

# A Statistical Overview of Lottery Admissions in Top US High Schools

## Executive Summary

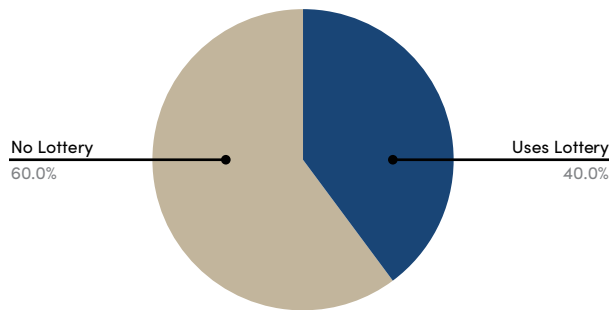
- Among the **top 10, 20, and 50** public high schools in the US News and World Report 2020 rankings, **40%, 40%, and 36%** respectively incorporated a lottery in their admissions process.
- **Lottery admissions** produce **better representation** outcomes for top-performing high schools:
  - Schools with a **lottery component** in their admissions were significantly more **representative** of their draw districts.
  - Lottery admissions plans **better represent** underrepresented minority groups.
  - Admissions plans with **lottery components** are more consistent in their **representation** of their **associated draw districts**.

This provides a quick, quantitative overview of the prevalence and effects of lottery admissions among the top 50 US High Schools, as ranked by US News and World Report. The following high schools use some sort of lottery in their admissions process:

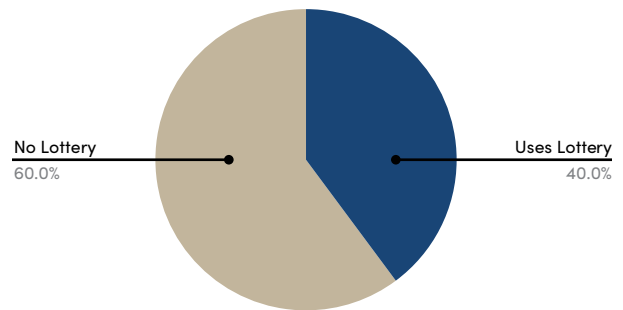
Rank	School Name	Location	System
3	Merrol Hyde Magnet School	Hendersonville, TN	Sumner County
4	School for Advanced Studies	Miami, FL	Miami-Dade County Public Schools
7	BASIS Chandler	Chandler, AZ	BASIS School Inc.
8	Haas Hall Bentonville	Bentonville, AR	Haas Hall Bentonville

Rank	School Name	Location	System
12	Gwinnett School of MST	Lawrenceville, GA	Gwinnett County
14	Tesla STEM HS	Redmond, WA	Lake Washington School District
15	Signature School	Evansville, IN	Signature School Inc
18	BASIS Oro Valley	Oro Valley, AZ	BASIS School Inc.
21	City High MS	Grand Rapids, MI	Grand Rapids Public Schools
26	International Academy of Macomb	Clinton Twp, MI	Chippewa Valley Schools
27	BASIS Peoria	Peoria, AZ	Basis School Inc. 4
29	DeBakey High School for Health Professions	Houston, TX	Houston ISD
32	Haas Hall Academy	Fayetteville, AR	Haas Hall Academy
40	International Academy	Bloomfield Hills, MI	Oakland Schools
42	D'Evelyn Junior/Senior High School	Denver, CO	Jefferson Co. School District No. R-1
43	BASIS Flagstaff	Flagstaff, AZ	Basis School Inc. 6
48	BASIS Tucson North	Tucson, AZ	Basis School Inc.
49	BASIS Scottsdale	Scottsdale, AZ	Basis School Inc.

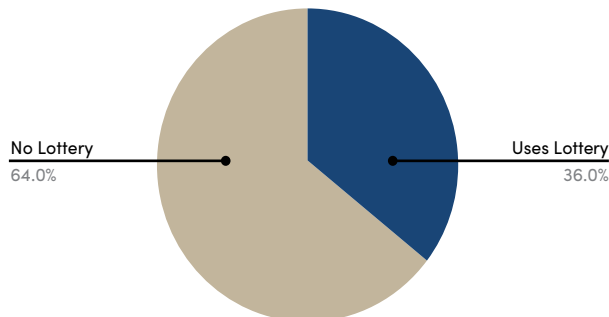
### US News Top 10 High Schools



### US News Top 20 High Schools



### US News Top 50 High Schools



Significant portions of these top high schools use lottery admissions—the proportion is consistent whether you look at the top 10, top 20, or even top 50 ranked schools.

The following table shows the impact of lottery vs. non-lottery admissions on critical school demographics:

Demographic Delta (%)	American Indian/Alaskan	Asian	Black	Hispanic	Hawaiian/Pacific Islander	Multi	White	URM	Female
Lottery Admission	-0.5	21.9	-4.1	-5.8	0.4	1.3	-13.0	-9.6	1.7
Non-Lottery Admission	0.3	25.0	-13.4	-7.5	0.4	2.1	-5.1	-18.2	2.2

The red shading indicates more severe deviation from demographics representative of the school’s draw district; although all schools performed rather poorly by this metric, non-lottery schools not only performed more poorly but also more adversely affected URM’s. It is also important to note that female representation was not significantly affected by the admissions method; although not explicitly analyzed here, whether or not schools were STEM-focused appeared to have a more significant effect on female student representation.

The chart to the right shows the chi-squared values when comparing schools’ demographics to that of their draw districts.

These represent variance from expectations (in this case the demographics of the school’s district); lower chi-squared = closer to expectation.

A Welch’s one-tailed T-Test on the chi squared values returns a P value of .0148, less than .05; **thus schools with lottery admissions were more representatively diverse than their non-lottery peers by a statistically significant margin.** Furthermore, as emphasized by the table’s color ramp, there is less variance in representation among the lottery schools—while some of the non-lottery schools are rather representative and some are extremely not so, the lottery schools are much more consistent in their variance from expected demographics—the standard deviations of chi squared values were 665 for the lottery schools vs 3300 for non-lottery schools.

CHI SQUARED VALUES	
Lottery	Non-Lottery
125.2	3064.3
56.9	596.6
1334.5	1891.9
37.5	140.4
1218.7	485.6
223.7	107.2
988.6	377.2
157.3	148.8
170.3	595.5
396.4	222.7
1643.8	1160.7
1645.8	323.8
60.5	372.3
1788.3	1315.0
98.1	1010.9
29.1	9978.0
322.2	1756.4
1611.3	281.8
	624.1
	12458.1
	1738.6
	6682.3
	833.9
	1181.1
	1761.7
	392.9
	693.3
	1320.5
	10656.2
	201.1

**TJ Alumni Action Group, Inc.**  
 5746 Union Mill Road, Suite 529  
 Clifton, Virginia 20124

571.384.8499 | [www.tjaag.org](http://www.tjaag.org)  
[tjaag.pr@gmail.com](mailto:tjaag.pr@gmail.com)

