

2022 US K12 EdTech Product Safety Benchmark

Last Update: February 4, 2024

INTERNET
SAFETY
//LABS



Contents

- ◆ Overview
- ◆ Research Methodology
- ◆ Findings Report 1 Summary
- ◆ Findings Report 2 Summary
- ◆ Findings Report 3 Summary
- ◆ Recommendations

Scope

- ◆ This is a living presentation and will be updated with every published Findings Report from the 2022 Benchmark data.
- ◆ At the time of this publishing, the presentation covers Findings Reports 1 through 3.

Key Research Questions

- ◆ How much EdTech are schools recommending/requiring students to use?
- ◆ What are the privacy risks in EdTech students required/recommended to use?
 - ◆ How safe is EdTech in K-12 US schools?
- ◆ What tech practices are schools performing in the US?
- ◆ Do certifications /pledges /contracts have an effect on app safety?
- ◆ What demographic patterns were observed?



Key Deliverables

- ◆ [Findings Report 1: App Safety Findings](#)
- ◆ [Findings Report 2: School Tech Practices & 3rd Party Certifications](#)
- ◆ Findings Report 3:
Demographic Analysis
- ◆ [Tableau Benchmark Dashboard](#)
- ◆ Safety Labels for Apps:
<https://appmicroscope.org>

Methodology



Data Collection – By the Numbers

- ◆ 663 schools
 - ◆ 50 states + DC
 - ◆ Covering 455,882 students
 - ◆ 29,000+ data points
- ◆ 1722 apps identified
 - ◆ 88,000+ data points
- ◆ 1357 apps scored
 - ◆ Plus network traffic collection



Caveats

- ◆ Identified technologies from school and district websites
- ◆ Tested *apps* not websites/webservices
- ◆ Tested free versions of apps
 - ◆ Did not have school-provided credentials

ISL App Safety Score Rubric

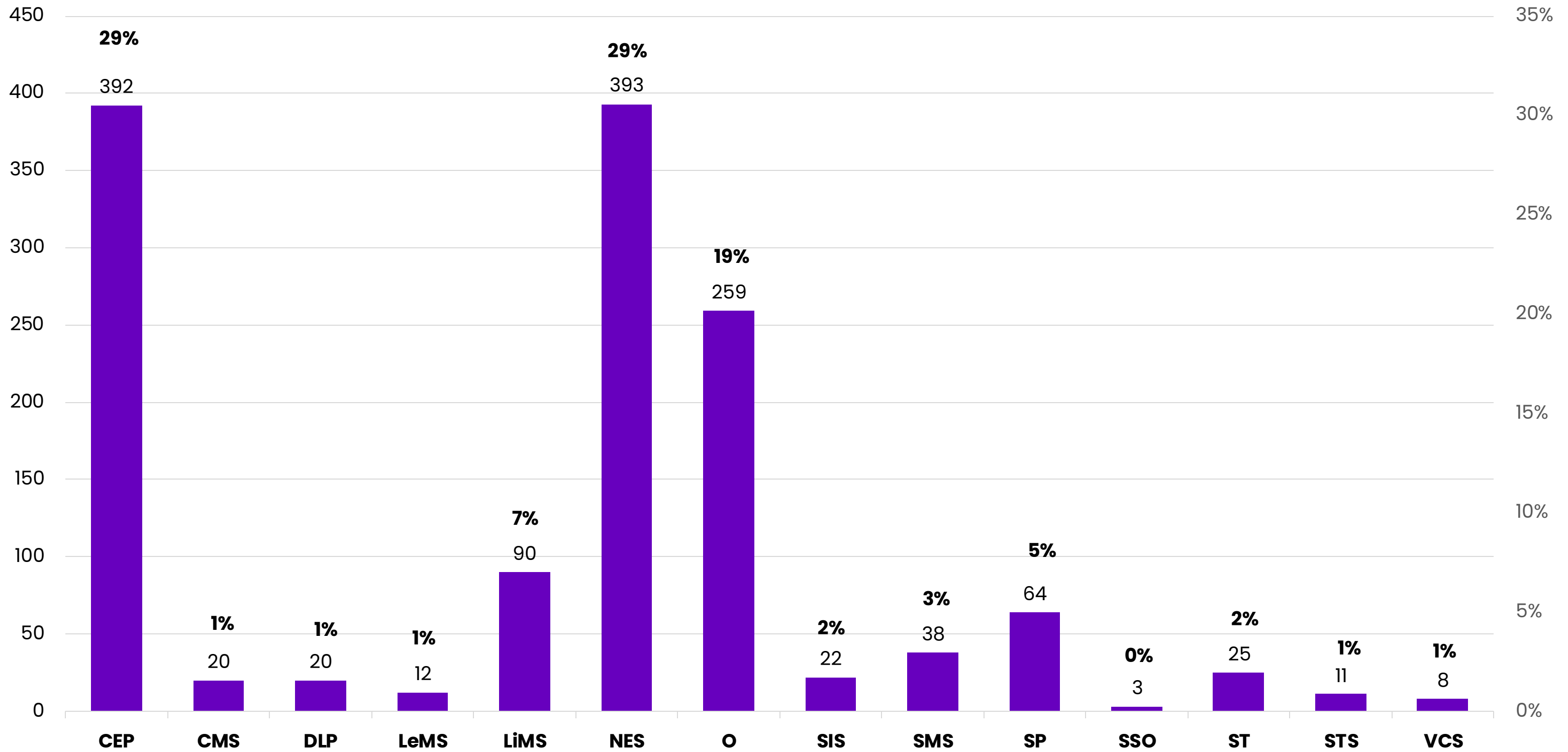
| SOME RISK | HIGH RISK | VERY HIGH RISK* | UNABLE TO TEST |
|------------------|--|---|--|
| | Presence of at least one (1) SDK that is High Risk or Very High Risk | Presence of advertising (any) | Login required; core functionality that we were not able to access as a result |
| | WebView Use | Presence of one (1) or more registered Data Broker SDKs | Paid app |
| | Presence of up to two (2) of the following data aggregator platforms (SDKs or NW traffic): Apple, Google | Presence of one (1) or more of the following data aggregator platforms (SDKs or NW traffic): FB, Amazon, Twitter, Adobe | Broken App |
| | Presence of a dangling domain | Presence of MaxPreps | |
| | | Questionable permission behavior. | |

* Called "Do Not Use" in first two reports. Renamed to Very High Risk on launch of App Microscope.

Edtech Categories

- ◆ Classroom Messaging Software (**CMS**)
- ◆ Community Engagement Platform (**CEP**)
- ◆ Digital Learning Platform (**DLP**)
- ◆ Learning Management System (**LeMS**)
- ◆ Library Management Software (**LiMS**)
- ◆ Non-Education Specific (**NES**)
- ◆ [Educational] Other(**O**)
- ◆ School Transportation Software (**STS**)
- ◆ Safety Platform (**SP**)
- ◆ Single Sign On (**SSO**)
- ◆ School Management Software (**SMS**)
- ◆ Student Information System (**SIS**)
- ◆ Study Tools (**ST**)
- ◆ Virtual Classroom Software (**VCS**)

Apps Tested by Edtech Category



CEP
Community Engagement
Platform

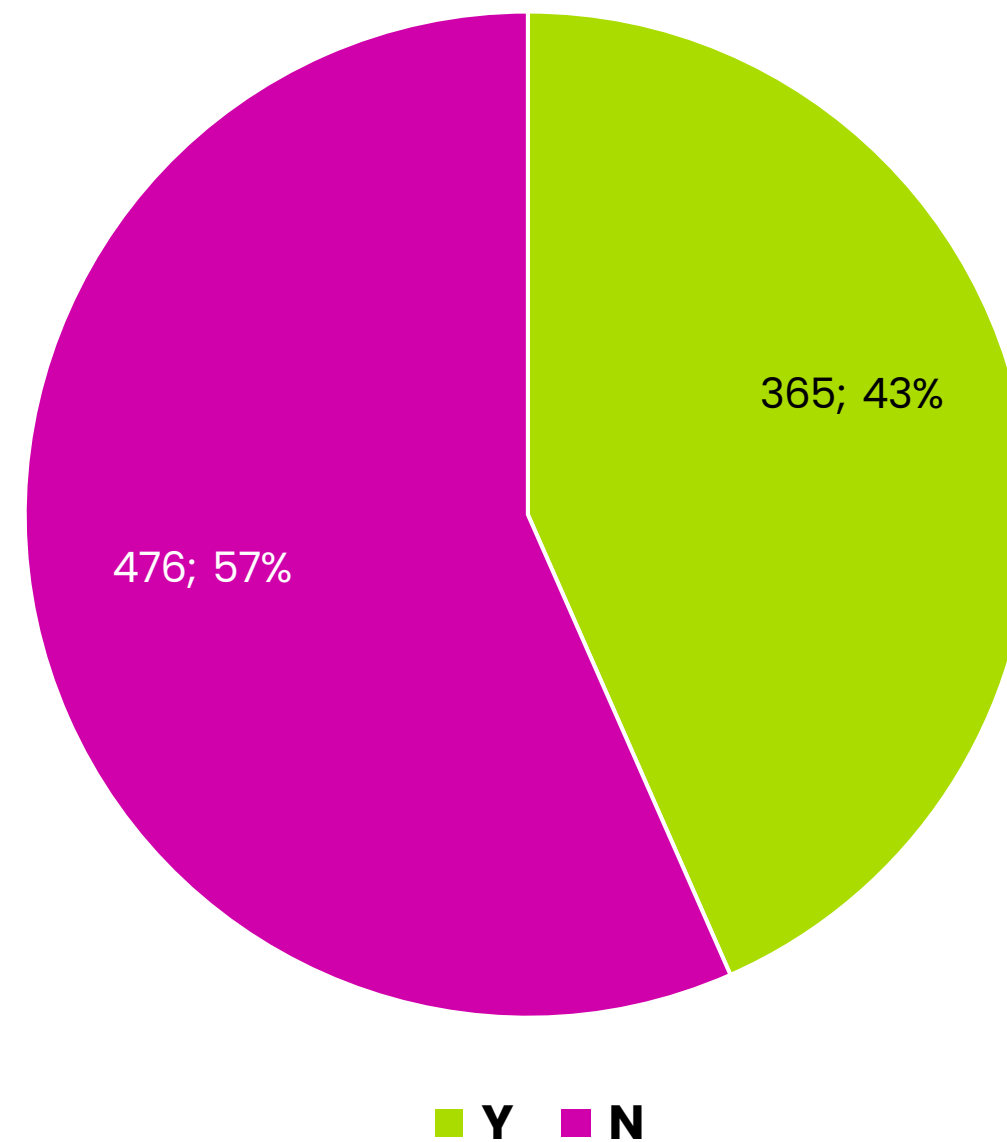
NES
Non-Education
Specific

O
Educational,
Other

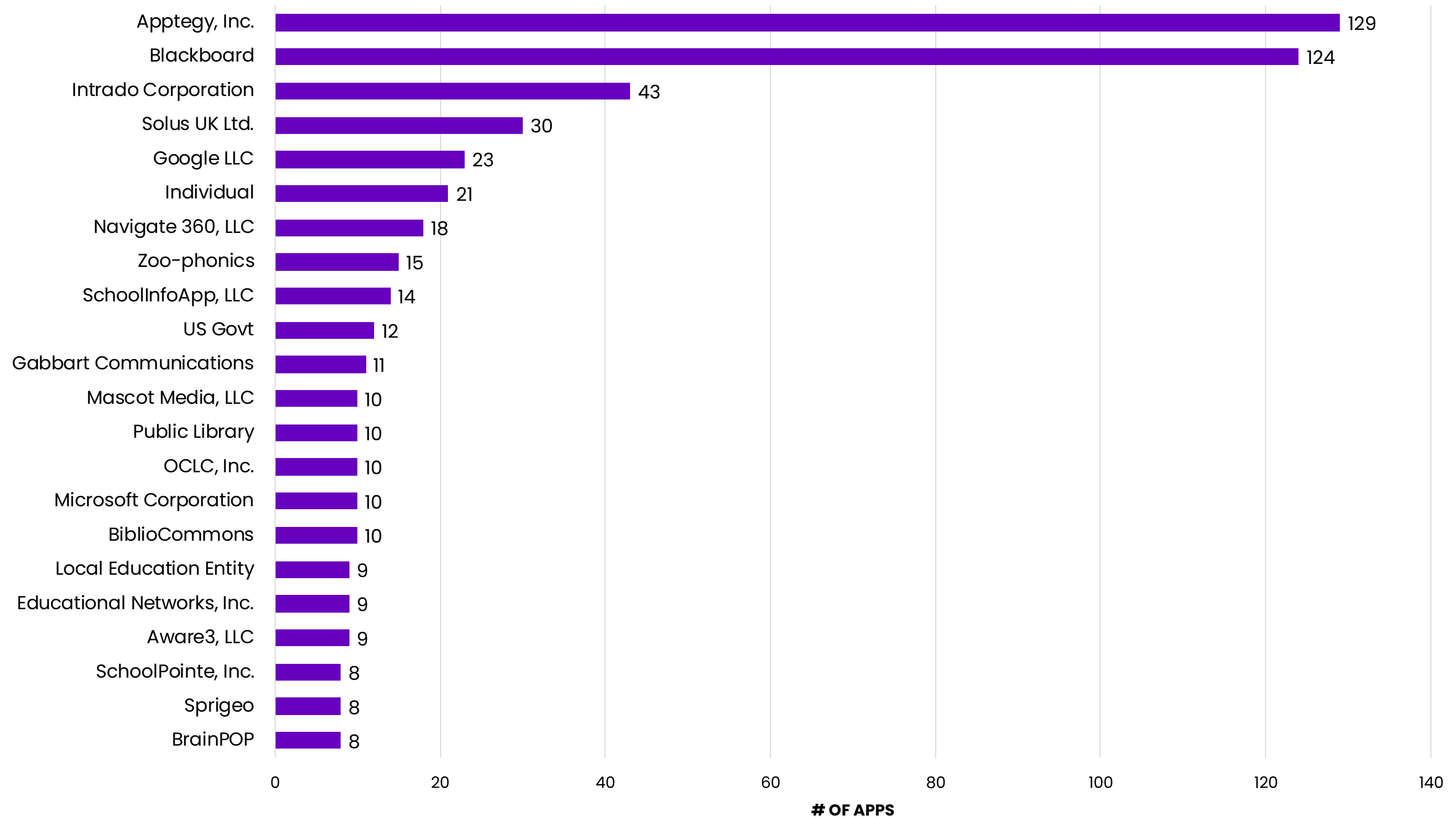


476 (28%) of All Apps Were NOT for Children

NES and O Combined for Children



Most Common Developers



US K12 EdTech Benchmark Findings Report 1: Key Findings

Pub: December 2022



Key Research Questions

- ◆ How much EdTech are schools recommending/requiring students to use?
- ◆ What are the privacy risks in EdTech students required/recommended to use?
 - ◆ How safe is EdTech in K-12 US schools?



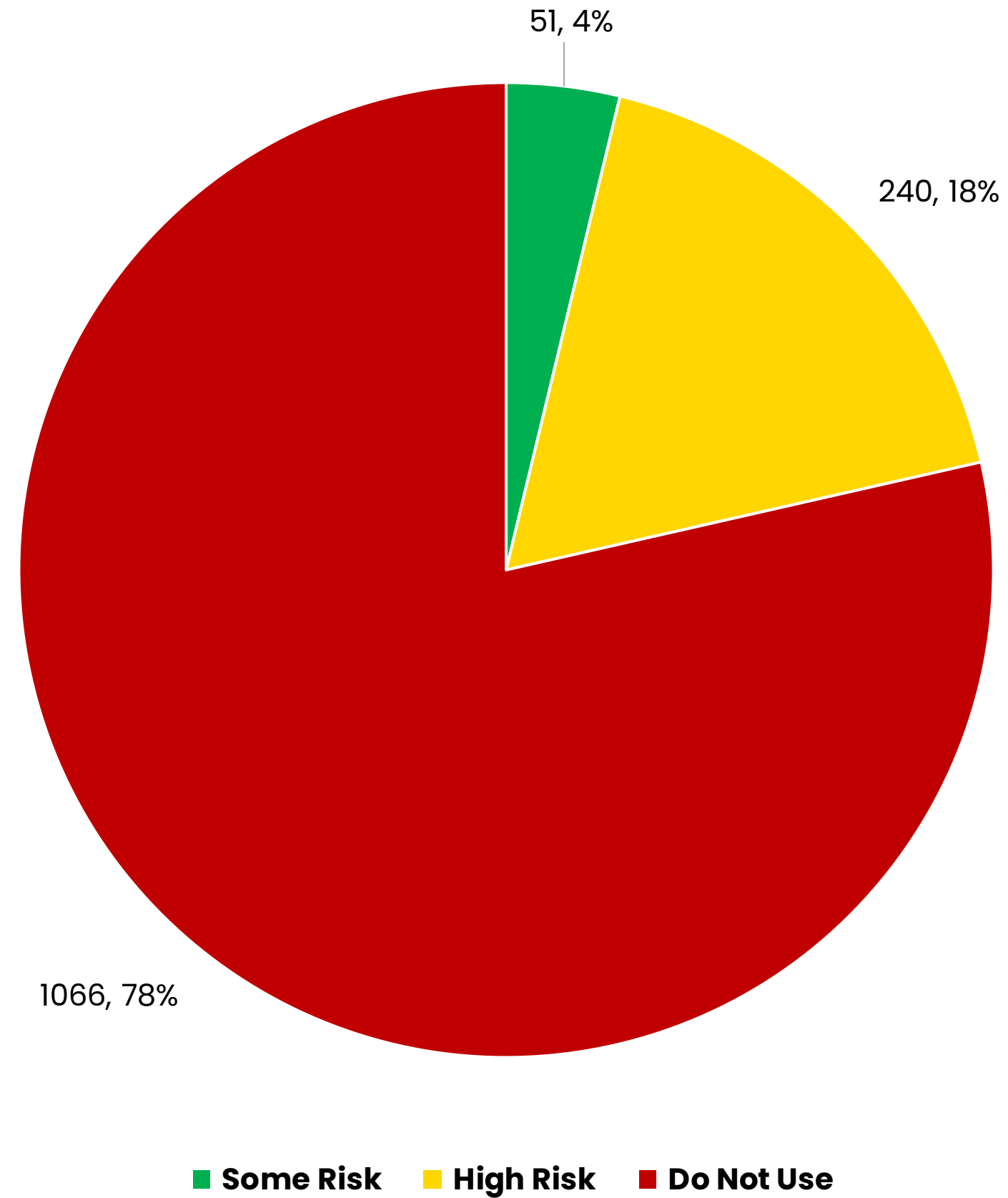
Key Deliverables

- ◆ [Findings Report 1: App Safety Findings](#)
- ◆ Safety Labels for Apps:
<https://appmicroscope.org>

Key Findings

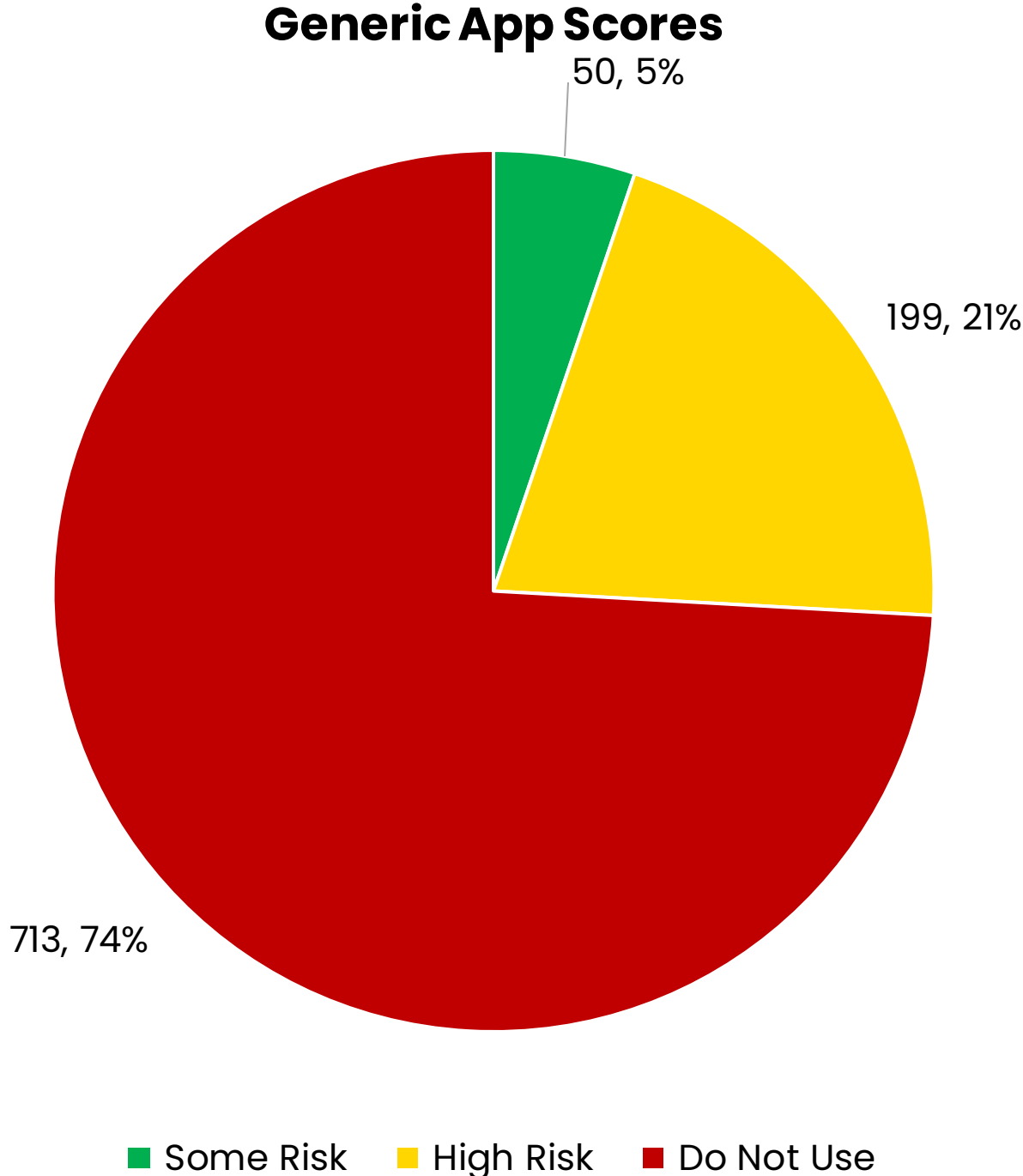
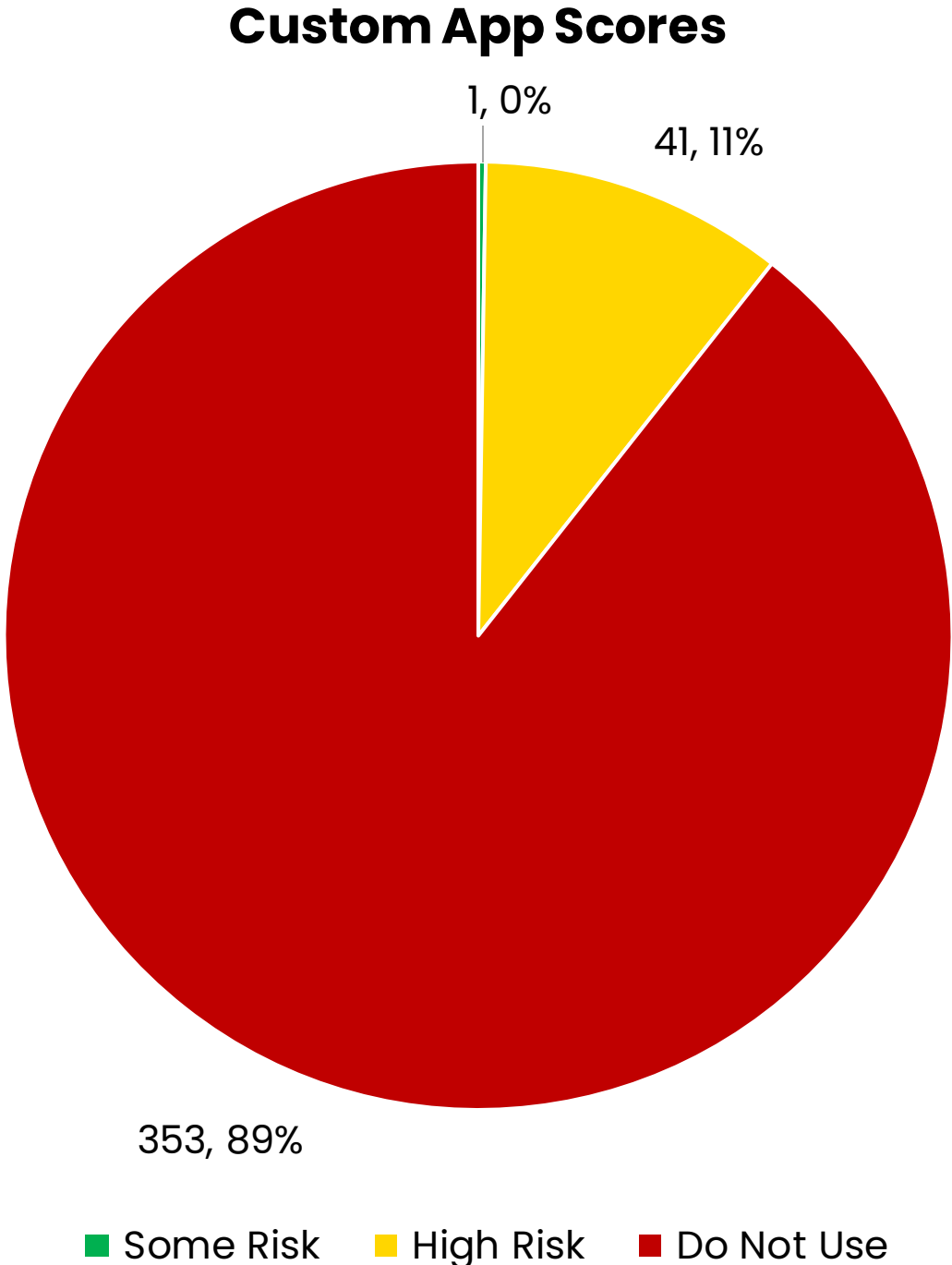
- ◆ Most apps used by K12 students are unsafe for children.
- ◆ Custom CEP apps (aka “School Utility Apps”) for school districts are less safe than NES and O apps.
- ◆ From a safety perspective, iOS has slight advantage over Android.

App Scores (1357 apps)



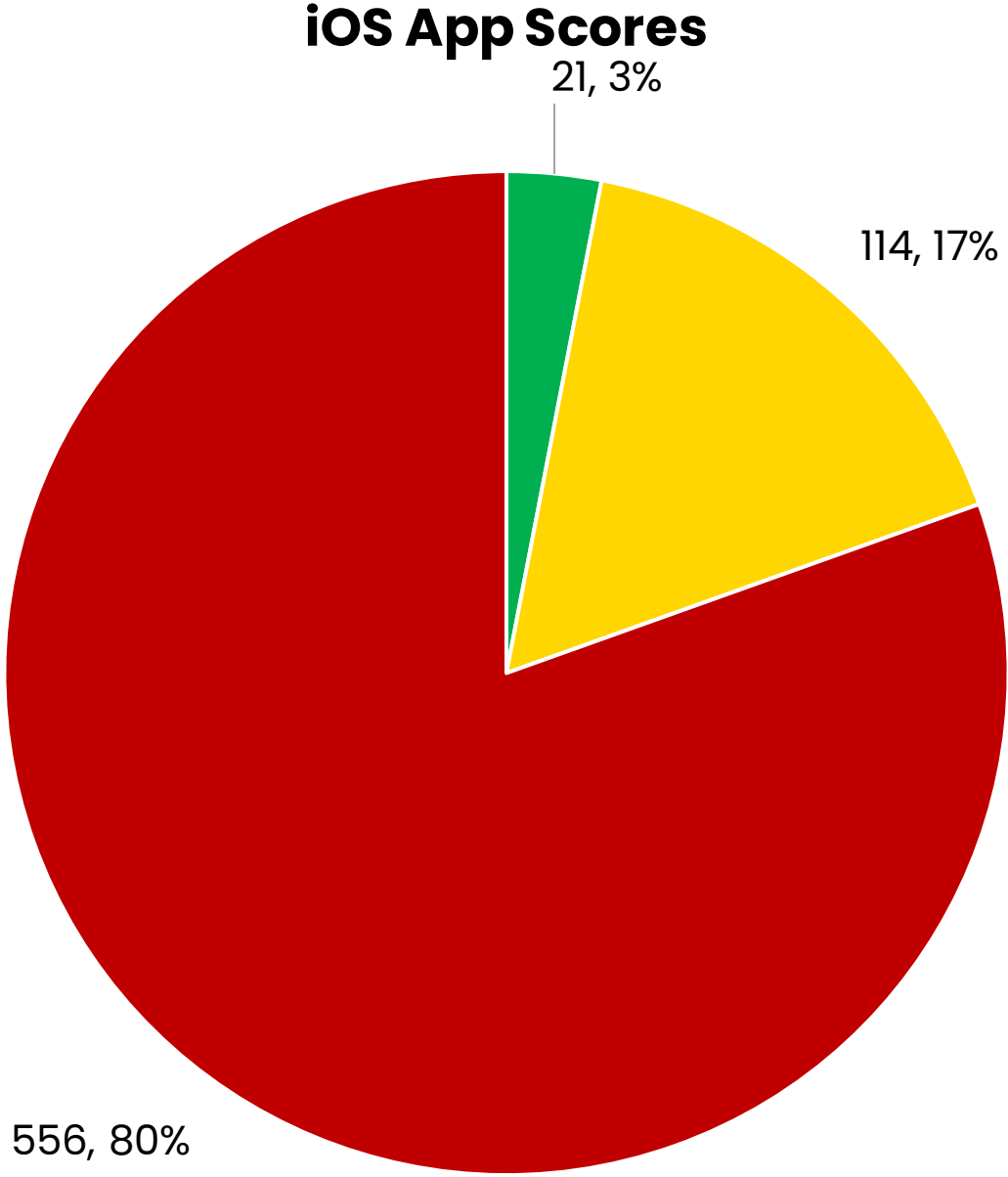


Comparing Custom and Generic App Scores

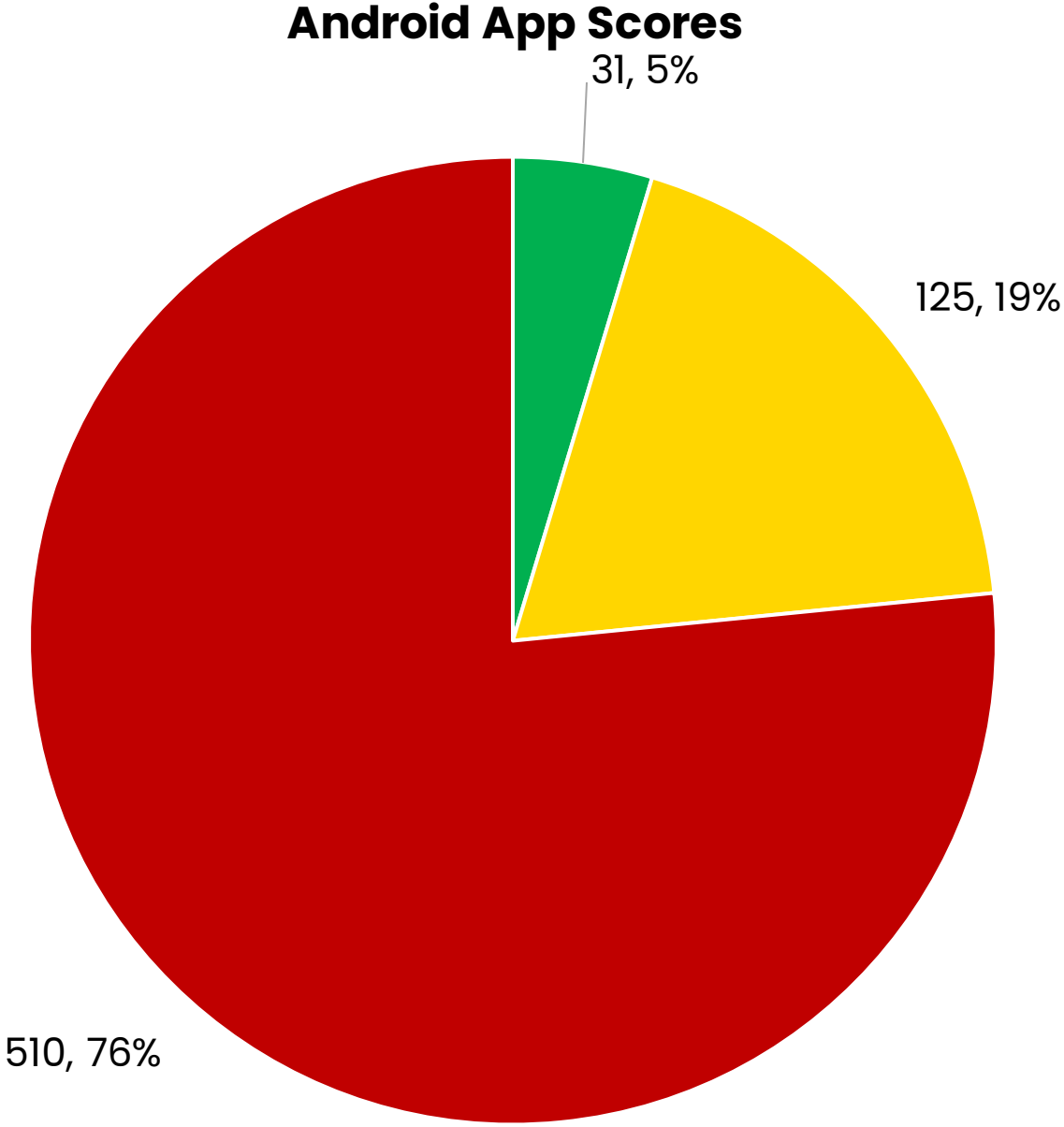




Comparing iOS and Android Scores



Some Risk High Risk Do Not Use



Some Risk High Risk Do Not Use

App Scores by Category

450

400

350

300

250

200

150

100

50

0

CEP

CMS

DLP

LeMS

LiMS

NES

O

SIS

SMS

SP

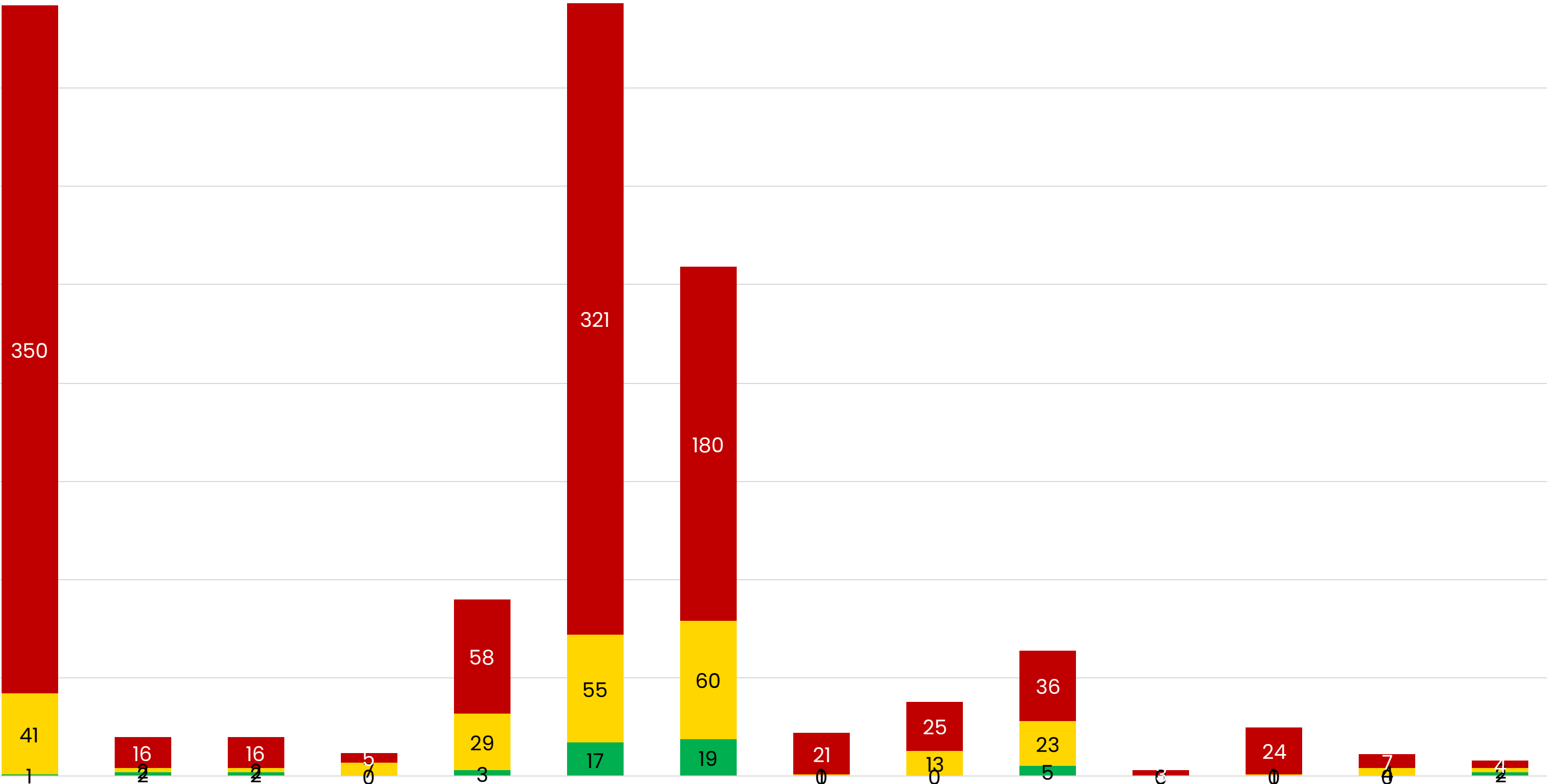
SSO

ST

STS

VCS

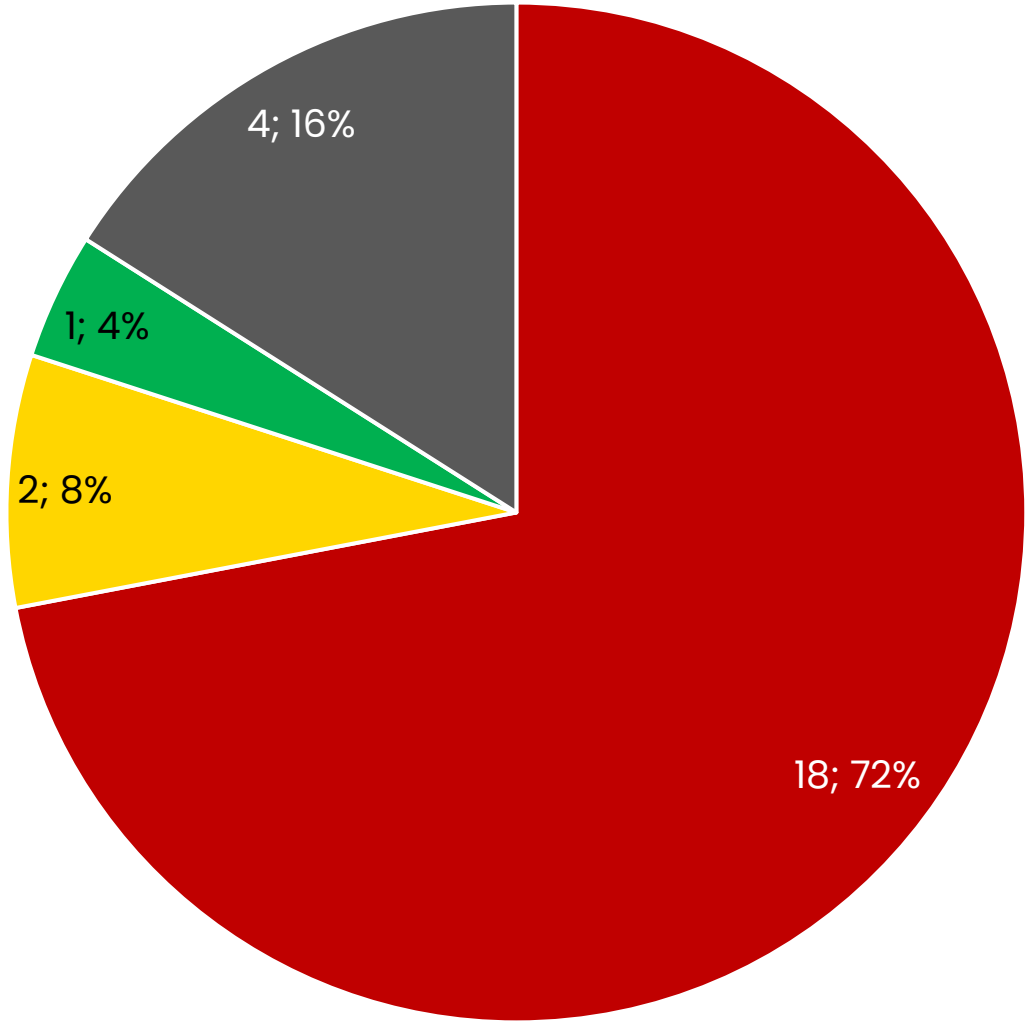
Some Risk High Risk Do Not Use





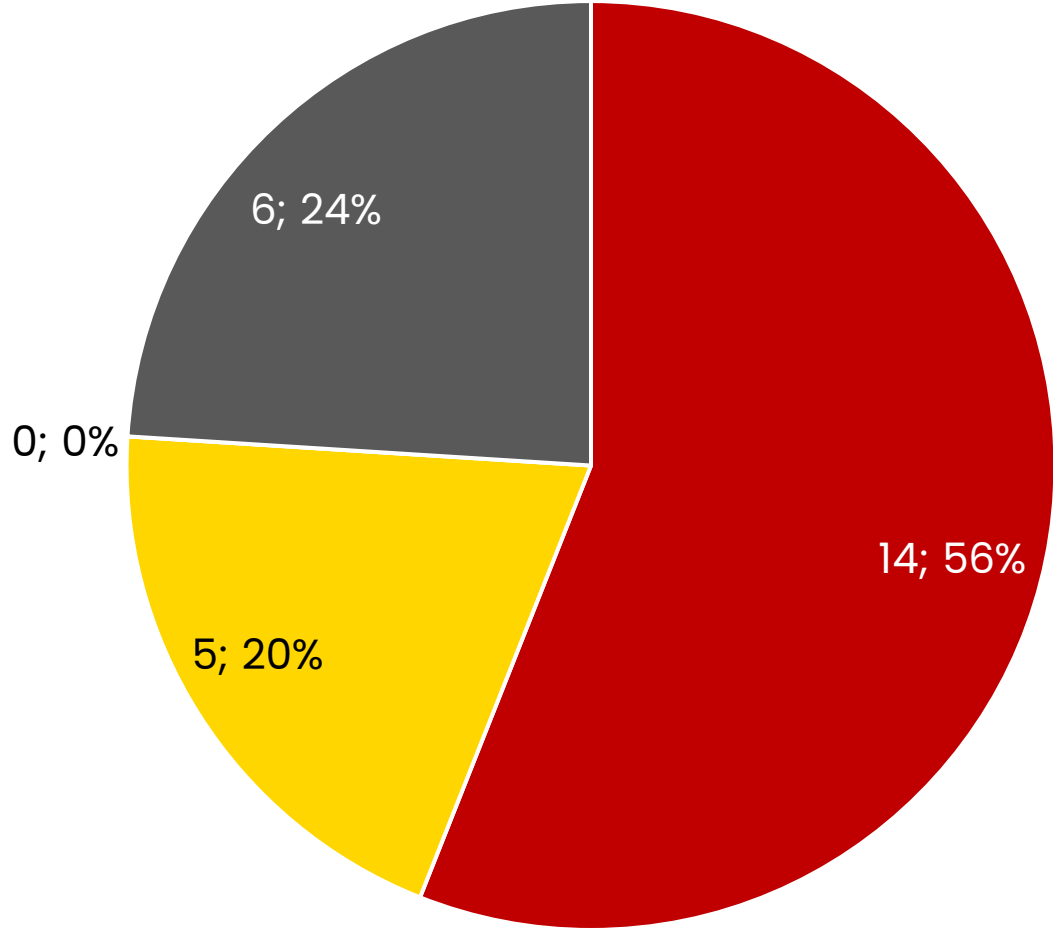
Most Recommended vs. Most Required

25 Most Recommended App Scores



■ Do Not Use ■ High Risk ■ Some Risk ■ UTT

Top 25 Mandatory/Key Apps by App Score



■ Do Not Use ■ High Risk ■ Some Risk ■ UTT

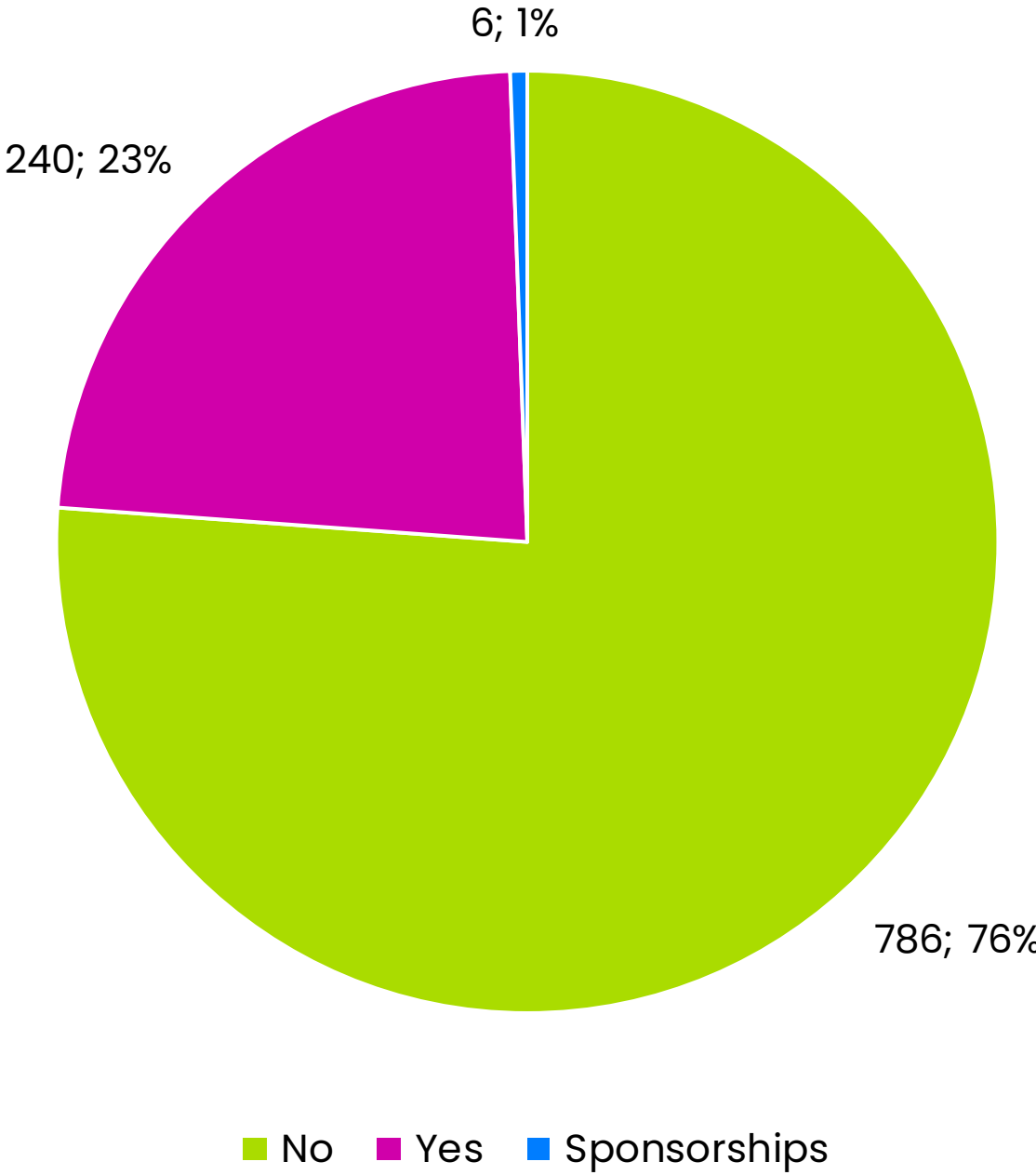
Key Findings

- Most apps used by K12 students are unsafe for children.
 - Custom CEP apps for school districts are less safe than NES and O apps.
 - From a safety perspective, iOS has slight advantage over Android.
- 23% of apps used by K12 students include ads.
 - 13% include retargeting ads.

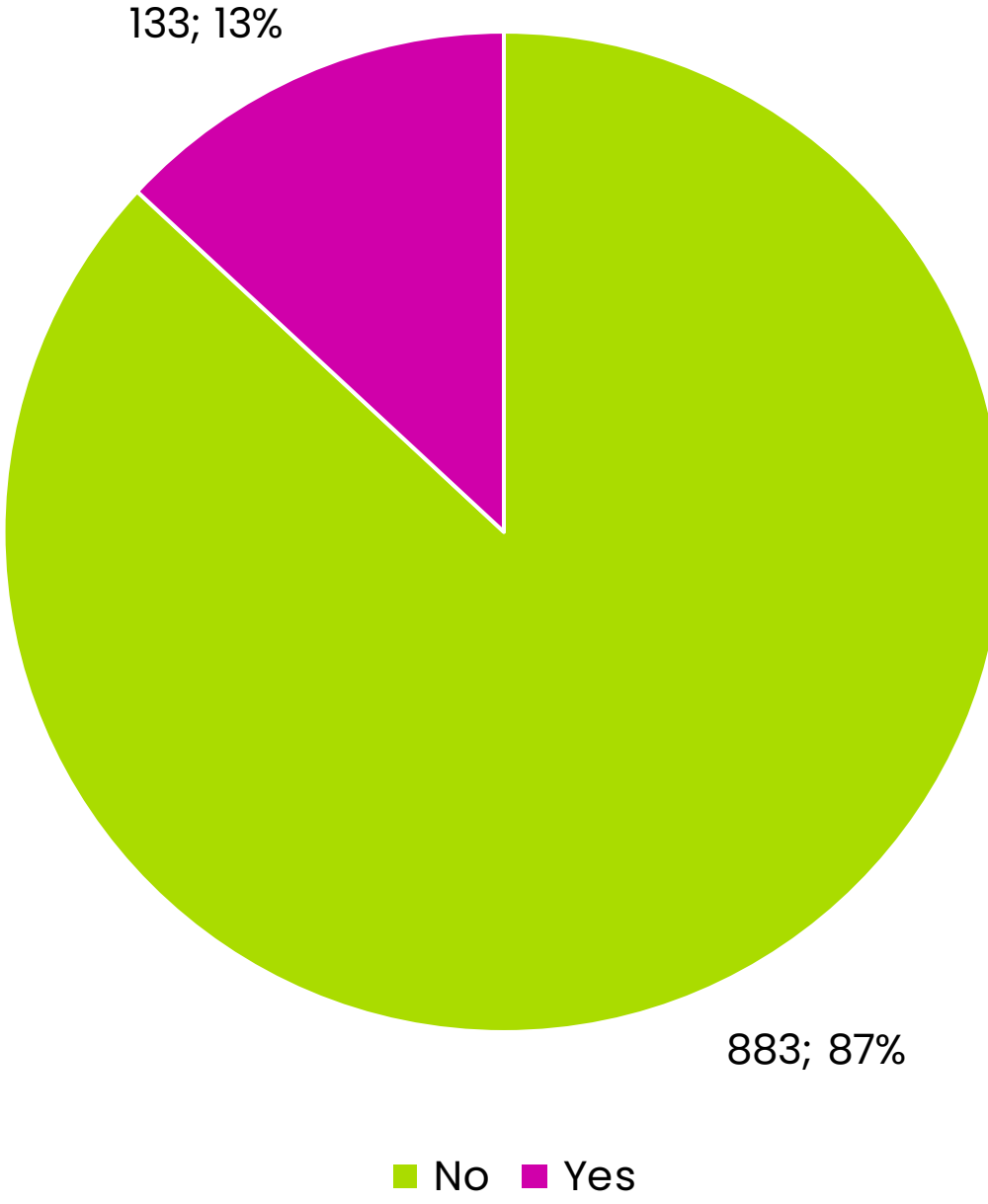


Advertising in K12 Edtech

Ad Presence - All Apps



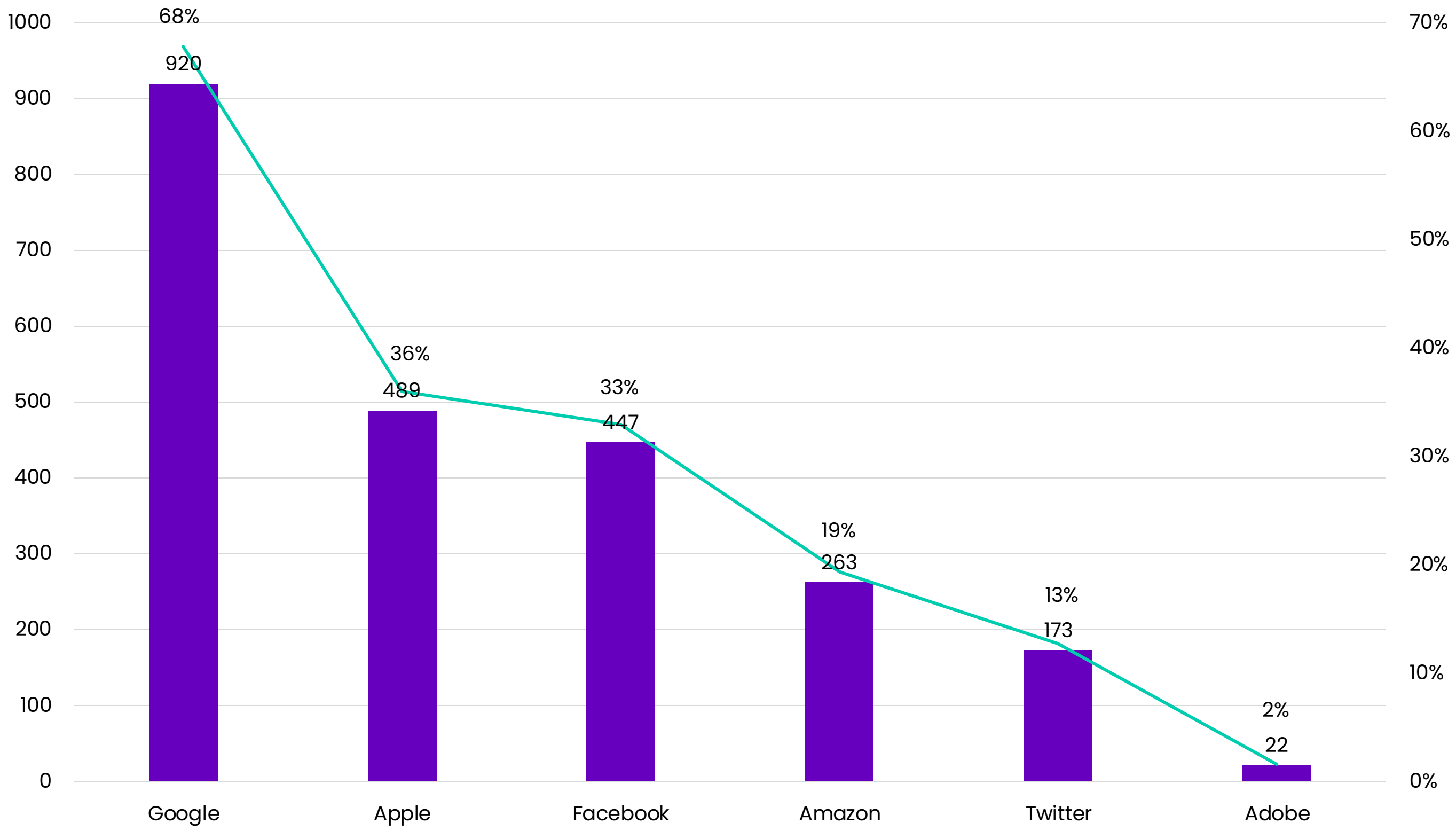
Retargeting Ad Presence - All Apps



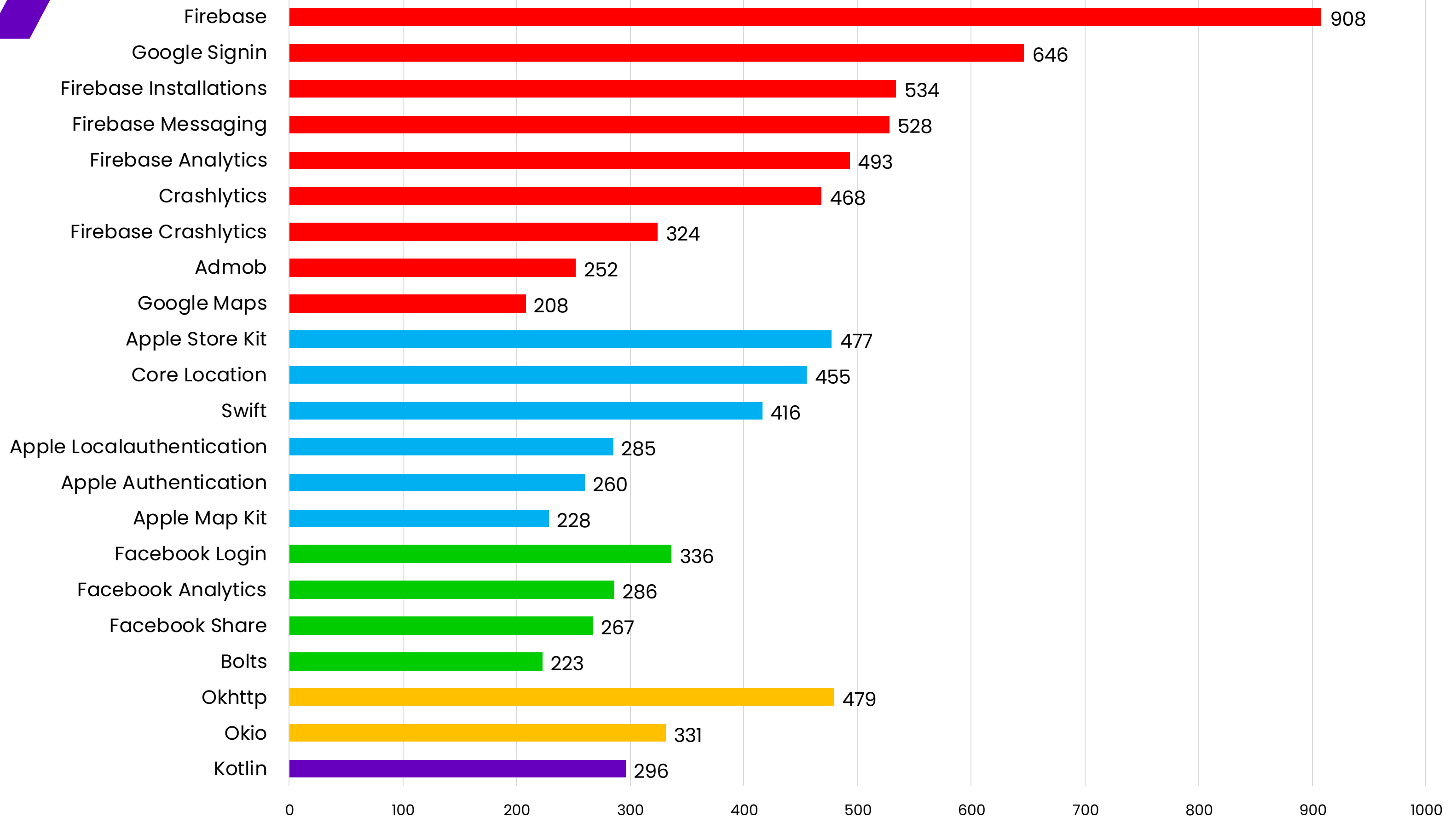
Key Findings

- Most apps used by K12 students are unsafe for children.
 - Custom CEP apps for school districts are less safe than NES and O apps.
 - From a safety perspective, iOS has slight advantage over Android.
- 23% of apps used by K12 students include ads.
 - 13% include retargeting ads.
- Google dominates K12 edtech in the US.

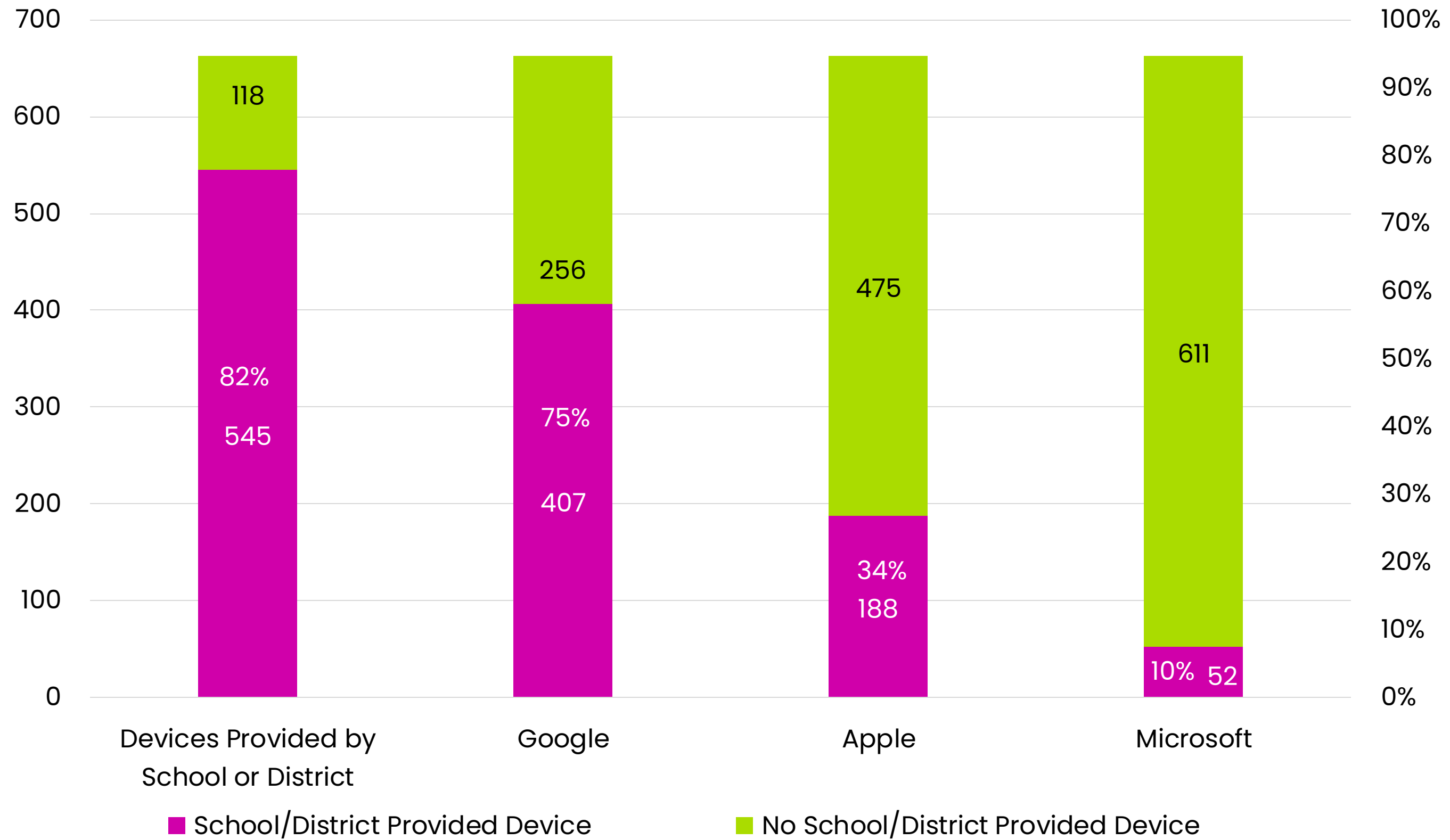
Observed Network Traffic to Big 6 Platforms - All Apps



Most Used SDKs (Clustered by Developer)



School/District Provided Computing Devices by OS Vendor



% of Devices Provided by Schools/Districts

Key Findings

- Most apps used by K12 students are unsafe for children.
 - Custom CEP apps for school districts are less safe than NES and O apps.
 - From a safety perspective, iOS has slight advantage over Android.
- 23% of apps used by K12 students include ads.
 - 13% include retargeting ads.
- Google dominates K12 edtech in the US.
- “Edtech” isn’t kidtech.**

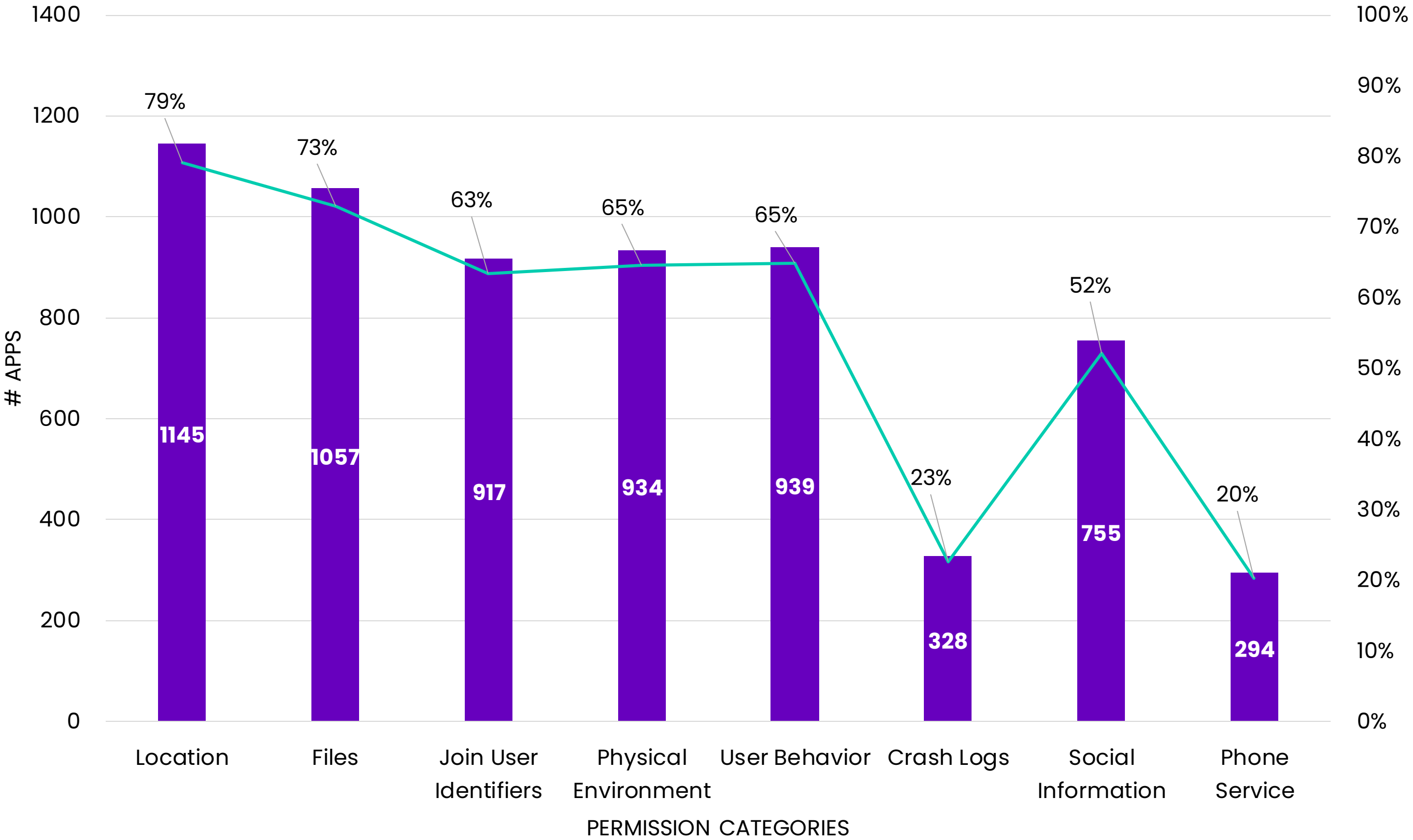
Key Findings

- Most apps used by K12 students are unsafe for children.
 - Custom CEP apps for school districts are less safe than NES and O apps.
 - From a safety perspective, iOS has slight advantage over Android.
- 23% of apps used by K12 students include ads.
 - 13% include retargeting ads.
- Google dominates K12 edtech in the US.
- “Edtech” isn’t kidtech.
- 82% of schools provide personal computing devices to students.

Key Findings

- Most apps used by K12 students are unsafe for children.
 - Custom CEP apps for school districts are less safe than NES and O apps.
 - From a safety perspective, iOS has slight advantage over Android.
- 23% of apps used by K12 students include ads.
 - 13% include retargeting ads.
- Google dominates K12 edtech in the US.
- “Edtech” isn’t kidtech.
- 82% of schools provide personal computing devices to students.
- 79% of apps access location**

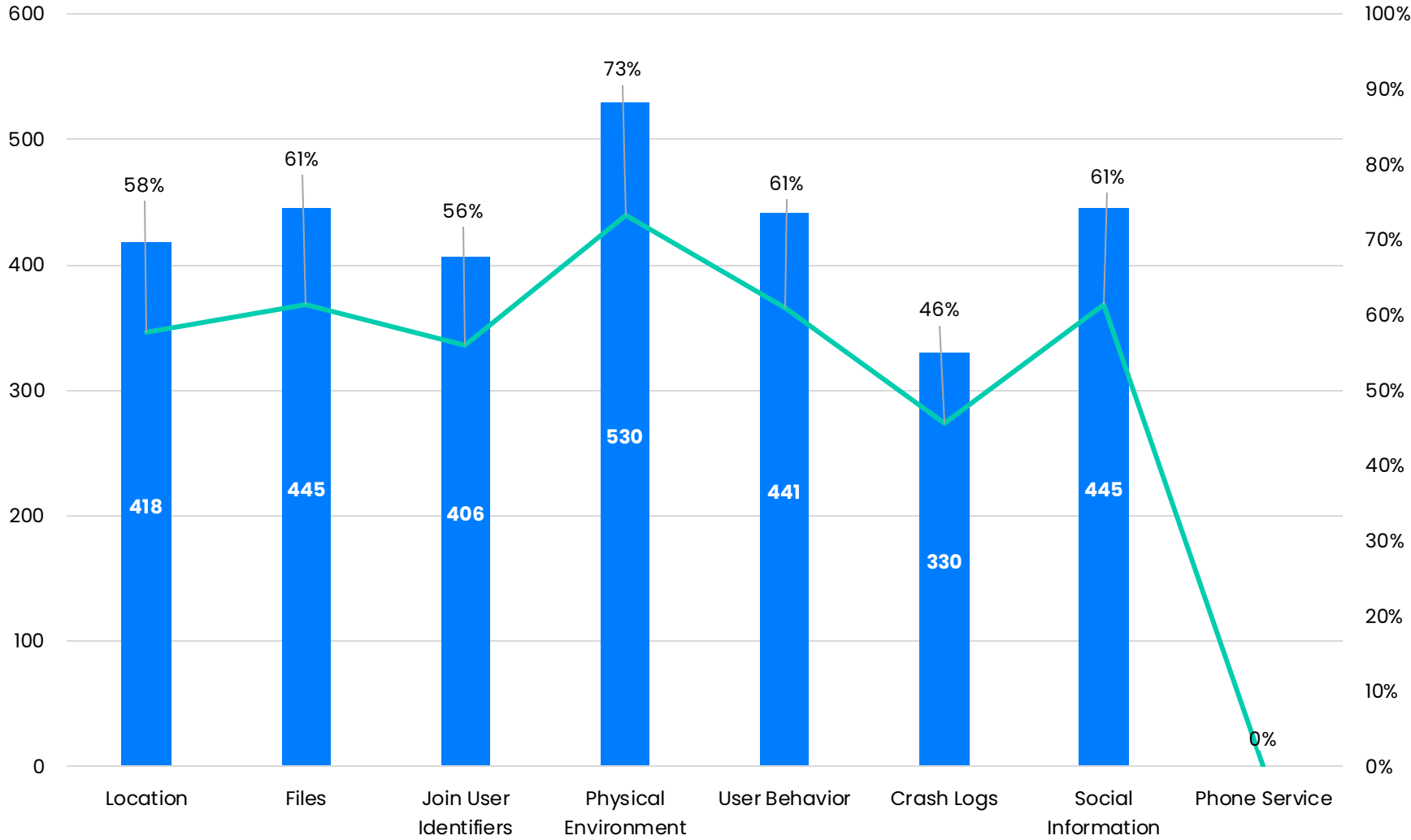
Permissions - All Apps



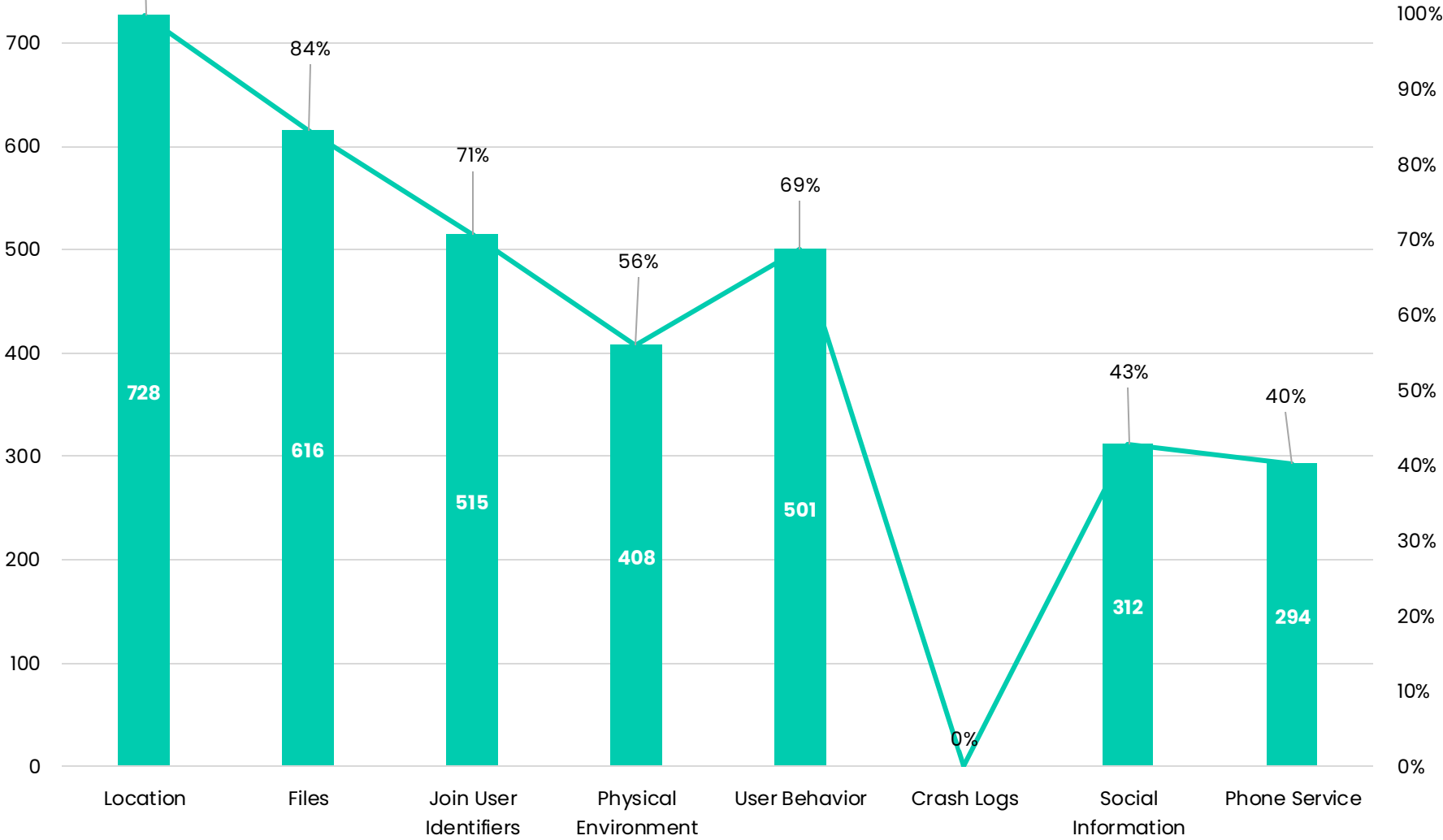


Permissions by OS

Permissions - iOS Apps



Permissions - Android Apps



US K12 EdTech Benchmark Findings Report 2: Key Findings

Pub: June 2023



Key Research Questions

- ◆ What tech practices are schools performing in the US?
- ◆ Do certifications /pledges /contracts have an effect on app safety?




Key Deliverables

- ◆ [Findings Report 2: School Tech Practices & 3rd Party Certifications](#)
- ◆ [Tableau Benchmark Dashboard](#)

School Technology Behaviors

- ◆ Notice
- ◆ Consent
- ◆ Vetting



School Technology Behaviors

- ◆ Most schools NOT providing:
 - ◆ Notice,
 - ◆ Consent, or
 - ◆ Vetting



Notice

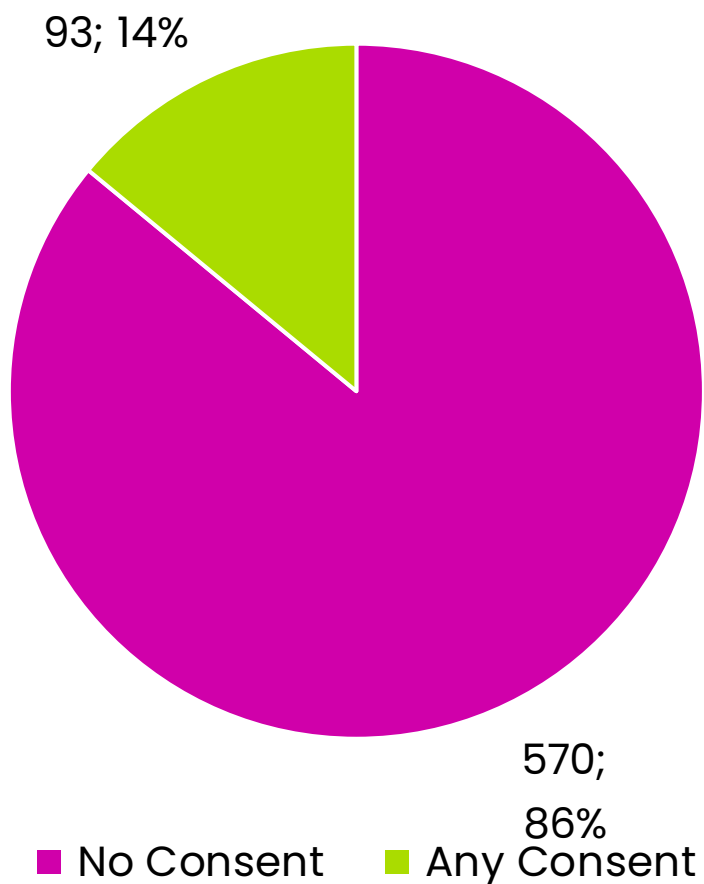
Technology Notice Provided by School



- No Technology Notice Provided
- Technology Notice Provided

Consent

Tech Consent Practices in US Schools



- Some schools overuse COPPA ability to consent on behalf of students:
 - ISL occasionally found school-consented-to technology lists containing in at least one case **hundreds** of websites/apps.
 - The lists included “off the shelf” technologies that students provision and use independently of the school (or don’t require a login at all).
 - ISL estimates that of all the technologies required or recommended by schools, **only 19.3% of them are licensed by the school/LEA**, and 80.7% are off the shelf technologies.

Children's Online Privacy Protection Act (COPPA)

Dear Parents/Guardians,

If you have a school-aged child(ren) 13 years old or younger, ██████ Public Schools would like to share some important information, especially as we reopen schools using a virtual learning format for the 2020-2021 school year.

██████ Public Schools provides your child(ren) with the most effective web-based tools and applications for learning and uses several computer software applications and web-based services, operated by third parties. ██████ uses Google Apps for Education and other web-based resources (i.e., Canvas, Zoom, and Flipgrid) for students. For our students to use these programs and services, certain personal identifying information -- generally the student's name and email address -- must be provided to the website operator.

Under federal law, entitled the [Children's Online Privacy Protection Act \(COPPA\)](#), these websites must provide parental notification and obtain parental consent before collecting personal information from children under the age of 13. However, the law permits school divisions to consent to the collection of personal information on behalf of all its students, thereby eliminating the need for individual parental consent given directly to the website operator. A list of the possible sites to be used in our classrooms, with links to their privacy policies and terms of services, can be seen below.

If you have any questions, please contact your child(ren)'s principal. As always, thank you for your continued support of your student's success.

[Here is a list of COPPA information sites.](#)

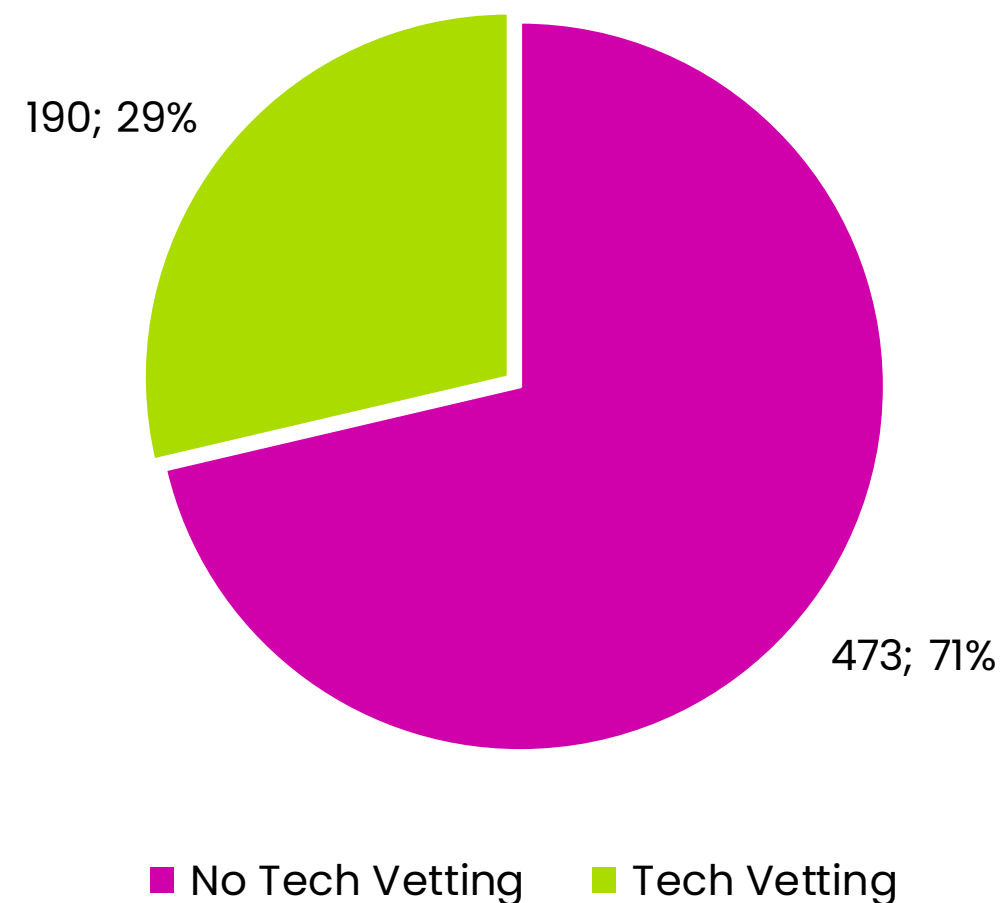
| COPPA Sites : Sheet1 | |
|----------------------|---|
| Moby Games | https://www.mobymax.com/ |
| Mobymax | https://www.mobymax.com/ |
| Moma Art Lab | https://www.moma.org |
| Moodle | https://moodle.org/ |
| Mr. Nussbaum | https://mmussbaum.com/ |
| Mrs. Lodge's Library | http://www.mrs-lodges-library.com/ |
| MSNBC | https://www.msnbc.com/ |
| MSTAR/ESTAR | https://estarmstar.org/ |
| Multiplication.com | https://www.multiplication.com/ |
| Music Dictionary | https://www.classicsforkids.com/music/musical_dictionary.php |
| Music First | https://www.musicfirst.com/ |

Example of LEA consenting on behalf of student for off the shelf technologies.



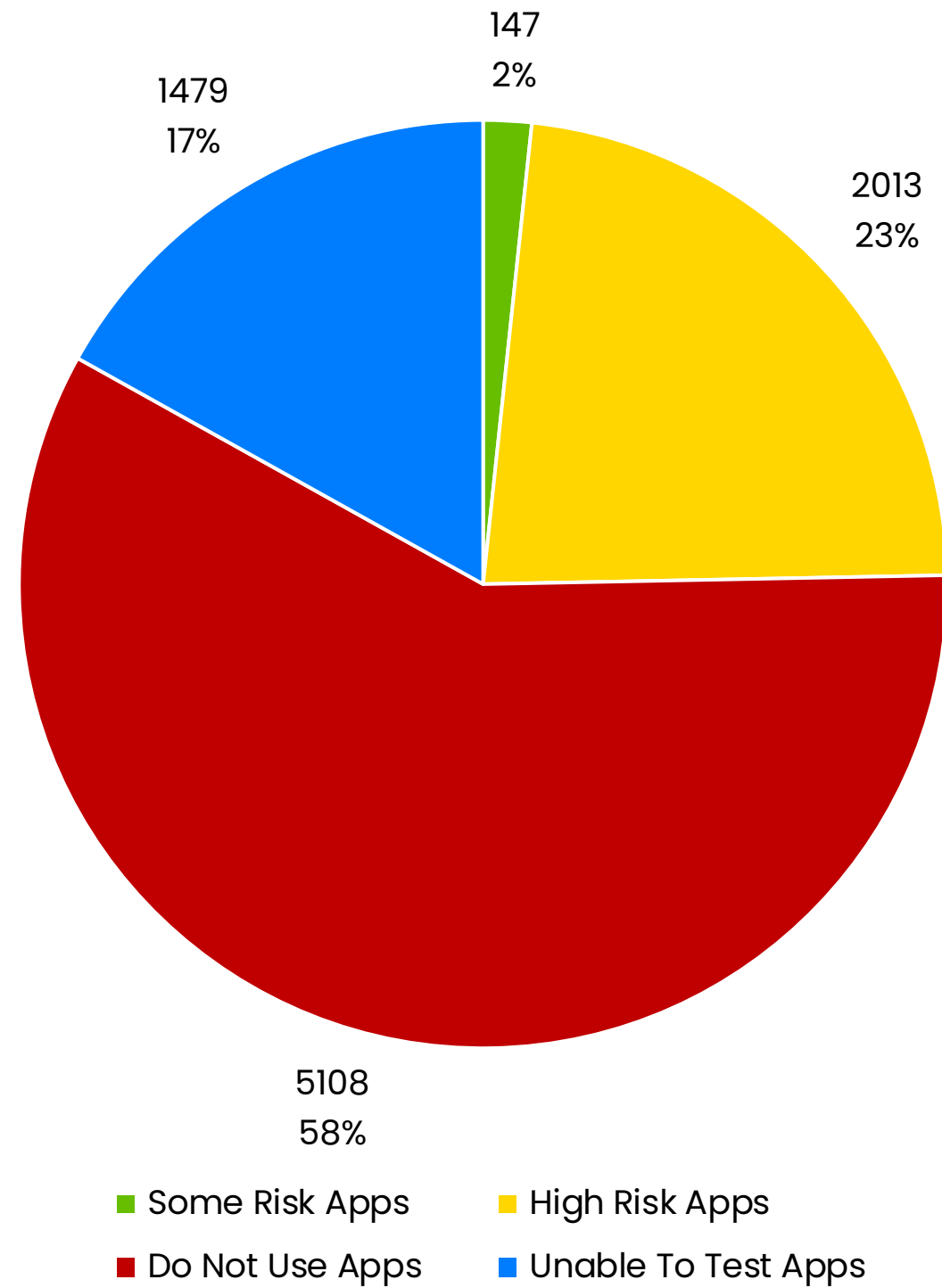
Vetting

Technology Vetting by Schools

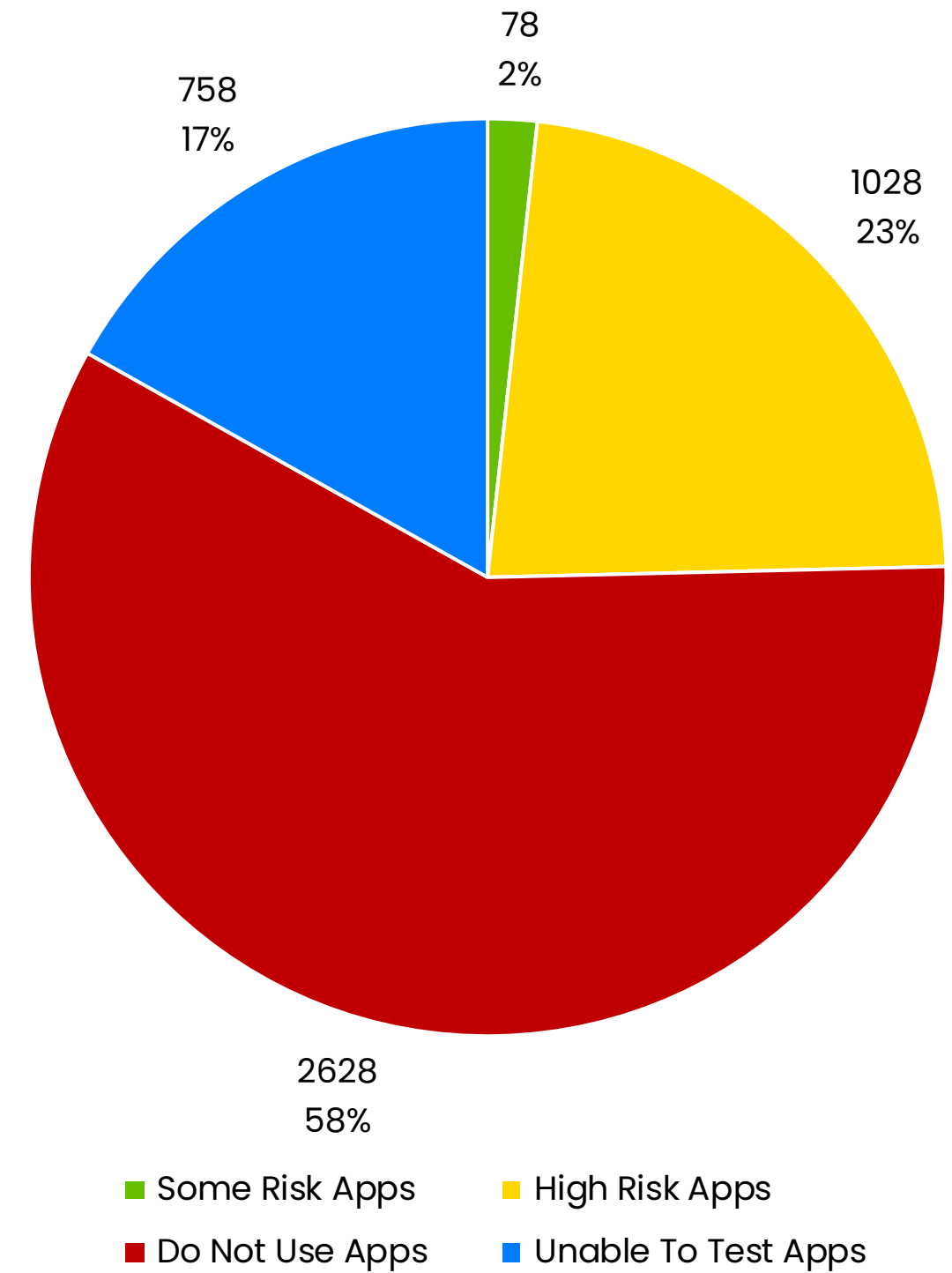


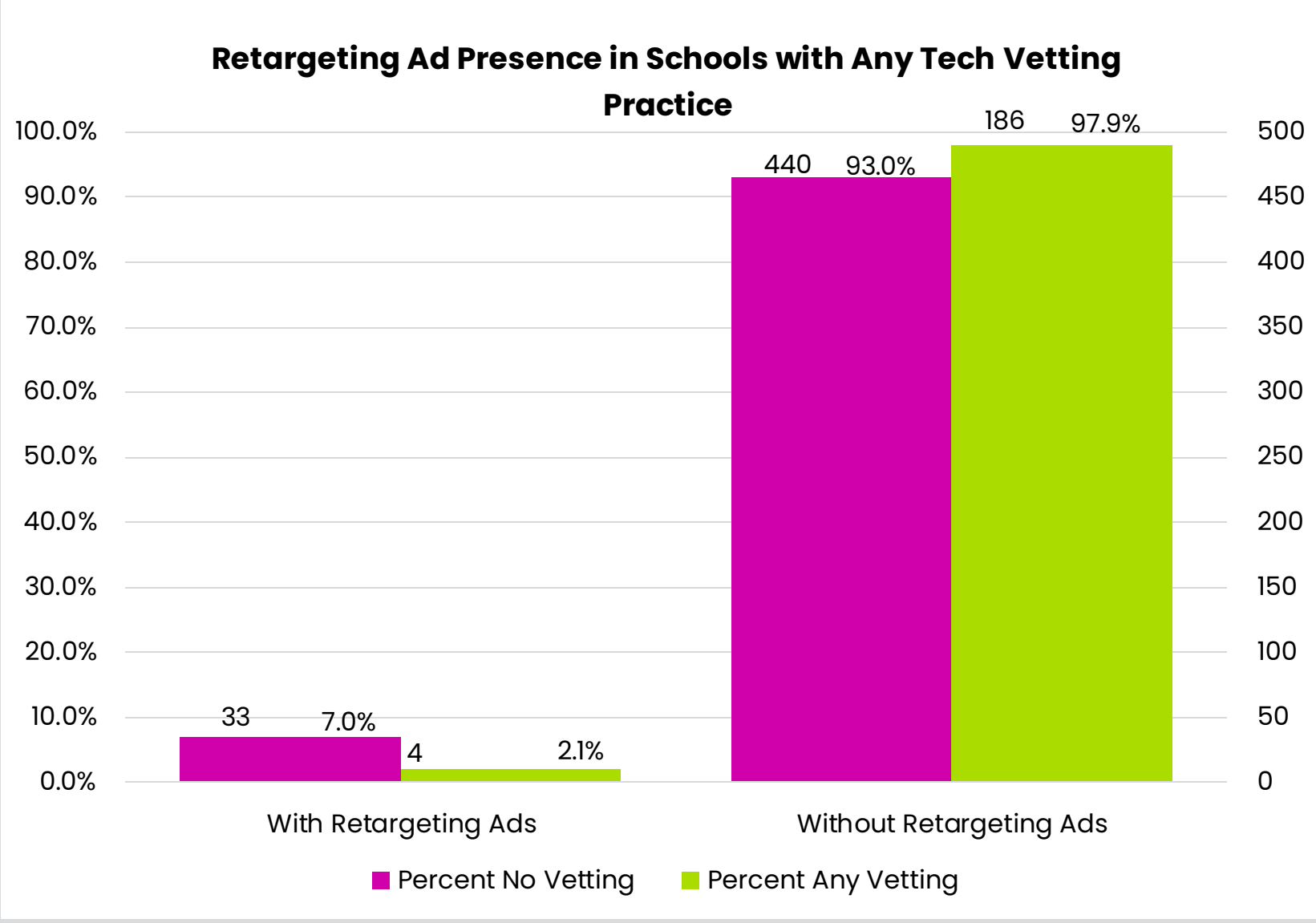
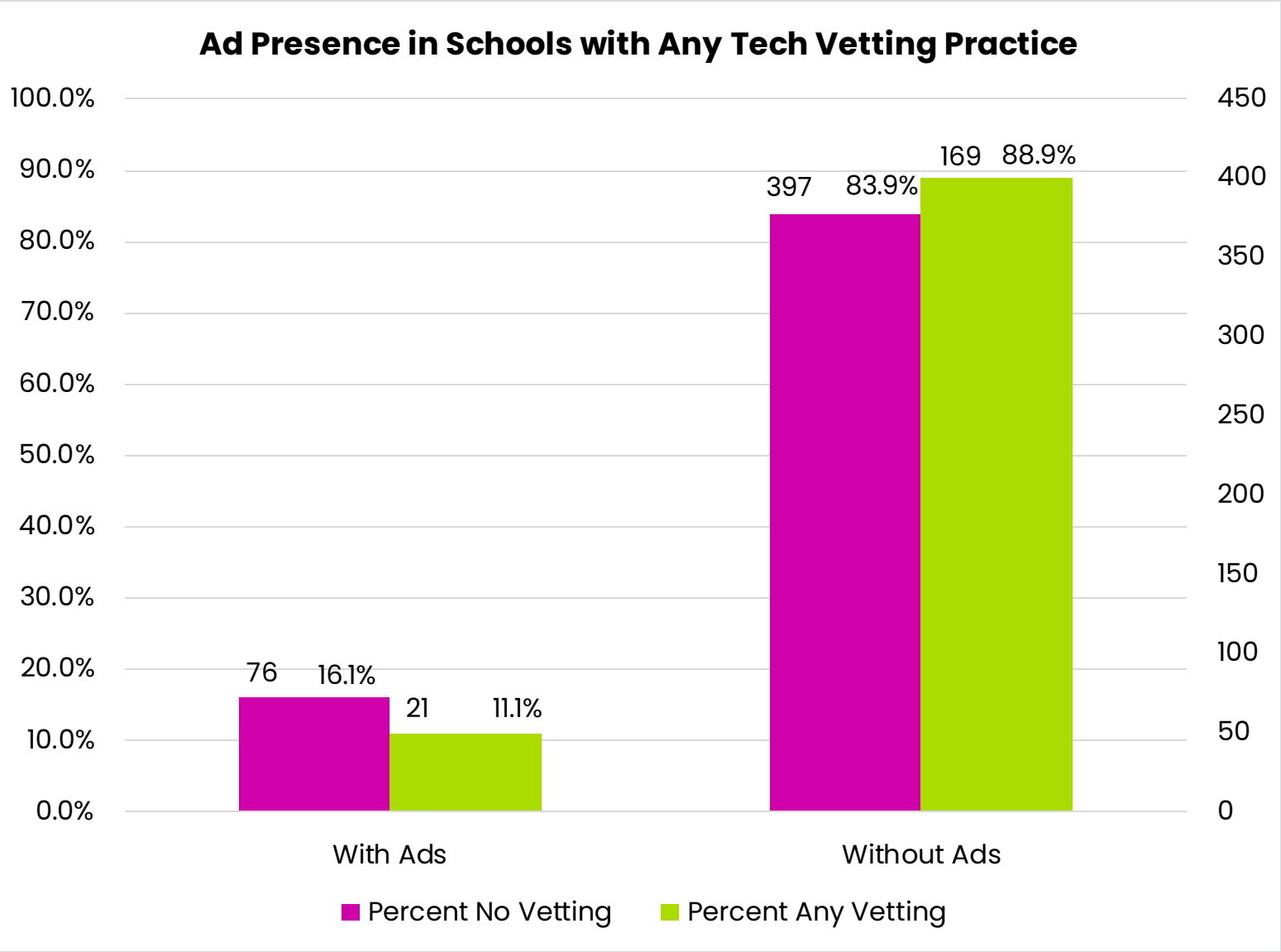
- **No difference** in ISL Safety Scores between schools that have systemic vetting of technology and schools that don't.
- Somewhat **reduced** presence of ads.
- Schools with systemic vetting recommend/require **27.6% more technologies** to students.

App Scores - Schools Without Tech Vetting



App Scores - Schools With Tech Vetting






Certifications & Promises

- ◆ Certifications
 - ◆ COPPA Safe Harbor Certification*
 - ◆ Proprietary Certifications
- ◆ Promises
 - ◆ Student Privacy Pledge 2020* (Future of Privacy Forum et al)
 - ◆ Data Privacy Agreements* – Student Data Privacy Consortium

* Legally binding/enforceable



Apps with Certifications & Promises Analysis

- ◆ School Utility Apps (part of Community Engagement Platforms) are ***extremely unsafe and should not be certified or signing promises until they're made safer.***
- ◆ We excluded these apps from the analysis because of their distortive effect.
- ◆ Listed in Appendices B and C in the report.

Apps with Certifications & Promises Analysis [excluding CEP apps]

- ◆ The set of apps with any kind of certification or promise was **safer** than apps without.

| ALL NON-CEP APPS | # Apps | Do Not Use | High Risk | Some Risk | Unable to Test | Ads | Retargeting Ads |
|-------------------------------|--------|------------|-----------|-----------|----------------|-------|-----------------|
| ISL Benchmark | 1298 | 54.6% | 15.1% | 3.9% | 26.5% | 15.2% | 8.9% |
| Any Certification or Promise | 431 | 51.5% | 15.6% | 3.0% | 29.9% | 7.9% | 2.0% |
| No Certifications or Promises | 867 | 56.1% | 14.9% | 4.3% | 24.8% | 18.6% | 12.1% |



COPPA Safe Harbor Certified Apps

- ◆ COPPA Safe Harbor certified apps had no retargeting [aka behavioral] ads, but performed **worse** on ISL Safety Score and presence of digital ads compared to both:
 - ◆ The overall set of apps, and
 - ◆ The set of apps with NO certifications or promises.



| ALL NON-CEP APPS | # Apps | Do Not Use | High Risk | Some Risk | Unable to Test | Ads | Retargeting Ads |
|---|---------------|-------------------|------------------|------------------|-----------------------|--------------|------------------------|
| ISL Benchmark | 1298 | 54.6% | 15.1% | 3.9% | 26.5% | 15.2% | 8.9% |
| Any Certification or Promise | 431 | 51.5% | 15.6% | 3.0% | 29.9% | 7.9% | 2.0% |
| No Certifications or Promises | 867 | 56.1% | 14.9% | 4.3% | 24.8% | 18.6% | 12.1% |
| <i>CERTIFICATIONS</i> | | | | | | | |
| All Certifications | 93 | 63.4% | 9.7% | 0.0% | 26.9% | 16.2% | 0.0% |
| ALL COPPA Safe Harbor Certifications | 61 | 73.8% | 9.8% | 0.0% | 16.4% | 21.6% | 0.0% |
| iKeepSafe | 24 | 79.2% | 0.0% | 0.0% | 20.8% | 10.5% | 0.0% |
| KidSafe | 25 | 72.0% | 16.0% | 0.0% | 12.0% | 18.2% | 0.0% |
| Privo | 10 | 60.0% | 20.0% | 0.0% | 20.0% | 50.0% | 0.0% |
| Proprietary | | | | | | | |
| IEdTech | 40 | 40.0% | 12.5% | 0.0% | 47.5% | 0.0% | 0.0% |

Certified Apps

- 1EdTech, a proprietary privacy certification, resulted in the best safety metrics.

| ALL NON-CEP APPS | # Apps | Do Not Use | High Risk | Some Risk | Unable to Test | Ads | Retargeting Ads |
|---|-------------|--------------|--------------|-------------|----------------|--------------|-----------------|
| ISL Benchmark | 1298 | 54.6% | 15.1% | 3.9% | 26.5% | 15.2% | 8.9% |
| Any Certification or Promise | 431 | 51.5% | 15.6% | 3.0% | 29.9% | 7.9% | 2.0% |
| No Certifications or Promises | 867 | 56.1% | 14.9% | 4.3% | 24.8% | 18.6% | 12.1% |
| <i>CERTIFICATIONS</i> | | | | | | | |
| All Certifications | 93 | 63.4% | 9.7% | 0.0% | 26.9% | 16.2% | 0.0% |
| ALL COPPA Safe Harbor Certifications | 61 | 73.8% | 9.8% | 0.0% | 16.4% | 21.6% | 0.0% |
| iKeepSafe | 24 | 79.2% | 0.0% | 0.0% | 20.8% | 10.5% | 0.0% |
| KidSafe | 25 | 72.0% | 16.0% | 0.0% | 12.0% | 18.2% | 0.0% |
| Privo | 10 | 60.0% | 20.0% | 0.0% | 20.0% | 50.0% | 0.0% |
| Proprietary | | | | | | | |
| 1EdTech | 40 | 40.0% | 12.5% | 0.0% | 47.5% | 0.0% | 0.0% |

Promises

- ◆ Promises performed better than certified apps on presence of digital ads and ISL Safety Score.
- ◆ But worse on retargeting ads.

| ALL NON-CEP APPS | # Apps | Do Not Use | High Risk | Some Risk | Unable to Test | Ads | Retargeting Ads |
|---------------------------------------|-------------|--------------|--------------|-------------|----------------|--------------|-----------------|
| ISL Benchmark | 1298 | 54.6% | 15.1% | 3.9% | 26.5% | 15.2% | 8.9% |
| Any Certification or Promise | 431 | 51.5% | 15.6% | 3.0% | 29.9% | 7.9% | 2.0% |
| No Certifications or Promises | 867 | 56.1% | 14.9% | 4.3% | 24.8% | 18.6% | 12.1% |
| <i>CERTIFICATIONS</i> | | | | | | | |
| All Certifications | 93 | 63.4% | 9.7% | 0.0% | 26.9% | 16.2% | 0.0% |
| <i>PROMISES</i> | | | | | | | |
| Student Privacy Pledge | 158 | 38.6% | 19.0% | 3.8% | 38.6% | 2.1% | 2.1% |
| SDPC | 364 | 53.9% | 16.2% | 1.9% | 28.2% | 8.0% | 2.3% |
| <i>SELF-ASSERTED COPPA COMPLIANCE</i> | | | | | | | |
| Self-Asserted COPPA Compliance Only | 239 | 55.7% | 13.8% | 1.7% | 28.9% | 11.2% | 7.1% |

Self-asserted COPPA Compliance

- Surprisingly, apps with self-asserted COPPA compliance were better than apps with no certification or promise.
- And better than total sample for ads and retargeting ads

| ALL NON-CEP APPS | # Apps | Do Not Use | High Risk | Some Risk | Unable to Test | Ads | Retargeting Ads |
|---------------------------------------|-------------|--------------|--------------|-------------|----------------|--------------|-----------------|
| ISL Benchmark | 1298 | 54.6% | 15.1% | 3.9% | 26.5% | 15.2% | 8.9% |
| Any Certification or Promise | 431 | 51.5% | 15.6% | 3.0% | 29.9% | 7.9% | 2.0% |
| No Certifications or Promises | 867 | 56.1% | 14.9% | 4.3% | 24.8% | 18.6% | 12.1% |
| <i>SELF-ASSERTED COPPA COMPLIANCE</i> | | | | | | | |
| Self-Asserted COPPA Compliance Only | 239 | 55.7% | 13.8% | 1.7% | 28.9% | 11.2% | 7.1% |

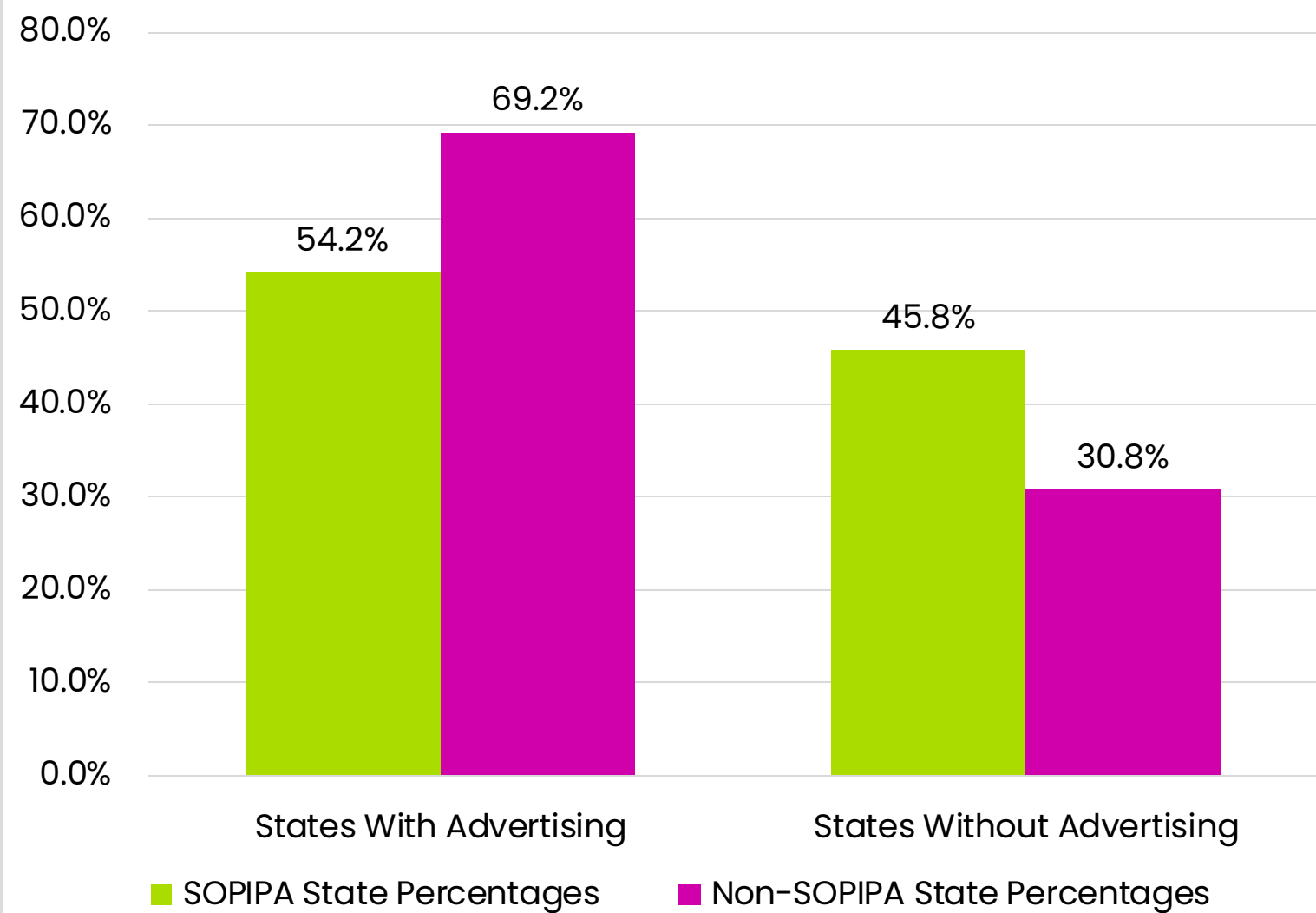


SOPIPA

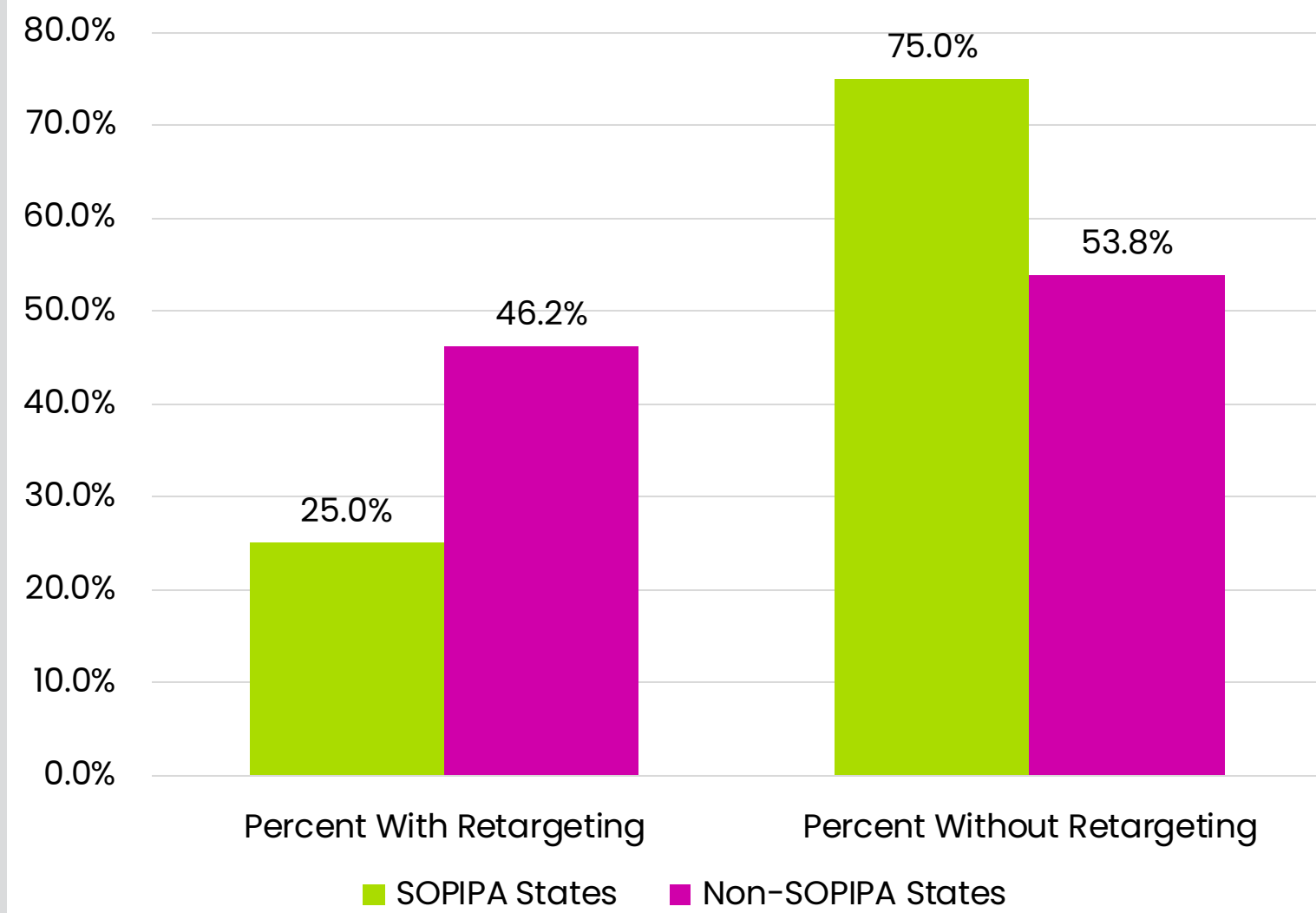
- ◆ States with SOPIPA-like laws saw improvement—but not complete elimination—of retargeting/behavioral ads.
- ◆ **Caveat: this is anecdotal/informational only, as our sample was not designed to measure this.**



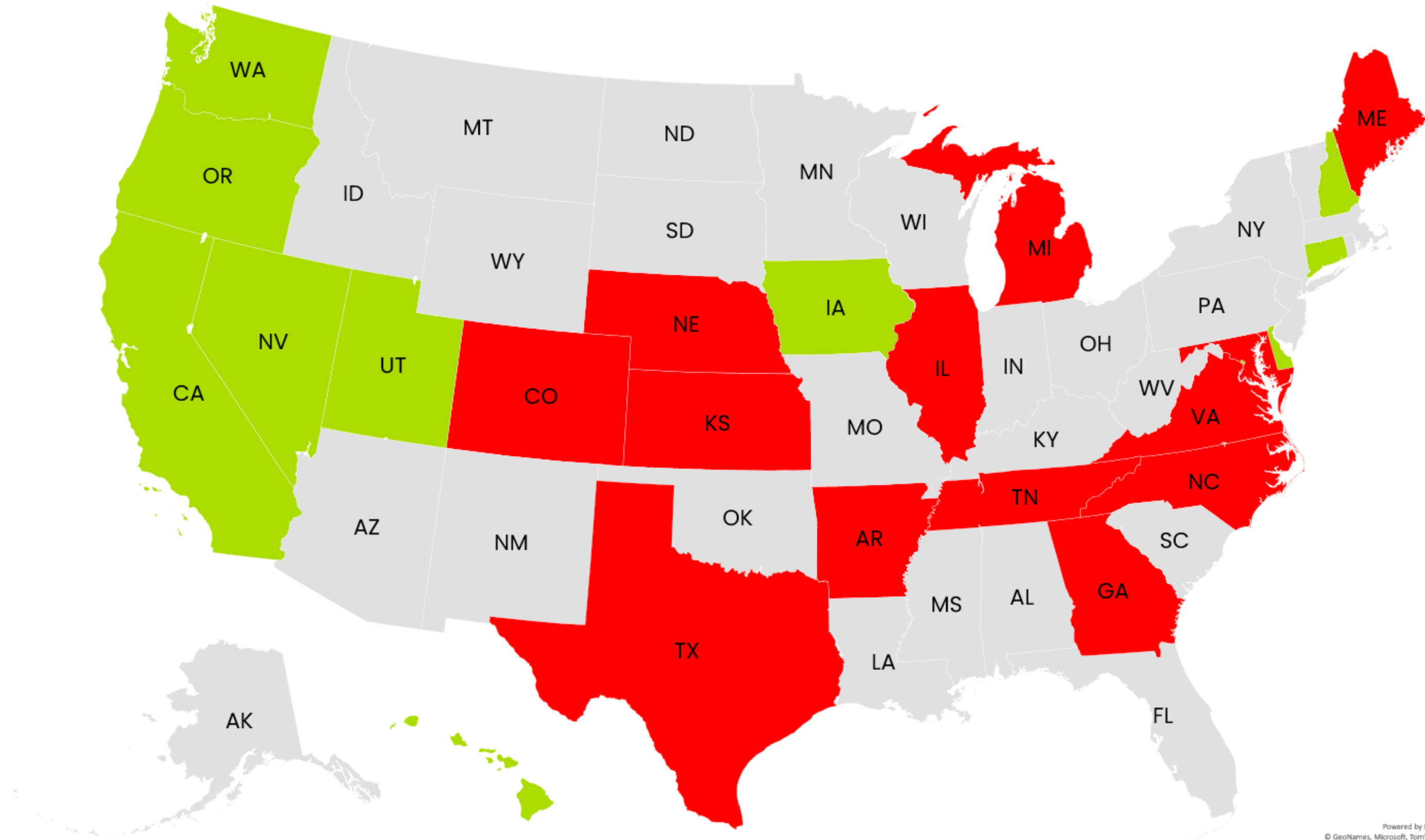
Advertising in Apps by State



Retargeting Ads in Apps by State




Advertising in SOPIPA States - Observed [red] and Not Observed [green]



Powered by Bing
© GeoNames, Microsoft, TomTom

US K12 EdTech Benchmark Findings Report 3: Key Findings

Pub: Feb 2024



Key Research Questions

- ◆ What demographic patterns were observed?



Key Deliverables

- ◆ Findings Report 3:
Demographic Analysis

Findings Report 4

- ◆ Demographic analysis of Tech Safety Topics:
 - ◆ School App Portfolio Safety
 - ◆ School Website Safety
 - ◆ School Tech Practices
- ◆ Analysis across:
 - ◆ School type (Elem, Middle, High, Private)
 - ◆ School locale,
 - ◆ Income level,
 - ◆ School Majority Race, and
 - ◆ School size (# students).
- ◆ School demographic data from [National Center for Education Statistics](#)

Metrics

- ⚡ School App Portfolio Safety
 - ⚡ Average number of recommended/required apps
 - ⚡ Average percentage of Very High Risk Apps
 - ⚡ Average percentage of apps with ads
 - ⚡ Average percentage of apps with behavioral ads.
- ⚡ School Website Safety
 - ⚡ Percentage of websites with ads.
 - ⚡ Percentage of websites with trackers
 - ⚡ Percentage of website with advertising related trackers

Metrics (con'td)

- ◆ **School Technology Practices**
 - ◆ **Percentage of schools providing technology notice**
 - ◆ **Percentage of schools allowing consent to use technology**
 - ◆ **Percentage of schools performing systemic tech vetting**
 - ◆ **Percentage of schools providing personal devices to students**

Key Findings

- ◆ Privacy or digital divide?
 - ◆ **Lowest income segment had lowest percentage of tech vetting, lowest average number of technologies (13.2) and highest percentage of apps with ads and behavioral ads.**
 - ◆ **Similar pattern for American Indian/Alaska Native majority race schools.**
 - ◆ Intersectionality not significant factor.



Metrics by School Income

| METRIC | National Average | \$20K-\$39K | \$40K-\$79K | \$80K-\$119K | \$120K & Above |
|--------------------------------------|------------------|-------------|-------------|--------------|----------------|
| APP SAFETY | | | | | |
| Avg # Rec/Req Apps | 19.9 | 13.2 | 18.8 | 21.3 | 23.0 |
| Avg # LEA Approved Apps | 186.3 | N/A | 128.6 | 240.6 | 192.6 |
| Avg School Composite Score | 53.7 | 37.5 | 51.3 | 57.4 | 61.7 |
| Avg % Very High Risk Apps | 69.4% | 69.8% | 69.7% | 69.3% | 68.4% |
| Avg % Ads in Apps | 7.8% | 9.8% | 8.2% | 6.7% | 9.1% |
| Avg % Behavioral Ads in Apps | 2.7% | 9.5% | 2.4% | 2.6% | 2.7% |
| WEBSITE SAFETY | | | | | |
| Avg # Trackers in School Website | 6.5 | 5.6 | 6.4 | 6.6 | 7.2 |
| % School Websites with Trackers | 91.1% | 88.9% | 91.1% | 91.1% | 91.8% |
| Avg # Red Trackers in School Website | 1.5 | 1.7 | 1.4 | 1.6 | 1.7 |
| % School Websites with Red Trackers | 79.3% | 83.3% | 77.7% | 80.6% | 83.6% |
| % School Websites with Ads | 20.3% | 16.7% | 22.3% | 20.9% | 8.2% |
| SCHOOL TECHNOLOGY PRACTICES | | | | | |
| % Schools Providing Notice | 44.8% | 27.8% | 40.1% | 48.0% | 65.6% |
| % of Schools Allowing Consent | 14.0% | 11.1% | 15.6% | 9.8% | 21.3% |
| % of Schools Vetting Technology | 28.7% | 0.0% | 22.0% | 32.9% | 60.6% |
| % of LEAs Providing Devices | 77.8% | 50.0% | 80.3% | 78.9% | 73.8% |

(n = 663)

(n = 18)

(n = 359)

(n = 225)

(n = 61)

Metrics by School Majority Race

| METRIC | National Average | American Indian/Alaska Native | Asian | Black | Hispanic | Native Hawaiian/Pacific Islander | Two or More Races | White |
|--------------------------------------|------------------|-------------------------------|-------|--------|----------|----------------------------------|-------------------|-------|
| APP SAFETY | | | | | | | | |
| Avg # Rec/Req Apps | 19.9 | 13.4 | 17.0 | 22.0 | 20.6 | 17.3 | 24.0 | 19.8 |
| Avg # LEA Approved Apps | 186.3 | 5.0 | 368.8 | 171.1 | 149.7 | N/A | 560.0 | 187.3 |
| Avg School Composite Score | 53.7 | 36.4 | 45.6 | 59.2 | 55.6 | 43.3 | 64.8 | 53.7 |
| Avg % Very High Risk Apps | 69.4% | 72.9% | 64.7% | 70.0% | 67.6% | 56.1% | 69.8% | 69.9% |
| Avg % Ads in Apps | 7.8% | 4.6% | 4.4% | 7.9% | 8.0% | 3.3% | 6.3% | 8.0% |
| Avg % Behavioral Ads in Apps | 2.7% | 4.3% | 2.4% | 2.5% | 2.9% | 3.3% | 3.1% | 2.6% |
| WEBSITE SAFETY | | | | | | | | |
| Avg # Trackers in School Website | 6.5 | 3.9 | 6.5 | 7.7 | 7.4 | 7.8 | 9.0 | 6.2 |
| % School Websites with Trackers | 91.1% | 83.3% | 92.9% | 100.0% | 98.9% | 100.0% | 100.0% | 88.4% |
| Avg # Red Trackers in School Website | 1.5 | 1.4 | 1.7 | 1.7 | 1.7 | 1.5 | 3.0 | 1.4 |
| % School Websites with Red Trackers | 79.3% | 83.3% | 78.6% | 85.7% | 88.0% | 100.0% | 50.0% | 76.7% |
| % School Websites with Ads | 20.3% | 16.7% | 7.1% | 33.3% | 22.8% | 0.0% | 0.0% | 18.9% |
| SCHOOL TECHNOLOGY PRACTICES | | | | | | | | |
| % Schools Providing Notice | 44.8% | 16.7% | 42.9% | 33.3% | 53.3% | 0.0% | 100.0% | 45.6% |
| % of Schools Allowing Consent | 14.0% | 0.0% | 14.3% | 15.9% | 16.3% | 0.0% | 0.0% | 13.9% |
| % of Schools Vetting Technology | 28.7% | 8.3% | 28.6% | 20.6% | 31.5% | 0.0% | 50.0% | 29.8% |
| % of LEAs Providing Devices | 77.8% | 41.7% | 85.7% | 87.3% | 87.0% | 75.0% | 50.0% | 75.8% |

(n = 663)

(n = 12)

(n = 14)

(n = 63)

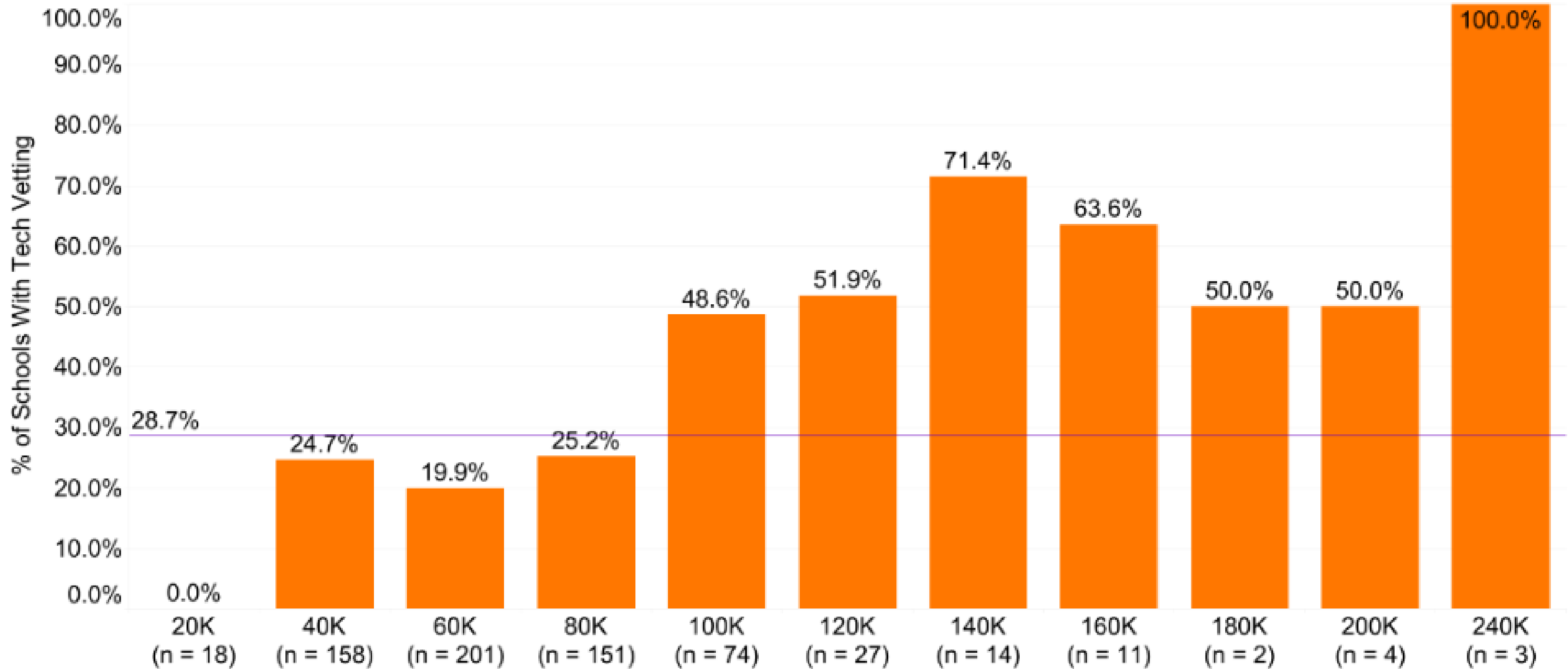
(n = 92)

(n = 4)

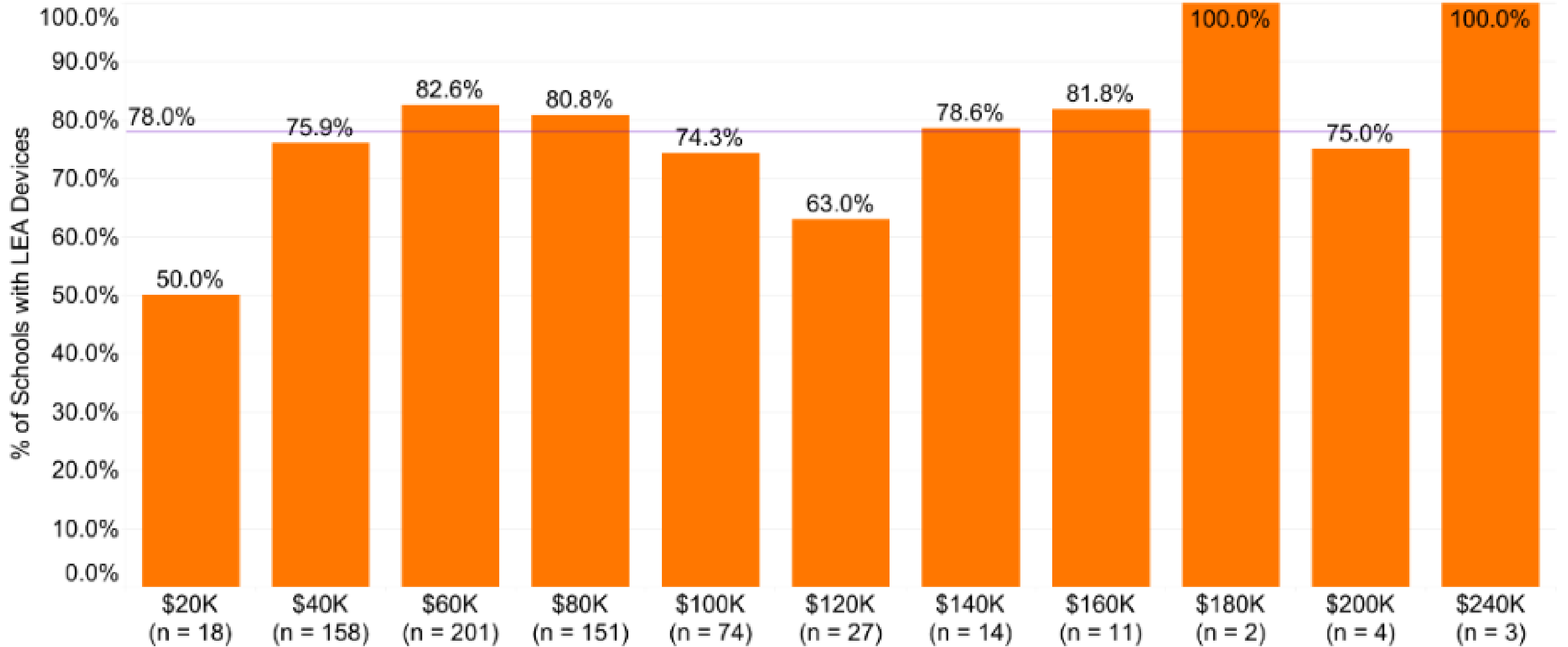
(n = 2)

(n = 476)

% of Schools with Tech Vetting by Income

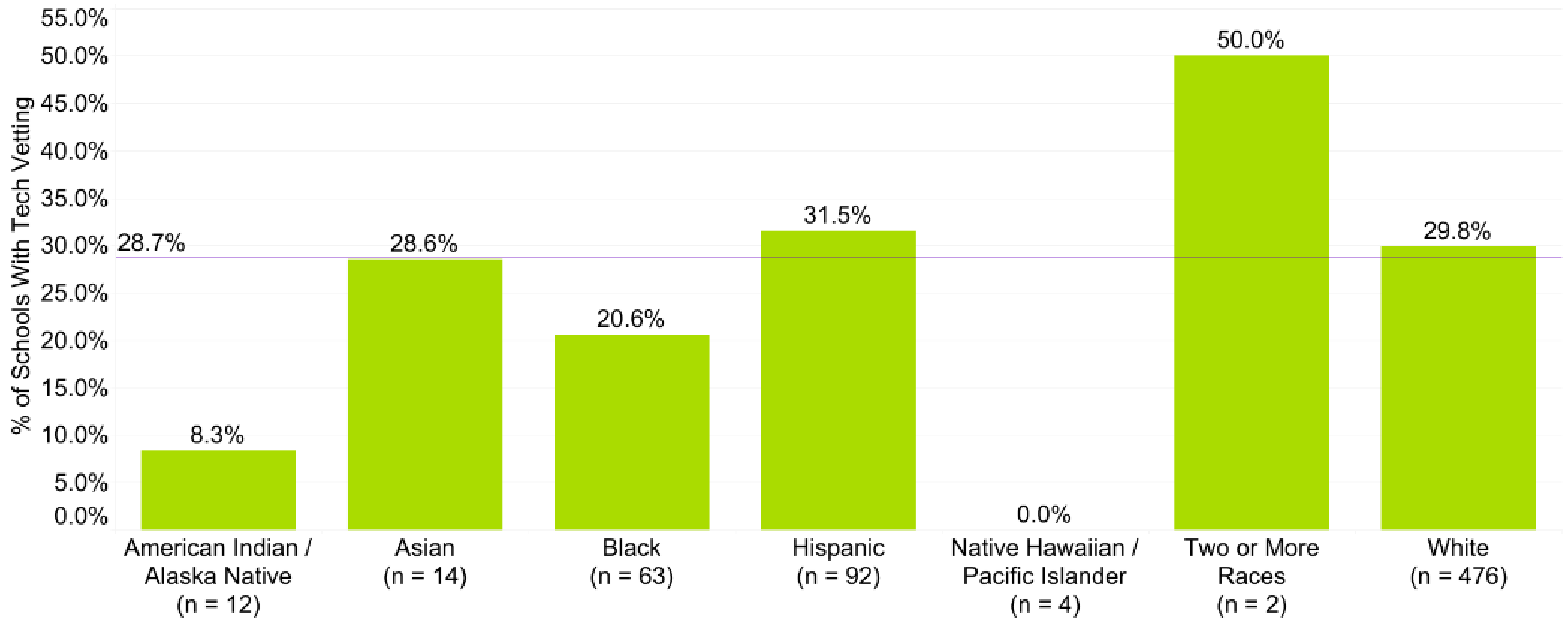


% of Schools with LEA Provided Devices by Income



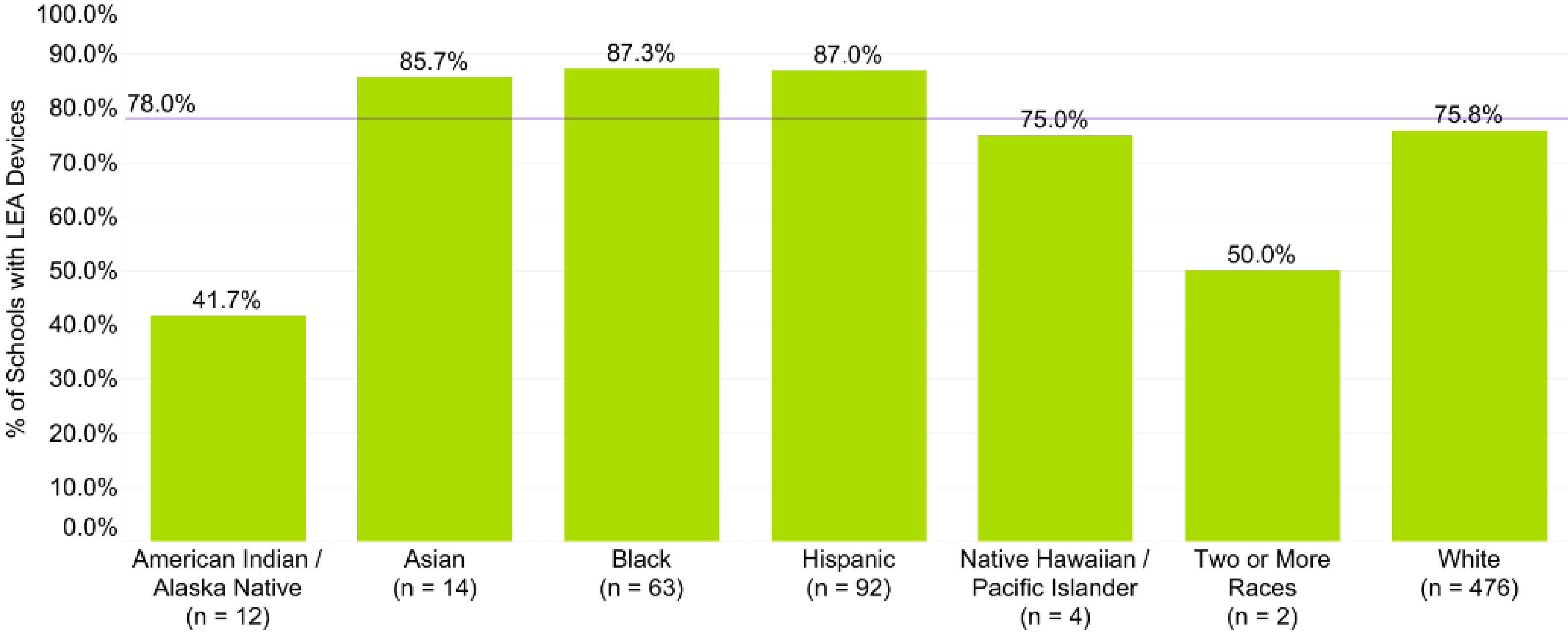


% of Schools with Tech Vetting by Majority Race





% of Schools with LEA Provided Devices by Majority Race



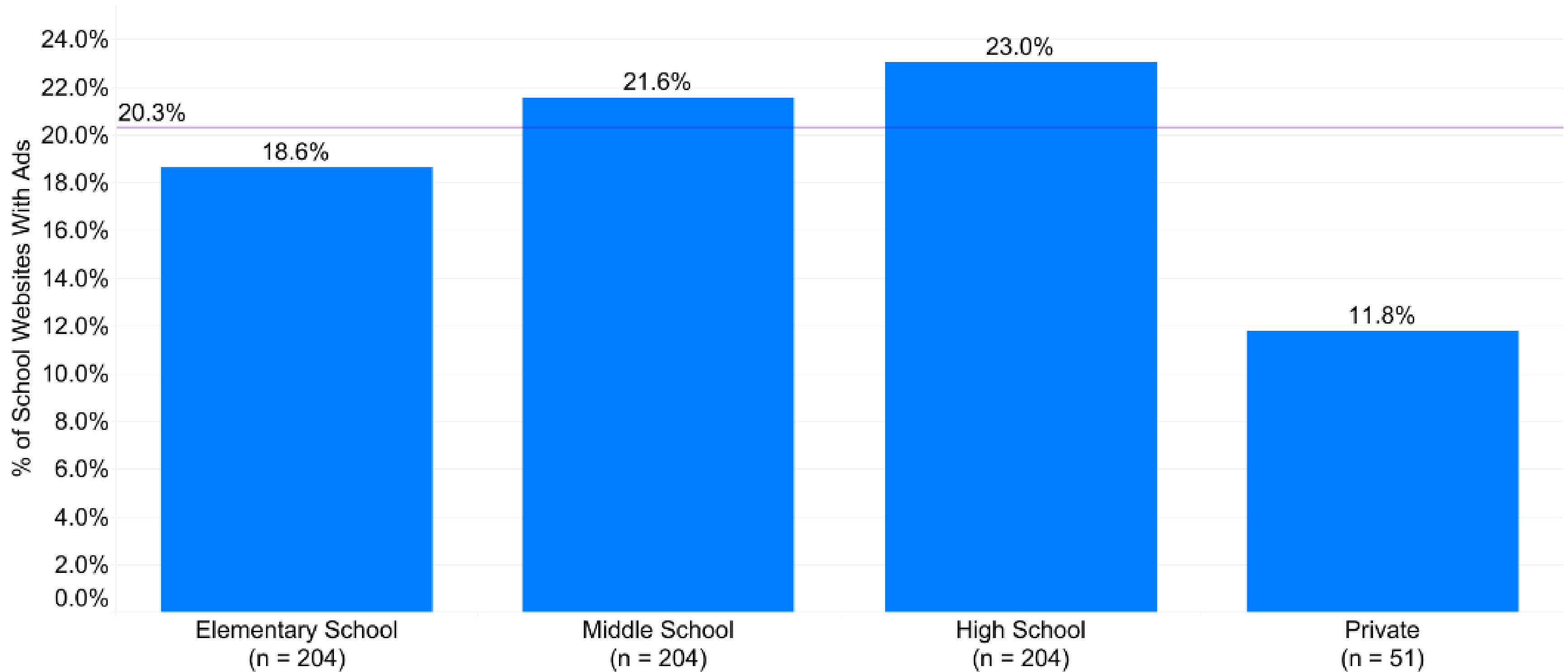


Key Findings

- ◆ 91.1% of school websites contain trackers and 20.3% include advertising.
- ◆ Public schools were nearly twice as likely as private schools to include ads.
- ◆ 79.3% of school websites include ad related trackers.



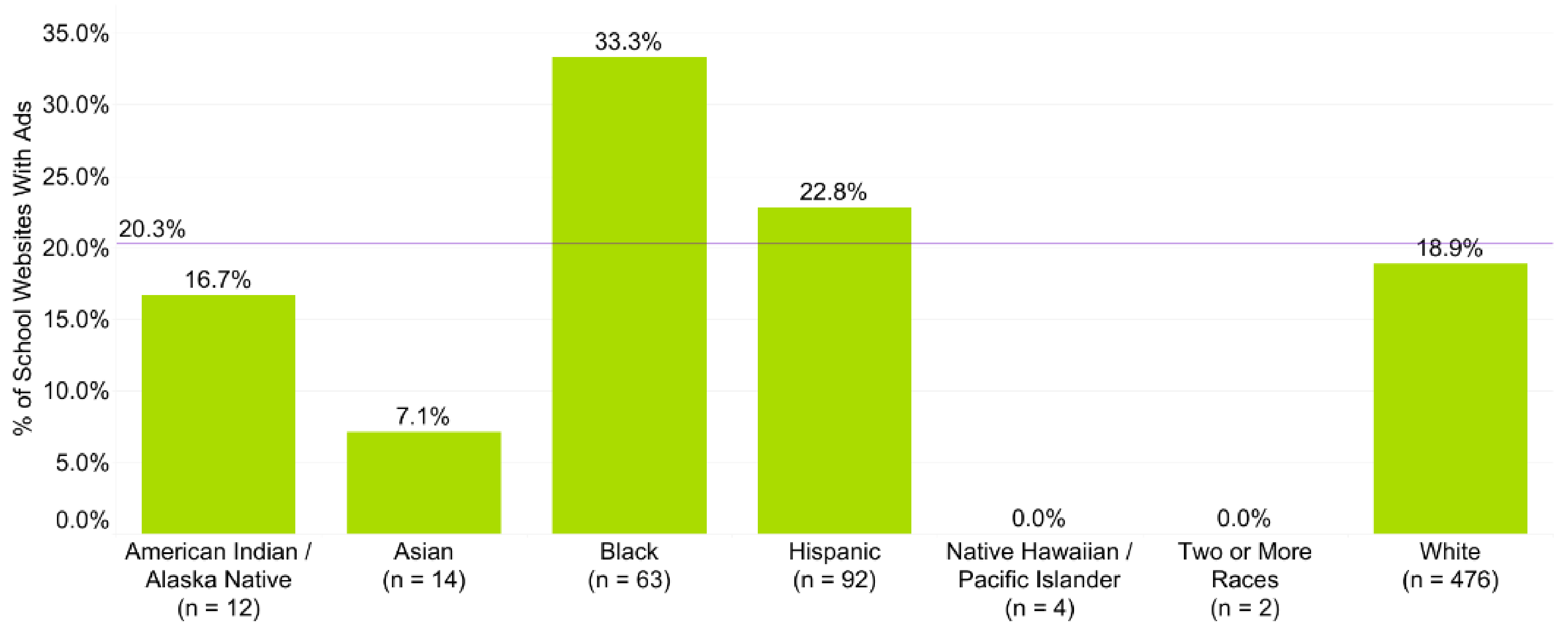
% of School Websites with Ads by Grade Level



Key Findings

- ◆ One third of Black majority race school websites had ads.
 - ◆ Highest percentate by far.
 - ◆ 64.0% higher than national average, and 76.2% higher than white majority race schools.
 - ◆ 100% of Black majority race school websites had trackers.
 - ◆ One of the highest rate of trackers per site with 7.7 per website.

% of School Websites with Ads by School Majority Race



Key Findings

- Technology vetting appears to have a positive effect on percentage of apps with ads and behavioral ads in school portfolios.
- Schools with vetting have a 20.5% reduction in the average percentage of apps with ads, and a 48.4% reduction in the average percentage of apps with behavioral ads.
- Vetting isn't having an effect on the percentage of Very High Risk Apps.
- Not always a guarantee
 - \$120K and above schools had high rate of tech vetting and one of the highest rates of apps with ads.



Other Demographic Summary Data Charts

Metrics by School Type

| METRIC | National Average | Public Schools Average | Elementary | Middle | High | Private |
|--------------------------------------|------------------|------------------------|------------|-----------|-----------|----------|
| APP SAFETY | | | | | | |
| Avg # Rec/Req Apps | 19.9 | 20.7 | 22.3 | 19.3 | 20.4 | 10.9 |
| Avg # LEA Approved Apps | 186.3 | 187.3 | 200.4 | 173.5 | 187.5 | |
| Avg School Composite Score | 53.7 | 55.5 | 59.2 | 51.8 | 55.5 | 32.8 |
| Avg % Very High Risk Apps | 69.4% | 69.3% | 68.0% | 68.6% | 71.1% | 71.9% |
| Avg % Ads in Apps | 7.8% | 8.0% | 8.0% | 7.5% | 8.5% | 5.6% |
| Avg % Behavioral Ads in Apps | 2.7% | 2.6% | 2.1% | 2.5% | 3.2% | 3.3% |
| WEBSITE SAFETY | | | | | | |
| Avg # Trackers in School Website | 6.5 | 6.6 | 6.3 | 6.7 | 6.8 | 5.2 |
| % School Websites with Trackers | 91.1% | 91.0% | 89.2% | 92.6% | 91.2% | 92.2% |
| Avg # Red Trackers in School Website | 1.5 | 1.5 | 1.5 | 1.4 | 1.5 | 1.9 |
| % School Websites with Red Trackers | 79.3% | 79.0% | 78.9% | 79.4% | 78.9% | 82.4% |
| % School Websites with Ads | 20.3% | 21.1% | 18.6% | 21.6% | 23.0% | 11.8% |
| SCHOOL TECHNOLOGY PRACTICES | | | | | | |
| % Schools Providing Notice | 44.8% | 47.8% | 52.5% | 51.5% | 39.2% | 9.8% |
| % of Schools Allowing Consent | 14.0% | 14.4% | 14.2% | 15.2% | 13.7% | 9.8% |
| % of Schools Vetting Technology | 28.7% | 30.1% | 34.4% | 31.9% | 26.0% | 3.9% |
| % of LEAs Providing Devices | 77.8% | 78.6% | 70.1% | 83.3% | 82.4% | 70.6% |
| | (n = 663) | (n = 612) | (n = 204) | (n = 204) | (n = 204) | (n = 51) |



Metrics by School Locale

| METRIC | National Average | Rural | Town | Suburb | City |
|--------------------------------------|------------------|-----------|-----------|-----------|-----------|
| APP SAFETY | | | | | |
| Avg # Rec/Req Apps | 19.9 | 19.2 | 17.8 | 21.7 | 20 |
| Avg # LEA Approved Apps | 186.3 | 116.7 | 66.9 | 191.6 | 246.6 |
| Avg School Composite Score | 53.7 | 51.4 | 45.9 | 58.9 | 54.8 |
| Avg % Very High Risk Apps | 69.4% | 68.9% | 68.0% | 70.5% | 69.4% |
| Avg % Ads in Apps | 7.8% | 9.0% | 7.3% | 8.1% | 6.7% |
| Avg % Behavioral Ads in Apps | 2.7% | 3.6% | 2.2% | 2.2% | 2.7% |
| WEBSITE SAFETY | | | | | |
| Avg # Trackers in School Website | 6.5 | 5.6 | 5.4 | 6.8 | 7.4 |
| % School Websites with Trackers | 91.1% | 85.5% | 86.0% | 94.0% | 95.2% |
| Avg # Red Trackers in School Website | 1.5 | 1.3 | 1.2 | 1.5 | 1.8 |
| % School Websites with Red Trackers | 79.3% | 71.7% | 75.0% | 81.5% | 85.6% |
| % School Websites with Ads | 20.3% | 17.6% | 12.0% | 22.2% | 25.0% |
| SCHOOL TECHNOLOGY PRACTICES | | | | | |
| % Schools Providing Notice | 44.8% | 40.3% | 35.0% | 56.0% | 41.0% |
| % of Schools Allowing Consent | 14.0% | 15.1% | 9.0% | 13.9% | 16.0% |
| % of Schools Vetting Technology | 28.7% | 19.5% | 16.0% | 38.4% | 31.9% |
| % of LEAs Providing Devices | 77.8% | 76.3% | 75.0% | 73.4% | 85.1% |
| | (n = 663) | (n = 159) | (n = 100) | (n = 216) | (n = 188) |



Metrics by School Size

| METRIC | National Average | 0-499 Students | 500-999 Students | 1000-1999 Students | 2000+ Students |
|--------------------------------------|------------------|----------------|------------------|--------------------|----------------|
| APP SAFETY | | | | | |
| Avg # Rec/Req Apps | 19.9 | 17.6 | 21.4 | 22.1 | 29.4 |
| Avg # LEA Approved Apps | 186.3 | 148.4 | 213.8 | 177.4 | 292.2 |
| Avg School Composite Score | 53.7 | 47.9 | 57.4 | 60.1 | 80.9 |
| Avg % Very High Risk Apps | 69.4% | 69.5% | 68.2% | 71.2% | 73.2% |
| Avg % Ads in Apps | 7.8% | 7.1% | 8.1% | 9.2% | 8.7% |
| Avg % Behavioral Ads in Apps | 2.7% | 2.7% | 2.4% | 3.2% | 3.3% |
| WEBSITE SAFETY | | | | | |
| Avg # Trackers in School Website | 6.5 | 5.9 | 6.8 | 7.7 | 7.2 |
| % School Websites with Trackers | 91.1% | 87.9% | 92.6% | 96.8% | 100.0% |
| Avg # Red Trackers in School Website | 1.5 | 1.4 | 1.5 | 1.6 | 1.7 |
| % School Websites with Red Trackers | 79.3% | 76.1% | 81.9% | 80.6% | 95.8% |
| % School Websites with Ads | 20.3% | 19.0% | 21.4% | 22.6% | 20.1% |
| SCHOOL TECHNOLOGY PRACTICES | | | | | |
| % Schools Providing Notice | 44.8% | 36.9% | 51.6% | 53.8% | 58.3% |
| % of Schools Allowing Consent | 14.0% | 11.8% | 14.0% | 18.3% | 29.2% |
| % of Schools Vetting Technology | 28.7% | 24.8% | 30.7% | 33.3% | 45.8% |
| % of LEAs Providing Devices | 77.8% | 71.6% | 80.5% | 89.2% | 100.0% |

(n = 663)

(n = 331)

(n = 215)

(n = 93)

(n = 24)

Recommendations

Pub: Feb 2024

Tech Safety Practices for Schools

- ◆ Recommend/require no more technology than the school can reasonably manage and actively monitor.
 - ◆ Elementary schools: less is more.
- ◆ Professional software product / vendor management
 - ◆ At least one dedicated, full-time software procurement specialist.
 - ◆ Tech vetting and oversight practices.
 - ◆ Tech vendor management.
- ◆ Perform systemic vetting of all technologies recommended or required for students.
 - ◆ Select only COPPA Safe Harbor Certified technologies.

Tech Safety Practices for Schools (con'td)

- ◆ Data Privacy agreements for all licensed technology
 - ◆ Student Data Privacy Consortium has templates.
- ◆ Annual audit of technology looking “under the hood”.
 - ◆ Websites: The Markup’s Blacklight, EFF Privacy Badger
 - ◆ Apps: ISL’s App Microscope

Tech Safety Practices for Schools (cont'd)

- ◆ Closely scrutinize or stop using white-labeled Community Engagement Tools (aka “school utility apps”).
- ◆ Low-income schools and American Indian/Alaska Native need more investigation to ascertain digital divide.
 - ◆ More tech support appears to be needed for these demographics.

Tech Notices for Schools

- ❖ Publish easy to find, complete technology lists.
 - ❖ Make clear required vs. recommended technologies.
 - ❖ Notice should be a byproduct of vendor management processes.
 - ❖ **Make clear distinctions between licensed vs. off the shelf technologies.**
 - ❖ And be clear about which you're consenting for on behalf of students.
 - ❖ Can't consent for off the shelf tech with no relationship to the school. <https://www.ftc.gov/business-guidance/resources/complying-coppa-frequently-asked-questions#N.%20COPPA%20AND%20SCHOOLS> Section N. COPPA AND SCHOOLS



Web Safety for Schools

- ◆ Remove digital advertising on all school websites.
- ◆ Remove all advertising related trackers and scripts on all school websites.
- ◆ Minimize third-party resources on school websites.



Thank You!