

Trends in parental education & family structures over time



Whose degrees — and which degrees — matter for defining first-generation status?

- While there are many ways to approach defining first-generation status, many organizations (Common App included) use the 1998 Higher Education Act Amendments definition. This definition focuses on a student's parents and explicit bachelor's degree attainment rather than associate degree attainment or college attendance.
- Common App data show that small details — specifically which parents' degrees and what types of degrees are considered — can have a big impact on which students are included in first-generation definitions.
- When building programs and policies, colleges and other organizations should be clear about who they are trying to identify with the phrase “first-generation” and why.

Looking at applicants in the 2022 season:

30.4%

report not living in a household with both parents.

11.6%

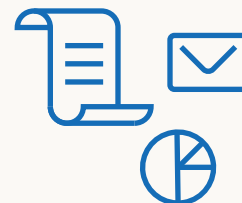
report having limited information about one or more parent(s).

8.8%

have parents who obtained a bachelor's, but from a country outside the U.S.

29.7%

of students whose parents didn't obtain a bachelor's still attended some college.



Questions to consider:

- When should the focus be on parents versus caregivers more generally?
- What's the best way to handle uncertainty about a student's parents?
- How important is a parent's familiarity with higher education in the U.S. context, specifically?
- In what circumstances could a parent's experience attending college at all be relevant?

First-generation status in context, part one: Trends in parental education and family structures over time

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Introduction

Improving access, equity, and integrity in the college admissions process is the core mission of the Common App. As policymakers and the public continue to lean on colleges as important engines for socioeconomic mobility and opportunity in our society, it is increasingly crucial to ask: how can we ensure that these institutions are accessible to students and families who have limited or no college exposure in their background?

While supporting “first-generation” students has become an increasing policy and programmatic priority across the United States, organizations can differ widely in terms of who they actually *mean* when they talk about first-generation students, and, commensurately, what the actual accessibility needs of this population are ([1](#), [2](#), [3](#), [4](#)). If your parents *attended* college but did not complete a bachelor’s degree, are you still first-generation? What if they completed a bachelor’s degree, but they did so at an institution outside of the United States? How about associate’s degrees? What if a parent has a Ph.D., but you haven’t had contact with them since you were an infant?

All of these factors and more play a role in defining this population, and such questions can moreover reveal important disagreements about the extent to which people view first-generation status as a short-hand for other dynamics like wealth, class, and privilege in our society. Such ambiguities also carry over into how students themselves understand and identify with first-generation status when asked.

Through this three-part research series, we take a deep dive into first-generation status, parental education, and a host of related student characteristics. At the center of this examination are nearly a decade of application data for over 9 million domestic applicants from the Common App data warehouse. Across these three briefs, we ask the following primary questions:

Brief 1: Trends in parental education and family structures over time

How have key components for defining first-generation status, like household structure, parental degree attainment, and related family structure details, changed over time? For what share of applicants are these considerations potentially relevant for understanding their college accessibility needs?

Brief 2: The many definitions of first-generation status and their implications

How does the exact definition of first-generation being used change who is considered a part of this population? Further, how does the exact definition being used change our understanding of first-generation applicants' college readiness, socioeconomic status, and application behaviors on average? ¹

Brief 3: Exploring the complexities of fine-grain parental education combinations

What more can we learn about applicants' college readiness, socioeconomic status, and application behaviors when we look at finer-grain combinations of parental educational attainment groups versus the binary of first-generation and continuing-generation?

In this first brief, we are ultimately investigating: to what extent does it matter which degrees, and whose degrees, we consider when defining first-generation status for a student? In the course of this investigation, we do not make claims about a "right" definition, but rather hope to make clear the trade-offs and differences that practitioners and policymakers should keep in mind when deploying any given definition.

We intend to release the subsequent briefs in this series over the next two months, such that the second brief will be released towards the end of November, and the third brief will be released in mid-December. We are excited to bring greater attention to this important demographic of students, and look forward to facilitating conversations within and across organizations on this topic in the coming months.

¹ We follow an approach similar to [Toutkoushian, Stollberg, & Slaton, 2018](#), and [Toutkoushian, May-Trifiletti, & Clayton, 2019](#), for this work.

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Key findings

1. **The parental degree attainment threshold (i.e., bachelor's, associate's, or college attendance) used to define who is first-generation can have enormous implications for the size of this student population.** For example, almost 11% of all domestic applicants in the 2022 season (or roughly 127,000 applicants) switch out of first-generation status when focusing on students whose parents have no college attendance, rather than students whose parents haven't obtained a bachelor's degree.
2. **Moreover, seemingly simple changes in which degrees to consider and whose degrees are relevant (i.e., incorporating some of the considerations described in bullets 3-7) can change the number of domestic applicants classified as first-generation in 2022 by nearly 165,000 students (14% of all domestic applicants) – even without changing whether one focuses on bachelor's degrees, associate's degrees, or college attendance.**
3. **About 8.8% of domestic applicants in 2022 had at least one parent who received their bachelor's degree from a non-U.S. institution,** indicating that whether non-U.S. degrees are considered for first-generation status or not can have a meaningful impact on first-generation status calculations.
4. **6% of domestic applicants in 2022 had parents who obtained all of their bachelor's degrees after a student's birth.** This is noteworthy because students in these circumstances may not experience the same longer-term benefits of financial stability and educational support from their parents as students whose parents obtained their degrees comparatively earlier in their family's timeline.
5. **Nearly 12% of domestic applicants in 2022 reported having only limited information about one or both of their parents.** Not only can we not accurately identify first-generation status among students who lack information about their parents' degree attainment, it is also important to consider whether closeness and exposure between students and parents plays a role in the benefits implied by having a parent with a college degree.
6. **Only 69.6% of domestic applicants in the 2022 season shared a household with both of their reported biological parents.** Just over 30% of applicants instead reported living in a household with only one parent and/or with other caregivers (e.g., step-parents, legal guardian, grandparent, etc.). Whether we consider the additional caregiver's degree attainment, or exclude the absent parent's degree attainment, thus has potentially large implications for first-generation calculations.
7. **A total of 3.5% of domestic applicants in the 2022 season reported a parent who is deceased.** Again, thinking about exactly what benefits we expect are implied by having a parent with a college degree, whether deceased parents are considered in calculations – as well as the recency of their death – are relevant for this population.
8. **Ultimately, these details all reinforce that policymakers, admissions and enrollment leaders, and researchers should be extremely deliberate when defining first-generation status to accommodate the specific context and purpose at hand.**

Trends in parental degree attainment over time

While there are many ways to approach defining first-generation status, many organizations (Common App included) have relied heavily on the definition for first-generation status provided by the [1998 Higher Education Act Amendments](#): “an individual both of whose parents did not complete a baccalaureate degree, or, in the case of any individual who regularly resided with and received support from only one parent, an individual whose only such parent did not complete a baccalaureate degree.” Notably, this definition focuses on a student’s *parents*, specifically, and moreover focuses on explicit baccalaureate degree attainment rather than associate’s degree attainment or college *attendance*.²

Students navigating the Common App are asked in two steps about their parents’ education: first, they are asked to describe each parent’s highest education level (selecting from options such as “Graduated from high/secondary school or equivalent” or “Graduate school”). Then, if the student selects an option that indicates any level of higher education institution attendance for the parent (trade, community, 4-year, graduate, etc.), they are further asked to identify the institution(s) attended (name, country, and type), the degree(s) received, and the year(s) of degree receipt. Figure 1 shows how this interface appears to students on the online application when completing information about a given parent.

Figure 1. Parental education question interface on Common App

These questions have remained largely unchanged for the past decade, allowing us to track fine-grained trends in students’ parental degree attainment over time in Figure 2. Importantly, note that we focus on domestic students (U.S. citizens or permanent residents, whether applying from the U.S. or abroad) who completed at least one first-year application (“applicants”) for all analyses displayed in this brief.³ Note also that all data displayed in figures

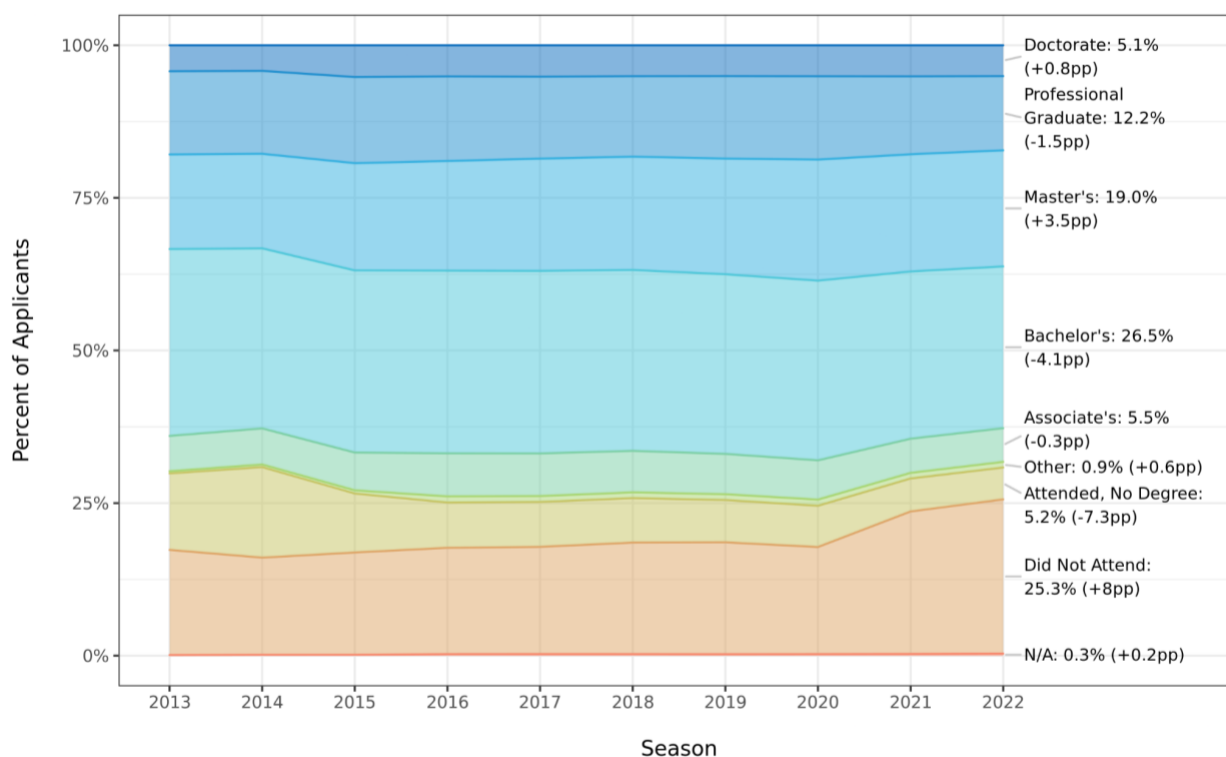
² This definition is in contrast to another common method of directly asking a student if they identify as first-generation, or if they will be the first in their family to attend/graduate college.

³ Just as importantly, note that while over 1,000 4-year institutions now use the Common App for their application process, our applicants are not necessarily representative of the broader college-going or college-applying population (see, for example, [Odle & Magouirk, 2023](#)).

throughout this brief are also available in a spreadsheet format more amenable to researchers and screen reader software [here](#) (access password: HVMcR2Xi).

To orient readers to this plot, it is easiest to begin by looking only at the right-most vertical slice of data representing the 2022-2023 application season (hereafter referred to as the 2022 season). Each shaded area of this vertical slice represents the share of applicants in the 2022 season whose parents had the highest degree indicated by the text label on the right. For example, the top area (shaded in the darkest blue) shows us that 5.1% of applicants in the 2022 season had at least one parent whose highest degree was a doctorate degree, and the area of this slice is sized proportionally. The next area shows us that 12.2% of applicants had parents whose highest degree was a Professional Graduate degree (i.e., medical, business, or law). Finally, note that the bottom-most “N/A” group represents students who did not list any parent in their family information.

Figure 2. Highest reported degree of parents over time
Among domestic first-year applicants



With this in mind, we can also see how the share of applicants in each parental degree attainment group has changed over time since the 2013 season by tracking each shaded area leftwards. For example, the share of applicants with parents whose highest degree was a doctorate has remained largely the same over time, with a slight increase in size from 2014 to 2015 that has remained flat through 2022. The parenthetical values in each group’s text label indicates how much that group has grown or shrank since the 2013 season in percentage points (“pp”); in this case, the share of students in the Doctorate group increased by 0.8 percentage points since 2013 (i.e., from 4.3% to 5.1%). While the share of applicants in the

Doctorate group has remained largely unchanged over time, we see relatively substantial changes in the share of applicants in the Did Not Attend (+8pp since 2013), Attended with No Degree (-7.3pp), Bachelor's (-4.1pp), and Master's (+3.5pp) groups.⁴

The general share of students in each of these groups also highlights the potentially extreme consequences of setting different degree attainment thresholds for first-generation status over time. Looking at this plot, we can roughly calculate the proportion of first-generation applicants in the 2022 season by adding up the share of applicants in the associate's degree category and below: roughly 37.2%.⁵ If we set associate's degree attainment as the threshold instead of bachelor's degree attainment, however, 5.5% of domestic applicants (or roughly 65,000 applicants) switch from first-generation to continuing-generation, shrinking the share of first-generation applicants from 37.2% to 31.7%. Likewise, if we consider any attendance at a higher education institution to be the threshold, another 5.2% of domestic applicants (roughly 62,000 applicants) would switch from first-generation to continuing-generation, shrinking the share of first-generation applicants in 2022 from 37.2% to 26.5%.

This is not to suggest that any one threshold definition for first-generation status is more "correct" than another, but it does highlight how meaningful a decision this ultimately is in terms of the actual population of students being discussed. In other words, organizations and institutions should be extremely deliberate in asking: who are we trying to identify with the phrase "first-generation," and why? A bachelor's degree threshold may be most relevant if, for example, a four-year institution is trying to identify which students may need most support in completing their degree (as a first-generation student in this definition does not have a parent who has done so). Conversely, an attendance threshold may be most relevant for institutions trying to identify students who may need more support in the application and enrollment processes (as a first-generation student in this definition does not have a parent who has ever enrolled).

Examining the details and complexities of degree attainment

Despite how impactful the degree threshold is for who is considered a first-generation student, the degree level is only one of several factors that an organization needs to consider in setting their definition.

Another prominent detail where organizations can diverge is in deciding whether degrees obtained at a non-U.S. institution are relevant for consideration. If an organization cares most about whether a student has support from parents with experience specifically in the United States higher education context, it can make sense to limit consideration to U.S. degrees only. That being said, this is a rule that may not apply if an organization is instead more closely trying to approximate a student's broader socioeconomic status (i.e., cultural capital and wealth) – in which case, degrees received abroad could still be relevant. In both of these cases,

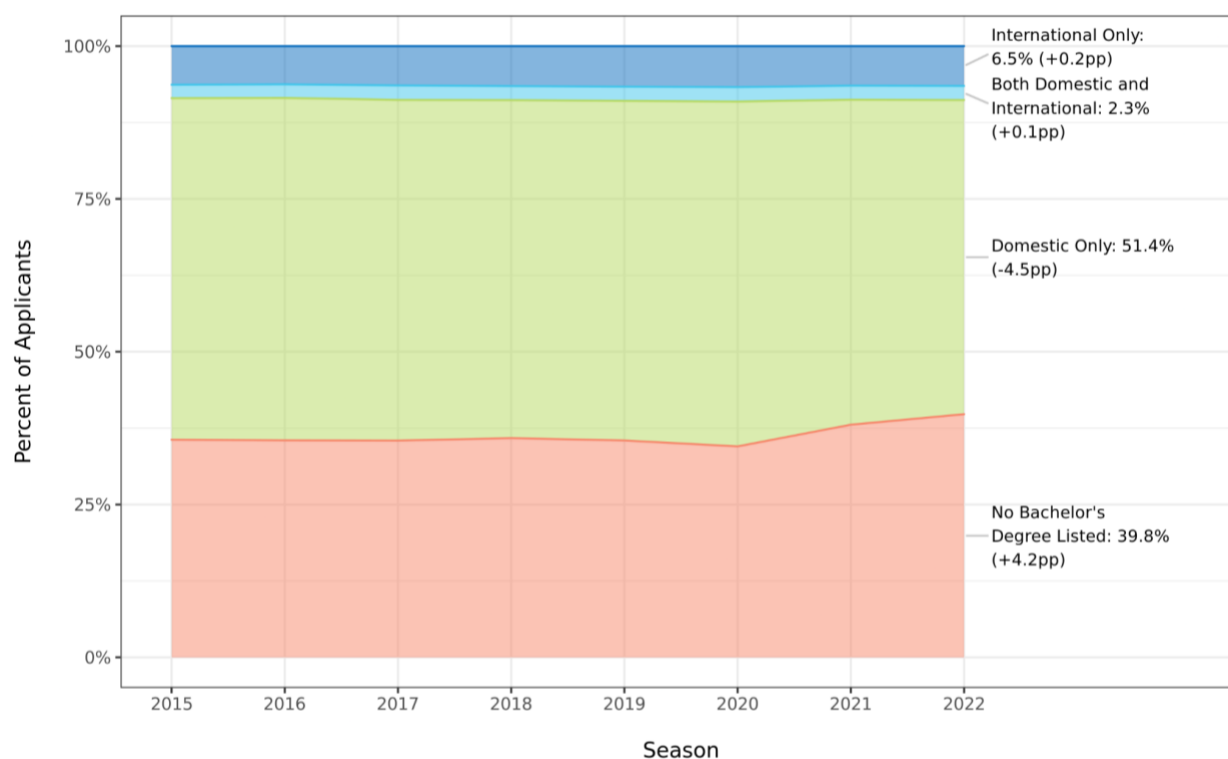
⁴ These trends in advanced degrees align with broader trends in higher education attainment among domestic students, who have been pursuing master's degrees at higher rates over the past decade (1, 2).

⁵ Note that in formal Common App calculations, we consider "Other" to be part of the continuing-generation group. It is not clear exactly what students mean when they select this option (e.g., certifications, other types of diplomas or credentials, or international degree types without a clear equivalent in the U.S. context)

organizations may even decide a more nuanced rule-set for international institutions is necessary (i.e., which countries have higher education systems similar enough to the United States context by some metric, or which countries have a similarly large economic return to higher education degrees for graduates).

Without getting too far into those nuances, we can use our data to track for whom this U.S. versus non-U.S. institution distinction may matter in Figure 3. Here, we show the share of applicants whose parents received their bachelor's degree from domestic versus international institutions over time. This plot, and all following, is formatted identically to Figure 2.⁶ For example, we see that 51.4% of applicants in the 2022 season had parents who obtained their bachelor's degrees exclusively from domestic institutions. Looking over time, this share has decreased 4.5pp since the 2015 season (i.e., from 55.9% of applicants in 2015 to 51.4% of applicants in 2022), with most of that change occurring starting in 2020.

Figure 3. Parental attainment of bachelor's degrees by institution country
Among domestic first-year applicants



By contrast, 6.5% of applicants in the 2022 season had parents whose bachelor's degrees were obtained exclusively from international institutions (roughly 77,000 applicants), and 2.3% had

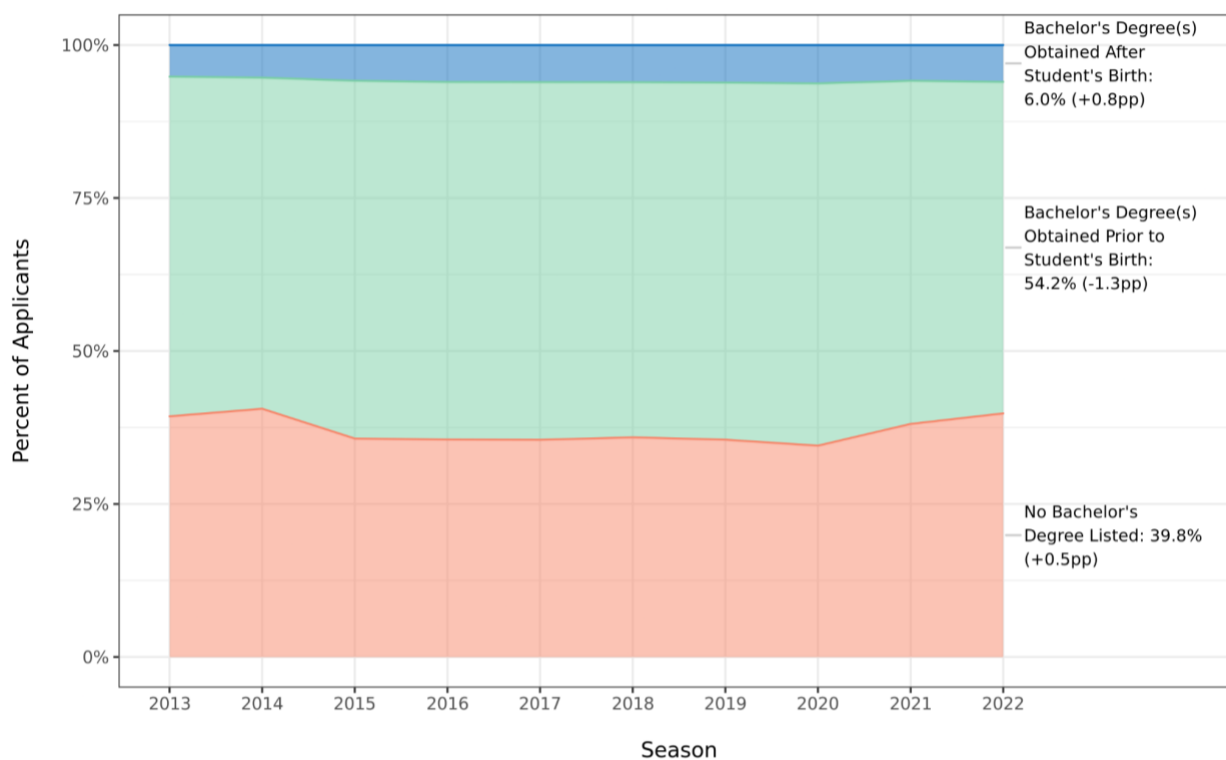
⁶ Note that international institution data are sparse for the 2013 and 2014 seasons due to changes in how institution characteristics were tracked; we thus exclude those seasons from this plot. Also note that while the vast majority of students list all the degrees their parents obtain, some parents with advanced degrees (e.g., Doctorate) do not have an accompanying Bachelor's listed – hence why the No Bachelor's Degree Listed group is slightly larger at 39.8% in Figure 3 versus 37.2% in Figure 2.

parents whose bachelor's degrees were obtained from a mixture of domestic and international institutions. That being said, these two groups haven't changed much at all over time. Put another way, up to 8.8% of all applicants could flip in or out of first-generation status depending on whether degrees from international institutions are considered.

As yet another wrinkle in degree attainment, organizations who are most concerned with the broader socioeconomic implications of first-generation status (i.e., cultural capital and wealth) may also be interested in when a degree was obtained. To illustrate, a student whose parents obtained their bachelor's degrees while the student was in high school may be fantastic supports from the logistical and strategic perspective, having just gone through the college application process themselves (and thus knowing the current process well, having up-to-date knowledge of faculty/colleges/programs, etc.). However, the longer-term financial stability and wealth implications of having a parent who went to college may not apply to this student, as their parents would not have held a bachelor's degree for the vast majority of this student's upbringing.

In Figure 4, we report the share of applicants whose parents received their degrees before and after a student's birth year to examine this dynamic more directly.⁷ Note that this figure includes degrees obtained at non-U.S. institutions.

Figure 4. Parental attainment of bachelor's degrees by recency of degree receipt
Among domestic first-year applicants



⁷ Degrees obtained in the same year as the student's birth year are included in the before-birth category.

Among applicants in the 2022 season, 54.2% of applicants had parents who earned at least one bachelor's degree prior to the student's birth, whereas 6.0% of applicants had parents who earned all of their bachelor's degrees after the student's birth. Moreover, this latter group has increased slightly since 2013 by 0.8pp. Put another way, 6.0% of all applicants would flip in or out of first-generation status depending on whether the recency of degree were considered. While we do not examine differing definitions of recency in this brief (e.g., within five years of the student applying rather than before or after a student's birth) for concision, note that the precise recency threshold used will have additional implications here, as well.

Examining the details and complexities of parental figures

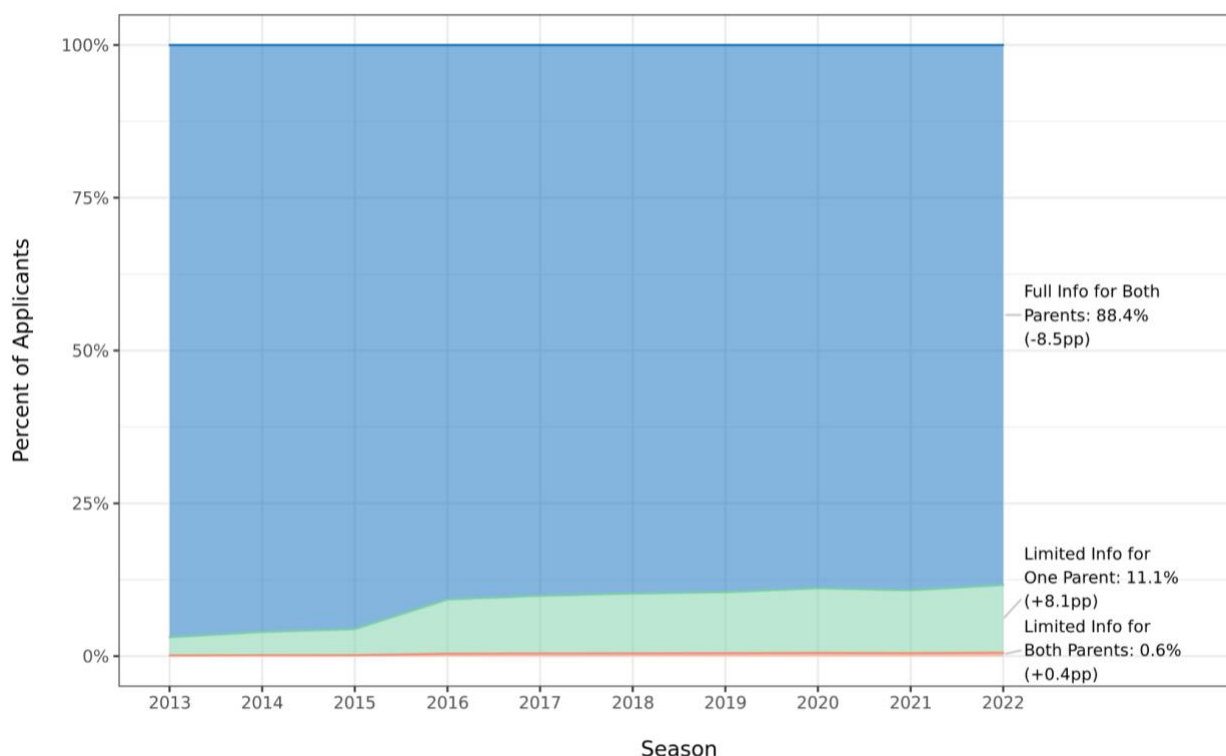
The prior section focuses on one key aspect of defining first-generation students: What kinds of parental higher education experience and/or degree attainment are relevant for consideration? Just as important – and complex – is the question of: What do we mean when we talk about parents in this context? For instance, is it simply a student's biological parents that matter? Or should we also consider caregiving adults that a student shares a household with at the time of applying?

These questions are complex because answering them requires us to again interrogate what we think first-generation status is meant to imply about that student and their experiences. Similar to the wrinkle of when a parent obtained their bachelor's degree, a biological parent who has a bachelor's degree but has never been in contact with the student may not provide any meaningful support to that student in terms of either logistical/strategic guidance or financial stability or wealth. Couldn't it be the case that this student would benefit from the same sorts of targeted support catered towards first-generation students?

Figure 5 gets at this issue a little more directly by examining what share of applicants report having limited or no information available about one or both of their parents.⁸ While students can report this for a variety of reasons, we might think of this at least partially as a reflection of whether the student has had meaningful contact with their parents (perhaps direct or indirect, and perhaps recent or not).

⁸ Students can provide this information when inputting the student's relationship to each parent, selecting from "Mother," "Father," "I do not have another parent to list," or "I have limited information about this parent."

Figure 5. Availability of parental information over time
Among domestic first-year applicants

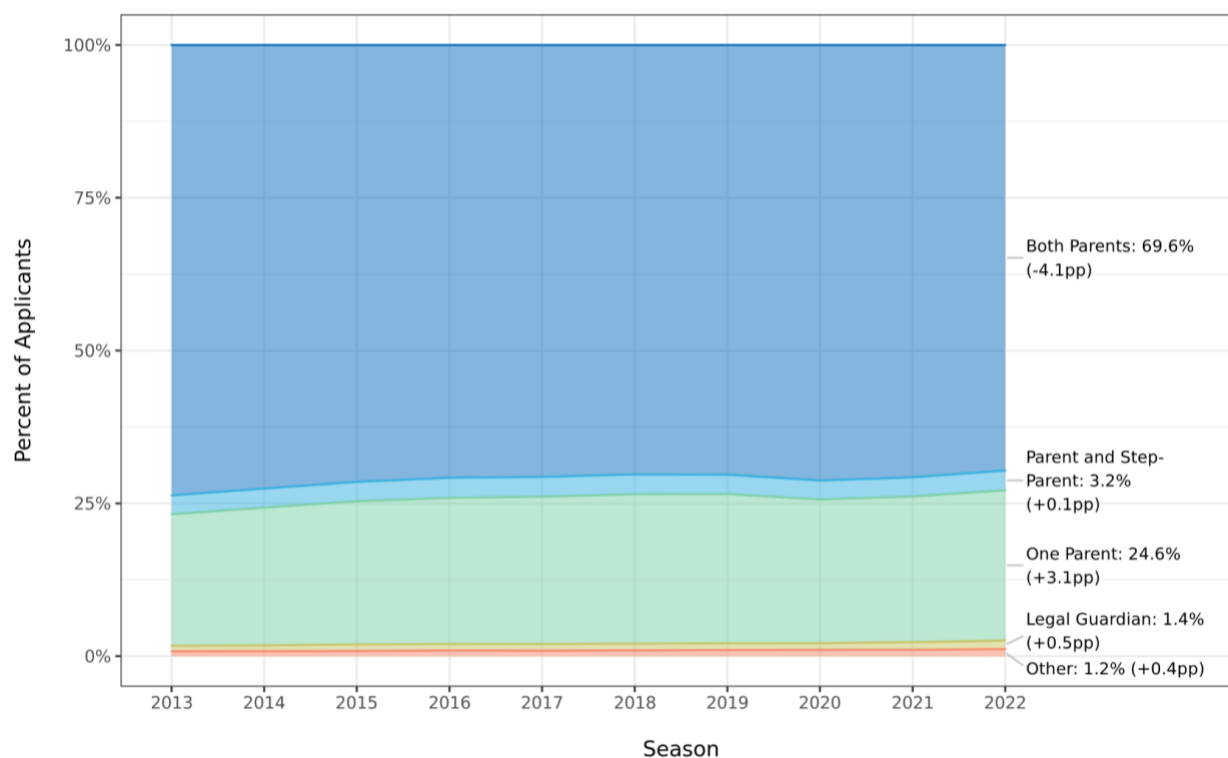


As we see, while the vast majority of applicants indicate that they have information available about both parents (at 88.4% in the 2022 season), 11.6% of applicants indicate limited or no information available for at least one of their parents, and this proportion has increased slowly but steadily since 2016.⁹ While the share of students who report having limited or no information about both parents is extremely small at 0.6%, note that this proportion has tripled in size since the 2013 season. These trends are also crucial to track more generally given that we can't accurately assess a student's first-generation status without accurate information about both of their parents (for definitions focusing specifically on parents, at least).

To the extent that consistent and direct contact is a meaningful factor in the support a student receives from an adult experienced in the college application and enrollment process, perhaps always and only focusing on both biological parents doesn't capture the full picture. What about other caregiving adults in their lives, and the support they may offer? Students are able to provide information about which caregivers (which we herein use to refer to the broader group of adults like step parents and legal guardians, in addition to biological parents) they currently live with in their household, which we examine in Figure 6.

⁹ In the 2016-2017 season, this question was adjusted so that students could select "I have limited information about this parent" explicitly, rather than just selecting "Unknown" for parental status; this more inclusive phrasing change is likely the main driver of the large increase in this population that year.

Figure 6. Reported caregivers in the applicant's household over time
Among domestic first-year applicants

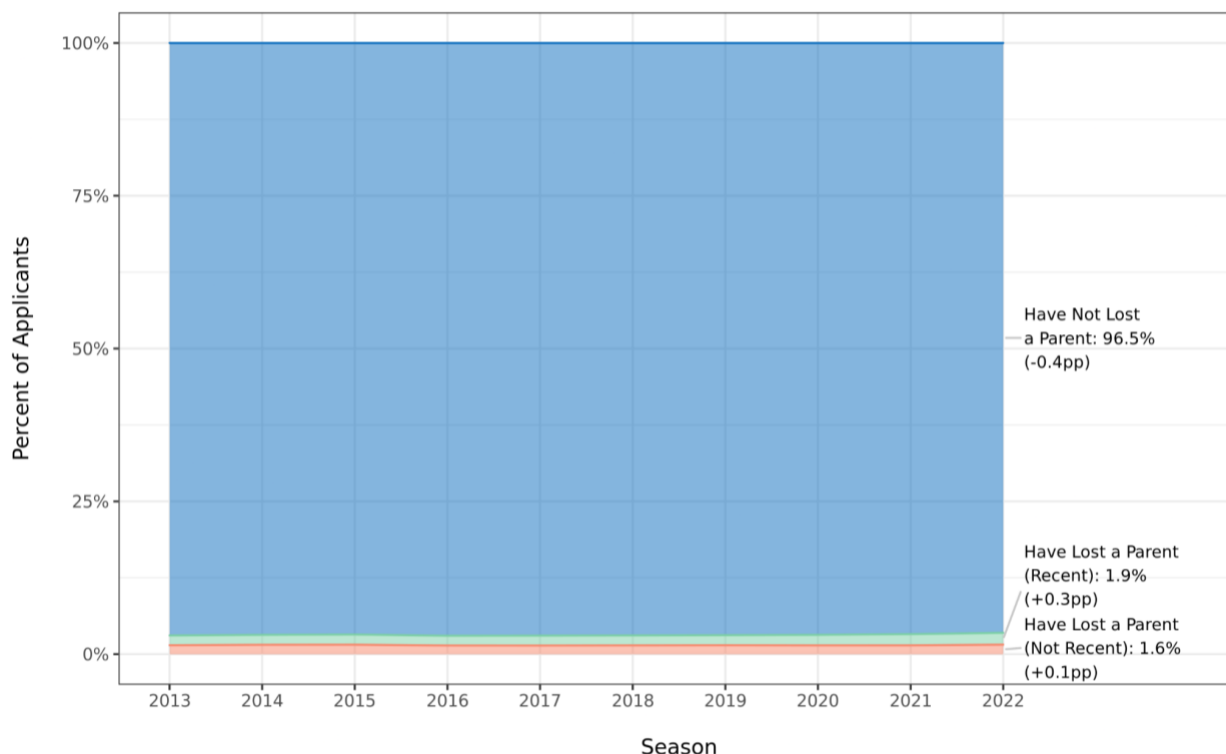


While 88.4% of students are able to provide information about both parents (from Figure 5 above), a relatively smaller proportion of students actually live with both parents at 69.6%. Just as importantly, over a quarter of all applicants live with only one of their biological parents (24.6% in the One Parent group, plus 3.2% in the Parent and Step-Parent group), and this combined group has increased by 3.2pp, or roughly 13%, since 2013. Finally, about 2.6% of applicants live with neither parent (Legal Guardian or Other, which is inclusive of being a Ward of the State and living with other family members), and this combined group has increased by 0.9pp since 2013. The variety of household structures described here makes clear that focusing only on parents may inadvertently include for consideration adults to whom a student has relatively limited exposure, while simultaneously excluding other adults to whom a student may have relatively greater exposure.

As we consider this dynamic of which parents are able to provide direct support to students in the college application and enrollment process, one pivotal piece of information that students provide to this end is whether their parents are still living. In Figure 7, we show the extent to which students have experienced a parental loss, and if so, whether that loss was relatively recent (within the five years prior to completing their college application) or not.

Figure 7. Reported experience of parental loss over time

Among domestic first-year applicants; recency calculated relative to season of student applying



While this is thankfully a rare circumstance, parental loss nonetheless impacts 3.5% of applicants on the platform. We highlight recency here as it adds an additional layer of questions to consider about the nature of supports we want to identify in first-generation status. For example, the educational attainment of a parent who died recently may remain relevant for consideration when thinking about the longer view of a student's educational opportunities and financial stability (as their influence was still present for the majority of that student's life), but becomes perhaps less relevant when thinking about the direct advising and guidance a student has accessible to them during the application process itself. By the same logic, the inverse is true for other caregiving adults who entered the student's life only after a parent's death – maybe a legal guardian who has only been in the student's life for a year or two is not so relevant for consideration unless the student's current access to direct advising and guidance is paramount.

And though the loss of parents can have direct implications for which adults should factor into first-generation status, it also seems likely that students who have experienced more recent loss may have reverberating impacts on their college application process as a result (e.g., home and life upheavals that make it difficult to focus on courses, extracurriculars, relationships with teachers for recommendations, etc.).

Conclusion

We hope that these data points together help illustrate how many factors and considerations can reasonably come into play in defining first-generation status in the college-going population. Just as importantly, we want to highlight how critical it is for any organization or entity to be clear early on about what they're hoping to learn or identify about students through these definitions; as there is no one, single right answer for how to define this population, context and intention are key. What are the needs we are trying to address in a given context, and why?

As an illustration for how these seemingly small definitional decisions can cause substantial changes in who is considered first-generation, we can replicate Figure 2 (displayed again for ease of comparison) using a different focus for both which caregivers we consider, and which degrees "count." As a refresher, in Figure 2, we charted the highest reported degree of biological parents over time, regardless of when the degree was received, the institution from which it was received, and other details about the student's household structure. In Figure 8, by contrast, we focus only on caregivers in the student's household who were reported as currently living, and we consider only those degrees obtained in the U.S. prior to the student's birth (i.e., what was the caregiver's degree attainment by the time the student was born?). Moreover, attendance at non-U.S. institutions is also excluded. This alternative definitional framework might be logical for an organization that cares most about whether a student has direct contact with and support from adults who both have experience in U.S. institutions, specifically, and have had said experience for a long enough period during their upbringing to influence that student's longer educational trajectory.

Comparing Figures 2 and 8, we see that there are stark differences in terms of the share of applicants in each group in the 2022 season. For example, 62.8% of applicants have a parent with at least a bachelor's degree or above in Figure 2, but only 48.9% of applicants in Figure 8 have a living caregiver who does. In other words, which bachelor's degrees we consider, and whose bachelor's degrees, can in this case swing the share of first-generation applicants by as many as 165,000 students (14% of all domestic applicants in the 2022 season). This alternative definition does not even consider the considerable implications of whether an organization chooses bachelor's degrees versus associate's degrees versus college attendance as their threshold for parental educational attainment, either.

This is all to highlight that there exist so many complexities in how one can think about and thus define first-generation status, and reasonable people can disagree about how to land on these many details. But the data show that these details do matter, and they will thus have substantial implications for who is included or excluded from this population – and any targeted programs, policies, and initiatives, as well.

In the second brief in this series, we will show more directly ("head-to-head") how differing definitions change who is included in the first-generation population, and how the average college readiness, application behavior, and other socioeconomic characteristics of these students changes as a result.

Figure 2. Highest reported degree of parents over time
Among domestic first-year applicants

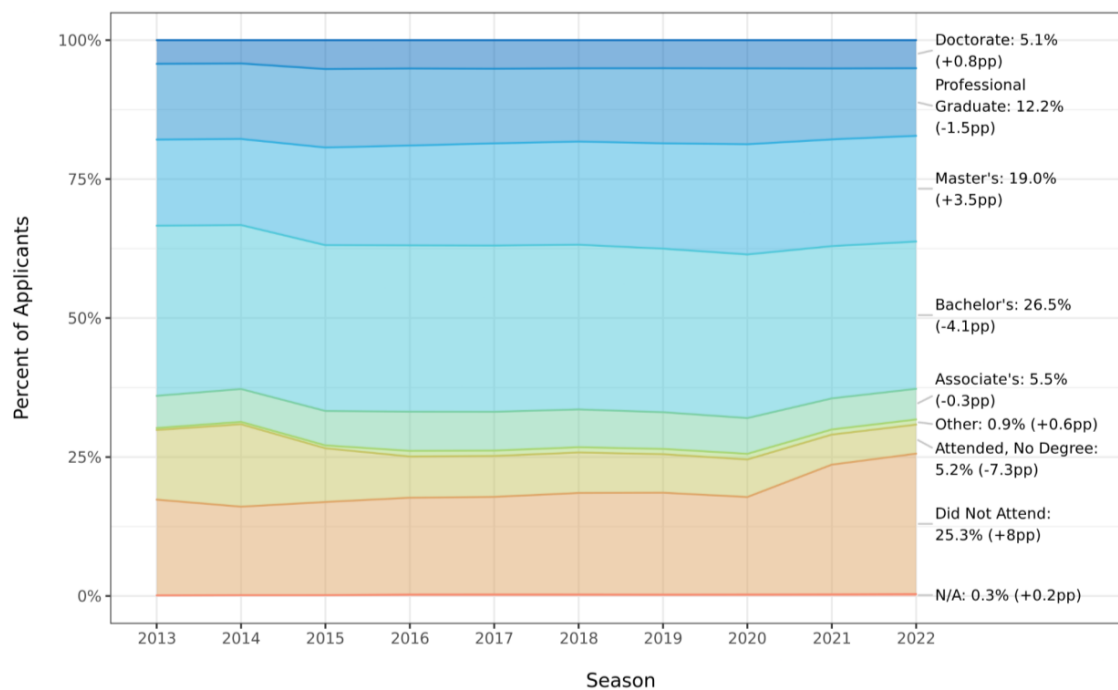


Figure 8. Highest reported U.S. degree of currently living household caregivers over time
Among domestic first-year applicants; considering only degrees received prior to student's birth

