 504 plan had larger declines in detention admissions than their counterparts.

Exhibit 19

Change in Proportion of Detention Admission for Petitioned Youth



Notes:
Petitioned youth is limited to those received by high school students who are "eligible," i.e., enrolled during the year in question and received seven or more unexcused absences in a month or ten in a year. Students who received a truancy petition but were either not eligible according to this definition or were not enrolled are excluded. Students were classified into categories based on all of their enrollment records. If a student's enrollment records ever indicated the presence of a characteristic, the student was classified as having that characteristic.
Details on the coding are provided in the Appendix.
Blue bars represent pre-policy years while orange bars represent post policy years.
Analyses exclude petitions filed in King County due to data limitations in King County's detention records.
Source: Linked AOC Comprehensive Education Data and Research System (CEDARS) dataset.

VII. Conclusion

WSIPP found no evidence that the legislation has improved student outcomes in general. Unexcused absences increased over the study time period and dropout rates remained steady. We also found that many of the student outcomes that did change (i.e., juvenile detention rates) began to do so before the requirements of the new law went into effect. However, we could not rule out the possibility that outcomes might have been worse had the law not passed, and we were unable to measure long-term outcomes, given the short amount of time that has passed since the law changed.

We found that schools continue to file truancy petitions at a low rate. Less than a quarter of youth in our sample who qualified as truant had a petition filed with the juvenile court. However, there is significant variation across school districts in the rate at which they file.

WSIPP did find access to community truancy boards increased following the law's passage, although the interventions that youth who are truant receive varies significantly across the state. Some community truancy boards provide a more intense level of intervention for youth with significant barriers to attendance, while others serve as lower-level workshops that serve a general population of truant youth.

While we found no general change in dropout rates, the dropout rate for truant youth (both with and without a petition) slightly declined between the first and second year after implementation of the law. The percentage of youth being sent to juvenile detention for truancy also fell, although that decrease began prior to the year in which the law was required to take effect.

Several topics could be explored in further study. Research could examine the elimination of detention as an option for truancy cases.[54] There is a great deal of uncertainty over how its elimination in 2020 will affect compliance with court orders and student engagement with interventions. A follow-up study could compare dropout rates for petitioned youth in the year prior to the rates in the year following the elimination of juvenile detention for truancy.

Future work could also include outcome evaluations of the truancy preventative efforts that schools are using. In our systematic review of the current literature, we identified an ongoing lack of research identifying effective interventions for truancy.[55] If schools were to systematically track which interventions they use for truant youth, we could match and compare outcomes for similar students who did not receive those interventions.

[54] The 2019 Washington State Legislature ended the use of the valid court order exception to place youth in detention for truancy cases. E2SSB 5290.

[55] Wanner & Xie (2020).

Finally, more work could be done to assess the effectiveness of community truancy boards. To do so, we would need first to know which specific students are being referred to CTBs. Schools have recently begun tracking whether students are referred to CTBs when they receive truancy petitions. That information should be more reliable starting in the 2021/22 school year.[56] Future work could compare the dropout rates between petitioned students referred to a CTB to similar students in districts without CTBs.

In the Meta-Analysis Appendix, we evaluate the research on community truancy boards and found they were effective at improving graduation and reducing dropouts. However, the research evaluates CTBs in conjunction with a supplementary program that provides ongoing support and personalized interventions in school. Many of the CTBs in Washington do not have this type of supplementary support. Any future work needs to carefully take that variation into account.

[56] Because of the school closures due to Covid-19 during the 2020/21 school year, it is likely that an additional year may be necessary to improve reliability.

Appendices

An Evaluation of the 2016 Act to Promote Attendance and Reduce Truancy

I. Education Data

Data for this report come from administrative student records from the Office of the Superintendent of Public Instruction (OSPI) and WSIPP's Criminal History Database (CHD). For this study, we created both a student-based dataset and a school-based dataset. This appendix reviews our approaches to processing both the OSPI data to create a final analytic dataset.

We requested student-level records for all youth enrolled in Washington State public high schools (grades 9-12) from fall 2012 through spring 2019. We received 11 separate data tables from OSPI, each with a consistent unique identifier for each student (SSID). We processed each dataset separately and then combined the datasets using SSID to create a single analytic dataset.

Enrollment Records and Cohort Identification

We processed OSPI enrollment records in three steps. First, we identified all enrollment records associated with students in our sample. Second, we separated students into eight unique cohorts. Third, we identified the final enrollment status (e.g., dropped out, graduated) for each year that a student was enrolled to track students' movement over time. Exhibit A1 illustrates the eight cohorts in this analysis. For example, cohort 4 enrolled in 9th grade in the 2014/15 school year and had an expected four-year graduation year in 2017/18.

Exhibit A1

Cohort, School Year, and Observation Year

	School year											
	2011 / 2012	2012 / 2013	2013 / 2014	2014 / 2015	2015 / 2016	2016 / 2017	2017 / 2018	2018 / 2019	2019 / 2020	2020 / 2021	2021 / 2022	2022 / 2023
Cohort 1	1	2	3	4	5							
Cohort 2		1	2	3	4	5						
Cohort 3			1	2	3	4	5					
Cohort 4				1	2	3	4	5				
Cohort 5					1	2	3	4				
Cohort 6						1	2	3				
Cohort 7							1	2				
Cohort 8								1				
									OUT OF SAMPLE			

Note:
Observation year 1 represents the school year in which students in each cohort were in 9th grade. For example, students in cohort 1 were 9th graders in the 2011/2012 school year and students in cohort 2 were 9th graders in the 2012/2013 school year.

Enrollment Records

We received 10,519,165 enrollment records for 2,087,915 unique youth. Students had a different enrollment record for each school year and for each unique school they attended within a given school year. Thus, most students had multiple enrollment records (one for each grade level) and some students had multiple enrollment records within the same school year (one for each school they attended). Since our study focused on students enrolled in high school (grades 9-12), we dropped records that were not for grades 9-12 (enrollment record N = 7,091,815; student N = 1,062,752).

Cohort Identification

To track students over time, we separated youth into eight unique cohorts. Our methods for creating cohorts of youth were based on guidance from OSPI's 2018-2019 Adjusted Cohort Graduation and Dropout (P210) User Guide.[57] According to OSPI, cohorts are based on students' first 9th-grade enrollment and graduation requirements year (GRY). Specifically, "students are identified as members of the 2018-19 4-year cohort based upon: Student is identified as enrolled in grade 9 for the first time at the start of a cohort, e.g., 2015-16 for the 2018-19 4-year cohort, with a graduation requirements year of 2019."[58] For students who enroll after 9th grade, OSPI relies on their GRY to determine cohort placement. For example, a student who enrolled as a sophomore in 2016/17 with a GRY of 2018/19 would be placed in the cohort enrolled in 9th grade in 2015/16. Finally, OSPI bases their cohorts on enrollment records only from the school of primary responsibility.

To assign the students to cohorts, we first identified youth with no record of enrollment in a school of primary responsibility. There were 5,366 enrollment records associated with students who did not have a school of primary responsibility. We removed these records, resulting in 3,987 unique SSIDs being removed from the data.

[57] We obtained a copy of the 2018/2019 adjusted cohort graduation and dropout (P210) User Guide from OSPI. An updated User Guide for the 2019/2020 school year is available on OSPI's website.
[58] Ibid.

We next assigned cohorts for students with a 9th-grade enrollment record. Following OSPI protocols, we assigned students to a cohort based on the GRY from their first 9th-grade enrollment record. We then classified the remaining students into cohorts based on the GRY associated with their first high school enrollment record (after sorting enrollment records by school enrollment date and then by grade level).

The sample for our study begins with students entering 9th grade in the 2011/12 school year. We received records for all youth enrolled in high school from school years 2011/12 to 2018/19. As such, we had multiple students who were sophomores, juniors, or seniors in the 2011/12, 2012/13, or 2013/14 school years and who were not technically a part of our sample. We removed these records totaling 704,031 enrollment records for 276,222 unique SSIDs.

Our final sample of enrollment records for students assigned to our eight cohorts included 2,567,346 enrollment records for 744,954 unique students. Our observation of each cohort begins with 9th grade. We created observation year identifiers to track enrollment records associated with each cohort's first through fifth years in our data. For later cohorts (cohorts 5-8), we do not have five full years of observation. See Exhibit A1 for a visual depiction of the observation year, school year, and cohort.

Enrollment Status

Youth may move in and out of the public school system or between different schools and/or districts within the public school system. In instances where a student's enrollment in a school was terminated, a withdrawal code and enrollment end date were listed for that specific record. If a student completed the school year without withdrawing, the withdraw code for that record was blank unless a student graduated. When a student graduated, their final enrollment record was listed with a graduation withdrawal code.

The data included 27 withdraw codes that we collapsed into six categories: graduate, GED, dropout, disappear, transfer, and death. Exhibit A2 depicts how we collapsed withdraw. Students may have multiple enrollment records with different withdrawal codes in the same school year. For example, a student may transfer from one school to another at the beginning of the school year, then the student may drop out from the second school in the middle of the year. Further, the youth may be reengaged and have a new enrollment record for the same school in the spring. If the student continued school after re-engaging and completed the full school year, their third enrollment record would not have a withdrawal code.

Exhibit A2

WSIPP Classification of OSPI Withdraw Codes

OSPI withdraw code	Withdraw code description	Graduate	GED	Dropout	Disappear	Transfer	Death
C1	Drop-out, confirmed receipt of GED certificate		X				
C2	Graduated with a HS Diploma with modifications from IEP	X					
D0	Other (dropped out, reason unknown)			X			
D1	Expelled or suspended and did not return			X			
D2	Attended 4 years or more and did not graduate (student drops or ages out)			X			
D3	Lack of academic progress or poor grades			X			
D4	School not for me			X			
D5	Married or needs to support family			X			
D6	Pregnant or had baby			X			
D7	Offered training or chose to work			X			
D8	Chose to stay home			X			
D9	Drugs or alcohol-related			X			
DM	Student exited school to medical reasons, is not receiving educational services				X		
G0	Graduated with regular HS Diploma	X					
GA	Graduated with Associates degree	X					
GB	Graduated with an international Baccalaureate HS Diploma	X					
GM	Graduated with both regular HS Diploma and an associate degree	X					
T0	Confirmed transfer to another SD in WA State					X	
T1	Confirmed transfer out of the school w/n district					X	
T2	Confirmed transfer to private or homeschool w/n WA State					X	
T3	Confirmed transfer out of WA State					X	
TM	Confirmed transfer to medical facility w/ confirmation of ed services					X	
U1	Unknown				X		
U2	Enrolled in prior year, but no show this year				X		
U3	Transfer reported by student (not confirmed)				X		
ZZ	Deceased						X

After coding each withdrawal type, we coded two different variables for our analyses: one indicating whether a student ever had a particular withdrawal type and one indicating what the final enrollment status was for each student in each school year.

In some instances, the final cohort size at the end of one school year was different from the cohort size in the following school year. Exhibit A3 provides an example of the final coding for one cohort (cohort 1, freshmen in 2011/2012 with an on-time graduation in 2014/2015). We identified several patterns that captured the characteristics of population changes in cohort size between observation years. First, students did not have a withdrawal code listed in their final enrollment record for a school year, but they did not have an enrollment record for the following school year. Second, students may drop out of school in one school year but be reengaged and enrolled in the following school year. Third, new students may move into Washington over the summer or in the middle of a school year and the student would be placed into the cohort based on their prior school completion in another state.

Exhibit A3

Example of Population Changes Within a Cohort Over Time

Cohort 1 (4-year graduation 2014/2015)	Year 1	Year 2	Year 3	Year 4	Year 5
Starting cohort size	83,569	82,043	81,095	79,096	10,861
No show		3,675	4,137	3,691	2,115
Transferred in:					
Reengaged	0	901	1082	1219	1306
New student	0	4121	4762	4089	560
Transferred out	0	0	0	1,436	173
Dropout	346	646	1,126	2,852	1,777
Disappeared (includes medical dropout)	1,152	1,547	2,107	2,885	1,910
Graduated	9	14	328	62,457	3,223
GED	7	63	118	182	131
Death	12	25	27	40	6
End of cohort size (continuing)	82,043	81,095	79,096	10,861	3,392
Total youth	83,569	83,390	82,802	80,713	10,612

Demographics

Each enrollment included the student's demographic characteristics. There were instances where a student's demographic information changed across different enrollment records. We coded student demographics in one of two ways: using each the most recent enrollment record or using all high school enrollment records.

Gender

For gender, we selected the most recent enrollment record. In 2018/19, OSPI allowed schools to record a third gender option—gender X. Since this option did not exist for all enrollment records in our sample, we used previous enrollment information to code individuals into male and female if they had a prior enrollment record that was coded as male or female.

Race

For race, we coded three variables. First, we used the OSPI classifications to code race using each student's most recent enrollment record. OSPI's classifications include seven categories that correspond to federal reporting methods. Those categories include American Indian/Alaskan Native, Asian, Black/African American, Hispanic/Latino of any race(s), Native Hawaiian/Other Pacific, not provided, two or more races, and white. Second, we used the OSPI classifications to identify if a student was *ever* classified as a particular race in any enrollment record. While most students (93.49%) had only one race recorded across all their enrollment records, some students had as many as five different races recorded. Third, we created our own race categories where students who were ever listed as Hispanic in any enrollment record were coded as Hispanic, students who were never listed as Hispanic but who had enrollment records with different races (excluding the category of "not reported") were coded as multi-racial, and all other students were coded based on the race listed across their enrollment records.

Age

There were some instances where students had multiple birthdates recorded across their high school enrollment records. In these cases, we took the birthdate associated with the most enrollment records. If there were different birthdays equally associated with enrollment records (e.g., two records with a birthdate of 2/10/1998 and two records with a birthdate of 3/10/1998), we selected the birthdate from the most recent enrollment record.

Homeless

We coded two variables: ever homeless and homeless by school year. For the yearly indicators, we coded a student as if any enrollment records in that school year that indicated they were experiencing homelessness.

Other Youth Characteristics and School Programs

We received additional datasets capturing information about the youth and their participation in various district and school programs for each school year. These datasets included free and reduced-price lunch, migrant status, special education, limited English proficiency, district-level programs, and school-level programs.

For each dataset, we coded separate variables for each school year indicating if a student had a record associated with the particular characteristic, and an overall student-level variable indicating if the youth ever had a record associated with the particular characteristic across all of the school years. For example, was the student categorized as homeless in the 2012/13 school year, and was the student ever categorized as homeless?

We were missing measures of some characteristics for some school years. Specifically, we did not have information on migrant status for 2012/13, disability status for 2012/13 and 2013/14, and 504 plans for students in 2017/18 and 2018/19. For these years, all students were coded as not having the characteristic in school-year variables. However, students may have been coded as having the characteristic in the "ever" variables if their enrollment records in another year indicated that they were a migrant, had a disability, or had a 504 plan.

Attendance

We received records for excused and unexcused absences from the 2012/13 – 2018/19 school years. The attendance data included four types of absences: excused partial day absence, excused full day absence, unexcused partial day absence, and unexcused full-day absence. Consistent with guidance provided by OSPI, we used only the full-day absences. If youth had both an excused and unexcused absence on the same day, we removed the unexcused absence and kept only the excused absence.

Because truancy petition eligibility is based on both the number of unexcused absences in a month and a year, we coded variables capturing the total number of absences in each month of each school year. Using these monthly totals, we created variables capturing the total number of absences, the total number of unexcused absences, and the total number of excused absences for each school year.[59]

Creating a Final Student-Level File

Starting with the final enrollment file, we merged each of the different datasets to create a single analytic dataset. Using the enrollment data, we restructured the file to a student-level file, maintaining separate variables for the youth's final enrollment status in years one through five and student-level indicators of whether they ever experienced a particular type of withdrawal in any of their high school records (e.g., ever dropped out). Finally, we kept information about each student's school district from their initial high school enrollment.

Next, we combined the attendance data with the youth's enrollment records, keeping only the monthly and annual attendance summary variables. We then combined the remaining datasets into the student-level file keeping the indicators of each unique characteristic in each school year. For example, the final file included eight variables for free and reduced-price lunch (frpl): frpl12, frpl13, frpl14, frpl15, frpl16, frpl17, frpl18, frpl19, where the last two digits correspond to the youth's records from each school year (e.g., frpl12 = whether a youth received free and reduced-price lunch in the 2011/12 school year). Our data also included student-level summary variables indicating if the youth was ever listed with a particular characteristic in any school year from 2011012 – 2018/19 (e.g., frpl).

Our final student-level dataset included 557 different variables capturing information for 744,954 students.

[59] According to RCW 28A.225.030: "[N]ot later than the seventh unexcused absence by a child within any month during the current school year or not later than the tenth unexcused absence during the current school year the school district shall file a petition…"

Creating School-District Level Files

We also created school-district level files, which included aggregate data on students for each of the variables discussed in the preceding student-level data section. For example, we calculated the average number of unexcused absences by school district by year. We created school-district aggregates for two populations: freshmen and all enrolled students.

We constrained the population to those students enrolled in the school. For the freshmen population, we further constrained our analysis by cohort. For example, to calculate the school-district average number of unexcused absences for freshmen in 2013/14, we included only students enrolled in each district in 2013/14 who were a member of cohort 3.

Descriptive Statistics

Exhibit A4 provides descriptive statistics for some student-level variables. The descriptive statistics are provided separately for each of the eight cohorts in our sample. For variables that we calculated separately for each school year for each cohort (e.g., yearly average number of unexcused absences), we provide statistics for the 9th grade only.

Exhibit A4

Descriptive Statistics by Cohort

Cohort	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
9th grade year	**2011/12**	**2012/13**	**2013/14**	**2014/15**	**2015/16**	**2016/17**	**2017/18**	**2018/19**
Total ever in cohort	94,263	94,318	95,165	95,972	96,258	92,735	89,699	86,544
Total in cohort 9th grade	83,569	83,313	83,251	84,888	85,571	84,618	85,586	86,535
Gender-Male								
Male	48.7%	48.7%	48.7%	48.7%	48.4%	48.8%	48.7%	48.6%
Female	51.3%	51.3%	51.4%	51.3%	51.6%	51.2%	51.3%	51.3%
Race								
American Indian/Alaskan Native	1.3%	1.4%	1.3%	1.3%	1.2%	1.3%	1.3%	1.4%
Asian	7.1%	7.1%	7.0%	7.3%	7.6%	7.8%	7.9%	8.1%
Black/African American	4.5%	4.5%	4.6%	4.5%	4.4%	4.5%	4.4%	4.4%
Hispanic/Latino of any race(s)	19.5%	19.9%	20.9%	21.3%	22.5%	22.7%	23.1%	23.4%
Native Hawaiian/Other Pacific	0.9%	0.9%	0.9%	1.1%	1.1%	1.1%	1.1%	1.1%
Not provide	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Two or more races	7.5%	7.4%	7.8%	8.0%	8.0%	8.1%	7.9%	7.8%
White	59.3%	58.8%	57.4%	56.5%	55.2%	54.5%	54.3%	53.8%
Ever homeless	6.8%	7.2%	7.8%	7.9%	7.9%	6.3%	4.5%	3.0%
Ever free and reduced-price lunch	51.8%	53.3%	55.4%	55.9%	57.0%	57.8%	57.9%	59.0%
Ever migrant status	1.8%	2.2%	2.5%	2.6%	2.9%	2.9%	3.0%	3.2%
Ever special education	12.1%	12.8%	13.9%	14.5%	15.9%	17.0%	18.5%	19.1%
Ever limited English proficiency	6.7%	7.5%	9.5%	11.9%	14.0%	15.3%	15.9%	19.4%

Exhibit A4, Continued

Descriptive Statistics by Cohort

Cohort	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
9th grade year	**2011/12**	**2012/13**	**2013/14**	**2014/15**	**2015/16**	**2016/17**	**2017/18**	**2018/19**
Attendance								
Average # total absences (9th grade)		12.66	12.37	12.71	12.82	13.26	13.07	13.30
Average # excused absences (9th grade)		9.48	9.14	9.37	9.44	9.43	9.19	9.05
Average # of unexcused absences (9th grade)		3.18	3.23	3.34	3.38	3.83	3.88	4.25
% of students with 1+ unexcused absences (9th grade)		44.1% (36,704/ 83,313)	45.0% (37,489/ 83,251)	45.0% (38,242/ 84,888)	43.9% (37,531/ 85,571)	47.8% (40,484/ 84,618)	47.0% (40,236/ 85,586)	49.5% (42,817/ 86,535)
% students required to receive a petition in 9th grade (7+ unexcused absences in a month or 10+ in a year)		8.9% (7,446/ 83,313)	8.9% (7,418/ 83,251)	9.2% (7,775/ 84,888)	9.2% (7,846/ 85,571)	10.3% (8,697/ 84,618)	10.6% (9,039/ 85,586)	11.5% (9,981/ 86,535)
Dropout rate ever	16.6% (15,605/ 94,263)	16.2% (15,289/ 94,318)	16.3% (15,502/ 95,165)	15.8% (15,147/ 95,972)	13.9% (13,368/ 96,258)	9.2% (8,536/ 92,735)	5.5% (4,959/ 89,699)	2.5% (2,182/ 86,544)

II. Juvenile Justice Data

Schools may file truancy petitions with the juvenile court for students exceeding the legal threshold for unexcused absences. Records for truancy petitions and associated court cases are maintained in the Juvenile and Corrections System (JCS) and the Odyssey Case Management System. WSIPP obtained approval from the Administrative Office of the Courts and the Washington Association of Juvenile Court Administrators to receive records related to truancy cases quarterly as a part of the larger adult and juvenile justice data systems that compose the Criminal History Database (CHD). The CHD allows WSIPP to match different cases for the same youth and to identify records for the same youth across different data systems. We used these data to complete analyses on truancy petition filings and associated admissions to detention facilities.

In our interviews with juvenile court administrators (JCAs), we found wide variation in the court processes for truancy petitions. When processing the truancy petition data, these interviews were integral for identifying limitations in the data. This section of the appendix describes how we processed the juvenile court data as well as any limitations that arose from cross-jurisdictional differences.

General Petition Process

School districts are required to file a truancy petition with the juvenile court. Following the 2016 Legislative changes, these petitions should be automatically stayed (an action to temporarily suspend the petition), and the youth should be referred to a community truancy board (CTB). The stay on the petition is issued for a specific length of time. In our interviews with JCAs, we found that the length of stay and the process for determining the length of stay varied. In some courts, the length of stay on a petition was determined by the school filing the petition. In other jurisdictions, the length of stay was determined by the court. In jurisdictions where the length of stay was determined by the court, the courts often had a uniform amount of time that they applied to all petitions (e.g., all truancy petitions are automatically stayed for three months).

Once the stay on a petition expires, school districts may withdraw the petition or request that the petition is dismissed if the youth has shown progress as a result of school and CTB interventions and/or is consistently attending school. If youth are still failing to regularly attend school, school districts may either a) request an extension on the stay to allow for continued school- or CTB-directed interventions or b) request that the stay is lifted and the court proceed with hearings on the petition.

Once a stay on a petition is lifted, the court can move forward with traditional court processing. Truancy case processing also varies by court. In some jurisdictions, case managers meet with the youth and their families prior to a formal hearing. In other jurisdictions, youth are scheduled to appear in front of a judge prior to establishing a case management plan. Ultimately, youth sign an attendance agreement with the court that stipulates the attendance requirements of the youth as well as any other civil court sanctions. The sanctions associated with a civil court case vary between courts but could include things such as writing an essay on a relevant topic (e.g., "how much is attending high school worth to you?"), reading a book and completing a book report, doing community service, obtaining weekly progress reports from teachers, and/or participating in one extra-curricular activity or school club.

If youth fail to comply with orders from the court, the valid court order (VCO) exception to the Juvenile Justice and Delinquency Prevention Act of 1974 allows judges to hold a truant youth in a detention facility for up to seven days. During the timeframe of our analysis, the VCO exception was allowed in Washington State, but individual court policies for detention varied. In 2019, the Washington State Legislature passed legislation phasing out the use of detention under the VCO for status offenses.[60] After July 1, 2021, juvenile courts will no longer be allowed to place youth in a detention facility as a contempt sanction or based on a warrant in relation to a truancy petition.

Once a stay is lifted and a court moves forward with a formal attendance order, the court maintains jurisdiction over the youth until the petition is closed. In some jurisdictions, all truancy petitions are closed at the end of the school year. In these jurisdictions, youth who amass new unexcused absences in the following school year would require a new petition filing for the court to intervene. In other courts, jurisdiction under a truancy petition does not expire until the youth turns 18. In these jurisdictions, the court may intervene in subsequent years without the filing of a new petition and prior to the student amassing seven or ten unexcused absences in a subsequent school year.

Truancy Petition Filings

We identified all juvenile court referrals for truancy petitions filed in Washington State juvenile courts for our sample of youth between 2009 and 2019. Although our analyses do not begin until the 2012/13 school year, we found that some youth had referrals initially filed during their middle school years that had new actions filed during high school. These cases reflect some juvenile court policies to maintain jurisdiction over a youth from initial filing through the age of 18. Even when long-term jurisdiction was not standard, schools may have filed for an extension of juvenile court jurisdiction to keep petitions open across multiple school years.

Each truancy referral in JCS has an initial filing date, representing the date that the initial truancy petition was first filed with the court, and individual filing dates for each "reason for referral" (hereafter referred to as a "reason"). For a single referral, a youth may have multiple reasons filed with the court. For example, if a youth fails to comply with the court's initial orders under a truancy petition, a new reason may be filed under the preexisting referral for a failure to comply. By using the initial petition filing date only, we would miss cases where an initial petition was filed in middle school, but the court later intervened in high school following additional unexcused absences. In these cases, a new petition may not be recorded as a new referral since the youth had a preexisting referral that was still open with the court.

For our study, we used the reason filing date to flag any school year in which a new reason was filed under a truancy petition in the juvenile court as an indicator for whether an eligible youth was petitioned. This coding decision assumes that if a truancy petition was not previously filed and still open with the court, the school district would have submitted a new petition for the youth.

The JCS data included 139,316 unique referrals comprising 403,820 different reasons for a referral from FY 2009 – FY 2019. We excluded youth who did not match our sample of high school enrollees from the 2012/13 – 2018/19 school years. The final file included 92,686 referrals with 277,904 reasons. For our analysis, we limited the truancy petitions to those occurring during high school grade levels for which a student had a valid enrollment record in the OSPI data.

[60] E2SSB 5290.

We matched truancy petition records to attendance records to identify whether a student who met the legal criteria for a petition filing (e.g., seven or more absences in a month or ten or more absences in a year), received a petition, or had a new reason filed for an existing petition. Exhibit A5 shows the percentage of enrolled youth who met the eligibility requirements for a truancy petition and who had a truancy petition in the court data, by cohort and by grade level. Across all cohorts in our sample, the rate of petition filing for eligible youth declined as grade levels increased.

Exhibit A5

Percentage of Eligible Youth Receiving a Truancy Petition, by Cohort and Grade Level

	Grade level				
	9th	10th	11th	12th	13th
Cohort 1	--	21.6%	13.2%	2.5%	0.0%
Cohort 2	22.3%	19.4%	12.4%	2.3%	0.0%
Cohort 3	23.4%	20.5%	12.7%	2.1%	0.0%
Cohort 4	23.6%	21.3%	10.4%	1.9%	0.1%
Cohort 5	23.6%	17.8%	12.3%	2.1%	--
Cohort 6	19.5%	19.3%	12.3%	--	--
Cohort 7	19.8%	20.3%	--	--	--
Cohort 8	21.1%	--	--	--	--

Information in the truancy petition and associated court case data was limited. Notably, the following characteristics were either unavailable, or inconsistently recorded and thus could not be used in our analysis: length of stay on the petition, number of formal hearings with the court, length of jurisdiction on the petition, referral to CTB, and details about the terms of attendance agreements or civil sanctions.

Truancy Related Detention Admissions

Using the JCS referral number and court case numbers, we matched records of detention admissions to truancy petitions in the JCS referral data. Each detention admission included an admission date and a release date. Using the date of admission, we coded variables for each school year indicating whether the youth was ever admitted to detention in relation to a truancy petition. Youth in our sample may have had an admission to a detention facility for a separate dependency case petition (e.g., at-risk youth petition or children in need of services petition) or for an unrelated criminal case. However, for our analyses, we included only the detention admissions recorded as a result of a truancy petition.

Use of detention for truancy petitions varied by the juvenile court. Exhibit A6 shows the number of total truancy petitions before and after the policy change and the percentage of those petitions that were associated with an admission to a detention facility by a juvenile court.

Exhibit A6

Number of Truancy Petitions and Rate of Detention Admissions, by Court Before and After Policy Change

Court	Before policy change		After policy change	
	Total truancy petitions 2012/13 - 2016/17	Percent petitions with detention 2012/13 - 2016/17	Total truancy petitions 2017/18 - 2018/19	Percentage petitions with detention 2017/18 - 2018/19
Adams*	66	n/a	25	n/a
Asotin/Garfield*	104	n/a	60	n/a
Benton/Franklin	2,418	12%	919	10%
Chelan	482	12%	319	6%
Clallam	532	16%	307	6%
Clark	2,082	0%	928	**1%**
Columbia/Walla Walla	356	1%	156	1%
Cowlitz	832	11%	400	8%
Douglas	317	19%	164	7%
Grant	566	27%	429	15%
Grays Harbor	387	34%	182	23%
Island	250	8%	66	0%
Jefferson	27	11%	14	**14%**
King[Ŧ]	3,532	n/a	1,923	n/a
Kitsap	395	3%	192	1%
Kittitas	98	3%	42	2%
Klickitat	48	6%	23	0%
Lewis	313	21%	143	10%
Lincoln*	34	n/a	16	n/a
Mason	136	6%	68	1%
Okanogan	311	33%	182	18%
Pacific/Wahkiakum	28	21%	19	11%
Pierce	2,649	1%	1,330	0%
San Juan	22	0%	5	0%
Skagit	1,232	1%	365	1%
Skamania	24	4%	30	**10%**
Snohomish	2,506	1%	1,025	0%
Spokane	4,170	1%	2,489	1%
Stevens/Pend Oreille/Ferry*	126	n/a	98	n/a
Thurston	984	3%	480	1%
Whatcom	1,160	4%	481	1%
Whitman	43	n/a	34	n/a
Yakima	146	3%	144	**9%**

Notes:

*These courts had incomplete detention records during the analysis period. These courts contract with a private detention facility—Martin Hall—for detention services. Prior to 2017, admissions to Martin Hall were not included in AOC detention records.

[Ŧ] King County detention records are maintained in a separate database and were not available for the current study.

Post-implementation averages that are **bolded** were higher than pre-implementation averages.

III. Student Outcomes

Panel Data Regression Analysis

Panel data describes data where the same individual (in this case students) are measured at multiple points in time.[61] Panel data regression analysis takes into account the fact that these measurements are not independent from one another—a student number of unexcused absences in 9th grade is likely related to the number of unexcused absences they have in 10th grade. Additionally, students at the same school district may also have similar patterns in attendance compared to students at different school districts. If those student measurements are treated as independent, we would under-estimate the size of our standard errors and potentially overstate the statistical significance of our results. We control for the fact that individual-level outcomes are correlated with each other using a random-effects model.[62]

The population includes all students enrolled in Washington State public high schools between 2012/13 and 2018/19. The independent variable of interest is a binary indicator of policy implementation—it is 1 for both years after the new policy was implemented, and 0 for all other years.[63] We include the following control variables in the model:

- 504 plan
- Class year (9th, 10th, 11th, 12th, 13th)
- Disabled
- Expenditure per pupil by school district[64]
- Free and reduced-price lunch
- Homeless
- Gender
- Limited English proficiency
- Migrant
- Race

[61] Allison, P.D. (2009). *Fixed effects regression models* (Vol. 160). SAGE publications.
[62] Random effects models use an unobserved variable that controls for the clustering of the individual responses. These models make the assumption that these unobserved variables are statistically independent from all observed variables. While this assumption may often be violated, a random effects model may still be desirable in some situations, depending on the nature of the data or the desirability of measuring time variant explanatory variables. The alternative would be to use a fixed effects model, which does not require this assumption. Using a fixed effects model does not allow for the estimation of time invariant variables like race or the inclusion of observations that do not have much variability in the dependent variable, like students who never drop out. Both limitations make a random effects model preferable.
[63] We also tested an alternative policy change variable that included the 2016/17 school year in the post period and had results relatively consistent with those presented here.
[64] Other variables measuring teacher experience, certification, etc. from OSPI's school district report cards were not available for all school districts in our analysis.

Dependent Variable 1: Unexcused Absences

Total student population. The first dependent variable, unexcused absences, is a count variable with a mean of 5.2; a range from 0 to 179; and a variance of 153.7.[65] Because this is a skewed distribution with a mean significantly smaller than the variance, a negative binomial regression is an appropriate model choice. This model selection was supported by our specification tests.[66] We also clustered the standard errors by school district to control for the fact that student observations from the same school district are not independent.[67]

Negative binomial regression model coefficients describe how much a one-unit increase in each variable causes the log of the count of unexpected outcomes to change.[68] Since logged counts are not easily interpretable, we have instead provided the incident rate ratios. This describes how much a one-unit change in the explanatory variable affects the rate at which the dependent variable occurs.[69] For binary variables, a coefficient of one indicates that students with the characteristic have the same rate of unexcused absences as those in the base category.

We ran an additional regression model with consistent results to the one reported here that included dummy variables for years rather than the binary indicator of policy change, which are colinear. This information was used to calculate the predicted count variable of unexcused absences used in Exhibit A7.

[65] Ordinary least squares (OLS) regression can be biased and inefficient when using counts as the dependent variable., Long, J.S., & Freese, J. (2014). *Regression models for categorical dependent variables using Stata*. Stata press.
[66] We compared the goodness of fit between an OLS, Poisson, and negative binomial regression model using several tests (AIC, BIC, and comparing the maximum and mean differences in observed versus predicted counts). All tests supported the NBRM as a better fit for the data. Although there are many zeroes in the data, a zero-inflated model is not appropriate because there is no clear theoretical or empirical reason to differentiate why some students received zero absences while others had one or more. UCLA Institute for Digital Research & Education Statistical Consulting. *How can I use countfit in choosing a count model? Stata FAQ.*
[67] Long & Freese (2014), p. 103.
[68] UCLA Institute for Digital Research & Education Statistical Consulting. *Negative binomial regression State annotated output.*
[69] Williams, R. (2020). *Models for count outcomes.* University of Notre Dame.

Exhibit A7

Regression Results: Unexcused Absences

Variable	Incident rate ratio	95% confidence interval
Policy change (17/18 and 18/19)	1.09***	1.03-1.15
504 plan	1.18***	1.11-1.26
Class year (base category is 9th)		
10th	1.36***	1.30-1.42
11th	1.99***	1.88-2.11
12th	3.34***	3.07-3.62
13th	1.56***	1.34-1.81
Disabled	1.42***	1.37-1.48
Expenditure per pupil	1.00***	1.00-1.00
Free and reduced-price lunch	4.02***	3.64-4.44
Homeless	2.43***	2.27-2.61
Gender: Male (base category is female)	1.04***	1.02-1.05
Limited English proficiency	1.38***	1.29-1.47
Migrant	0.88	0.69-1.12
Race (base category is white)		
American Indian/ Alaskan Native	2.09***	1.67-2.62
Asian	0.60***	0.52-0.69
Black/African American	1.77***	1.56-1.99
Hispanic	1.66***	1.51-1.81
Native Hawaiian/ Pacific Islander	2.54***	2.19-2.94
Multiracial	1.41***	1.31-1.53
Constant	0.05***	0.02-0.14
School district clustered errors	YES	
# of school districts	276	
# of observations	2,147,830	
# of students	739,635	

Notes:
Some school districts are omitted from the regression analysis because they did not report unexcused absences or had no high school students.
5,319 students are omitted because they were missing absence, race, or gender data.
*** $p < 0.01$, ** $p < 0.05$, and * $p < 0.1$.

Dependent Variable 2: Dropout

Total population. The second dependent variable, dropout, is binary. 12.2% of the students in our sample have ever dropped out, although some of those students drop out multiple times. We use a logit model for panel data using a random effect to control for student correlated errors. [70] See the discussion under the unexcused absence models for a discussion of panel data. We ran an additional regression model with consistent results to the one reported here that included dummy variables for years rather than the binary indicator of policy change, which are colinear. This information was used to calculate the predicted probability of dropping out used in Exhibit A8.

We have reported the odds ratio below for each of the variables in the model. For a one-unit increase in the explanatory variable, the odds of dropping out changes by the odds ratio. For example, having a 504 plan increases a student's odds of dropping out by a factor of 1.35. The policy change variable is 1 and not significant, meaning that students after the policy change had the same odds of dropping out as those before.

[70] Ordinary least squares (OLS) regression can be biased and inefficient when using a binary variable as a dependent variable. Long & Freese (2014).

Exhibit A8

Regression Results: Dropout

Variable	Odds ratio	95% confidence interval
Policy change (17/18 and 18/19)	1.00	0.95 - 1.06
504 plan	1.35***	1.25 - 1.46
Class year (base category is 9th)		
10th	1.83***	1.72 - 1.94
11th	3.45***	3.14 - 3.8
12th	7.66***	6.79 - 8.64
13th	60.77***	51.35 - 71.92
Disabled	1.11***	1.06 - 1.17
Expenditure per pupil	1.00	0.99 – 1.00
Free and reduced-price lunch	4.26***	3.83 - 4.75
Homeless	3.49***	3.31 - 3.68
Gender: Male (base category is female)	1.46***	1.41 - 1.51
Limited English proficiency	1.44***	1.33 - 1.57
Migrant	0.85***	0.76 - 0.96
Race (base category is white)		
American Indian/ Alaskan Native	2.27***	1.89 - 2.73
Asian	0.36***	0.33 - 0.39
Black/African American	0.94	0.82 - 1.07
Hispanic	1.20***	1.12 - 1.29
Native Hawaiian/ Pacific Islander	0.98	0.84 - 1.15
Multiracial	1.54***	1.43 - 1.66
Constant	0.00***	0.00 – 0.00
School district clustered errors	YES	
# of school districts	265	
# of observations	2,231,300	
# of students	742,860	

Notes:
Some school districts are omitted from the regression analysis because they did not report dropouts or had no high school students. 2,094 students are omitted because they were missing race or gender data.
*** p < 0.01, ** p < 0.05, and * p < 0.1.

IV. Summary Tables

This section of the appendix provides unadjusted descriptive statistics and summary tables on the student outcomes discussed in Section IV.

For some of the exhibits in this section, we include only 9th graders. As previously described in the report, we do this for several reasons. First, practitioners argue that this year is critical in predicting whether students graduate.[71] Second, we are able to look at changes over time for groups of students whose membership isn't overlapping, i.e., students are counted in only one column of a bar graph.[72] Third, it is possible that the preventative aspects of the new policies would have more of an effect on freshmen compared to seniors (who had been attending school under the old policies for three years before the new policies were implemented). By comparing only 9th graders, we are comparing groups who had only a single year of high school either under the old policies or under the new policies.[73]

[71] Allensworth, E.

[72] Students who do not acquire sufficient credits to graduate 9th grade are still defined as 10th graders in their second year of enrollment.

[73] This presumes, of course, that the laws were implemented in 2017/18 for all the students in the analysis. See Section III for a discussion of implementation.

Exhibit A9

Freshman Attendance over Time—Unadjusted Numbers

	Freshman cohort year	Number of 9th graders in the cohort	Average number of total absences (excused and unexcused)	Percentage of students with 1+ unexcused absence	Percentage of students w/ 2-6 unexcused absences	Percentage of students w/ 7+ unexcused absences in a month or 10+ in a year
Before policy change	2012/13	83,313	12.7	44%	20%	9%
	2013/14	83,251	12.4	45%	20%	9%
	2014/15	84,888	12.7	45%	20%	9%
	2015/16	85,571	12.8	44%	19%	9%
	2016/17	84,618	13.3	48%	21%	10%
After policy change	2017/18	85,586	13.1	47%	21%	11%
	2018/19	86,535	13.3	50%	23%	12%

Notes:
Population includes only enrolled 9th graders.
Source: Comprehensive Education Data and Research System (CEDARS).

Exhibit A10

Change in Percentage of Students Who Drop Out Freshman Year by Race—Unadjusted Numbers

	School year	Number of 9th graders in the cohort	American Indian/ Alaskan Native	Asian	Black	Hispanic	Native Hawaiian, Pacific Islander	Multiracial	**White**
Before policy change	2012/2013	83,313	6%	2%	4%	5%	4%	6%	2%
	2013/2014	83,251	7%	2%	4%	4%	5%	7%	2%
	2014/2015	84,888	6%	2%	4%	5%	3%	6%	2%
	2015/2016	85,571	7%	2%	5%	5%	4%	7%	2%
	2016/2017	84,618	7%	2%	4%	4%	3%	7%	2%
After policy change	2017/2018	85,586	7%	3%	4%	5%	2%	7%	3%
	2018/2019	86,535	6%	2%	4%	4%	3%	6%	2%

Notes:
Race categories are developed by WSIPP and applied to CEDARS data.
Source: Comprehensive Education Data and Research System (CEDARS).

For further information, contact:
Madeline Barch at 360.664.9070, madeline.barch@wsipp.wa.gov

Document No. 20-12-2202