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Unexcused Absences and Failures: Dissecting the Variability in Course Credit Policies and Freshman Course Failure

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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 the subsequent consequences for course credit among students. Utilizing anonymized student-level data from the 2020-21 and 2021-22 school years, which includes a total of 65,651 freshmen, the study investigates the variability in policy implementation across districts. It also examines the differing language used to dictate the consequences of exceeding unexcused absence thresholds. Our multivariate logistic regression models demonstrate that students eligible for Free and Reduced Lunch (FRL) are notably more likely to fail a course after surpassing their district's absence threshold. Moreover, the data reveal that upon reaching this threshold, students are significantly more likely to fail core courses as opposed to non-core courses. These findings illuminate the variations in local policy implementation and their impact on student academic outcomes, emphasizing the importance of uniform policy enforcement to ensure equitable educational opportunities.

Keywords: Fidelity, policy implementation, absences, policy, 9th grade year

1. Introduction

In theory, course failures and absence policies serve as a basis to ensure students remain engaged in their education by delineating clear consequences for unexcused absences. At first glance, practitioners may attribute high student course failures to student absenteeism due to these policies. Yet, this analysis peels back the layers of policy application to uncover a more nuanced reality. The variability in districts applying the absence threshold exposes a critical disconnect between policy and practice for course failures. This divergence not only undermines the policy's intent but also potentially aggravates educational inequalities, disproportionately affecting certain student groups.

Our research confronts an uncomfortable question: Why maintain a policy if its implementation is inequitable and inconsistent? By dissecting the relationship between unexcused absences and freshman course failures across a state, this study explores poor implementation. It is not enough to ascribe student failures to policy dictates when, in practice, these policies are applied so variably that their intended effects are diluted. As such, this investigation is not merely an analysis of policy effectiveness but a critical reflection on the equity of its application and the true cost of such disparities in student success.

2. Literature Review

2.1. Course failure

Course performance during the freshman year of high school is a crucial factor in predicting students' long-term educational outcomes. Researchers in Chicago have found that the grade point average (GPA) and the number of course failures during the freshman year can predict high school graduation with up to 80% accuracy [1]. Additionally, students who fail at least one core course in their freshman year are four times less likely to graduate high school on time [1].

The impact of early academic achievement extends beyond high school completion and into post-secondary education and the labor market. A study by the Office for Education Policy found that a one-point increase in freshman GPA is associated with a 26-percentage point increase in college enrollment [2]. In analyzing the trajectory of students' academic success, Marshall [3]

found that even a single failed marking period in eighth or ninth grade served as a critical early warning indicator for high school graduation prospects. This suggests that early academic struggles, particularly in the transition years, are substantial markers for future educational attainment. Furthermore, GPAs are positively associated with future earnings, educational attainment, and labor market outcomes [4]. Given these implications, it is crucial to explore the factors influencing freshman success and failure.
In Arkansas, approximately a quarter of high school freshmen fail at least one course [5]. This statistic highlights the urgency to understand and address freshman course failure. Although failure likelihoods vary by building configuration, we suggest the difference is due to a focus on the importance of student success in the 9th grade among school leaders and faculty. A recent survey of Arkansas teachers found that nearly 30% of them developed their grading practices by focusing on students' behaviors and futures and adhering to traditional grading methods. In comparison, 12% claimed to grade students reasonably but did not focus on mastery [6]. Some teachers may face external constraints and limitations in school policies when determining whether a freshman passes a course.

2.2. 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 [7]. 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 [8]. However, fidelity can be hindered by 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 [9].

Anagnostopoulos and Rutledge [10] 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 [11] 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. [12] 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 than teachers or other education support professionals [13]. Nonetheless, implementing school policies can positively impact students' perceptions of their learning and well-being [14].

2.3. Absences

School attendance is an important issue in education policy. Ansari and Gottfried [15] found that students who were consistently absent throughout elementary school tended to have lower academic outcomes. The Attendance Works group, which conducts research and supports schools, has launched a campaign to help communities promote student attendance. Their efforts have become increasingly critical as the COVID-19 pandemic has exacerbated chronic absenteeism, which has doubled, affecting primarily disadvantaged groups [16]. In this context, Anim et al. [17] highlight the nuanced nature of this challenge, showing that socioeconomic stability, as reflected by higher mother's income levels, is associated with decreased student absenteeism. This suggests that economic stability within the family unit may contribute to more consistent school attendance, thus reinforcing the link between socioeconomic factors and educational outcomes.

Garcia and Weiss [18] have identified that certain demographic groups, including students receiving FRL services or those with IEPs, are at higher risk for chronic absenteeism, which in turn correlates with lower academic achievement. Such insights are crucial for understanding the complex dynamics behind absenteeism. Gee [19] highlights the attendance challenges faced by children from racial and ethnic minorities, impoverished backgrounds, and those with disabilities, noting the difficulty schools have in identifying the root causes of absenteeism disparities and emphasizing the necessity for targeted and tailored strategies to mitigate these attendance gaps. Echoing this need for a deeper look at absenteeism data, Kearney and Childs [20] argue that educational policies and health-based practices often overlook the intricate realities behind mere physical presence or absence in school. They stress the importance of employing more sophisticated and sensitive data analysis and assessment strategies that reflect the unique local and individual conditions influencing student attendance. This critique aligns with the need for targeted interventions that accommodate diverse student experiences and the specific challenges they face in maintaining consistent school attendance.

Researchers in education policy, such as Jacob and Lovett [21], have pointed out the persistent nature of chronic absenteeism and the challenges in mitigating its effects on educational achievement. Despite evidence from studies like that of Allensworth and Easton [1], which demonstrated the strong predictive value of absenteeism on course failure and graduation rates, interventions such as Early Warning Intervention and Monitoring Systems (EWIMS) have faced implementation challenges [22]. However, these interventions do show promise in reducing chronic absenteeism and course failures when applied effectively, emphasizing the need for ongoing research and refinement of strategies to combat this issue comprehensively.

2.4. Theoretical framework

The theoretical importance of course failures in the freshman year as a determinant of absenteeism is underpinned by a confluence of developmental, educational, and systemic factors that render this period pivotal in a student's academic trajectory. The freshman year is the first year of high school that represents a critical juncture at which students encounter a significant transition in academic rigor and social expectations. This period is characterized by substantial cognitive and emotional development, which interacts with the academic environment in ways that can critically influence future educational outcomes. Research has shown that course performance during freshman year, as indexed by GPA and course failures is a significant predictor of high school graduation [1] and post-secondary success [2]. This is partly due to the cumulative nature of educational curricula, where foundational knowledge is established in core courses such as math, English, science, and social studies during the freshman year. Failures in these subjects can disrupt this cumulative progression, thereby magnifying their influence on long-term academic success and contributing to disengagement and absenteeism.

Additionally, the transition to high school is a process that often coincides with increased autonomy and responsibility for students. The decisions made and the habits formed during the freshman year can set a precedent for subsequent years; it is the freshman year that lays the foundational groundwork for these later experiences. Course failures in this formative year can lead to a cycle of academic struggle, wherein students become increasingly disengaged and absent, which further impedes academic success [5]. Policies at this level often aim to target and ameliorate these issues early on, as interventions at this stage may be more effective at preventing a domino effect of educational challenges. Furthermore, as Allensworth and Easton [1] highlight, the rate of absenteeism during freshman year has almost as much predictive power for graduation as overall high school GPA, underscoring the intertwined relationship between early academic failures and subsequent absenteeism.

Considering this evidence, a theoretical framework emerges where the intersection of academic, developmental, and policy-driven dimensions during the freshman year plays a crucial role in shaping students' engagement and attendance patterns. This framework necessitates a focus on the freshman year and acknowledges the disproportionate impact that early course failures can have on absenteeism. Moreover, it suggests that while all subjects contribute to the educational experience, core courses that build essential skills for advanced education may demand particular attention in research and intervention strategies due to their foundational nature and their subsequent impact on student attendance and engagement.

3. 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 the 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 result from 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?

Incorporating insights from Osher and Quinn [23], our paper navigates the complex intersection between course failures, absenteeism, and school policies, recognizing how policies not only mandate behaviors but also shape the educational environment by influencing students. 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.

4. Methods

Our policy analysis aims to examine the variations in wording and execution of A.C.A. 6-18-222 across different school districts in Arkansas. We have conducted a descriptive analysis that showcases the percentage of Arkansas freshmen who are at risk of failing due to excessive absences. Our approach involves three multivariate logistic regressions and one multivariate regression with a pooled sample to uncover deeper insights.

Initially, we assess the likelihood of students failing a course after exceeding the unexcused absence threshold set by their district, particularly within specific demographic or programmatic groups. Subsequently, we evaluate if failure rates for Arkansas freshmen differ between core subjects (math, ELA, science, and social studies) and non-core courses upon reaching the absence limit. Furthermore, we compare the failure rates associated with districts that use "May Not" versus "Shall Not" clauses to determine if language choice correlates with inequities in educational outcomes. Lastly, we analyze how likely it is for students participating in the Free and Reduced Lunch (FRL) program to fail between districts with different absence policy language.

4.1. Data and sample

The Arkansas Department of Education provided us with anonymized student-level data for first-time, full-time freshmen from the school years 2020-21 and 2021-22, totaling 65,651 students. These were the two most recent years of data available to the researchers at this time. We excluded 12 districts that do not serve ninth-grade students or have incomplete data, leaving us with 253 districts. The data includes information on student demographics, programmatic characteristics, course grades, absences, and discipline infractions. We created a binary indicator for course failure based on grades of F, E, NC, I-0, or 59 and below. Absences and discipline infractions are continuous variables.

To analyze the implementation of A.C.A. 6-18-222 policy, which addresses unexcused absences and course failures, we collected policy information from the school websites or student handbooks of all 253 districts. Eight districts did not describe their policies, and 15 districts had incomplete policies. We compiled the policy information in a Google sheet document and categorized the districts based on the permissive language used in their policies. The categories included "May Not," "Shall Not," "Missing," and "No Mention." A condensed version of the policy information table can be found online in the working paper posted in The Office for Education Policy.

4.2. Methodology

Our methodology uses logistic and multivariate regression models, which consider student demographics, prior academic performance, and district characteristics, including fixed effects, to analyze the relationship of absences on freshman performance [24, 25]. Specifically, we focus on the probability of failing a course or core subjects after exceeding the unexcused absence threshold, and we compare the "May Not" and "Shall Not" district policies to address intercorrelated student variables. The binary outcome capability of logistic regression is ideal for our primary interest: predicting course failure likelihood.

We conduct our first analysis by controlling for student demographic and programmatic characteristics, student prior academic achievement, student absences, student disciplinary infractions, district fixed effects, district composition of FRL students, and district enrollment sizes 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 because 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 presented below:

4.2.1. Model 1

$$\text{Logit}(failed_i) = \beta_0 + \beta_1\chi_i(*indicator_i) + \beta_2 priorachievement_i + \beta_3\Omega_i + districtlea_i + \epsilon_i$$

Where:

- ***$failed_i$*** is the dependent variable of interest, probability of failing at least one course freshman year, for student *i* in the pooled analysis,
- ***χ_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,
- ***$priorachievement_i$*** is a 7th and 8th grade standardized math and ELA score control added for each student *i* in the pooled analysis,
- **Ω_i** is a vector of district characteristics including district enrollment and district FRL percentage,
- ***$districtlea_i$*** is district controls (district fixed effects, district composition of FRL students, and district enrollment size) added for each student,
- ***ϵ_i*** is the random error for student *i* in the pooled analysis.

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

4.2.2. Model 2

Logit($failed_i$) = $\beta_0 + \beta_1\chi_i(*indicator_i) + \beta_2 priorachievement_i + \beta_3\Omega_i + districtlea_i + \beta_4(core*indicator_i) + \epsilon_i$

Where:
- All variables in Model 1, and,
- ***core*indicator$_i$*** 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.

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

4.2.3. Model 3

Reg($failed_i$) = $\beta_0 + \beta_1\chi_i(*language_i) + \beta_2 priorachievement_i + \beta_3\Omega_i + districtlea_i + \epsilon_i$

Where:
- ***failed$_i$*** is the dependent variable of interest, probability failing at least one course freshman year, for student *i* in the pooled analysis,
- **χ_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$_i$*** is a 7th and 8th grade standardized math and ELA score control added for each student *i* in the pooled analysis,
- **Ω_i** is a vector of district characteristics including district enrollment and district FRL percentage,
- ***districtlea$_i$*** is district controls (district fixed effects, district composition of FRL students, and district enrollment size) added for each student,
- **ϵ_i** is the random error for student *i* in the pooled analysis.

We now present the results of our analyses.

5. Results

5.1. Descriptive analyses

To describe the demographic and programmatic characteristics of the districts, we provide Table 3 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.

Table 1
District demographic and programmatic percentages by policy language indicator

	State	May Not	Shall 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 Program	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 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.

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
Freshman demographic and programmatic absence rates by 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

FRL	7.3	7.4	7.1	7.6	5.4
Non-FRL	5.1	5.2	4.7	4.7	6.6
GT	4.5	4.5	4.3	5.0	2.8
ELL	7.8	8.4	7.2	8.4	4.4
SPED	7.5	7.7	7.2	7.7	6.4
Total	6.4	6.6	6.1	6.6	6.0

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 in their variations in Table 3.

Table 3
Range of number of unexcused absences in A.C.A. 6-18-222 policy

Absence Number	Number of Districts	Percentage of Districts	Number of Freshmen	Percentage of 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 with 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 of students that reached their district's unexcused absence threshold and the number of 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 Threshold		Failed Course		Met Absence Indicator 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	N/A	N/A
No Mention	N/A	N/A	512	28.4	N/A	N/A
State	27,375	41.7	18,569	28.3	10,846	39.6

As Table 4 highlights, 41.7% (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 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 Threshold		Failed Course		Met Absence Indicator Threshold & Failed	
	N	Percent	N	Percent	N	Percent
no mention	N/A	N/A	512	28.4	N/A	N/A
"insert number"	N/A	N/A	736	30.3	N/A	N/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 6, Table 7 reflects that about 40% of the students in the state that reach their district's unexcused absence threshold also fail their course. In Table 7, 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.

5.2. Logistic results

5.2.1. Model 1

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 [5]. 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.

5.2.2. Model 2

The full results of this analysis are in the appendix as Table 9a. 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 conducted two more analyses. First, we utilize our first model and limit it to students in the "May Not" districts. We compare these results to the 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.

5.2.3. Model 3

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.

6. 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 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.

6.1. 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 most 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 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.

6.2. 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 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.

6.3. 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 follow-through 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.

6.4. 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 [22, 26]. Attendance Works [16] 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. Additionally, Childs et al. [27] assert that chronic absenteeism is a multifaceted issue, emphasizing that students who miss school won't be impacted by policy reforms, thus calling for a policy approach to address the underlying causes of absenteeism effectively. 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, districts must dive deeper into the factors contributing to freshman course failures, such as when teachers grade student behaviors, not just student abilities [6]. 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.

Ethical Statement

This study does not contain any studies with human or animal subjects performed by any of the authors.

Conflicts of Interest

The authors declare that they have no conflicts of interest to this work.

Data Availability Statement

Data sharing is not applicable to this article as no new data were created or analyzed in this study.

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Appendix

Table 6a
Estimated predictors of having failed at least one course freshman year with reaching a district's unexcused absence threshold

VARIABLES	Contrast	Std. Err.	z	P>z
indc				
1 vs 0	0.02	0.01	3.42	0.00
isFRL				
1 vs 0	0.07	0.00	15.77	0.00
indc#isFRL				
(0 1) vs (0 0)	0.08	0.01	12.86	0.00
(1 0) vs (0 0)	0.03	0.01	3.75	0.00
(1 1) vs (0 0)	0.09	0.01	12.92	0.00
(1 0) vs (0 1)	-0.05	0.01	-6.99	0.00
(1 1) vs (0 1)	0.01	0.01	1.98	0.05
(1 1) vs (1 0)	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 (0 0)	-0.07	0.01	-8.55	0.00
(1 0) vs (0 0)	0.02	0.01	2.94	0.00
(1 1) vs (0 0)	-0.04	0.01	-4.07	0.00
(1 0) vs (0 1)	0.09	0.01	9.61	0.00
(1 1) vs (0 1)	0.03	0.01	2.45	0.01
(1 1) vs (1 0)	-0.06	0.01	-6.02	0.00
isLEP				
1 vs 0	-0.04	0.01	-5.60	0.00
indc#isLEP				
(0 1) vs (0 0)	-0.04	0.01	-3.94	0.00
(1 0) vs (0 0)	0.02	0.01	3.39	0.00
(1 1) vs (0 0)	-0.02	0.01	-2.19	0.03

VARIABLES	Contrast	Std. Err.	z	P>z
(1 0) vs (0 1)	0.06	0.01	5.55	0.00
(1 1) vs (0 1)	0.01	0.01	1.17	0.24
(1 1) vs (1 0)	-0.04	0.01	-4.46	0.00
isSPED				
1 vs 0	-0.16	0.00	-43.24	0.00
indc#isSPED				
(0 1) vs (0 0)	-0.14	0.01	-26.96	0.00
(1 0) vs (0 0)	0.03	0.01	4.44	0.00
(1 1) vs (0 0)	-0.16	0.01	-27.33	0.00
(1 0) vs (0 1)	0.17	0.01	27.43	0.00
(1 1) vs (0 1)	-0.01	0.01	-2.08	0.04
(1 1) vs (1 0)	-0.18	0.00	-38.02	0.00

$r^2=0.25$

P>z : If $p<0.05$, 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 7a

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	P>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				
(0 1) vs (0 0)	0.11	0.07	1.44	0.15
(1 0) vs (0 0)	0.17	0.05	3.26	0.00
(1 1) vs (0 0)	0.19	0.05	3.62	0.00
(1 0) vs (0 1)	0.06	0.05	1.16	0.24
(1 1) vs (0 1)	0.08	0.05	1.52	0.13
(1 1) vs (1 0)	0.02	0.01	3.40	0.00
sex				
M vs F	0.05	0.00	12.18	0.00
indc#sex				

VARIABLES	Contrast	Std. Err.	z	P>z
(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
indc#isFRL				
(0 1) vs (0 0)	0.08	0.01	12.83	0.00
(1 0) vs (0 0)	0.03	0.01	3.77	0.00
(1 1) vs (0 0)	0.09	0.01	12.93	0.00
(1 0) vs (0 1)	-0.05	0.01	-6.94	0.00
(1 1) vs (0 1)	0.01	0.01	2.01	0.04
(1 1) vs (1 0)	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 (0 0)	-0.07	0.01	-8.55	0.00
(1 0) vs (0 0)	0.02	0.01	2.97	0.00
(1 1) vs (0 0)	-0.04	0.01	-4.05	0.00
(1 0) vs (0 1)	0.09	0.01	9.62	0.00
(1 1) vs (0 1)	0.03	0.01	2.46	0.01
(1 1) vs (1 0)	-0.06	0.01	-6.02	0.00
isLEP				
1 vs 0	-0.04	0.01	-5.60	0.00
indc#isLEP				
(0 1) vs (0 0)	-0.04	0.01	-3.94	0.00
(1 0) vs (0 0)	0.02	0.01	3.42	0.00
(1 1) vs (0 0)	-0.02	0.01	-2.17	0.03
(1 0) vs (0 1)	0.06	0.01	5.57	0.00
(1 1) vs (0 1)	0.01	0.01	1.18	0.24

VARIABLES	Contrast	Std. Err.	z	P>z
(1 1) vs (1 0)	-0.04	0.01	-4.46	0.00
isSPED				
1 vs 0	-0.16	0.00	-43.23	0.00
indc#isSPED				
(0 1) vs (0 0)	-0.14	0.01	-26.95	0.00
(1 0) vs (0 0)	0.03	0.01	4.47	0.00
(1 1) vs (0 0)	-0.16	0.01	-27.28	0.00
(1 0) vs (0 1)	0.17	0.01	27.44	0.00
(1 1) vs (0 1)	-0.01	0.01	-2.07	0.04
(1 1) vs (1 0)	-0.18	0.00	-38.02	0.00

r^2=0.25

P>z : If 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 8a

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	P>z	SHALL NOT	Contrast	Std. Err.	z	P>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				
(0 1) vs (0 0)	0.07	0.01	9.15	0.00	(0 1) vs (0 0)	0.09	0.01	9.06	0.00
(1 0) vs (0 0)	0.01	0.01	0.91	0.36	(1 0) vs (0 0)	0.07	0.01	5.56	0.00
(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
(1 0) vs (0 1)	-0.06	0.01	-6.83	0.00	(1 0) 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
(1 1) vs (1 0)	0.08	0.01	10.98	0.00	(1 1) vs (1 0)	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

MAY NOT	Contrast	Std. Err.	z	P>z	SHALL NOT	Contrast	Std. Err.	z	P>z
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#M) vs (0#F)	0.07	0.01	8.06	0.00	(1#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#M) vs (1#F)	0.06	0.01	9.82	0.00	(1#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 (0 0)	-0.08	0.02	-5.10	0.00
(1 0) vs (0 0)	0.01	0.01	1.91	0.06	(1 0) vs (0 0)	0.03	0.01	2.77	0.01
(1 1) vs (0 0)	-0.05	0.01	-4.15	0.00	(1 1) vs (0 0)	-0.02	0.02	-0.92	0.36
(1 0) vs (0 1)	0.08	0.01	7.64	0.00	(1 0) vs (0 1)	0.11	0.02	6.33	0.00
(1 1) vs (0 1)	0.02	0.01	1.43	0.15	(1 1) vs (0 1)	0.06	0.02	2.54	0.01
(1 1) vs (1 0)	-0.06	0.01	-5.63	0.00	(1 1) vs (1 0)	-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
(1 0) vs (0 0)	0.01	0.01	2.11	0.04	(1 0) vs (0 0)	0.03	0.01	3.29	0.00
(1 1) vs (0 0)	-0.04	0.01	-2.69	0.01	(1 1) vs (0 0)	0.01	0.02	0.54	0.59
(1 0) vs (0 1)	0.07	0.01	4.97	0.00	(1 0) vs (0 1)	0.05	0.02	3.43	0.00
(1 1) vs (0 1)	0.02	0.02	0.89	0.37	(1 1) vs (0 1)	0.03	0.02	1.56	0.12
(1 1) vs (1 0)	-0.05	0.01	-4.11	0.00	(1 1) vs (1 0)	-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 (0 0)	-0.15	0.01	-23.08	0.00	(0 1) vs (0 0)	-0.12	0.01	-13.97	0.00
(1 0) vs (0 0)	0.02	0.01	3.13	0.00	(1 0) vs (0 0)	0.04	0.01	3.72	0.00
(1 1) vs (0 0)	-0.17	0.01	-24.22	0.00	(1 1) vs (0 0)	-0.12	0.01	-12.29	0.00

MAY NOT	Contrast	Std. Err.	z	P>z	SHALL NOT	Contrast	Std. Err.	z	P>z
(1 0) vs (0 1)	0.18	0.01	23.13	0.00	(1 0) 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
(1 1) vs (1 0)	-0.19	0.01	-33.47	0.00	(1 1) vs (1 0)	-0.16	0.01	-18.03	0.00

Both models: r^2=0.25

P>z : If 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 9a

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	P>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

r^2=0.25

P>z : If 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.