EAB | Student Success Collaborative™

The Murky Middle Project

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We forge and find the **best new ideas and proven practices** from our vast network of leaders. Then we **customize and hardwire** them into your organization across your most critical functions.

Road Map for this Briefing

1. Rethinking Our Focus
2. Visualizing the Murky Middle
3. Understanding GPA Trends as an Indicator of Risk
4. Drilling into GPA Trends
5. Examining the Impact of Reversing Trends
6. Summary Findings

About Our Work

The Murky Middle Project: Student Data Methodology

Our research was conducted using the Student Success Collaborative's National Data Set, which contains historical student records from **70 public and private U.S. higher education institutions** that enroll between 2,000 and 40,000 undergraduates across most four-year Carnegie classifications.

The full Murky Middle Project data set included approximately **740,000 unique student records**. To allow students at minimum of six full years to complete their studies, the data set includes records for students that began their studies between the 2000-2001 academic year and the 2007-2008 academic year. All students in the full data set meet the following criteria:

- **Full-time status:** Full-time status was defined as any student attempting 12 or more credits in their first enrolled term.
- **First-time enrollees:** Transfer students were excluded. Transfer status was determined by student admission codes, if available, or using term-level data.

For inclusion in our murky-middle specific analyses (p. 6–8), students also needed to meet the following two criteria:

- **Two terms of enrollment**: To have a true first-year GPA, students needed to have enrolled in two academic terms within one calendar year of first enrollment; students that did not complete two terms were excluded from these analyses.
- **Cumulative GPA between 2.00 and 2.99** at the end of the first year of enrollment.

Analyses on these students investigated the differences between graduate and dropout cohorts in terms of GPA trends, credit attempt and completion patterns, and grade distributions. In this study, all departing students are labeled "dropouts"; however, many students transfer directly or re-enroll at another institution years later.

Rethinking Our Focus

Insight 1: Year One attrition is eclipsed by total attrition occurring in later years

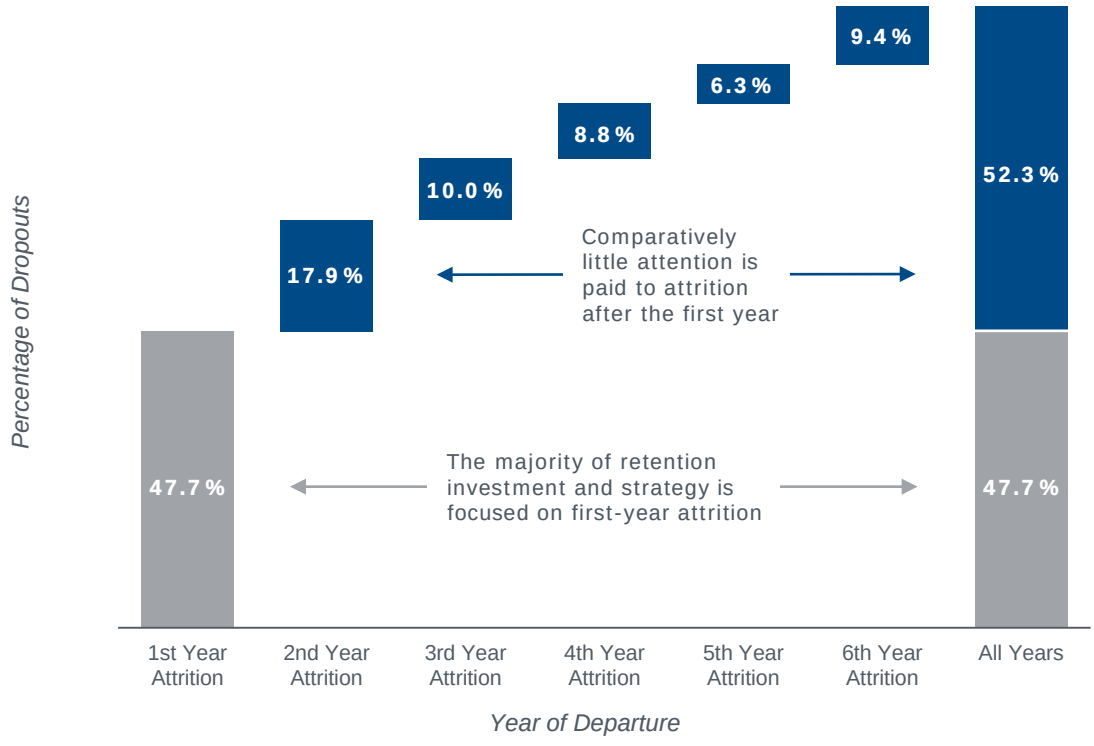
Despite years of investment, higher education has yet to meaningfully move the dial on graduation rates. Conventional wisdom and years of strategic tradition say that student success efforts should be focused on supporting first-year students as they make the difficult transition from high school.

While the first year undoubtedly represents a challenge for many students, our data shows that a school focusing its efforts solely on retaining students through the first year may actually be missing a large part of the problem. While the first year is verifiably the single biggest year for loss, over half of all student departure occurs in subsequent years.

We are not recommending that schools abandon their efforts to retain first-year students. Rather, we believe these findings should prompt a reevaluation of strategy and a supplemental investment in retention efforts targeted at reducing attrition in the second year and beyond. Such investments are critical for ensuring that any gains made in the first year carry through to graduation.

Timing of Dropout

SSC National Data Set



740K
Students in data set

48.4%
Overall graduation rate

Visualizing the Murky Middle

Insight 2: Late dropouts are concentrated among students with first-year GPAs of 2.0-3.0

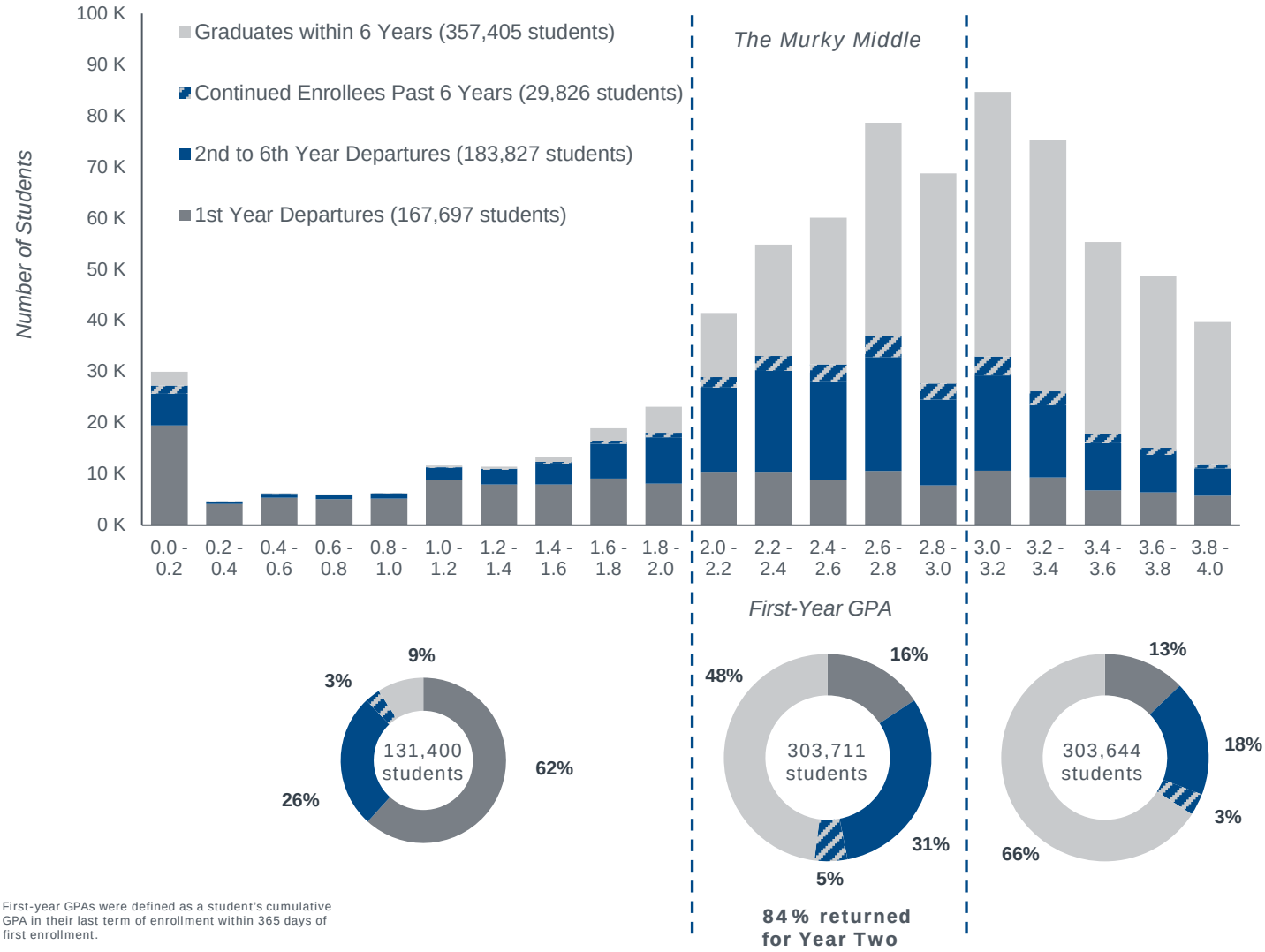
Comparatively little is known about students who leave college in their second year or later, or what can be done to better support them through to graduation. Before we can begin to develop effective intervention strategies targeting these students, we need to develop a better understanding of who might be at elevated risk of a "late-stage dropout" (defined as dropout in the second year or later).

Unsurprisingly, early academic performance is a reliable indicator of ultimate graduation outcome. Perhaps more surprising is that the vast majority of late-stage dropouts (shown in blue on the previous page) were in good academic standing with a GPA over 2.0 when they returned for a second year.

We found the largest population of later-stage dropouts to be clustered between a 2.0 and 3.0 GPA after the first year. Of the students in this range, 85% returned for a second year, yet just over half ultimately graduated. Nearly one-third dropped out in the second year or later. Because of their inherent ambiguity in graduation outcome, we've come to refer to the entire population of mid-range GPA students as "The Murky Middle."

Histogram of All Students by First-Year GPA[1]

SSC National Data Set



1) First-year GPAs were defined as a student's cumulative GPA in their last term of enrollment within 365 days of first enrollment.

Understanding GPA Trends as Indicators of Risk

Insight 3: Murky Middle dropouts display downward-trending GPAs well in advance of departure

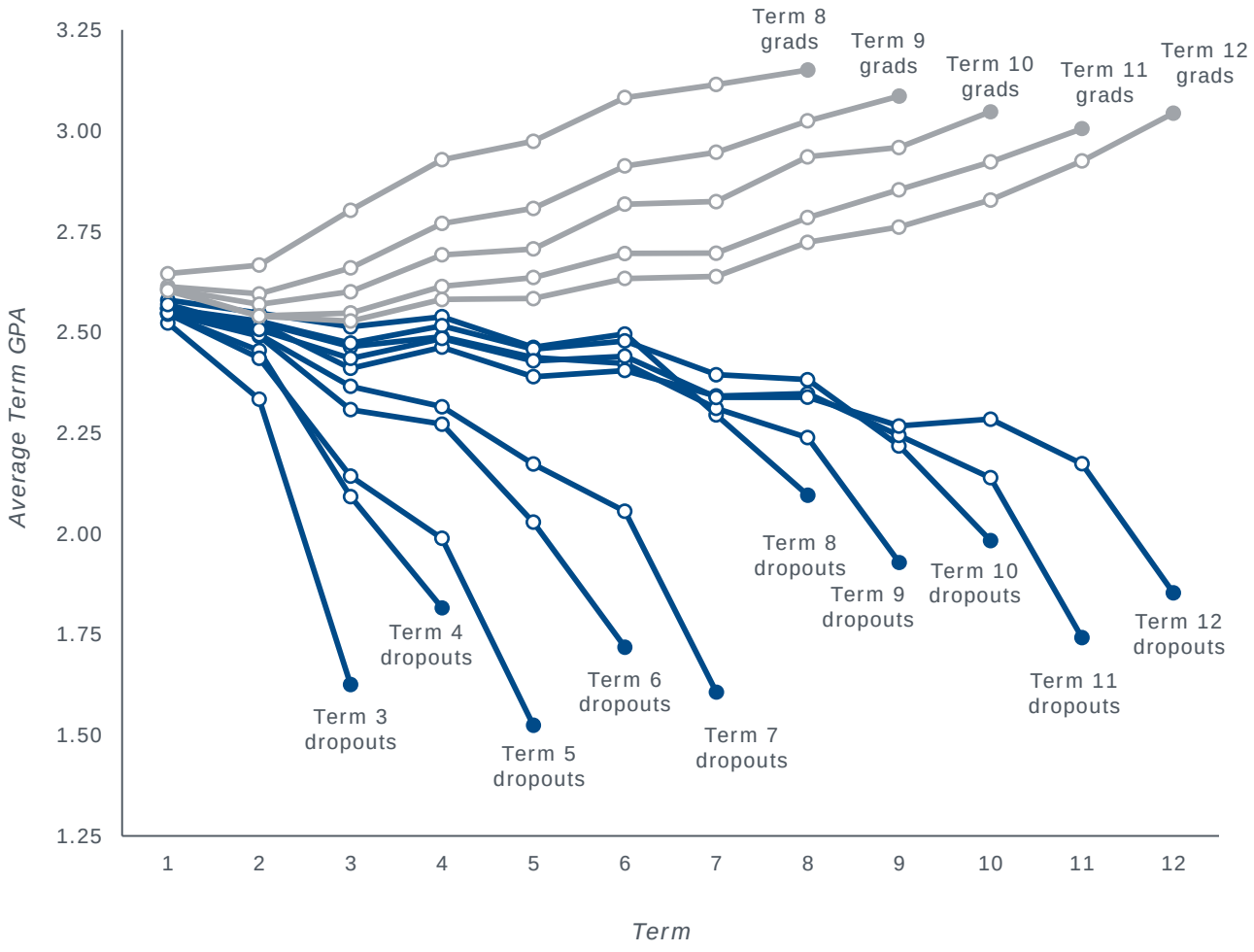
Differentiating likely dropouts from their ostensibly identical peers represents a key challenge for working with the Murky Middle. It is unrealistic for most schools to ask already over-capacity advising offices to regularly meet with every Murky Middle student to assess risk factors and likelihood of completion. Instead, they need reliable analytic indicators to narrow their search efforts to the cases most likely to be at risk.

Our research has identified one such indicator: term-over-term GPA trend. In aggregate, students who graduated improved their GPA each term. But the GPA for students who left school declined each term, with the slope of the decline correlated with the timing of departure. Notably, students did not fall below a 2.0 GPA until their final term, meaning that academic probation alone was not sufficient to catch the problem.

Perhaps our most important finding was that these downward trends began several terms before the term of departure. This suggests that downward-trending GPA could be used as an early indicator to intervene with high-risk students well in advance of dropout.

Term GPA Trends by Graduate and Dropout Cohort

SSC National Data Set, Students with First-Year GPA 2.0 to 3.0



Drilling into GPA Trends

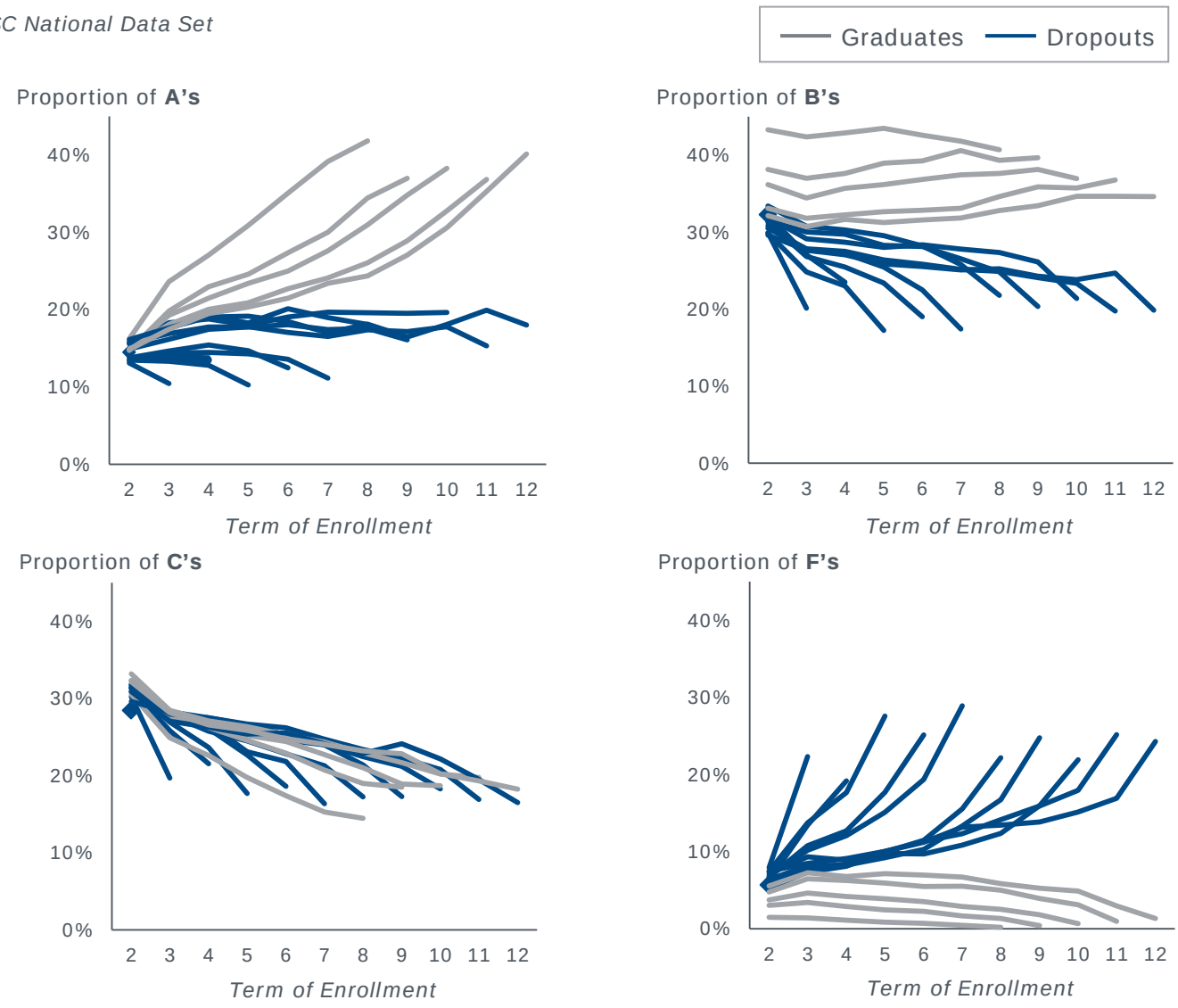
Insight 4: Downward GPA trends are driven by an increase in Fs, not a general decline across all courses

To further refine the downward GPA trend indicator, we examined the underlying grades driving these trends. We found that over time Murky Middle dropouts earned roughly the same number of A's per term, fewer B's and C's, and a gradually increasing number of Fs. This increase in the frequency of F's generally began several terms before the student dropped out, with a noticeable upswing in the term immediately preceding departure. These results show that the primary driver of downward-trending GPAs for Murky Middle dropouts is that they are failing in isolated courses, not that their performance is declining across the board.

While all Murky Middle students earn large numbers of B's and C's early in college, in some cases these grades precede future A's, while in other cases they precede future F's. Further research is required to determine if there are specific foundational courses in which an early B or C is more likely to foreshadow a future F.

Grade Distribution for Murky Middle Students Over Time[1]

SSC National Data Set



1) Graduate cohorts earn fewer D's over time and dropout cohorts earn similar numbers of D's each term. Graduate and dropout cohorts display similar patterns for W's as for F's above. D's and W's generally contribute less than 10% to the overall grades earned by students in our sample, therefore they were not displayed above.

Examining the Impact of Reversing Trends

Insight 5: Outcomes improve dramatically when downward trajectories are reversed

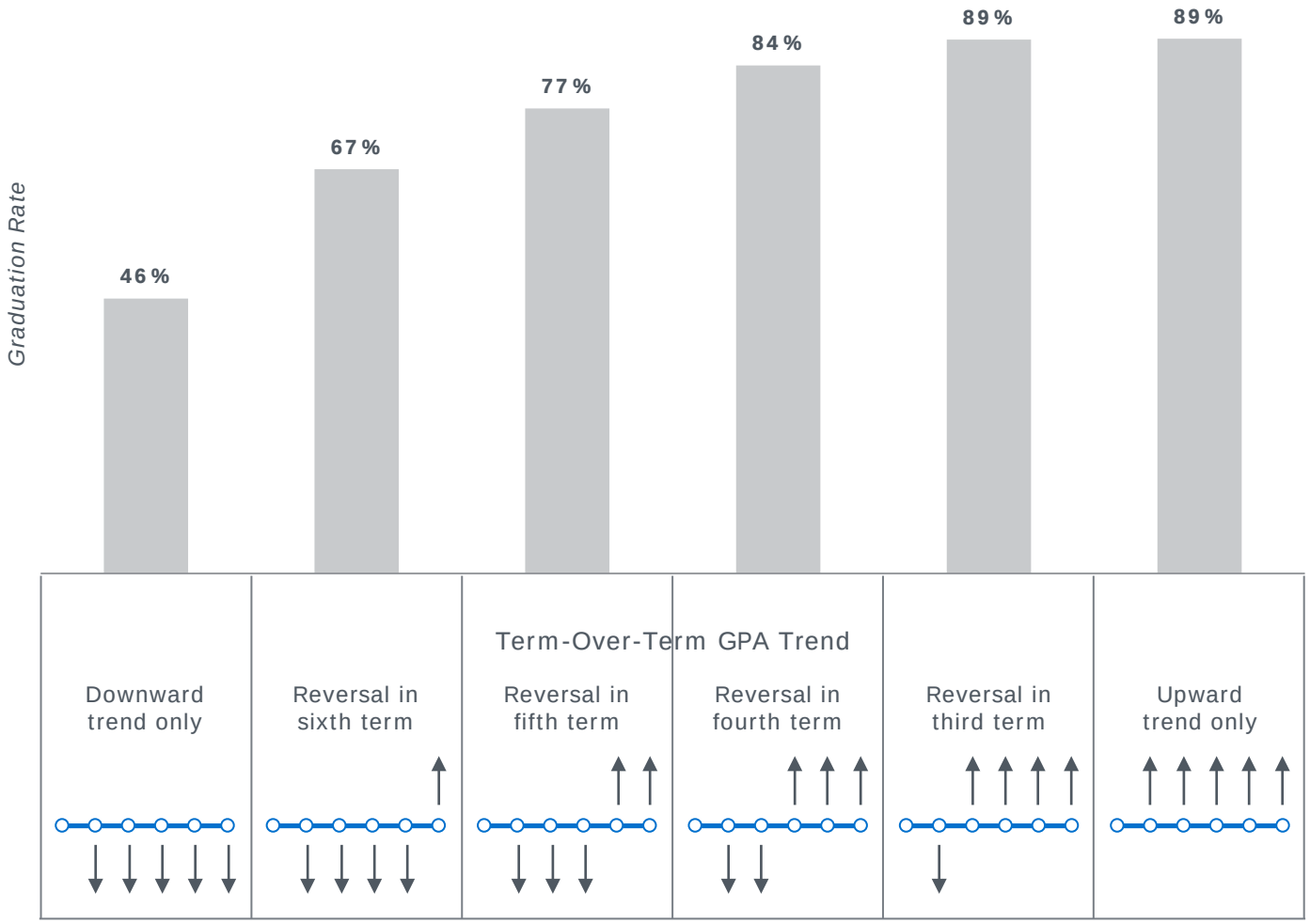
Is a student's fate sealed once his or her grades begin to decline, or can outcomes be improved if the trend is reversed? To answer this, we isolated Murky Middle students with a steady downward GPA trend followed by a reversal and steady upward trend. We then compared their graduation rates to peers with uniformly upward or downward trends. A sample analysis of students who completed at least six terms is shown here.

We found that students who reversed their GPA trends early on graduated at rates comparable to those who never had a downward trend. Those who reversed in later terms still experience improved outcomes when compared to students with no reversal. These results held consistent when we analyzed different term time frames.

Understanding the root causes of downward-trending GPA is beyond the scope of this study, and they are likely specific to each individual student. That said, schools that are successful in intervening with downward-trending students and ameliorating the factors behind these trends can expect to see notably improved outcomes.

Term GPA Trends vs. Graduation Outcomes

Students Who Complete at Least Six Terms



Summary Findings

The Murky Middle Project

1. Over half of all students who drop out of college do so in their second year or later.

2. These students receive proportionately little attention and represent a largely overlooked opportunity to improve graduation rates.

3. Late-stage dropouts are concentrated among students who finish their first year with a GPA between 2.0 and 3.0.

4. The 2.0-3.0 GPA range represents a **"Murky Middle"** within which graduation outcomes are difficult to predict a priori.

5. In aggregate, Murky Middle dropouts are differentiated by downward-trending term-over-term GPA.

6. GPAs begin their downward trend several terms before a student drops out, making them an important indicator of where schools should focus intervention efforts.

7. Downward trends are driven by an increase in F's eared in isolated courses, not by an overall decline in all course grades.

8. Further research is needed to understand if performance in certain foundational courses could be used to predict F's in upper-level courses.

9. Students who reverse a downward GPA trend can dramatically improve their odds of graduating.

To learn more about the Murky Middle or to hear how progressive institutions are leveraging these principles to improve student success, visit **EAB.com/studentsuccess**.

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› Answers to the most pressing issues

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1,100+
College and university members

10,000+
Research interviews per year

250M+
Course records in our student success analytic models

1.2B+
Student interactions

The Murky Middle Project

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