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# Freshman Course Credit and Unexcused Absences: An Arkansas Policy Analysis 

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# Freshman Course Credit and Unexcused Absences: <br> An Arkansas Policy Analysis 

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#### Abstract

: This policy analysis examines the implementation of A.C.A. 6-18-222, a statewide policy in Arkansas that addresses unexcused absences and course credit consequences for students. Using anonymized student-level data from the 2020-21 and 2021-22 school years ( $\mathrm{N}=65,651$ ), the study explores variations in policy implementation across districts and investigates the relationship between absences and course failures for freshmen. Our results highlight the wide variability in the number of allowed unexcused absences and the language of course credit consequence among districts. Additionally, our multivariate logistic regressions reveal FRL-eligible students more likely to fail a course after reaching their district's unexcused absence threshold. Lastly, we find once students reach their district's unexcused absence threshold, they more likely to fail a core course compared to a non-core course. Our findings provide insights into the variations of local policy implementation for student academic outcomes.


## Keywords:

9th grade year, fidelity, policy implementation, unexcused absences, local policies

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## I. Major Findings

- The number of unexcused absences allowed before considering course failure for students varies across Arkansas districts. Most districts allow ten unexcused absences, however, there is wide variation with some districts allowing as few as two or as many as fifteen unexcused absences.
- There is also variation in the wording regarding the consequences of unexcused absences. While most districts use language such as "may not receive credit," which indicates flexibility for each case and decision, some districts have stricter language stating students "shall not receive credit." Additionally, some districts provide no number of absences and no mention of consequences for unexcused absences in their policies.
- Of our full sample $(\mathrm{N}=65,651)$, nearly half of the freshman students reached their district's unexcused absence threshold, and about a quarter of the full sample fail at least one course.
- Students who reached or exceeded their district's unexcused absence threshold failed a course $40 \%$ of the time in districts with more permissive policy language, and $38 \%$ of the time in districts with stricter language in policy.
- Among students who have reached their district's unexcused absence threshold, those who are eligible to receive free-or-reduced price lunch (FRL-eligible) are six percentage points more likely to fail a course than those who are not FRL-eligible, holding all else equal.
- If an Arkansas freshman reaches their district's unexcused absence threshold, they are
eight percentage points more likely to fail a core course than a non-core course, holding all else equal.
- Overall, we find varying local implementations of the A.C.A 6-18-222 do not exacerbate or help the freshmen course failure problem for Arkansas students. We recommend districts continue to discuss the root causes of freshman course failures and implement evidence-based early warning indicators.


## II. Literature Review

## Failing

Course performance during the high school freshman year has been identified as a critical factor in predicting students' long-term educational outcomes. Researchers in Chicago find the high school freshman year grade point average (GPA) and number of semester course failures to indicate high school graduate prediction up to 80 percent accuracy (Allensworth \& Easton, 2007). Furthermore, these researchers find freshmen that fail at least one core course are four times less likely to graduate from high school on time (Allensworth \& Easton, 2007).

Beyond the immediate implications for high school completion, the impact of early academic achievement extends into post-secondary education and the labor market. At the Office for Education Policy, we find a one-point rise in freshman GPA to be associated with a 26percentage point increase in enrolling in college (Morris et al., 2021). Additionally, French et al. (2015) find GPAs to be positively associated with future earnings, educational attainment, and labor market outcomes. Given these implications, it is imperative to explore the factors influencing freshman success and failure.

In Arkansas, about a quarter of high school freshmen fail a course (Morris \& McKenzie, 2022). This statistic underscores the problem and highlights the urgency to address and understand freshman course failure. Although we find freshmen failure likelihoods vary by building configuration, we suggest the difference is due to a focus on the importance of student success in 9th grade among school leaders and faculty (Morris \& McKenzie, 2023a). In a recent Arkansas teacher survey, nearly $30 \%$ of teachers report they developed their grading practices by focusing on students' behaviors and futures and by adhering to traditional grading methods (Morris \& McKenzie, 2023b). Moreover, 12\% of the teachers surveyed claim to grade students fairly yet employ grading practices that aren't focused on mastery (Morris \& McKenzie, 2023b). Some teachers could be subject to various external constraints and limitations in school policies when determining whether or not a freshman passes a course.

## Schools and Policies

School policies operate within a complex education system influenced by local, state, and federal systems, as well as social, cultural, economic, and political factors. These factors can either support or impede the implementation of policies (Fixsen et al., 2005). Implementing education policies with fidelity is crucial for their successful impact, as fidelity refers to the degree of adherence to the intended directives outlined in the policy document (Fraser et al., 2009). However, fidelity can be hindered by factors such as insufficient resources, opposition from stakeholders, unclear policy language, lack of support or knowledge among school personnel, demanding work environments, and overwhelming responsibilities for educators in high-need schools (Fowler, 2013).

Anagnostopoulos and Rutledge (2007) shed light on the limits that school policies may have in improving schooling for students, raising important questions about the intended
beneficiaries of these policies. The impact of policy reforms can be constrained if schools are not held accountable to ensure compliance, as Anderson (2018) found that Arkansas schools serving a greater percentage of minority students were less likely to comply with a statewide policy eliminating the use of out-of-school suspensions for truancy. These findings highlight the significance of accountability mechanisms to ensure the effective implementation of policies.

Guerra et al. (2019) reveal that schools consistently using data during schoolwide improvement planning are more likely to follow policy implementation, emphasizing the role of data-driven decision-making in aligning policy goals with actual practice. Additionally, school administrators tend to place a higher value on policy implementation compared to teachers or other education support professionals (Hall \& Chapman, 2018). Nonetheless, implementing school policies can have positive impacts on students' perceptions of their learning and wellbeing (Vecchiarelli, 2006).

## Absences

School attendance has been shown to be important for student success. The Attendance Works (2023) group, which provides research and implications for schools, created a campaign to help school communities support student attendance. The organization finds that students who are chronically absent, defined as missing more than $10 \%$ of the school year, are more likely to fail courses in middle grades and less likely to graduate from high school. Chronic absenteeism has doubled since the start of the pandemic (Attendance Works, 2023). While absences have increased for all student demographic and programmatic groups, Black, Latino, and Native American students, students living in poverty, and English Language Learners have experienced the highest increases in absences since the pandemic (Attendance Works, 2023).

The Economic Policy Institute researchers Garcia and Weiss (2018) released a report about student absenteeism highlighting absence and testing data. The United States uses an assessment, the National Assessment of Educational Progress (NAEP), to measure fourth-, eighth-, and twelfth-grade students' academic performance in key subjects like math and English language arts (ELA) in order to evaluate and help improve education in American schools. Among eighth-grade students, those who missed three or more days the month before NAEP testing scored 0.3 to 0.6 standard deviations lower on the math portion compared to students who did not miss any days (Garcia \& Weiss, 2018). The researchers discovered that students receiving free-or-reduced priced lunch (FRL) services, which serves as a proxy for students facing socioeconomic disadvantages, are twice as likely to miss more than ten days of school compared to students not receiving FRL services. Additionally, students with individualized education plans (IEPs) are also twice as likely to have more than ten absences compared to students without IEPs (Garcia \& Weiss, 2018). These findings emphasize that missing school could contribute to lower achievement scores and highlight the higher likelihood of chronic absenteeism among FRL students and students with IEPs.

Education policy researchers, however, note that chronic absenteeism is not a new concern and that little progress has been made to improve chronic absenteeism rates (Jacob \& Lovett, 2017). Although conducted in 2007, a study by Allensworth and Easton provides valuable insights for student absenteeism and course failure. Their research reveals that the number of days students were absent in eighth grade was eight times more predictive of freshman year course failure than eighth grade test scores (Allensworth \& Easton, 2007). Moreover, the Chicago researchers find freshman year absences nearly as predictive of high
school graduation as overall high school GPAs. However, Jacob and Lovett (2017) note an IES randomized control trial conducted in the Midwest that implemented Early Warning Intervention and Monitoring Systems (EWIMS) resulted in reduced chronic absences and course failures, but didn't decrease the percentage of students with low GPAs nor result in any detectable impact on course credits earned. The researchers from IES concluded that the fidelity of EWIMS implementation was low and challenging for the participating schools (Faria et al., 2017). Thus, the lack of EWIMS causing student GPAs to decrease could potentially be attributed to the variability in school-level processes within this particular sample. Nevertheless, this study offers initial evidence that EWIMS can effectively reduce the percentage of students who are chronically absent and fail one or more courses (Faria et al., 2017). Further research and targeted interventions are needed to address chronic absenteeism comprehensively.

## III. Policy Problem Statement

Promulgated in 2011, the Arkansas state legislature passed A.C.A. 6-18-209: Adoption of student attendance policies, effect of excessive absences, which includes the statements:
"The board of directors of each school district in this state shall adopt student attendance policies. Each school district, as a part of its six-year educational plan, shall develop strategies for promoting maximum student attendance, including, but not limited to, the use of alternative classrooms and in-school suspensions in lieu of suspension from school. A student attendance policy may include excessive absences as a mandatory basis for denial of promotion or graduation."

Also promulgated in 2011 and to clarify the procedure for compliance, the Arkansas state legislature passed A.C.A. 6-18-222: Penalty for excessive absences, which includes the statement:
"The board of directors of each school district in this state shall adopt a student attendance policy, as provided for in 6-18-209, which shall include a certain number of excessive absences that may be used as a basis for denial of course credit, promotion, or graduation."

This statewide policy tasked each district with adopting a student attendance policy to be used as a basis for denial of course credit. This policy analysis addresses the varying implementation across districts of this portion of the state's A.C.A. 6-18-222 policy.

Specifically, we seek to answer these research questions (RQ):

- RQ1: How much does the threshold of number of absences vary across Arkansas districts? And how does the language of consequences vary after a student crosses the absence threshold?
- RQ2: How many Arkansas freshman course failures could be the result of the number of absences?
- RQ3: Are any student demographic and programmatic groups more likely to fail after reaching their districts' unexcused absence threshold?
- RQ4: Are Arkansas freshmen more likely to fail a core course than a non-core course after reaching the absence threshold set by their district?

In the following sections, we describe the data and methodology employed in this study.
Then, we present the findings and conclude by discussing the implications for districts in
Arkansas, as well as providing insights for future policy design.

## IV. Methods

## Data and Sample

Anonymized student-level data for Arkansas freshmen is a pooled sample from the two most recent years of data provided by the Arkansas Department of Education, school years 202021 and 2021-22. Our sample includes 65,651 first-time, full-time freshmen. Due to our prior research on freshman course failures (Morris \& McKenzie, 2023; Morris \& McKenzie, 2022; Morris et al., 2021), we limit the sample to freshmen only. Data include student demographic and programmatic characteristics, course grades, student absences, and student discipline infractions. In the data provided, student course grades are either numerical or grade letter values. We create a binary indicator of student course failure, defined as an F, E, NC, I-0, or 59 and below. Student absences and student discipline infractions are continuous variables.

Only 253 of these districts serve ninth-grade students. Of the twelve remaining districts, eleven of the districts do not serve ninth-grade students, and one district does not have student grade data in the anonymized-ADE data. Therefore, exclude these 12 districts in our policy analysis, and our pooled sample consists of 253 districts serving 65,651 ninth-grade students

To conduct our policy analysis, we examined the school websites of all 253 districts to gather information on their local implementation of the A.C.A. 6-18-222 policy. While some schools provided direct links to their board policies where policy variations were outlined, others incorporated their policy language within their student handbooks. We note that eight districts did not explicitly describe their A.C.A. 6-18-222 policy or mention any consequences related to course failure due to unexcused absences, and fifteen districts post their incomplete their A.C.A. 6-18-222.

Throughout this process, we maintained a Google sheet document to compile the policies or lack thereof from each district. A condensed version of our table can be found in the Appendix as Table 1a. Districts not included can be found in the Appendix as Table 2a. We then categorized the districts based on the permissive language used, including whether they stated that students "May Not" receive course credit, or "Shall Not" receive course credit. We also categorize "Missing" for the districts that did not finish their policy, and "No Mention" for the districts that did not mention any potential consequences regarding failure after reaching an unexcused absence threshold.

## Methodology

In our policy analysis, we examine the variations in wording and implementation of the A.C.A. 6-18-222 among Arkansas districts through a descriptive analysis. We provide data to illustrate the percentage of Arkansas freshmen who may be failing based on their number of absences. Then we conduct three multivariate logistic regressions and one multivariate regression using our pooled sample.

First, we explore whether specific student demographic or programmatic groups exhibit a higher likelihood of failing a course if they met or exceeded their district's unexcused absence threshold. Then, we investigate whether Arkansas freshmen are more prone to failing core courses (math, ELA, science, or social students) or non-core courses after reaching their district's absence threshold. Next, we explore if the districts employing "May Not" or "Shall Not" are more or less likely to demonstrate inequity in failure rates once students reach their district's unexcused absence threshold. And finally, we compare the failure likelihoods of students in the FRL program between the districts employing "May Not" or "Shall Not" language. To account
for variations at both the student and district levels, we incorporate controls for student demographic and programmatic characteristics, student prior achievement, district characteristics, student absences, and student discipline infractions in our models. These adjustments aim to provide a comprehensive analysis and understanding of the factors influencing freshman student performance and the relationship between absences and academic outcomes.

## V. Results

## Descriptive Analyses

To describe the demographic and programmatic characteristics of the districts, we provide Table 1 below. We distinguish the districts into four groups by their policy's language indicator: "May Not" receive credit, "Shall Not" receive credit, "Missing" for districts with incomplete policies, or "No Mention" for districts that do not mention course failure after reaching an unexcused absence threshold.

The largest category of the policy language indicators, "May Not," includes 71 percent of districts and is similar to the state's demographic and programmatic characteristics. We note, however, the Black student percentage and the percentage of students receiving FRL services are slightly higher for this group than the state's percentages. Moreover, their weighted average district enrollment of 4,952 is smaller than the state's weighted average district enrollment. Sixty-five percent of freshmen attend "May Not" districts.

Table 1: District Demographic and Programmatic Percentages by Policy Language Indicator

|  | State | May Not | Shall <br> Not | Missing | No Mention |
| :--- | ---: | ---: | ---: | ---: | ---: |
| \% White | 60 | 61 | 56 | 75 | 69 |
| \% Black | 19 | 22 | 15 | 7 | 13 |
| \% Hispanic | 15 | 12 | 21 | 14 | 13 |
| \% Other Races | 6 | 6 | 8 | 4 | 5 |
| \% Free or Reduced-Price Lunch | 61 | 63 | 58 | 66 | 54 |
| \% Gifted and Talented | 12 | 13 | 12 | 13 | 6 |
| \% English Language Learners | 6 | 5 | 9 | 6 | 5 |
| \% Special Education Services | 12 | 13 | 11 | 13 | 14 |
| Average District Enrollment | 6,328 | 4,952 | 10,568 | 1,495 | 2,725 |
| Number of Districts | 253 | 179 | 51 | 15 | 8 |
| Percentage of Districts | 100 | 71 | 20 | 6 | 3 |
| Number of Freshmen | 65,651 | 42,898 | 18,527 | 2,426 | 1,802 |
| Percentage of Freshmen | 100 | 65 | 28 | 4 | 3 |

The next policy language category, "Shall Not," includes 20 percent of districts and varies from the state's descriptive characteristics. The percentages of White and Black students are smaller than the state's percentage, and the percentages of Hispanic students and Other Race students are larger than the state's percentage. Additionally, the percentage of students receiving FRL services is somewhat lower in the "Shall Not" category compared to the state's overall percentage. Most notably, the "Shall Not" group the highest weighted average of district enrollment at 10,568 . This indicates the "Shall Not" group enrolls higher numbers of students, and that serve a higher composition of Hispanic and Other Race students and a lower composition of students receiving FRL services. Twenty-eight percent of freshmen attend "Shall Not" districts.

The "Missing" category includes six percent of Arkansas districts. The percentage of Black students is less than half of the state's percentage. These 15 districts serve $4 \%$ of freshmen, and are smaller in size with an average of 1,495 students who are mostly White and most likely to be eligible for FRL services. The remaining three percent of districts who have "No Mention" of course denial after reaching a certain number of absences, also have a high composition of White students compared to the state's percentage. These eight districts also have a low average district enrollment at 2,725 students and serve $3 \%$ of freshmen in the state. The percentage of students in "No Mention" districts receiving FRL services is smaller than the state's and the smallest of the four categories.

To describe the absence rates among freshmen for different student demographic and programmatic groups within our pooled sample, we provide Table 4 below. We again categorize the data based on four policy language indicators, distinguishing between districts employing "May Not," "Shall Not," "Missing," and "No Mention." Absence rates are calculated by dividing the number of days a student is present by the number of days that student is enrolled, and subtracting the resulting quotient from 100. We then calculate the average percentage of days absent for each student demographic and programmatic group and present them in Table 2 below.

Table 2: Percent of Days Absent by Freshman Demographic and Programmatic Characteristics and Policy Language Indicator

|  | State | May Not | Shall Not | Missing | No Mention |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Male | 6.3 | 6.5 | 5.9 | 6.4 | 5.1 |
| Female | 6.5 | 6.6 | 6.3 | 6.8 | 6.8 |
| White | 5.9 | 6.0 | 5.5 | 6.2 | 6.0 |
| Black | 8.1 | 8.0 | 8.4 | 7.7 | 7.9 |
| Hispanic | 6.5 | 7.0 | 6.0 | 7.9 | 4.2 |
| Other Races | 6.3 | 6.5 | 5.8 | 8.2 | 5.4 |
| Free or Reduced-Price | 7.3 | 7.4 | 7.1 | 7.6 | 5.4 |
| Lunch (FRL) | 5.1 | 5.2 | 4.7 | 4.7 | 6.6 |
| Non-FRL | 4.5 | 4.5 | 4.3 | 5.0 | 2.8 |
| Gifted and Talented | 7.8 | 8.4 | 7.2 | 8.4 | 4.4 |
| English Language Learners | 7.5 | 7.7 | 7.2 | 7.7 | 6.4 |
| Special Education | 6.4 | 6.6 | 6.1 | 6.6 | 6.0 |
| Total |  |  |  |  |  |

On average, Arkansas freshmen miss approximately $6.4 \%$ of their enrolled school days. By state average, male students exhibit a slightly lower absence rate (6.3\%) to female students (6.5\%), while White students have the lowest absence rate (5.9\%) and Black students have the highest absence rate (8.1\%). Students enrolled in the FRL program have an absence rate of about $7.3 \%$, while those not enrolled in the program have an absence rate of about $5.1 \%$.

Similar patterns emerge within the districts that employ the "May Not" language. Female students (6.6\%) have slightly higher absence rates than male students (6.5\%), White students (6.0\%) exhibit the lowest absence rate among ethnicities and races, while Black
students have the highest absence rate (8.0\%). Students enrolled in the FRL program demonstrate attendance rates approximately $2 \%$ higher than students not enrolled in the program (7.4\% vs. 5.2\%). The districts utilizing the "May Not" language experience slightly higher absence rates (6.6\%) than the state average (6.4\%).

Students in districts implementing the "Shall Not" language have lower absence rates, although similar patterns emerge regarding who has higher or lower absence rates. Male students exhibit lower absence rates (5.9\%) than their female counterparts (6.3\%), White students demonstrate absence rates (5.5\%) approximately 3\% lower than Black students (8.4\%), and students in the FRL program (7.1\%) have absence rates about $2.5 \%$ higher than students not in the program (4.7\%). Freshmen attending these districts miss school approximately $6.1 \%$ of the time.

The "Missing" language districts miss approximately $6.6 \%$ of their enrolled school days. Female students have a higher absence rate (6.8\%) than male students (6.4\%), and White students have a lower absence rate (6.2\%) than Black students (7.7\%). Students receiving FRL services (7.6\%) miss approximately $3 \%$ more days than students not receiving FRL services (4.7\%).

Students in districts that do not mention course failure after reaching an unexcused absence threshold display similar absence rates to the other two policy language indicator groups. Hispanic students in this group, however, now have the lowest absence rate at $4.2 \%$, while Black students maintain the highest absence rate, being absent approximately $7.9 \%$ of the time.

To explore how much the threshold of number of absences vary across Arkansas districts and how the language of consequences vary after a student crosses the absence threshold, our first research question, we find two areas of variation in the implementation of A.C.A. 6-18-222. First, the number of unexcused absences a student can have before districts consider course failure varies across the 253 Arkansas districts. We present the range of variation in Table 3.

Table 3: Range of Number of Unexcused Absences in A.C.A. 6-18-222 Policy

| Absence Number | Number of <br> Districts | Percentage of <br> Districts | Number of <br> Freshmen | Percentage of <br> Freshmen |
| :--- | ---: | ---: | ---: | ---: |
| no mention | 8 | 3.2 | 1,802 | 2.7 |
| "insert number" | 15 | 5.8 | 2,426 | 3.7 |
| 2 | 3 | 1.2 | 282 | 0.4 |
| 3 | 2 | 0.8 | 689 | 1.1 |
| 4 | 10 | 4.0 | 1,834 | 2.8 |
| 5 | 14 | 5.5 | 2,578 | 3.9 |
| 6 | 42 | 16.6 | 10,473 | 16.0 |
| 7 | 18 | 7.1 | 4,143 | 6.3 |
| 8 | 22 | 8.7 | 3,992 | 6.1 |
| 9 | 12 | 4.7 | 5,270 | 8.0 |
| 10 | 66 | 26.1 | 15,220 | 23.2 |
| 11 | 27 | 10.7 | 9,801 | 14.9 |
| 12 | 6 | 2.4 | 3,012 | 4.6 |
| 13 | 6 | 2.4 | 2,129 | 3.2 |
| 15 | 2 | 0.8 | 2,002 | 3.1 |
| Total | 253 | 100.0 | 65,651 | 100.0 |

As this table indicates, ten is the most frequent number of unexcused absences used by districts, and nearly a quarter of Arkansas freshmen attend a district that has this threshold. The second most frequent unexcused absence number is six. At the outliers of the range, three
districts allow only two unexcused absences, and two districts allow fifteen unexcused absences. Fifteen districts in Arkansas have not completely finished their policy. These districts have left the phrase "insert number" in parenthesis in their policy. Eight districts in Arkansas have not mentioned a course failure consequence once reaching a threshold of absences.

To determine how many Arkansas freshman course failures could be the result of the number of absences, our second research question, we present the number and percent of students that reached their district's unexcused absence threshold and the number and percent of student course failures in Table 4.

Table 4: Unexcused Absences and Course Failures Among Freshmen Who Failed At Least One Course by Policy Language

|  | Met Absence Indicator <br> Threshold |  | Failed Course |  | Met Absence Indicator <br> Threshold \& Failed |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  | N | Percent | N | Percent | N | Percent |
| May Not | 19,799 | 46.2 | 12,515 | 29.2 | 7,938 | 40.1 |
| Shall Not | 7,566 | 40.8 | 4,806 | 26.0 | 2,908 | 38.4 |
| Missing | N/A | N/A | 736 | 30.3 | $\mathrm{~N} / \mathrm{A}$ | $\mathrm{N} / \mathrm{A}$ |
| No Mention | N/A | $\mathrm{N} / \mathrm{A}$ | 512 | 28.4 | $\mathrm{~N} / \mathrm{A}$ | $\mathrm{N} / \mathrm{A}$ |
| State | 27,375 | 41.7 | 18,569 | 28.3 | 10,846 | 39.6 |

As Table 4 highlights, $41.7 \%(\mathrm{~N}=27,375)$ of our full sample of 65,651 freshman has reached the unexcused absence thresholds set by their districts. Only a little over a quarter (28.3\%), however, failed at least one course. Students in the "May Not" receive course credit language districts only fail at least one course $40.1 \%$ of the time after reaching the unexcused
absence thresholds. Considering the more punitive language associated with the "Shall Not" category regarding course credits, we anticipated a high proportion of students, nearly all 7,566, would fail at least one course. We observe, however, that only 2,908 students who reached the unexcused absence threshold set by their respective districts failed at least one course. This is only $38.4 \%$ of the students who met their district's unexcused absence threshold in the "Shall Not" category that did not receive credit for a course. The "Shall Not" category's composition of students who reach their district's unexcused absence threshold and fail a course is almost two percentage points smaller than the more permissive "May Not" category's composition.

We are unable to calculate the number of students who reach the unexcused absence thresholds for the 15 districts that have an incomplete policy and the 8 districts do not mention course credit consequences for unexcused absences. This limitation arises from the absence of data necessary to measure this indicator, so we exclude them from the subsequent analysis. Our second research question aimed to determine how many students are failing as a result of reaching the unexcused absence thresholds, which occurs approximately $40 \%$ of the time.

We present the number and percent of students that reached their district's unexcused absence threshold by the day range in Table 5 .

Table 5: Unexcused Absences and Course Failures Among Freshmen Who Failed At Least One Course by Absence Range

|  | Met Absence Indicator <br> Threshold |  | Failed Course |  | Met Absence Indicator <br> Threshold \& Failed |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  | N | Percent | N | Percent | N | Percent |
| no mention | $\mathrm{N} / \mathrm{A}$ | $\mathrm{N} / \mathrm{A}$ | 512 | 28.4 | $\mathrm{~N} / \mathrm{A}$ | $\mathrm{N} / \mathrm{A}$ |
| "insert number" | $\mathrm{N} / \mathrm{A}$ | $\mathrm{N} / \mathrm{A}$ | 736 | 30.3 | $\mathrm{~N} / \mathrm{A}$ | $\mathrm{N} / \mathrm{A}$ |
| 2 | 206 | 73.1 | 65 | 23.1 | 53 | 25.7 |
| 3 | 389 | 56.5 | 280 | 40.6 | 170 | 43.7 |
| 4 | 1,110 | 60.5 | 475 | 25.9 | 406 | 36.6 |
| 5 | 1,528 | 59.3 | 634 | 24.6 | 455 | 30.0 |
| 6 | 6,327 | 60.4 | 2,598 | 24.8 | 1,996 | 31.5 |
| 7 | 2,342 | 56.5 | 1,120 | 27.0 | 760 | 32.5 |
| 8 | 1,394 | 34.9 | 888 | 22.2 | 493 | 35.4 |
| 9 | 2,107 | 40.0 | 1,323 | 25.1 | 771 | 36.6 |
| 10 | 5,976 | 39.3 | 4,517 | 29.7 | 2,547 | 42.6 |
| 11 | 3,182 | 32.5 | 2,774 | 28.3 | 1,524 | 47.9 |
| 12 | 1,393 | 46.3 | 1,296 | 43.0 | 886 | 63.6 |
| 13 | 598 | 28.1 | 682 | 32.0 | 373 | 62.4 |
| 15 | 813 | 40.6 | 669 | 33.4 | 412 | 50.7 |
| State | 27,375 | 41.7 | 18,569 | 28.3 | 10,846 | 39.6 |

As highlighted in Table 4, Table 5 reflects that about $40 \%$ of the students in the state that reach their district's unexcused absence threshold also fail their course. In Table 5, we present these varying percentages as the range of unexcused absence thresholds increase. The highest percentage of students who reached their threshold and failed their course is the threshold of 12 absences ( $63.6 \%$ ). The lower range absence indicators have smaller percentages of students who reach the indicators and fail their courses ( $25.7 \%-36.6 \%$ ), and the higher range indicators have bigger percentages ( $47.9 \%-63.6 \%$ ). We do not have evidence that these students are failing their
courses because they've reached their unexcused absence indicators, but we do find that students that miss more days in districts with higher absence indicators have a higher likelihood of failing their courses.

## Multivariate Logistic Regressions

We utilize multivariate logistic regressions and an OLS regression to investigate our third and fourth research questions. These questions focus on the probability of student demographic and programmatic groups failing once they reach their unexcused absence threshold, the probability of failing a core course once reaching their unexcused absence threshold, and the likelihood of failure differences between districts employing "May Not" and "Shall Not". Given that student demographic and programmatic characteristics are often intercorrelated, we employ multivariate models to account for this interdependency. We utilize a logistic regression because our outcome of interest, failing at least one course, is binary.

We conduct our first analysis by controlling for student demographic and programmatic characteristics, student prior academic achievement, student absences, student disciplinary infractions, and district enrollment characteristics to predict the likelihood of course failure once meeting their district's unexcused absence threshold. Our sample for these analyses is limited to students in districts with "May Not" or "Shall Not" policy language as we do not have the necessary data to measure when students reach an indicator in districts where no threshold is mentioned. This reduces our analytic sample to 61,425 freshmen. Our first analysis model is below:

## Model 1



Where:

- failedi is the dependent variable of interest, probability of failing at least one course freshman year, for student $i$ in the pooled analysis
- $\chi_{i}$ is a vector of student-level characteristics including gender, race/ethnicity, participation in Free-or-Reduced Lunch Program (FRL), participation in Gifted and Talented Program (GT), participation in English Language Learning Program (ELL), participation in Special Education (SPED), number of absences, and number of disciplinary infractions all interacted with a binary indicator. The binary (indicator ${ }_{i}$ ) represents if students have reached their district's unexcused absence threshold.
- priorachievement $\boldsymbol{i}_{i}$ is a 7th and 8th grade standardized math and ELA score control added for each student $i$ in the pooled analysis
- $\boldsymbol{\Omega}_{i}$ is a vector of district characteristics including district enrollment and district FRL percentage
- districtlea $a_{i}$ is district controls added for each student
- $\boldsymbol{\epsilon}_{i}$ is the random error for student $i$ in the pooled analysis

The full results of this regression are included in the Appendix as Table 8a. Among the logistic regression results, we find similar results to our prior research without analyzing absence indicators. In our analysis of 2017-18 - 2018-19 freshmen, we find students receiving FRL services are nine percentage points more likely to fail a course than their economically
advantaged peers (Morris \& McKenzie, 2022). We found this finding to interpret to students receiving FRL services were twice as likely to fail a course compared to students not receiving FRL services. Now, for the 2020-21 - 2021-22 freshmen, we find students receiving FRL services are seven percentage points more likely to fail a course their freshman year compared to students not receiving FRL services. As we translate this into an odds ratio for times likelihood, we find that students receiving FRL services are 1.4 times as likely to fail a course compared to students not receiving FRL services. This result is smaller than found in our prior research.

We now focus on course failure likelihood while accounting for when a student reaches their absence indicator. Once any freshman reaches their district's unexcused absence threshold, they are 2 percentage points more likely to fail a course. While this is statistically significant at the $99 \%$ confidence level, we do not find this measure to be practically significant. To find the likelihoods of failure for student demographic and programmatic groups once reaching their district's unexcused absence thresholds, we interpret the interaction terms.

First, we find the among the students reaching their district's unexcused absence threshold, students receiving FRL services are six percentage points more likely to fail a course their freshman year than students not receiving FRL services. Next, among the students who reach their district's unexcused absence threshold, male students are six percentage points more likely to fail a course compared to their female counterparts.

Among the students reaching their threshold, students receiving GT services are six percentage points less likely to fail a course compared to their peers with similar academic abilities, yet not receiving GT services. Among the students reaching their threshold, students receiving ELL services are four percentage points less likely to fail a course compared to
students not receiving ELL services. Lastly, among the students who reach their district's unexcused absence threshold, students receiving SPED services are 18 percentage points less likely to fail a course their freshman year compared to students who are not receiving SPED services.

Our second model below explores the likelihood of failing a core course compared to a non-core course once reaching the unexcused absence threshold.

## Model 2

$\operatorname{Logit}\left(\right.$ failed $\left._{i}\right)=\beta_{0}+\beta_{1} \chi_{i}\left(\right.$ indicator $\left._{i}\right)+\beta_{2}$ priorachievement $_{i}+\beta_{3} \Omega_{i}+$ districtlea $_{i}+$ $\beta_{4}\left(\right.$ core $^{*}$ indicator $\left._{i}\right)+\epsilon_{i}$

Where:

- All variables in Model 1, and
- core*indicator $\boldsymbol{r}_{i}$ is the interaction of interest, probability of failing a core course compared to a non-core course given a student has reached their district's unexcused absence threshold

The full results of this regression are in the appendix as Table 9 a . Our coefficient contrast of interest is likelihood of failing a core course compared to a non-core course once a student has reached the unexcused absence threshold set by their district. Our results reflect that once a student has reached their district's unexcused absence threshold indicator, they are eight percentage points more likely to fail a core course compared to failing a non-core course. When we translate this to an odds ratio for a times likelihood, we find that students who reach their threshold are 1.5 times more likely to fail a core course than a non-core course.

To explore the results of our third and fourth research questions further, we conduct two more analyses. First, we utilize our first model and limit it to students in the "May Not" districts. We compare these results to same model limited to the students in the "Shall Not" districts. These results and their side-by-side comparisons can be found in the Appendix as Table 10a.

Comparing these two policy language category groups, we find once students reach their unexcused absence threshold, they are three times as likely to fail their course if they are in the "Shall Not" district compared to the "May Not" district. Additionally, students who are receiving FRL services and that have reached their unexcused absence are 2.5 times as likely to fail a course in the "May Not" districts compared to the "Shall Not" districts.

As we consider both groups of policy language indicators, we construct our last analysis as Model 3 below.

## Model 3

$\operatorname{Reg}\left(\right.$ failed $\left._{i}\right)=\beta_{0}+\beta_{1} \chi_{i}\left(*\right.$ language $\left._{i}\right)+\beta_{2}$ priorachievement $_{i}+\beta_{3} \Omega_{i}+$ districtlea $_{i}+\epsilon_{\mathrm{i}}$

Where:

- failed $_{i}$ is the dependent variable of interest, probability failing at least one course freshman year, for student $i$ in the pooled analysis
- $\chi_{i}$ is a vector of student-level characteristics including gender, race/ethnicity, participation in Free-or-Reduced Lunch Program (FRL), participation in Gifted and Talented Program (GT), participation in English Language Learning Program (ELL), participation in Special Education (SPED), number of absences, and number of disciplinary infractions
all interacted with a binary indicator. The binary ( language $_{i}$ ) represents a binary indicator of students who belong in the "May Not" districts or the "Shall Not" districts.
- priorachievement $i_{i}$ is a 7th and 8th grade standardized math and ELA score control added for each student $i$ in the pooled analysis
- $\boldsymbol{\Omega}_{i}$ is a vector of district characteristics including district enrollment and district FRL percentage
- districtlea ${ }_{i}$ is district controls added for each student
- $\boldsymbol{\epsilon}_{i}$ is the random error for student $i$ in the pooled analysis

The full results to our last analysis are in the Appendix as Table 11a. When examining if a student that receives FRL services is more or less likely to fail a course if they attend a "May Not" district compared to a "Shall Not" district, independent of reaching their indicator, we do not find statistically significant results. Moreover, students receiving FRL services are just as likely to fail a course their freshman year whether enrolled in the "May Not" districts or the "Shall Not" districts.

## VI. Discussion

The findings we present in this study shed light on the implementation and course failure associations of the A.C.A. 6-18-222 policy, which addresses student unexcused absences and course credit in Arkansas. Our sample included a pooled sample of the 2020-21 and 2021-22 academic years, comprising of 65,651 Arkansas freshmen. Through a descriptive analysis of the policy variations across districts and an examination of the relationship between absences and
student outcomes, we highlight the variations of this policy in districts throughout the state. This study examined the associations between the policy variations and implementations between districts and their likelihoods of follow-through on course failure for students. We now discuss the policy analysis variations, limitations, areas of future research, and implications of this policy analysis.

## Policy Implementation Variations

Our first analysis revealed highly variable implementations of the A.C.A. 6-18-222 policy across Arkansas districts. The number of unexcused absences allowed before considering course failure varied. The most frequent threshold, ten absences, was used by $26 \%$ Arkansas districts. The range of thresholds spanned from as low as 2 absences to as high as 15 absences. Notably, a portion (6\%) of districts had not finalized their policy language, leaving the phrase "insert number" in their policy document, and 3\% of Arkansas districts didn't mention course credit denial given an absence threshold at all.

The language used in the policy regarding consequences for course failure also varied among districts. While $70 \%$ of the districts utilized permissive language, allowing for discretion in determining course failure, $20 \%$ of districts employed language mandating the denial of course credit for students who exceed the absence threshold. Our findings highlight the lack of consistency in the implementation of the policy across districts.

Our second analysis found only about $40 \%$ of students who reached their district's unexcused absence threshold received a course failure regardless of the language used in local policy. This finding indicates that a majority of the students (60\%) who reached their district's
unexcused absence threshold in Arkansas did not receive a course failure. In our third analysis, we used multivariate logistic regression to examine if particular student demographic or programmatic groups were more prone to failure after surpassing their absence threshold. We controlled for student demographic and programmatic characteristics, prior achievement, absences, disciplinary infractions, and district characteristics. While our prior work finds students enrolled in the FRL program are nine percentage points more likely to fail at least one course freshman year than students who are not enrolled in the FRL program, we find this has decreased to seven percentage points.

When considering the associations between course failures and reaching absence thresholds, we found that a student is only two percentage points more likely to fail a course once they reach their district's unexcused absence threshold. Although this result is statistically significant, it lacks practical significance. Furthermore, among students who have reached their district's unexcused absence threshold, the likelihood of failing a course is six percentage points higher for economically disadvantaged students compared to their more advantaged peers. This suggests that the factors and inequities related to prior and current students receiving FRL services play a more significant role in course failures than the influence of the policy on freshmen failures. Various other significant factors contribute to the likelihood of course failure once the absence threshold is reached, beyond the influence of the policy alone.

Further analysis reveals that Arkansas freshmen were eight percentage points more likely to fail core courses compared to non-core courses after exceeding the absence threshold set by their district. After controlling for student demographic and programmatic characteristics, student prior academic achievement, student absences, student disciplinary infractions, and
district characteristics, we find students who reach or exceed their district's absence threshold are 1.5 times more likely to fail a core course compared to a non-core course. This highlights the possibility of core courses applying the language of their district's policy more consistently than non-core courses.

To dig further into the possible differences between the "May Not" districts and the "Shall Not" districts, we utilize our first logistic analysis to complete a side-by-side comparison of the two groups. We find the "Shall Not" districts are less likely to demonstrate inequities in failure rates among the students that reach their district's unexcused absence thresholds. The likelihood of course failure once a student receiving FRL services reaches their district's unexcused absence threshold is about 2.5 times as large in the "May Not" districts compared to the "Shall Not" districts. We do find, however, that these two groups of districts fail students receiving FRL services at the same rate. Moreover, students receiving FRL services in both categories are just as likely for course failure dependent of reaching their district's unexcused absence thresholds.

## Limitations

Despite the insights we provide in this study, some limitations arise. One limitation is this study's reliance on descriptive interpretations which prevent identifying a causal relationship between course failures and reaching a district's unexcused absence threshold. While we provide valuable associations, we cannot establish causality regarding whether or not a student receives course credit once they reach their threshold limit. Secondly, our study is limited to identifying the individual reasons for why some districts deny course credit to students who reach the unexcused absence threshold while granting it to others in similar situations. Gaining a deeper
understanding of the specific components that contribute to course credit decisions, even in the presence of numerous unexcused absences, could provide valuable additional insights.

## Future Research

Despite these limitations, this study contributes to our understanding of the implementation of A.C.A. 6-18-222 in Arkansas districts and our understanding of how districts implement policies. Future studies could address the reasons why some students are granted course credit even after reaching their unexcused absence threshold and why some districts elected to use more stringent language in their A.C.A. 6-18-222 policy. Additionally, future research could investigate how much of the implementation differs due to the absence effects of the COVID-19 pandemic, as districts across Arkansas could be highly variable in their followthrough of absence policy due to differing approaches on absences from sicknesses. Understanding the potential differences in implementation and the effects of changing absence thresholds on outcomes such as course failures and attendance rates would be valuable for future research. Moreover, future research could explore the root cause of chronic absenteeism, providing valuable insights into the underlying factors contributing to students' school absences.

## Policy Recommendations

The findings of our policy analysis underscore the importance of understanding freshman course failure in Arkansas. We questioned the associations of the A.C.A 6-18-222 policy on freshman course failures, and it is evident that the influence of this policy on course failure is not substantial, raising questions about the variation of its implementation and the need for stringent
language. We find this policy isn't exacerbating course failures for Arkansas freshmen, nor is it the root cause of freshmen course failure.

To address the variations discrepancy, we recommend that districts focus on reinforcing policy fidelity completely, increase days allowed in their unexcused absence thresholds, or remove their stringent "Shall Not" language. Ambiguous policy language has the potential to impede adherence to the intended guidelines. Districts should consider adjusting their policy language or the threshold for number of absences allowed. Each district should conduct an internal assessment of their own policy fidelity rates, allowing them to determine their own fidelity and implementation of their A.C.A 6-18-222 policy. These districts may consider contacting us at OEP for support and consultation for this internal assessment.

We find only $40 \%$ of freshmen that reach the unexcused absence threshold fail at least one course. While the majority of districts employ permissive language, some districts have chosen to adopt stricter language that leaves no room for discretion. As both the "May Not" and "Shall Not" district groups seem to apply the policy at the same rates, the marginal one percent difference in failure rates between districts with punitive and permissive language suggests that the value of punitive language in this policy is not meaningful. Considering the inconsistencies in policy implementation, we advise districts to reconsider the continued use of punitive language with this policy. Rather than relying on course failure as a punitive measure, which can have significant impacts on student success, districts could shift their focus towards addressing the root causes of student absenteeism and course failure. Overall, we find this policy is not part of the solution to freshman course failures. We suggest districts spend more time discussing the
root causes of why their freshmen are failing, and how this policy plays into their district's culture and make adjustments as necessary.

By shifting the focus from policy enforcement to addressing the underlying causes of student absenteeism and failure, districts can create a more supportive and conducive learning environment for all students. Evidence suggests that interventions such as Early Warning Intervention and Monitoring Systems (EWIMS) and efforts to improve school culture can effectively reduce student absences and increase engagement (Faria et al., 2017; Liu \& Lee, 2022). Attendance Works (2023) suggests a three-tiered approach for effective interventions: universal prevention strategies for all students, early intervention strategies for at-risk students, and targeted intensive support for students with the highest need without punitive interventions. To successfully implement these interventions, collaboration among administrators, educators, and stakeholders is crucial. By working together, they can develop strategies that cater to the unique needs of students and foster a sense of belonging within the school community.

By implementing the recommendations above, districts can foster academic success among Arkansas freshmen. Overall, it is crucial districts dive deeper into the factors contributing to freshman course failures, such as when teachers grade student behaviors, not just student abilities (Morris \& McKenzie, 2023b). As we analyzed implementation of A.C.A 6-18-222, our findings indicate that only $40 \%$ of freshmen that reach the unexcused absence threshold fail at least one course. Our findings underscore the need for districts to examine freshman course failures and implement proactive interventions that target the root causes of absenteeism to ensure improved outcomes for all Arkansas freshmen.

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## Appendix

## Table 1a

## Arkansas Districts' Absence Thresholds and Policy Language

| District | Threshold | Policy Language | Category | Source |
| :---: | :---: | :---: | :---: | :---: |
| Academics Plus Public Charter | 6 | shall not receive credit | shall not | Student Handbook |
| Alma | 10 | may not receive credit | may not | Student Handbook |
| Alpena | 4 | may not receive credit | may not | Student Handbook |
| Arkansas School for the Blind | 10 | may not receive credit | may not | Absentee Policy |
| Arkansas School for the Deaf | 10 | may fail to receive credit | may not | Attendance Policy |
| Arkadelphia | 9 | may not receive credit | may not | 4.7 |
| Arkansas Arts Academy | 11 | shall not receive credit | shall not | Attendance Policy |
| Arkansas Connections Academy | 11 | must miss no more than 10 days | may not | 4.2 |
| Arkansas Lighthouse Academies | 11 | may possibly lose credit | may not | Attendance Policy |
| Arkansas Virtual Academy | no mention | no mention | no mention | Student Handbook |
| Armorel | 10 | will be in jeopardy of losing credit | may not | Student Handbook |
| Ashdown | 7 | may not receive credit | may not | 4.7 |
| Atkins | 10 | shall not receive credit | shall not | Student Handbook |
| Augusta | 9 | possible loss of credit for courses | may not | Attendance Policy |
| Bald Knob | 10 | may not receive credit | may not | Student Handbook |
| Barton | 6 | may not receive credit | may not | 4.7 |
| Batesville | 5 | may not receive credit | may not | Attendance Policies |
| Bauxite | 10 | may not receive credit | may not | Student Handbook |
| Bay | 5 | may not receive credit | may not | Attendance Policies |
| Bearden | 6 | may not receive credit | may not | School Attendance |
| Beebe | 8 | may not receive credit | may not | Student Handbook |
| Benton | 7 | credit may be lost | may not | Student Handbook |
| Bentonville | 11 | shall not receive credit | shall not | 4.1 |
| Bergman | 10 | may not receive credit | may not | Student Handbook |
| Berryville | 11 | in danger of losing credit | may not | Student Handbook |
| Bismarck | 6 | may not receive credit | may not | Student Handbook |
| Blevins | 7 | may not receive credit | may not | 4.7 |
| Blytheville | 7 | shall not receive credit | shall not | Student Handbook |
| Booneville | 8 | may not receive credit | may not | Student Handbook |


| District | Threshold | Policy Language | Category | Source |
| :---: | :---: | :---: | :---: | :---: |
| Bradford | 6 | may not receive credit | may not | Student Handbook |
| Brinkley | insert number | may not receive credit | may not | Student Policies |
| Brookland | 6 | may not receive credit | may not | Student Handbook |
| Bryant | 8 | may not receive credit | may not | Student Handbook |
| Buffalo Island Central | 8 | potential loss of credit | may not | Attendance Policy |
| Cabot | 10 | shall not receive credit | shall not | Student Policies |
| Caddo Hills | 12 | may not receive credit | may not | Student Handbook |
| Calico Rock | insert number | may not receive credit | may not | Student Handbook |
| Camden Fairview | 10 | may not receive credit | may not | Student Handbook |
| Carlisle | 10 | will result in loss of credit and a grade of " $F$ " | shall not | Student Handbook |
| Cave City | 13 | may not receive credit | may not | Student Handbook |
| Cedar Ridge | 8 | shall not receive credit | shall not | Student Handbook |
| Cedarville | insert number | may not receive credit | may not | 4.7 |
| Centerpoint | no mention | no mention | no mention | Student Handbook |
| Charleston | 2 | may not receive credit | may not | Student Handbook |
| Clarendon | 6 | may not receive credit | may not | Student Handbook |
| Clarksville | 13 | may not receive credit | may not | Student Handbook |
| Cleveland County | 7 | credit for courses in progress may be denied | may not | Student Handbook |
| Clinton | insert number | may not receive credit | may not | Student Handbook |
| Concord | 10 | may not receive credit | may not | Student Handbook |
| Conway | 10 | shall not receive credit | shall not | 4.7 |
| Corning | 7 | may not receive credit | may not | Student Handbook |
| Cossatot River | 8 | will not receive credit | shall not | Student Handbook |
| Cotter | 8 | shall not receive credit | shall not | Student Handbook |
| County Line | 7 | may not receive credit | may not | Student Handbook |
| Crossett | 3 | will lose credit | shall not | Student Handbook |
| Cutter-Morning Star | 12 | may not receive credit | may not | Section 4 |
| Danville | 5 | could possibly lose credit | may not | Student Handbook |
| Dardanelle | 10 | may lose credit | may not | Student Handbook |
| Decatur | 10 | shall not receive credit | shall not | Student Handbook |
| Deer/Mt. Judea | 8 | may not receive credit | may not | Student Handbook |
| DeQueen | insert number | will lose credit in the course | shall not | Student Handbook |
| Dermott | 10 | may not receive credit | may not | Absences |
| Des Arc | 10 | may not receive credit | may not | Student Handbook |


| District | Threshold | Policy Language | Category | Source |
| :---: | :---: | :---: | :---: | :---: |
| DeWitt | 10 | may not receive credit | may not | Student Handbook |
| Dierks | 6 | may not receive credit | may not | Student Handbook |
| Division of Youth Services | no mention | no mention | no mention | State Required Information |
| Dollarway | 10 | may result in loss of credit | may not | Student Handbook |
| Dover | 9 | may not receive credit | may not | Student Handbook |
| Drew Central | 6 | may not receive credit | may not | Attendance Policies |
| Dumas | 10 | may not receive credit | may not | Attendance Policy |
| Earle | 5 | may not receive credit | may not | 4.7 |
| East End | 10 | may not receive credit | may not | Student Handbook |
| East Poinsett County | 2 | may be denied... withholding of a credit | may not | 4.7 |
| El Dorado | 10 | may not receive credit | may not | Section 4 |
| Elkins | 6 | may not receive credit | may not | 4.7 |
| Emerson-Taylor-Bradley | 10 | may not receive credit | may not | Student Handbook |
| England | 11 | shall not receive credit | shall not | Student Handbook |
| eStem Public Charter | 10 | no credit may be given | may not | Attendance Policy |
| Eureka Springs | 10 | may not receive credit | may not | Student Handbook |
| Farmington | 10 | may not receive credit | may not | Student Handbook |
| Fayetteville | 6 | may not receive credit | may not | Student Handbook |
| Flippin | 13 | may not receive credit | may not | Section 4 |
| Fordyce | 10 | denial of credit | shall not | Student Handbook |
| Foreman | 4 | may not receive credit | may not | Student Handbook |
| Forrest City | 10 | shall not receive credit | shall not | Student Handbook |
| Fort Smith | 15 | credit may be denied | may not | Student Handbook |
| Fouke | 9 | the right to deny | may not | Student Handbook |
| Founders Classical Academies of Arkansas | 11 | a determination will be made as to whether to deny credit | may not | Campus Procedures Addendum |
| Fountain Lake | insert number | may not receive credit | may not | 4.7 |
| Future School of Fort Smith | 10 | credit shall be given only at the discretion of the instructor and administration | may not | Community $\underline{\text { Handbook }}$ |
| Genoa Central | 10 | shall not receive credit | shall not | 4.7 |
| Gentry | 10 | may not receive credit | may not | Student Handbook |
| Glen Rose | 6 | shall not receive credit | shall not | Attendance Policy |
| Gosnell | 10 | may not receive credit | may not | Student Handbook |
| Graduate Arkansas Charter | no mention | no mention | no mention | Student Attendance Policies |


| District | Threshold | Policy Language | Category | Source |
| :---: | :---: | :---: | :---: | :---: |
| Gravette | 11 | credit will be lost | shall not | Student Handbook |
| Green Forest | 10 | may not receive credit | may not | Student Handbook |
| Greenbrier | 6 | may not receive credit | may not | Student Attendance Policies |
| Greene County Tech | 13 | may not receive credit | may not | 4.7 |
| Greenland | 7 | may not receive credit | may not | Section 4 |
| Greenwood | 6 | may not receive credit | may not | Attendance Policy |
| Gurdon | 10 | will receive a grade of "No Credit" | shall not | Student Handbook |
| Guy-Perkins | 10 | may not receive credit | may not | Section 4 |
| Haas Hall Academy | 4 | may not receive credit | may not | Scholar Handbook |
| Hackett | 8 | may not receive credit | may not | High School Handbook |
| Hamburg | 6 | may not receive credit | may not | Section 4 |
| Hampton | 7 | shall not receive credit | shall not | Student Attendance Policy |
| Harmony Grove (Saline) | 5 | may not receive credit | may not | Student Handbook |
| Harmony Grove (Ouachita) | 10 | may result in loss of credit | may not | Student Handbook |
| Harrisburg | 6 | may not receive credit | may not | Student Handbook |
| Harrison | 5 | may not receive credit | may not | 4.7 |
| Hazen | 9 | shall not receive credit | shall not | Attendance Policies |
| Heber Springs | 11 | may not receive credit | may not | Section 4 |
| Hector | 8 | may not receive credit | may not | Attendance Policy |
| Helena/West Helena | 10 | shall be retained and/or not receive credit | shall not | $\frac{\text { Secondary Student }}{\text { Handbook }}$ |
| Hermitage | 2 | may not receive credit | may not | Student Handbook |
| Highland | 5 | may not receive credit | may not | Student Handbook |
| Hillcrest | 10 | may not receive credit | may not | Attendance Policy |
| Hope | 11 | may be denied course credit | may not | Attendance Policy |
| Horatio | insert number | may not receive credit | may not | 4.7 |
| Hot Springs | 8 | may not receive credit | may not | Student Handbook |
| Hoxie | no mention | no mention | no mention | Student Handbook |
| Huntsville | 6 | may not receive credit | may not | Section 4 |
| Izard County Consolidated | 10 | will be denied credit | shall not | Attendance Policy |
| Jackson County | 8 | may not receive credit | may not | Student Handbook |
| Jacksonville North Pulaski | 10 | may not receive credit | may not | Section 4 |
| Jasper | insert number | may not receive credit | may not | Section 4 |
| Jessieville | 6 | may not receive credit | may not | Student Handbook |
| Jonesboro | 7 | shall not receive credit | shall not | Section 4 |


| District | Threshold | Policy Language | Category | Source |
| :---: | :---: | :---: | :---: | :---: |
| Junction City | 6 | may not receive credit | may not | Section 4 |
| KIPP Delta | 10 | shall not receive credit | shall not | Policy Manual |
| Kirby | 8 | may not receive credit | may not | Student Handbook |
| Lafayette County | 4 | may not receive credit | may not | Student Attendance Policies |
| Lake Hamilton | 6 | may not receive credit | may not | Student Handbook |
| Lakeside (Chicot) | 5 | may not receive credit | may not | Section 4 |
| Lakeside (Garland) | no mention | no mention | no mention | Section 4 |
| Lamar | 8 | may not receive credit | may not | Student Handbook |
| Lavaca | 10 | may not receive credit | may not | Student Handbook |
| Lawrence County | 8 | before credit is denied | shall not | Student Handbook |
| Lead Hill | 10 | may not receive credit | may not | Section 4 |
| Lee County | 6 | may not receive credit | may not | Student Handbook |
| Lincoln | 5 | may not receive credit | may not | Student Handbook |
| LISA Academy | 9 | credit may be denied | may not | Student Handbook |
| Little Rock | 12 | may not receive credit | may not | Section 4 |
| Lonoke | 6 | may not receive credit | may not | Student Handbook |
| Magazine | 7 | may not receive credit | may not | Student Handbook |
| Magnet Cove | 4 | may not receive credit | may not | Student Handbook |
| Magnolia | 10 | may not receive credit | may not | Maintaining a Good School Atmosphere |
| Malvern | 6 | may not receive credit | may not | Student Handbook |
| Mammoth Spring | 11 | may result in losing credit | may not | Student Handbook |
| Manila | 4 | may not receive credit | may not | Student Attendance Policy |
| Mansfield | insert number | may not receive credit | may not | Student Handbook |
| Marion | 5 | shall not receive credit | shall not | Attendance Policy |
| Marked Tree | 10 | may not receive credit | may not | Student Handbook |
| Marmaduke | 12 | may not receive credit | may not | Student Handbook |
| Marvell-Elaine | 13 | may not receive credit | may not | Student Handbook |
| Mayflower | 6 | may not receive credit | may not | Student Handbook |
| Maynard | 9 | will not receive credit | shall not | Student Handbook |
| McCrory | 11 | may not receive credit | may not | Student Handbook |
| McGehee | 8 | shall not receive credit | shall not | Student Handbook |
| Melbourne | 6 | may not receive credit | may not | Student Handbook |
| Mena | insert number | may not receive credit | may not | Student Handbook |
| Midland | 11 | may not receive credit | may not | Student Handbook |
| Mineral Springs | 8 | shall not receive credit | shall not | Student Handbook |
| Monticello | 6 | may not receive credit | may not | Student Handbook |


| District | Threshold | Policy Language | Category | Source |
| :---: | :---: | :---: | :---: | :---: |
| Mount Ida | 6 | may not receive credit | may not | Student Handbook |
| Mountain Home | 6 | may not receive credit | may not | Student Handbook |
| Mountain Pine | 10 | shall not receive credit | shall not | Student Handbook |
| Mountain View | 7 | may not receive credit | may not | Attendance Policy |
| Mountainburg | 10 | may not receive credit | may not | Section 4 |
| Mt. Vernon/Enola | 6 | may not receive credit | may not | Section 4 |
| Mulberry/Pleasant View BiCounty | 15 | may not receive credit | may not | Student Attendance Policies |
| Nashville | no mention | no mention | no mention | Student Handbook |
| Nemo Vista | 9 | may not receive credit | may not | Section 7 |
| Nettleton | 6 | may not receive credit | may not | Section 4 |
| Nevada | 5 | may lose credit | may not | Student Handbook |
| Newport | 5 | may not receive credit | may not | Student Handbook |
| Norfork | 10 | Students may receive a failing grade $(F)$ with NO credit for the semester. | may not | Student Handbook |
| North Little Rock | 13 | may not receive credit | may not | Student Handbook |
| Omaha | no mention | no mention | no mention | Student Handbook |
| Osceola | insert number | may not receive credit | may not | Attendance Policy |
| Ouachita River | 12 | may not receive credit | may not | Student Handbook |
| Ouachita | 6 | may not receive credit | may not | 4.7 |
| Ozark Mountain | 11 | may not receive credit | may not | Absences |
| Ozark | insert number | may not receive credit | may not | Student Attendance |
| Palestine-Wheatley | 10 | may not receive credit | may not | $\underline{\text { Student Policies }}$ |
| Pangburn | 8 | may not receive credit | may not | 4.7 |
| Paragould | 4 | may not receive credit | may not | Student Attendance Policies |
| Paris | 10 | may be denied credit for given class | may not | Student Handbook |
| Parkers Chapel | 6 | shall not receive credit | shall not | Student Handbook |
| Pea Ridge | insert <br> number | may not receive credit | may not | Attendance Policy |
| Perryville | 10 | may not receive credit | may not | Attendance Policies |
| Piggott | 7 | shall not receive credit | shall not | Student Handbook |
| Pine Bluff | 11 | may be denied credit | may not | Student Handbook |
| Pocahontas | 6 | shall not receive credit | shall not | Student Attendance Policies |
| Pottsville | 10 | may not receive credit | may not | Student Handbook |
| Poyen | 6 | may not receive credit | may not | Section 4 |
| Prairie Grove | 10 | may not receive credit | may not | Student Handbook |


| District | Threshold | Policy Language | Category | Source |
| :---: | :---: | :---: | :---: | :---: |
| Prescott | 10 | will be denied credit | shall not | Student Handbook |
| Pulaski County Special | 10 | may not receive credit | may not | Section 4 |
| Quitman | 8 | may not receive credit | may not | Student Handbook |
| Rector | 6 | may not receive credit | may not | Student Handbook |
| Responsive Ed Solutions Premier High School of Little Rock | 11 | to receive credit in a class a student must miss no more than 10 days | shall not | Student Handbook |
| Responsive Ed Solutions Northwest Arkansas Classical Academy | 11 | to receive credit in a class a student must miss no more than 10 days | shall not | Student Handbook |
| Responsive Ed Solutions Premier High School of North Little Rock | 11 | to receive credit in a class a student must miss no more than 10 days | shall not | Student Handbook |
| Responsive Ed Solutions Premier High School of Springdale | 11 | to receive credit in a class a student must miss no more than 10 days | shall not | Student Handbook |
| Rivercrest | 10 | may not receive credit | may not | Section 4 |
| Riverside | 4 | may not receive credit | may not | Absence Policy |
| Riverview | 10 | may not receive credit | may not | Student Handbook |
| Rogers | 11 | student has lost credit | shall not | $\frac{\text { Student Attendance }}{\text { Policy }}$ |
| Rose Bud | 8 | will result in loss of credit | shall not | Attendance Policy |
| Russellville | 6 | may not receive credit | may not | Student Handbook |
| Salem | 11 | will result in a student not receiving credit | shall not | Student Handbook |
| Scranton | 10 | may not receive credit | may not | Student Handbook |
| Searcy County | 9 | shall not receive credit | shall not | Student Handbook |
| Searcy | 6 | may not receive credit | may not | Student Handbook |
| Sheridan | 7 | may not receive credit | may not | Student Handbook |
| Shirley | 11 | may not receive credit | may not | Attendance Policies |
| Siloam Springs | 3 | may be denied credit | may not | Student Policy Manual |
| Sloan-Hendrix | 7 | may not receive credit | may not | Student Handbook |
| Smackover-Norphlet | 10 | may not receive credit | may not | 4.7 |
| South Conway County | 10 | may not receive credit | may not | Student Handbook |
| South Pike County | 5 | may not receive credit | may not | Student Handbook |
| South Side (Van Buren) | 11 | may not receive credit | may not | $\underline{\text { Inaccessible }}$ |
| Southside (Independence) | 10 | may not receive credit | may not | Student Handbook |
| Spring Hill | 10 | may not receive credit | may not | Student Handbook |
| Springdale | 9 | will not be eligible | shall not | 4.7.3 |


| District | Threshold | Policy Language | Category | Source |
| :---: | :---: | :---: | :---: | :---: |
| Star City | 10 | may not receive credit | may not | Section 4 |
| Strong-Huttig | 11 | may be denied credit | may not | Attendance Policy |
| Stuttgart | 6 | shall not receive credit | shall not | Student Handbook |
| Texarkana | 11 | may not receive credit | may not | Student Handbook |
| Trumann | 7 | will lose credit | shall not | 4.7 |
| Two Rivers | insert number | may not receive credit | may not | Section 4 |
| Valley Springs | 7 | loss of credit will occur | shall not | Administrative Policies |
| Valley View | 6 | may not receive credit | may not | Student Handbook |
| Van Buren | 11 | may be denied course credit | may not | $\underline{\text { Pointer Procedures }}$ |
| Vilonia | 6 | shall not receive credit | shall not | Section 4 |
| Viola | 8 | may not receive credit | may not | Student Handbook |
| Waldron | 4 | may not receive credit | may not | Attendance Policy |
| Warren | 9 | shall not receive credit | shall not | Student Handbook |
| Watson Chapel | 10 | could lose course credit | may not | Student Handbook |
| West Fork | 4 | may not receive credit | may not | Student Handbook |
| West Memphis | 11 | may not receive credit | may not | Student Handbook |
| West Side (Cleburne) | 6 | may not receive credit | may not | Section 4 |
| Western Yell County | 12 | may not receive credit | may not | Attendance Policy |
| Westside Consolidated (Craighead) | insert <br> number | may not receive credit | may not | Section 4 |
| Westside (Johnson) | 6 | may not receive credit | may not | Attendance Policy |
| White County Central | 10 | may be the basis for denial of course credit | may not | Student Handbook |
| White Hall | 9 | may not receive credit | may not | Attendance |
| Wonderview | 7 | may not receive credit | may not | 4.7 |
| Woodlawn | 8 | may not receive credit | may not | Student Handbook |
| Wynne | 10 | shall not receive credit | shall not | Student Policies |
| Yellville-Summit | 5 | may not receive credit | may not | Student Handbook |

## Table 2a

Arkansas Districts Not Included in Policy Analysis

## District

Capital City Lighthouse Academy
Cross County School District*
Exalt Academy of Southwest Little Rock
Friendship Aspire Academy Little Rock
Friendship Aspire Academy Pine Bluff
Friendship Aspire Academy Southeast
Hope Academy of Northwest Arkansas
Imboden Charter School District
Pine Bluff Lighthouse Academy
Scholarmade Achievement Place of Arkansas
The Excel Center
Westwind School of Performing Arts
Note: These Arkansas districts do not serve freshmen for the years 2020-21 or 2021-22.
*Anonymized data from ADE did not include Cross County School District freshmen grades for years 2020-21 or 2021-22.

Table 8a
Estimated Predictors of Having Failed at Least One Course Freshman Year with Reaching a District's Unexcused Absence Threshold

| VARIABLES | Contrast | Std. Err. | z | $\mathrm{P}>\mathrm{z}$ |
| :--- | :--- | :--- | :--- | :--- |
| indc | 0.02 | 0.01 | 3.42 | 0.00 |
| 1 vs 0 |  |  |  |  |
| isFRL | 0.07 | 0.00 | 15.77 | 0.00 |
| 1 vs 0 |  |  |  |  |
| indc\#isFRL | 0.08 | 0.01 | 12.86 | 0.00 |
| $\left(\begin{array}{lll}0 & 1\end{array}\right)$ vs $\left(\begin{array}{ll}0 & 0\end{array}\right)$ | 0.03 | 0.01 | 3.75 | 0.00 |
| $\left(\begin{array}{lll}1 & 0\end{array}\right)$ vs $\left(\begin{array}{ll}0 & 0\end{array}\right)$ | 0.01 | 12.92 | 0.00 |  |
| $\left(\begin{array}{lll}1 & 1\end{array}\right)$ vs $\left(\begin{array}{ll}0 & 0\end{array}\right)$ | -0.05 | 0.01 | -6.99 | 0.00 |
| $\left(\begin{array}{lll}1 & 0\end{array}\right)$ vs $\left(\begin{array}{ll}0 & 1\end{array}\right)$ |  |  |  |  |


| VARIABLES | Contrast | Std. Err. | Z | $\mathrm{P}>\mathrm{Z}$ |
| :---: | :---: | :---: | :---: | :---: |
| (1 1) vs (0 1) | 0.01 | 0.01 | 1.98 | 0.05 |
| (11) vs (10) | 0.06 | 0.01 | 10.51 | 0.00 |
| sex |  |  |  |  |
| M vs F | 0.05 | 0.00 | 12.17 | 0.00 |
| indc\#sex |  |  |  |  |
| (0\#M) vs (0\#F) | 0.04 | 0.01 | 6.73 | 0.00 |
| (1\#F) vs (0\#F) | 0.01 | 0.01 | 1.07 | 0.28 |
| (1\#M) vs (0\#F) | 0.07 | 0.01 | 9.89 | 0.00 |
| (1\#F) vs (0\#M) | -0.03 | 0.01 | -4.31 | 0.00 |
| $(1 \# M)$ vs (0\#M) | 0.03 | 0.01 | 4.67 | 0.00 |
| (1\#M) vs (1\#F) | 0.06 | 0.01 | 11.24 | 0.00 |
| isGT |  |  |  |  |
| 1 vs 0 | -0.07 | 0.01 | -10.03 | 0.00 |
| indc\#isGT |  |  |  |  |
| (0 1) vs (00) | -0.07 | 0.01 | -8.55 | 0.00 |
| $(10)$ vs (00) | 0.02 | 0.01 | 2.94 | 0.00 |
| (11) vs (00) | -0.04 | 0.01 | -4.07 | 0.00 |
| (10) vs (0 1) | 0.09 | 0.01 | 9.61 | 0.00 |
| (11) vs (0 1) | 0.03 | 0.01 | 2.45 | 0.01 |
| (11) vs (10) | -0.06 | 0.01 | -6.02 | 0.00 |
| isLEP |  |  |  |  |
| 1 vs 0 | -0.04 | 0.01 | $-5.60$ | 0.00 |
| inde\#isLEP |  |  |  |  |
| (0 1) vs ( 000 | -0.04 | 0.01 | -3.94 | 0.00 |
| $(10) \mathrm{vs}(00)$ | 0.02 | 0.01 | 3.39 | 0.00 |
| (11) vs (00) | -0.02 | 0.01 | -2.19 | 0.03 |
| $(10)$ vs (0 1) | 0.06 | 0.01 | 5.55 | 0.00 |
| (11) vs (0 1) | 0.01 | 0.01 | 1.17 | 0.24 |


| VARIABLES | Contrast | Std. Err. | z | $\mathrm{P}>\mathrm{Z}$ |
| :--- | :--- | :--- | :--- | :--- |
| $\left(\begin{array}{ll}1 & 1\end{array}\right)$ vs $\left(\begin{array}{ll}1 & 0\end{array}\right)$ | -0.04 | 0.01 | -4.46 | 0.00 |
| isSPED |  |  |  |  |
| 1 vs 0 | -0.16 | 0.00 | -43.24 | 0.00 |
| indc\#isSPED |  |  |  |  |
| $\left(\begin{array}{lll}0 & 1\end{array}\right)$ vs $\left(\begin{array}{ll}0 & 0\end{array}\right)$ | -0.14 | 0.01 | -26.96 | 0.00 |
| $\left(\begin{array}{lll}1 & 0\end{array}\right)$ vs $\left(\begin{array}{ll}0 & 0\end{array}\right)$ | 0.03 | 0.01 | 4.44 | 0.00 |
| $\left(\begin{array}{lll}1 & 1\end{array}\right)$ vs $\left(\begin{array}{ll}0 & 0\end{array}\right)$ | -0.16 | 0.01 | -27.33 | 0.00 |
| $\left(\begin{array}{lll}1 & 0\end{array}\right)$ vs $\left(\begin{array}{ll}0 & 1\end{array}\right)$ | 0.17 | 0.01 | 27.43 | 0.00 |
| $\left(\begin{array}{lll}1 & 1\end{array}\right)$ vs $\left(\begin{array}{ll}0 & 1\end{array}\right)$ | -0.01 | 0.01 | -2.08 | 0.04 |
| $\left(\begin{array}{lll}1 & 1\end{array}\right)$ vs $\left(\begin{array}{ll}1 & 0\end{array}\right)$ | -0.18 | 0.00 | -38.02 | 0.00 |

$\mathrm{r}^{2}=0.25$
$\mathrm{P}>\mathrm{z}:$ If $\mathrm{p}<0.05$, we accept this as statistically significant
Note: Our pooled sample drops to $\mathrm{n}=61,425$ in this logistic regression due to the districts that do not specify an unexcused absence threshold.

Table 9a
Estimated Predictors of Having Failed at Least One Course Freshman Year with Reaching a District's Unexcused Absence Threshold, Including Failure of a Core Course

| VARIABLES | Contrast | Std. Err. | Z | $\mathrm{P}>\mathrm{Z}$ |
| :--- | :--- | :--- | :--- | :--- |
| isCore |  |  |  |  |
| 1 vs 0 | 0.14 | 0.05 | 2.89 | 0.00 |
| indc |  |  |  |  |
| 1 vs 0 | 0.02 | 0.01 | 3.45 | 0.00 |
| isCore\#indc |  |  |  |  |
| $\left(\begin{array}{ll}0 & 1\end{array}\right)$ vs $\left(\begin{array}{ll}0 & 0\end{array}\right)$ | 0.11 | 0.07 | 1.44 | 0.15 |
| $\left(\begin{array}{lll}1 & 0\end{array}\right)$ vs $\left(\begin{array}{ll}0 & 0\end{array}\right)$ | 0.17 | 0.05 | 3.26 | 0.00 |
| $\left(\begin{array}{ll}1 & 1\end{array}\right)$ vs $\left(\begin{array}{ll}0 & 0\end{array}\right)$ | 0.19 | 0.05 | 3.62 | 0.00 |
| $\left(\begin{array}{lll}1 & 0\end{array}\right)$ vs $\left(\begin{array}{ll}0 & 1\end{array}\right)$ | 0.08 | 0.05 | 1.16 | 0.24 |
| $\left(\begin{array}{lll}1 & 1\end{array}\right)$ vs $\left(\begin{array}{ll}0 & 1\end{array}\right)$ | 0.02 | 0.01 | 3.40 | 0.00 |
| $\left(\begin{array}{lll}1 & 1\end{array}\right)$ vs $\left(\begin{array}{ll}1 & 0\end{array}\right)$ |  |  | 1.52 | 0.13 |


| VARIABLES | Contrast | Std. Err. | z | $\mathrm{P}>\mathrm{Z}$ |
| :---: | :---: | :---: | :---: | :---: |
| sex |  |  |  |  |
| M vs F | 0.05 | 0.00 | 12.18 | 0.00 |
| indc\#sex |  |  |  |  |
| (0\#M) vs (0\#F) | 0.04 | 0.01 | 6.74 | 0.00 |
| (1\#F) vs (0\#F) | 0.01 | 0.01 | 1.10 | 0.27 |
| (1\#M) vs (0\#F) | 0.07 | 0.01 | 9.91 | 0.00 |
| (1\#F) vs (0\#M) | -0.03 | 0.01 | -4.29 | 0.00 |
| (1\#M) vs (0\#M) | 0.03 | 0.01 | 4.69 | 0.00 |
| (1\#M) vs (1\#F) | 0.06 | 0.01 | 11.24 | 0.00 |
| isFRL |  |  |  |  |
| 1 vs 0 | 0.07 | 0.00 | 15.74 | 0.00 |
| inde\#isFRL |  |  |  |  |
| $(01)$ vs (00) | 0.08 | 0.01 | 12.83 | 0.00 |
| (10) vs (00) | 0.03 | 0.01 | 3.77 | 0.00 |
| (11) vs (00) | 0.09 | 0.01 | 12.93 | 0.00 |
| (10) vs ( 01 ) | -0.05 | 0.01 | -6.94 | 0.00 |
| (11) vs ( 010 | 0.01 | 0.01 | 2.01 | 0.04 |
| (11) vs (10) | 0.06 | 0.01 | 10.50 | 0.00 |
| isGT |  |  |  |  |
| 1 vs 0 | -0.07 | 0.01 | -10.03 | 0.00 |
| indc\#isGT |  |  |  |  |
| (0 1) vs ( 000 | -0.07 | 0.01 | -8.55 | 0.00 |
| $(10)$ vs (00) | 0.02 | 0.01 | 2.97 | 0.00 |
| $\left(\begin{array}{ll}1\end{array}\right) \mathrm{vs}(00)$ | -0.04 | 0.01 | -4.05 | 0.00 |
| $\left(\begin{array}{ll}1 & 0\end{array}\right) \mathrm{vs}\left(\begin{array}{ll}0 & 1\end{array}\right)$ | 0.09 | 0.01 | 9.62 | 0.00 |
| (11) vs ( 01 1) | 0.03 | 0.01 | 2.46 | 0.01 |
| (11) vs (10) | -0.06 | 0.01 | -6.02 | 0.00 |
| isLEP |  |  |  |  |
| 1 vs 0 | -0.04 | 0.01 | -5.60 | 0.00 |
| indc\#isLEP |  |  |  |  |
| $\left(\begin{array}{l}0\end{array}\right)$ vs ( 000 | -0.04 | 0.01 | -3.94 | 0.00 |
| $(10) \mathrm{vs}(00)$ | 0.02 | 0.01 | 3.42 | 0.00 |
| $(11) \mathrm{vs}(00)$ | -0.02 | 0.01 | -2.17 | 0.03 |


| VARIABLES | Contrast | Std. Err. | Z | $\mathrm{P}>\mathrm{Z}$ |
| :--- | :--- | :--- | :--- | :--- |
| $\left(\begin{array}{ll}1 & 0\end{array}\right)$ vs $\left(\begin{array}{ll}0 & 1\end{array}\right)$ | 0.06 | 0.01 | 5.57 | 0.00 |
| $\left(\begin{array}{ll}1 & 1\end{array}\right)$ vs $\left(\begin{array}{ll}0 & 1\end{array}\right)$ | 0.01 | 0.01 | 1.18 | 0.24 |
| $\left(\begin{array}{ll}1 & 1\end{array}\right)$ vs $\left(\begin{array}{ll}1 & 0\end{array}\right)$ | -0.04 | 0.01 | -4.46 | 0.00 |
| isSPED |  |  |  |  |
| 1 | -0.16 | 0.00 | -43.23 | 0.00 |
| indc\#is 0 |  |  |  |  |
| $\left(\begin{array}{ll}0 & 1\end{array}\right)$ vs $\left(\begin{array}{ll}0 & 0\end{array}\right)$ | -0.14 | 0.01 | -26.95 | 0.00 |
| $\left(\begin{array}{lll}1 & 0\end{array}\right)$ vs $\left(\begin{array}{ll}0 & 0\end{array}\right)$ | 0.03 | 0.01 | 4.47 | 0.00 |
| $\left(\begin{array}{ll}1 & 1\end{array}\right)$ vs $\left(\begin{array}{ll}0 & 0\end{array}\right)$ | -0.16 | 0.01 | -27.28 | 0.00 |
| $\left(\begin{array}{lll}1 & 0\end{array}\right)$ vs $\left(\begin{array}{ll}0 & 1\end{array}\right)$ | 0.17 | 0.01 | 27.44 | 0.00 |
| $\left(\begin{array}{lll}1 & 1\end{array}\right)$ vs $\left(\begin{array}{ll}0 & 1\end{array}\right)$ | -0.01 | 0.01 | -2.07 | 0.04 |
| $\left(\begin{array}{ll}1 & 1\end{array}\right)$ vs $\left(\begin{array}{ll}1 & 0\end{array}\right)$ | -0.18 | 0.00 | -38.02 | 0.00 |

$\mathrm{r}^{2}=0.25$
$\mathrm{P}>\mathrm{Z}:$ If $\mathrm{p}<0.05$, we accept this as statistically significant
Note: Our pooled sample drops to $n=61,425$ in this logistic regression due to the districts that do not specify an unexcused absence threshold.

## Table 10a

Estimated Predictors of Having Failed at Least One Course Freshman Year, Comparing "May Not" Districts and 'Shall Not" Districts

| MAY NOT | Contrast | Std. Err. | Z | $\mathrm{P}>\mathrm{z}$ | SHALL NOT | Contrast | Std. Err. | Z | $\mathrm{P}>\mathrm{Z}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| indc |  |  |  |  | indc |  |  |  |  |
| 1 vs 0 | 0.01 | 0.01 | 2.16 | 0.03 | 1 vs 0 | 0.03 | 0.01 | 3.38 | 0.00 |
| isFRL |  |  |  |  | isFRL |  |  |  |  |
| 1 vs 0 | 0.07 | 0.01 | 13.36 | 0.00 | 1 vs 0 | 0.07 | 0.01 | 8.38 | 0.00 |
| indc\#isFRL |  |  |  |  | indc\#isFRL |  |  |  |  |
| $\left(\begin{array}{lll}0 & 1\end{array}\right)$ vs ( 000$)$ | 0.07 | 0.01 | 9.15 | 0.00 | $\left(\begin{array}{lll}0 & 1\end{array}\right) \mathrm{vs}\left(\begin{array}{l}0\end{array}\right)$ | 0.09 | 0.01 | 9.06 | 0.00 |
| $\left(\begin{array}{ll}1 & 0\end{array}\right)$ vs (00) | 0.01 | 0.01 | 0.91 | 0.36 | $(10)$ vs (00) | 0.07 | 0.01 | 5.56 | 0.00 |


| MAY NOT | Contrast | Std. Err. | z | $\mathrm{P}>\mathrm{z}$ | SHALL NOT | Contrast | Std. Err. | z | $\mathrm{P}>\mathrm{Z}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (1 1) vs (0 0) | 0.09 | 0.01 | 10.10 | 0.00 | (1 1) vs (0 0) | 0.09 | 0.01 | 7.95 | 0.00 |
| (10) vs (0 1) | -0.06 | 0.01 | -6.83 | 0.00 | (10) vs (0 1) | -0.03 | 0.01 | -1.94 | 0.05 |
| (1 1) vs (0 1) | 0.02 | 0.01 | 2.41 | 0.02 | (1 1) vs (0 1) | 0.00 | 0.01 | 0.14 | 0.89 |
| (11) vs (10) | 0.08 | 0.01 | 10.98 | 0.00 | (11) vs (10) | 0.03 | 0.01 | 2.38 | 0.02 |
| sex |  |  |  |  | sex |  |  |  |  |
| M vs F | 0.05 | 0.00 | 10.99 | 0.00 | M vs F | 0.04 | 0.01 | 5.41 | 0.00 |
| indc\#sex |  |  |  |  | indc\#sex |  |  |  |  |
| (0\#M) vs (0\#F) | 0.04 | 0.01 | 6.16 | 0.00 | (0\#M) vs (0\#F) | 0.02 | 0.01 | 2.83 | 0.01 |
| (1\#F) vs (0\#F) | 0.00 | 0.01 | 0.41 | 0.68 | (1\#F) vs (0\#F) | 0.02 | 0.01 | 1.63 | 0.10 |
| $(1 \# \mathrm{M})$ vs (0\#F) | 0.07 | 0.01 | 8.06 | 0.00 | $(1 \# \mathrm{M})$ vs (0\#F) | 0.07 | 0.01 | 6.09 | 0.00 |
| (1\#F) vs (0\#M) | -0.04 | 0.01 | -4.54 | 0.00 | (1\#F) vs (0\#M) | -0.01 | 0.01 | -0.57 | 0.57 |
| (1\#M) vs (0\#M) | 0.03 | 0.01 | 3.23 | 0.00 | (1\#M) vs (0\#M) | 0.05 | 0.01 | 3.98 | 0.00 |
| $(1 \# \mathrm{M})$ vs (1\#F) | 0.06 | 0.01 | 9.82 | 0.00 | $(1 \# \mathrm{M})$ vs (1\#F) | 0.05 | 0.01 | 5.54 | 0.00 |
| isGT |  |  |  |  | isGT |  |  |  |  |
| 1 vs 0 | -0.07 | 0.01 | -8.70 | 0.00 | 1 vs 0 | -0.07 | 0.01 | -5.28 | 0.00 |
| indc\#isGT |  |  |  |  | indc\#isGT |  |  |  |  |
| (0 1) vs (0 0) | -0.07 | 0.01 | -7.10 | 0.00 | (0 1) vs (00) | -0.08 | 0.02 | -5.10 | 0.00 |
| (10) vs (0 0) | 0.01 | 0.01 | 1.91 | 0.06 | (10) vs (0 0) | 0.03 | 0.01 | 2.77 | 0.01 |
| (11) vs (0 0) | -0.05 | 0.01 | -4.15 | 0.00 | (11) vs (0 0) | -0.02 | 0.02 | -0.92 | 0.36 |
| (10) vs (0 1) | 0.08 | 0.01 | 7.64 | 0.00 | (10) vs (0 1) | 0.11 | 0.02 | 6.33 | 0.00 |
| (11) vs (0 1) | 0.02 | 0.01 | 1.43 | 0.15 | (1 1) vs (0 1) | 0.06 | 0.02 | 2.54 | 0.01 |


| MAY NOT | Contrast | Std. Err. | z | $\mathrm{P}>\mathrm{Z}$ | SHALL NOT | Contrast | Std. Err. | z | $\mathrm{P}>\mathrm{z}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (11) vs (10) | -0.06 | 0.01 | -5.63 | 0.00 | (11) vs (10) | -0.05 | 0.02 | -2.32 | 0.02 |
| isLEP |  |  |  |  | isLEP |  |  |  |  |
| 1 vs 0 | -0.05 | 0.01 | -5.64 | 0.00 | 1 vs 0 | -0.02 | 0.01 | -2.03 | 0.04 |
| indc\#isLEP |  |  |  |  | indc\#isLEP |  |  |  |  |
| (0 1) vs (0 0) | -0.05 | 0.01 | -4.12 | 0.00 | (0 1) vs (0 0) | -0.02 | 0.01 | -1.48 | 0.14 |
| $(10)$ vs (0 0) | 0.01 | 0.01 | 2.11 | 0.04 | $(10)$ vs (00) | 0.03 | 0.01 | 3.29 | 0.00 |
| $(11)$ vs (0 0) | -0.04 | 0.01 | -2.69 | 0.01 | $(11)$ vs (0 0) | 0.01 | 0.02 | 0.54 | 0.59 |
| $(10)$ vs (0 1) | 0.07 | 0.01 | 4.97 | 0.00 | $(10)$ vs (0 1) | 0.05 | 0.02 | 3.43 | 0.00 |
| (11) vs (0 1) | 0.02 | 0.02 | 0.89 | 0.37 | (1 1) vs (0 1) | 0.03 | 0.02 | 1.56 | 0.12 |
| $(11)$ vs (10) | -0.05 | 0.01 | -4.11 | 0.00 | (11) vs (10) | -0.02 | 0.01 | -1.67 | 0.10 |
| isSPED |  |  |  |  | isSPED |  |  |  |  |
| 1 vs 0 | -0.17 | 0.00 | -37.79 | 0.00 | 1 vs 0 | -0.14 | 0.01 | -21.13 | 0.00 |
| indc\#isSPED |  |  |  |  | indc\#isSPED |  |  |  |  |
| (0 1) vs (00) | -0.15 | 0.01 | -23.08 | 0.00 | (0 1) vs (0 0) | -0.12 | 0.01 | -13.97 | 0.00 |
| $(10)$ vs (00) | 0.02 | 0.01 | 3.13 | 0.00 | $(10)$ vs (0 0) | 0.04 | 0.01 | 3.72 | 0.00 |
| $(11)$ vs (0 0) | -0.17 | 0.01 | -24.22 | 0.00 | $(11)$ vs (0 0) | -0.12 | 0.01 | -12.29 | 0.00 |
| $(10)$ vs (0 1) | 0.18 | 0.01 | 23.13 | 0.00 | $(10)$ vs (0 1) | 0.16 | 0.01 | 15.05 | 0.00 |
| (1 1) vs (0 1) | -0.02 | 0.01 | -2.36 | 0.02 | (1 1) vs (0 1) | 0.00 | 0.01 | 0.09 | 0.93 |
| (11) vs (10) | -0.19 | 0.01 | -33.47 | 0.00 | (11) vs (10) | -0.16 | 0.01 | -18.03 | 0.00 |

Both models: $\mathrm{r}^{2}=0.25$
$\mathrm{P}>\mathrm{z}:$ If $\mathrm{p}<0.05$, we accept this as statistically significant
Note: Our pooled sample drops to $\mathrm{n}=61,425$ in this logistic regression due to the districts that do not specify an unexcused absence threshold.

Table 11a
Estimated Predictors of FRL Students Having Failed at Least One Course Freshman Year, by "May Not" and "Shall Not" Districts

| VARIABLES | Coef. | Std. Err. | t | $\mathrm{P}>\mathrm{t}$ |
| :---: | :---: | :---: | :---: | :---: |
| catg |  |  |  |  |
| 1 | 0.08 | 0.06 | 1.29 | 0.20 |
| 1.isFRL | 0.06 | 0.00 | 12.55 | 0.00 |
| catg\#isFRL |  |  |  |  |
| 1\#1 | 0.00 | 0.01 | -0.26 | 0.80 |
| sex | 0.04 | 0.00 | 13.25 | 0.00 |
| isGT | -0.02 | 0.00 | -3.56 | 0.00 |
| isLEP | -0.03 | 0.01 | -3.74 | 0.00 |
| isSPED | -0.19 | 0.01 | -31.88 | 0.00 |
| total_inf | 0.03 | 0.00 | 27.15 | 0.00 |
| daysabsent | 0.01 | 0.00 | 62.85 | 0.00 |
| priorachievement | -0.13 | 0.00 | -54.13 | 0.00 |
| districtfrl | 0.24 | 0.07 | 3.51 | 0.00 |
| logdistrictenrollment | 0.00 | 0.09 | 0.03 | 0.97 |

$\mathrm{r}^{2}=0.25$
$\mathrm{P}>\mathrm{Z}:$ If $\mathrm{p}<0.05$, we accept this as statistically significant
Note: Our pooled sample drops to $\mathrm{n}=61,425$ in this logistic regression due to the districts that do not specify an unexcused absence threshold

