2020 Election

Youth Electoral Significance Index

Overview, Rankings, and Methodology

Produced by the CIRCLE Team
Updated August 2020
Introduction

Many sectors of society must play a role in increasing youth voting and participation in democracy, and they can employ varied strategies to drive engagement. Different stakeholders will approach these efforts with diverse goals: some want to improve equity in civic participation, others to build a broad base of political power, and others still simply to win the next election. But few of these goals can be achieved if young voters are not included in campaign outreach. Non-partisan voter outreach, in particular, is incredibly important but underfunded. As a result, where parties and campaigns choose to focus registration and GOTV efforts is extremely influential. When contacted, young people vote and get involved in ways that strengthen civic life. They can also help win elections.

CIRCLE’s 2020 Youth Electoral Significance Index (YESI) is a valuable tool for any individual, campaign, organization, or institution that seeks to increase youth political engagement. The YESI can help stakeholders identify places where additional efforts and resources to turn out the youth vote could be decisive. It can also be a tool for equity and broadening engagement, if efforts focus on reaching those not yet engaged in the top-ranked locations. For campaigns, parties, and political movements of all types, the YESI can inform the allocation of scarce resources and encourage them to invest in youth turnout to advance their goals. For journalists, it can suggest states and districts in which to cover young voters and can provide insights about youth in any district that will be featured in a news piece.

The YESI does not predict youth turnout or who will win each congressional or statewide election, but instead identifies races in which the youth vote has the highest potential to influence the outcome.

The computation of these three indices is based on indicators related to each 2020 race, past results in that state or district, past youth participation, and contextual factors that research has shown to influence youth turnout. These indicators together make up a rating for each 2020 Congressional race and each state for the presidential contest. The result is a ranking of where youth are most likely to have electoral significance and impact elections on the federal level. In each summary, we highlight data that makes each state more likely to be ranked highly. This includes facilitative state election laws, large youth populations, and the presence of a considerable number of nonprofits that serve youth, since existing infrastructure is key to mobilization. More data and indicators were used for the Senate and Presidential analysis, including state voting laws and differences between which candidates young voters and older voters have supported in past elections.
Because young people have the biggest potential to decide an election when it’s projected to be close, competitiveness is a major factor in our Youth Electoral Significance Index (YESI). In addition, our experience analyzing election cycles has shown us that there are myriad reasons why stakeholders may focus on outreach—and especially youth outreach—in a given state or district. To better reflect that, the 2020 YESI takes into account measures of partisanship, political landscape, how youth differ from older voters in the state/district, previous youth turnout, and the potential mid- to long-term return on investment in youth outreach. Thus, our YESI Top 10s feature both states and districts with highly competitive elections, and those with moderately competitive elections where investing in youth now can be particularly strategic. In addition, the states and districts are all over the country—from Arizona to Montana, to Kansas, Alabama, and Maine—and are opportunities to engage millions of young people of all backgrounds. These races, like all competitive elections, are invaluable opportunities to drive especially high levels of interest and engagement from young voters.

For a full description of the indicators and analysis used for YESI, see the Methodology section at the end of this document.

The presidential, Senate, and House YESI top-10s begin on the following page.
2020 Youth Electoral Significance Index Rankings
Top 10 – Presidential Race

1. **Wisconsin**
   Wisconsin was one of the decisive states in the 2016 presidential election. It flipped from “blue” to “red” from 2012 to 2016, Donald Trump won there by less than 1 percentage point, and the state once again ranks as a toss-up in 2020. Wisconsin has historically had strong levels of youth participation, boasting high youth voter turnout in 2018 and in 2012 (according to CIRCLE’s analysis of Census data, since voter files do not have comprehensive age data for the state). Several demographic characteristics of Wisconsin—a relatively high percentage of married people and residents with at least a high-school diploma; and a relatively low percentage of people below the poverty level—are historically associated with higher voting rates. Online and same-day voter registration make it easier for young people to participate in elections.

2. **North Carolina**
   North Carolina ranks highly in large part because it is projected to be one of the most competitive states in the 2020 presidential election and the state had high youth turnout rates in the last two presidential elections. In addition, there’s been a big difference in the vote choice of the state’s youth and that of older voters: In 2016 youth preferred Democratic candidate Hillary Clinton by more than 20 points even as Republican Donald Trump won a narrow victory overall by less than 4 percentage points, and in 2012 North Carolina youth supported Barack Obama by a remarkable 35 percentage points even as Mitt Romney won the state by less than 3 percentage points. Youth also have high potential for electoral influence because they make up an above-average 17% of the state’s population. In 2020, for the first time, North Carolina will have automatic voter registration (only for DMV customers) and has created a special opportunity for DMV customers to register online, which may further improve young people’s access to voter registration.

3. **Florida**
   Like three of the other states in the YESI top-5, Florida swung from “blue” to “red” in the last two presidential elections. Donald Trump won the state by less than 2 percentage points in 2016, and the presidential race is projected to be very close again this year. Youth turnout was below average in 2018 but above average in 2016, which suggests that young voters can be mobilized. In a state known for the influence of older voters, young people can shape the race because of their radically different vote choice: they favored the Democratic candidate by 18 points in 2016 and 34 points in 2012. Some of the civic infrastructure in the state supports youth engagement, as nearly 2 in 5 (38%) of nonprofits in Florida serve youth, and there is both pre-registration and online voter registration available in the state.

4. **Pennsylvania**
   Pennsylvania, where President Barack Obama won in 2012 and President Trump won in 2016, is once again projected to be a hotly contested battleground state in 2020. In the past presidential election, Trump won the state by less than 1 percentage point, but youth preferred Democratic candidate Hillary Clinton by a 9-point margin, highlighting the potential for young voters to decide the election. Pennsylvania also had one of the highest youth turnout rates in the country in 2016. Some characteristics of the state’s population, like an above-average percentage of residents with a high school diploma, can correlate with higher turnout likelihood, based on historical turnout analyses. The state also offers online voter registration.
5. **Arizona**
   Close to 1 in 5 (18%) of Arizona residents are young people, one of the highest rates in the nation. Donald Trump won the state by less than 4 percentage points in 2016, and the 2020 presidential race is currently rated a toss-up, especially after one of the state’s Senate seats flipped from Republican to Democrat in 2018. While youth turnout in Arizona has been below-average in recent elections, young people’s vote choice (an 18-point preference for Democrats in 2016, and higher in 2012) gives youth the potential to swing a competitive election.

6. **Iowa**
   Iowa is one of six states that flipped from “blue” in 2012 to “red” in 2016, and it is once again projected to be competitive in 2020. The state has facilitative election laws like same-day registration, online registration, and pre-registration, which likely helped Iowa have a high youth voter registration rate in 2018. Youth turnout was also among the highest of any state in the last two presidential elections. Iowa also has above-average rates of residents who are married and of residents who have at least a high school diploma, as well as a below-average percentage of residents under the poverty line, all of which suggests potential for higher electoral participation, based on historical turnout analyses.

7. **Michigan**
   The 2016 presidential election in Michigan was decided by less than 0.25%—the closest in the country—and the state is once again expected to be competitive in 2020. It is also one of the six states (five of which are in the YESI top-10, that flipped from “blue” to “red” from 2012 to 2016. Michigan had one of the highest youth voter registration rates in the country in 2018 and young people make up an above-average share of the state’s population. Youth have also voted very differently than older people in Michigan, backing the Democratic candidate by 28 percentage points in 2012 and 23 points in 2016. An above-average 36% of the state’s nonprofits serve youth, and our analysis of the state’s demographic makeup show that it is also associated with potential for higher turnout, based on historical turnout analyses.

8. **Minnesota**
   The 2020 presidential race in Minnesota is projected to be close after Hillary Clinton won by less than 2 percentage points in 2016. The state has historically had high levels of electoral participation by young people: Minnesota boasted one of the highest youth turnout rates in 2012, 2016, and 2018. The state allows online voter registration and same-day registration, and the demographic makeup of Minnesota (with high rates of married residents, strong educational attainment, and relatively low poverty levels) is conducive to higher turnout potential, based on historical turnout analyses.

9. **New Hampshire**
   New Hampshire featured the second-closest result of any state in the 2016 presidential election: Donald Trump won by less than half a percentage point. The same year, one of New Hampshire’s Senate seats flipped from “red” to “blue” in a race that was decided by 0.2%, or just over one thousand votes. In a state that should once again be competitive in 2020, and where victory margins can be razor-thin, young voters may very well be decisive. According to Census data, New Hampshire’s youth turnout rates were among the highest in the country in 2018 and 2012. Some characteristics of its population, like higher-than-average rates of residents who are married and of those who completed high school (as well as below-average rate of people living under the poverty line) are also associated with potential for higher turnout, based on historical turnout analyses.
10. Georgia

A traditionally “safe” Republican state, in 2020 Georgia has two competitive Senate races (both in our Senate YESI top 10) and the Presidential race is also expected to be close. Young voters in the state can be a powerful electoral force due to their vote choice: in 2016 youth preferred Clinton over Trump by 17 percentage points higher than the overall (all ages) electorate in the state. Georgia also has a high proportion of youth of color, who tend to vote even more overwhelmingly for Democratic candidates, among its young voters. While it has been at the center of controversies about voter suppression that may especially affect youth of color, Georgia does have some automatic voter registration and online voter registration which potentially makes it easier for all youth to participate.

2020 YESI Rankings: Presidential

The top 10 states where young people have the highest potential to influence the results of the 2020 presidential election

- #1 - Wisconsin
- #2 - North Carolina
- #3 - Florida
- #4 - Pennsylvania
- #5 - Arizona
- #6 - Iowa
- #7 - Michigan
- #8 - Minnesota
- #9 - New Hampshire
- #10 - Georgia
2020 Youth Electoral Significance Index Rankings
Top 10 – U.S. Senate Races

1. **Colorado**
   Youth are poised to make a large impact on the Senate election in Colorado. The incumbent, Cory Gardner, defeated the Democratic incumbent Mark Udall by a narrow margin in 2014 and is only one of two Republican Senators up for re-election in states won by Clinton in 2016. This becomes even more salient as Colorado has seen only small differences in vote choice between youth and the general electorate for the last Presidential race. Colorado boasts one of the largest proportions of youth in the citizen population as well as one of the highest average youth turnouts in the past two elections. Colorado has one of the highest percentages of young people whose demographic characteristics indicate a high turnout probability. Lastly, Colorado is tied for the highest score for Facilitative Election Laws in our top ten.

2. **Maine**
   Even though Maine ranks lowest in our top ten in terms of percentage of youth citizens, they rank at the top of our list in youth turnout in the past two elections. In fact, Maine ranks at the top of all states holding Senate elections in 2020 in terms of youth turnout. Because of this, there is a high proportion of youth with a mid-range voter propensity score suggesting it would be easier for campaigns to mobilize youth to impact the 2020 elections. Additionally, Maine ranks second in our list in the percentage of individuals who are in the high turnout demographic. The Maine Senate race’s third highest competitiveness score in our top ten may pose a unique opportunity for youth to influence the incumbent’s, Susan Collins, re-election prospects.

3. **Montana**
   The incumbent Republican Senator, Steve Daines, comfortably won this seat in 2014, but he will now face off against the state’s Governor (and former 2020 presidential candidate) Steve Bullock, and the race is expected to be a toss-up. Montana had the second-highest youth turnout in the country in 2018 (42%), and young people in the state have voted markedly different than older voters—17 percentage points higher for the Democratic Senate candidate in 2018—meaning the youth vote has the power to swing election results. Nearly every resident of the state is a citizen and it has one of the highest rates in the nation (94%) of high school graduates, two factors that contribute to a higher probability of youth turnout.

4. **North Carolina**
   While North Carolina boasts an above-average percentage of youth in the citizen population and an average youth turnout in the past two elections, the Senate race boasts a above average competitiveness score. In other words, the North Carolina Senate race is the third most competitive race in our top ten: in 2014, the current incumbent, Thom Tillis, won against the then-incumbent, Kay Hagan 48.8% to 47.3%, the lowest winning total in North Carolina history for a U.S. Senate candidate. With such a small margin of victory and large percentage of youth that can be mobilized, youth are poised to make a substantial impact in North Carolina.
5. **Iowa**
Young Iowans are tied with young Michigan residents as being the most likely to be enrolled in college. Young Iowans also have the third highest average youth turnout rate in our top ten. Iowa is tied for first in our top ten in terms of facilitative election laws which could help promote more youth participation in the coming election. These indicators taken in context along with the fact that Iowa is tied for first in our top ten in terms of the difference in vote choice between youth and adults, place Iowa in an important position for youth participation. The incumbent in this race, Joni Ernst, is considered vulnerable and the election is expected to be highly competitive.

6. **Georgia (Perdue seat)**
Both of Georgia’s Senate elections are in our top 10; this ranking corresponds to the race for the Senate seat held by Republican David Perdue, which is currently ranked as a toss-up. Young people in Georgia can have significant electoral impact because of their vote choice. In 2016, youth preferred Clinton over Trump by 17 percentage points higher than the overall (all ages) electorate in the state. In addition, youth of color, who tend to favor Democrats by even larger margins, make up a large percentage of young people in Georgia. There is also automatic and online voter registration in the state.

7. **Georgia (Loeffler seat)**
Both of Georgia’s Senate elections are in our top 10; this ranking corresponds to the special election for the seat vacated by Johnny Isakson’s resignation. Kelly Loeffler, who was appointed by the Governor and currently holds the seat, is running in the election, which is expected to be competitive. Young people in Georgia can have significant electoral impact because of their vote choice. In 2016, youth preferred Clinton over Trump by 17 percentage points higher than the overall (all ages) electorate in the state. In addition, youth of color, who tend to favor Democrats by even larger margins, make up a large percentage of young people in Georgia. There is also automatic and online voter registration in the state.

8. **Arizona**
Arizona has the second highest percentage of youth in the citizen population in our top ten. That said, several aspects of the state’s demographics suggest that youth there may not have an especially high likelihood to vote, meaning that outreach will be key. In addition to youth impact, the Arizona Senate race is a special election being held to fill the rest of the late John McCain’s term; as such, it is expected to be close and to garner a lot of attention, which could drive turnout.

9. **Michigan**
In our top 10, Michigan matches Iowa in the percentage of youth enrolled in college in the state. Youth in Michigan supported Clinton by 10 points more than the general electorate in 2016, and supported President Obama more than the general electorate in the state in 2012. Lastly, the incumbent, Gary Peters, faces up to three challengers in the general election making this a unique race where youth can certainly impact the outcome. That said, online voter registration was only implemented in 2019 in Michigan, giving it one more of the facilitative election laws considered in the index.
10. Alaska

Alaska boasts the highest facilitative election law score of any state in our top 10: the state offers pre-registration, automatic registration, online registration, and comprehensive voting information on the state’s elections website. Youth make up a relatively high percentage of the population in the state, and most are white, which is historically a high-turnout group. Young Alaskans have also supported Democratic candidates in the state at far higher rates than older voters, which highlights youth’s ability to influence election results.

2020 YESI Rankings: Senate

The top 10 U.S. Senate races where young people have the highest potential to influence the results in 2020

- #1 - Colorado
- #2 - Maine
- #3 - Montana
- #4 - North Carolina
- #5 - Iowa
- #6 - Georgia (Perdue seat)
- #7 - Georgia (Loeffler seat)
- #8 - Arizona
- #9 - Michigan
- #10 - Alaska
2020 Youth Electoral Significance Index Rankings

Top 10 – U.S. House Races

1. **Iowa 1st (Cedar Rapids)**
   The Iowa 1st is at the top of our ranking for the third straight election cycle. In 2018, Abby Finkenauer won a close election, and her reelection race is expected to be competitive in this district which has several “pivot counties”: places where voters supported President Obama in 2012 and President Trump in 2016. The Iowa 1st has many colleges and universities and a high proportion of 18- to 24-year-olds enrolled in college (45%). The district population is predominantly White, and young people had one of the best average turnout rates in the nation in the 2012 and 2016 elections: 59%.

2. **Maine 2nd (northern Maine)**
   The incumbent Democrat in this House race, Jared Golden, flipped this seat in 2018 when he won his election by less than 4,000 votes, and the 2020 race is once again expected to be one of the most competitive in the nation. All eight of Maine’s pivot counties (where President Obama won in 2012 and President Trump won in 2016) are in this district, where almost 15% of the district’s population is young. Youth there have had a high voter turnout rate in recent elections, and several characteristics (like a high rate of high school graduates) indicate a high youth turnout probability again this year, based on historical analyses.

3. **Georgia 7th (northeast Atlanta metro area)**
   In 2018, the House race for the Georgia 7th was one of the closest in the nation: it was decided by 0.2 percentage points—less than 500 votes. In 2020, the race is for an open seat and it’s currently rated as a toss-up. Educational attainment is high: 32% of youth are enrolled in college and 43% of residents have a bachelor’s degree or higher. In 2018, the Georgia 7th also had one of the highest youth voter registration rates in the country: 86%. The district is also notable because more than half of its population are people of color and nearly half of the district residents are foreign-born.

4. **Iowa 3rd (Des Moines and southwest Iowa)**
   Cindy Axne, the incumbent Democrat in the Iowa 3rd won election by less than 3 percentage points in 2018, and the 2020 race is rated as a toss-up again this year. There is relatively high educational attainment in the district: more than a third (35%) of residents in the Iowa 3rd have a bachelor’s degree or higher. Youth voter turnout in recent elections has been high, especially in 2016 (58%) and 2018 (36%). The demographic profile of the district suggests that there is a high propensity for strong youth turnout again in 2020, based on historical analyses.

5. **South Carolina 1st (Charleston)**
   Several aspects of the district’s population are indicative of a strong likelihood of youth voting and influence on the election. More than 40% of residents in the South Carolina 1st have a bachelor’s degree or higher, one-third of youth are enrolled in college, and two-thirds of young people were registered to vote in 2018. The Democratic incumbent in this district, Joe Cunningham, won by less than 2 percentage points in 2018 when he flipped the seat from red to blue, and the race is expected to be highly competitive again in 2020.
6. **Iowa 2nd (Davenport, Iowa City)**
   This Iowa district has a high proportion of young residents (18%) and a high rate of youth enrolled in a college (48%). It also had high youth turnout in the two most recent presidential elections, including in 2016 when it ranked in the top 10 of all districts in the nation. The 2020 House race is for an open seat that is currently rated as a toss-up.

7. **Minnesota 7th (Moorhead, western Minnesota)**
   The Minnesota 7th House race, in which incumbent Democrat Collin Peterson is seeking reelection, is expected to be a toss-up in 2020. The district is predominantly White, with relatively high proportions of married residents, which contributes to demographic characteristics indicative of potentially high youth turnout, based on historical analyses. The state frequently ranks highly in electoral participation, and youth voter turnout in the Minnesota 7th was relatively high in the last three elections, including 30% youth turnout in 2018.

8. **Virginia 7th (central Virginia)**
   Incumbent Democrat Abigail Spanberger is defending the seat she won for the first time in 2018—when she defeated her opponent by less than 2 percentage points—and the race is rated as a toss-up again this year. Youth participation in the district was strong in 2018: 76% voter registration and 36% turnout. Several other characteristics of the Virginia 7th, like educational attainment of its residents, that historically contribute to high voter propensity, also point toward strong potential for youth impact in 2020.

9. **Oklahoma 5th (Oklahoma City)**
   The Oklahoma 5th is a diverse district in which almost half of residents are people of color and more than one-fifth of residents are foreign born. Young people make up 18% of the district’s population, and more than a third (40%) of youth in the district are enrolled in college. Kendra Horn, the Democratic incumbent running for reelection in the Oklahoma 5th, flipped this previously Republican seat when she won by less than 5,000 votes in 2018, and the district has more than 100,000 eligible young voters.

10. **Georgia 6th (northern Atlanta suburbs)**
    Democratic incumbent Lucy McBath is facing Republican Karen Handel in a repeat of their 2018 race, which McBath won by just 1 percentage point. The Georgia 6th, which includes many northern Atlanta suburbs, has high proportions of residents who are married and who have at least a Bachelor’s degree, a very low poverty rate, a strong presence of nonprofit organizations, and 42% of youth in the district are enrolled in college—all of which has historically tended to related to strong electoral participation. The district had one of the highest youth registration rates in the country in 2018 (91%), suggesting strong potential for voter mobilization.
Methodology

The Youth Electoral Significance Index (YESI) core methodology consists of four steps:

1. Gather available data about demographic composition of the community—including youth—past voter turnout and registration, and the predicted competitiveness of the 2020 race in each state or district. Components of the YESI data, as well as data sources and calculation methods, are described in detail below.

2. Create composite indices (i.e., scores made up of multiple, related indicators) for demographic makeup of each state and district, and determine how each conceptual piece of the YESI fits together.

3. Compute YESI by adding standardized scores from each component of YESI data. This creates the “unweighted” YESI, which does not yet incorporate the competitiveness of the upcoming race.

4. Compute the weighted YESI by adding a “competitiveness score” to the unweighted YESI. This step creates a cluster of top-ranking states and districts that are all considered to have at least moderately competitive races in 2020.

Components of YESI

1. Demographic Data and Context

In terms of youth demographics, we focus on the relative share of youth population in the eligible electorate. As part of the context of youth voting, we also include the extent to which the state has passed and implemented laws that are designed to facilitate registration and therefore voting.

See tables on the following pages for specific information on data sources.
<table>
<thead>
<tr>
<th>Indicator</th>
<th>Operational Definition</th>
<th>Source</th>
<th>Units of Data Availability</th>
<th>Used For</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size of Youth Population Relative to the Overall Population</td>
<td>The percentage of the adult citizen population who are under age 30</td>
<td>American Community Survey</td>
<td>State</td>
<td>House, Senate, President</td>
</tr>
<tr>
<td>Newcomer Index</td>
<td>The extent to which residents of the community are made up of Latino individuals and those who were born outside of the United States (inverse score is used in the index, as a low % of newcomers predicts higher turnout).</td>
<td>American Community Survey</td>
<td>State</td>
<td>House, Senate, President</td>
</tr>
<tr>
<td>Economic Challenge Index</td>
<td>The degree to which the community faces economic challenges such as a high unemployment rate and low income (inverse score is used in the index, as a low % of individuals with these characteristics predicts higher turnout).</td>
<td>American Community Survey</td>
<td>State</td>
<td>House, Senate, President</td>
</tr>
<tr>
<td>High Turnout Demographic Index</td>
<td>The degree to which the community has a high proportion of individuals who share the backgrounds of high-turnout propensity individuals (for our 2020 model, these were the percentage in the community who were high school graduates, married, and who had a mid-range propensity score for voting as calculated by Catalist).</td>
<td>American Community Survey, Catalist</td>
<td>State, Congressional District</td>
<td>House, Senate, President</td>
</tr>
<tr>
<td>State Election Laws that Can Facilitate Youth Vote</td>
<td>We count automatic registration, pre-registration, online registration, and same-day-registration. We factor in whether the state has implemented the law in time for the 2020 elections and whether the state election website includes easily accessible information on voting out of state, voting as a student, and as an ex-felon.</td>
<td>National Conference of State Legislatures, State Election Codes, State Election Websites</td>
<td>State</td>
<td>Senate, President</td>
</tr>
<tr>
<td>Nonprofits Per Capita</td>
<td>The rate of nonprofits (per 10,000) in the state or district</td>
<td>National Center for Charitable Statistics</td>
<td>State</td>
<td>House, Senate, President</td>
</tr>
<tr>
<td>Nonprofits Serving Youth</td>
<td>We include the rate of nonprofits (per 10,000) as well as the percentage of nonprofits in the state or district that have a primary youth development focus.</td>
<td>National Center for Charitable Statistics</td>
<td>State</td>
<td>House, Senate, President</td>
</tr>
</tbody>
</table>
2. Past Youth Voter Engagement

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Operational Definition</th>
<th>Source</th>
<th>Units of Data Availability</th>
<th>Used For</th>
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</table>

3. Potential Leverage of Youth Vote

<table>
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<tr>
<th>Indicator</th>
<th>Operational Definition</th>
<th>Source</th>
<th>Units of Data Availability</th>
<th>Used For</th>
</tr>
</thead>
<tbody>
<tr>
<td>Predicted Competitiveness of the Race in 2020</td>
<td>Index using competitiveness rating from various expert sources and reports²</td>
<td>Cook Political Report, Inside Elections, Sabato Crystal Ball</td>
<td>State Congressional District</td>
<td>House Senate President</td>
</tr>
<tr>
<td>Contrast between Youth Party Support and Older Adults</td>
<td>(% voting Democrat among youth ages 18-29) - (% voting Democrat among those voters ages 30+)</td>
<td>Exit Polls</td>
<td>State</td>
<td>President</td>
</tr>
<tr>
<td>House Party Flip</td>
<td>Total score of how many times the House seat flipped in 2014, 2016, and 2018. Each time the seat flipped parties, it was assigned a 1.</td>
<td>Federal Election Commission</td>
<td>Congressional District</td>
<td>House</td>
</tr>
</tbody>
</table>

¹ We use Current Population Survey (CPS) data for states because voter file data is not uniformly reliable at that geographic level. We use the Catalist voter file to calculate our turnout estimates for congressional districts.

² We added the competitiveness rating from these three sources and then standardized the scores for inclusion in our model. We used a 0-3 scale with 0 meaning that the district or state was not at all competitive and 3 meaning that it was a tossup. One source used a “Tilt” category that the other sources did not use, therefore, we rated these 2.5 on our 3-point scale. (Note: For display purposes, on the YESI website, the 0-3 scale is shown as 1-4.)
### Senate Party Flip

Total score of how many times the Senate seat flipped in 2014, 2016, and 2018. Each time the seat flipped parties, it was assigned a 1.

**Federal Election Commission**

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<tr>
<th>State</th>
<th>Senate</th>
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### Presidential Party Flip

Whether the state flipped parties when voting for President in the 2016 election vs. the 2012 election. If the party whose presidential candidate won the popular vote in the state changed between 2012 and 2016, it was assigned a 1.

**Federal Election Commission**

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### Presidential Popular Vote Differential

Calculated by taking the difference between the percentage of the vote (from all ages) that the Democratic and Republican presidential candidates received in 2012 and 2016, and then calculating the change between these percentages. A negative number here means that support shifted from Democrats to Republicans; a positive means the opposite.

**Federal Election Commission**

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## Calculation of YESI

In order to make the metric for calculation consistent, all indicators were standardized before computing YESI. Standardizing is a method of putting every case on a spectrum ranging from 1st percentile (lowest) to highest (100th percentile), making it easier to understand where each state or congressional district/CD stands in the whole universe relative to the average. In standardized scores, 0 is the average, 1 is about the 84th percentile, -1 is about the 16th percentile, and so on. Standardized indicators start with “Z_”.

YESI is calculated so that the higher score means higher potential for youth impact on the election result. Although we incorporate the demographic composition of the states and congressional districts, it should be noted that there were two kinds of demographic indices in relation to turnout: one set (Newcomer and Economic Challenge) generally predicts low turnout, while the High Turnout Demographic Index is predictive of high turnout.

We calculated the High Turnout Demographic Index differently than previous iterations of the YESI. For the 2020 YESI, we ran a number of principal component analyses and predictive models to test whether the previous grouping of variables for high turnout demographic still held, and they did not. The variables most predictive of turnout, taken in combination, are the percentage of high school
graduates in the area, the percentage of individuals who are married, and the percentage of youth with a midrange propensity score.

The Senate YESI included the aforementioned demographic indices as well as youth turnout in 2014 and 2016, and youth voter registration in 2018 rate. As a measure of prior competitiveness, we included a Senate Party Flip score that indicates how many times the Senate seat in question has changed parties between the 2014, 2016, and 2018 elections. Because of the impact that nonprofits can have in providing a civic infrastructure, we included the percentage of nonprofits per 10,000 residents as well as the percentage of nonprofits with a primary youth development mission. Lastly, we included the Facilitative Election Law Index which is calculated by tallying items such whether a state has automatic voter registration, online registration, and same date registration, among others.

The Presidential YESI was similar to the Senate YESI with the exception of using turnout from the past two presidential elections (2012 and 2016) and whether the state “flipped” parties when voting for President in the 2016 election vs. the 2012 election. We also included the percentage difference in youth support for the 2012 and 2016 Democratic presidential candidates compared to the overall electorate.

**Presidential YESI with demographic factors (disregarding competitiveness)**

\[
\text{YESI\_Presidential\_UW} = \text{mean}(Z\text{DiffAgeDemSupp\_16}, Z\text{DiffAgeDemSupp\_12}, Z\text{YouthPopShare\_18},
Z@2016YouthTurnout, Z\text{PresidentialPartyFlipin20161flip}, Z\text{Nonprofitspercapita10k},
Z\text{ElectionLawIndex},
Z\text{PercentYouthNonprofits}, Z@2012YouthTurnout, Z@2018YouthVoterRegistrationRate,
Z\text{PresidentialPopularVoteDifferentialPositiveisReptoDemshift12to16},
\text{Newcomerindex\_inv}, \text{Unemployment\_pov\_inv}, \text{HighTODemographic})
\]

**Presidential YES-I with demographic factors (accounts for competitiveness)**

\[
\text{YESI\_Presidential\_W} = \text{mean}(Z\text{DiffAgeDemSupp\_16}, Z\text{DiffAgeDemSupp\_12}, Z\text{YouthPopShare\_18},
Z@2016YouthTurnout, Z\text{PresidentialPartyFlipin20161flip}, Z\text{Nonprofitspercapita10k},
Z\text{ElectionLawIndex},
Z\text{PercentYouthNonprofits}, Z@2012YouthTurnout, Z@2018YouthVoterRegistrationRate,
Z\text{PresidentialPopularVoteDifferentialPositiveisReptoDemshift12to16},
\text{Newcomerindex\_inv}, \text{Unemployment\_pov\_inv}, \text{HighTODemographic}) + Z\text{Total3CompScores}.
\]
Senate YESI with demographic factors (disregarding competitiveness)

\[ \text{YESI}_\text{Senate\_UW} = \text{mean}(\text{ZYouthPopShare\_18}, \text{Z@2016YouthTurnout}, \text{ZSenatePartyFlipTotal}, \text{ZNonprofitspercapita10k}, \text{ZElectionLawIndex}, \text{ZPercentYouthNonprofits}, \text{Z@2014YouthTurnout}, \text{Z@2018YouthVoterRegistrationRate}, \text{Newcomerindex\_inv}, \text{Unemployment\_pov\_inv}, \text{HighTODemographic}) \]

Senate YESI with demographic factors (accounts for competitiveness)

\[ \text{YESI}_\text{Senate\_W} = \text{mean}(\text{ZYouthPopShare\_18}, \text{Z@2016YouthTurnout}, \text{ZSenatePartyFlipTotal}, \text{ZNonprofitspercapita10k}, \text{ZElectionLawIndex}, \text{ZPercentYouthNonprofits}, \text{Z@2014YouthTurnout}, \text{Z@2018YouthVoterRegistrationRate}, \text{Newcomerindex\_inv}, \text{Unemployment\_pov\_inv}, \text{HighTODemographic}) + \text{ZTotal3CompScores}. \]

**Note:** For the Senate YESI, we have fewer states (34) to rank because some states will not have Senate races in 2020.

**YESI – Congressional Districts**

The methodology for calculating the Congressional District YESI (CD YESI) is similar to that of the state YESIs, except that there are slightly fewer data points available for congressional districts than for states. As we did in the state indices, we calculated index scores that consider predicted competitiveness in 2020 and one that is based on past data, and does not include a weighted competitiveness score. For the weighted index, we incorporated the latest information on the House races that are predicted to be competitive from three sources (Cook Partisan Voting Index, Inside Elections, and Sabato’s Crystal Ball). We added the competitiveness rating from these three sources and then standardized the scores for inclusion in our model. We used a 0-3 scale with 0 meaning that the district or state was not at all competitive and 3 meaning that it was a tossup. One source used a “Tilt” category that the other sources did not use, therefore, we rated these 2.5 on our 3-point scale. (Note: For display purposes, on the YESI website, the 0-3 scale is shown as 1-4.)

In addition to the demographic information, youth registration rate, and prior youth turnout (in the case of the Congressional District YESI, this was turnout from 2016 and 2012) included in the Senate and Presidential YESIs, our model for the CD YESI included the number of times that congressional seat had “flipped” from one party to the other in the 2014, 2016, and 2018 elections, the number of nonprofits per 10,000 residents, and the percentage of nonprofits focused on youth.
Congressional District YESI with demographic factors (disregarding competitiveness)

$$\text{YESI}_{CD,W} = \text{mean}(Z_{\text{YouthPopShare\_18}}, Z_{\text{2016YouthTurnout}}, Z_{\text{PartyFlipTotalScore}}, Z_{\text{Nonprofitspercapita10k}}, Z_{\text{PercentYouthNonprofits}}, Z_{\text{2012YouthTurnout}}, Z_{\text{2018YouthVoterRegistrationRate}}, Z_{\text{Newcomerindex\_inv}}, Z_{\text{Unemployment\_pov\_inv}}, Z_{\text{HighTODemographic}})$$

Congressional District YESI with demographic factors (accounts for competitiveness)

$$\text{YESI}_{CD,W} = \text{mean}(Z_{\text{YouthPopShare\_18}}, Z_{\text{2016YouthTurnout}}, Z_{\text{PartyFlipTotalScore}}, Z_{\text{Nonprofitspercapita10k}}, Z_{\text{PercentYouthNonprofits}}, Z_{\text{2012YouthTurnout}}, Z_{\text{2018YouthVoterRegistrationRate}}, Z_{\text{Newcomerindex\_inv}}, Z_{\text{Unemployment\_pov\_inv}}, Z_{\text{HighTODemographic}}) + Z_{\text{Total3CompScores}}.$$
CIRCLE (The Center for Information & Research on Civic Learning and Engagement) is a nonpartisan, independent, academic research center that studies young people in politics and presents detailed data on young voters in all 50 states. CIRCLE is part of the Jonathan M. Tisch College of Citizenship and Public Service at Tufts University.

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