INTERSTATE COLLEGE STUDENT MIGRATION DATABASE USER GUIDE

This user guide provides an overview of ACT's College Student Migration Database, including the topics addressed, the types of charts provided and how to interpret them, and the dropdown menus you can use to refine the information provided in the dashboards. Currently, the database houses information on more recent ACT-tested high school graduating classes who enrolled in college during the fall immediately after high school. You can access the database from act.org/emdatabase.

TOPICS

There are three primary topics covered in the database, represented by six dashboards.

<u>In-migration</u>: ACT-tested students who *enter* a particular state to attend college

directly after high school.

Out-migration: ACT-tested students who leave a particular state to attend college

directly after high school.

Net migration: The difference between the number of in-migrating students minus and

the number of out-migrating students. If net migration is positive, there are more more ACT-tested students entering that state to attend college than leave that state to attend college. If net migration is negative, there are fewer ACT-tested students entering that state to attend college than

leave that state to attend college.

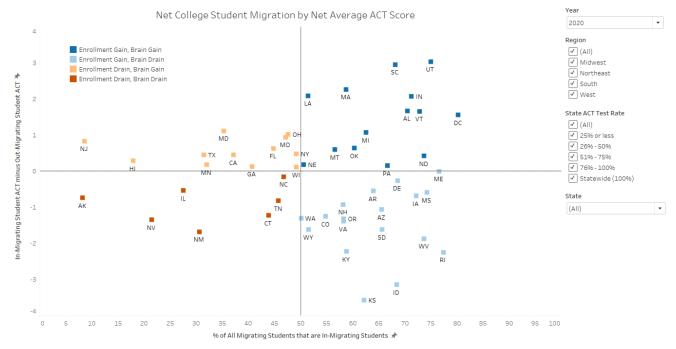
50 STATE COMPARISON DASHBOARD

This dashboard places all 50 states and the District of Columbia in two-dimensional space based on their net college student migration and net average ACT scores.

The horizontal axis in this dashboard shows net migration. For this dashboard, net migration is defined as the percentage of all migrating students for a particular state who are in-migrating students—i.e., the number of in-migrating students divided by the sum of in-migrating and out-migrating students. If this share is greater than 50%, then the state had more in-migrating students than out-migrating students—we refer to this as an "enrollment gain;" if this share is less than 50%, then the state had fewer in-migrating students than out-migrating students—we refer to this as an "enrollment drain."

The vertical axis in this chart shows the difference in the average ACT score between in-migrating and out-migrating students. If the difference is positive, then in-migrating students have a higher average ACT score than out-migrating students—we refer to this as "brain gain." If the difference is negative, then in-migrating students have a lower average ACT score than out-migrating students. We refer to this as "brain drain."

Interstate College Student Migration



By taking information from both axes, we can plot states into one of four quadrants: 1) those with both enrollment gain and brain gain (e.g., South Carolina), 2) those with enrollment gain but brain drain (e.g., Idaho), 3) those with enrollment drain but brain gain (e.g., Maryland), and 4) those with both enrollment drain and brain drain (e.g., New Mexico). Hovering over a state provides more detail about that state's in- and outmigration patterns and the average ACT scores of these students.

You can use the multi-value lists located to the right of the dashboard to filter the states that appear in this dashboard. The first list allows you to choose the ACT graduating class. The second list allows you to focus on one or more specific geographic region of the country. The geographic regions provided in the database are defined by the U.S. Census Bureau as the following:

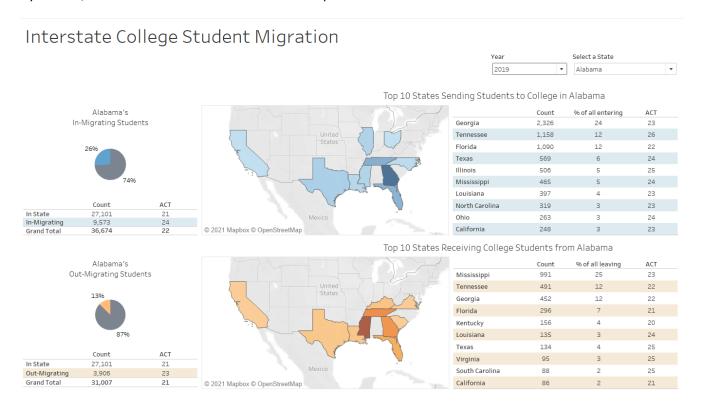
- Northeast: CT, ME, MA, NH, NJ, NY, PA, RI, VT
- Midwest: IL, IN, IA, KS, MI, MN, MO, NE, OH, ND, SD, WI
- South: AL, AR, DE, DC, FL, GA, KY, LA, MD, MS, NC, OK, SC, TN, TX, VA, WV
- West: AK, AZ, CA, CO, HI, ID, MT, NV, NM, OR, UT, WA, WY

The third list allows you to focus on states by the percentage of high school graduates in those states who take the ACT test. The option "Statewide (100%) refers to states that have a contract with ACT to test all public high school eleventh graders. The final list allows to create your own subset of states for comparison.

STATE OVERVIEW DASHBOARD

This dashboard provides an overview of the interstate college student migration patterns for a single state. The top half of the dashboard (i.e., everything with blue shading) represents information about a particular state's in-migrating college students. The bottom half of the dashboard (i.e., everything with orange shading) represents information about a particular state's out-migrating college students. You can change the state that

you are viewing by selecting a state from the dropdown menu located in the top right side of the dashboard. By default, information for the state of Alabama is provided in the dashboard.



The pie chart at the top left shows that 26% of 2019 ACT-tested students that attended college in Alabama were in-migrating students. The other 74% were from the state of Alabama. The table just below this pie chart provides the actual counts of these ACT-tested students as well as their average ACT scores. As you can see, the average ACT score among Alabama's in-migrating students (at 24) is 3 points higher than the average score among Alabama residents who attended college in state (at 21).

The map at the top of the dashboard shows the top 10 states that sent ACT-tested students to Alabama for college. Darker shading within this map indicates states that sent larger numbers of students, whereas lighter shading indicates states that sent fewer students. The table to the right of this map provides the actual counts of ACT-tested students who migrated to Alabama from each of these states, the share of Alabama's inmigrating student population that originated from each of these states, and the average ACT score of these students. For example, 2,326 ACT-tested students migrated from Georgia to Alabama in order to attend college. These students represented 24% of Alabama's in-migrating population, and they had an average ACT score of 23.

The pie chart at the bottom left shows that 13% of all college-enrolled ACT-tested students who attended high school in Alabama were out-migrating students. The other 87% stayed within the state of Alabama to attend college. The table just below this pie chart provides the actual counts of these ACT-tested students as well as their average ACT scores. As you can see, the average ACT score among Alabama's out-migrating students (at 23) is 2 points higher than the average score among Alabama residents who attended college in state (at 21).

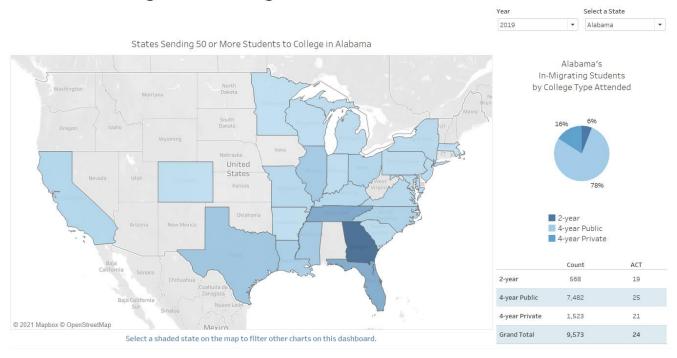
The map at the bottom of the dashboard shows the top 10 states that received ACT-tested college-enrolled students from the state of Alabama. Darker shading within this map indicates states that received larger

numbers of students, whereas lighter shading indicates states that received fewer students. The table to the right of this map provides the actual counts of students that migrated out of Alabama to each of these states, the share of Alabama's out-migrating student population that migrated to each of these states, and the average ACT score of these students. For example, 991 ACT-tested students migrated from Alabama to Mississippi in order to attend college. These students represented 25% of Alabama's out-migrating population, and they had an average ACT score of 23.

IN-MIGRATION DETAIL DASHBOARD

This dashboard shows more detailed information about the in-migration patterns of ACT-tested students crossing state lines in order to attend college directly after high school. You can change the state that you are viewing by selecting a state from the dropdown menu located in the top right side of the dashboard. By default, information for the state of Alabama is provided in the dashboard.

Interstate College Student Migration



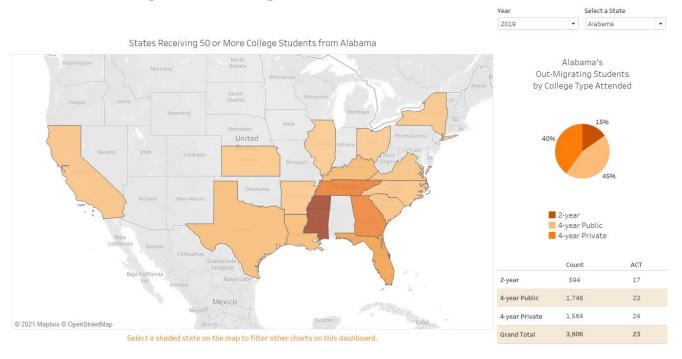
The pie chart on the right side of the dashboard shows the percentage of in-migrating students for a particular state by the college type that they attended. For example, among the 2019 ACT-tested high school graduates that migrated to Alabama to attend college, 6% attended a 2-year college, 78% attended a 4-year public college, and 16% attended a 4-year private college. The table below the pie chart provides the in-migrating student counts by the college type attended and the average ACT scores of these students. For example, 1,523 in-migrating students attended a 4-year private college in Alabama; their average ACT score was 21.

The map to the left shows the states that sent 50 or more ACT-tested students to Alabama to attend college. Darker shading within this map indicates states that sent larger numbers of students, whereas lighter shading indicates states that sent fewer students. Selecting a state that is shaded in blue will filter the information in the pie chart and accompanying table to include only in-migrating students from that state. Selecting a grayed space on the map removes that state filter.

OUT-MIGRATION DETAIL DASHBOARD

This dashboard shows more detailed information about the out-migration patterns of ACT-tested students crossing state lines in order to attend college directly after high school. You can change the state that you are viewing by selecting a state from the dropdown menu located in the top right side of the dashboard. By default, information for the state of Alabama is provided in the dashboard.

Interstate College Student Migration



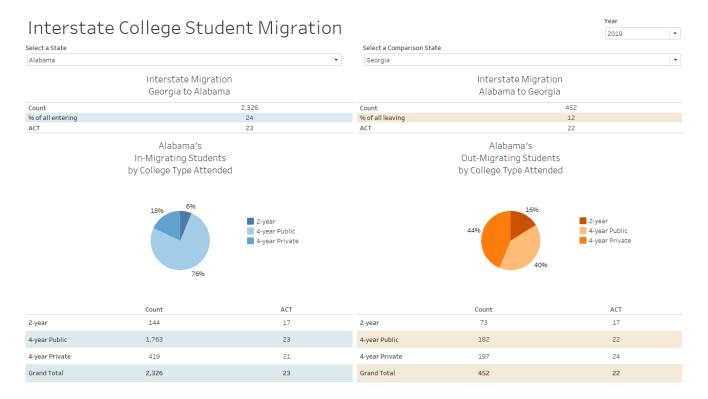
The pie chart to the right shows the percentage of out-migrating students for a particular state by the college type that they attended. For example, among the 2019 ACT-tested high school graduates that migrated out of Alabama to attend college, 15% attended a 2-year college, 45% attended a 4-year public college, and 40% attended a 4-year private college. The table below the pie chart provides the out-migrating student counts by the college type attended and the average ACT scores of these students. For example, 1,564 out-migrating students attended a 4-year private college in Alabama; their average ACT score was 24.

The map to the left shows the states that received 50 or more ACT-tested students from Alabama to attend college. Darker shading within this map indicates states that received larger numbers of students, whereas lighter shading indicates states that received fewer students. Selecting a state that is shaded in orange will filter the information in the pie chart and accompanying table to include only out-migrating students to that state. Selecting a grayed space on the map removes that state filter.

STATE TO STATE MIGRATION DASHBOARD

This dashboard shows in- and out-migration patterns of ACT-tested college-enrolled students between any two states. The left side of the dashboard (i.e., everything with blue shading) represents information about a particular state's in-migrating college students. The right side of the dashboard (i.e., everything with orange shading) represents information about a particular state's out-migrating college students. You can change the

two states that you are viewing by selecting a state and a comparison state from the dropdown menus located at the top of the dashboard. By default, interstate college student migration between the states of Alabama and Georgia is provided in the dashboard.



The table at the top left side of the dashboard provides the overall count of 2019 ACT-tested high school graduates who migrated from Georgia to Alabama to attend college. These students represented 24% of all inmigrating students in Alabama, and they had an average ACT score of 23. The table at top right side of the dashboard provides the overall count of ACT-tested students who migrated from Alabama to Georgia to attend college. These students represented 12% of all out-migrating students from Alabama, and they had an average ACT score of 22. By comparing these two tables, we see that Alabama received roughly five times as many students from Georgia as it sent to that state, and that students entering Alabama from Georgia had a slightly higher average ACT score than students who left Alabama to attend school in Georgia.

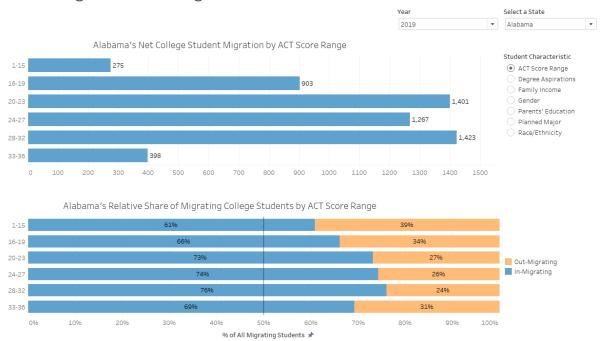
The pie chart on the left side of the dashboard shows the share of in-migrating students from Georgia by the college type that they attended in Alabama. As seen in the chart, 6% attended a 2-year college, 76% attended a 4-year public college, and 18% attended a 4-year private college. The table below the pie chart provides the in-migrating student counts by the college attended and the average ACT scores of these students. For example, 419 in-migrating students from Georgia attended a 4-year private college in Alabama; their average ACT score was 21. The pie chart on the right side of the dashboard shows the share of out-migrating students from Alabama by the college type that they attended in Georgia. As seen in the chart, 16% attended a 2-year college, 40% attended a 4-year public college, and 44% attended a 4-year private college. The table below the pie chart provides the out-migrating student counts by the college attended and the average ACT scores of these students. For example, 197 out-migrating students from Alabama attended a 4-year private college in Georgia; their average ACT score was 24. When comparing the pie charts and accompanying tables, we see that students crossing state lines between Alabama and Georgia attended different types of colleges. Whereas

roughly three-quarters of students entering Alabama from Georgia attended a 4-year public college in Alabama, only two out of five students entering Georgia from Alabama attended a 4-year public college in Georgia.

STUDENT CHARACTERISTICS DASHBOARD

This dashboard shows a particular state's net ACT-tested college student migration by different characteristics of the students. You can change the state that you are viewing by selecting a state from the dropdown menu located in the top right side of the dashboard. By default, information for the state of Alabama is provided in the dashboard. You can change the student characteristic by which you are viewing net migration by selecting it from the list provided on the right side of the dashboard. The student characteristics you can choose from are ACT score range, degree aspirations, family income, gender, parents' education, planned major, and race/ethnicity. Net migration is shown by ACT score range by default.

Interstate College Student Migration



The bar chart at the top of the dashboard shows a particular state's net migration as a count. Represented in this way, net migration is the number of in-migrating students minus the number of out-migrating students. If net migration is positive, a state has more ACT-tested students that entered to attend college than left to attend college. If net migration is negative, a state has fewer ACT-tested students that entered to attend college than left to attend college. When net migration is positive, the count (represented by a blue bar) moves to the right of the zero on the horizontal axis. When net migration is negative, the count (represented by an orange bar) moves to the left of the zero on the horizontal axis. As seen in the chart, in 2019 Alabama had only positive net migration counts (i.e., only blue bars) across all ACT score ranges. For example, among students in the score range of 33-36, Alabama had 398 more students enter Alabama to attend college than leave Alabama to attend college.

The stacked bar chart at the bottom of the dashboard shows a particular state's net migration represented as a percentage. In this chart, the blue bar shows the percentage of all migrating students for a particular state who are in-migrating students—i.e., the number of in-migrating students divided by the sum of in-migrating and out-migrating students. If the blue bar is greater than 50%, then the number of students that entered the state is greater than the number that left the state (i.e., net migration is positive). The orange bar shows the percentage of all migrating students for a particular state who are out-migrating students—i.e., the number of out-migrating students divided by the sum of in-migrating and out-migrating students. If the orange bar is greater than 50%, then the number of students that entered the state is lower than the number that left the state (i.e., net migration is negative). For Alabama, the majority of migrating students within each ACT score range entered as opposed to left Alabama to attend college. For example, among migrating students in the score range of 33-36, 69% entered Alabama to attend college, whereas 31% left Alabama to attend college.