Talent in Motion: Interstate Migration of College-Educated Workers

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Recommended Citation:

Peter Riley Bahr, Lucas Greer, Hannah Acheson-Field, Heather McKay, Johnathan Conzelmann, Steven W. Hemelt, Brad Hershbein, Andrew Simon, and Kevin Stange. *Talent in Motion: Interstate Migration of College-Educated Workers.* (Indianapolis and Washington, DC: Strada Institute for the Future of Work, 2026).

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Executive Summary

Highly educated workers are an essential part of sustaining economic vitality and growth (Glaeser and Saiz, 2004; Moretti, 2004). As a result, states are seeking to increase the supply of such workers, though they differ in the extent to which they rely on their own high schools and universities to build college-educated talent pools versus attracting talent from out of state.

In this report, we investigate interstate migration patterns of working-age adults with a bachelor's or graduate degree — referred to throughout this report as *college-educated workers*, *college-educated individuals*, or *college-educated talent* — and examine how these patterns differ by state, type of institution attended, level of educational attainment, major, occupation, and worker characteristics.[1] We pay particular attention to homegrown talent, or talent that graduated from high school and college in the same state they now live. We draw primarily on large-scale survey data containing tens of thousands of responses about the transition from high school to college, and from college to the workforce, providing a uniquely comprehensive picture of interstate talent migration. We then leverage multiple publicly available data sources to explore the individual- and state-level factors associated with talent flows.

To date, there has been little information available to help states understand and respond to the migration patterns of graduates. Our study provides insights that can help policymakers characterize the sources of their college-educated workforces, examine the factors associated with interstate migration, and invest strategically to grow the talent their states need. These findings also may be informative for employers seeking to understand their talent pipelines and students making decisions about their education, careers, and life goals.

Key Findings

About College-Educated Workers

- **Overall, two-thirds of college-educated workers still live in the state where they attended high school.** Most attended college and now work there (55 percent), while a smaller share returned to their home state to work after attending college elsewhere (12 percent).
- **The remaining one-third of college-educated workers build careers away from their home state.** Most live and work in states where they attended neither high school nor college (24 percent), and just a small share attend college out of state and stay there for work (9 percent).
- **Migration patterns differ by field of study and, consequently, occupation.** College-educated workers with degrees in engineering, architecture, math, computer science, or the arts and humanities are the most likely to live and work in a state different from the one in which they attended high school or college, while the least-mobile fields are education and library science.
- **Homegrown college-educated workers are less likely to have a graduate degree as their highest degree and more likely to have parents who did not complete a college degree than are more mobile college-educated workers.** They also are composed disproportionately of Hispanic individuals and early career workers.
- **Half of college-educated individuals cite economic opportunity as their primary motivation to cross state lines — the most frequently cited reason.** Among individuals younger than age 50, the percentage is even greater — around 55 percent. However, only 33 percent of individuals ages 50 years and older reported economic opportunity as their primary motivation, with an additional 23 percent reporting housing or community and 23 percent reporting family.

About States

- **States differ markedly in the shares of their talent that are homegrown, having attended both high school and college in state.** For instance, 72 percent of college-educated workers in Michigan stayed in their home state for college and work, but 36 percent of college-educated workers in Colorado did so.
- **States with above-average shares of homegrown talent often have lower college attainment rates.** For instance, Oklahoma, Alabama, Louisiana, and Arkansas have above-average shares of homegrown talent but below-average college attainment; there are exceptions, however, such as New York with above-average homegrown talent and above-average college attainment.
- **Two-thirds of recent college graduates are living in the state where they attended college, but retention rates vary substantially across states.** Texas retains the largest share of its graduates of any state (84 percent), followed by California (83 percent), Nevada (75 percent), and Washington and New Jersey (both 74 percent). Vermont retains the fewest graduates (28 percent), followed by New Hampshire (37 percent), West Virginia (41 percent), Rhode Island (42 percent), and Arizona (43 percent).
- **One of the strongest predictors of in-state retention of college graduates is the share of first-year college students drawn from the state's own population.** This finding reflects the important role played by states' public higher education institutions in building their college-educated workforces.

About Colleges and Universities

- **Public colleges and universities are anchors for in-state talent.** About two-thirds of graduates of public institutions with broad-access admissions, and half of graduates of the most selective public institutions, attended college and now work in their home state.
- **Only about 2 out of every 5 graduates of private nonprofit colleges and universities attended college and now work in their home state.** However, private nonprofit institutions with broad-access admissions contribute to in-state talent at similar rates to public colleges and universities.

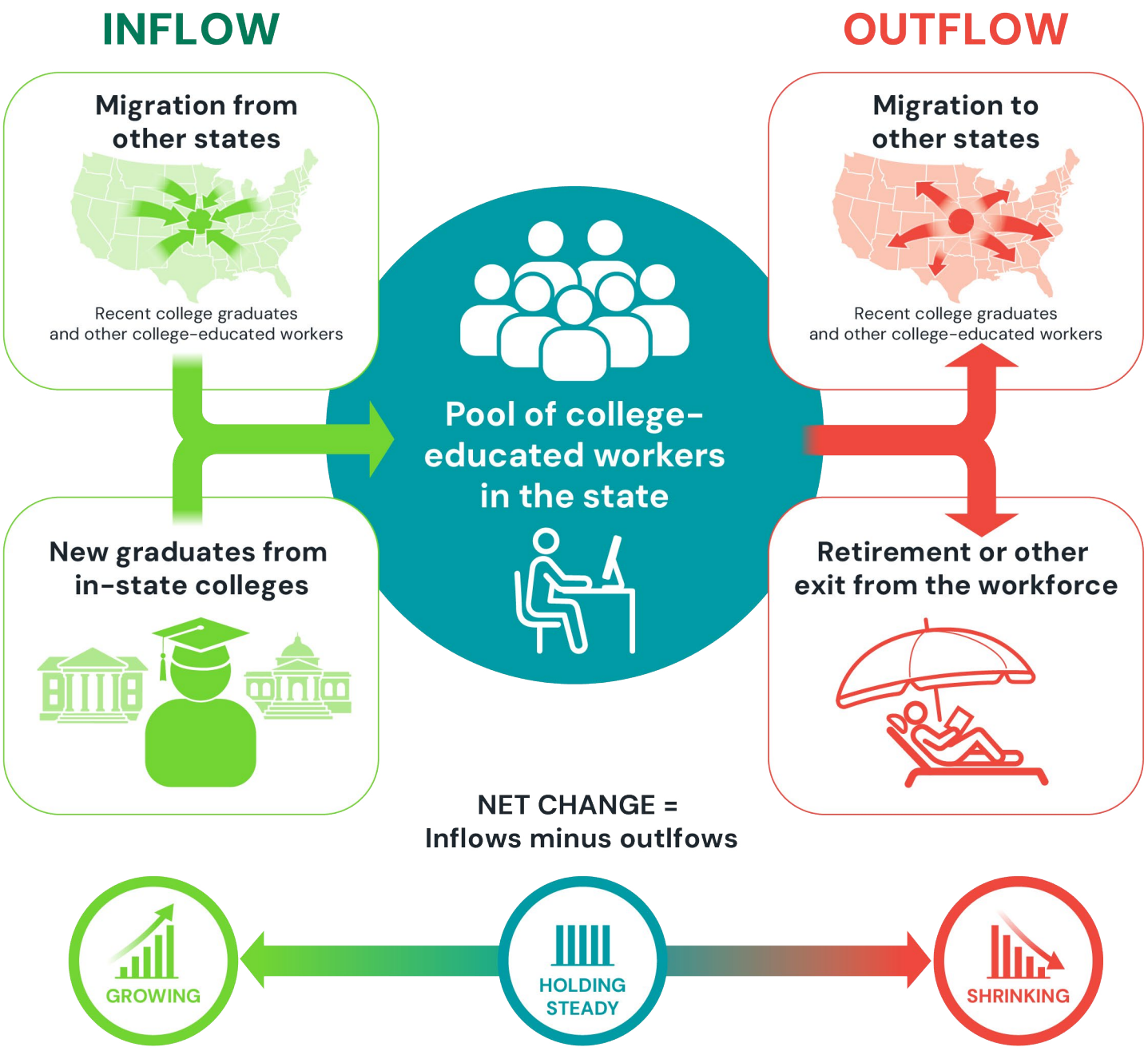
I. Introduction

Highly educated populations help create and sustain economic growth, dynamism, and resilience (Glaeser and Saiz, 2004; Moretti, 2004). To this end, many states have set ambitious college attainment goals (Lumina Foundation, 2024). For example, North Carolina aspires to have 2 million North Carolinians aged 25–44 with a postsecondary credential by 2030 (myFutureNC, n.d.), while Michigan aims for 60 percent of its adult population to have a postsecondary credential by the same year (Michigan Department of Lifelong Education, Advancement and Potential, n.d.). States and local governments also are motivated to bolster or expand their college-educated workforces, enacting policies that retain more of their own college graduates (i.e., preventing brain drain) and attract graduates from other localities (Acheson-Field, 2023; Marcus, 2023; Moretti, 2012). These states face a number of obstacles to achieving those goals, however, including aging populations and greater interstate competition for skilled workers (Marcus, 2023), declining migration rates among college graduates (Glover and Mustre-del-Rio, 2024), and sizeable existing differences in college attainment across states (see **appendix Figure C1**).

Determining the most effective policies to retain and attract talent requires a clearer understanding of the sources of states' college-educated workers. Figure 1 provides a simple, notional diagram of some of the main forces that determine the size of a state's college-educated workforce. The diagram shows the pool of potential college-educated workers within a state, which is fed by a combination of new graduates from in-state colleges and migration of recent college graduates and college-educated workers from other states. Simultaneously, the state is losing recent college graduates and college-educated workers because of migration to other states, as well losing college-educated workers who retire or otherwise exit the workforce. At any given time, a state's college-educated workforce may be growing, holding steady, or shrinking as a net result of these forces.

FIGURE 1:

Selected Sources of a State's College-Educated Talent



In this report, we focus on the interstate migration components of the diagram to illuminate how interstate migration affects the size and makeup of states' workforces. We use data from a new, large-scale national survey that collected information on postsecondary and workforce trajectories and included individuals from all U.S. states and a wide range of ages, born over a span of 50 years from 1951 through 2001. These data allow us to paint a comprehensive portrait for state policymakers, practitioners, and analysts about the migration underlying talent recruitment and retention based on where individuals live, the type of institution they attend, and their college major, occupation, highest degree, and socioeconomic and demographic characteristics.

This report builds on several recent studies investigating the connections between where individuals attend college and where they work after college.[2] Past analyses relied on surveys that followed individuals born over a narrow span of time (e.g., Groen, 2004; Ishitani, 2011) or residing in only a few states (Bloomfield et al., 2020). Others have used national snapshot data, like the American Community Survey (Kelchen and Webber, 2018; Winters, 2020), which limit the ability to track individuals' migration choices at different junctures or over time. Given the difficulties of measuring individual migration and location choices over the lifecycle, most studies focus on the migration choice made at a specific juncture, either high school to college (e.g., Hoxby, 2009) or college to workforce (e.g., Conzelmann et al., 2025). In contrast, this report analyzes tens of thousands of responses about both junctures, providing insights on migration pathways more broadly and with fewer limitations than other publicly available data sources typically used to measure migration (Molloy et al., 2011).

Although our study investigates talent migration pathways more comprehensively than in most previous studies, there are limitations. First, the survey data on which we relied predate the COVID-19 pandemic and the resulting changes in migration patterns, growth in remote work, and expansion of online learning.[3] However, in supplementary analyses using other data sources, we find that, despite much news coverage, COVID-induced changes in migration rates and the reasons for interstate migration are modest relative to preexisting patterns (see appendix Section B). Second, we focus on bachelor's degree recipients and, to a lesser extent, graduate degree recipients. Talent development at the sub-baccalaureate level — such as associate degrees, postsecondary certificates, apprenticeships, and skilled trades — is important but outside the scope of this report.

Data and Samples

In this report, we use two primary data sources to document patterns of talent migration and identify the main reasons individuals cross state lines.

Strada-Gallup Education Consumer Survey

Our primary source of data is the **Strada-Gallup Education Consumer Survey**, a telephone survey of Americans aged 18–65 conducted between June 29, 2016, and April 5, 2019. Over this period, more than 344,000 adults answered questions about their educational experiences with a particular focus on postsecondary educational trajectories, as well as questions on employment, demographics, and other characteristics. Importantly for this report, the survey also requested the name and location of the educational institution from which respondents earned their most recent college degree as well as their current location of residence. In addition, respondents interviewed between October 2018 and April 2019 were asked about the location of the high school they attended.

Our analyses focus on two partially overlapping samples of working-age adults (20–65) with a bachelor's or graduate degree living in the United States (excluding territories) at the time of the survey. The first sample includes 15,785 individuals who were engaged in the labor force and who reported the state where they attended high school (and that the high school was in one of the 50 states or the District of Columbia), the state where they received their highest postsecondary degree, and the state where they resided at the time of the survey. We used the data from this sample to explore the interstate migration patterns of the college-educated workforce from high school to college to work.

The second sample includes 28,236 individuals who received their most recent degree between 2010 and 2019 (inclusive of endpoints), who reported the state of their most recent college, and their current residence, but whose high school location may or may not have been collected. Unlike the first sample, this second sample is not limited to individuals who were engaged in the labor force, but it is limited to recent college graduates. We used the data from the second sample, linked with data from multiple publicly available sources (see **appendix A** for a list of these data sources), to examine the loss (or conversely, the retention) of in-state college graduates and to identify the state-level factors associated with this outcome. Table 1 compares the selection criteria for the first and second Strada-Gallup survey samples, and **appendix Table A1** shows additional characteristics of the two samples.

Current Population Survey Annual Social and Economic Supplement

To examine individuals' main reasons for moving across state lines, we complemented the Strada-Gallup survey data with the Current Population Survey Annual Social and Economic Supplement (CPS-ASEC). The CPS is a nationally representative survey conducted monthly by the U.S. Census Bureau and the Bureau of Labor Statistics. Each spring, the ASEC module collects additional information on labor statistics, including whether respondents moved in the past year, and if so, their destination and main reason for relocation. In our analysis, we drew on responses of 7,259 working-age adults with a bachelor's degree or higher who were surveyed between 2015 and 2024 (inclusive of endpoints) and who migrated states within the past year. This sample is not limited to individuals engaged in the labor force.

(Table 1 also compares the CPS-ASEC sample with the two Strada-Gallup samples, while **appendix Table A2** provides characteristics of the CPS-ASEC sample.)

TABLE 1:

Description of the data used in each section of the report

Report Section	Section II Migration Patterns of College-Educated Workers	Section III Retention of In-State College Graduates	Section IV Individual Reasons for Interstate Migration
Sample size	15,785	28,236	7,259
Data Source	Strada-Gallup Education Consumer Survey	Strada-Gallup Education Consumer Survey	Current Population Survey Annual Social and Economic Supplement
Education Criteria			
Respondents completed a bachelor's degree or higher	Yes	Yes	Yes
Respondents' college graduation year	1971 to 2019	2010 to 2019	No sample restriction applied
Respondents reported the state where they attended college	Yes	Yes	No sample restriction applied
Respondents reported the state where they attended high school	Yes	No sample restriction applied	No sample restriction applied
Workforce Criteria			
Respondents' age at the time of the survey	20-65	20-65	20-65
Respondents were engaged in the labor force at the time of the survey	Yes	No sample restriction applied	No sample restriction applied
Residency Criteria			
Respondents reported the state where they currently reside	Yes	Yes	Yes
Respondents reported the state where they resided one year prior	No sample restriction applied	No sample restriction applied	Yes
Respondents migrated across state lines within the past year	No sample restriction applied	No sample restriction applied	Yes

II. Migration Patterns of College-Educated Workers

In this section, we examine the sources of college-educated workers and identify patterns by state, types of postsecondary institutions, levels of educational attainment, fields of study, occupations, and socioeconomic and demographic characteristics.

We organized our analysis around a typology of talent migration, focusing on the juncture between high school and college, and the juncture between college and work. This typology, illustrated in Figure 2, contains four mutually exclusive categories that describe the different ways that states may grow their college-educated talent pools. Understanding the prevalence of each migration category is an important step toward identifying the policy strategies that may have the greatest aggregate impact on talent growth. We used the data from our first sample of the Strada-Gallup survey (see Table 1) to calculate the share of all college-educated workers in each of the four categories represented in Figure 2.[4]

The four categories are:

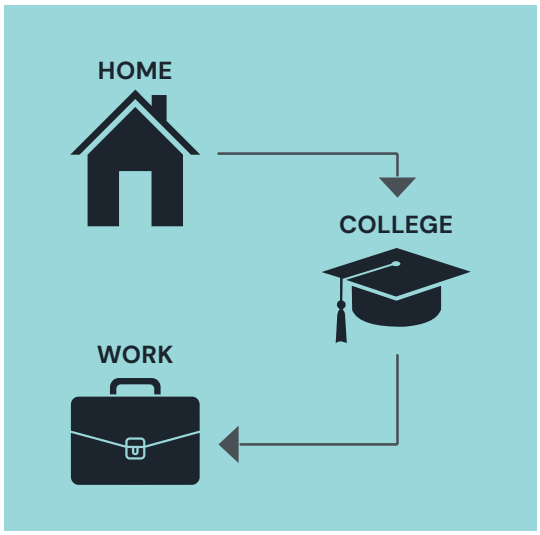
- **Homegrown:** Individuals who attended college and now work in the same state in which they attended high school (referred to as their home state)
- **Boomerang:** Individuals who left to attend college out of state but returned to work in the state in which they attended high school
- **Study, then stay:** Individuals who left to attend college out of state and then stayed there for work
- **Come for work:** Individuals who work in a state in which they attended neither high school nor college[5]

FIGURE 2:

Categories of the sources of college-educated talent for states

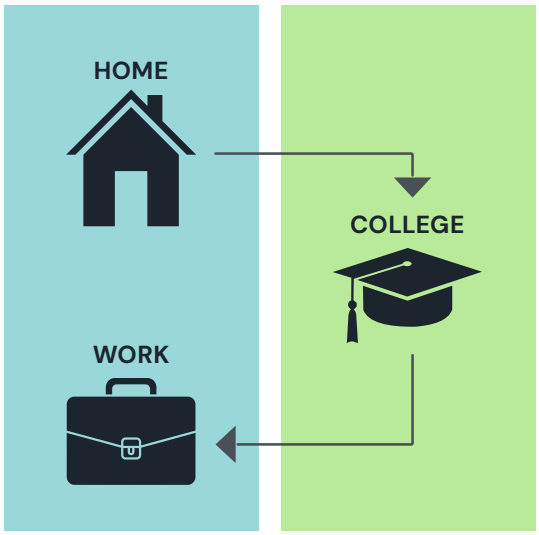
Graduates who went to ...

... college **in state** and work **in state**.



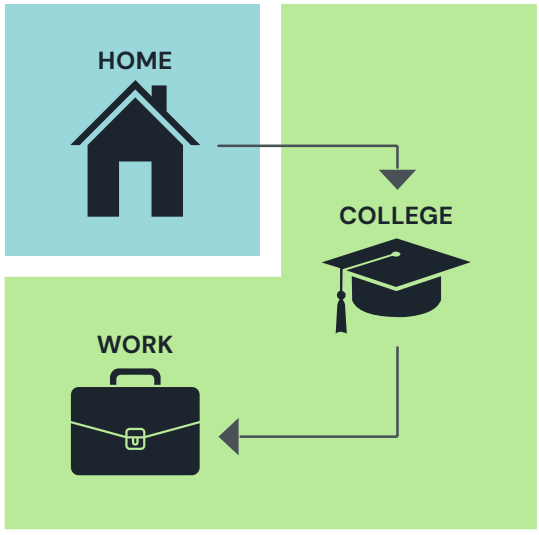
Homegrown

... college **out of state** and work **in state**.



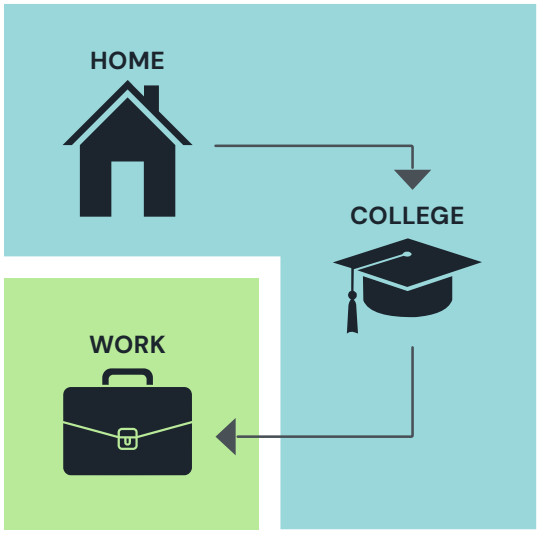
Boomerang

... college **out of state** and work **out of state**.



Study then stay

... college **in state** and work **out of state**.



Come for work

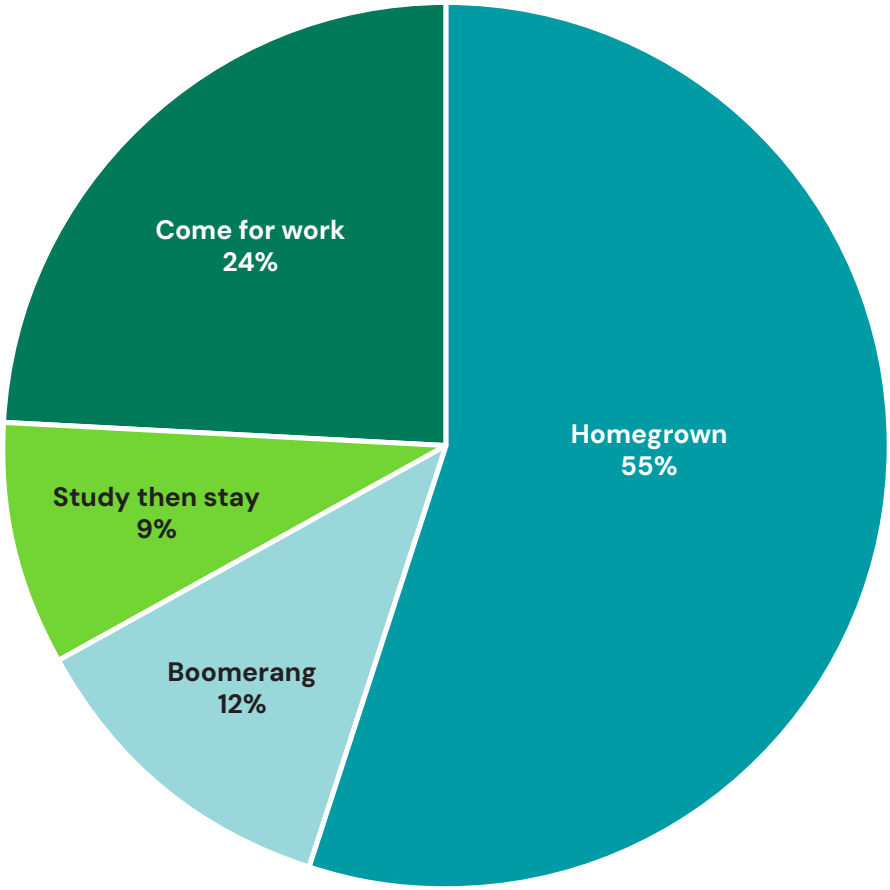
Note: The key feature of "come for work" students is that they did not complete any of their schooling — neither high school nor college — in the state in which they now work. That said, they may have completed high school and college in a single state or two different states.

Overall Picture

We start with the national breakdown of talent mobility (Figure 3), presenting the shares of college-educated workers that fall within each of the four migration categories. Fifty-five percent of the college-educated workforce nationwide is homegrown — individuals who live and work in the state in which they completed both high school and college. Another 12 percent are workers who graduated from high school, left to attend college elsewhere, but then returned to their home state after college. Taken together, two-thirds of a state's college-educated workforce, on average, graduated from the state's own high schools, while about one-third of college-educated talent migrated to the state at some point after high school, whether to enroll in college and remain for work (9 percent) or to work after college (24 percent).

FIGURE 3:

The largest share of college-educated talent is homegrown, working in the same state where they attended high school and college



Source: Strada-Gallup Survey.

Notes: The sample includes respondents 20–65 years of age who are in the workforce, who hold a bachelor's degree or graduate degree, and who reported the state(s) in which their high school and most recent college are located, as well as the state of their current residence; n=15,785.

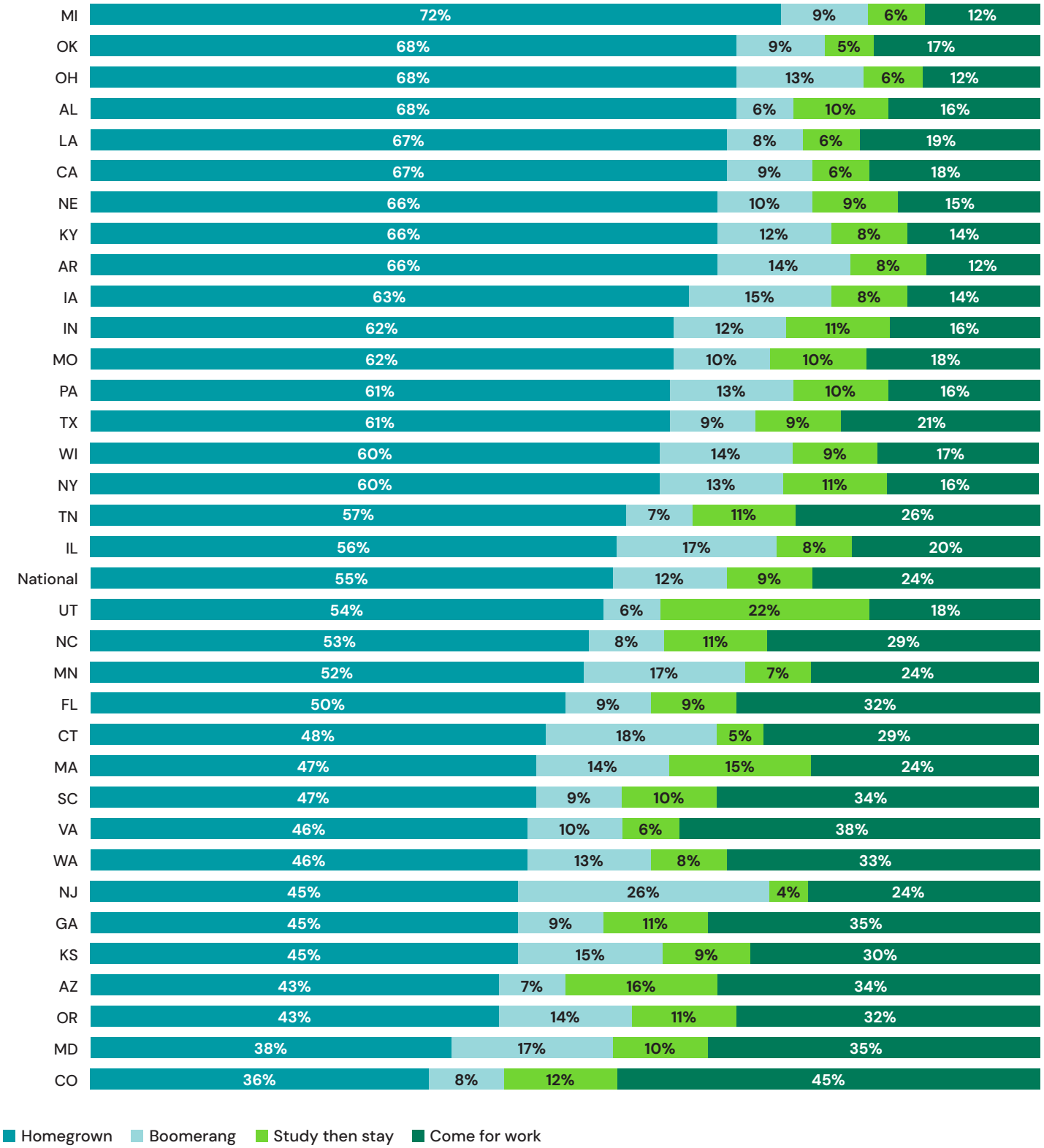
Where do states source their college-educated talent?

In Figure 4a, we report the composition of the college-educated workforces for the 34 states with at least 110 respondents.[6] See **appendix Figure C2** for all 50 states and the District of Columbia. These calculations use the total sample of each state's working-age, labor market-engaged, college-educated population as the denominator and thus answer the question: Where do college-educated workers in each state come from?

The share of the homegrown college-educated workforce differs strikingly across states. For example, an estimated 72 percent of Michigan's college-educated workers completed high school and college in the state. In contrast, homegrown talent is estimated to account for just 36 percent of Colorado's college-educated workforce, while almost half (45 percent) went to high school and college elsewhere, suggesting that other states may be substantially subsidizing Colorado's college-educated workforce. Utah's college-educated workforce is built more heavily than other states on students who come for college and stay for work — an estimated 22 percent of the state's college-educated talent. Some other states have workforces composed of larger-than-average shares of boomerang individuals who attend in-state high schools, leave for college, and then return for work, such as New Jersey, where an estimated 26 percent of the college-educated workforce follows this path.

FIGURE 4A:

States differ in the sources of their college-educated workforces



Source: Strada-Gallup Survey.

Notes: The sample includes respondents 20–65 years of age who are in the workforce, who hold a bachelor's degree or graduate degree, and who reported the state(s) in which their high school and most recent college are located, as well as the state of their current residence; n=15,785. In this figure, we only report states with at least 110 respondents. See ***appendix Figure C2*** *for all 50 states and the District of Columbia. Figure labels are rounded to the nearest percentage point and may not perfectly reflect the relative lengths of the bars.*

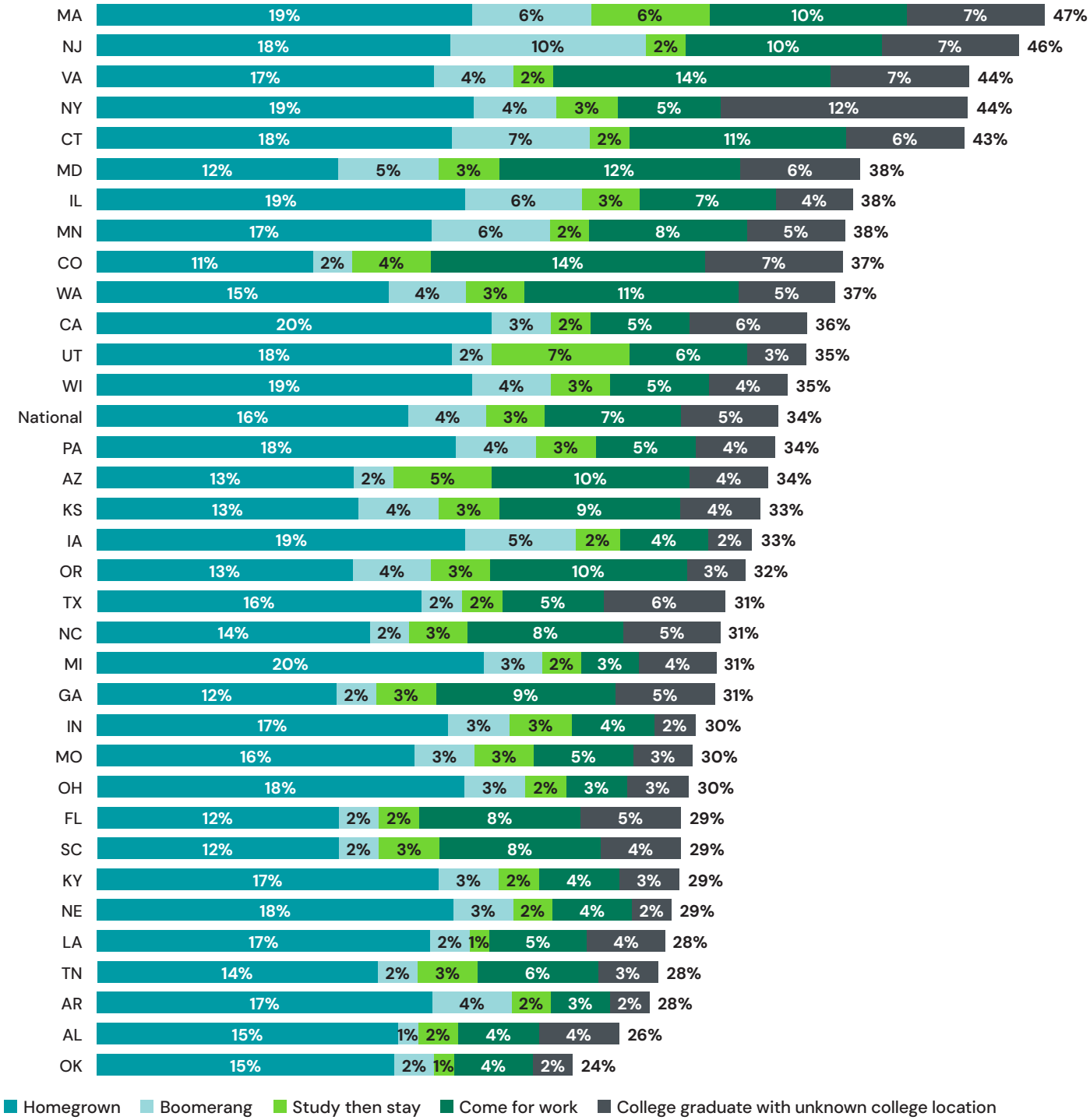
Figure 4a reports migration pathways as a share of a state's college-educated workforce, rather than its overall population of workers of all education levels. As a result, it offers only a partial picture of how much any given state relies on homegrown college-educated talent as a share of its overall workforce. To provide a more complete picture, in Figure 4b, we reconstruct all migration pathways as shares of all workers regardless of educational attainment.[7] See **appendix Figure C4** for all 50 states and the District of Columbia. We observe that almost three-quarters of the states that have above-average shares of homegrown talent in Figure 4a also have below-average college attainment rates. For instance, Oklahoma, Alabama, Louisiana, and Arkansas have shares of homegrown talent that are 11 to 13 percentage points higher than the average of the states, but they have college attainment rates that are 6 to 10 percentage points below average. New York is a noteworthy exception, with a homegrown share that is 4 percentage points above average and a college attainment rate that is 9 percentage points above average.

The pattern is less clear among states with below-average shares of homegrown talent and above-average college attainment rates. Some — such as Virginia, Maryland, and Colorado — have above-average shares of college-educated talent that comes for work, but there are counter examples of states with similarly high rates of come-for-work talent yet below-average college attainment rates, such as Florida, South Carolina, and Georgia. Other states with below-average shares of homegrown talent and above-average attainment rates have above-average shares of boomerang workers (e.g., New Jersey, Connecticut), and one state (Massachusetts) has an unusually high rate of study-then-stay workers.

When interpreting the results in Figures 4a and 4b, it is important to note that the share of homegrown talent is not synonymous with the in-state retention rate of college graduates. A state that loses a substantial percentage of its college graduates to migration still may have a largely homegrown workforce if it attracts relatively few college-educated workers from elsewhere. Conversely, a state that retains its graduates at a high rate but attracts considerable migration may appear to rely less on homegrown talent by comparison. In other words, the homegrown shares observed in Figures 4a and 4b are not necessarily a sole reflection of college graduate retention rates because they also are shaped by how much outside talent states attract. These two dynamics can have very different implications for policy. In Section III of this report, we begin to disentangle these issues, turning our attention specifically to the retention of college graduates.

FIGURE 4B:

As a share of all workers, states with college-educated workforces composed of a large share of homegrown talent often have low overall degree attainment



Source: Strada-Gallup Survey.

Notes: The sample includes all workers who reported the state in which their high school was located, as well as the state of their current residence; n=40,934. Respondents with at least a bachelor's degree but for whom college location information is not available are included as a fifth category. The bolded numbers at the edge of the bars represent the total percentage of workers in the Strada-Gallup Survey with at least a bachelor's degree. In this figure, we only report the 34 states included in Figure 4a and the national breakdown. See ***appendix Figure C4*** *for all 50 states and the District of Columbia. Figure labels are rounded to the nearest percentage point and may not perfectly reflect the relative lengths of the bars.*

Differences by Type of Postsecondary Institution

The characteristics of the colleges that graduates attend also influence where talent flows across the country (Conzelmann et al., 2025). Figure 5 presents talent migration patterns by institutional type (public versus private nonprofit) and admissions selectivity.

Overall, public institutions contribute to homegrown talent at much higher rates than private nonprofit institutions. Sixty-two percent of workers who graduated from public institutions attended college in their home state and now work there, compared with 44 percent of workers who graduated from private nonprofit institutions. State support permits public colleges to subsidize tuition for in-state students, helping to retain these students for college and often after college as well, making public postsecondary institutions anchors for states' talent development. Private colleges typically do not offer such discounts; thus, students are less incentivized to choose a private college in their home state.

That said, once admissions selectivity is taken into account, a more complex pattern emerges. We drew on rankings from Barron's Profiles of American Colleges (2008) — a rating system for U.S. colleges — which assigns institutions to selectivity classifications, including: most competitive, highly competitive, very competitive, competitive, less competitive, and noncompetitive. These rankings consider factors such as an institution's acceptance rate, admission test scores, high school GPAs, and other admissions criteria.[8] In nearly every case, the share of homegrown talent drops with increasing admissions selectivity for both public and private institutions, but the drop among private institutions is considerably more pronounced.

To illustrate, two-thirds of graduates from public institutions that are deemed to have less competitive admissions or competitive admissions attended college in their home state and now work there (68 and 66 percent, respectively). Among these are many regional universities, such as California State University, Long Beach; Texas State University; Ball State University; Tennessee State University; Northeastern State University; and Arkansas State University. The share drops to 58 percent among graduates of public institutions that are deemed very competitive or highly competitive, which includes many of the large flagship institutions, such as Pennsylvania State University, Indiana University-Bloomington, University of Iowa, The Ohio State University, University of Michigan-Ann Arbor, and University of Florida. Even in the most competitive public institutions — for instance, University of California, Los Angeles, The University of North Carolina at Chapel Hill, and University of Virginia — half of graduates are homegrown (51 percent).

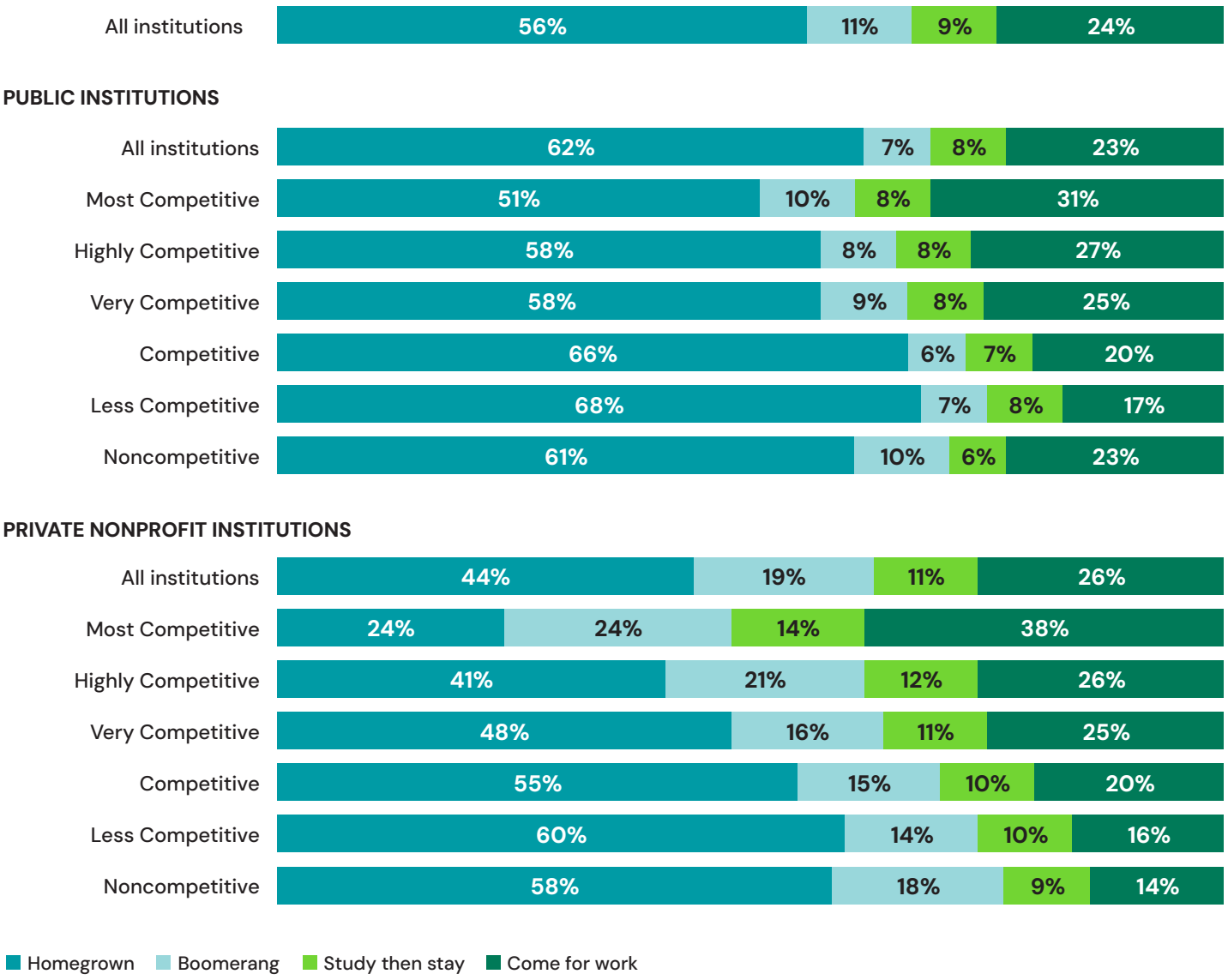
Looking at private nonprofit institutions, the share of homegrown graduates of less competitive (e.g., Golden Gate University, University of Bridgeport) and competitive private institutions (e.g., Howard University, Pace University) rivals that of public institutions at 60 percent and 55 percent, respectively. However, less than half (48 percent) of graduates of very competitive private institutions (e.g., Seton Hall University, DePaul University) attended college and now work in their home state. Only 41 percent of graduates of highly competitive institutions (e.g., Syracuse University, Northeastern University), and just 24 percent of graduates of the most competitive institutions (e.g., University of Southern California, New York University) are homegrown, representing the largest mobility shift between selectivity tiers. Graduates of highly competitive or the most competitive private nonprofits also are the most likely to boomerang, leaving their home state to attend college only to return home at some point after graduation (21 percent and 24 percent, respectively).

These differences in migration patterns among institutional selectivity tiers are important to highlight for the opportunities they present for states to grow their pools of college-educated workers. Lower-tier public institutions — which also can be described as broad-access institutions — make postsecondary education more accessible to students who otherwise might be unable to attend, tend to enroll relatively large numbers

of students, and, as noted, produce graduates that are disproportionately likely to remain in state. However, they also tend to have lower completion rates than institutions in higher selectivity tiers (de Castro Galvao et al., 2024). Hence, investing in these broad-access institutions in ways that support students advancing through and completing their degree programs, as well as connecting with local employers and securing quality jobs upon graduation, could have an outsized impact on states' homegrown talent pools.

FIGURE 5:

Public colleges and colleges with less competitive admissions play a prominent role in cultivating homegrown talent



Source: Strada-Gallup Survey.

Notes: The sample includes respondents 20–65 years of age who are in the workforce, who hold a bachelor's degree or graduate degree, and who reported the state(s) in which their high school and most recent college are located, as well as the state of their current residence; n=9,730 (public institutions) and 4,581 (private nonprofit institutions). Institutional selectivity comes from Barron's Profiles of American Colleges (2008). Figure labels are rounded to the nearest percentage point and may not perfectly reflect the relative lengths of the bars.

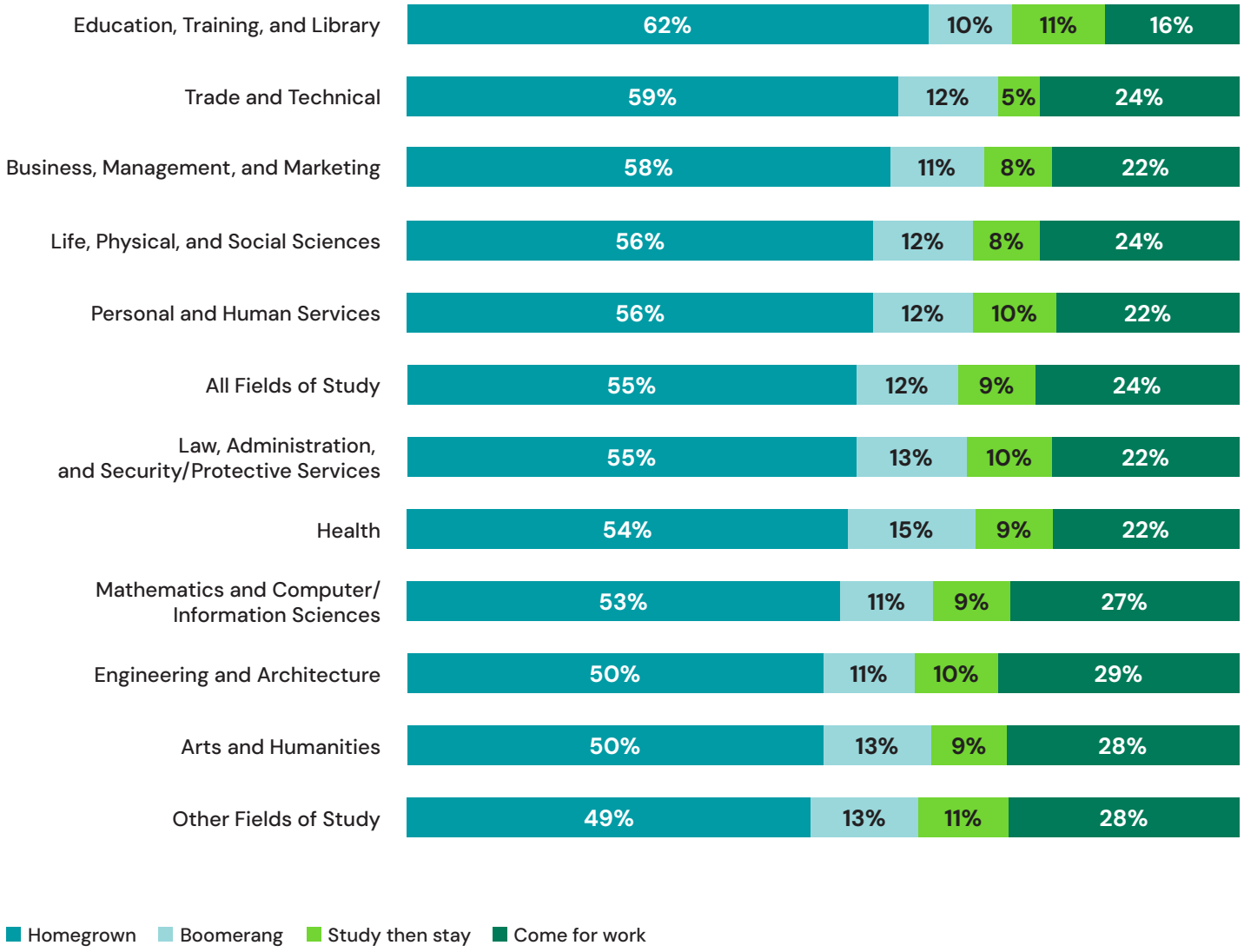
Differences in Talent Flows by Field of Study and Occupation

Labor market needs of states and localities differ markedly across the U.S., contributing to differences in migration. The labor needs of technology firms in the Pacific Northwest, for instance, are distinct from the needs of agriculture- and manufacturing-heavy Midwestern states and localities. Thus, some areas of the country might produce more homegrown talent in certain fields of study as well as attract more out-of-state talent in those fields. In contrast, some fields of study are in demand everywhere across the country while also being regulated by state occupational licensing requirements — teaching, nursing, and law enforcement, for example — sometimes making it harder to cross state lines for a job (Johnson and Kleiner, 2020) and contributing perhaps to an overrepresentation of homegrown talent in these fields.[9] Therefore, another lens through which to explore the flow of college-educated talent is the field of study a student pursues in college.

Figure 6 presents the migration of college-educated talent by field of study, grouping college majors into 10 categories plus an 11th "other" category. See **appendix Table A4** for a crosswalk of detailed majors to categories, and see **appendix Figure C6** for migration by detailed major. We find moderate migration differences between fields of study. Homegrown rates range from 53 to 59 percent across most fields, with some notable exceptions. For instance, 62 percent of individuals who majored in Education, Training, or Library are homegrown, compared with only 50 percent who majored in Engineering, Architecture, Arts, or Humanities.[10] The higher mobility of graduates in the latter fields is due primarily to a greater percentage of students who moved away for work from the state(s) where they attended high school and college — 29 percent of graduates in Engineering and Architecture majors and 28 percent of graduates in Arts and Humanities majors live and work in a state in which they attended neither high school nor college. In contrast, only 16 percent of graduates in Education, Training, and Library majors followed this pathway.

FIGURE 6:

There are moderate differences in interstate migration patterns by field of study



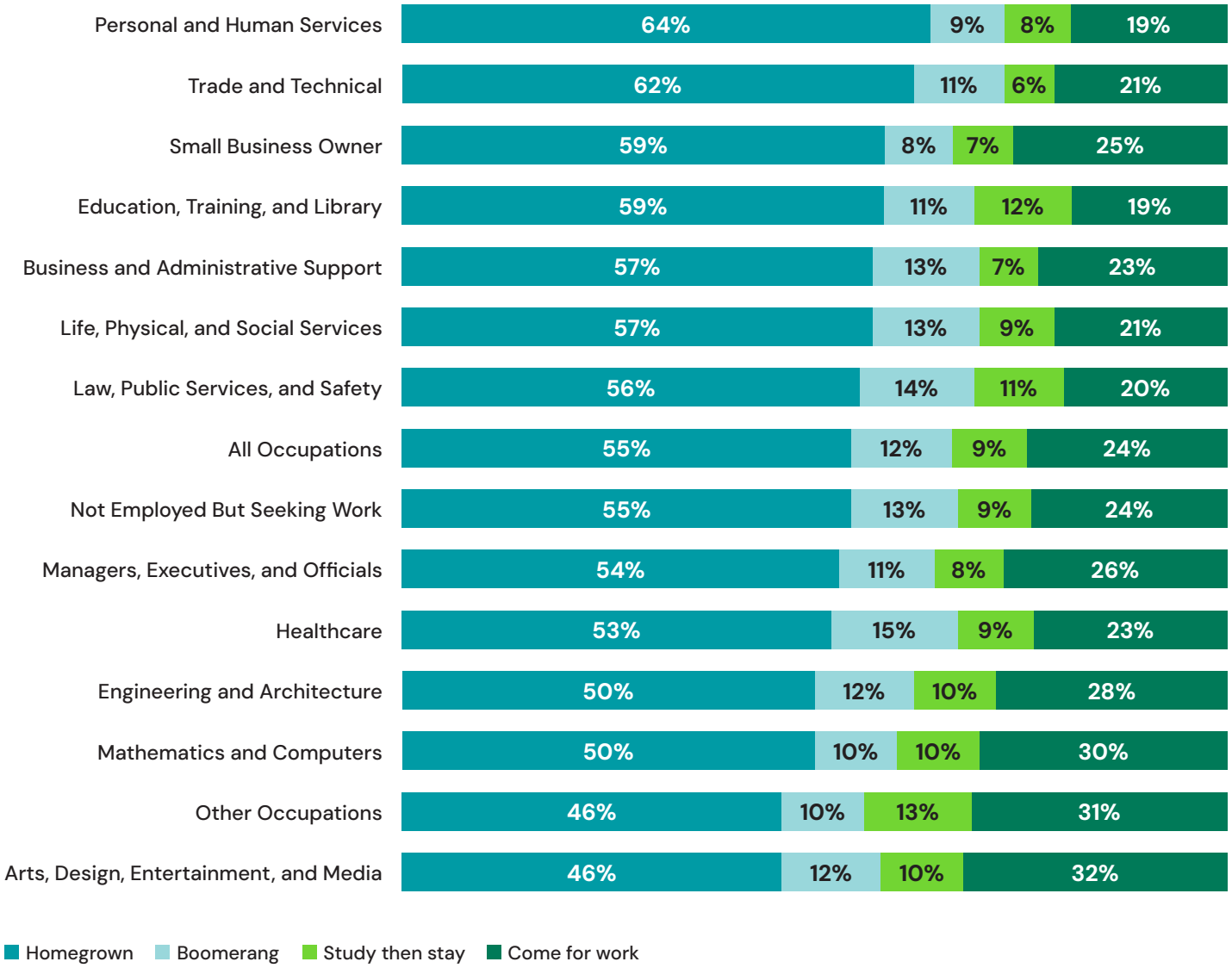
Source: Strada-Gallup Survey.

*Notes: The sample includes respondents 20–65 years of age who are in the workforce, who hold a bachelor's degree or graduate degree, and who reported the state(s) in which their high school and most recent college are located, as well as the state of their current residence; n=15,785. Figure labels are rounded to the nearest percentage point and may not perfectly reflect the relative lengths of the bars. See **appendix Table A4** for a crosswalk of detailed majors to categories, and see **appendix Figure C6** for migration by detailed major.*

In Figure 7, we report the sources of college-educated talent by broad occupational category. See **appendix Table A5** for a crosswalk of detailed occupations to categories, and see **appendix Figure C7** for migration by detailed occupation. Generally, migration patterns by occupation mirror those by fields of study. College-educated workers in Education, Training, and Library occupations, for instance, are disproportionately drawn from homegrown talent (59 percent).[11] College-educated workers in some STEM fields — Mathematics and Computers, and Engineering and Architecture — are less likely to be homegrown (50 percent) and more likely to work in a state in which they attended neither high school nor college (30 percent and 28 percent, respectively).

FIGURE 7:

College-educated workers in math, computer fields, engineering, architecture, and the arts are the least likely to be homegrown



Source: Strada-Gallup Survey.

Notes: The sample includes respondents 20–65 years of age who are in the workforce, who hold a bachelor's degree or graduate degree, and who reported the state(s) in which their high school and most recent college are located, as well as the state of their current residence; n=15,785. Figure labels are rounded to the nearest percentage point and may not perfectly reflect the relative lengths of the bars. See appendix Figure C7 for migration by detailed occupation.

Fields of study and occupations vary in their share of graduate degree holders, so these patterns may partly reflect degree-level differences in mobility. To address this, we report migration pathways by field of study and occupation separately for bachelor's degree holders and graduate degree holders in **appendix Figures C8–C11**.

Differences in Talent Flows by Demographic and Socioeconomic Characteristics

How much do migration patterns among college-educated workers differ by demographic and socioeconomic characteristics? In Figure 8, we report talent migration patterns for the college-educated workforce by gender, race, age, and parents' education level. Men and women have nearly identical migration patterns. Migration differences by racial identity are modest with the notable exception of Hispanic college-educated workers, who are more likely than other racial/ethnic groups to both attend college and work in their home state (67 percent of Hispanic workers versus 54 percent of White workers and 58 percent of Black and Asian workers).

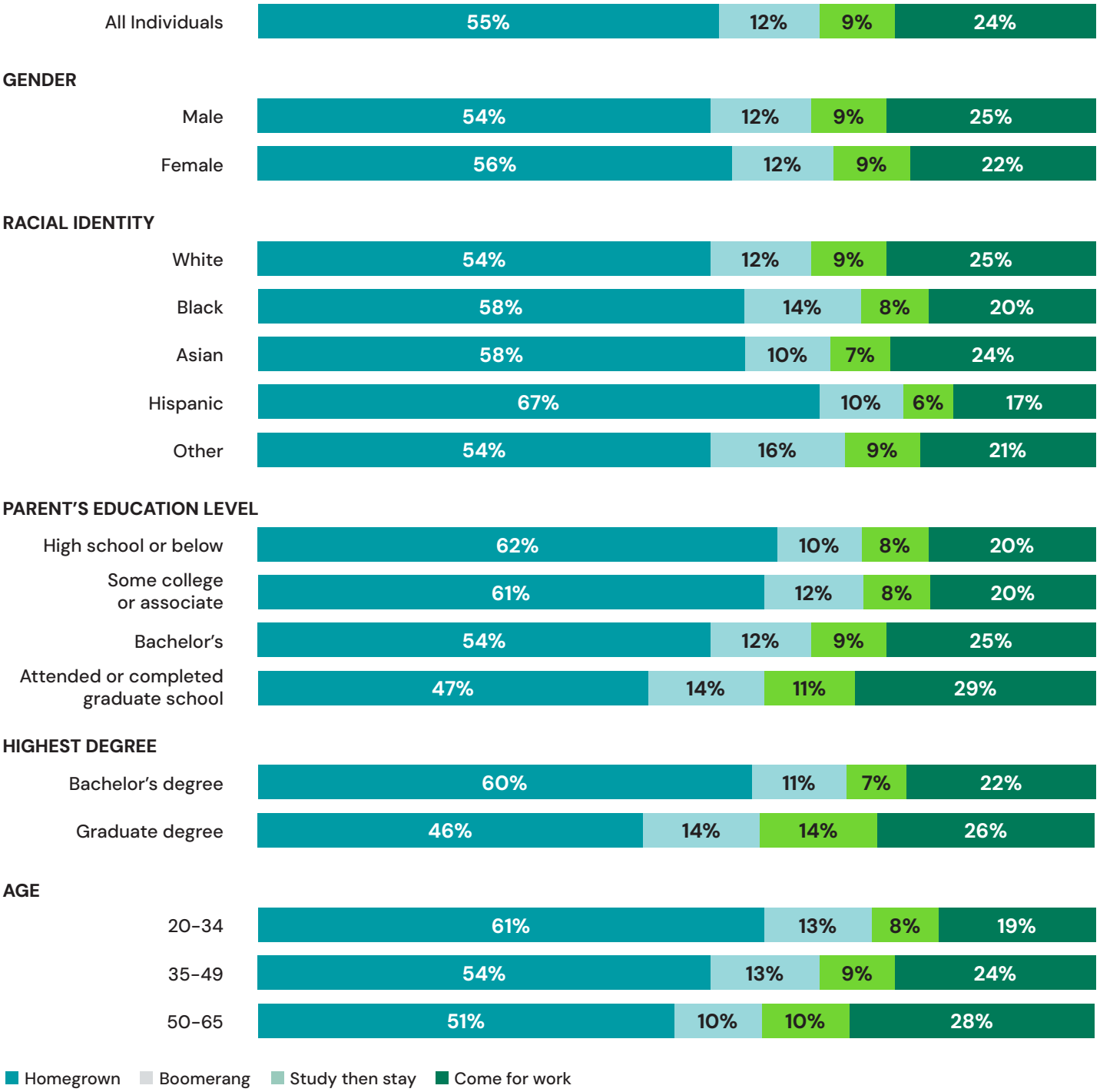
College-educated workers whose parents have high levels of educational attainment — a bachelor's or graduate degree — are more mobile than their peers who have parents with less education. For instance, among respondents whose parents attempted or completed a graduate or professional degree, 29 percent work in a different state than where they attended high school and college, 11 percent left their home state to attend college elsewhere and now work in that state, and 14 percent completed college outside their home state but returned home to work. The corresponding percentages among respondents whose parents have no college education are 20 percent, 8 percent, and 10 percent, respectively. The net result is that just 47 percent of respondents with graduate-educated parents attended college and work in their home state, compared with 62 percent of respondents whose parents have no college education and 61 percent of respondents whose parents have some college or an associate degree.

Similar migration patterns are observed by respondents' own highest level of educational attainment. College-educated workers with a graduate degree are more mobile than those with only a bachelor's degree and particularly more likely to study then stay — 14 percent among graduate degree-holders compared with 7 percent among bachelor's degree-holders. Overall, the share of the college-educated workforce who are currently in their home state is 67 percent, but 71 percent for bachelor's degree-holders and only 60 percent among those with a graduate degree.

The chance of migrating to work in a different state from the one(s) where an individual attended high school and college increases with time out of college, as evidenced by the fact that worker age is a strong predictor of talent flows.[12] Among the youngest respondents, ages 20 to 34 years, 61 percent are working in the same state in which they completed high school and college. That share declines with age, falling to 51 percent among the oldest respondents, ages 50 to 65 years. Over the same span of age, the share of college-educated talent attracted to a state other than the one in which they went to high school and college increases from 19 percent to 28 percent. The results suggest that states should pay attention to opportunities for career advancement within their boundaries — whether to retain college-educated workers throughout their careers or to attract talent at more senior and experienced levels from other locations.

FIGURE 8:

Homegrown talent is more prevalent among early career individuals, Hispanic workers, first-generation college graduates, and individuals with a bachelor's degree only



Source: Strada-Gallup Survey.

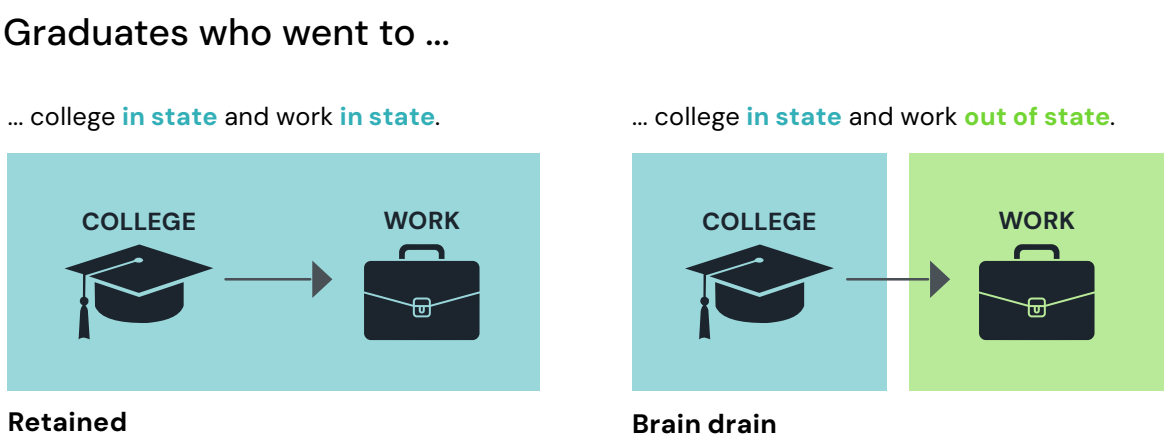
Notes: The sample includes respondents 20–65 years of age who are in the workforce, who hold a bachelor's degree or graduate degree, and who reported the state(s) in which their high school and most recent college are located, as well as the state of their current residence; n=15,785 (by gender), 15,412 (by racial identity), 15,704 (by parent's education level), 15,785 (by highest degree), and 15,785 (by age). Parental education is based on the parent with the highest level of education as reported by the respondent in the survey. Figure labels are rounded to the nearest percentage point and may not perfectly reflect the relative lengths of the bars.

III. Retention of In-State College Graduates

In this section, we used data from our second Strada-Gallup survey sample of 28,236 individuals who graduated between 2010 and 2019. We examine the issue of brain drain — the out-migration of college graduates from in-state institutions — and therefore use as our denominator the number of college-educated individuals in the sample who recently graduated college in the focal state for all calculations in this section.[13] Whereas Section II focused on individual migration pathways as shares of the total college-educated workforce, this section focuses on state retention of college graduates (Figure 9). By focusing on recent graduates, we capture retention rates that are influenced by states' present-day policy environments, labor markets, and living conditions.

FIGURE 9:

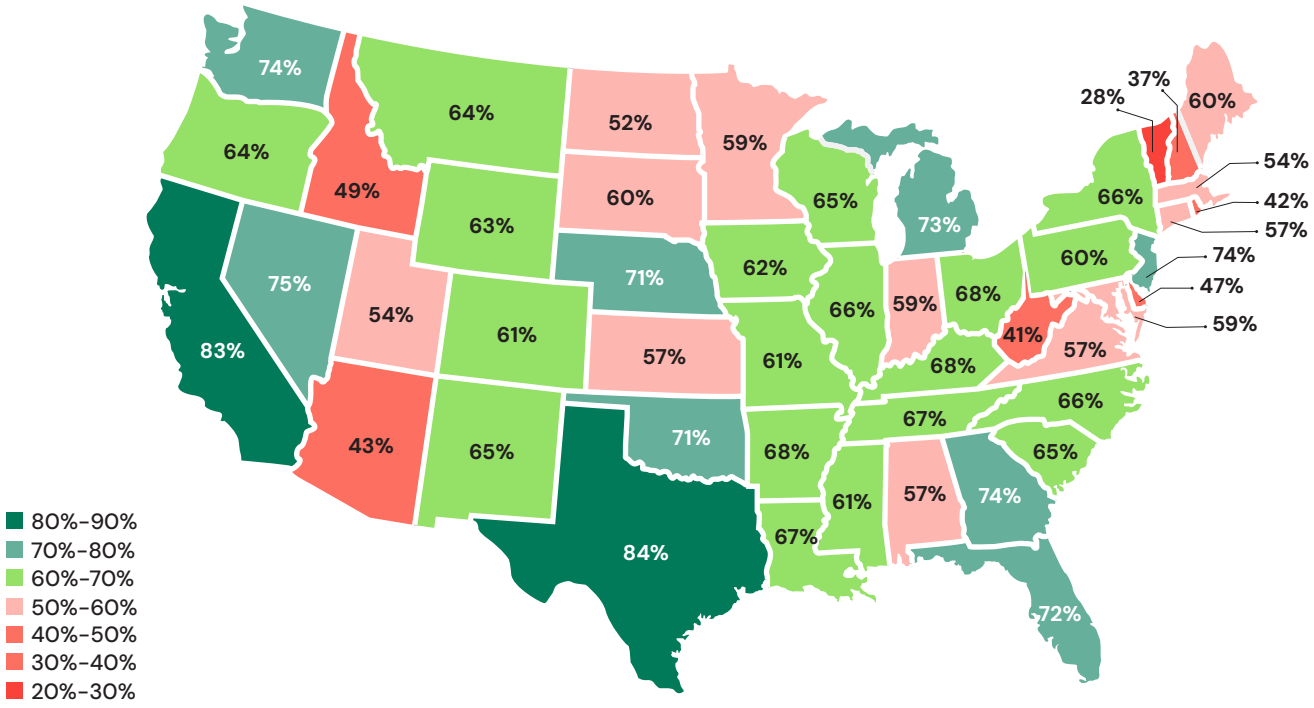
Brain drain of in-state college graduates



On average, for the whole sample, about 66 percent of college-educated talent remains in the state where they completed college, but the percentage varies across states.[14] Figure 10 presents, for each state, the share of individuals with at least a bachelor's degree who attended college in that state and were living in that state at the time of the survey.[15] Some states, such as Texas (84 percent) and California (83 percent), retain very high shares of their college graduates. Other states, particularly less populous ones such as Vermont (28 percent) and New Hampshire (37 percent), retain far fewer of their college graduates.[16]

FIGURE 10:

The retention of college-educated talent produced by in-state colleges differs appreciably across states



Source: Strada-Gallup Survey.

Notes: For each state, the map reports the percentage of college-educated talent retained in state. The sample includes respondents who hold a bachelor's degree or graduate degree, graduated between 2010 and 2019, and about whom we know the state of their most recent college and the state of their current residence; n=28,236.

State Factors Associated with In-State College Retention

States differ in many ways that may relate to differences in in-state college retention rates. Some of these factors — such as investments in public education and tax rates — are directly manipulable by policy actors. Others, such as economic growth, can be influenced but only indirectly. Still others, such as the weather, are not subject to control but may influence where individuals choose to live.

In Figure 11, we present state-level correlations between the percentage of college-educated graduates retained in state and nine state-level factors frequently discussed in reference to brain drain, many of which can be shaped by state policy. These descriptive patterns therefore capture both the direct relationship between the factor and retention, as well as other across-state differences that are correlated with both. For example, in-state retention could be higher in states with low tax rates, but, if states with low tax rates also have cheaper housing, it is not clear whether the greater retention is due to the low tax rates, the cheap housing, or both. Therefore, the patterns we present here can either understate or overstate the true relationships, but the patterns are illustrative and useful to spur policy conversations and subsequent research ideas.

Three of the factors reflect investments or the outcomes of investments in public postsecondary education: appropriations for public higher education per full-time student, the share of first-year degree-seeking undergraduates from in state, and the share of in-state bachelor's degree graduates that attended a public institution. Higher levels of state funding to public colleges and universities allow these institutions to rely less on high tuition from out-of-state and international students and maintain or lower prices for in-state students (Bound et al., 2020; Cook and Turner, 2022). As a complement to investments in postsecondary education to produce more college graduates, states need employment opportunities for graduates after college. Thus, we also consider factors related to economic growth and the cost of living, including the college wage premium (i.e., how much more the average bachelor's degree graduate earns than the average high school graduate), the top marginal income tax rate, the 10-year growth in the total number of employed individuals, and the median home price. Finally, we examine two facets of state living conditions, specifically, five-year change in violent crime and the average temperature of a state's hottest month. **Appendix Section A** discusses the data sources and operationalization of each factor in more detail.

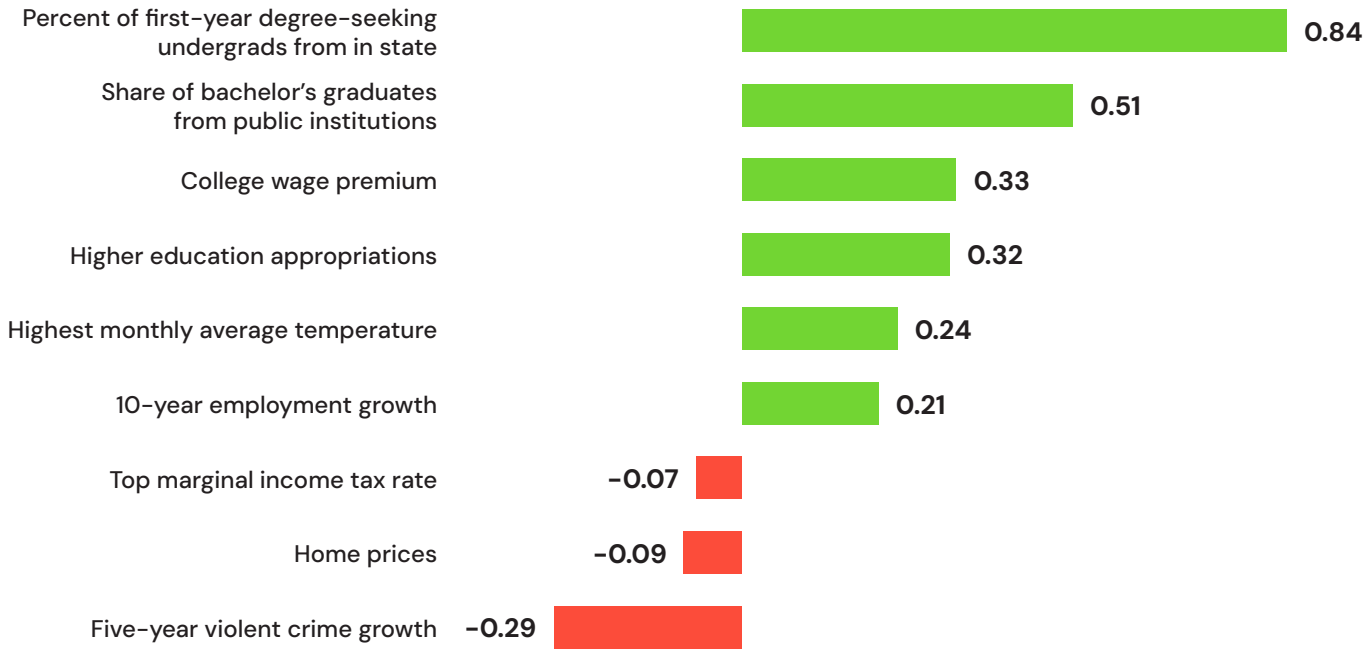
Our main finding, immediately evident in Figure 11, is that states that invest more in their public postsecondary education systems and in their in-state high school-to-college pipelines tend to retain a greater share of their college graduates. The percentage of degree-seeking undergraduates coming from in-state high schools is strongly and positively correlated with retention of graduates, which is unsurprising because high school location is a strong predictor of work location, as evidenced by the large share of states' college-educated workforces that are homegrown (see Section II). Higher state appropriations and a higher ratio of in-state public to private college graduates also are associated with higher rates of retention, although these relationships are of a more moderate magnitude.

The other state factors show small-to-moderate associations with retention. States with higher college wage premiums, faster employment growth, lower home prices, and lower taxes tend to retain a greater share of their college graduates. We also find greater retention in states with warmer climates, but lower retention rates in states where violent crime is increasing.

We stress again that these correlational relationships are descriptive only. The association between any one factor and retention may partly reflect the influence of other, related factors. While our findings do not imply causal channels of action — that is, a state should not expect that increasing per-student appropriations will increase in-state retention rates in lockstep — they do provide suggestive starting grounds for policy conversations and a launching pad for subsequent research to identify the causal factors that drive college graduate retention. Scatterplots in **appendix Figure C13** provide more detailed visualizations of the relationships that are summarized in Figure 11.

FIGURE 11:

Selected state-level factors that correlate with in-state retention of college-educated talent



Sources: Authors' calculation from the Current Population Survey Outgoing Rotation Groups via the Economic Policy Institute; FBI Uniform Crime Reports Summary File; Federal Housing Finance Agency; Integrated Postsecondary Education Data System; National Centers for Environmental Information, National Oceanic and Atmospheric Administration; Robinson and Tazhitdinova (2025); and State Higher Education Executive Officers Association.

Notes: The figure presents Spearman's Rank Correlations between the percentage of college-educated talent produced in a state that is retained in that state and various state-level factors. Spearman's Rank Correlations range from -1 to +1. Positive numbers of greater magnitude show a greater positive relationship between the factor and in-state retention when states are ranked on each dimension; negative numbers of greater magnitude show a greater negative relationship. **Appendix A** *discusses the data sources and operationalization of each factor.*

IV. Individual Reasons for Interstate Migration

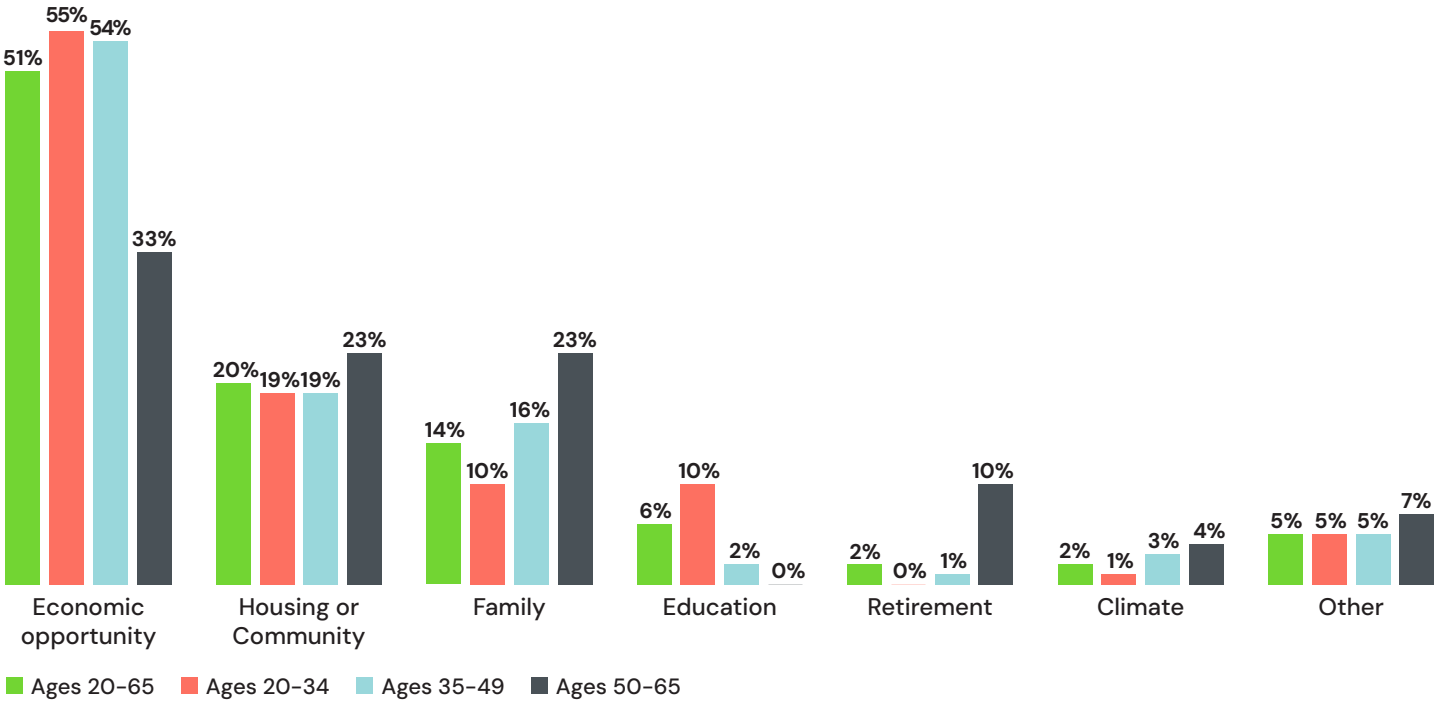
Behind each state-level pattern are individual college graduates deciding where to live and work. We turn now to what graduates report about their motivations for interstate moves. While the Strada-Gallup survey provides a uniquely comprehensive look at the migration patterns of college-educated talent, it does not tell us why individuals make the migration decisions that they do. To complement our findings from the previous sections, we turned to nationally representative survey data from the Current Population Survey's (CPS) Annual Social and Economic Supplement (ASEC), which asks interstate movers to report the main reason for their relocation.[17] By understanding why individuals choose to move across states, we can further clarify which types of policies might help to retain or attract college-educated talent.

For this analysis, we used responses from 2015 through 2024 and focused on 7,259 individuals between ages 20 and 65 who hold a bachelor's or graduate degree and reported moving to a different state within the past year.[18] We grouped their interstate migration reasons into seven categories: economic opportunity, housing or community, family, education, retirement, climate, and other. See **appendix Table A6** for a crosswalk of detailed reasons to categories. Importantly, the survey only captures individuals' main reason for moving, which means some lower-ranked considerations likely are understated. Since relocation decisions likely change with age, we also disaggregated analyses by age, using three groups that mirror typical career advancement stages: early career (ages 20 to 34), mid-career (ages 35 to 49), and late career (ages 50 to 65).

Economic opportunity is the leading reason for interstate migration among college graduates of all ages, cited by 51 percent of movers (Figure 12). The other motivations rounding out the top three include housing or community (20 percent) and family (14 percent). Education (6 percent), retirement (2 percent), climate (2 percent), and other reasons (5 percent) are cited less frequently. These findings align with some of the aforementioned state-level results insofar as the salience of economic opportunity parallels the strong association between migration and (higher) college wage premia, (higher) employment growth, and (lower) tax rates.

FIGURE 12:

The most commonly reported reason for interstate migration across all age groups is economic opportunity



Notes: This figure presents the distribution of responses to the question, "What was your main reason for moving to this house (apartment)?" from the 2015–2024 CPS-ASEC. Reasons for interstate migration refer to moves that occurred within the prior year. The sample includes individuals aged 20 to 65 with a bachelor's or graduate degree who moved to a different state within the past year; n=7,259 (ages 20-65), n=4,001 (ages 20-34), 2,087 (ages 35-49), and 1,171 (ages 50-65). Figure labels are rounded to the nearest percentage point and may not perfectly reflect the relative lengths of the bars.

While economic opportunity, housing or community, and family are the top three reasons in all age groups, their relative importance differs by age. Among individuals aged 20 to 34 and 35 to 49, over half (55 percent and 54 percent, respectively) identify economic opportunity as their primary reason for moving. By ages 50 to 65, that share declines to 33 percent, while the value placed on family and retirement rises. These older movers are 13 percentage points more likely than the youngest movers to cite family as their main reason, and older movers are unsurprisingly the only age group to report retirement as a primary reason for moving at any meaningful level (10 percent). Education holds some prominence among the 20 to 34 age group, with 10 percent reporting it as their primary reason; this share falls to just 2 percent by the 35 to 49 age group and less than 1 percent in the 50 to 65 age group.

It is important to note that dominant reasons reported by individuals for interstate migration are intrinsically tied to state policy. For example, economic opportunity — the most commonly reported reason across all age groups — points to policies supporting state and regional economic development as potentially useful levers for retaining and attracting college-educated workers. At the same time, however, the increasing importance of housing or community and family considerations among older segments of the college-educated talent pool underscores the need for a multifaceted policy approach to growing that pool.

V. Recommendations

Developing, attracting, and retaining a skilled workforce is a perennial challenge confronting state, regional, and local policymakers, and an aging population will make this challenge even more urgent in the years ahead. Driving much of this concern is the need for economic development, since businesses invest, relocate, and expand in places where they can find the qualified workers they need. The capacity to positively influence an area's talent pool depends in part on an understanding of the different forms of talent migration and the forces that shape it.

This report provides new insights for state policymakers on the migration patterns of the college-educated workforce. First, we developed a framework of four migration paths that individuals take as they acquire higher education and pursue careers while balancing life goals. We then applied this framework to characterize the mobility of college-educated individuals across the United States using new large-scale survey data that tracked respondents from high school to college to the workforce. Second, we examined state differences in brain drain for recent college graduates. Finally, we identified the main reasons individuals cite for interstate migration decisions. Collectively, this report helps leaders to understand the composition of their college-educated workforces and begins to identify policy levers that may help to retain or attract the talent needed in particular state contexts.

Based on the findings in this report, we offer the following recommendations:

Recommendation 1: Continue to gain a deeper understanding of the motivations for interstate migration. While our analysis characterizes many of the broad contours and patterns of talent migration, a number of differences remain unexplored. Additional in-depth, national studies of migration patterns would aid state and local governments' efforts to predict and build their future talent pool. For instance, what are the main drivers of the large differences across states in the migration (in or out) of college-educated workers? What factors explain different migration patterns among groups of individuals, such as graduate degree-holders, individuals who are the first in their family to graduate from college, and Hispanic

college-educated workers? How different are the factors that drive migration to and from rural, suburban, and urban areas within states? How do recent evolutions in remote work and artificial intelligence in the labor market affect the migration of college graduates? Our data cannot answer these questions directly, but they provide a useful launchpad to understand the groups of students most likely to migrate, the factors underlying migration decisions, and the extent to which individual states are growing their college-educated workforces through homegrown talent versus attracting out-of-state talent. Given the potential influence of local context on migration decisions, we also recommend that states expand their data infrastructure to facilitate tracking graduates and workers who migrate out and deploy targeted surveys and focus groups to gather additional information about where migrants go and why they chose to migrate.

Recommendation 2: Strengthen high-impact investments in public postsecondary education to meet workforce needs. Despite interest in attracting talent from other states, most states face long odds of doing so as homegrown talent is the primary source of college-educated workers in most states. Only 24 percent of college-educated workers reside in a state where they attended neither high school nor college. Public colleges and universities — especially the broader-access four-year institutions, many of which are regional institutions — play an essential role in developing local talent. Given that most college-educated workers are educated within the state where they work, and many at in-state public institutions specifically, it is important that these institutions support students throughout their degree programs to help them graduate, incorporate in-demand skills into their programs to ensure students are workforce ready, and facilitate connections with the local labor market to enable them to find high-quality jobs. Having an affordable, well-resourced public postsecondary system helps ensure that homegrown talent can access the education and training opportunities necessary to meet states' workforce needs.

Recommendation 3: Facilitate statewide economic opportunities across all career stages. States with high retention of in-state college graduates tend to have favorable economic conditions for college-educated workers, including higher college wage premiums, robust employment growth, and lower income tax rates. This is consistent with college graduates of all age groups citing economic opportunity as the primary reason for their interstate migrations. State policymakers may consider prioritizing economic development initiatives that attract employers who will create jobs at multiple experience levels and ensure that workforce development and relocation incentive programs include mid-career and senior professionals in addition to entry-level workers.

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Appendix

Appendix A. Data Sources and Sample Statistics

Our primary source of data is the Strada-Gallup Education Consumer Survey, a telephone survey of Americans aged 18–65 conducted between June 29, 2016, and April 5, 2019. Over this period, more than 344,000 adults answered questions about their educational experiences, with a particular focus on postsecondary educational trajectories, as well as basic questions on employment, demographics, and other characteristics. The survey also asked the name and location of the educational institution from which the respondent earned a degree as well as their current location of residence.[19] For respondents interviewed between October 2018 and April 2019, the survey also asked about the location of the high school attended. These questions formed the basis of our analyses on the migration of the college-educated workforce (Section II) and the in-state retention of college graduates (Section III).

We merged multiple data sources to the Strada-Gallup survey to examine correlations between in-state retention and state-level factors (Section III).[20] These data sources included:

- First-year undergraduates from in state: **Integrated Postsecondary Education Data System**
- Bachelor's degree graduates from public institutions: **Integrated Postsecondary Education Data System**
- Personal income tax rates: **Robinson and Tazhitdinova (2025)**
- Higher education appropriations: **State Higher Education Executive Officers Association**
- Housing costs: **Federal Housing Finance Agency**
- Temperature: **National Centers for Environmental Information, National Oceanic and Atmospheric Administration**
- College earnings premia: Authors' calculation from the Current Population Survey Outgoing Rotation Groups via the **Economic Policy Institute**
- Employment rates: Authors' calculation from the Current Population Survey Outgoing Rotation Groups via the **Economic Policy Institute**
- Violent crime rates: **FBI Uniform Crime Reports Summary File**

Finally, we examined the reasons for interstate migrations (Section IV) using the **Annual Social and Economic Supplement** (ASEC) to the **Current Population Survey** (CPS). The underlying survey, fielded monthly in a joint effort by the U.S. Census Bureau and the U.S. Bureau of Labor Statistics, is a principal federal data source for U.S. labor-force measurement. Every February, March, and April, the ASEC module also asks whether the respondent moved in the past calendar year and, if so, what the primary reason was for the move. This allows us to estimate, for the individuals moving from or to a particular state, which reasons drove the decisions.

We present sample statistics for the Strada-Gallup (Table A1) and CPS-ASEC (Table A2), as well as more information and descriptive statistics on the state-level factors evaluated for their association with in-state retention (Table A3). We also report the detailed crosswalks behind our classifications for fields of study (Table A4), occupations (Table A5), and reasons for interstate migration (Table A6).

TABLE A1:

Sample statistics for the Strada–Gallup survey sample

	MIGRATION PATHWAY SAMPLE		IN-STATE RETENTION SAMPLE	
	Weighted	Unweighted	Weighted	Unweighted
GENDER				
Male	46.9%	54.6%	46.1%	54.8%
Female	53.1%	45.4%	53.9%	45.2%
RACE				
White	74.7%	80.8%	67.1%	69.7%
Black	8.6%	8.2%	11.2%	11.6%
Asian	7.8%	3.2%	10.4%	6.9%
Hispanic	8.0%	6.6%	10.3%	10.3%
Other race	0.9%	1.2%	0.9%	1.4%
PARENTS' HIGHEST LEVEL OF EDUCATION				
High school or below	26.0%	27.5%	20.0%	20.9%
Some college or associates	17.8%	17.0%	18.3%	18.4%
Bachelor's	26.3%	25.9%	27.2%	26.6%
Attended or completed grad school	29.9%	29.6%	34.4%	34.1%
HIGHEST LEVEL OF OWN EDUCATION				
Bachelor's degree	65.9%	61.5%	63.2%	59.5%
Graduate degree	34.1%	38.5%	36.8%	40.5%
AGE				
20–34	32.4%	22.0%	74.8%	67.5%
35–49	36.7%	32.9%	19.8%	22.7%
50–65	31.0%	45.0%	5.3%	9.7%
INCOME				
Less than or equal to $35,000	17.1%	15.7%	28.6%	26.2%
Greater than $35,000 and less than $65,000	29.6%	27.4%	36.3%	35.8%
Greater than $65,000 and less than $100,000	27.0%	27.0%	22.4%	23.6%
Greater than $100,000	26.4%	29.9%	12.7%	14.5%
INSTITUTION CONTROL				
Public	65.3%	65.6%	61.7%	60.8%
Private nonprofit	32.4%	32.2%	34.1%	34.4%
For-profit	2.3%	2.2%	4.3%	4.7%
INSTITUTION SELECTIVITY				
Most Competitive	9.1%	9.3%	10.9%	10.6%
Highly Competitive	14.0%	13.6%	14.2%	13.8%
Very Competitive	25.3%	25.4%	24.3%	24.4%
Competitive	40.5%	40.4%	39.1%	39.7%
Less Competitive	6.4%	6.5%	6.5%	6.5%
Noncompetitive	3.6%	3.7%	3.4%	3.6%
Special	1.1%	1.0%	1.4%	1.5%
FIELD OF STUDY				
Arts and Humanities	13.8%	13.4%	13.8%	13.3%
Business, Management, and Marketing	21.8%	22.4%	18.9%	19.7%
Education, Training, and Library	11.0%	11.8%	9.7%	10.4%
Engineering and Architecture	7.0%	7.4%	6.8%	7.0%
Health	9.5%	8.7%	11.1%	10.4%
Law, Administration, and Security/Protective Services	7.3%	7.5%	7.0%	7.2%
Life, Physical, and Social Sciences	14.3%	13.2%	17.2%	16.0%
Mathematics and Computer/Information Sciences	4.3%	4.4%	4.8%	5.1%
Personal and Human Services	1.8%	1.6%	1.7%	1.6%
Trade and Technical	4.5%	4.7%	3.9%	4.0%
Other field of study	4.8%	4.9%	5.2%	5.3%
OCCUPATION				
Arts, Design, Entertainment, and Media	3.2%	3.2%	3.2%	3.1%
Business and Administrative Support	22.2%	21.7%	18.6%	18.6%
Education, Training, and Library	14.9%	15.4%	13.3%	14.3%
Engineering and Architecture	4.2%	4.4%	4.2%	4.5%
Healthcare	11.0%	10.0%	11.7%	11.1%
Law, Public Services, and Safety	7.6%	7.8%	6.9%	7.2%
Life, Physical, and Social Sciences	1.6%	1.4%	1.9%	1.9%
Managers, Executives, and Officials	9.5%	9.7%	7.0%	7.6%

Continued on next page

Sample statistics for the Strada-Gallup survey sample *(continued from previous page)*

Mathematics and Computers	4.9%	4.9%	4.9%	5.2%
Personal and Human Services	2.6%	2.2%	2.8%	2.7%
Small Business Owner	1.8%	1.9%	0.7%	0.8%
Trade and Technical	5.3%	5.9%	4.3%	4.8%
Other occupation	7.9%	8.4%	8.9%	9.2%
Not Employed but Seeking Work	3.3%	3.0%	11.5%	9.1%
NUMBER OF RESPONDENTS	**15,785**	**15,785**	**28,236**	**28,236**

Source: Strada-Gallup Survey.

Notes: The table shows the percent of respondents from the Strada-Gallup survey in each individual or institutional category by analytic sample, with and without sampling weights; n=15,785 (migration pathway sample) and 28,236 (in-state retention sample). The migration pathway sample consists of the 15,785 respondents living in the United States (excluding territories) whose highest level of education was a bachelor's or graduate degree, who are between 20 and 65 years old, who were in the labor force at the time of the survey, who reported the state of their highest-degree institution, and who reported their high school state also was in one of the 50 states or the District of Columbia. The in-state retention sample consists of the 28,236 respondents living in the United States (excluding territories) whose highest level of education was a bachelor's or graduate degree, who graduated with their highest degree between 2010 and 2019, who are between 20 and 65 years old, and who reported the state of their highest-degree institution.

TABLE A2:

Sample statistics for the CPS-ASEC sample

	CPS-ASEC SAMPLE	
	Weighted	Unweighted
GENDER		
Male	48.8%	47.3%
Female	51.2%	52.7%
RACE		
White	66.8%	66.6%
Black	9.2%	8.2%
Asian	13.6%	13.2%
Hispanic	7.5%	8.8%
Other race	3.0%	3.1%
HIGHEST LEVEL OF OWN EDUCATION		
Bachelor's degree	62.7%	61.4%
Graduate degree	37.3%	38.6%
AGE		
20-34	58.5%	55.1%
35-49	25.3%	28.8%
50-65	16.2%	16.1%
EMPLOYMENT STATUS		
Employed	79.0%	79.4%
Unemployed	4.3%	3.9%
Not in the labor force	16.7%	16.6%
NUMBER OF RESPONDENTS	**7,259**	**7,259**

Source: CPS-ASEC.

Notes: The table shows the percent of respondents in each individual category of the CPS-ASEC sample, with and without sampling weights; n=7,259. The sample includes individuals ages 20–65 with a bachelor's or graduate degree who had moved across state lines in the past year. To focus on the individual reasons driving recent migration patterns, this sample consists only of those who were surveyed between 2015 and 2024.

TABLE A3:

Selected state-level factors associated with in-state retention of college graduates

	DESCRIPTION	Sample Notes	Mean	Standard Deviation	Minimum Value	Maximum Value
College wage premium	Percentage difference between the earnings of the average college graduate and average high school graduate	No exclusions	17.9	5.0	4.9	32.2
Five-year violent crime growth	Percentage change in the violent crime rate over the past five years	No exclusions	-3.3	11.2	-22.6	35.9
Higher education appropriations	State and local support available for public higher education operating expenses and student financial aid excluding research, hospitals, and medical education (2025 dollars per FTE student)	No exclusions	$9,321	$3,646	$4,026	$22,732
Highest monthly average temperature	Maximum of the 12 monthly mean temperatures for the state, reported in degrees Fahrenheit	No exclusions	74.5	6.0	53.7	84.3
Home prices	Median house prices (2025 dollars)	No exclusions	$239,163	$99,319	$119,537	$684,729
Percent first-year degree-seeking undergraduates from in state	Percentage of a college or university's incoming first-year degree-seeking undergraduate students who are residents of the same state as the institution	Excludes: 2011, 2013, 2015, 2017, and 2019	74.0	12.5	33.0	92.7
Share of bachelor's graduates from public institutions	Percentage of bachelor's degree recipients in the state who earned their degree from a public institution	Excludes 2010 and 2011	67.7	15.8	33.8	99.8
10-year employment growth	Percentage change in the number of employed persons over the past 10 years	No exclusions	8.2	5.4	-1.9	24.3
Top marginal income tax rate	Highest state tax rate applied to individual income	No exclusions	5.3	3.1	0.0	12.8

Notes: This table presents the descriptions, sample details, and summary statistics for the state-level factors examined in relation to the retention of in-state college graduates. Includes data from 2010 to 2019.

TABLE A4:

Crosswalk of majors

FIELD OF STUDY	DETAILED MAJORS
Arts and Humanities	Area, Ethnic, Cultural, and Gender Studies Communication, Journalism, and Related Programs English Language and Literature/Letters Foreign Languages, Literatures, and Linguistics History Liberal Arts and Sciences, General Studies, and Humanities Philosophy and Religious Studies Theology and Religious Vocations Visual and Performing Arts
Business, Management, and Marketing	Business, Management, Marketing, and Related Support Services
Education, Training, and Library	Education Library Science Technology Education/Industrial Arts
Engineering and Architecture	Architecture and Related Services Engineering Engineering Technologies
Health	Health Professions and Related Clinical Sciences Health-related Knowledge and Skills
Law, Administration, and Security/Protective Services	Legal Professions and Studies Public Administration Security and Protective Services
Life, Physical, and Social Sciences	Biological and Biomedical Sciences Natural Resources and Conservation Physical Sciences Psychology Social Sciences
Mathematics and Computer/Information Sciences	Computer and Information Sciences and Support Mathematics and Statistics
Personal and Human Services	Family and Consumer Sciences/Human Sciences Leisure and Recreational Activities Parks, Recreation, Leisure, and Fitness Studies Personal and Culinary Services
Trade and Technical	Agriculture, Agriculture Operations, and Related Services Communications Technologies/Technicians and Support Services Construction Trades Mechanical and Repair Technologies/Technicians Precision Production Science Technologies/Technicians Transportation and Materials Moving
Other	Interpersonal and Social Skills Military Technologies Multi/Interdisciplinary Studies Personal Awareness and Self-Improvement Other Don't Know Refused

Notes: The table shows the classification of detailed college majors from the Strada-Gallup survey into broad fields of study.

TABLE A5:

Crosswalk of occupations

OCCUPATION CLASSIFICATIONS	DETAILED OCCUPATIONS
Arts, Design, Entertainment, and Media	Arts, Design, Entertainment, and Media
Business and Administrative Support	Business, Financial, Insurance, and Real Estate Office and Administrative Support Sales
Education, Training, and Library	Education, Training, and Library
Engineering and Architecture	Engineering and Architecture
Healthcare	Healthcare
Law, Public Services, and Safety	Community and Social Services Legal Security and Protective Services
Life, Physical, and Social Sciences	Life, Physical, and Social Sciences
Managers and Executives	Manager, Executive, and Official
Mathematics and Computers	Mathematical and Computer
Not Employed But Seeking Work	Not Employed But Seeking Work
Personal or Human Services	Food Preparations or Service Personal Care and Service
Small Business Owner	Small Business Owner
Trade and Technical	Building and Grounds Cleaning and Maintenance Construction and Mining Farming, Fishing, and Forestry Installation, Maintenance, and Repair Manufacturing and Production Transportation Worker
Other	Military Other Don't Know Refused

Notes: The table shows the classification of detailed occupations from the Strada-Gallup survey into broad occupation groups.

TABLE A6:

Crosswalk of individual reasons for interstate migration

INTERSTATE MIGRATION REASON CLASSIFICATION	DETAILED INTERSTATE MIGRATION REASONS
Economic opportunity	New job or job transfer (n=3,283) To look for work or lost job (n=192) Other job-related reason (n=181)
Housing or community	Wanted new or better housing (n=281) For easier commute (n=274) To establish own household (n=263) Other housing reason (n=219) For cheaper housing (n=204) Wanted to own home, not rent (n=186) Wanted better neighborhood (n=112) Foreclosure or eviction (n=17)
Family	Other family reason (n=629) Change in marital status (n=219) Relationship with unmarried partner (n=120)
Education	Attend/leave college (n=436)
Retirement	Retired (n=144)
Climate	Change of climate (n=118) Natural disaster (n=10)
Other	Other reasons (n=301) Health reasons (n=70)

Notes: The table shows the classification of specific interstate migration reasons from the CPS-ASEC into broad rationales.

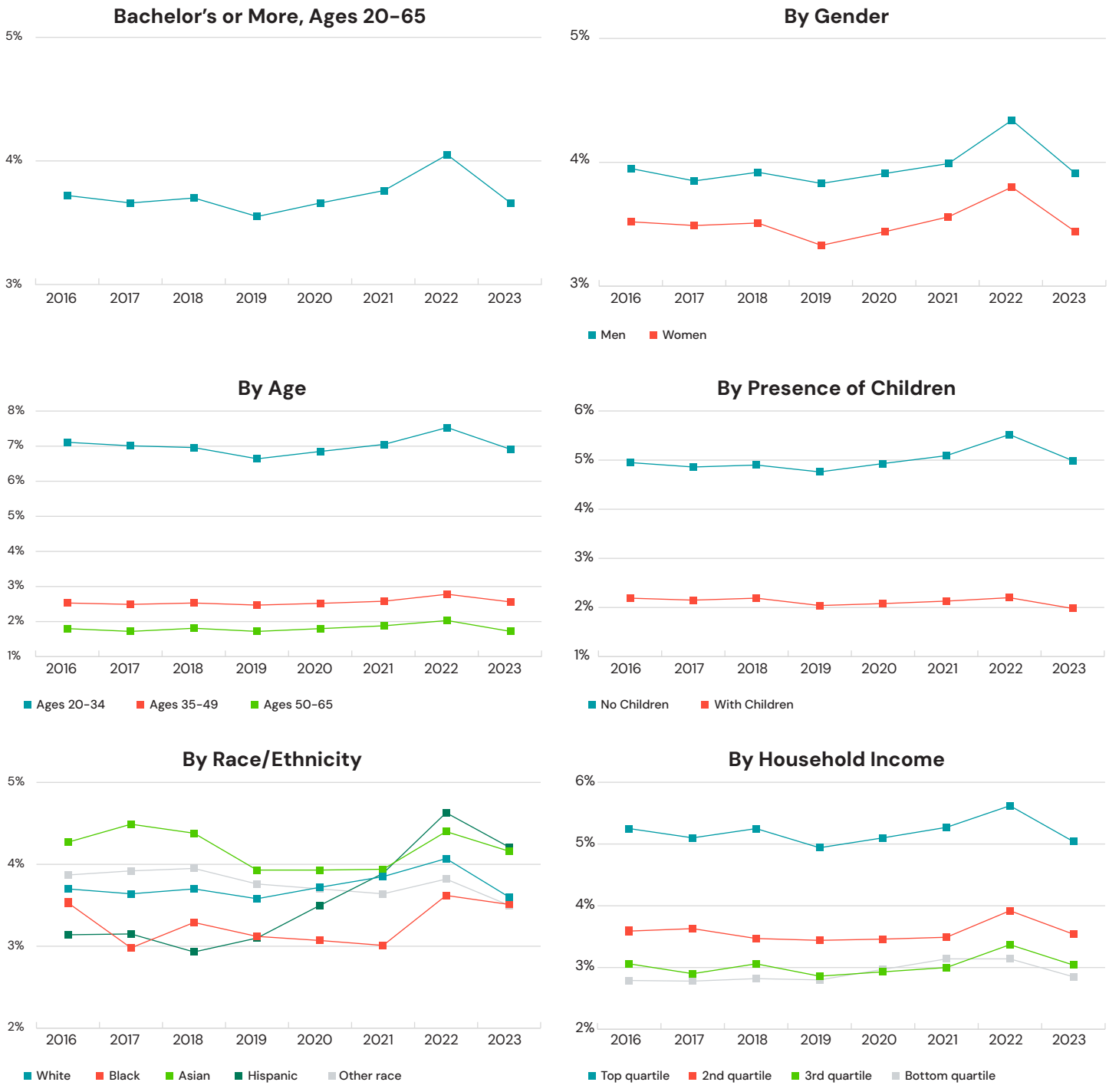
Appendix B. Migration Trends

To assess the possible influence of COVID on the migration patterns we documented, we compared cross-state migration rates of individuals with a bachelor's degree or above using the American Community Survey. We used data from years 2016–2019 and 2021–2023; collection of the 2020 survey was affected negatively by the COVID pandemic and 2023 was the most recent year available at the time of writing. To make the samples more comparable, we restricted the ACS sample to respondents aged 20–65 whose highest level of education was a bachelor's or graduate degree and who were living in the United States 12 months prior to being surveyed.

Figure B1 shows trends overall and for key demographic groups. We observed a modest increase in the cross-state migration rate — about 0.1 percentage points — from 2019 to 2023, which is comparable to the year-to-year fluctuation rates. This change is similar for most demographic groups. We also examined the primary reasons that college graduates cite for interstate migration (Figure B2), as done in Section IV using the CPS-ASEC. We found the reasons for interstate migration shifted moderately during COVID in ways consistent with earlier trends, but have since reverted to pre-COVID levels. These patterns suggest that our main results using the pre-COVID Gallup data still should be relevant.

FIGURE B1:

Annual interstate migration rates [percent] among college-educated adults ages 20–65 from the American Community Survey, 2016–2023

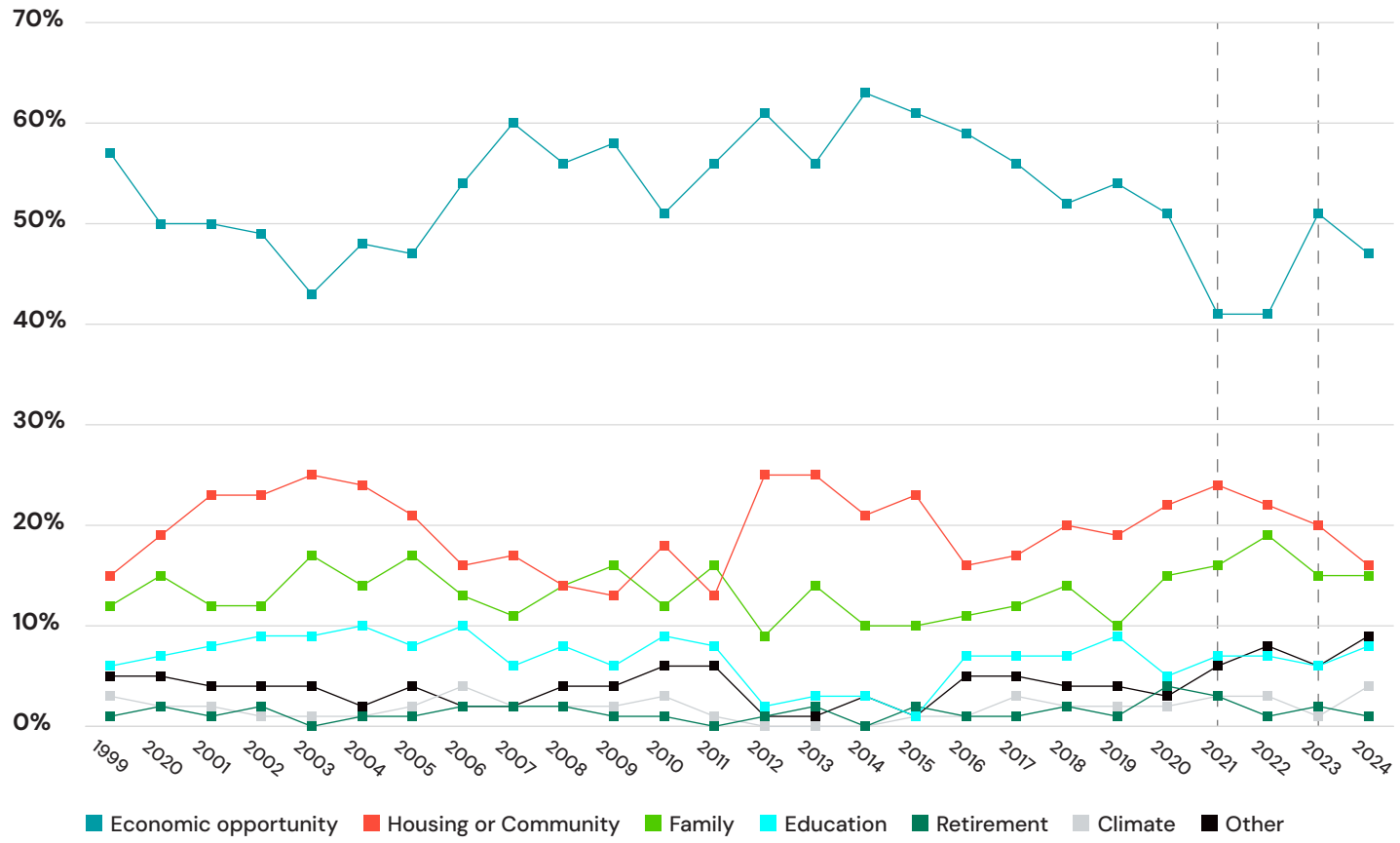


Source: American Community Survey, 2016–2023.

Notes: Panels represent the percentage of individuals ages 20–65 belonging to the specific group who moved across states in the preceding 12 months. Aside from a slight uptick in moves occurring during 2021, likely COVID-related, interstate migration rates do not seem to have changed much after the pandemic.

FIGURE B2:

Main reasons college-educated graduates reported for migrating across state lines, 1999–2024



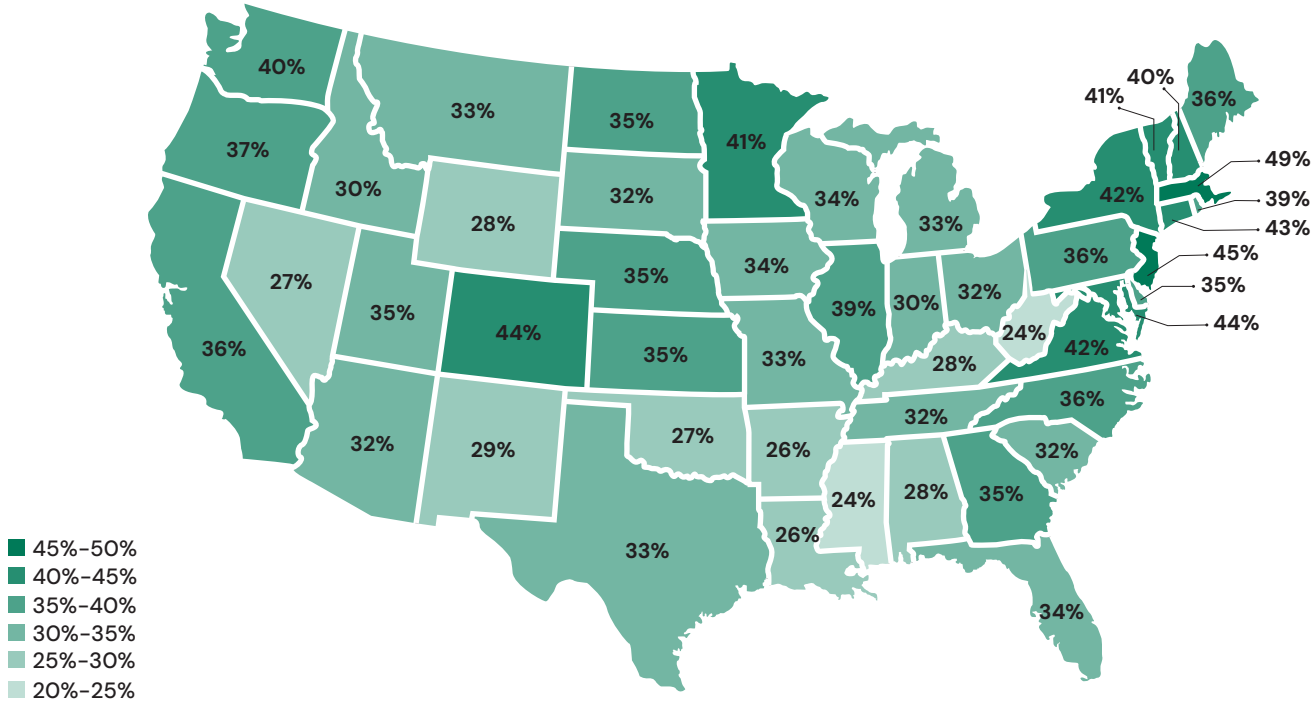
Source: CPS-ASEC, 1999–2024.

Notes: This figure presents the distribution of responses to the question, "What was your main reason for moving to this house (apartment)?" Reasons for interstate migration refer to moves that occurred within the prior year. The sample includes individuals aged 20 to 65 with a bachelor's or graduate degree who moved to a different state within the past year; n=22,205. Dashed vertical lines mark years in which migration took place during the height of the COVID-19 pandemic.

Appendix C. Additional Figures and Tables

FIGURE C1:

Percentage of individuals ages 20–65 with a bachelor's degree or higher

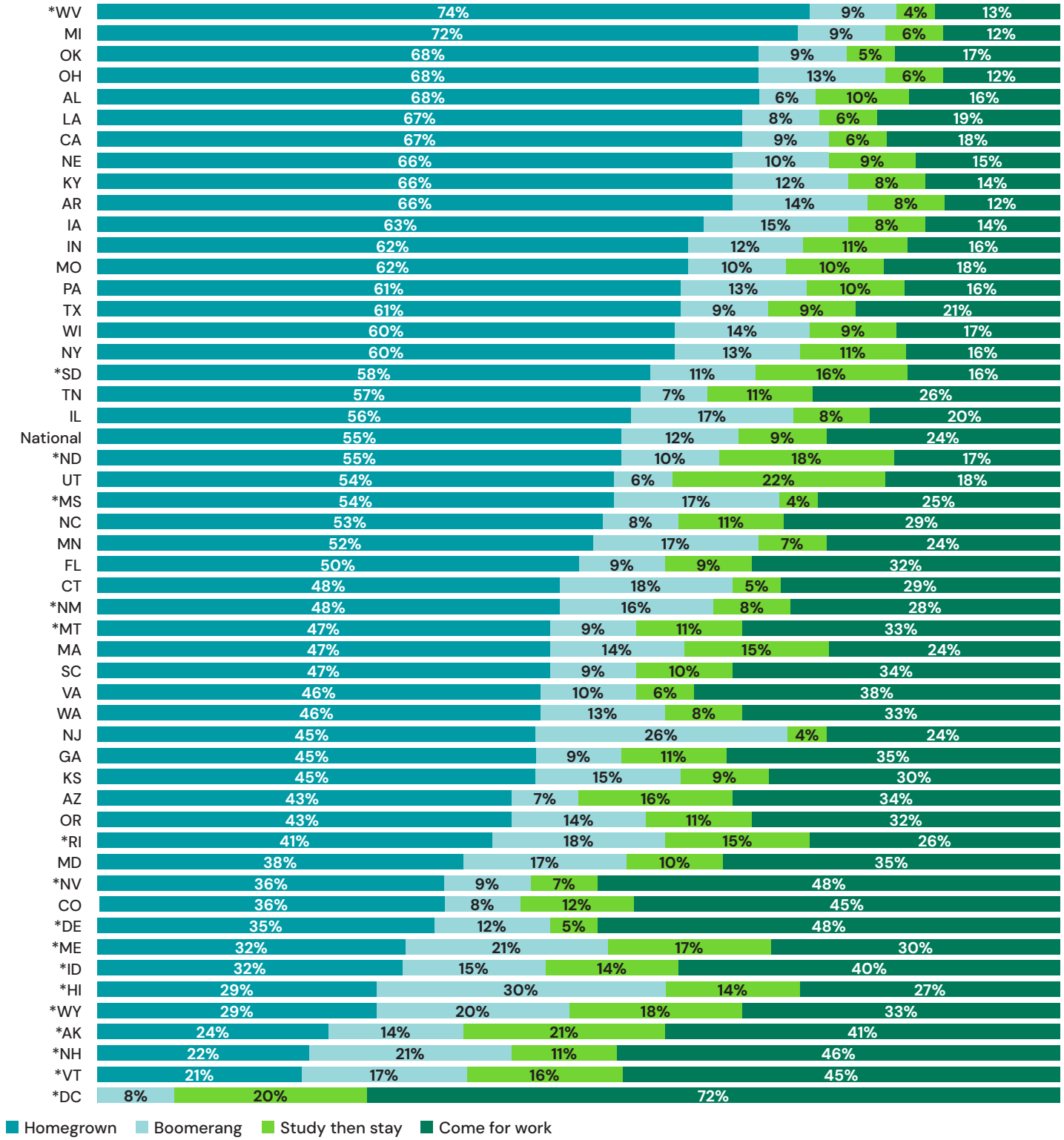


Source: 2023 American Community Survey One-Year Estimates.

Notes: The sample includes individuals aged 20–65 years who were living in the U.S. one year prior.

FIGURE C2:

Migration pathways of college-educated workers, by state

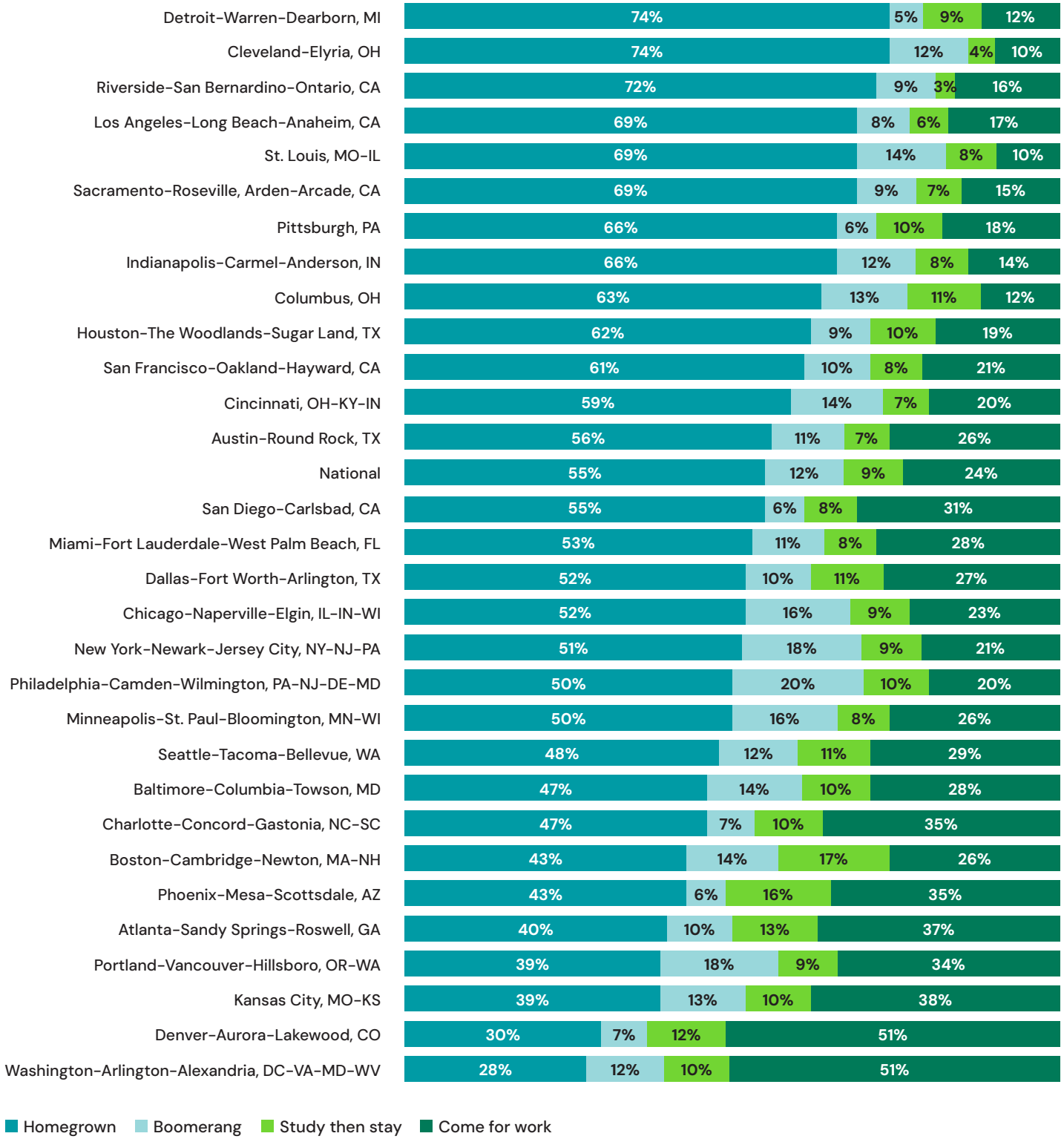


Source: Strada-Gallup Survey.

Notes: The sample includes respondents who hold a bachelor's degree or graduate degree and who reported the state in which their high school and most recent college are located, as well as the state of their current residence; n=15,785. States with fewer than 110 responses are indicated with an asterisk and should be interpreted with caution. Figure labels are rounded to the nearest percentage point and may not perfectly reflect the relative lengths of the bars.

FIGURE C3:

Migration pathways of college-educated workers, by Metropolitan Statistical Area (MSA)

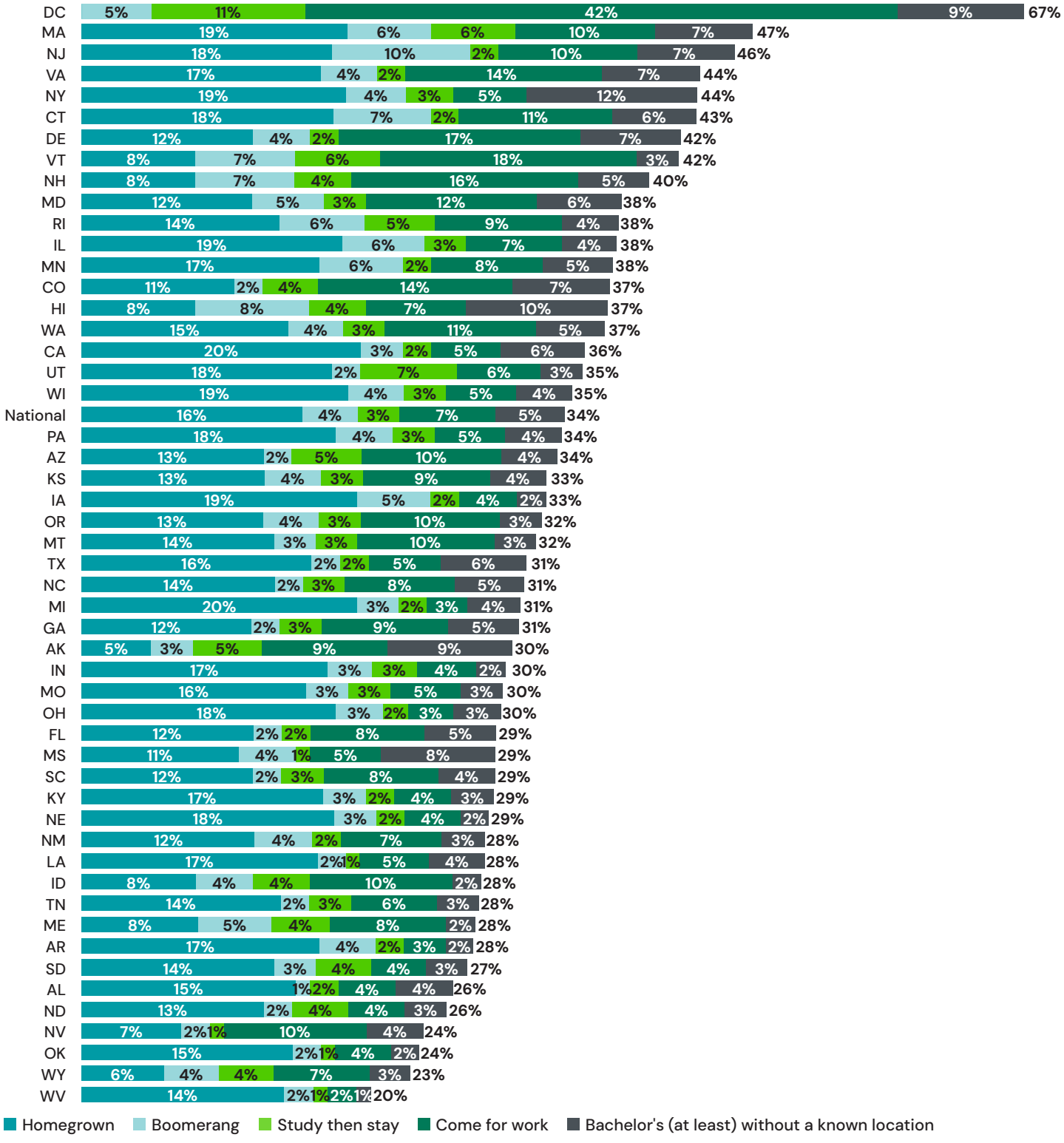


Source: Strada-Gallup Survey.

Notes: The sample includes respondents who hold a bachelor's degree or graduate degree and who reported the state in which their high school and most recent college are located, as well as the state of their current residence; n=15,785. MSAs with at least 110 responses are shown. Figure labels are rounded to the nearest percentage point and may not perfectly reflect the relative lengths of the bars.

FIGURE C4:

Migration pathways of all workers, by state

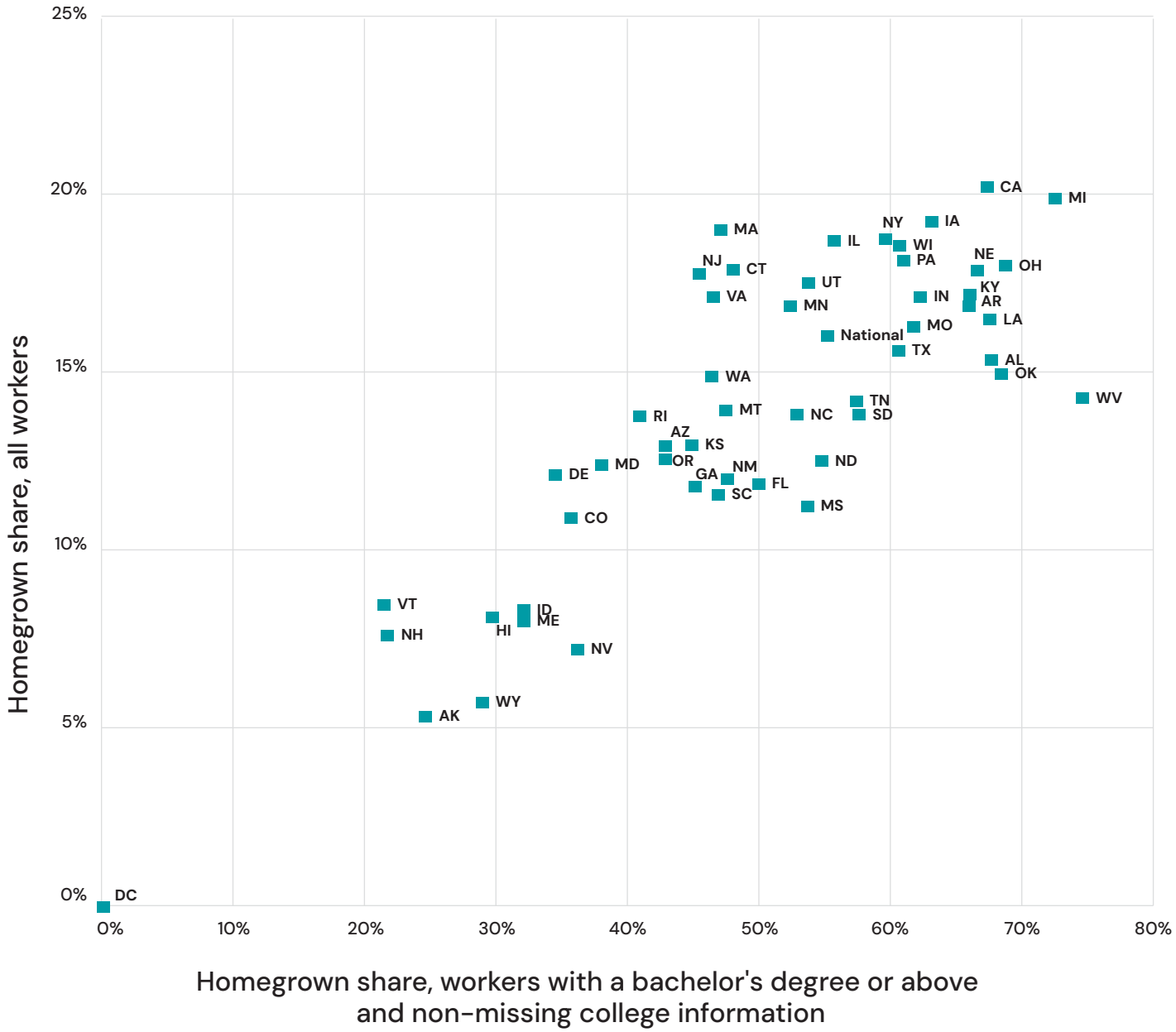


Source: Strada-Gallup Survey.

Notes: The sample includes all workers who reported the state in which their high school was located, as well as the state of their current residence; n=40,934. Respondents with at least a bachelor's degree but for whom college location information is not available are included as a fifth category. The bolded numbers at the edge of the bars represent the total percentage of workers in the Strada-Gallup Survey with at least a bachelor's degree. The District of Columbia has fewer than 110 responses and its results should be interpreted with caution. Figure labels are rounded to the nearest percentage point and may not perfectly reflect the relative lengths of the bars.

FIGURE C5:

State-level share of the workforce that is homegrown in the preferred sample versus an expanded sample that includes workers without a bachelor's degree and those for whom college information is missing

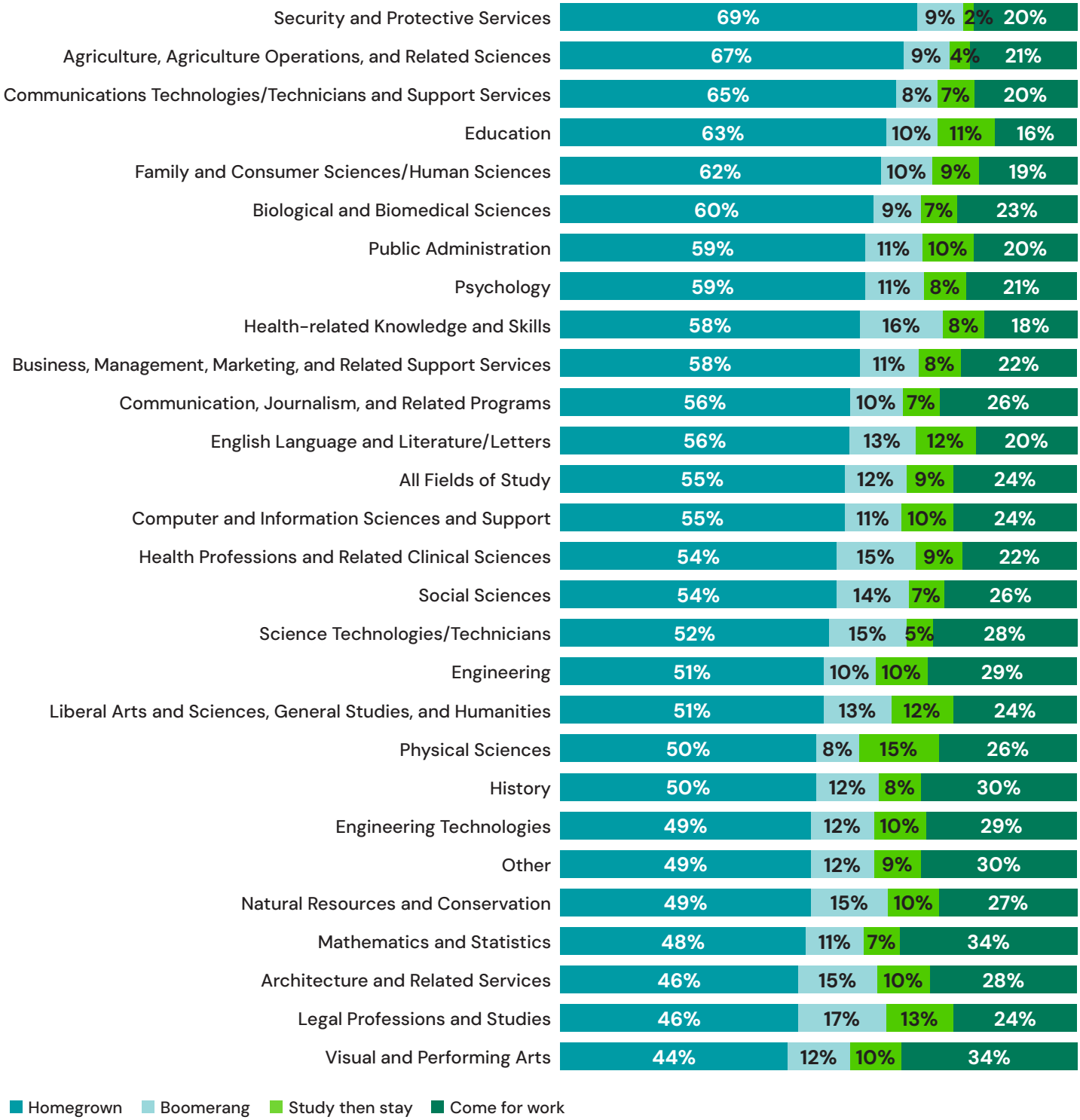


Source: Strada-Gallup Survey.

Notes: The figure draws on the Strada-Gallup data to report the share of each state's workforce that holds a bachelor's degree or higher that went to high school and college in the state in which they currently reside. The horizontal axis reports our preferred measure, which uses as the denominator only bachelor's degree holders with non-missing information on the state of college attendance and high school, to focus on the migration of college-educated talent; n=15,785. The vertical axis broadens the denominator to include all workers (including those without a bachelor's degree) and those for whom state of college attendance is unknown; n=40,934. The correspondence of the other migration pathways (completed college elsewhere and returned home for work, came for college and stayed for work, and came for work after completing schooling elsewhere) are at least as high.

FIGURE C6:

Migration pathways of college-educated workers, by detailed major

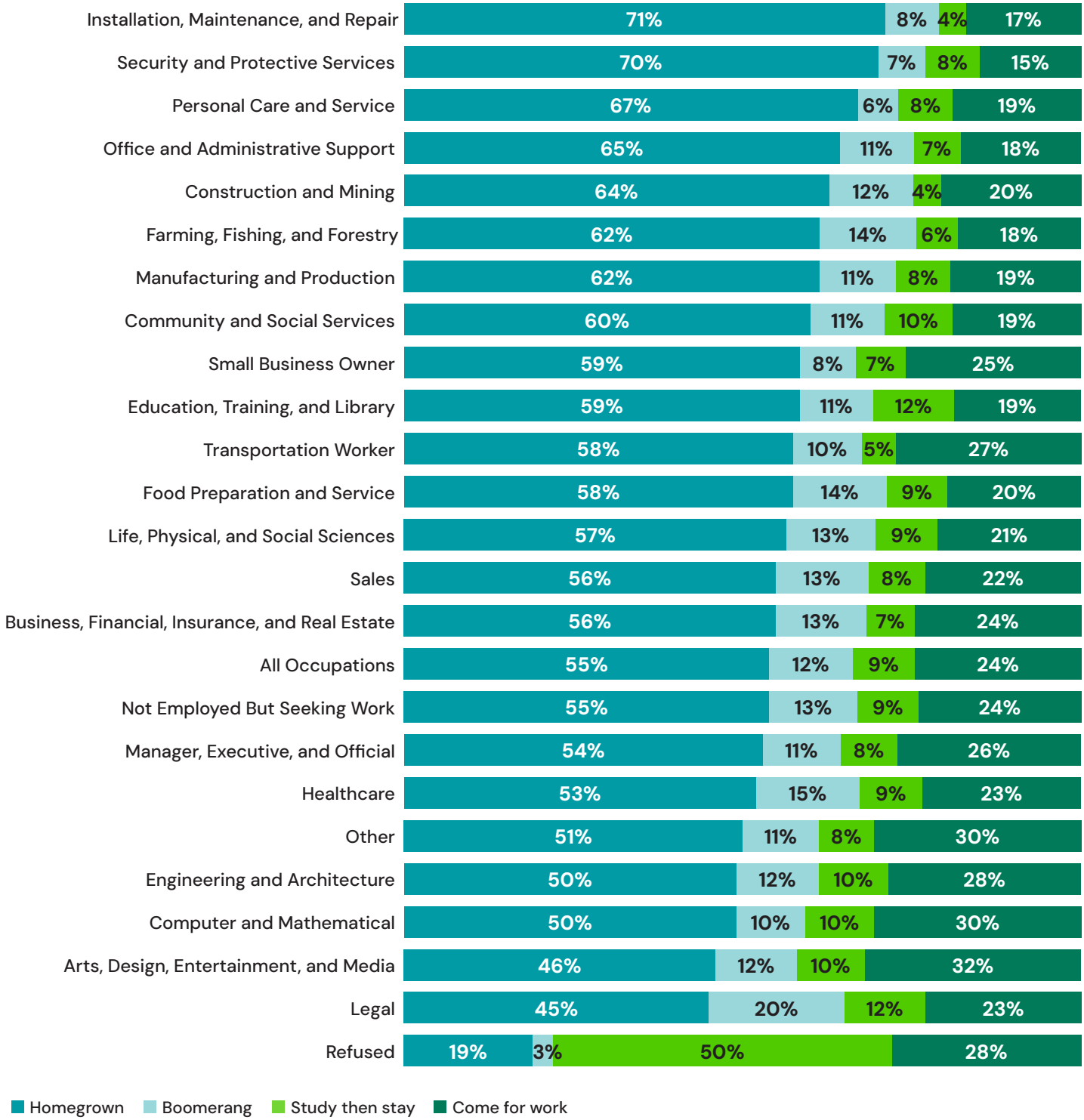


Source: Strada-Gallup Survey.

Notes: The sample includes respondents who hold a bachelor's degree or graduate degree and who reported the state in which their high school and most recent college are located, as well as the state of their current residence; n=15,785. Majors with at least 110 responses are shown. Figure labels are rounded to the nearest percentage point and may not perfectly reflect the relative lengths of the bars.

FIGURE C7:

Migration pathways of college-educated workers, by detailed occupation

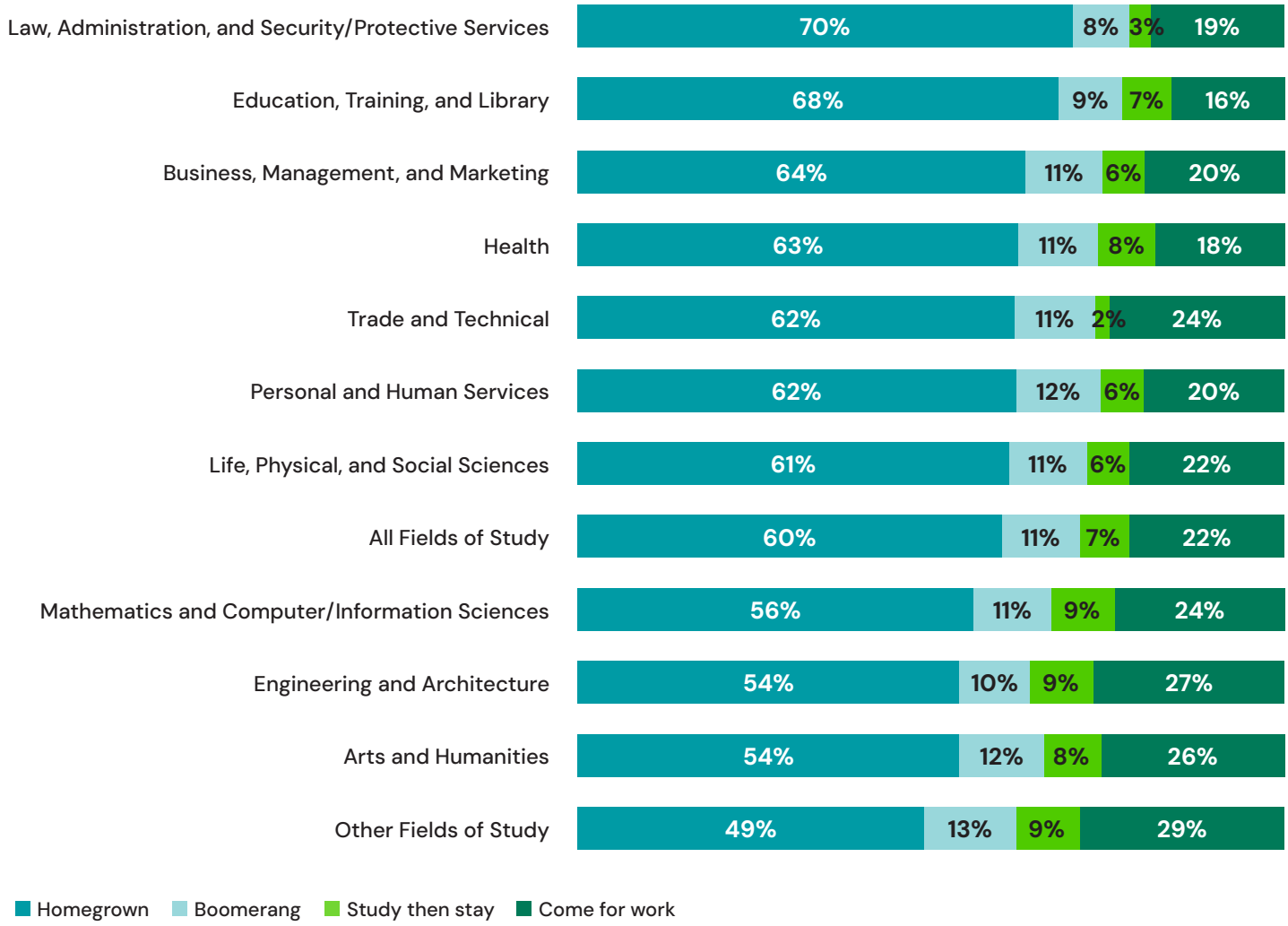


Source: Strada-Gallup Survey.

Notes: The sample includes respondents who hold a bachelor's degree or graduate degree and who reported the state in which their high school and most recent college are located, as well as the state of their current residence; n=15,785. Occupations with at least 110 responses are shown. Figure labels are rounded to the nearest percentage point and may not perfectly reflect the relative lengths of the bars.

FIGURE C8:

Migration pathways of college-educated workers with a bachelor's degree but no graduate degree, by field of study

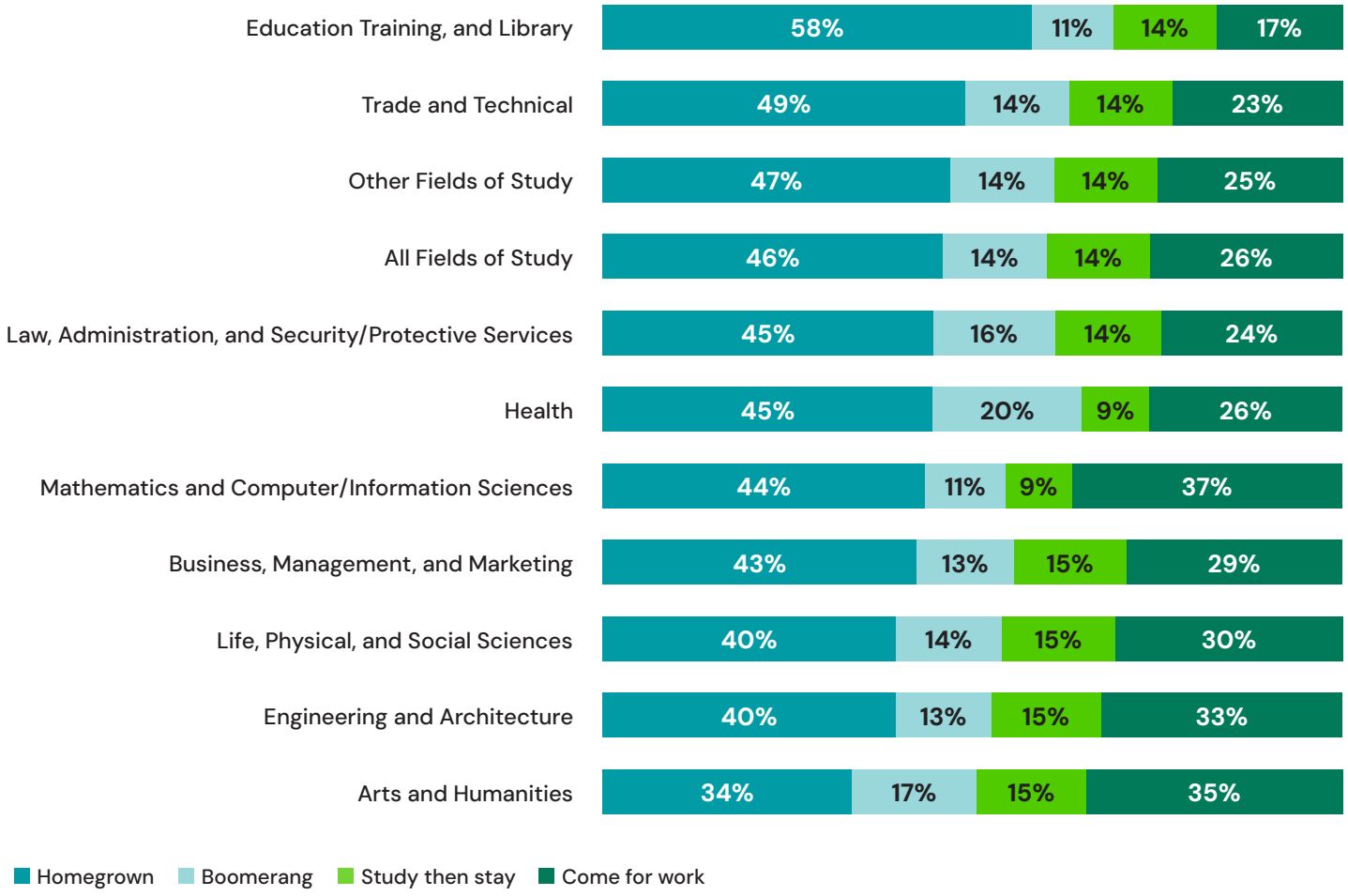


Source: Strada-Gallup Survey.

Notes: The sample includes respondents who hold a bachelor's degree only and who reported the state in which their high school and most recent college are located, as well as the state of their current residence; n=9,705. Majors with at least 110 responses are shown. Figure labels are rounded to the nearest percentage point and may not perfectly reflect the relative lengths of the bars.

FIGURE C9:

Migration pathways of college-educated workers with a graduate degree, by field of study

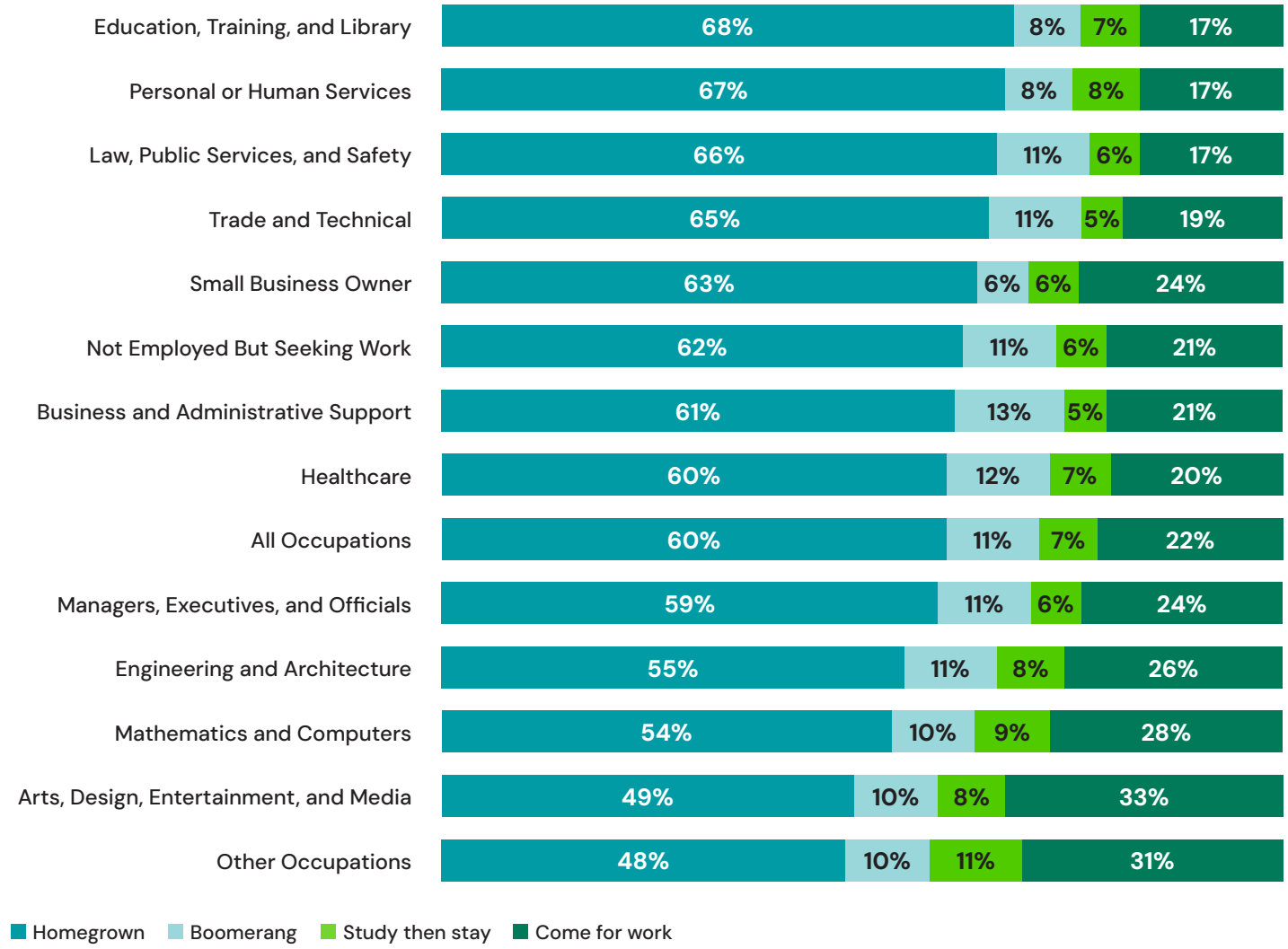


Source: Strada-Gallup Survey.

Notes: The sample includes respondents who hold a graduate degree and who reported the state in which their high school and most recent college are located, as well as the state of their current residence; n=6,080. Majors with at least 110 responses are shown. Figure labels are rounded to the nearest percentage point and may not perfectly reflect the relative lengths of the bars.

FIGURE C10:

Migration pathways of college-educated workers with a bachelor's degree but no graduate degree, by occupation

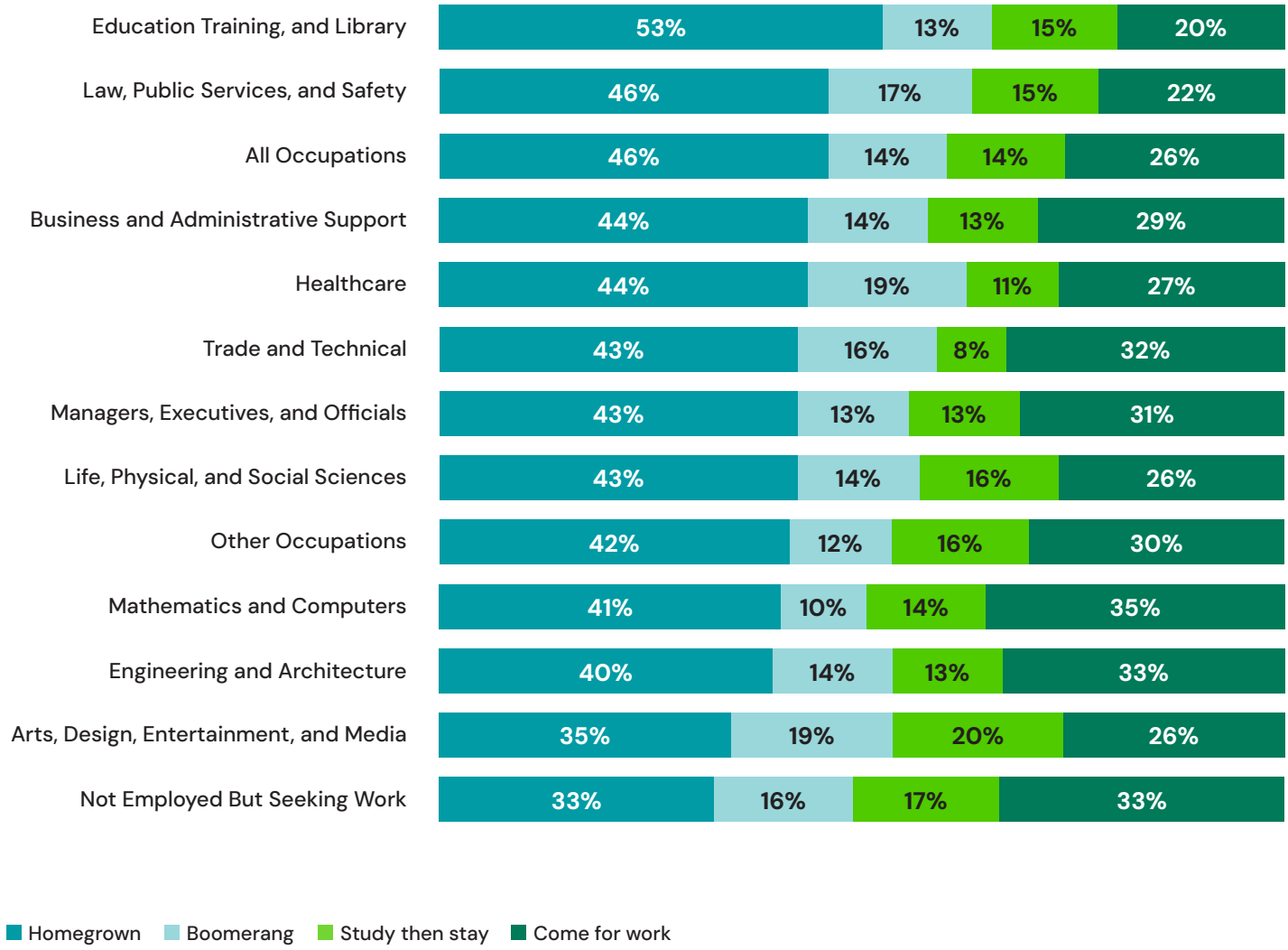


Source: Strada-Gallup Survey.

Notes: The sample includes respondents 20–65 years of age who are in the workforce, who hold a bachelor's degree, and who reported the state(s) in which their high school and most recent college are located, as well as the state of their current residence; n=9,705. Figure labels are rounded to the nearest percentage point and may not perfectly reflect the relative lengths of the bars.

FIGURE C11:

Migration pathways of college-educated workers with a graduate degree, by occupation

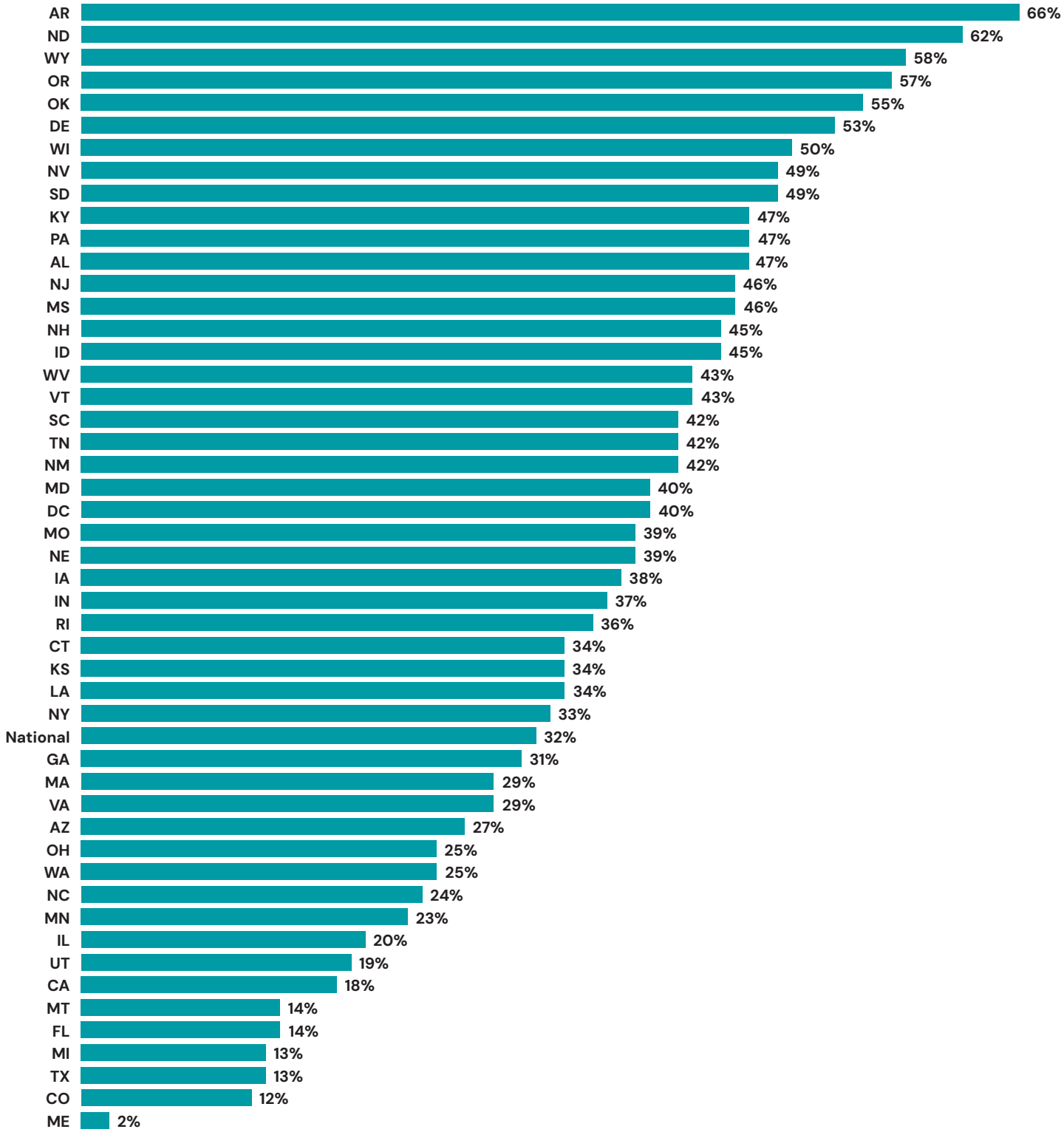


Source: Strada-Gallup Survey.

Notes: The sample includes respondents 20–65 years of age who are in the workforce, who hold a graduate degree, and who reported the state(s) in which their high school and most recent college are located, as well as the state of their current residence; n=6,080. Figure labels are rounded to the nearest percentage point and may not perfectly reflect the relative lengths of the bars.

FIGURE C12:

Share of all college graduate out-migration that is to adjacent states, by state



Source: Strada-Gallup Survey.

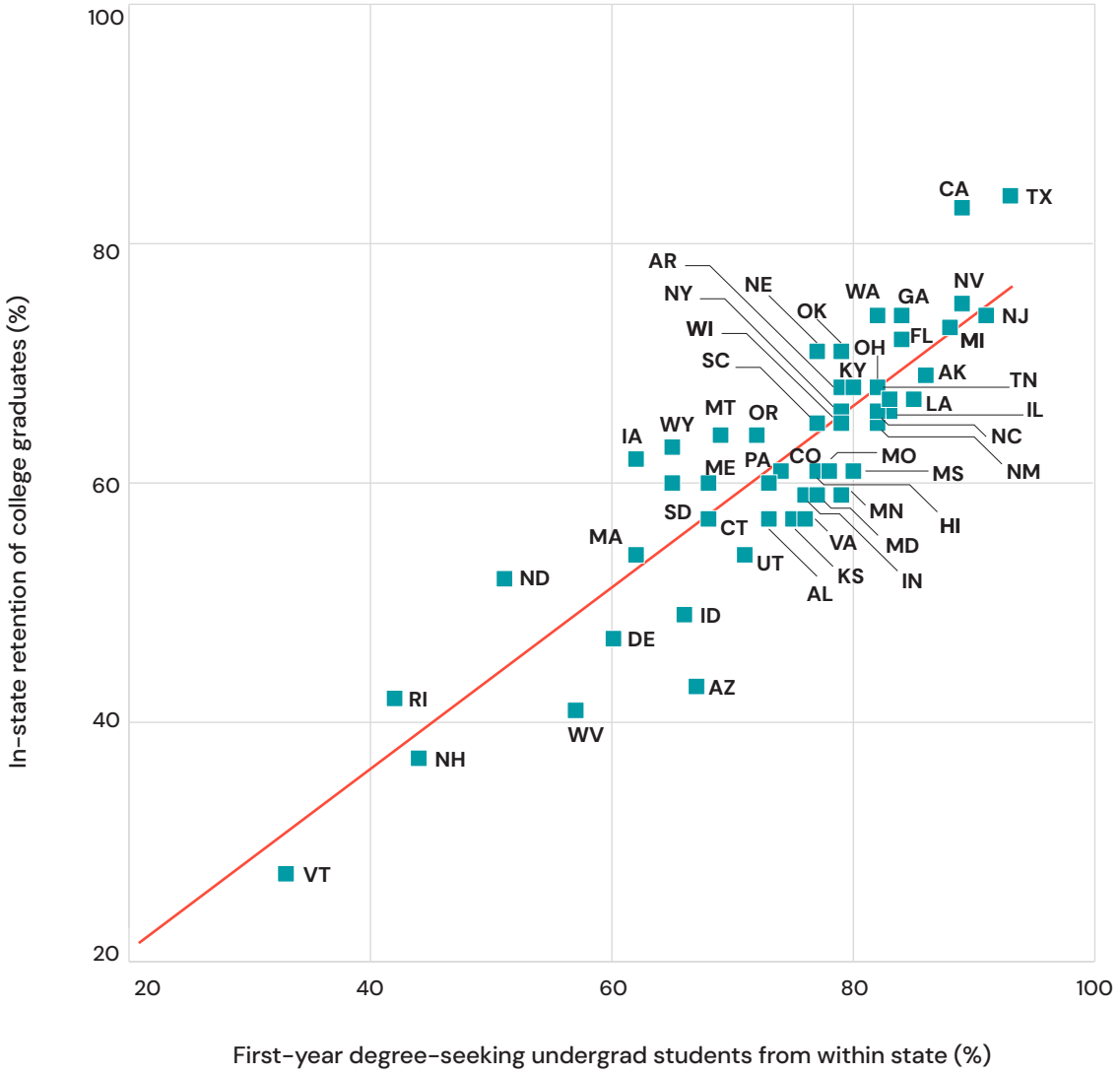
Notes: For each state, we report the percentage of college graduate migrants who moved to an adjacent state. The sample includes respondents who hold a bachelor's degree or graduate degree, graduated between 2010 and 2019, and who left their state of college for a different state of current residence. Alaska and Hawaii are excluded as they do not share a land border with any other state; n=9,761.

FIGURE C13:

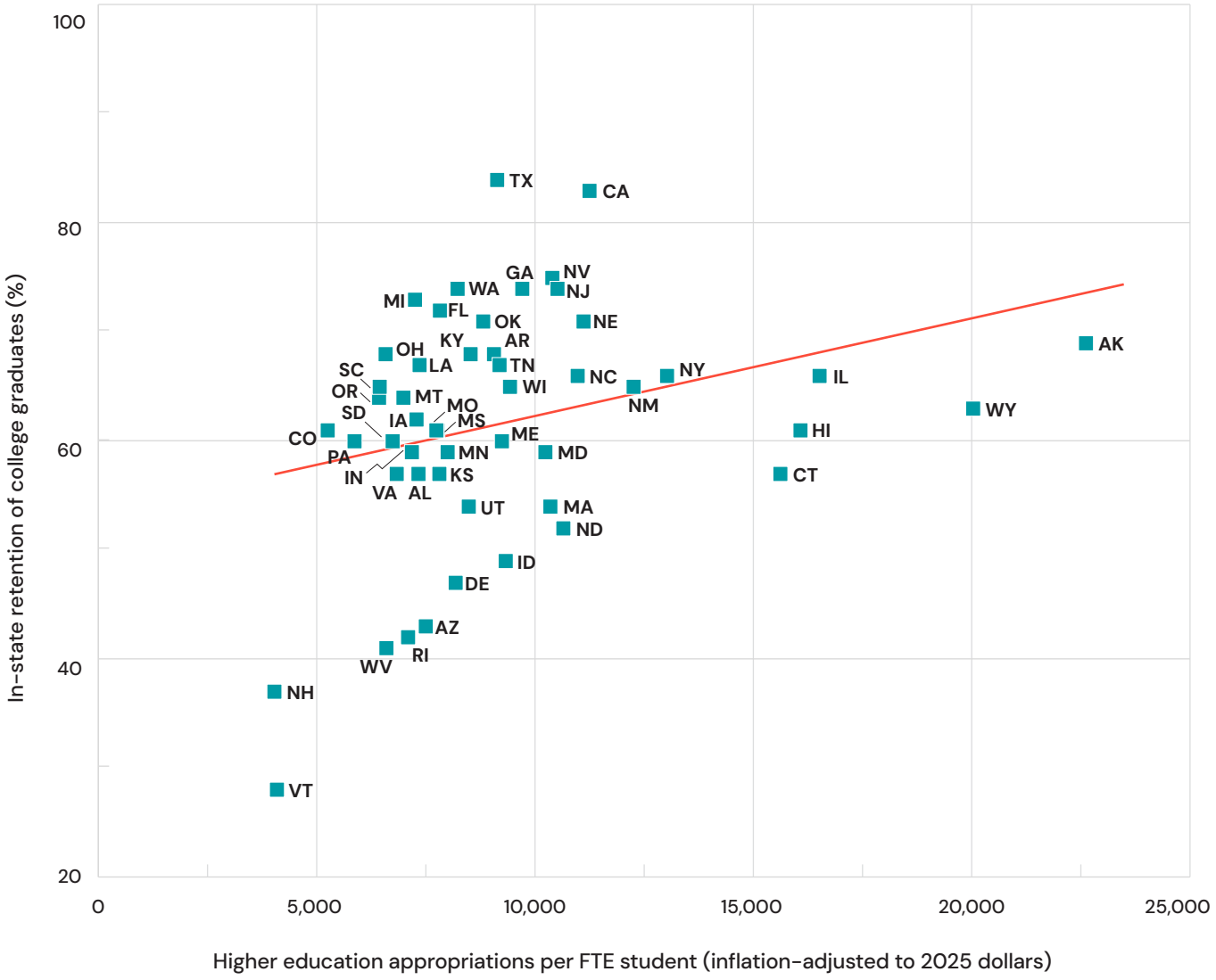
Correspondence between in-state retention of college graduates and selected state-level factors

Each scatterplot shows the share of college-educated talent produced in a state that remains in state, plotted against various state-level factors. The first set of charts covers public education indicators, the second set covers economic growth and cost-of-living measures, and the third set covers other living conditions.

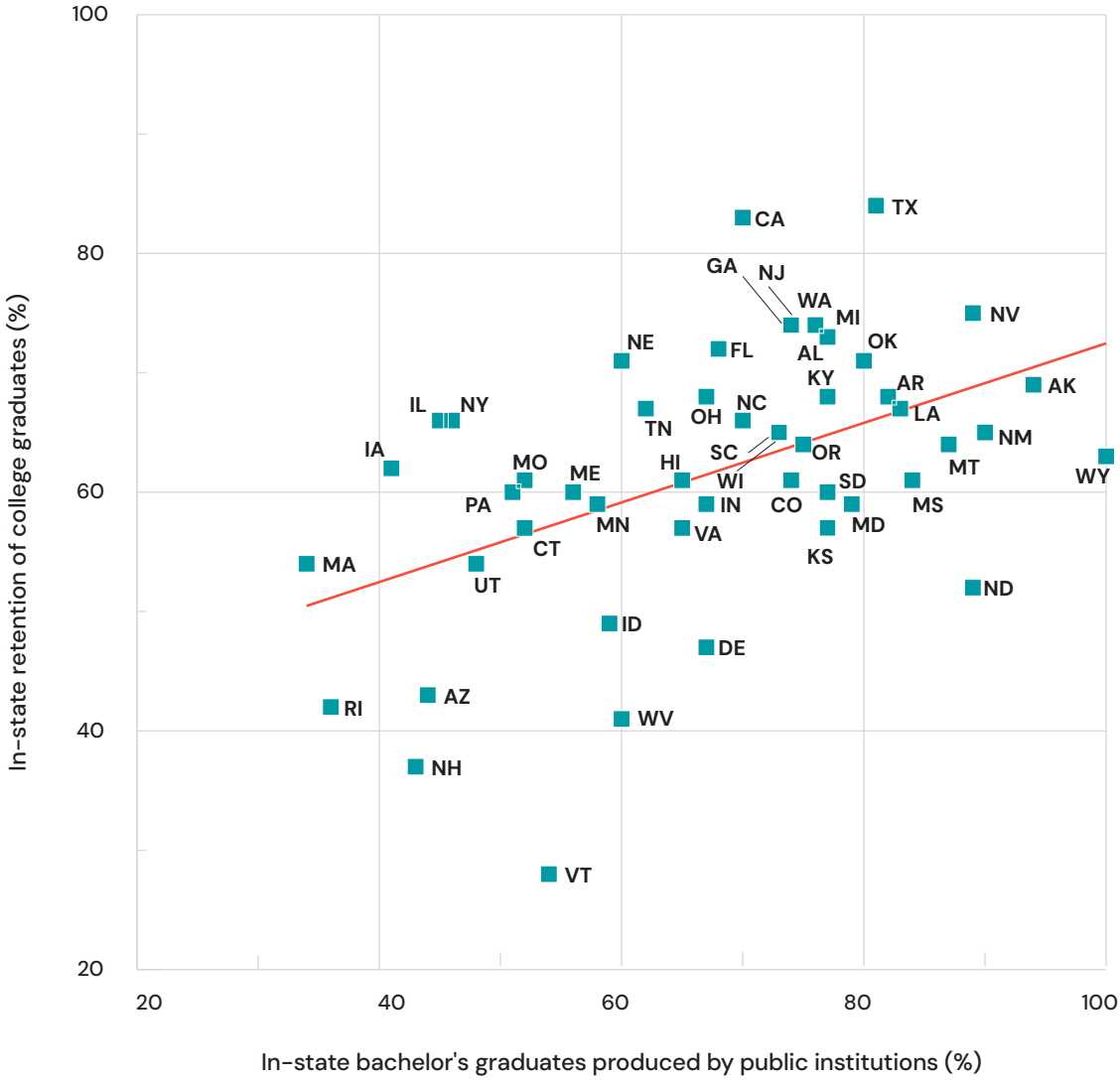
Public Education Factors - Chart 1



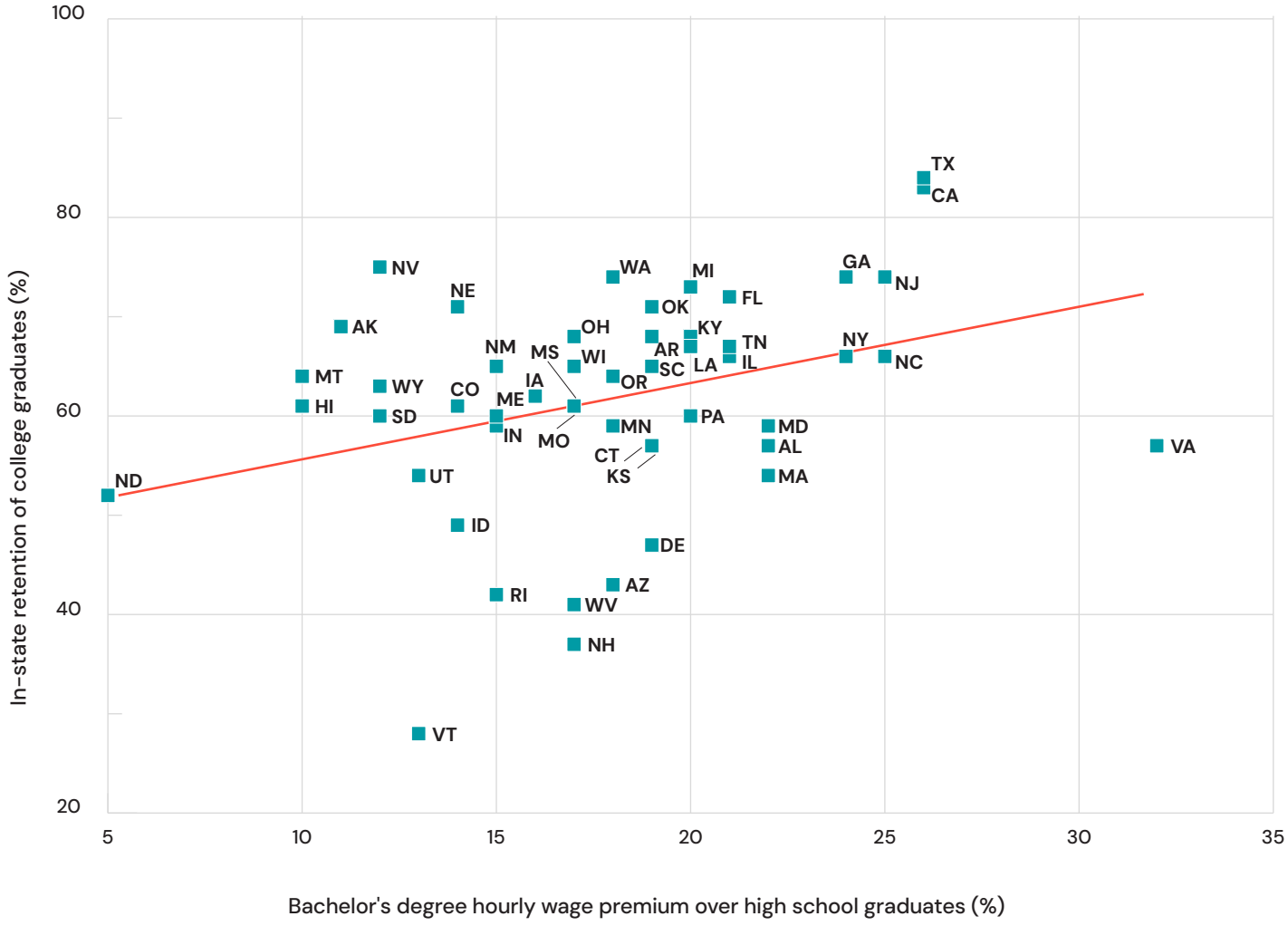
Public Education Factors – Chart 2



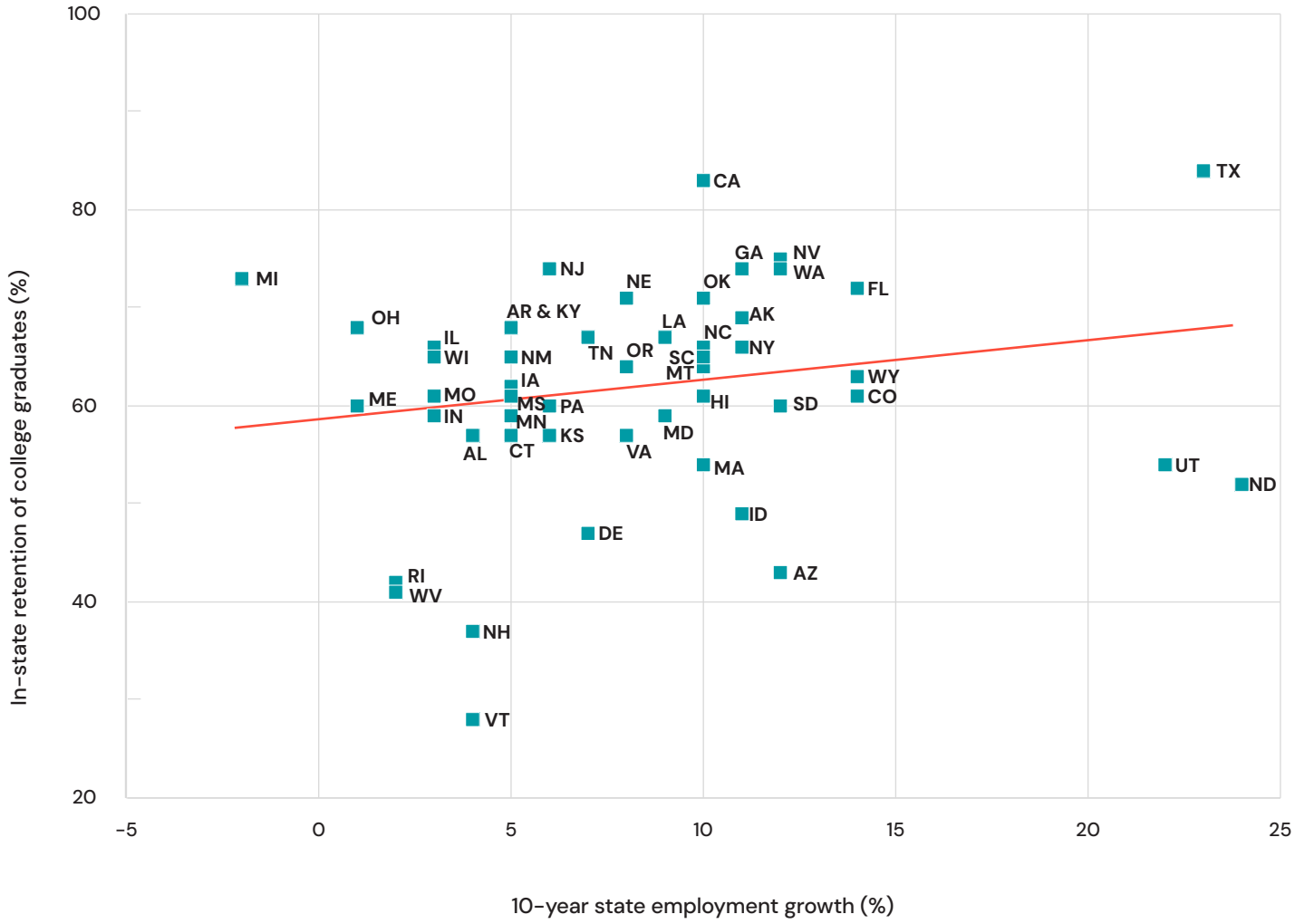
Public Education Factors – Chart 3



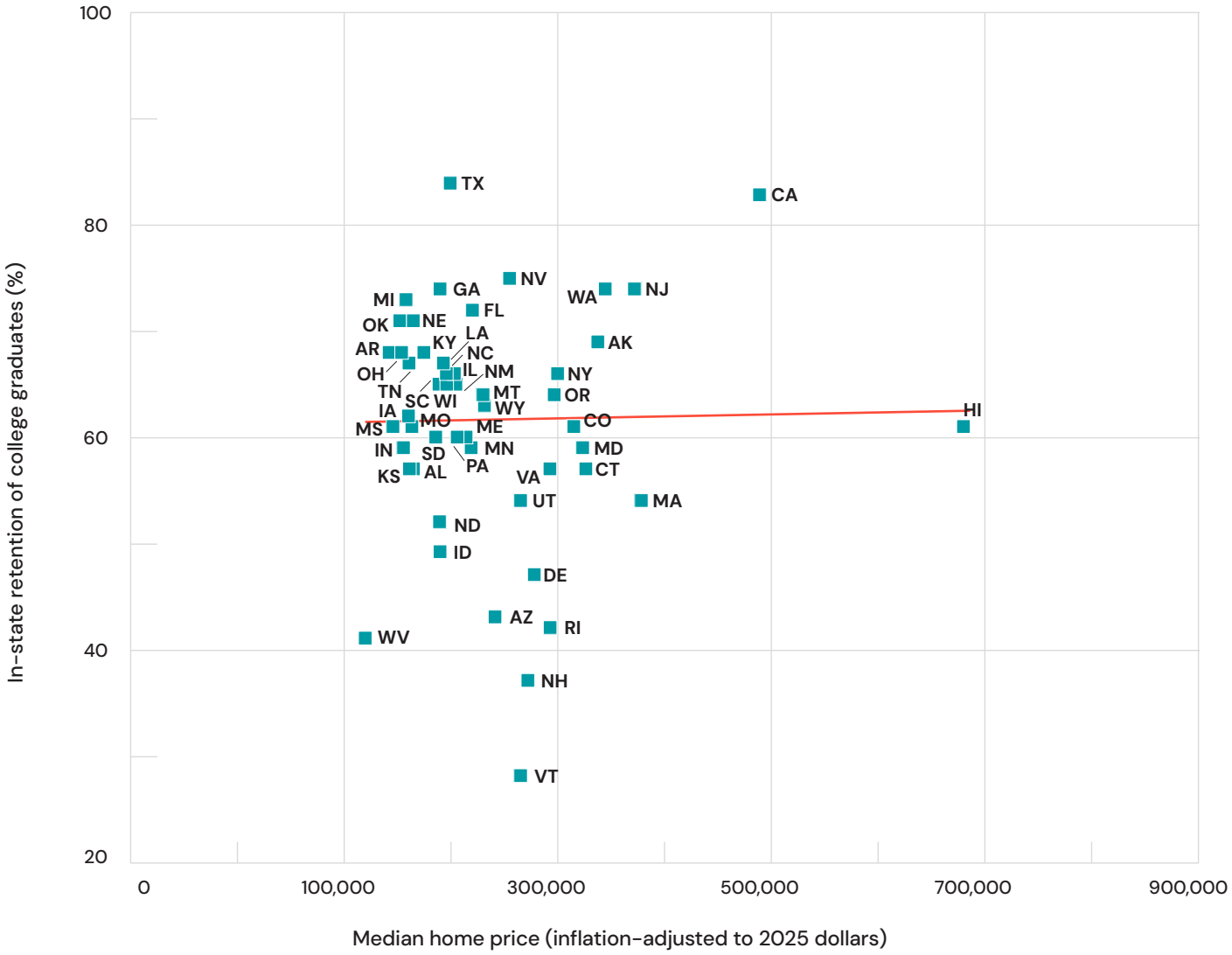
Economic growth and cost-of-living factors - Chart 1



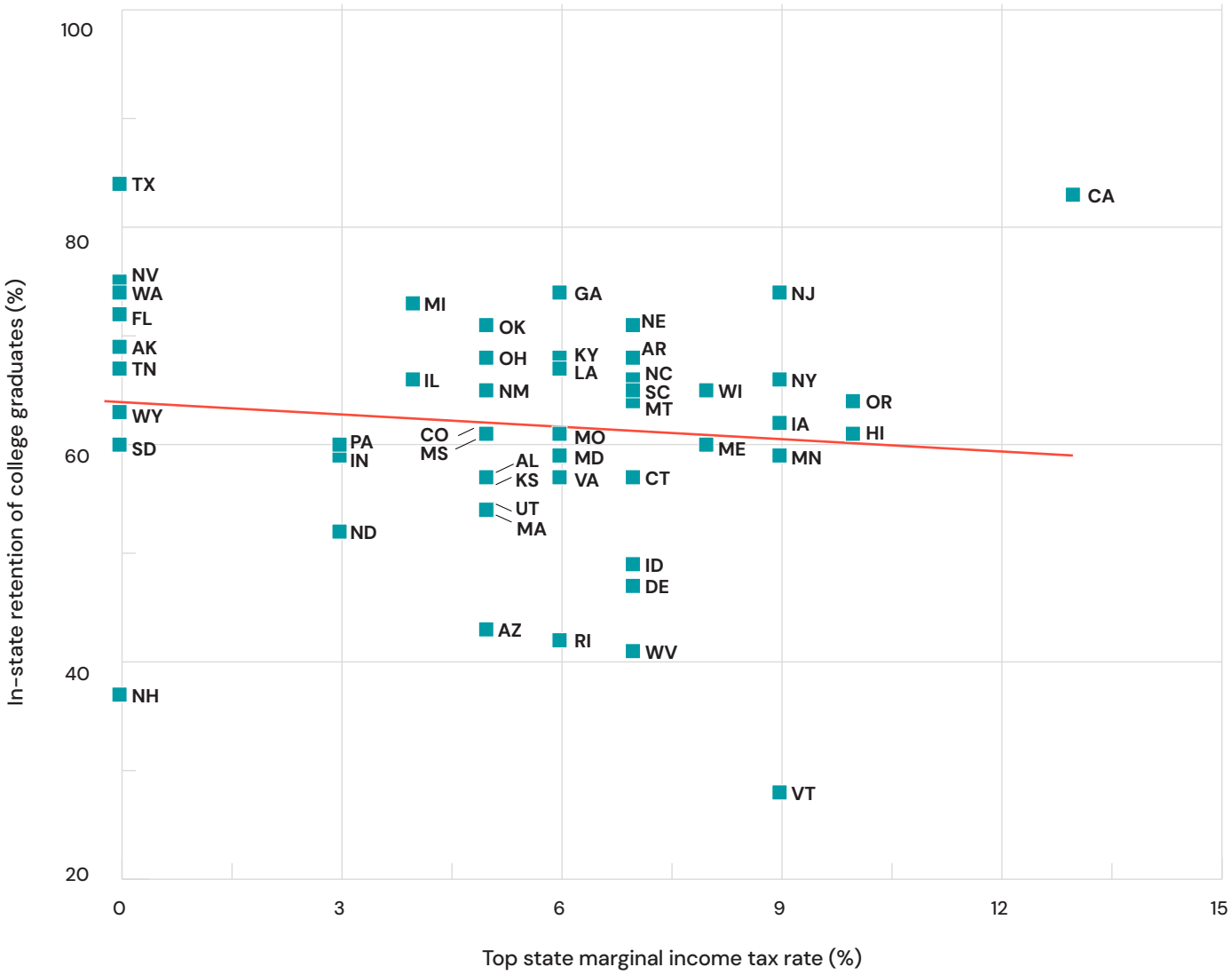
Economic growth and cost-of-living factors - Chart 2



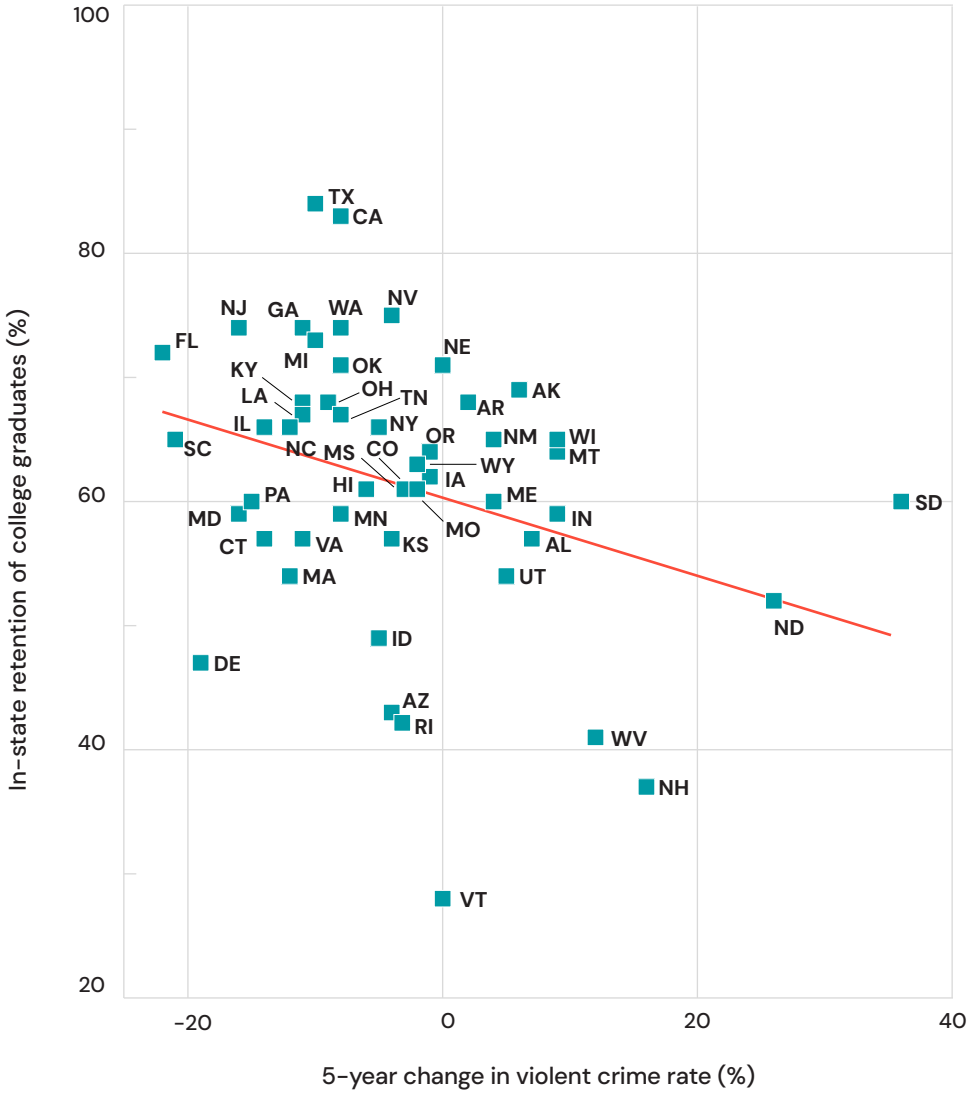
Economic growth and cost-of-living factors - Chart 3



Economic growth and cost-of-living factors - Chart 4



Living conditions factors – Chart 1



Living conditions factors – Chart 2

Endnotes

1 We acknowledge that individuals with other types or levels of postsecondary education, such as skilled trades, certificates, or associate degrees, also are important sources of talent for states to cultivate.

2 Social science researchers have long studied the economic reasons for why individuals move, both within and across states, and how these relationships change with greater levels of education. See Jia et al. (2023) for a comprehensive review.

3 The expansion of online learning following the COVID-19 pandemic may mean college students are less likely to migrate for out-of-state education. In fall 2023, 25 percent of students at four-year institutions were enrolled exclusively online (NCES, n.d.). However, we remain confident in this report's findings for several reasons. First, the number of students completing fully online degrees is small relative to enrollments, as completion rates for online programs are lower than for in-person alternatives (Ortagus, Hughes, and Allchin, 2023), and these students were unlikely to be mobile geographically to begin with. Second, most individuals in our migration sample graduated before online enrollment became widespread. About three-quarters of our main sample earned their degrees in 2011 or earlier, before the Department of Education began systematically tracking online enrollment in fall 2012. For the remaining quarter who graduated between 2012 and 2019, online enrollment at public and private nonprofit four-year institutions remained relatively low during this period — ranging from only 9 percent in fall 2012 to 15 percent in fall 2019 (NCES, n.d.). Thus, only a small portion of surveyed individuals from these institutions likely completed their degrees entirely online. For example, few individuals received degrees from Western Governors University or Southern New Hampshire University, the two largest online private nonprofit institutions. Finally, for-profit institutions, where online enrollment is more common, represent only 2 percent of our sample. For large for-profit universities with multiple campuses (e.g., University of Phoenix), the survey data generally distinguish between online and state- or city-level campuses, allowing us to accurately identify the state of enrollment in the vast majority of cases.

4 All of the analyses in this report present simple, bivariate relationships with sample weights to ensure national representativeness but without adjusting for correlated factors. To test the robustness of these relationships, however, we reexamined them using multivariate regression analyses with controls for the state in which individuals reside, the characteristics of their most recent postsecondary institution, their field of study, and their socioeconomic and demographic characteristics (gender, race, age, and highest level of parental education). All of the relationships discussed in this report are robust to the inclusion of these controls. In addition, we reanalyzed the descriptive relationships with a sample restricted to individuals with only a bachelor's degree and, separately, a sample that included individuals regardless of labor force participation status; the findings remained largely the same.

5 This category includes students who attended both high school and college in the same state, as well as those who attended high school in one state and college in another.

6 The minimum sample size was determined based on recommendations by Agresti (2022, p. 168-169). The remaining 16 states (and the District of Columbia) have between 37 and 109 respondents. We report migration patterns for all states and the District of Columbia in **appendix Figure C2**. We also present migration patterns for the 30 Metropolitan Statistical Areas (MSAs) with 110 or more respondents in **appendix Figure C3**.

7 We report the same 34 states as in Figure 4a. See **appendix Figure C4** for all 50 states and the District of Columbia. We also found a strong correspondence between the homegrown shares constructed using these two methods (**appendix Figure C5**).

8 Notably, these categories are extensive but not exhaustive and therefore may not capture all factors of selectivity. They nonetheless provide useful distinctions for the report.

9 Some states have taken steps to reduce barriers created by occupational licensing requirements. For instance, Nevada is phasing out licenses that are not required in a majority of other states and has directed licensing boards to suspend new regulations and recognize out-of-state licenses when similar licensing is needed nationwide (Sonner, 2023).

10 In **appendix Figure C6**, we further disaggregate migration by specific college major. These results reveal similar broad patterns but larger differences within fields of study. For instance, individuals who majored in Visual and Performing Arts are even less likely to be homegrown (44 percent) than the average Arts and Humanities student (50 percent).

11 As with fields of study, we highlight the migration patterns of specific occupations in **appendix Figure C7**. These findings reflect the patterns seen in the broad occupation groups but provide more specific insights in a few cases. For example, within the Law, Public Services, and Safety category, respondents working in Security and Protective Services are more likely to be homegrown (70 percent) than the field overall (56 percent).

12 More precisely, the likelihood of migrating increases with time since college, and time since college is correlated with age.

13 In contrast, in the prior section, the denominator is the number of college-educated individuals in the labor force currently living in a given state.

14 The finding that 66 percent of college-educated talent remains in the state where they completed college is reassuringly close to the finding in Section II (Figure 3) that 64 percent of college-educated workers either stayed home for college and now work in state or came for college and stayed for work, despite the different samples and denominators. In-state retention patterns by individual and institutional characteristics also mirror the findings from Section II.

15 In-state retention rates may slightly mischaracterize brain drain for states that border many others, as graduates who migrate out of state may still live and work nearby. For instance, college graduates who leave New Jersey for New York have not moved far but count as interstate migrants the same as if they moved to California. To better distinguish local from long-distance brain drain, **appendix Figure C12** reports the share of moves that are to an adjacent state. In the case of New Jersey, 46 percent of the state's college graduate migrants moved to an adjacent state compared to 32 percent nationally.

16 The District of Columbia is an extreme case of this phenomenon (with a retention rate of 21 percent), since many workers who graduated from universities in the district live in nearby Maryland or Virginia.

17 See the data and samples section of the Introduction for a brief overview of the CPS-ASEC.

18 To maximize sample size, we include all college-educated movers regardless of whether they were in the labor force. The results for those in the labor force (n=6,051) are similar but with a modestly larger share of respondents reporting economic opportunity (55 percent).

19 The survey also contains institutional name and location information for respondents who attended college but did not earn a degree, but it does not capture the institutional name and location of respondents who attended graduate school but did not earn a graduate degree (about 1.4 percent of the original sample).

20 Specifically, we merge state characteristics by the year respondents completed their highest degrees.

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