2023 Bias Analysis

Sponsoring Washington State Agencies:
Health Care Authority - Division of Behavioral Health and Recovery
Department of Health
Office of Superintendent of Public Instruction
Liquor and Cannabis Board

Prepared by:
Looking Glass Analytics, Inc.
July 2024

Washington State Healthy Youth Survey 2023 Bias Analysis

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In collaboration with members of the Healthy Youth Survey Planning Committee
This report is available online at:
https://www.askhys.net/SurveyResults/OtherStateReports

Data from the 2023 Washington State Healthy Youth Survey and previous administrations of youth surveys in Washington were used in this publication.

The Healthy Youth Survey was administered by the Washington State Health Care Authority Division of Behavioral Health and Recovery, the Department of Health, the Office of the Superintendent of Public Instruction, and the Liquor and Cannabis Board. Healthy Youth Survey Planning Committee includes members of these state agencies and oversaw the implementation of the 2023 survey.

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Summary of Findings

Background

The Healthy Youth Survey (HYS) is Washington State's biennial survey of public school students in grades 6, 8, 10 and 12. Schools are randomly selected into a state sample, but all schools with grades 6, 8, 10 or 12 can volunteer to participate, except for those operated in detention facilities. In this report, the total of all state sample and volunteer schools is called the census.

A simple random sample is generally considered the best method for generating accurate estimates for a larger population, in this case, students attending public schools in Washington State. However, a random sample does not guarantee a representative sample and because not all schools and students invited to participate in the state sample take the survey, we need to check if the participants do, in fact, represent the larger group.

Methods

To assess possible bias in the state sample or census results related to differences in which schools participate, we compared enrollment characteristics of:

- Participating and non-participating schools (see School-level Participation Bias).
- Secondary schools that did not administer the sexual behavior and sexual violence and elementary schools that did not administer the optional gender question (see School-level Exempt/Optional Question Bias).

To assess possible bias in individual student responses and results, we compared HYS demographic and behavioral item responses for:

- Students who finished the survey and those who did not (see Student-level Non-completion Bias and Appendix A for more on methods).

Statistical analyses were done using t-tests, Fisher's exact test, Chi-square tests, and Poisson regression. State sample analysis includes clustering at the school building level, but census results do not include clustering. Each section of this report includes its own detailed methods section. Any finding described as being different, higher, lower, more likely, or less likely are statistically significant and have a p-value less than 0.05. *Caution should be used interpreting these individual values due to the volume of comparisons run and the fact that some of these may be significant due to chance.*

Conclusion

While there is evidence of some impact of bias in the data due to participation and completion patterns, the 2023 Healthy Youth Survey state sample and census results are both generalizable to the majority of students in Washington State.

These findings are generalizable only to Washington State as a whole. They do not apply to smaller geographic areas such as counties or school districts. The smaller sample sizes for smaller geographic areas may be subject to different biases, for example, due to non-participating schools or students in a specific area.

Despite high overall participation rates, certain types of schools (e.g., alternative schools, schools with lower enrollments, rural schools) and demographic groups (e.g., American Indian/Alaska

Native, Black/African American, male students) remain underrepresented. Caution should be used when reporting on underrepresented groups.

The results for the optional Elementary question on gender identity and the Secondary sexual behavior and violence questions should also be interpreted with caution. For the Elementary gender identity, results may not be fully representative of students statewide, as only about half of the participating schools included this question. Participation in sexual behavior and violence question was high overall (about 80%), the option for schools to request exemptions means that the data may not be fully representative of all students statewide. Results may vary significantly for these optional/exempt questions at the local level depending on the participation of individual schools, and broader generalizations should be made carefully.

Not all students completed the survey. Students who did not complete the survey responded to questions differently than students who did complete it. For past HYS administrations, this finding meant that there was bias in how students responded to questions near the end of the survey. For 2023, the questions on the surveys were randomized, so this bias affects questions throughout the survey equally and is not stronger for specific questions.

Summary of School-Level Participation Bias

Participation in the 2023 HYS state sample was high among eligible schools (from 79% to 86% across grade levels). Participation in the census was also high, but slightly lower than the state sample for 6th, 10th, and 12th grades (79% to 80%).

Comparisons between state sample schools that participated and those that did not, found the following differences for at least one grade out of 96 tests:

- Alternative schools and schools with lower enrollments were less likely to participate.
- Non-participating schools had higher percentages of students identifying as "Gender X,", American Indian/Alaska Native, Black/African American, and Native Hawaiian/Pacific Islander enrollments.

Comparisons between census schools that participated and those that did not, found the following differences for at least one grade out of 108 tests:

- Alternative schools and schools with lower enrollments were less likely to participate
- Sub-urban, small town, and isolated/rural schools were less likely to participate compared to urban schools.
- Non-participating schools had higher percentages American Indian/Alaska Native, White, low-income, highly mobile, and disability enrollments and lower percentages of female, Asian, Hispanic/Latino, Native Hawaiian/Pacific Islander, multi-racial, English language learning, highly capable, and Section 504 plan enrollments.
- Non-participating 6th grade schools had higher male enrollment and non-participating 12th grade schools had lower male enrollment.

Demographic Differences among Schools that Did Not Participate in the State Sample and Census, 2023

Lower	Lower than schools that participated	Higher	Higher than schools that participated		Not significantly different	-	Not measured	

School Demographics	State Gr. 6	State Gr. 8	State Gr. 10	State Gr. 12	Census Gr. 6	Census Gr. 8	Census Gr. 10	Census Gr. 12
Grade-level enrollment		Lower			Lower	Lower	Lower	Lower
% Female enrollment					Lower			
% Male enrollment					Higher			Lower
% "Gender X" enrollment		Higher						
% A. Indian/Alaska Native enrollment	Higher				Higher	Higher		
% Asian enrollment					Lower	Lower	Lower	Lower
% Black/African American enrollment			Higher					
% Hispanic/Latino enrollment						Lower		
% NH or Other Pacific Islander enroll.			Higher	Higher	Lower	Lower		
% Two or more race enrollment					Lower	Lower	Lower	Lower
% White enrollment					Higher	Higher		
% English language learner enrollment					Lower	Lower	Lower	
% Highly capable					Lower	Lower	Lower	Lower
% Homeless enrollment								
% Low income enrollment							Higher	Higher
% Migrant enrollment								
% Military parent enrollment								
% Highly mobile family enrollment							Higher	Higher
% Section 504 plan enrollment					Lower	Lower		Lower
% Disabilities enrollment						Higher		
% Met English language arts stand.				-				-
% Met math standards				-				-
% Met science standards	-		-	-	-		-	-
% On-time Graduation	-	-	-		-	-	-	

Summary of School-Level Exempt/Optional Question Bias

School districts could register to ask an optional question on gender identity for elementary students in 2023. About 52% of 6th grade schools in the state sample administered the optional gender identity question ("What is your gender: Boy, Girl, or Something else fits better").

Comparisons between schools that did not administer the optional elementary gender question and those that did, showed the following differences for at least one grade (out of 24 tests for state and 27 for census):

- State sample schools not asking the gender question had lower percentages of students identifying as "Gender X," Asian, Black/African American, multiracial, and Section 504 enrollments and higher percentages of White and highly mobile enrollments.
- Census schools not asking were more likely to include alternative schools and more likely to be sub-urban or isolated rural schools. They had lower grade level enrollment and lower percentages of male, Asian, Black/African American, multiracial, highly capable, homeless, and Section 504 enrollments. They had higher female, Hispanic/Latino, White, low income, and migrant enrollment.

School districts could request an exemption to not ask questions about sexual behavior and sexual violence for secondary students (grades 8, 10, and 12) in 2023. In the state sample, 79% to 82% of

schools administered the sexual behavior and violence questions, which was higher than the 2021 administration (between 52% and 67%) which required no formal exemption request process.

Comparisons between schools that did not administer the secondary sexual behavior and sexual violence questions and those that did, showed the following differences for at least one grade (out of 72 tests for state and 81 for census):

- State sample schools not asking had higher grade level enrollment, higher percentages of White enrollment and lower percentages of homeless enrollment.
- Census schools not asking were less likely to be alternative schools and more likely to be sub-urban or isolated rural schools. They had lower percentages of students identifying as "Gender X," Asian, Black/African American, Native Hawaiian/Pacific Islander, multiracial, homeless, and disability enrollments, and higher percentages of White enrollment.

Demographic Differences among Schools that Did NOT Administer the Exempt/Optional Questions in the State Sample and Census, 2023

Lower	Lower than schools that asked exempt/ optional questions	Higher	Higher than schools that asked exempt/ optional questions		Not significantly different	-	Not measured

School Demographics	State Gr. 6	State Gr. 8	State Gr. 10	State Gr. 12	Census Gr. 6	Census Gr. 8	Census Gr. 10	Census Gr. 12
Grade-level enrollment				Higher	Lower			Higher
% Female enrollment					Higher			
% Male enrollment					Lower			
% "Gender X" enrollment	Lower					Lower	Lower	
% A. Indian/Alaska Native enrollment								
% Asian enrollment	Lower				Lower	Lower	Lower	Lower
% Black/African American enrollment	Lower				Lower	Lower	Lower	Lower
% Hispanic/Latino enrollment					Higher			
% NH or Other Pacific Islander enroll.						Lower	Lower	Lower
% Two or more race enrollment	Lower				Lower	Lower		Lower
% White enrollment	Higher		Higher	Higher	Higher	Higher	Higher	Higher
% English language learner enrollment								
% Highly capable					Lower			
% Homeless enrollment		Lower			Lower	Lower	Lower	Lower
% Low income enrollment					Higher			
% Migrant enrollment					Higher			
% Military parent enrollment								
% Highly mobile family enrollment	Higher							
% Section 504 plan enrollment	Lower				Lower			
% Disabilities enrollment	-				-		Lower	Lower
% Met English language arts stand.				-				-
% Met math standards				-				-
% Met science standards	-		-	-	-		-	-
% On-time Graduation	-	-	-		-	-	-	

Summary of Student-Level Non-Completion Bias

In the state sample, between 77% to 86% of students in grades 6, 8, 10 and 12 "completed" the survey (responded to the last question on the survey).

Overall, students who didn't complete the last survey question responded to survey questions differently than students who completed the last question. Non-completers in the state sample

were less likely to report for at least one grade being Asian, White, and multiracial and more likely to report:

- Lower grades in school and feeling unsafe at school.
- Mother didn't graduate high school, family can't afford housing, food insecurity, and no dental visits in past year.
- Past 30-day e-cigarettes/vape use, marijuana use, and alcohol drinking.
- Non-English spoken at home, migrant status, and having a disability.
- Being American Indian/Alaska Native, Black/African American, and Hispanic/Latino.

Completion rates for the census were the same as the state sample, 77% to 86%. Non-completers in the census also responded differently to survey questions. Non-completers were less likely to report for at least one grade being Asian, White, and multiracial (only for 6th grade) and more likely to report:

- Lower grades in school and feeling unsafe at school.
- Mother didn't graduate high school, family can't afford housing, food insecurity, and no dental visits in past year.
- Past 30-day e-cigarettes/vape use, marijuana use, and alcohol drinking.
- Non-English spoken at home, migrant status, and having a disability.
- Being American Indian/Alaska Native, Black/African American, Hispanic/Latino, Hawaiian/Pacific Islander, and Middle Eastern/North African.
- Being multiracial (only for 12th grade).

Differences between Non-Completers and Completers in the State Sample and Census, 2023

NC Non-Completers: significantly higher; C Completers: significantly higher; Not significantly different; - Not measured

Student Responses	State Gr. 6	State Gr. 8	State Gr. 10	State Gr. 12	Census Gr. 6	Census Gr. 8	Census Gr. 10	Census Gr. 12
Lower grades in school (C's, D's, F's)	NC	NC	NC	NC	NC	NC	NC	NC
Feeling unsafe at school	NC		NC	NC	NC	NC	NC	NC
Mother didn't graduate high school	-	NC	NC	NC	-	NC	NC	NC
Family can't afford housing	-	NC	NC		-	NC	NC	NC
Food insecurity	-	NC	NC	NC	-	NC	NC	NC
No dental visit in last year	-	NC	NC		-	NC	NC	NC
30-day e-cig/vape use		NC	NC	NC	NC	NC	NC	NC
30-day marijuana use		NC	NC	NC	NC	NC	NC	NC
30-day alcohol drinking		NC	NC	NC	NC	NC	NC	NC
Non-English spoken at home		NC	NC		NC	NC	NC	NC
Migrant	NC	NC	NC	NC	NC	NC	NC	NC
Disability	-	NC		NC	-	NC		
Asian AOIC	C	C	C		C	C	C	
American Indian/Alaska Native AOIC				NC		NC	NC	NC
Black/African American AOIC	NC	NC	NC	NC	NC	NC	NC	NC
Hispanic AOIC	NC	NC	NC		NC	NC	NC	NC
Pacific Islander AOIC					NC	NC	NC	NC
Middle Eastern/North African AOIC						NC	NC	NC
White AOIC	C	C	C		C	C	C	C
Multiracial	C				C			NC

AOIC – Race/ethnic groups are reported for students who indicated they are of that particular race or ethnicity, either alone or in combination with another. An additional race category is also displayed that combines students who selected more than one group are reported as "more than one race/ethnicity marked".

Introduction

This bias analysis was conducted to determine if the 2023 Healthy Youth Survey results can be generalized to Washington State Public School students.

The 2023 administration of the Healthy Youth Survey (2023 HYS) represents a collaborative effort among the Health Care Authority - Division of Behavioral Health and Recovery; the Department of Health; the Office of Superintendent of Public Instruction; the Liquor and Cannabis Board, and the contractor, Looking Glass Analytics, Inc. Representatives of these agencies served as members of the Healthy Youth Survey Planning Committee, who guided every aspect of the survey development and implementation.

Most Washington State public schools with grades 6, 8, 10 or 12 were eligible to participate in the 2023 HYS (schools located in detention centers and institutionalized settings were excluded). Online schools and schools without regular classrooms were allowed to participate if they could administer the survey synchronously in a "classroom-like" environment.

A simple random sample of schools was selected into a state sample, though this information was not shared with schools and was not used during recruitment activities. Schools selected for the state sample are called "state sample schools" in this analysis. All schools that were eligible for the 2023 HYS, regardless of sampling status are called "census schools".

For the state sample, the Washington State Department of Health drew three random samples: schools with grade 6, schools with grade 8, and schools with grades 10, 12 or both. Within selected schools, all students in the target grades were invited to participate. This method assured that each eligible student in Washington State had an equal chance of being selected for the state sample. These selection methods maximize the likelihood that students taking the survey as part of the state sample represent students in the specified grades as a whole. However, because a random sample cannot guarantee a representative sample and because not all schools and students invited to participate in the state sample took the survey, we need to check if the participants do in fact represent the larger group.

The Healthy Youth Survey Planning Committee emailed a letter in March 2023 inviting all eligible schools to participate in the 2023 HYS. The 2023 HYS included two survey forms. Schools with students in grade 6 received the Elementary survey; schools with students in grades 8, 10 and 12 received the Secondary survey. Schools that did not want to ask the six questions on sexual behavior and sexual violence on the Secondary survey could request an exemption with justification from their superintendent. Schools that wanted to ask a new optional Elementary question on gender identity, could request the additional question when they registered for the survey.

School participation in the survey is always voluntary, and parents can also opt their students out of the survey by notifying the school. Students can also opt out of the survey before or during the survey or they can choose to skip any questions they do not want to answer.

Student and school non-participation, schools opting out of exempt/optional questions, and students not finishing the survey can all introduce bias into the results such that the findings would not represent public school students in grades 6, 8, 10 and 12 across the full state of Washington. This bias analysis report aims to assess bias by describing potential differences among participants and non-participants at the school and student levels and across completion patterns and if removable questions were administered. Any bias found could influence interpretation of results.

Sources of Bias

Potential sources of bias addressed in this report include:

- **School participation bias**: School participation bias could occur if findings were affected by differences between students in schools that participated and students in schools that chose not to participate in the HYS.
- **Exempt/optional question administration bias:** Some schools opted to add an Elementary question about gender identity and some schools requested formal exemptions to remove questions about sexual behavior and sexual violence from the Secondary survey. Exempt/optional questions bias could occur if schools that did and did not administer the questions are different from each other.
- **Survey completion bias:** Survey completion bias could occur if there are differences between students who completed the survey and those who did not.

Methods

In order to assess bias, we must look at it indirectly. We cannot simply look to see if participating and non-participating schools and students gave different survey responses, because we do not have responses from non-participants.

First, we assessed school characteristics by comparing schools that participated in the survey and schools that did not. For this comparison, we assessed school-level information provided by the Office of Superintendent of Public Instruction (OSPI). To assess possible bias at the **school level**, we compared the characteristics of:

- Participating and non-participating schools.
- Schools that did and did not administer the exemption/optional questions.

Second, we assessed possible bias at the **individual student level** by comparing the characteristics of students who finished the survey and those who did not. The table below summarizes the analyses conducted to assess potential bias at the school and individual student levels.

Sources of potential bias and the level of analysis at which they were assessed in 2023

Source of potential bias	Description	School Level Analysis	Student Level Analysis
School participation	Participating schools compared to non-participating schools	X	
School-level removable question administration	Schools administering exempt/optional questions compared to schools not administering the questions	X	
Student-level survey completion[1]	Students who answered the last question on the survey		X

"State sample" means schools that were randomly selected for the representative state sample.

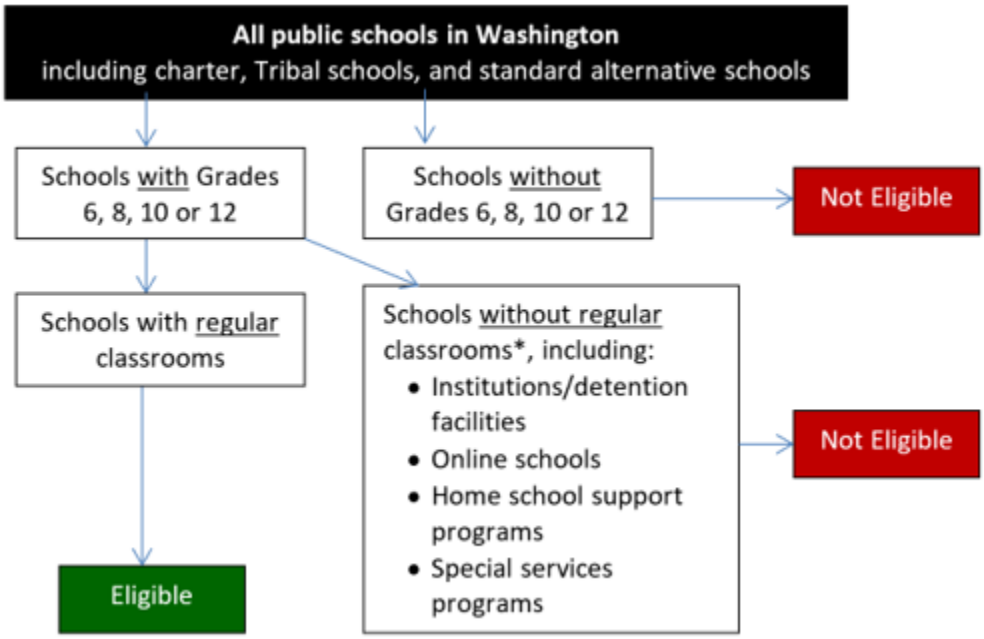
"Census" means all schools that participated in the 2023 HYS (state sample schools plus non-sampled schools).

All analyses were conducted using STATA statistical software package, version 16.0.

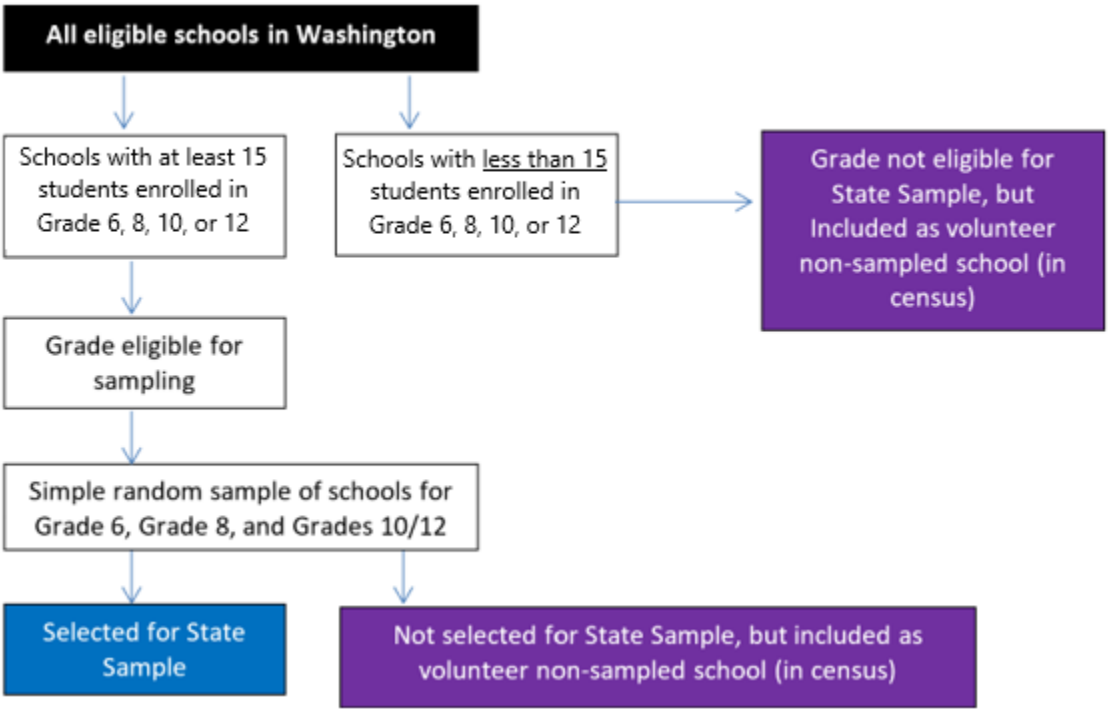
[1] Additional metrics for survey completion were assessed and the results of those analyses can be found in Appendix A

HYS Eligibility and Sampling

School Eligibility for HYS 2023

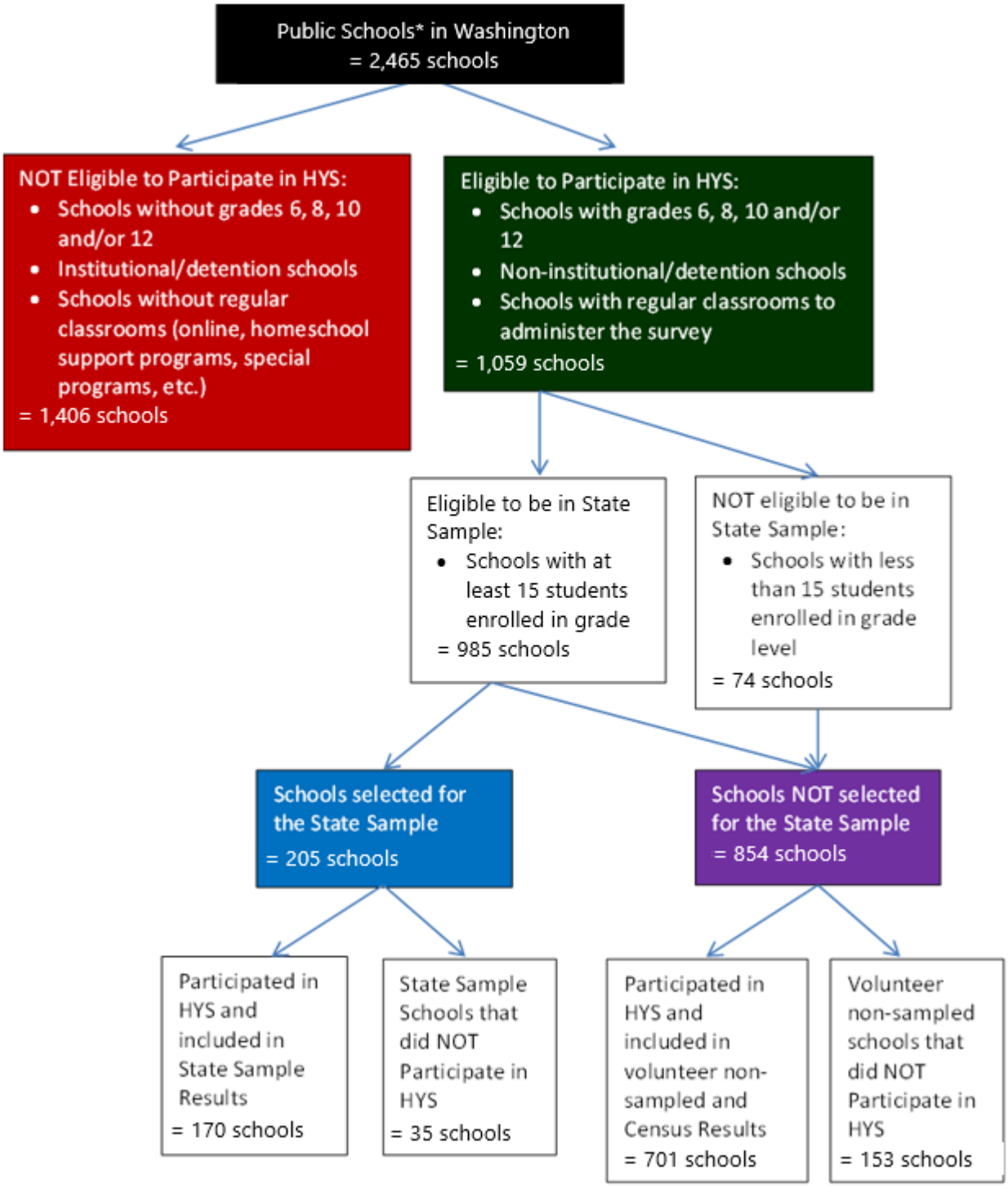


School Sampling for HYS 2023



*Schools without regular classrooms, such as online schools, home school support schools, and special services programs can participate in HYS on request if they can administer the survey in an environment meeting the research requirements of the project.

Description of schools included in the 2023 HYS State Sample and Census



*Public schools include charter, Tribal, and standard alternative schools. Private schools in Washington can participate in HYS, but they are not actively recruited, and their results are not aggregated into district, county, ESD or state results. In 2023, two private school participated in HYS. Private schools are included in this bias analysis.

Methods

To assess bias related to differences among schools that participated and those that did not participate in the survey, we assessed the following school characteristics, available from the Office of Superintendent of Public Instruction: https://www.k12.wa.us/data-reporting/data-portal:

- School participation rates by sampling status
- School type - Alternative school status
- School Demographics
    - School enrollment by grade[2]
    - Percent enrollment by sex, race/ethnicity, English language learners, homeless, Low-income, migrant status, military parent, highly mobile family, Section 504 plans, and disability status[1]
    - On-time graduation rate (for schools with grades 10 and 12)[3]
    - English language arts (ELA), math, and science assessment scores[4]
    - School urban or rural location[5]

We compared the above characteristics for schools that participated in HYS and schools that did not participate, for both the state sample and in the census.

To compare schools by alternative status and urban/rural location, we used Chi-square tests and Fisher's exact when cell sizes were five or fewer. To compare school enrollment, meeting assessment standards, and on-time graduation rates, we used t-tests. A comparison was considered statistically significant if the p-value was less than 0.05. *Caution should be used interpreting these individual values due to the volume of comparisons run and the fact that some of these may be significant due to chance.*

OSPI assigns each public school a school type code. Schools were considered to be non-alternative schools if they had the school type "P". This analysis included 918 public schools (P). School type can be found for each school in the OSPI Education Directory at: https://eds.ospi.k12.wa.us/directoryeds.aspx

For this analysis schools were considered to be alternative schools if they had a school type code of "A", "I", "J", "Q", "R", "T", "V", "Z", or "5",. Charter schools were also included as alternative schools.

Schools that are institutions (I) and detention centers (J) are not eligible to participate in HYS, except for the School for the Blind and the School for the Deaf.

Schools that don't typically have regular classrooms, such as online schools, homeschool support schools, re-engagement schools (R), vocational schools (V), contract schools (Z), and special

[2] OSPI Report Card Enrollment 2023-24 School Year, accessed 4/8/2024 at: https://data.wa.gov/education/Report-Card-Enrollment-2023-24-School-Year/q4ba-s3jc/about_data

[3] OSPI Report Card Graduation 2022-23, accessed 4/8/2024 at: https://data.wa.gov/education/Report-Card-Graduation-2022-23/kigx-4b2d/about_data

[4] OSPI Report Card Assessment 2023-24, accessed 4/8/2024 at: https://data.wa.gov/education/Report-Card-Assessment-Data-2022-23-School-Year/xh7m-utwp/about_data

[5] Washington State Department of Social and Health Services' Research and Data Analysis Division, additional details at: https://www.doh.wa.gov/Portals/1/Documents/1500/RUCAGuide.pdf

education schools (5) are not considered eligible, but can request to participate if students can take the survey anonymously and if they can administer the survey in a classroom environment.

Standard alternative schools (A) are eligible for HYS. The group of alternative schools in this analysis included 118 standard alternative schools (A), plus eight Tribal schools (Q or T), two re-engagement schools (R), two institutional school (I), and 11 charter schools.

Results

School Participation Rates by Sampling Status

A total of 170 schools and 29,109 students contributed data to the statewide sample. In addition, 187,743 students in 701 schools participated in the survey as volunteer non-sampled schools and were included in the census along with the state sample schools.

The tables below show participation rates for state sampled schools and participation rates for census schools. State sample school participation rates were higher than for census schools in grades 6, 10, and 12. Higher participation rates for state sampled schools are expected, because state sample schools are limited to schools with at least 15 students per grade.

Among schools drawn for the state sample, participation rates varied from 79% among 8th grades to 86% among 6th grades.

School participation rate by grade for schools drawn for the state sample, 2023

Grade	Participated	Eligible	Participation Rate (%)
6	75	87	86.2%
8	55	70	78.6%
10	47	56	83.9%
12	49	58	84.5%

The table below provides participation rates by grade for census schools. Participation ranged from 79% to 80%.

School participation rate by grade for the census, 2023

Grade	Participated	Eligible	Participation Rate (%)
6	494	623	79.3%
8	440	549	80.1%
10	378	481	78.6%
12	378	481	78.6%

School Participation Rates by School Type, Alternative and Non-Alternative

Schools with fewer than 15 students per grade were not included in the state sampling frame but were considered eligible to participate in the survey. Often alternative schools have small school enrollments, so they may be less likely to be included in the state sample. Some alternative schools may be less likely to participate because students are in the classroom less often or at different times, making it harder to administer the survey. They might also be less likely to participate if they aren't eligible to receive survey results due to having fewer than 15 students per grade.

Among state sample schools, alternative schools were significantly less likely to participate in HYS for grades 8 and 12.

Participation by alternative school status for the state sample, 2023

Grade	School Type	Did Not Participate %, (n)	Participated %, (n)	Difference (p-value)
6	Non-Alternative	12.7% (n=10)	87.3% (n=69)	-
	Alternative	25.0% (n=2)	75.0% (n=6)	0.3040
8	Non-Alternative	17.2% (n=11)	82.8% (n=53)	-
	Alternative	66.7% (n=4)	33.3% (n=2)	**0.0170**
10	Non-Alternative	13.6% (n=6)	86.4% (n=38)	-
	Alternative	25.0% (n=3)	75.0% (n=9)	0.3850
12	Non-Alternative	7.3% (n=3)	92.7% (n=38)	-
	Alternative	35.3% (n=6)	64.7% (n=11)	**0.0140**

Among census schools, alternative schools were significantly less likely to participate in HYS for all grades.

Participation by alternative school status for the census, 2023

Grade	School Type	Did Not Participate %, (n)	Participated %, (n)	Difference (p-value)
6	Non-Alternative	19.3% (n=110)	80.7% (n=461)	-
	Alternative	36.5% (n=19)	63.5% (n=33)	**0.0030**
8	Non-Alternative	18.0% (n=88)	82.0% (n=401)	-
	Alternative	35.0% (n=21)	65.0% (n=39)	**0.0020**
10	Non-Alternative	17.1% (n=62)	82.9% (n=300)	-
	Alternative	34.5% (n=41)	65.5% (n=78)	**0.0000**
12	Non-Alternative	17.0% (n=61)	83.0% (n=298)	-
	Alternative	34.4% (n=42)	65.6% (n=80)	**0.0000**

School Participation Rates by Urban/Rural Location

Schools were designated as urban, suburban, small town, or isolated rural based on the school building zip code and the associated rural-urban commuting area codes (RUCA), provided by the Washington State Department of Social and Health Services' Research and Data Analysis Division. For more information on how these classifications are defined, please see the Washington State Department of Health's Rural-Urban Classification Guidelines: https://doh.wa.gov/sites/default/files/legacy/Documents/1500//RUCAGuide.pdf

There are too few small town and isolated/rural schools in the state sample to produce stable estimates.

Census 6th, 8th, 10th, and 12th grade isolated rural schools were less likely to participate than urban schools. Sixth and 8th grade small town schools and 8th grade sub-urban schools were also less likely to participate than urban schools.

Participation by rural/urban designation for the census, 2023

Grade	School Type	Did Not Participate %, (n)	Participated %, (n)	Difference (p-value)
6	Urban	11.0% (n=38)	89.0% (n=308)	-
	Sub-Urban	16.7% (n=6)	83.3% (n=30)	0.3130
	Small Town	28.1% (n=9)	71.9% (n=23)	**0.0070**
	Isolated/Rural	36.4% (n=76)	63.6% (n=133)	**0.0000**
8	Urban	10.1% (n=31)	89.9% (n=275)	-
	Sub-Urban	22.6% (n=7)	77.4% (n=24)	**0.0430**
	Small Town	34.5% (n=10)	65.5% (n=19)	**0.0000**

Grade	School Type	Did Not Participate %, (n)	Participated %, (n)	Difference (p-value)
	Isolated/Rural	33.3% (n=61)	66.7% (n=122)	**0.0000**
10	Urban	15.9% (n=39)	84.1% (n=207)	-
	Sub-Urban	12.5% (n=4)	87.5% (n=28)	0.6230
	Small Town	29.6% (n=8)	70.4% (n=19)	0.0780
	Isolated/Rural	29.5% (n=52)	70.5% (n=124)	**0.0010**
12	Urban	15.2% (n=37)	84.8% (n=207)	-
	Sub-Urban	12.5% (n=4)	87.5% (n=28)	0.6910
	Small Town	25.9% (n=7)	74.1% (n=20)	0.1560
	Isolated/Rural	30.9% (n=55)	69.1% (n=123)	**0.0000**

School Participation Rates by School Demographics

Grade 6

State sample 6th grade schools that **did not** participate had significantly higher percentages for students identifying as American Indian or Alaska Native than schools that did participate.

Means for school and grade-level variables by participation for 6th grade state sample schools, 2023

School/Grade-level Variables	Did Not Participate Mean, (n)	Participated Mean, (n)	Difference (p-value)
Grade-level enrollment	139 (n=12)	156 (n=75)	0.598
% Female enrollment	47.3% (n=12)	49.3% (n=73)	0.236
% Male enrollment	52.4% (n=12)	50.5% (n=73)	0.257
% "Gender X" enrollment	0.3% (n=12)	0.1% (n=73)	0.373
% American Indian/Alaska Native enrollment	2.7% (n=12)	0.6% (n=73)	**0.007**
% Asian enrollment	4.2% (n=12)	9.6% (n=73)	0.208
% Black/African American enrollment	8.6% (n=12)	4.2% (n=73)	0.063
% Hispanic/Latino enrollment	16.7% (n=12)	25.2% (n=73)	0.191
% Native Hawaiian/Pacific Islander enrollment	0.8% (n=12)	1.4% (n=73)	0.444
% Two or more race enrollment	9.5% (n=12)	8.8% (n=73)	0.711
% White enrollment	57.5% (n=12)	50.2% (n=73)	0.355
% English language learner enrollment	9.6% (n=12)	13.5% (n=73)	0.361
% Highly capable	9.1% (n=12)	9.0% (n=73)	0.989
% Homeless enrollment	1.8% (n=12)	2.8% (n=73)	0.346
% Low-income enrollment	53.6% (n=12)	48.5% (n=73)	0.476
% Migrant enrollment	1.0% (n=12)	2.3% (n=73)	0.464
% Military parent enrollment	4.0% (n=12)	2.1% (n=73)	0.245
% Highly mobile enrollment	1.8% (n=12)	1.5% (n=73)	0.488
% Section 504 enrollment	4.5% (n=12)	4.8% (n=73)	0.756
% Disabilities enrollment	13.0% (n=12)	14.8% (n=73)	0.399
% Met ELA standards	50.5% (n=10)	48.7% (n=65)	0.746
% Met math standards	41.3% (n=10)	39.1% (n=65)	0.727

Census 6th grade schools that **did not** participate had significantly smaller grade-level enrollment and lower percentages for the following student groups:

- Female students
- Students identifying as Asian
- Students identifying as Native Hawaiian/Pacific Islander
- Students identifying as two or more races
- Students in English language learning

- Highly capable students
- Section 504 students

Census 6th grade schools that **did not** participate had significantly higher percentages for the following student groups:

- Male students
- Students identifying as American Indian/Alaska Native
- Students identifying as White

Means for school and grade-level variables by participation for census 6th grade schools, 2023

School/Grade-level Variables	Did Not Participate Mean, (n)	Participated Mean, (n)	Difference (p-value)
Grade-level enrollment	59 (n=129)	143 (n=494)	**0.000**
% Female enrollment	45.6% (n=125)	48.3% (n=492)	**0.008**
% Male enrollment	54.2% (n=125)	51.4% (n=492)	**0.005**
% "Gender X" enrollment	0.3% (n=125)	0.3% (n=492)	0.746
% American Indian/Alaska Native enrollment	5.3% (n=125)	2.4% (n=492)	**0.010**
% Asian enrollment	2.7% (n=125)	7.1% (n=492)	**0.000**
% Black/African American enrollment	3.1% (n=125)	3.9% (n=492)	0.240
% Hispanic/Latino enrollment	20.5% (n=125)	24.6% (n=492)	0.055
% Native Hawaiian/Pacific Islander enrollment	0.4% (n=125)	1.2% (n=492)	**0.000**
% Two or more race enrollment	7.0% (n=125)	9.0% (n=492)	**0.004**
% White enrollment	61.0% (n=125)	51.9% (n=492)	**0.000**
% English language learner enrollment	7.4% (n=125)	12.2% (n=492)	**0.000**
% Highly capable	5.4% (n=125)	8.9% (n=492)	**0.001**
% Homeless enrollment	2.7% (n=125)	3.0% (n=492)	0.479
% Low-income enrollment	55.3% (n=125)	50.5% (n=492)	0.053
% Migrant enrollment	2.5% (n=125)	2.6% (n=492)	0.814
% Military parent enrollment	1.5% (n=125)	2.1% (n=492)	0.240
% Highly mobile enrollment	2.4% (n=125)	1.9% (n=492)	0.156
% Section 504 enrollment	3.2% (n=125)	5.0% (n=492)	**0.000**
% Disabilities enrollment	15.8% (n=125)	15.5% (n=492)	0.755
% Met ELA standards	45.9% (n=66)	46.5% (n=404)	0.792
% Met math standards	38.1% (n=61)	37.3% (n=393)	0.768

Grade 8

State sample 8th grade schools that **did not** participate had significantly smaller grade-level enrollment and had significantly higher of students identifying as "Gender X"

Means for school and grade-level variables by participation for the 8th grade state sample schools, 2023

School/Grade-level Variables	Did Not Participate Mean, (n)	Participated Mean, (n)	Difference (p-value)
Grade-level enrollment	69 (n=15)	182 (n=55)	**0.000**
% Female enrollment	46.8% (n=15)	49.8% (n=55)	0.102
% Male enrollment	51.9% (n=15)	49.8% (n=55)	0.240
% "Gender X" enrollment	1.3% (n=15)	0.4% (n=55)	**0.008**
% American Indian/Alaska Native enrollment	4.1% (n=15)	1.1% (n=55)	0.095
% Asian enrollment	2.7% (n=15)	7.0% (n=55)	0.120
% Black/African American enrollment	2.3% (n=15)	4.8% (n=55)	0.182
% Hispanic/Latino enrollment	19.4% (n=15)	23.0% (n=55)	0.494
% Native Hawaiian/Pacific Islander enrollment	0.5% (n=15)	1.1% (n=55)	0.262
% Two or more race enrollment	9.1% (n=15)	11.2% (n=55)	0.523

School/Grade-level Variables	Did Not Participate Mean, (n)	Participated Mean, (n)	Difference (p-value)
% White enrollment	61.7% (n=15)	51.9% (n=55)	0.132
% English language learner enrollment	6.6% (n=15)	8.9% (n=55)	0.324
% Highly capable	6.1% (n=15)	10.0% (n=55)	0.132
% Homeless enrollment	2.0% (n=15)	3.2% (n=55)	0.181
% Low-income enrollment	50.9% (n=15)	47.3% (n=55)	0.539
% Migrant enrollment	3.0% (n=15)	2.0% (n=55)	0.552
% Military parent enrollment	2.1% (n=15)	2.5% (n=55)	0.702
% Highly mobile enrollment	2.1% (n=15)	2.0% (n=55)	0.864
% Section 504 enrollment	7.2% (n=15)	6.5% (n=55)	0.633
% Disabilities enrollment	14.3% (n=15)	14.1% (n=55)	0.912
% Met ELA standards	48.3% (n=12)	52.4% (n=35)	0.466
% Met math standards	37.4% (n=9)	35.0% (n=34)	0.696
% Met science standards	40.7% (n=14)	44.5% (n=40)	0.696

Census 8th grade schools that **did not** participate had significantly smaller grade-level enrollment and lower percentages for the following student groups:

- Students identifying as Asian
- Students identifying as Hispanic or Latino
- Students identifying as Native Hawaiian/Pacific Islander
- Students identifying as two or more races
- Students in English language learning
- Highly capable students
- Students with Section 504 plans

Census 8th grade schools that **did not** participate had significantly higher percentages for the following student groups:

- Students identifying as American Indian/Alaska Native
- Students identifying as White
- Students with disabilities

Means for school and grade-level variables by participation for census 8th grade schools, 2023

School/Grade-level Variables	Did Not Participate Mean, (n)	Participated Mean, (n)	Difference (p-value)
Grade-level enrollment	57 (n=109)	165 (n=440)	**0.000**
% Female enrollment	47.4% (n=106)	47.9% (n=437)	0.666
% Male enrollment	52.1% (n=106)	51.6% (n=437)	0.690
% "Gender X" enrollment	0.5% (n=106)	0.5% (n=437)	0.834
% American Indian/Alaska Native enrollment	5.1% (n=106)	2.4% (n=437)	**0.023**
% Asian enrollment	1.9% (n=106)	7.2% (n=437)	**0.000**
% Black/African American enrollment	3.5% (n=106)	4.1% (n=437)	0.472
% Hispanic/Latino enrollment	16.8% (n=106)	25.0% (n=437)	**0.000**
% Native Hawaiian/Pacific Islander enrollment	0.4% (n=106)	1.1% (n=437)	**0.000**
% Two or more race enrollment	5.8% (n=106)	8.8% (n=437)	**0.000**
% White enrollment	66.5% (n=106)	51.4% (n=437)	**0.000**
% English language learner enrollment	5.2% (n=106)	11.3% (n=437)	**0.000**
% Highly capable	4.7% (n=106)	8.5% (n=437)	**0.000**
% Homeless enrollment	2.2% (n=106)	3.0% (n=437)	0.083
% Low-income enrollment	52.0% (n=106)	50.0% (n=437)	0.432
% Migrant enrollment	2.0% (n=106)	2.8% (n=437)	0.234
% Military parent enrollment	1.5% (n=106)	2.0% (n=437)	0.326
% Highly mobile enrollment	1.9% (n=106)	2.3% (n=437)	0.167

School/Grade-level Variables	Did Not Participate Mean, (n)	Participated Mean, (n)	Difference (p-value)
% Section 504 enrollment	3.9% (n=106)	6.1% (n=437)	**0.000**
% Disabilities enrollment	15.8% (n=106)	13.8% (n=437)	**0.039**
% Met ELA standards	46.5% (n=48)	48.0% (n=287)	0.584
% Met math standards	33.0% (n=40)	32.6% (n=272)	0.905
% Met science standards	40.2% (n=47)	40.8% (n=282)	0.824

Grade 10

State sample 10th grade schools that **did not** participate had higher percentages students identifying as Black/African American and Native Hawaiian/Pacific Islander.

Means for school and grade-level variables by participation for 10th grade state sample schools, 2023

School/Grade-level Variables	Did Not Participate Mean, (n)	Participated Mean, (n)	Difference (p-value)
Grade-level enrollment	110 (n=9)	216 (n=47)	0.112
% Female enrollment	51.0% (n=9)	48.0% (n=47)	0.337
% Male enrollment	48.5% (n=9)	51.1% (n=47)	0.416
% "Gender X" enrollment	0.5% (n=9)	0.9% (n=47)	0.563
% American Indian/Alaska Native enrollment	9.4% (n=9)	4.9% (n=47)	0.443
% Asian enrollment	6.1% (n=9)	5.4% (n=47)	0.812
% Black/African American enrollment	9.0% (n=9)	3.5% (n=47)	**0.018**
% Hispanic/Latino enrollment	29.6% (n=9)	27.9% (n=47)	0.837
% Native Hawaiian/Pacific Islander enrollment	2.6% (n=9)	1.0% (n=47)	**0.031**
% Two or more race enrollment	9.4% (n=9)	8.4% (n=47)	0.686
% White enrollment	33.1% (n=9)	49.0% (n=47)	0.102
% English language learner enrollment	10.2% (n=9)	13.2% (n=47)	0.634
% Highly capable	8.2% (n=9)	7.0% (n=47)	0.725
% Homeless enrollment	3.5% (n=9)	5.8% (n=47)	0.446
% Low-income enrollment	67.5% (n=9)	52.2% (n=47)	0.052
% Migrant enrollment	1.5% (n=9)	4.3% (n=47)	0.468
% Military parent enrollment	2.9% (n=9)	1.6% (n=47)	0.212
% Highly mobile enrollment	2.6% (n=9)	3.8% (n=47)	0.422
% Section 504 enrollment	6.9% (n=9)	6.8% (n=47)	0.954
% Disabilities enrollment	15.0% (n=9)	14.2% (n=47)	0.802
% Met ELA standards	57.9% (n=6)	59.4% (n=17)	0.879
% Met math standards	34.5% (n=6)	30.6% (n=15)	0.687

Census 10th grade schools that **did not** participate had significantly smaller grade-level enrollment and lower percentages for the following student groups:

- Students identifying as Asian
- Students identifying as two or more races
- Students in English language learning
- Highly capable students

Census 10th grade schools that **did not** participate had significantly higher percentages for the following student groups:

- Students from low-income families
- Students from highly mobile families

Means for school and grade-level variables by participation for census 10th grade schools, 2023

School/Grade-level Variables	Did Not Participate Mean, (n)	Participated Mean, (n)	Difference (p-value)
Grade-level enrollment	61 (n=103)	209 (n=378)	**0.000**
% Female enrollment	49.0% (n=99)	48.3% (n=374)	0.607
% Male enrollment	49.4% (n=99)	50.7% (n=374)	0.344
% "Gender X" enrollment	1.6% (n=99)	1.0% (n=374)	0.128
% American Indian/Alaska Native enrollment	5.3% (n=99)	3.1% (n=374)	0.107
% Asian enrollment	1.9% (n=99)	6.0% (n=374)	**0.000**
% Black/African American enrollment	3.5% (n=99)	3.5% (n=374)	0.991
% Hispanic/Latino enrollment	23.8% (n=99)	24.9% (n=374)	0.638
% Native Hawaiian/Pacific Islander enrollment	0.9% (n=99)	0.9% (n=374)	0.959
% Two or more race enrollment	6.3% (n=99)	8.4% (n=374)	**0.009**
% White enrollment	58.0% (n=99)	53.1% (n=374)	0.079
% English language learner enrollment	6.0% (n=99)	9.6% (n=374)	**0.008**
% Highly capable	3.8% (n=99)	6.2% (n=374)	**0.002**
% Homeless enrollment	3.6% (n=99)	3.9% (n=374)	0.621
% Low-income enrollment	60.9% (n=99)	50.2% (n=374)	**0.000**
% Migrant enrollment	3.8% (n=99)	2.8% (n=374)	0.323
% Military parent enrollment	1.2% (n=99)	1.6% (n=374)	0.237
% Highly mobile enrollment	5.4% (n=99)	3.6% (n=374)	**0.011**
% Section 504 enrollment	6.8% (n=99)	7.8% (n=374)	0.195
% Disabilities enrollment	14.0% (n=99)	14.5% (n=374)	0.645
% Met ELA standards	53.1% (n=48)	54.5% (n=186)	0.636
% Met math standards	27.6% (n=34)	28.7% (n=154)	0.713

Grade 12

State sample 12th grade schools that **did not** participate had higher percentages of students identifying as Native Hawaiian/Pacific Islander.

Means for school and grade-level variables by participation for 12th grade state sample schools, 2023

School/Grade-level Variables	Did Not Participate Mean, (n)	Participated Mean, (n)	Difference (p-value)
Grade-level enrollment	111 (n=9)	195 (n=49)	0.149
% Female enrollment	43.1% (n=9)	46.3% (n=49)	0.312
% Male enrollment	56.6% (n=9)	53.0% (n=49)	0.286
% "Gender X" enrollment	0.3% (n=9)	0.7% (n=49)	0.594
% American Indian/Alaska Native enrollment	10.8% (n=9)	3.9% (n=49)	0.226
% Asian enrollment	3.8% (n=9)	6.0% (n=49)	0.514
% Black/African American enrollment	4.3% (n=9)	3.8% (n=49)	0.832
% Hispanic/Latino enrollment	31.7% (n=9)	27.4% (n=49)	0.623
% Native Hawaiian/Pacific Islander enrollment	3.2% (n=9)	0.9% (n=49)	**0.002**
% Two or more race enrollment	8.4% (n=9)	8.6% (n=49)	0.945
% White enrollment	37.7% (n=9)	49.3% (n=49)	0.222
% English language learner enrollment	11.0% (n=9)	11.8% (n=49)	0.896
% Highly capable	2.3% (n=9)	6.4% (n=49)	0.142
% Homeless enrollment	5.3% (n=9)	6.2% (n=49)	0.771
% Low-income enrollment	63.0% (n=9)	50.6% (n=49)	0.123
% Migrant enrollment	2.7% (n=9)	4.7% (n=49)	0.587
% Military parent enrollment	1.5% (n=9)	1.6% (n=49)	0.991
% Highly mobile enrollment	2.8% (n=9)	3.5% (n=49)	0.630

School/Grade-level Variables	Did Not Participate Mean, (n)	Participated Mean, (n)	Difference (p-value)
% Section 504 enrollment	8.0% (n=9)	7.7% (n=49)	0.919
% Disabilities enrollment	17.0% (n=9)	13.7% (n=49)	0.258
% On-time Graduation	79.1% (n=7)	80.9% (n=40)	0.796

Census 12th grade schools that **did not** participate had significantly smaller grade-level enrollment and lower percentages for the following student groups:

- Male students
- Students identifying as Asian
- Students identifying as two or more races
- Highly capable students
- Students with Section 504 plans

Census 12th grade schools that **did not** participate had significantly higher percentages for the following student groups:

- Students from low-income families
- Students from highly mobile families

Means for school and grade-level variables by participation for census 12th grade schools, 2023

School/Grade-level Variables	Did Not Participate Mean, (n)	Participated Mean, (n)	Difference (p-value)
Grade-level enrollment	68 (n=103)	197 (n=378)	**0.000**
% Female enrollment	50.3% (n=102)	48.0% (n=375)	0.056
% Male enrollment	48.6% (n=102)	51.2% (n=375)	**0.034**
% "Gender X" enrollment	1.1% (n=102)	0.8% (n=375)	0.416
% American Indian/Alaska Native enrollment	5.2% (n=102)	3.2% (n=375)	0.142
% Asian enrollment	3.0% (n=102)	6.4% (n=375)	**0.001**
% Black/African American enrollment	3.7% (n=102)	3.7% (n=375)	0.952
% Hispanic/Latino enrollment	25.6% (n=102)	24.5% (n=375)	0.649
% Native Hawaiian/Pacific Islander enrollment	0.9% (n=102)	0.9% (n=375)	0.929
% Two or more race enrollment	6.6% (n=102)	8.0% (n=375)	**0.046**
% White enrollment	55.0% (n=102)	53.3% (n=375)	0.518
% English language learner enrollment	7.2% (n=102)	9.0% (n=375)	0.147
% Highly capable	3.2% (n=102)	5.9% (n=375)	**0.000**
% Homeless enrollment	5.0% (n=102)	4.3% (n=375)	0.324
% Low-income enrollment	56.7% (n=102)	47.4% (n=375)	**0.000**
% Migrant enrollment	3.1% (n=102)	3.0% (n=375)	0.835
% Military parent enrollment	0.9% (n=102)	1.6% (n=375)	0.076
% Highly mobile enrollment	4.8% (n=102)	3.5% (n=375)	**0.038**
% Section 504 enrollment	6.5% (n=102)	8.1% (n=375)	**0.041**
% Disabilities enrollment	14.6% (n=102)	14.6% (n=375)	0.975
% On-time Graduation	79.6% (n=56)	83.1% (n=299)	0.111

School Participation Rates by Survey Location

For 2023, the survey was only available as an online survey. Most surveys were taken by students in classrooms on school property. Schools without traditional in-person classrooms could administer the survey remotely if the survey was given in an online class environment.

Among state sample schools overall, about 1% of students took the survey remotely (not on school property) during a class period. Some students may have responded in error to this question saying

that they were taking the survey remotely, even though they were on school property. These survey responses were not removed from the final data. The following analysis attempts to quantify this.

Percent of students with remote administration for the state sample, 2023

Grade	Student On Property Administration % (n)	Student Remote Administration % (n)
6	99.5% (9,651)	0.5% (45)
8	99.5% (8,109)	0.5% (39)
10	99.4% (7,062)	0.6% (43)
12	98.7% (4,104)	1.4% (56)

Looking more closely at the percentage of students within the state sampled schools that reported that they were taking the survey remotely, between 51% and 75% of schools did not have any students who took the survey remotely. About 25% of 6th grade, 40% of 8th grade, 30% of 10th grade, and 43% of 12th grade schools reported having some (less than 10%) of students take the survey remotely. Students in these schools may have specific classrooms where the survey was offered remotely or they may have mistakenly selected that they were taking the survey off of school property when answering the survey. Only a handful of state sample schools had more than 10% of their students take the survey remotely.

Percent of schools with remote administration for the state sample, 2023

Grade	Schools with 0% Remote Administration % (n)	Schools with 1-2% Remote Administration % (n)	Schools with 3-9% Remote Administration % (n)	Schools with 10% or More Remote Administration % (n)
6	74.7% (56)	22.7% (17)	2.7% (2)	0.0% (0)
8	60.0% (33)	40.0% (22)	0.0% (0)	0.0% (0)
10	68.1% (32)	19.1% (9)	10.6% (5)	2.1% (1)
12	51.0% (25)	22.4% (11)	20.4% (10)	6.1% (3)

Similarly, about 1% of students in census schools took the survey remotely.

Percent of students with remote administration for the census, 2023

Grade	Student On Property Administration % (n)	Student Remote Administration % (n)
6	99.4% (58,284)	0.6% (361)
8	99.3% (58,549)	0.8% (443)
10	99.2% (52,696)	0.8% (447)
12	98.5% (33,224)	1.5% (497)

Between 59% and 77% of census schools did not have any students take the survey remotely and 20% to 37% had less than 10% of their students take the survey remotely. Only about 5% or less of schools had more than 10% of their students take the survey remotely.

Percent of schools with remote administration for the census, 2023

Grade	Schools with 0% Remote Administration % (n)	Schools with 1-2% Remote Administration % (n)	Schools with 3-9% Remote Administration % (n)	Schools with 10% or More Remote Administration % (n)
6	77.3% (382)	18.4% (91)	2.0% (10)	2.2% (11)
8	72.3% (318)	22.0% (97)	2.3% (10)	3.4% (15)
10	69.6% (263)	20.1% (76)	5.8% (22)	4.5% (17)
12	58.5% (221)	23.0% (87)	13.5% (51)	5.0% (19)

Methods

For 2023, schools taking the Elementary survey could register to ask an optional question about gender identity. Schools taking the Secondary survey could request an exemption from asking the sexual behavior and sexual violence questions.

To assess bias related to differences among schools that did and did not ask the exempt or optional questions, we assessed the following school characteristics, available from the Office of Superintendent of Public Instruction at http://reportcard.ospi.k12.wa.us/DataDownload.aspx:

- School participation rates by sampling status
- School type - Alternative school status
- School Demographics
    - School enrollment by grade[1]
    - Percent enrollment by sex, race/ethnicity, English language learners, highly capable, homeless, low-income, migrant status, military parent, highly mobile family, Section 504 plans, and disability status[1]
    - On-time graduation rate (for schools with grades 10 and 12)[2]
    - English language arts (ELA), math, and science assessment scores[3]
    - School urban or rural location[4]

We compared the above characteristics for schools that administered the exempt/optional questions in the state sample and in the census to those that did not ask the exempt/optional questions.

To compare schools by alternative status and urban/rural location, we used Chi-square tests and Fisher's exact when cell sizes were five or fewer. To compare grade-level school enrollment, meeting assessment standards, and on-time graduation rates we used t-tests. A comparison was considered statistically significant if the p-value was less than 0.05. *Caution should be used interpreting these individual values due to the volume of comparisons run and the fact that some of these may be significant due to chance.*

Results

Exempt/Optional Question Participation Rates by Sampling Status

Among state sample schools, 52% of 6th grade participating schools administered the optional gender identity question. 82% of 8th grade, 79% of 10th grade, and 82% of 12th grade participating

[1] OSPI Report Card Enrollment 2023-24 School Year, accessed 4/8/2024 at: https://data.wa.gov/education/Report-Card-Enrollment-2023-24-School-Year/q4ba-s3jc/about_data
[2] OSPI Report Card Graduation 2022-23, accessed 4/8/2024 at: https://data.wa.gov/education/Report-Card-Graduation-2022-23/kigx-4b2d/about_data
[3] OSPI Report Card Assessment 2023-24, accessed 4/8/2024 at: https://data.wa.gov/education/Report-Card-Assessment-Data-2022-23-School-Year/xh7m-utwp/about_data
[4] Washington State Department of Social and Health Services' Research and Data Analysis Division, additional details at: https://www.doh.wa.gov/Portals/1/Documents/1500/RUCAGuide.pdf

schools administered the sexual behavior and sexual violence questions. The percent of state sample schools was similar to the percent of census schools who administered exempt/optional questions.

Exempt/Optional question administration status by grade state sample schools, 2023

Grade	Participated	Exempt/Optional Questions Administered (n)	Exempt/Optional Questions Administered (%)	Exempt/Optional Questions Not Administered (%)
6	75	39	52.0%	48.0%
8	55	45	81.8%	18.2%
10	47	37	78.7%	21.3%
12	49	40	81.6%	18.4%

Exempt/Optional question administration status by grade for census schools, 2023

Grade	Participated	Exempt/Optional Questions Administered (n)	Exempt/Optional Questions Administered (%)	Exempt/Optional Questions Not Administered (%)
6	494	241	48.8%	51.2%
8	440	347	78.9%	21.1%
10	378	298	78.8%	21.2%
12	378	299	79.1%	20.9%

Exempt/Optional Questions by School Type – Alternative and Non-Alternative Schools

Among state sample schools, alternative schools were just as likely as non-alternative schools to administer the exempt/optional questions.

Exempt/Optional question administration by alternative school status for state sample schools, 2023

Grade	School Type	Optional/Exempt Questions Administered (n)	Exempt/Optional Questions Not Administered (%)	Difference (p-value)
6	Non-Alternative	50.7% (n=35)	49.3% (n=34)	-
	Alternative	66.7% (n=4)	33.3% (n=2)	0.6760
8	Non-Alternative	81.1% (n=43)	18.9% (n=10)	-
	Alternative	100.0% (n=2)	0.0% (n=0)	1.0000
10	Non-Alternative	73.7% (n=28)	26.3% (n=10)	-
	Alternative	100.0% (n=9)	0.0% (n=0)	0.1720
12	Non-Alternative	76.3% (n=29)	23.7% (n=9)	-
	Alternative	100.0% (n=11)	0.0% (n=0)	0.0980

Among census schools, alternative 6th grade schools were more likely to administer the optional gender question and alternative 8th grade schools were more likely to administer the sexual behavior and sexual violence questions than non-alternative schools.

Exempt/Optional question administration by alternative school status for census schools, 2023

Grade	School Type	Optional/Exempt Questions Administered (n)	Exempt/Optional Questions Not Administered (%)	Difference (p-value)
6	Non-Alternative	46.4% (n=214)	53.6% (n=247)	-
	Alternative	81.8% (n=27)	18.2% (n=6)	**0.0000**
8	Non-Alternative	77.6% (n=311)	22.4% (n=90)	-

	Alternative	92.3% (n=36)	7.7% (n=3)	**0.0310**
10	Non-Alternative	78.3% (n=235)	21.7% (n=65)	-
	Alternative	80.8% (n=63)	19.2% (n=15)	0.6390
12	Non-Alternative	78.5% (n=234)	21.5% (n=64)	-
	Alternative	81.3% (n=65)	18.8% (n=15)	0.5940

Exempt/Optional Questions by Community Demographics

There are too few small town and isolated/rural schools in the state sample to produce stable estimates.

Census 6th grade sub-urban and isolated/rural schools were less likely to ask the optional gender question compared to urban schools. Census 8th, 10th, and 12th grade isolated schools were less likely to ask the sexual behavior and sexual violence questions compared to urban schools.

Exempt/Optional question participation by rural/urban designation for census schools, 2023

Grade	School Type	School Asked Removable Questions %, (n)	School Did Not Ask Removable Questions %, (n)	Difference *(p-value)**
6	Urban	59.1% (n=182)	40.9% (n=126)	-
	Sub-Urban	40.0% (n=12)	60.0% (n=18)	**0.0480**
	Small Town	43.5% (n=10)	56.5% (n=13)	0.1490
	Isolated/Rural	27.8% (n=37)	72.2% (n=96)	**0.0000**
8	Urban	81.1% (n=223)	18.9% (n=52)	-
	Sub-Urban	83.3% (n=20)	16.7% (n=4)	0.7870
	Small Town	94.7% (n=18)	5.3% (n=1)	0.1670
	Isolated/Rural	70.5% (n=86)	29.5% (n=36)	**0.0200**
10	Urban	81.2% (n=168)	18.8% (n=39)	-
	Sub-Urban	89.3% (n=25)	10.7% (n=3)	0.3000
	Small Town	89.5% (n=17)	10.5% (n=2)	0.3760
	Isolated/Rural	71.0% (n=88)	29.0% (n=36)	**0.0330**
12	Urban	81.6% (n=169)	18.4% (n=38)	-
	Sub-Urban	89.3% (n=25)	10.7% (n=3)	0.3240
	Small Town	85.0% (n=17)	15.0% (n=3)	0.7100
	Isolated/Rural	71.5% (n=88)	28.5% (n=35)	**0.0340**

Asking Gender Identity Question by School Demographics

Schools with Grade 6 Students

State sample 6th grade schools that **did not ask** the optional gender identity question had lower percentages for the following student groups:

- Students identifying as "Gender X"
- Students identifying as Asian
- Students identifying as Black/African American
- Students identifying as two or more races
- Students with Section 504 plans

State sample 6th grade schools that **did not ask** the optional gender identity question had higher percentages for the following student groups:

- Students identifying as White
- Students from highly mobile families

Means for school demographics by optional gender identity question participation for state sample 6th grade schools, 2023

School/Grade-level Variables	Administered Optional Question Mean (n)	Did Not Administer Optional Question Mean (n)	Difference (p-value)
Grade-level enrollment	162 (n=39)	149 (n=36)	0.574
% Female enrollment	48.4% (n=38)	50.3% (n=35)	0.068
% Male enrollment	51.3% (n=38)	49.6% (n=35)	0.102
% "Gender X" enrollment	0.2% (n=38)	0.0% (n=35)	**0.023**
% American Indian/Alaska Native enrollment	0.6% (n=38)	0.7% (n=35)	0.820
% Asian enrollment	13.7% (n=38)	5.2% (n=35)	**0.012**
% Black/African American enrollment	5.6% (n=38)	2.7% (n=35)	**0.021**
% Hispanic/Latino enrollment	24.5% (n=38)	25.9% (n=35)	0.791
% Native Hawaiian/Pacific Islander enrollment	1.4% (n=38)	1.3% (n=35)	0.761
% Two or more race enrollment	10.1% (n=38)	7.4% (n=35)	**0.036**
% White enrollment	44.1% (n=38)	56.9% (n=35)	**0.021**
% English language learner enrollment	14.5% (n=38)	12.3% (n=35)	0.499
% Highly capable	9.9% (n=38)	8.1% (n=35)	0.391
% Homeless enrollment	3.3% (n=38)	2.4% (n=35)	0.321
% Low-income enrollment	46.3% (n=38)	50.9% (n=35)	0.382
% Migrant enrollment	1.9% (n=38)	2.7% (n=35)	0.577
% Military parent enrollment	2.8% (n=38)	1.4% (n=35)	0.163
% Highly mobile enrollment	1.0% (n=38)	2.0% (n=35)	**0.002**
% Section 504 enrollment	5.6% (n=38)	3.9% (n=35)	**0.034**
% Disabilities enrollment	16.3% (n=38)	13.2% (n=35)	0.062
% Met ELA standards	49.9% (n=36)	47.2% (n=29)	0.520
% Met math standards	40.5% (n=36)	37.3% (n=29)	0.501

Census 6th grade schools that **did not ask** the optional gender identity question had lower grade level enrollment and percentages for the following student groups:

- Male students
- Students identifying as Asian
- Students identifying as Black/African American
- Students identifying as two or more races
- Highly capable students
- Students from homeless families
- Students with Section 504 plans
- Students with disabilities

Census 6th grade schools that **did not ask** the optional gender identity question had higher percentages for the following student groups:

- Female students
- Students identifying as Hispanic/Latino
- Students identifying as White
- Students from low-income families
- Students from migrant families

Means for school demographics by optional gender identity question participation for census 6th grade schools, 2023

School/Grade-level Variables	Administered Optional Question Mean (n)	Did Not Administer Optional Question Mean (n)	Difference (p-value)
Grade-level enrollment	154 (n=241)	133 (n=253)	**0.022**
% Female enrollment	47.0% (n=240)	49.5% (n=252)	**0.000**
% Male enrollment	52.5% (n=240)	50.3% (n=252)	**0.000**
% "Gender X" enrollment	0.5% (n=240)	0.2% (n=252)	0.163
% American Indian/Alaska Native enrollment	2.9% (n=240)	1.9% (n=252)	0.223
% Asian enrollment	10.1% (n=240)	4.3% (n=252)	**0.000**
% Black/African American enrollment	5.7% (n=240)	2.2% (n=252)	**0.000**
% Hispanic/Latino enrollment	22.5% (n=240)	26.5% (n=252)	**0.037**
% Native Hawaiian/Pacific Islander enrollment	1.4% (n=240)	1.0% (n=252)	0.065
% Two or more race enrollment	10.1% (n=240)	8.0% (n=252)	**0.000**
% White enrollment	47.3% (n=240)	56.2% (n=252)	**0.000**
% English language learner enrollment	13.0% (n=240)	11.5% (n=252)	0.197
% Highly capable	10.0% (n=240)	7.8% (n=252)	**0.007**
% Homeless enrollment	3.5% (n=240)	2.6% (n=252)	**0.017**
% Low-income enrollment	47.8% (n=240)	53.0% (n=252)	**0.015**
% Migrant enrollment	1.7% (n=240)	3.5% (n=252)	**0.005**
% Military parent enrollment	2.5% (n=240)	1.7% (n=252)	0.051
% Highly mobile enrollment	1.9% (n=240)	2.0% (n=252)	0.551
% Section 504 enrollment	5.5% (n=240)	4.5% (n=252)	**0.009**
% Disabilities enrollment	16.7% (n=240)	14.4% (n=252)	**0.001**
% Met ELA standards	47.7% (n=201)	45.4% (n=203)	0.194
% Met math standards	38.7% (n=194)	36.0% (n=199)	0.147

Asking Sexual Behavior/Violence Questions by School Demographics

Schools with Grade 8 Students

State sample 8th grade schools that **did not ask** the sexual behavior/violence questions had lower percentages of students from homeless families.

Means for school demographics by sexual behavior/violence questions participation for state sample 8th grade schools, 2023

School/Grade-level Variables	Administered Exempt Questions Mean (n)	Did Not Administer Exempt Questions Mean (n)	Difference (p-value)
Grade-level enrollment	173 (n=45)	224 (n=10)	0.163
% Female enrollment	50.1% (n=45)	48.5% (n=10)	0.469
% Male enrollment	49.4% (n=45)	51.1% (n=10)	0.412
% "Gender X" enrollment	0.5% (n=45)	0.3% (n=10)	0.552
% American Indian/Alaska Native enrollment	1.2% (n=45)	1.1% (n=10)	0.894
% Asian enrollment	8.0% (n=45)	2.5% (n=10)	0.134
% Black/African American enrollment	5.5% (n=45)	1.3% (n=10)	0.070
% Hispanic/Latino enrollment	21.6% (n=45)	29.0% (n=10)	0.266
% Native Hawaiian/Pacific Islander enrollment	1.2% (n=45)	0.5% (n=10)	0.356
% Two or more race enrollment	11.5% (n=45)	10.0% (n=10)	0.720
% White enrollment	51.0% (n=45)	55.6% (n=10)	0.538
% English language learner enrollment	9.0% (n=45)	8.8% (n=10)	0.968
% Highly capable	9.8% (n=45)	10.5% (n=10)	0.837
% Homeless enrollment	3.6% (n=45)	1.3% (n=10)	**0.028**

School/Grade-level Variables	Administered Exempt Questions Mean (n)	Did Not Administer Exempt Questions Mean (n)	Difference (p-value)
% Low-income enrollment	47.8% (n=45)	44.8% (n=10)	0.659
% Migrant enrollment	1.8% (n=45)	3.0% (n=10)	0.507
% Military parent enrollment	2.7% (n=45)	2.0% (n=10)	0.624
% Highly mobile enrollment	1.9% (n=45)	2.1% (n=10)	0.781
% Section 504 enrollment	6.5% (n=45)	6.5% (n=10)	0.997
% Disabilities enrollment	14.3% (n=45)	13.2% (n=10)	0.584
% Met ELA standards	50.9% (n=29)	59.6% (n=6)	0.220
% Met math standards	35.0% (n=27)	35.1% (n=7)	0.986
% Met science standards	43.7% (n=33)	48.1% (n=7)	0.479

Census 8th grade schools that **did not ask** the sexual behavior/violence questions had lower percentages for the following student groups:

- Students identifying as "Gender X,"
- Students identifying as Asian
- Students identifying as Black/African American
- Students identifying as Native Hawaiian/Pacific Islander
- Students identifying as two or more races
- Students from homeless families

Census 8th grade schools that **did not ask** the sexual behavior/violence questions had higher percentages for the following student groups:

- Students identifying as White

Means for school demographics by sexual behavior/violence questions participation for census 8th grade schools, 2023

School/Grade-level Variables	Administered Exempt Questions Mean (n)	Did Not Administer Exempt Questions Mean (n)	Difference (p-value)
Grade-level enrollment	163 (n=347)	173 (n=93)	0.431
% Female enrollment	47.8% (n=344)	48.5% (n=93)	0.456
% Male enrollment	51.7% (n=344)	51.4% (n=93)	0.738
% "Gender X" enrollment	0.6% (n=344)	0.2% (n=93)	**0.049**
% American Indian/Alaska Native enrollment	2.7% (n=344)	1.2% (n=93)	0.143
% Asian enrollment	8.4% (n=344)	2.6% (n=93)	**0.000**
% Black/African American enrollment	4.8% (n=344)	1.6% (n=93)	**0.000**
% Hispanic/Latino enrollment	25.0% (n=344)	25.2% (n=93)	0.912
% Native Hawaiian/Pacific Islander enrollment	1.2% (n=344)	0.7% (n=93)	**0.050**
% Two or more race enrollment	9.3% (n=344)	6.7% (n=93)	**0.001**
% White enrollment	48.6% (n=344)	61.9% (n=93)	**0.000**
% English language learner enrollment	11.7% (n=344)	9.7% (n=93)	0.140
% Highly capable	8.4% (n=344)	8.7% (n=93)	0.764
% Homeless enrollment	3.3% (n=344)	1.9% (n=93)	**0.003**
% Low-income enrollment	50.8% (n=344)	46.9% (n=93)	0.154
% Migrant enrollment	2.7% (n=344)	3.1% (n=93)	0.621
% Military parent enrollment	1.8% (n=344)	2.5% (n=93)	0.175
% Highly mobile enrollment	2.3% (n=344)	2.5% (n=93)	0.421
% Section 504 enrollment	6.1% (n=344)	6.2% (n=93)	0.834
% Disabilities enrollment	14.0% (n=344)	12.8% (n=93)	0.120
% Met ELA standards	48.0% (n=225)	48.0% (n=62)	0.984
% Met math standards	33.4% (n=213)	29.8% (n=59)	0.156

School/Grade-level Variables	Administered Exempt Questions Mean (n)	Did Not Administer Exempt Questions Mean (n)	Difference (p-value)
% Met science standards	40.6% (n=225)	41.5% (n=57)	0.718

Schools with Grade 10 Students

State sample 10th grade schools that **did not ask** the sexual behavior/violence questions had higher percentages of students identifying as White.

Means for school demographics by sexual behavior/violence questions participation for state sample 10th grade schools, 2023

School/Grade-level Variables	Administered Exempt Questions Mean (n)	Did Not Administer Exempt Questions Mean (n)	Difference (p-value)
Grade-level enrollment	192 (n=37)	304 (n=10)	0.092
% Female enrollment	48.9% (n=37)	45.0% (n=10)	0.227
% Male enrollment	50.1% (n=37)	54.8% (n=10)	0.147
% "Gender X" enrollment	1.0% (n=37)	0.2% (n=10)	0.241
% American Indian/Alaska Native enrollment	6.0% (n=37)	0.6% (n=10)	0.259
% Asian enrollment	6.3% (n=37)	1.9% (n=10)	0.185
% Black/African American enrollment	4.0% (n=37)	1.3% (n=10)	0.083
% Hispanic/Latino enrollment	28.6% (n=37)	25.3% (n=10)	0.677
% Native Hawaiian/Pacific Islander enrollment	1.0% (n=37)	0.9% (n=10)	0.809
% Two or more race enrollment	8.8% (n=37)	7.1% (n=10)	0.467
% White enrollment	45.2% (n=37)	63.0% (n=10)	**0.049**
% English language learner enrollment	14.7% (n=37)	7.8% (n=10)	0.281
% Highly capable	6.7% (n=37)	8.1% (n=10)	0.651
% Homeless enrollment	6.8% (n=37)	2.2% (n=10)	0.137
% Low-income enrollment	52.4% (n=37)	51.5% (n=10)	0.901
% Migrant enrollment	4.7% (n=37)	3.1% (n=10)	0.703
% Military parent enrollment	1.3% (n=37)	2.4% (n=10)	0.248
% Highly mobile enrollment	4.2% (n=37)	2.3% (n=10)	0.226
% Section 504 enrollment	7.0% (n=37)	6.0% (n=10)	0.582
% Disabilities enrollment	14.9% (n=37)	11.8% (n=10)	0.265
% Met ELA standards	58.4% (n=13)	62.6% (n=4)	0.729
% Met math standards	29.0% (n=11)	35.0% (n=4)	0.608

Census 10th grade schools that **did not ask** the sexual behavior/violence questions had lower percentages for the following student groups:

- Students identifying as "Gender X,"
- Students identifying as Asian
- Students identifying as Black/African American
- Students identifying as Native Hawaiian/Pacific Islander
- Students from homeless families
- Students with disabilities

Census 10th grade schools that **did not ask** the sexual behavior/violence questions had higher percentages for the following student groups:

- Students identifying as White

Means for school demographics by sexual behavior/violence questions participation for census 10th grade schools, 2023

School/Grade-level Variables	Administered Exempt Questions Mean (n)	Did Not Administer Exempt Questions Mean (n)	Difference (p-value)
Grade-level enrollment	204 (n=298)	227 (n=80)	0.341
% Female enrollment	47.9% (n=295)	49.8% (n=79)	0.109
% Male enrollment	51.0% (n=295)	49.8% (n=79)	0.351
% "Gender X" enrollment	1.2% (n=295)	0.4% (n=79)	**0.012**
% American Indian/Alaska Native enrollment	3.5% (n=295)	1.6% (n=79)	0.143
% Asian enrollment	7.0% (n=295)	2.1% (n=79)	**0.000**
% Black/African American enrollment	4.2% (n=295)	1.1% (n=79)	**0.000**
% Hispanic/Latino enrollment	25.1% (n=295)	24.2% (n=79)	0.731
% Native Hawaiian/Pacific Islander enrollment	1.0% (n=295)	0.5% (n=79)	**0.016**
% Two or more race enrollment	8.7% (n=295)	7.4% (n=79)	0.146
% White enrollment	50.4% (n=295)	63.1% (n=79)	**0.000**
% English language learner enrollment	10.2% (n=295)	7.3% (n=79)	0.054
% Highly capable	6.2% (n=295)	6.3% (n=79)	0.930
% Homeless enrollment	4.3% (n=295)	2.4% (n=79)	**0.008**
% Low-income enrollment	50.8% (n=295)	48.0% (n=79)	0.334
% Migrant enrollment	2.7% (n=295)	3.1% (n=79)	0.664
% Military parent enrollment	1.6% (n=295)	1.8% (n=79)	0.586
% Highly mobile enrollment	3.6% (n=295)	3.6% (n=79)	0.948
% Section 504 enrollment	8.1% (n=295)	6.9% (n=79)	0.130
% Disabilities enrollment	15.2% (n=295)	12.0% (n=79)	**0.004**
% Met ELA standards	54.3% (n=144)	55.3% (n=42)	0.750
% Met math standards	28.2% (n=118)	30.3% (n=36)	0.511

Schools with Grade 12 Students

State sample 12th grade schools that **did not ask** the sexual behavior/violence questions had higher grade level enrollments and higher percentages of students identifying as White.

Means for school demographics by sexual behavior/violence questions participation for state sample 12th grade schools, 2023

School/Grade-level Variables	Administered Exempt Questions Mean (n)	Did Not Administer Exempt Questions Mean (n)	Difference (p-value)
Grade-level enrollment	173 (n=40)	290 (n=9)	**0.048**
% Female enrollment	46.5% (n=40)	45.3% (n=9)	0.704
% Male enrollment	52.7% (n=40)	54.4% (n=9)	0.624
% "Gender X" enrollment	0.8% (n=40)	0.3% (n=9)	0.546
% American Indian/Alaska Native enrollment	4.7% (n=40)	0.5% (n=9)	0.316
% Asian enrollment	6.6% (n=40)	3.3% (n=9)	0.348
% Black/African American enrollment	4.3% (n=40)	1.7% (n=9)	0.219
% Hispanic/Latino enrollment	28.7% (n=40)	21.8% (n=9)	0.428
% Native Hawaiian/Pacific Islander enrollment	1.0% (n=40)	0.7% (n=9)	0.656
% Two or more race enrollment	8.9% (n=40)	7.2% (n=9)	0.473
% White enrollment	45.7% (n=40)	64.9% (n=9)	**0.038**
% English language learner enrollment	12.9% (n=40)	6.7% (n=9)	0.325
% Highly capable	6.5% (n=40)	5.9% (n=9)	0.858
% Homeless enrollment	7.0% (n=40)	2.6% (n=9)	0.183
% Low-income enrollment	51.5% (n=40)	46.7% (n=9)	0.559
% Migrant enrollment	5.0% (n=40)	3.3% (n=9)	0.668

School/Grade-level Variables	Administered Exempt Questions Mean (n)	Did Not Administer Exempt Questions Mean (n)	Difference (p-value)
% Military parent enrollment	1.6% (n=40)	1.6% (n=9)	0.996
% Highly mobile enrollment	3.7% (n=40)	2.5% (n=9)	0.434
% Section 504 enrollment	7.9% (n=40)	6.9% (n=9)	0.866
% Disabilities enrollment	13.8% (n=40)	13.3% (n=9)	0.866
% On-time Graduation	79.9% (n=33)	85.8% (n=7)	0.420

Census 12th grade schools that **did not ask** the sexual behavior/violence questions had lower percentages for the following student groups:

- Students identifying as Asian
- Students identifying as Black/African American
- Students identifying as Native Hawaiian/Pacific Islander
- Students identifying as two or more races
- Students from homeless families
- Students with disabilities

Census 12th grade schools that **did not ask** the sexual behavior/violence questions had higher percentages for the following student groups:

- Students identifying as White

Means for school demographics by sexual behavior/violence questions participation for census 12th grade schools, 2023

School/Grade-level Variables	Administered Exempt Questions Mean (n)	Did Not Administer Exempt Questions Mean (n)	Difference (p-value)
Grade-level enrollment	192 (n=299)	215 (n=79)	0.274
% Female enrollment	47.8% (n=297)	49.0% (n=78)	0.229
% Male enrollment	51.4% (n=297)	50.3% (n=78)	0.269
% "Gender X" enrollment	0.8% (n=297)	0.7% (n=78)	0.711
% American Indian/Alaska Native enrollment	3.7% (n=297)	1.4% (n=78)	0.067
% Asian enrollment	7.4% (n=297)	2.6% (n=78)	**0.000**
% Black/African American enrollment	4.3% (n=297)	1.6% (n=78)	**0.001**
% Hispanic/Latino enrollment	24.7% (n=297)	23.9% (n=78)	0.752
% Native Hawaiian/Pacific Islander enrollment	1.0% (n=297)	0.4% (n=78)	**0.005**
% Two or more race enrollment	8.3% (n=297)	6.8% (n=78)	**0.042**
% White enrollment	50.6% (n=297)	63.3% (n=78)	**0.000**
% English language learner enrollment	9.5% (n=297)	7.0% (n=78)	0.076
% Highly capable	6.1% (n=297)	5.2% (n=78)	0.312
% Homeless enrollment	4.6% (n=297)	3.0% (n=78)	**0.022**
% Low-income enrollment	48.4% (n=297)	43.3% (n=78)	0.065
% Migrant enrollment	3.0% (n=297)	2.9% (n=78)	0.994
% Military parent enrollment	1.6% (n=297)	1.6% (n=78)	0.972
% Highly mobile enrollment	3.7% (n=297)	3.1% (n=78)	0.277
% Section 504 enrollment	8.3% (n=297)	7.3% (n=78)	0.256
% Disabilities enrollment	15.2% (n=297)	12.5% (n=78)	**0.010**
% On-time Graduation	83.2% (n=235)	82.9% (n=64)	0.899

Student-level Non-Completion Bias

Methods

Some students complete the full survey during the allotted time and others do not. But how do we define a "complete" survey? Before 2023, this report described any survey with at least 85% of the questions answered as complete. This would account for students who skipped certain questions, for example. In 2023, however, we have more complicated methods involved in the online survey, like randomization and display logic. As a result, we need new ways to look at completion and assess completion bias. In Appendix A we provide a series of alternative methods for assessing completion bias, and we will continue to explore the best practices in the coming survey cycles.

In this section, student-level survey completion was defined and categorized as:

- "Non-completers" – did not answer the last question on the survey about honesty.
- "Completers" – answered the last question on the survey about honesty.

To assess differences between survey non-completers to completers, we used Poisson regression to compute prevalence ratios. A difference was considered statistically significant if the p-value was less than 0.05. *Caution should be used interpreting these individual values due to the volume of comparisons run and the fact that some of these may be significant due to chance.*

We compared students based on questions assessing personal characteristics according to their completion status by grade. The characteristics for student-level comparisons include:

- School factors
  - Low self-report grades (mostly getting Cs, Ds or Fs at school)
  - Feeling safe at school ("definitely no" or "mostly no")
- Indicators of low socioeconomic status
  - Mother not completing high school
  - Family can't afford housing
  - Food insecurity (family cutting meal size or skipping meals in past 12 months due of lack of money)
  - No dental visit for a check-up in the past year
- Behavioral factors
  - Past 30-day e-cigarette/vape use
  - Past 30-day marijuana use
  - Past 30-day alcohol drinking
- Demographics
  - Non-English language spoken at home
  - Migrant status
  - Disability status
  - Race and ethnicity

Results

Survey Non-completion for State Sample

Between of 14% and 23% of students by grade did not complete the last question on the survey.

Survey completion by grade for state sample schools, 2023

Grade	n	Survey Non-Completion %	Survey Completion %
6	9,696	13.9%	86.1%
8	8,148	21.4%	78.6%
10	7,105	22.0%	78.0%
12	4,160	23.3%	76.7%

The table below displays prevalence ratios for respondent characteristics among non-completers compared to completers. Of the 75 comparison tests conducted, 50 showed statistically significant differences. Overall, the volume of significant tests indicates that students who completed the survey are different from students who did not complete the survey for the characteristics assessed.

Comparing students from state sample schools, survey non-completers were more likely than completers to report:

- Lower self-report grades in school (grades 6, 8, 10, and 12) and feeling unsafe at school (grades 6, 10 and 12).
- Mother didn't graduate high school (grades 8, 10, and 12), Family can't afford housing (grades 8 and 10), food insecurity (grades 8, 10, and 12), no dental visits in past year (grades 8 and 10)
- Past 30-day e-cigarette use/vaping (grades 8, 10, and 12), marijuana use (grades 8, 10, and 12) and alcohol drinking (grades 8, 10, and 12).
- Non-English language spoken at home (grades 8 and 10).
- Being a migrant student (grade 6, 8, 10, and 12)
- Having a disability (grades 8 and 12)
- Being American Indian/Alaska Native (grade 12), and Black/African American (grades 6, 8, 10, and 12), or Hispanic (grades 6, 8, and 10)

Comparing students from state sample schools, survey completers were more likely than non-completers to report:

- Being Asian (grades 6, 8, and 10).
- Being White (grades 6, 8, and 10).
- Being multi-racial (grade 6).

Prevalence ratios for student characteristics by completion in the state sample, 2023

State Non-completers Compared to Completers by Grade

Characteristics	Grade 6 PR (95% CI)	Grade 8 PR (95% CI)	Grade 10 PR (95% CI)	Grade 12 PR (95% CI)
Lower grades in school (C's, D's, F's)	**1.7*** (±0.34)	**1.7*** (±0.31)	**2.2*** (±0.44)	**1.8*** (±0.53)
Feeling unsafe at school	**1.4*** (±0.35)	1.1 (±0.25)	**1.6*** (±0.44)	**1.5*** (±0.49)
Mother didn't graduate high school	na	**1.6*** (±0.43)	**1.8*** (±0.44)	**1.5*** (±0.39)
Family can't afford housing	na	**2.0*** (±0.60)	**1.5*** (±0.45)	1.2 (±0.46)
Food insecurity	na	**1.3*** (±0.31)	**1.4*** (±0.33)	**1.5*** (±0.35)
No dental visit in last year	na	**1.3*** (±0.31)	**1.5*** (±0.52)	1.0 (±0.41)
Current e-cig/vape use	1.4 (±0.79)	**1.8*** (±0.55)	**1.9*** (±0.43)	**1.8*** (±0.50)
Current marijuana use	1.9 (±1.54)	**1.6*** (±0.59)	**1.5*** (±0.36)	**1.7*** (±0.37)
Current alcohol drinking	1.1 (±0.82)	**1.9*** (±0.58)	**1.3*** (±0.33)	**1.3*** (±0.35)
Non-English spoken at home	1.2 (±0.27)	**1.3*** (±0.30)	**1.6*** (±0.36)	1.2 (±0.28)
Migrant	**1.6*** (±0.32)	**1.9*** (±0.34)	**1.7*** (±0.35)	**1.5*** (±0.41)
Disability	na	**1.2*** (±0.16)	1.0 (±0.15)	**1.3*** (±0.26)

Characteristics	Grade 6 PR (95% CI)	Grade 8 PR (95% CI)	Grade 10 PR (95% CI)	Grade 12 PR (95% CI)
Asian AOIC	**0.5*** (±0.13)	**0.7*** (±0.18)	**0.8*** (±0.20)	0.8 (±0.24)
American Indian/Alaska Native AOIC	1.1 (±0.31)	1.3 (±0.29)	1.3 (±0.29)	1.4* (±0.40)
Black/African American AOIC	**1.5*** (±0.42)	**2.2*** (±0.52)	**1.7*** (±0.52)	**1.8*** (±0.40)
Hispanic AOIC	**1.4*** (±0.34)	**1.6*** (±0.36)	**1.9*** (±0.44)	1.3 (±0.36)
Pacific Islander AOIC	1.1 (±0.30)	1.1 (±0.31)	1.0 (±0.30)	1.1 (±0.54)
Middle Eastern/North African AOIC	0.7 (±0.32)	0.9 (±0.30)	1.5 (±0.64)	1.3 (±0.98)
White AOIC	**0.8*** (±0.15)	**0.6*** (±0.14)	**0.6*** (±0.11)	0.8 (±0.18)
Multiracial	**0.8*** (±0.14)	1.1 (±0.15)	1.1 (±0.18)	1.2 (±0.23)

PR: prevalence ratio; 95% CI: 95% confidence interval; bolded red values with an asterisk * are statistically significant at the p <0.05 level. A Prevalence ratio greater than 1 indicates that the characteristic is more common among students who did not complete the survey.

AOIC – Race/ethnic groups are reported for students who indicated they are of that particular race or ethnicity, either alone or in combination with another. An additional race category is also displayed that combines students who selected more than one group are reported as "more than one race/ethnicity marked".

Survey Non-completion in Census Schools

Between of 14% and 23% of students did not complete the last question on the survey.

Survey completion by grade for census schools, 2023

Grade	n	Survey Non-Completion %	Survey Completion %
6	58,645	13.7%	86.3%
8	58,992	22.8%	77.3%
10	53,143	20.5%	79.5%
12	33,721	20.7%	79.3%

The table below displays prevalence ratios for respondent characteristics among non-completers compared to completers. Of the 75 comparison tests conducted, 63 showed statistically significant differences. Overall, the volume of significant tests indicates that students who completed the survey are different from students who did not complete the survey for the characteristics assessed.

Comparing students from census schools, survey non-completers were more likely than completers to report:

- Lower self-report grades in school (grades 6, 8, 10, and 12) and feeling unsafe at school (grades 6, 8 , 10 and 12).
- Mother didn't graduate high school (grades 8, 10 and 12), Family can't afford housing (grades 8, 10 and 12), food insecurity (grades 8, 10, and 12), no dental visits in past year (grades 8, 10, and 12)
- Past 30-day e-cigarette/vape use (grades 6, 8, 10, and 12), marijuana use (grades 6, 8, 10, and 12) and alcohol drinking (grades 6, 8, 10, and 12).
- Non-English language spoken at home (grades 6, 8, 10, and 12).
- Being a migrant student (grade 6, 8, 10, and 12)
- Having a disability (grade 8)
- Being American Indian/Alaska Native (grades 6, 8 and 10), Black/African American (grades 6, 8, 10, and 12), Hispanic (grades 6, 8, 10, and 12), Native Hawaiian/Pacific Islander (grades 6, 8, 10, and 12), being Middle Eastern or North African (grades 8, 10, or 12), or being multiracial (grade 12)

Comparing students from state sample schools, survey completers were more likely than non-completers to report:

- Past 30-day alcohol drinking (grade 12).
- Having a disability (grade 12)
- Being Asian (grades 6, 8, and 10), White (grades 6, 8, 10, and 12), or multiracial (grade 6)

Prevalence ratios for student characteristics by completion in the state sample, 2023

Census Non-completers Compared to Completers by Grade

Variable	Grade 6 PR (95% CI)	Grade 8 PR (95% CI)	Grade 10 PR (95% CI)	Grade 12 PR (95% CI)
Lower grades in school (C's, D's, F's)	**1.9*** (±0.15)	**1.8*** (±0.14)	**1.9*** (±0.15)	**1.6*** (±0.15)
Feeling unsafe at school	**1.3*** (±0.12)	**1.3*** (±0.10)	**1.4*** (±0.12)	**1.4*** (±0.15)
Mother didn't graduate high school	na	**1.7*** (±0.18)	**1.5*** (±0.15)	**1.5*** (±0.15)
Family can't afford housing	na	**1.6*** (±0.19)	**1.5*** (±0.17)	**1.4*** (±0.21)
Food insecurity	na	**1.5*** (±0.13)	**1.5*** (±0.12)	**1.3*** (±0.11)
No dental visit in last year	na	**1.6**** (±0.15)	**1.5*** (±0.16)	**1.3*** (±0.19)
Current e-cig/vape use	**1.5*** (±0.29)	**1.7**** (±0.20)	**1.9*** (±0.20)	**1.7*** (±0.18)
Current marijuana use	**2.4*** (±0.66)	**1.8*** (±0.22)	**1.7*** (±0.18)	**1.5*** (±0.15)
Current alcohol drinking	**1.5*** (±0.34)	**1.6*** (±0.19)	**1.5*** (±0.15)	**1.2*** (±0.13)
Non-English spoken at home	**1.3*** (±0.12)	**1.6**** (±0.13)	**1.4*** (±0.12)	**1.4*** (±0.13)
Migrant	**1.5*** (±0.12)	**1.7*** (±0.13)	**1.8*** (±0.14)	**1.6*** (±0.16)
Disability	na	**1.1*** (±0.06)	1.0 (±0.06)	1.0 (±0.08)
Asian AOIC	**0.6*** (±0.07)	**0.7*** (±0.07)	**0.8*** (±0.08)	0.9 (±0.10)
American Indian/Alaska Native AOIC	1.1 (±0.12)	**1.3*** (±0.12)	**1.4*** (±0.13)	**1.3*** (±0.15)
Black/African American AOIC	**1.6*** (±0.15)	**1.8*** (±0.15)	**1.8*** (±0.17)	**1.8*** (±0.20)
Hispanic AOIC	**1.3*** (±0.13)	**1.6*** (±0.14)	**1.5*** (±0.15)	**1.2*** (±0.12)
Pacific Islander AOIC	**1.2*** (±0.16)	**1.3*** (±0.14)	**1.5*** (±0.16)	**1.4*** (±0.21)
Middle Eastern/North African AOIC	1.1 (±0.21)	**1.2*** (±0.17)	**1.4*** (±0.19)	**1.8*** (±0.34)
White AOIC	**0.8*** (±0.06)	**0.6*** (±0.05)	**0.7*** (±0.06)	**0.7*** (±0.06)
Multiracial	**0.9*** (±0.07)	1.0 (±0.05)	1.0 (±0.07)	**1.1*** (±0.08)

PR: prevalence; 95% CI: 95% confidence interval; bolded red values with an asterisk * are statistically significant at the p <0.05 level. A prevalence ratio greater than 1 indicates that the characteristic is more common among students who did not complete the survey.

AOIC – Race/ethnic groups are reported for students who indicated they are of that particular race or ethnicity, either alone or in combination with another. An additional race category is also displayed that combines students who selected more than one group are reported as "more than one race/ethnicity marked".

Appendix A: Survey Non-Completion

The analysis of student-level characteristics showed survey non-completion as a potential source of bias among schools in the state sample. The analysis showed that students who finished the survey are different in some respects from students who stopped earlier in the survey. If the students differ characteristics that influence how they would answer certain survey questions, then results derived from those questions might not accurately reflect the full population.

An important consideration for determining the potential impact of non-completion bias is what percentage of students did not complete the survey. For each administration of HYS, the Healthy Youth Survey Planning Committee tries to adjust the length of the survey questionnaires so that non-completion rates remain under 15%.

In the past, it was easy to count the number of questions students answered and divide them by the total number of survey questions on the specific questionnaire they were given to determine non-completion rates. For the 2023 HYS, this is more complicated with the utilization of display/skip logic and survey question randomization. This year, we are implementing additional efforts to describe and understand patterns of non-completion.

Numbers and Types of Survey Questions

The Elementary survey included 99 "core" questions that were asked of all students and sixteen questions that used display logic, described as "core if" because they were core questions but only asked "if" a student answered in a specific way. The Elementary survey was organized in blocks. The first block on the Elementary survey included demographic questions and the last block included a question on honesty. The other blocks were randomized so that students received the blocks in random order.

The Secondary survey employed a Core/Bank model where only a subset of "core" questions was asked of all students. The remaining "bank" questions were randomized so that each student received about half of the questions. The Secondary survey was organized in blocks. The first block included demographic questions and the last block included a question on honesty. The other blocks were randomized so that students received the blocks in random order. Within both the core and bank question blocks, there was display logic as well.

Number of questions by survey form, 2023

Survey Form	Core Questions	Core If Questions	Bank Questions	Bank If Questions	Exempt/Optional Questions	Total Questions
Elementary	99	16	0	0	1 core	116
Secondary	49	26	165	18	3 bank, 3 bank if	258

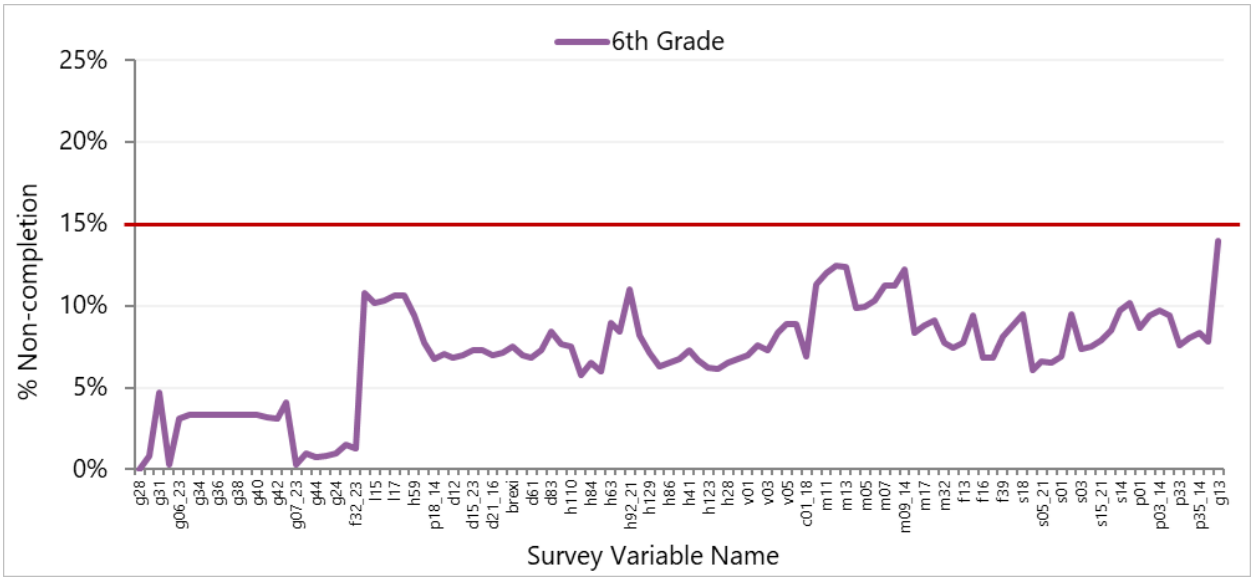
The number of total questions a Secondary student received varied according to the randomized question blocks they received and depending on how they answered questions with display logic. For the Secondary survey, we can estimate that they should have received most of the 75 core questions and about half of the 189 bank question for a total of roughly 160 questions.

Survey Non-completion Estimates

Since all of the questions on the Elementary survey were "core" or "core if", we can look at the rate of non-completion for each individual survey question by dividing the number of number of

responses to a question by the total N (9,696) in the state sample. The overall rate for non-completion for all questions on the Elementary survey was under 15%.

Elementary survey* non-completion for the state sample, 2023

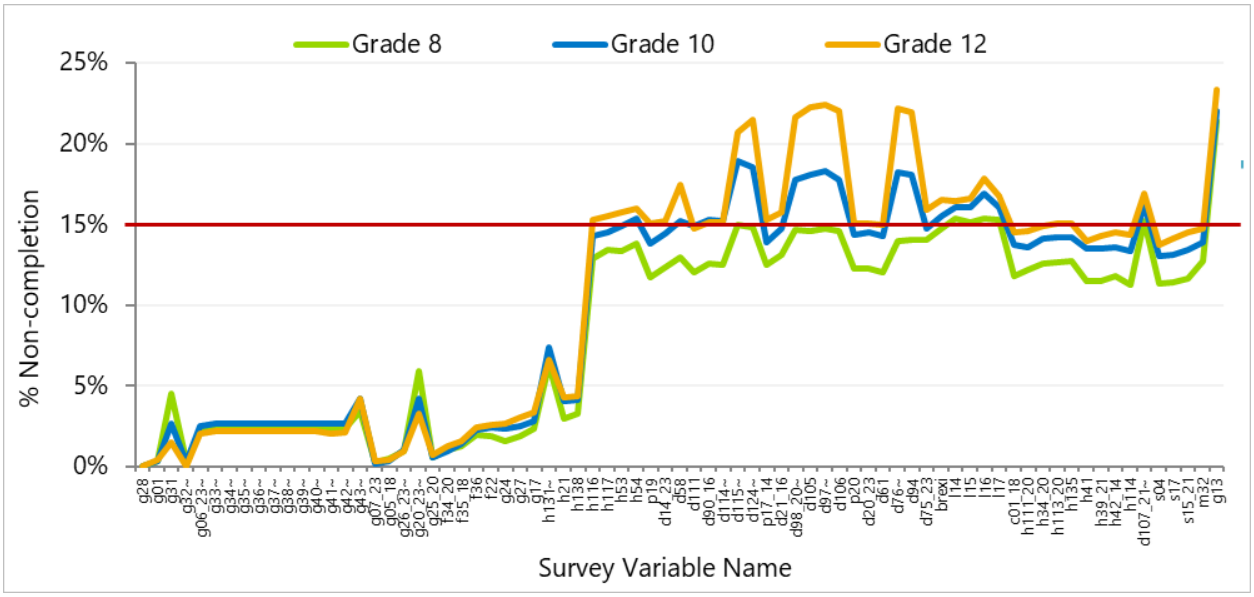


*One Elementary survey question on gender identity (g44) was optional for schools. To calculate the % non-response for this question the number of students who answered the question was divided by the number of students who participated from schools asking the question instead of the total N.

For the Secondary survey we can use this same method to look at non-completion for the 75 "core" or "core if" questions. We calculated the rate of non-completion for each individual survey question by dividing the number of respondents to a question by the total N for each grade (8,148 for 8th grade, 7,105 for 10th grade, and 4,160 for 12th grade) in the state sample. Non-completion rates over 15% were found for:

- 6 of the 75 core questions for 8th grade
- 19 of the 75 core questions for 10th grade
- 31 of the 75 core questions for 12th grade

Secondary survey core/core if* question non-completion for the state sample, 2023



*Core if questions were "back filled" with "no" responses if students responded "no" to the gate question. The only variable not back filled with a "no" response was the question about specific Hispanic/Latino/Spanish origin ethnicity

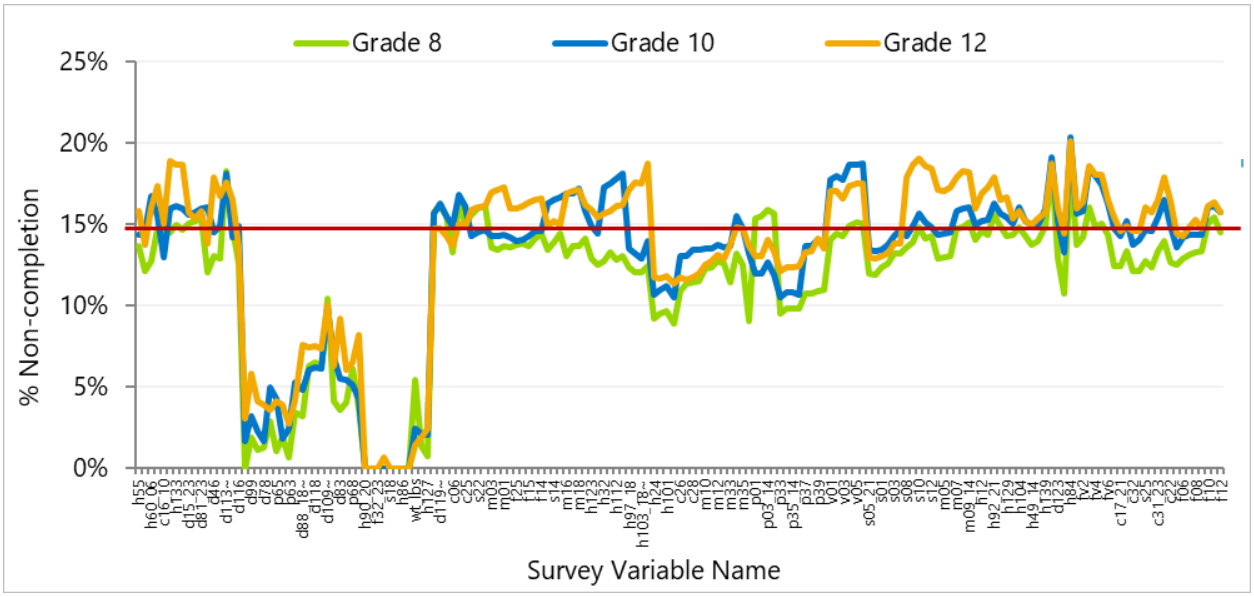
(g32). To calculate the % non-response the number of students who answered the question was divided by the number who said "yes" to the gate question instead of the total N.

We also tried to look at the non-completion rates for the 189 "bank" and "bank if" questions on the Secondary survey. Due to randomization, we don't know the actual number of students who received each question, but we can estimate that about half of the students received them. We calculated the rate of non-completion for each individual survey question by dividing the number of responses to a question by half of the total N for each grade (4,074 for 8th grade, 3,553 for 10th grade, and 2,080 for 12th grade) in the state sample. Non-completion rates over 15% were found for:

- 26 of the 189 core questions for 8th grade
- 62 of the 189 core questions for 10th grade
- 89 of the 189 core questions for 12th grade

Non-completion of the bank/bank if questions appear to be higher than for the core/core if questions, but that could partially be due to an uneven distribution of the question blocks. Also, most of the demographic questions that are included in the first part of the survey are core/core if, so students were more likely to answer those questions.

Secondary survey bank/bank if* question non-completion for the state sample, 2023



*Bank if questions were "back filled" with "no" responses if students responded "no" to the gate question. There were a few questions that had less than 0% response rate that were set to 0% to make the chart easier to interpret. On the Secondary survey there were six questions on sexual behavior (h97_18, h98_18, h103_18, h126) and sexual violence (h105)18 and h127) that were optional for schools. To calculate the % non-response for these questions the number of students who answered the question was divided by the number of students who participated from schools asking those questions instead of the total N.

Survey Questions Answered by Survey Completion Status

To explore non-completion further, we wanted to look at the number of questions answered by survey completers (answered the last question on the survey) compared to non-completers.

For Elementary students in the state sample, the most survey questions answered was 111 and the mean number of questions answered was 102. Looking at students who ***completed*** the survey, the mean number of questions answered was 107. Looking at students who ***did not complete*** the survey, the mean number of questions answered was about 70.

For all Secondary students in the state sample, the most survey questions answered by a student was 176 and the mean number of questions answered was 143. Looking at students who ***completed*** the survey, the mean number of questions answered was 159, which is very close to the number of estimated questions that they should have received. Looking at students who ***did not complete*** the survey, the mean number of questions answered was about 84, about half of the questions they should have received.

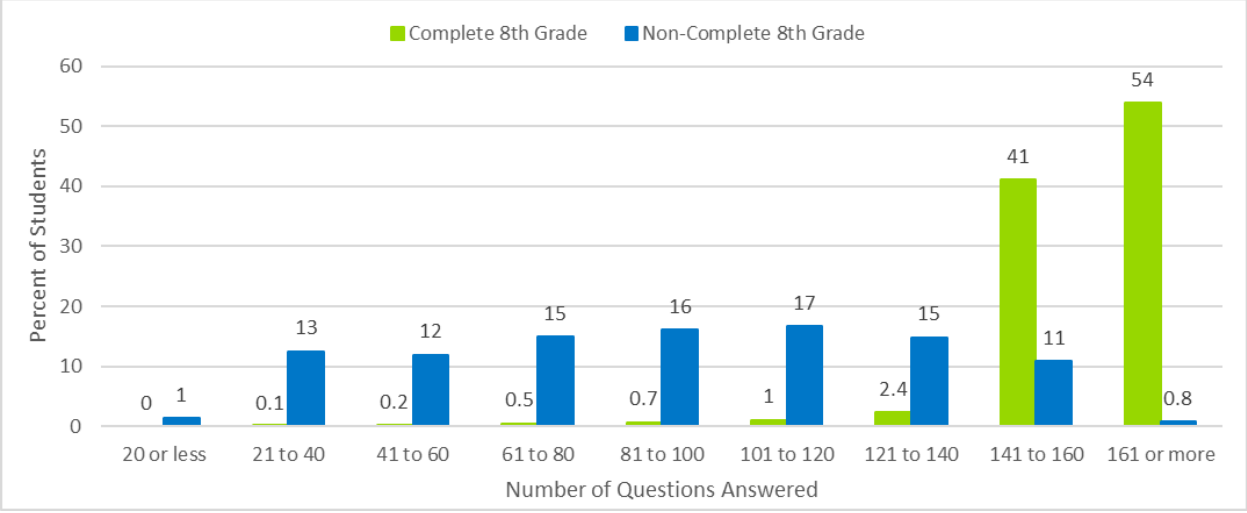
Mean number of questions answered by completion status by grade for state sample schools, 2023

Grade	Non-Completers N	Completers N
Elementary	70	107
Secondary	84	159
Grade 8	91	160
Grade 10	80	159
Grade 12	78	160

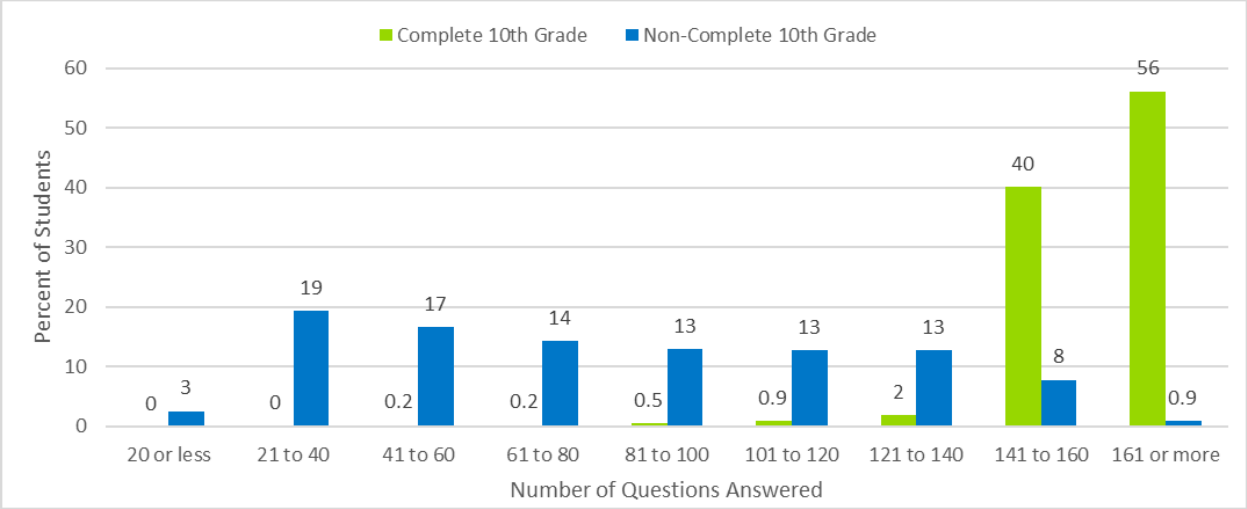
The charts below show the distribution of the number of questions answered by completers (answered the last question on the survey) and non-completers by grade on the Secondary survey.

The majority of students who completed the survey, answered all or most of the questions on the survey. For students who did not complete the survey, the point in the survey at which they stopped completing questions did not concentrate around a particular number of questions, but rather varied from early in the survey to near the end.

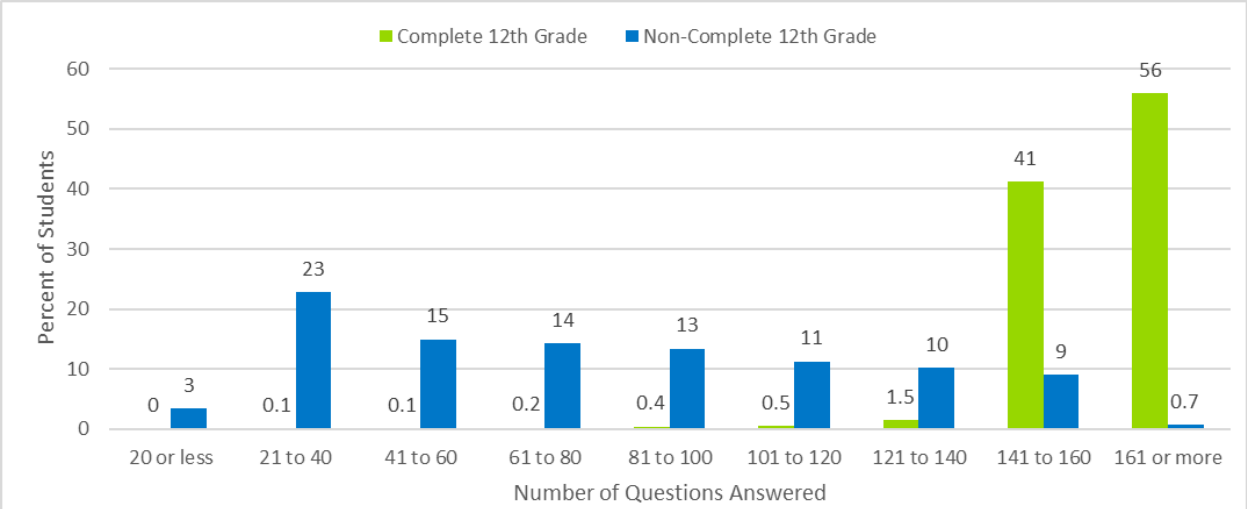
Number of questions answered by completion status for 8th Grade state sample schools, 2023



Number of questions answered by completion status for 10th Grade state sample schools, 2023



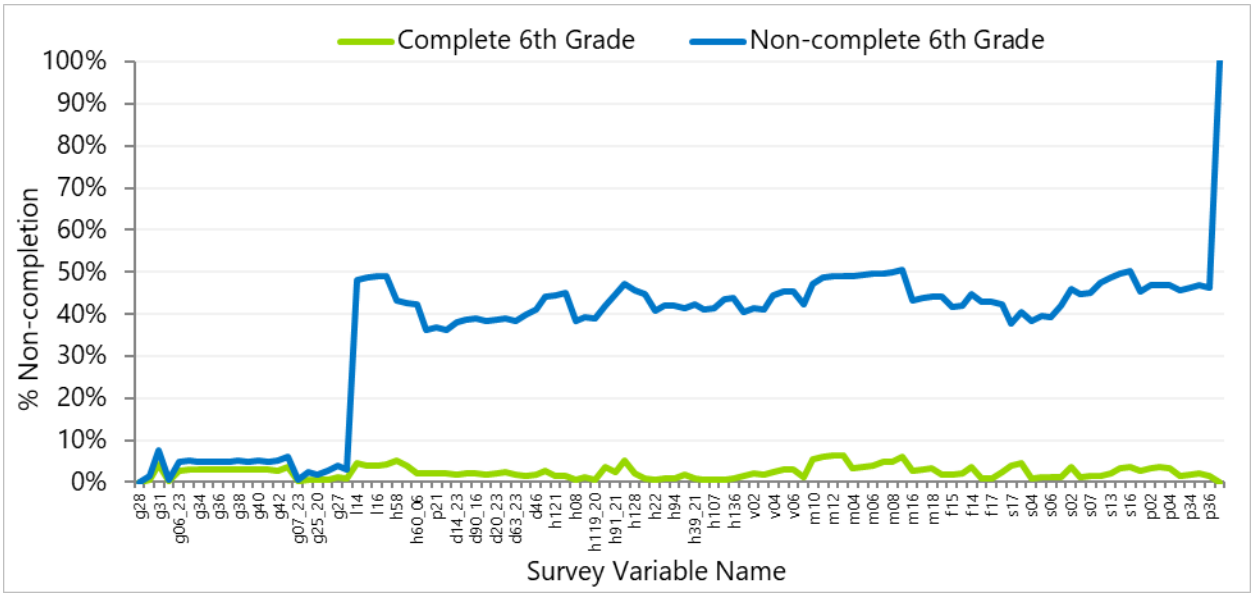
Number of questions answered by completion status for 12th Grade state sample schools, 2023



We also looked a little closer at the individual questions answered by completers (answered the last question on the survey) and non-completers to see if certain questions were not being answered or were causing students to quit the survey.

As part of the quality control procedures, students that answer fewer than 15 survey questions are culled, so the rate of non-completion jumps up around 15 questions for non-completers. After those first 15 questions, the rates of non-completion for Elementary survey non-completers ranges from 36% to 51%, but the rates don't seem to spike for any individual questions or blocks of questions. The non-completion rates for Elementary survey completers did not show any spikes either.

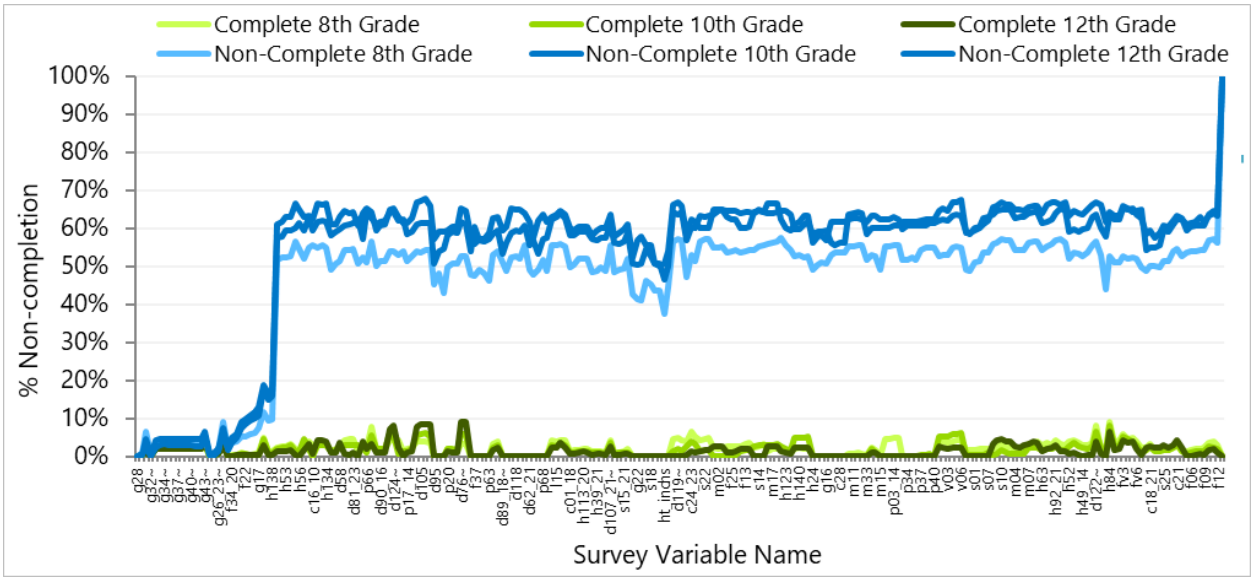
Elementary survey* non-completion by completion status for the state sample, 2023



*The optional gender identity question (g44) was excluded from the chart.

After those first 15 questions, the rate of non-completion for the Secondary survey non-completers ranged from 38% to 58% for 8th graders, from 50% to 67% for 10th graders and from 47% to 68% for 12th graders. For Secondary survey non-completers, we didn't see any high spikes in non-completion rates for any individual questions or blocks of questions. There was a bit more variation than seen in the Elementary survey, but some of that could be due to not having an exact denominator for the bank questions. We also did not see spikes in non-completion for students who completed the Secondary survey.

Secondary survey* non-completion by completion status for the state sample, 2023



*The removable sexual behavior and sexual violence questions were excluded from the chart. The denominator for bank questions was divided by two.