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Course Correction:
Navigating Equity in Ninth-Grade Advanced Placement

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Abstract:
This robust mixed-methods study examines ninth-grade advanced course placement in Arkansas, revealing disparities rooted in race and socioeconomic status. Utilizing a logit analysis for a five-year pooled sample (n=163,616), we find persistent enrollment gaps for Black ninth-grade students after controlling for prior academic achievement, highlighting systemic barriers to access to advanced courses. Socioeconomic divides are also evident in our analysis. Qualitative findings from counselor interviews highlight the importance of parental involvement in course placement decisions, particularly for students from lower socioeconomic backgrounds. Overall, we find through these interviews that districts consider a myriad of factors when considering course placement for ninth-grade courses. We recommend systemic changes for districts, including local norm-based placement systems and automatic enrollment policies to enhance fairness in advanced course placement.

Keywords:
Ninth-grade year, advanced courses, course placement, racial disparities, mixed-methods research

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I. Major Findings

- There are statistically significant racial and socioeconomic disparities in ninth-grade advanced course enrollment in Arkansas, with Black and Free or Reduced-Price Lunch (FRL) students being less likely to enroll in these courses compared to their peers of other racial and higher socioeconomic backgrounds.
- Disparities in course placement persist even after controlling for prior academic achievement, indicating that systemic barriers are at play for ninth-grade advanced course placement in Arkansas.
- Arkansas counselors consider various factors when placing eighth-grade students into ninth-grade courses, including student interests, grade-point averages, test scores, teacher recommendations, and data-driven factors. The specific factors prioritized can vary based on the district's size, FRL composition, and regional location.
- Smaller district counselors allow for more direct connections with parents in course placement of ninth-grade students, while larger district counselors point to a lack of parental involvement.
- Overall, there is a lack of consistent and transparent systems for Arkansas counselors placing students into ninth-grade courses.
- This study highlights the need for systemic changes in course placement policies and practices to ensure equitable access to advanced coursework. Merely increasing access is insufficient without addressing underlying factors.
- We recommend adopting a local norm-based placement system in Arkansas school districts to enhance fairness and automatically enrolling students meeting the local norm

criteria into advanced courses, with an opt-out option for parents or guardians once students are enrolled in the advanced courses.

II. Literature Review

Ninth Grade

The ninth-grade year is a crucial point in a student's secondary education; it has been viewed by researchers and educators alike as a determinative period that heavily influences the successive academic pathways of students (Easton et al., 2017). The ninth-grade year is often portrayed as the "make-or-break" year that can predict a student's likelihood of high school graduation and subsequent college enrollment (Allensworth & Easton, 2007; Phllips, 2019). The Consortium on School Research at the University of Chicago and the Office for Education Policy in Arkansas established significant relationships between ninth-grade GPAs and high school graduation and college enrollment (Easton et al., 2017; Morris et al., 2021). Researchers in Philadelphia found that the academic performance of ninth-grade students significantly correlates with high school drop-out rates (Neild et al., 2008), and other researchers find that specific tracks of high school courses predict postsecondary outcomes (Ogut et al., 2023). Given the predictability of the ninth grade in charting future educational outcomes, a deeper exploration into the methods, criteria, and considerations underpinning eighth-grade students' placements into their ninth-grade courses is necessitated.

Advanced Courses

Benefits of Advanced Courses

A factor of importance in the power of the ninth-grade year is the significance of enrolling in advanced coursework, which includes a variety of specialized classes aimed at

providing students with a more rigorous academic experience. For instance, enrolling in early algebra in eighth grade sets the foundation for advancement in mathematics. This early exposure to Algebra I has been linked to increased enrollment in advanced math courses during later high school years, which, in turn, has been shown to improve math achievement scores (McEachin et al., 2020; Wehde-Roddiger et al., 2012). Advanced coursework in mathematics, as Iatatorla (2016) notes, not only prepares students for the academic rigor of college but also enhances overall college readiness. Commitment to even a single advanced course has a ripple effect, possibly increasing standardized test scores, raising the likelihood of high school graduation, and improving the chances of enrolling in a four-year university (Iatarola, 2016).

Beyond advanced math courses, there are other types of accelerated learning opportunities such as Advanced Placement (AP) and Concurrent Enrollment (CE) courses. These courses are designed to simulate the academic challenge of college-level coursework while students are still in high school. AP courses offer students the opportunity to potentially earn college credits upon successful completion of both the course and the associated exam. In contrast, CE courses enable students to take college-level courses for credit. These courses can be conducted at the students' high school or at a nearby Institution of Higher Education (IHE), often through established partnerships with high schools. Both types of courses have been consistently linked with higher academic performance and the development of critical thinking skills for students who can receive both high school and college credit for the course. Such courses also influence students' career aspirations by giving them a clearer understanding of college expectations (Ballard, 2015; Conger et al., 2023; Wai & Allen, 2019; Wai et al., 2010).

Students who engage with AP courses gain subject-specific knowledge and develop crucial skills such as self-efficacy, motivation, and personal interests. These skills may be essential for lifelong learning and academic persistence (Bryan et al., 2011; Francis et al., 2019; Henneberger et al., 2022). Research has also indicated that students enrolled in advanced courses have improved attendance rates, which may reflect increased engagement in schooling (DiBenedetto, 2018; Patrick et al., 2020). Furthermore, participation in AP and CE courses is a significant predictor of not only college enrollment but also students' ability to persist and retain their placement throughout their college education (Wai & Allen, 2019; Warne et al., 2019; Xu et al., 2021). Thus, advanced courses act as a transformative element in a student's educational journey, serving as a powerful springboard for future academic success and career development.

Equity and Inclusion

While the preceding section delineated the benefits of advanced courses, addressing the challenges of enrollment disparities for advanced courses is crucial, especially when exploring the factors considered for eighth-grade students' course placement in ninth grade. The aspiration of ensuring all students are equipped with equal opportunities to thrive in their academic pursuits often faces the harsh reality of systemic disparities (Moreno et al., 2021; Ricciardi & Winsler, 2021). A recurring critique is the lack of universal access to the benefits of AP courses, with Kolluri (2018) noting substantial barriers that deter the realization of AP as an egalitarian program. Many Black students receive the message that advanced courses are not for them (Kolluri, 2020). Ogut et al. (2023) conducted a study that centered on the quality of coursework, revealing significant disparities in enrollment rates among underserved students. Furthermore, Ebrahiminejad et al. (2021) observe that AP courses tend to be more accessible to White and

affluent students than to students who are rural, low-income, minority, or female. This sentiment is further echoed by a spectrum of studies, raising concerns about equity and inclusion in AP and CE courses (Moreno et al., 2021; Ricciardi & Winsler, 2021).

The New York Equity Coalition (2023) illuminates a disparity in educational opportunities. Despite the potential of eighth-grade Algebra I as a pivotal gateway to postsecondary success, students of color and those from low-income backgrounds remain disproportionately underrepresented in such courses. This inequity hampers college and career readiness and perpetuates educational disparities. These educational disparities are compounded by factors such as non-transparent criteria for course enrollment, insufficient communication about available educational opportunities, potential biases among educators, and a lack of educators available for courses (New York Equity Coalition, 2023). To counter these issues, the Coalition proposes implementing automated enrollment policies that consider a range of indicators of student readiness for advanced courses. Alongside broadening access, there is an urgent call for the provision of rigorous academic instruction to be paired with extensive support systems to ensure that all students can succeed in these advanced courses.

Research by Moore and Slate (2008) and Xu et al. (2021) confirms that disparities in advanced course enrollments are prevalent among different racial groups. Moore and Slate (2008) and Xu et al. (2021) highlight the persistent underrepresentation of certain racial and ethnic groups in advanced courses. For instance, even though Black and Hispanic students demonstrate academic proficiency when enrolled in advanced courses, their participation rates in such courses do not match their potential measured by standardized assessments, revealing a significant gap in enrollment (Patrick et al., 2020). Xu et al. (2021) shed light on the fact that

White students are disproportionately more likely to enroll in AP courses, exacerbating the enrollment gap in advanced courses between racial and ethnic groups. Additionally, Avery and Goodman (2022) suggest that early academic recognition can influence future enrollment decisions. They found that minority students identified as 'advanced' early in their educational journey, including those with initially low reading scores, were subsequently more inclined to enroll in challenging courses like AP Calculus. This indicates that the early academic labels and expectations set for students could play a role in bridging enrollment disparities in advanced coursework.

An examination of the varied advantages and obstacles encountered by different demographic groups reveals critical insights. McEachin et al. (2020) and Domina et al. (2016) illustrate that students of color benefit more from early Algebra I placement than their White counterparts, suggesting a potential way to bridge the existing disparities. On the other hand, Ballard (2015) finds that access to advanced courses in Virginia did not differ by racial gaps but rather by the proportions of economically disadvantaged students. Furthermore, studies have shown that students from lower socioeconomic backgrounds frequently experience course sequences that lack access to advanced courses, compounding their disadvantages (Bryd, 2015; Moore & Slate, 2008; Ogut & Circi, 2023). Patrick et al. (2020) suggest that schools and educational leaders need to set clear goals for which students receive access to advanced courses, utilizing data to uncover and address the barriers that disproportionately impact students of low socioeconomic status or students from minority races/ethnicities. By acknowledging these enrollment disparities and the distinct challenges and benefits experienced by particular student

populations, schools can develop a more effective approach to support the pivotal ninth-grade course enrollment and subsequent educational phases

Barriers and Challenges

Providing fair enrollment in access to advanced courses plays an important role in influencing student achievement, yet this comes with its own set of challenges. At the center of the issues lies the foundational principle that drives a school's ability to offer these courses: a student's prior demonstrated academic ability. Schools' abilities towards providing advanced courses is not primarily their pool on qualified educators but rather the presence of students with notable prior academic achievements (Chatterji et al., 2021; Iatarola, 2016; Kettler & Hurst, 2017). When Archbald and Farley-Ripple (2012) initially examined factors for course enrollment in advanced courses, they found that minority and lower socioeconomic status students have a lower likelihood of advanced course enrollment. After the researchers controlled for prior academic achievement, however, the disparities disappeared. While course availability plays a role in education, they are not the principal driving force in students' enrollment in advanced course enrollment (Conger et al., 2009).

Ricciardi and Winsler's (2021) research offers a conflicting perspective. They discovered that, even after accounting for past academic achievement, Black students still faced reduced odds of enrolling in AP courses. This discrepancy prompts reflection on the potential bias inherent in the selection of students for course placement. Beyond the bias in selection, prerequisites for advanced courses also emerge as impediments. These prerequisites, which can range from minimum test scores and teacher endorsements to minimum GPAs, can pose

challenges for minority students, limiting their access to enroll in advanced courses (Ricciardi & Winsler, 2021).

However, numerous studies have highlighted the complexity of assessing the effectiveness of advanced courses. These challenges encompass a wide range of factors, including the availability of courses, the quality of instruction, participation in AP exams, and persisting equity concerns (Meyer et al., 2023; Ricciardi & Winsler, 2021; Ritchotte et al., 2016; Sparks, 2023; Xu et al., 2021). While the number and qualifications of teachers have often been considered crucial for offering advanced courses, research indicates that their role is relatively minor (Iatarola et al., 2011). This finding reframes the narrative, highlighting student demand as the reason for schools' willingness to offer these courses (Iatarola et al., 2011). Such demand-driven educational dynamics might exacerbate achievement gaps, particularly in diverse school environments. Rodriguez and McGuire (2019) caution that increasing AP courses within demographically and economically diverse schools may widen the achievement gap, further alienating students already at an academic disadvantage.

Amidst these course offering challenges, early exposure to foundational courses, like early Algebra I, could pique students' interest in advanced mathematics (McEachin et al., 2020; Smith, 1996). By providing early exposure to advanced material, students are more likely to gravitate towards advanced courses later in their academic journey. In sum, while enrollment in advanced courses presents a promising academic future for some students, the path to advanced courses is filled with barriers. Understanding and addressing these challenges to access advanced courses is imperative to harness the full potential of such courses and offer equitable, quality education to all students. Given the pivotal role of the ninth-grade year in shaping students'

educational trajectories, exploring the methods, criteria, and considerations underlying eighth-grade students' placements into ninth-grade courses is essential. These decisions significantly influence a student's trajectory, highlighting the need to remove barriers and promote equitable opportunities from the beginning of high school. Building on this, it is essential to highlight counselors' pivotal role in placing eighth-grade students into their ninth-grade courses.

Counselors

Counselors' knowledge and assessment of each student's abilities play a critical role in guiding course enrollment decisions. Counselors understand the academic roadmap and have a sense of the challenges and opportunities presented by advanced courses. The role of counselors emerges as an important piece in course enrollment, ensuring that every student’s transition to high school is smooth and optimized for success.

Some researchers point to perceived cultural biases of counselors in advanced course placements for students (Francis et al., 2019; Shure, 2010). Bollig and Patrick (2020) suggest that Black and Hispanic students frequently face restricted access to advanced course placement opportunities because counselors and teachers can act as ‘gatekeepers’ (Posthuma, 2010). Some counselors interviewed claim they do not consider socioeconomic status when enrolling students in advanced courses. However, they believe advanced courses are mainly taken by more advantaged students (Bryd, 2015). Sciarra (2010) finds that some counselors suggested that socioeconomic status can significantly influence the academic trajectory of students. This often results in students from lower socioeconomic backgrounds encountering barriers that their more privileged peers do not face, with the latter group typically beginning high school with an academic advantage (Sciarra, 2010).

In the face of these placement challenges, counselor interventions have shown promise. For instance, a team initiative involving recruiting Black students into AP Psychology and supporting them through group and individual counseling created an achievement-minded cohort, emphasizing the importance of peer relationships and academic success (Davis et al., 2013; Graefe & Ritchotte, 2019). Targeted interventions have bridged identification and retention gaps within advanced placement programs, specifically for high-achieving Black students (Cook Sandifer & Gibson, 2020; Davis et al., 2013; Maldonado, 2019).

Similarly, Ohrt et al. (2009) highlighted the formation of group counseling sessions specifically for rising Hispanic and Black ninth-grade students. The counseling sessions aimed to develop the necessary study skills to be successful in advanced courses and provided a safe space for students to voice their concerns about enrolling in such classes. To further support the transition, counselors actively reached out to students' caregivers individually with educational resources that described the importance of rigorous high school course curriculum (Ohrt et al., 2009). This concerted effort by the counseling department showcased their proactive role in encouraging Black and Hispanic students to enroll in AP classes. After careful identification, counselors met with potential students, motivated them to enroll in advanced courses, and witnessed positive results for more advanced course enrollments (Ohrt et al., 2009). Recognizing the collective power of collaboration, counselors should work with stakeholders inside and outside the school system to design and implement interventions. This is important for supporting advanced course enrollment for traditionally disenfranchised and marginalized students (Ohrt et al., 2009; Swanson & Nagy, 2014).

Administrators

While counselors are significant in guiding course enrollment decisions, school leadership, particularly principals, wield substantial, positive influence. Devine (2022) found that principals influence Black and Hispanic students' access and opportunity gaps in advanced classes. Principals exercise this influence through multiple avenues: by choosing teachers for advanced classes based on specific certification criteria, developing and disseminating a clear vision for classroom instruction, and establishing a school culture with high expectations for every student. To meet these elevated expectations, support is provided to students, ensuring they are supported in their success.

However, despite these strategic actions, principals have been found to inconsistently advocate for policy alterations that could expand access to advanced course enrollment for Black and Hispanic students (Devine, 2022). Moreover, there is an increasing realization among researchers that the approach to offering advanced courses must be comprehensive. Burgun (2015) emphasizes that rural high school leaders must go beyond just listing advanced courses in their catalogs; they must actively facilitate true accessibility and maintain high content quality for students. Furthermore, school leaders should diversify their assessment tools when evaluating student readiness for advanced coursework. Relying solely on ACT or PSAT results fails to provide a holistic view; other data points are essential to ensure students are not only achieving but are also prepared for the academic challenges of higher education (Burgun, 2015).

Teachers

Teachers also have a pivotal role in determining student placement in advanced courses. As the increase of numerous course options AP classes have surged, not all academically capable students enroll in these advanced courses. While some students might avoid advanced courses,

the crux of the decision to remain in general education or continue to honors and AP tiers often hinges on the recommendations of their teachers (Hatfield, 2022). In gauging suitability for advanced courses, teachers often focus on a student's interest in the subject, surmising that enthusiasm correlates with probable success (Hatfield, 2022). Among the constellation of factors teachers weigh in recommending for advanced courses, a student's perceived work ethic is a high priority, reinforcing the belief that commitment often trumps raw talent (Hatfield, 2022). A student’s academic preparedness is another priority, underscoring the teachers’ genuine desire for their students' success (Hatfield, 2022). In unclear course placement situations, teachers tend to adopt a collaborative approach, aligning with prior teachers to ensure continued oversight and support for the student (Hatfield, 2022). Hatfield (2022) reports that teachers unanimously believe in every student's potential to succeed in advanced courses, highlighting that with the right support, untapped capabilities can be developed.

This Arkansas Study

Arkansas promoted access to advanced courses with a 2003 mandate requiring every school district to offer at least one AP course in math, science, English, and social studies (McKenzie & Ritter, 2016). Approximately a quarter of all Arkansas high school students enroll in an AP course, and 22% of Arkansas students in grades 10-12 took an AP exam (College Board, n.d.; McKenzie & Ritter, 2016). While the policy mandate has benefited White and Hispanic students in enrollment, it has not decreased the disparity of Black students' persistently lower enrollment rates (Arce-Trigatti, 2014). This racial disparity becomes even more evident when examining ACT performance, where Black students enrolled in AP courses did not experience the same performance gains as their counterparts (McKenzie et al., 2020).

The path to inclusivity in advanced courses, especially in AP and CE programs in Arkansas, remains saturated with obstacles. Specific prerequisite courses for AP courses and geographical inequities create barriers for many students (College Board, n.d.). In particular, students in Arkansas's rural regions face greater challenges accessing advanced courses compared to their suburban peers (Chatterji et al., 2021). However, access to advanced courses does not guarantee equity, as the increased availability of advanced courses has not been linked with narrowing racial enrollment gaps (Iatarola, 2016).

Existing studies primarily emphasize secondary-level enrollment patterns in advanced courses. However, a study on the critical ninth-grade year advanced course placement for Arkansas remains absent. We narrow this study's lens on this pivotal year, studying the course enrollment predictors for Arkansas's eighth-grade students entering the ninth grade. Consequently, our research seeks answers to:

- Does the likelihood of student enrollment in advanced courses exhibit socioeconomic and racial disparities?
- What factors are associated with the placement of ninth-grade students into courses in Arkansas schools? Moreover, how do counselors weigh various factors when transitioning eighth-grade students into ninth-grade courses?

III. Methods

Data and Sample

Analytic Sample

We utilized anonymized student-level data provided by the Arkansas Department of Education (ADE), to identify a sample of Arkansas ninth-grade students from the most recent

five years of available data for our quantitative analysis. The pooled sample, consisting of 164,697 first-time, full-time ninth-grade students, includes the 2017-18—2021-22 school years and the 2016-17—2020-21 eighth-grade prior achievement scores on annual state-required assessments in English language arts (ELA) and math. Due to the cancellation of the 2019-20 Arkansas state assessments amid the COVID-19, the analysis incorporates 2020-21 ninth-grade students' 2018-19 seventh-grade achievement scores as a substitute for prior academic achievement.

The data contain student demographic and programmatic attributes, absences by day, and discipline infractions. Our outcome variable of interest is a binary indicator for ninth-grade enrollment in an advanced course. We define a course as advanced if it meets one of the following criteria: 1) Advanced Placement (AP), 2) Pre-Advanced Placement (Pre-AP), 3) "advanced" in the course title, 4) a concurrent enrollment course, 5) or a math or science course that exceeds regular ninth-grade academic tracking pace, such as Algebra II, Geometry, Chemistry, or Biology. A ninth-grade student receives an indicator of "1" if they enroll in at least one course identified as advanced.

Our pooled analytic sample included all school districts with ninth-grade students enrolled in advanced courses. We omitted six Arkansas districts from our sample due to none of their 1,081 ninth-grade students being enrolled in advanced courses from the 2017-2022 school years. We list these districts in the Appendix as Table 1a. We provide the student demographic and programmatic differences between this original sample and our analytic sample in the Appendix as Table 2a, asserting that no statistically significant discrepancies exist between them.

Survey Sample

Procedure. We created a survey for counselors in Arkansas to understand the rationale behind counselors' placement of eighth-grade students entering ninth-grade courses. We secured ethical clearance from the Institutional Review Board (IRB) to disseminate the surveys. The survey included six course placement questions and six demographic questions. This survey instrument is Table 3a in the Appendix. Counselors could abstain from answering any question and withdraw from the survey at any time.

The survey, accessible via a Qualtrics survey link, was open to all Arkansas counselors from July 24 to August 18, 2023. We emailed the link to all state counselors, using contacts from the Arkansas Department of Education's My School Info website (ADE, 2023). We also conducted a gift card lottery incentive to encourage participation, offering participants who completed the survey a 1 in 3 chance of winning a $50 gift card. The survey maintained participant anonymity, and any participation in the drawing was channeled through a separate portal to ensure the detachment of personal identification from survey responses.

Participants. We invited 906 counselors to participate in our survey and received 90 responses that were relevant to our study on advanced course enrollment, making the effective response rate for counselors involved in the placement of eighth-grade students into courses approximately 10% of the total invitations sent. We report the demographics of our respondents in Table 3b in the Appendix. Most respondents self-identified as White (87%) and female (92%). The representation of counselors spanned various career phases, with 27% being at the beginning of their career, 43% in middle career, 20% approaching the end, and 10% extending beyond the length of traditional career timelines. The majority served middle and high school students, comprising 62% and 71% of the respondents, respectively. The respondents were predominately

licensed school counselors (97%). A minority of our sample were also licensed professional counselors (8%) in addition to being counselors. The highest educational attainment reported for most respondents was a Master's degree (86%), with Bachelor's degree (3%), followed by Professional degrees (7%) and Doctorates (4%).

Interview Sample

To explore the qualitative aspects of the study and investigate the reasons guiding the placement of eighth-grade students into ninth-grade courses, we conducted semi-structured interviews with 14 school counselors following approval from the IRB. This qualitative approach enriched our quantitative findings by providing insights into the motivations and rationales behind student course placement.

Participant Selection. Our participants were selected by a stratified random sampling technique (Neyman, 1934), ensuring representation across three subgroups within our Arkansas districts. Recognizing that Arkansas's geographic regions present unique challenges distinct from enrollment size and FRL status, we established three main categories for our study: District FRL Composition, District Enrollment Size, and Geographic Region, to capture the wide-ranging landscape of factors that could influence counselor practices and student course placements. We established these categories based on the theory that schools in Arkansas encounter varying challenges, influenced by factors such as FRL composition, district enrollment size, and geographic region within the state.

We categorized District FRL Composition into four groups: High, Medium-High, Medium-Low, and Low, based on the distribution of FRL compositions across the state and the state average FRL composition of 60.1%. For District Enrollment Size, we established five

categories: Macro, Large, Medium, Small, and Micro, using quartile suggestions and natural cut-offs around district sizes. The process of creating these segments was iterative to ensure meaningful data groups. Furthermore, the regional locales of Arkansas schools, as defined by the Office for Education Policy, were divided into five categories. Detailed category and subgroup percentages can be found in the Appendix as Tables 4a-c.

Recruitment. After categorizing districts, we initiated the recruitment of counselor participants, reaching out to a total of 19 counselors via email invitations for interviews. This six-week process yielded a 74% response rate, resulting in 14 interviews. We initially contacted counselors through email in the identified districts and followed up with three rounds of emails to schedule interviews. For non-responsive counselors, we made attempts to reach them by phone at their school office number, making up to three calls. In addition to the 14 interviews that matched the defined categories, we also approached 5 counselors within the same categories to ensure complete coverage, leading to a total of 19 interview invitations extended.

Methodology

Logit Analysis

To investigate our research question—"What factors influence the placement of ninth-grade students into courses in Arkansas schools?"—we employ a logit model with district-fixed effects. We selected the logit model for our study because it is well-suited for binary outcomes, in our case whether a student enrolls in at least one advanced course in ninth grade. This method is preferable over Ordinary Least Squares (OLS) regression, which is less suitable for binary outcomes (Cunningham, 2021). Our use of district-fixed effects controls for unobserved variables that are constant over time, such as the concentration of student demographics or

characteristics within certain districts. Utilizing this district-fixed effects method in our logit analysis allows us to assess the relationships more accurately between student demographic and programmatic characteristics, district characteristics, and the course enrollment variable (Huntington-Klein, 2021).

Given the intercorrelations between our variable of interest, enrollment in advanced courses in ninth grade and student demographic and programmatic characteristics, it is imperative to incorporate these elements as control variables. This inclusion enables us to scrutinize the unique relationship of the FRL and race/ethnicity indicators on advanced course enrollment while accounting for potential intercorrelations. This approach ensures a reduction in biases that could be introduced by omitted variables bias and enhances the robustness of our model, enabling more accurate and reliable estimates of the relationships. We cluster our standard errors at the district level as course enrollment rates are different for different student characteristics, students are not randomly sorted among districts, and there is clustering among student demographic and programmatic characteristics among districts (Huntington-Klein, 2021).

Accordingly, our statistical model to explore the research question is structured as follows:

$$Logit(Advanced_i) = \beta_0 + \boldsymbol{\beta}_1 FRL_i + \boldsymbol{\beta}_2 \boldsymbol{\chi}_i + \boldsymbol{\beta}_3 \Omega_i + \varepsilon_i$$

Where:

- $Advanced_i$ is the outcome variable, representing whether student *i* enrolls in an advanced course in their ninth-grade year. It is assigned 1 for enrollment in AP, Pre-AP, Advanced, CE, Algebra II, Geometry, Chemistry, or Biology.

- $\boldsymbol{\beta}_1$ represents our binary indicator variable of interest, representing participation in the Free or Reduced-Lunch program by student *i*.
- $\boldsymbol{\chi}_i$ is a vector representing the characteristics of student *i*, including gender, race, ethnicity, absences, disciplinary infractions, Gifted and Talented status, English Language Learner status, Special Education status, and prior achievement scores on state-required assessments in math and ELA. It is associated with corresponding $\boldsymbol{\beta}_2$ coefficients.
- Ω_i is a vector reflecting the district characteristics of student *i*, including district FRL compositions, log of district enrollment, and district fixed effects, each associated with the corresponding $\boldsymbol{\beta}_3$ coefficients.
- ε_i accounts for the random error associated with the student *i*

In this model, we employ robust standard errors, and to facilitate interpretation, we present our logit estimates as average marginal effects.

Qualitative Analysis

We employed a phenomenological research design to capture the essence of participants' lived experiences and anchored our subsequent data analysis in inductive Thematic Analysis (Braun & Clarke, 2006; Clark et al., 2015). In initial analyses, each researcher independently examined responses to the six structured interview questions and additional follow-up inquiries, encoding individual responses on Excel spreadsheets. This phase involved recognizing clusters of meaning using categorical coding (Creswell & Creswell, 2017; Creswell & Poth, 2016). To ensure the pertinence of our initial codes, we adopted an iterative, open coding method (Saldana, 2016).

After analyzing independently, we reviewed and reconciled our initial 12 codes to enhance reliability. This collaborative exercise led us to consolidate into six broader categories focused on the six questions. This methodology aligns with the principles of axial coding, where common properties and dimensions connect codes (Saldana, 2016). After establishing our categories, we aimed to extract overarching themes. We convened to identify six predominant themes that succinctly describe the processes of placing eighth-grade students into ninth-grade courses in Arkansas. To complement this thematic extraction, we triangulated our findings from prior literature established themes (Carter et al., 2014).

We aimed for reliability and validity throughout our analysis. By independently coding and then building consensus through discussion, we enhanced the consistency of our interpretations. To fortify the validity of our conclusions, we submitted our categorized responses to professional colleagues for external review, maintaining a reflective and critical stance throughout. We ensured the capture of interviewees' perspectives, enriching the credibility and depth of our results (Whittemore et al., 2001).

IV. Results

We now present the results of our study. We present the descriptive tabulations and discuss the likelihood of advanced course placement for FRL students. We finish our results section with themes from our counselor interviews.

Descriptive Findings

We compiled the enrollment figures of ninth-grade students in advanced courses, along with the corresponding percentages as detailed in Table 5 below. This offers insights into the

distribution of Arkansas's ninth-grade students enrolled in advanced courses across demographic and programmatic characteristics.

Table 5

Number and Percentage of Ninth-Grade Students in Advanced Courses by Demographic and Programmatic Characteristics, Pooled, 2017-2022

Characteristic	N	Advanced	% Enrolled in Advanced
Male	84,148	20,783	24.7
Female	80,549	23,566	29.3
White	101,160	30,128	30.0
Black	31,752	6,044	19.0
Hispanic	22,313	5,051	22.6
Asian	2,596	1,433	55.2
Other Races	9,472	3,126	33.0
Free or Reduced-Price Lunch	99,036	19,008	19.2
Gifted and Talented	21,598	13,695	63.4
English Language Learner	10,502	785	7.5
Special Education	19,411	862	4.4
Total	163,616	44,349	27.1

Our sample consists of 163,616 ninth-grade students, with 27.1% of those students enrolled in advanced courses. A gender-wise tabulation reveals that a lower percentage of male students (24.7% of 84,148) enrolled in advanced courses in ninth grade than their female counterparts (29.3% of 80,549). When examining racial and ethnicity demographics, Asian students exhibit the highest enrollment rate in ninth grade advanced courses at 55.2%, students of Other Races at 33.0%, White students at 30.0%, Hispanic students at 22.6%, and Black students at 19.0%. Students with Gifted and Talented (GT) status exhibit a significantly higher enrollment in advanced courses at 63.4%, followed by those with FRL status at 19.2%. Students in the English Language Learning (ELL) program have an enrollment rate of 7.5% in advanced

courses, with students receiving Special Education (SPED) services showing the lowest enrollment rate at 4.4%. This table highlights the levels of participation in advanced courses across student groups.

To provide a comprehensive perspective on the enrollment of ninth-grade students in advanced courses across different district FRL composition categories, we have compiled the relevant data and percentages in Table 6 below. This table offers insights into the distribution of ninth-grade students in advanced courses across varying district FRL compositions.

Table 6

Ninth-Grade Students Enrollment in Advanced Courses Across District FRL Composition, Pooled, 2017-2022

District FRL Composition	District N	Weighted Av. District FRL	Student N	Advanced N	% Enrolled in Advanced
High (100%-75%)	64	83.1	16,971	3,764	22.1
Medium High (74%-70%)	68	72.2	47,502	11,712	24.7
Medium Low (69%-50%)	74	60.9	50,648	12,450	24.6
Low (49%-0%)	45	38.7	48,495	16,423	33.9
Total	251	64.9	163,616	44,349	27.1

We present the distribution and percentage of ninth-grade advanced course enrollments within varied District FRL Composition categories in Table 6. In High FRL composition districts, 22.1% of students are enrolled in at least one advanced course. Medium-High and Medium-Low FRL composition districts show a similar pattern, with 24.7% and 24.6% enrollment in advanced courses, respectively. However, in districts characterized as Low FRL composition, a higher percentage of ninth-grade students, 33.9%, are enrolled in at least one advanced course. This highlights that schools with a lower composition of FRL have the highest

percentage of enrollment in advanced courses, revealing a relationship between a district's lower FRL composition and higher ninth grade enrollment in advanced courses.

To gain a deeper understanding of the relationship between district enrollment size and the enrollment of ninth-grade students in advanced courses, we have compiled the relevant data and corresponding percentages in Table 7 below. This table provides insights into how district size is related to ninth-grade student enrollment in advanced courses.

Table 7

Percent of Ninth-Grade Students Enrolled in Advanced Courses Across District Enrollment Size, Pooled, 2017-2022

District Enrollment Size	District N	Average District Size	Student N	Advanced N	% Enrolled in Advanced
Macro (22,000 - 5,000)	15	11,483	59,335	18,301	30.8
Large (4,999 - 2,000)	41	3,202	44,712	11,498	25.7
Medium (1,999 - 1,000)	60	1,406	29,903	8,138	27.2
Small (999 - 500)	87	719	23,381	5,096	21.8
Micro (499 - 83)	48	329	6,285	1,316	20.9
Total	251	1,816	163,616	44,349	27.1

In the largest (macro) districts, 30.8% of ninth-grade students are enrolled in advanced courses, showing the highest enrollment percentage amongst the enrollment categories. Large and medium-sized districts follow with 25.7% and 27.2%, respectively. This depicts a higher number of enrolled ninth-grade students in advanced courses for larger districts. Conversely, small and micro districts have lower enrollment percentages, with 21.8% and 20.9% of students

enrolling in advanced courses, respectively. This illuminates a notable trend where larger districts enroll more ninth-grade students in advanced courses than their smaller counterparts.

To provide context for the variations in ninth-grade advanced course enrollment rates, we have compiled the data for students across the five geographic regions in Arkansas and present the corresponding percentages in Table 8 below. This table allows us to examine how geographic regions within the state may influence ninth-grade student enrollment in advanced courses.

Table 8

Percent of Ninth-Grade Students Enrolled in Advanced Courses Across State Geographic Regions, Pooled, 2017-2022

Region	District N	Student N	Advanced N	% Enrolled in Advanced
Northwest	76	61,127	18,424	30.1
Northeast	65	31,850	6,473	20.3
Central	53	47,703	12,865	27.0
Southwest	35	14,911	4,573	30.7
Southeast	22	8,025	2,014	25.1
Total	251	163,616	44,349	27.1

Table 8 illustrates the variation in advanced course enrollment rates across geographic regions in Arkansas. The Southwest region exhibits a 30.7% ninth-grade advanced course enrollment rate, closely followed by the Northwest region, which exhibits a 30.1% ninth-grade advanced course enrollment rate. The Central region has a 27.0% enrollment rate, while the Southeast region has a 25.1% enrollment rate in advanced courses. The Northeast region registers a relatively lower enrollment rate at 20.3% in advanced courses. These percentages depict a landscape of advanced course enrollments for ninth-grade students across the regions, with the Southwest and Northwest regions having the highest percentages.

Descriptive trends provide preliminary insights into the variations in ninth-grade advanced course placement across different student demographics, district sizes, and geographic regions, shedding light on the overarching patterns and disparities in advanced course enrollment rates for ninth-grade students. However, the results do not account for potential confounding factors such as student prior achievement, district-specific factors, and other underlying variables that might influence course placements. Thus, we employ a logit analysis to explore the intricacies of the relationships and to accurately assess the unique contributions of individual student characteristics on the likelihood of ninth-grade advanced course placement. This method integrates student and district controls to isolate the influences of district characteristics, ensuring the study's internal validity. By incorporating these controls, we minimize biases and confounding relationships stemming from unaccounted variables, rendering the model more robust and the resultant estimates more reliable and accurate. This multifaceted approach provides more of an understanding of ninth-grade advanced course placements' complexities, allowing for more informed interpretations and conclusions.

Logit Analysis

The results of our logit analysis are displayed below in Table 9, with a focus on student demographic and programmatic variables.

Table 9

Eighth-Grade Student Likelihood of Enrolling in Ninth-Grade Advanced Courses, Pooled, 2017-2022

	Contrast
Sex	
Male vs Female	-1.6***
	(0.00)

Race/Ethnicity	
Black vs Asian	-22.4***
	(0.03)
Hispanic vs Black	7.7***
	(0.01)
Other Races vs Black	4.4***
	(0.04)
White vs Black	6.7***
	(0.01)
Hispanic vs Asian	-14.7***
	(0.03)
Other Races vs Asian	-18.0***
	(0.03)
White vs Asian	-15.7***
	(0.03)
Other Races vs Hispanic	-3.3***
	(0.01)
White vs Hispanic	-1.0***
	(0.00)
White vs. Other Races	2.3***
	(0.01)
Programmatic	
Free or Reduced-Price Lunch	-8.0***
	(0.01)
Gifted and Talented	32.5***
	(0.02)
English Language Learner	-10.8***
	(0.01)
Special Education	-19.6***
	(0.00)
Math prior achievement	x
ELA prior achievement	x
Absences	x
Disciplinary infractions	x
District FRL composition	x
log(districtenrollment)	x
District fixed effects	x
Observations	163,616
Pseudo R^2	0.34

Results displayed as average marginal effects. Robust standard errors are in parentheses.
*** p<0.01, ** p<0.05, * p<0.1

All logistic regression analysis results are statistically significant at the 99% confidence level. Due to the large sample size, however, statistical significance may not imply practical or meaningful significance. For example, the statistical analysis shows that male eighth-grade students are 1.6 percentage points less likely than their female counterparts to enroll in ninth-grade advanced courses, and while this difference is statistically significant, it may not have significant practical implications.

The coefficients contrasting the likelihood between student races and ethnicities are more meaningful. Holding all else equal, Asian eighth-grade students are 22.4 percentage points more likely to enroll in advanced ninth-grade courses than Black eighth-grade students. Additionally, Asian students exhibit a 14.7, 18.0, and 15.7 percentage point higher likelihood of enrolling in advanced courses than Hispanic, Other Races, and White students. Conversely, Black students exhibit a lower likelihood to enroll in advanced courses compared to Hispanic (7.7 percentage points), Other Races (4.4 percentage points), and White students (6.7 percentage points). While the coefficient contrast differences between Other Races and Hispanic students, White and Hispanic students, and White and Other Races students are statistically significant, they do not hold practical significance due to their smaller point estimates.

Our variable of interest is the difference in the likelihood of enrolling in advanced courses between FRL and non-FRL students. When controlling for all other variables, FRL students are eight percentage points less likely to enroll in ninth-grade advanced courses than their non-FRL peers, a practically meaningful and statistically significant difference at the 99% confidence level. Furthermore, ELL and SPED students are 10.8 and 19.6 percentage points less likely to enroll in advanced courses than their non-ELL and non-SPED counterparts, GT students

are 32.5 percentage points more likely to enrolled in advanced courses than their non-GT counterparts. The model's pseudo-R^2 of 0.34 indicates a moderately strong explanatory capability, reinforcing our confidence in the model's ability to explain the variation in advanced course enrollments in ninth grade.

Counselor Survey Trends

We present four tables that describe trends from our counselor survey to highlight survey results. First, we provide a table that presents the extent of influence counselors believe they have on course placement for eighth-grade students transitioning into ninth grade and how frequently this influence occurs. We present this in Table 10 below.

Table 10

Counselor Influence and Frequency of Involvement in Eighth-to-Ninth-Grade Course Placement (n=90)

	High Influence	Moderate Influence	Some Influence	Little Influence	Total %
Always	37.8	10.0	4.4	0.0	52.2
Very Often	6.7	4.4	6.7	0.0	17.8
Sometimes	0.0	7.8	6.7	3.3	17.8
Rarely	0.0	3.3	2.2	6.7	12.2
Total %	44.4	25.6	20.0	10.0	100.0

This cross-tabulation table highlights the counselors' perceived level of influence and the frequency of their involvement in placing eighth-grade students into ninth-grade courses from their answers to, "How involved are you in placing eighth-grade students into ninth-grade courses?" and "How much influence do you have over placing eighth-grade students into ninth-grade courses?" Of the 90 counselors surveyed, 44.4% report they highly influence course

placement decisions, followed by 25.6% who believe they have moderate influence. When examining the frequency of involvement, 52.2% of counselors are always involved in these placement decisions, 17.8% are very often involved, and the remaining 30% are only sometimes or rarely involved in the decisions. The counselors who report regularly placing eighth-grade students into ninth-grade courses also report having more influence over the course placement process.

The following table, Table 11, provides insights into the frequency and intensity of pressure that counselors experience from parents and guardians regarding course placement decisions.

Table 11

Frequency and Extent of Parental Pressure on Counselors Regarding Eighth-to-Ninth-Grade Course Placement (n=90)

	High Pressure	Moderate Pressure	Little Pressure	No Pressure	Total %
Often	6.7	5.6	0.0	0.0	12.2
Sometimes	4.4	30.0	14.4	4.4	53.3
Rarely	0.0	2.2	1.4	4.4	21.1
Very Rarely	0.0	1.1	5.6	6.7	13.3
Total %	11.1	38.9	34.4	15.6	100.0

Table 11 illustrates the extent of pressure counselors perceive from parents and guardians regarding course placement based on their responses to two questions: "To what extent do you feel pressure from your students' guardians to place eighth-grade students into ninth-grade academic courses?" and "How often do you feel pressure from your students' guardians to place eighth-grade students into ninth-grade academic courses?" A small percentage of counselors,

6.7%, often experience high pressure from parents, whereas the majority, 30%, sometimes experience moderate pressure. Little pressure is felt by 34.4% of counselors. Moreover, a total of 15.6% of counselors reported experiencing no pressure from parents or guardians in course placement. Overall, the counselors surveyed reported there is parental pressure regarding course placement decisions, with most experiencing moderate pressure sometimes.

In Table 12, we provide a comprehensive overview of the specific criteria and attributes that counselors consider when making course placement decisions for eighth-grade students transitioning into ninth-grade courses. This information offers valuable insights into the factors that play a pivotal role in course placement strategies.

Table 12

Counselor Considerations for Student Criteria in Ninth-Grade Course Placement (n=90)

	Extremely important	Moderately important	Somewhat important	Not at all important
Previous academic course grades	55.6	37.8	6.7	0.0
Standardized state test scores	24.4	40.0	26.7	8.9
Teacher recommendation	34.4	41.1	22.2	2.2
Student interest	71.1	27.8	1.1	0.0
Student ELL status	31.1	33.3	25.6	10.0
Student GT status	22.2	33.3	22.2	22.2
Student with SPED services	54.4	21.1	17.8	6.7
Student FRL status	6.7	5.6	5.6	82.2

In considering advanced placement for eighth-grade students transitioning to ninth grade, counselors weigh various factors to inform their decisions by answering the question, “How important are the following characteristics, qualities, or abilities when placing eighth-grade students into ninth-grade courses?” Counselors were prompted to rate all categories in the question. Most counselors view previous academic course grades as extremely important

(55.6%), followed by 37.8% viewing course grades as moderately important. Student interest also plays a large role (99%) in counselor considerations, with 71.1% of respondents marking it as extremely important and 27.8% as moderately necessary. Furthermore, counselors also emphasize teacher recommendations, with 34.4% rating them as extremely important and 41.1% as moderately important. Standardized state test scores are also valued, with 24.4% of counselors finding them extremely important and 40.0% moderately important.

Most of the surveyed counselors consider student participation in the FRL program unimportant (82.2%). Counselors' perspectives on student statuses, including ELL, GT, and SPED services, exhibited varying degrees of importance. GT status was deemed extremely important by 22.2% of counselors, while an equivalent percentage regarded it as having little relevance. This divergence in views highlights the considerations counselors face when evaluating student statuses during course placement. Such variations underscore the range of factors counselors weigh in making placement decisions, reflecting their individual approaches to addressing the needs of their students.

Overall, the responses from the surveyed counselors provide perspectives on the course placement process for eighth grade students transitioning to ninth grade. When prompted about the level of agreement or disagreement regarding whether their school appropriately places eighth-grade students into ninth-grade courses, 86.7% of counselors agreed, responding with either 'strongly agree' (31.1%) or 'agree' (55.6%).

Qualitative Themes

For our qualitative analysis, we thematically analyzed the responses from the counselor interviews based on the specific questions we posed to them. We highlight the theme differences

by each district's size, FRL composition, and regional location in line with our methodological framework due to the relationship each characteristic may have on each district. This analytic approach allows for a more comprehensive understanding of how various characteristics uniquely influence districts, offering insights into the nuances of course placement practices within each context.

Question 1. What characteristics, qualities, or abilities do you look at for eighth-grade students when placing them in ninth-grade courses?

Diverse and critical factors shape the placement of students into ninth-grade courses, particularly in districts with smaller enrollments, where the nuances of medium-high to high FRL compositions influence course placement. A third of counselors (n=5) prioritize student and parent interests. Higher grade point averages and prerequisites are vital for those in medium-high FRL areas. On the other hand, in high FRL regions, prior test scores play a significant role. Notably, in one high FRL micro-district, all students are placed on the same course track. If students want more challenging classes, they can take online courses or the students must move to a different school district to take advanced courses. In medium to large enrollment districts, ranging from low FRL to medium-high FRL, almost half of the counselors (n=4) rely on a combination of prior grades, student interest, teacher recommendations, and data-driven factors. Student summer worksheet and homework packets, student success plans, and characteristics like maturity and perseverance are also mentioned. Some medium enrollment districts in medium-low FRL areas lean on teacher conferences about courses, while others adopt an anonymizing approach to ensure unbiased placements based solely on data.

In the largest districts (macro) with medium-high FRL, two counselors use a data-driven approach, and if other students want to get on the advanced course tracks, they must complete summer packets. State mandates dictate open access to AP courses based on student interest. Math placements, however, often remain contingent on teacher recommendations because math course tracks start as early as seventh grade. In larger, high-FRL districts, approximately 10% of counselors highlight a combination of factors such as prior test scores, teacher recommendations, and the student's willingness to engage in additional projects as influential for ninth grade course placement. The placement strategies across these diverse districts underline the complex interplay of student performance, interest, teacher feedback, and administrator policies in shaping ninth-grade course enrollments. Overall, we find that school counselors consider a myriad of factors when placing eighth-grade students into ninth-grade courses. Counselors using data to make ninth-grade course placement decisions are not associated with district size, FRL composition, or regional locations.

Question 2. How well does your school do at placing students in advanced courses?

In districts with small to macro enrollment sizes, particularly within medium-high to low FRL regions, most counselors report positive sentiments with the process of placing students in advanced courses, representing around 60% of responses. Key components contributing to these districts' success include emphasis on student interest, annual presentations about course options, collaborative team efforts, and allowing students to have a say in their course choices. In several districts, especially those of medium to macro sizes within medium-high FRL districts, the system in place is described as "good" or "really good" by all 14 counselors interviewed. A

structured approach is cited as effective, such as setting prerequisites as early as seventh grade or devising student success plans based on career interests.

Forty percent of the interviewed counselors, however, noted challenges exist. There is an acknowledgment of the need for growth and improvement for larger districts in both medium-low and medium-high FRL categories. One counselor noted that some students, especially those who are less motivated, "tend to fly under the radar." Smaller districts, particularly in high FRL districts, have faced disruptions due to events like COVID-19 or simply don't offer many advanced course options. This has led to ninth-grade students having to take advanced courses through Arkansas Virtual Academy or switching districts to access advanced courses. Balancing the student count in advanced courses is also challenging in some medium-sized districts within the medium-high FRL range. A counselor identified the role of counselors, who may not always be trained for extensive scheduling tasks but end up overseeing them, as a critical point for improvement in their district. Furthermore, the transition from middle to high school sometimes sees a dip in enrollment for advanced courses, as advanced courses in high school can be perceived by students as "more challenging and distracting." While most interview participants (60%) believe their school does well at placing students in advanced courses, other counselors (40%) note they have room to grow.

Question 3. Can you describe your influence over placing students in courses at your school? Who has the final say in ninth-grade course placement?

In many districts, the influence over placing students is collaborative, representing about 65% of the counselors' responses. In these districts, various combinations of stakeholders, including principals, counselors, students, parents, and committees, are involved in the decision-

making process. For instance, macro districts in medium-high FRL districts emphasize data-driven approaches and student interest assessments. Some medium to small districts in medium-low to medium-high FRL districts also highlight the significant role played by committees composed of GT teachers, counselors, parents, and students in deciding course placements.

Specific individuals or groups have ultimate decision-making power in several districts, accounting for 35% of responses. Principals often have the final say, as observed in small to macro schools across medium-high FRL regions. The principals' decisions are typically based on rules, guidelines, and data checks. Yet, in some large schools with both low and medium-high FRL compositions, the voice of the student and their parents is predominant. Additionally, one counselor at a medium-sized district referenced a central office worker instructing them to place a student in an advanced course, noting that the school board has the final say. Moreover, a large school in the low FRL category emphasized not limiting students from choosing desired courses. At the same time, another in the high FRL region notes that students might leave the district if course placements don't align with their wishes. In sum, while collaboration is a key theme in determining course placements, the ultimate authority varies across schools through a lack of transparent systems, with principals, committees, and student-parent voices being most prevalent.

Question 4. Do you feel pressure from parents to place students in academic courses they aren't academically ready for? Can you explain further?

The sentiment concerning parental pressure over academic course placement varies across schools, with most counselors reporting minimal pressure. Around 60% of the responses across various district sizes and FRL compositions reflect limited parental influence in course

selection. Specifically, small and medium districts in both medium-high and medium-low FRL districts, including those in more geographically rural regions, indicate a lack of parental pressure, primarily due to consistent adherence to guidelines and the characteristics of their communities. Additionally, macro districts with a medium-high FRL composition and large districts with a medium-low FRL composition mention infrequent instances of parental pressure for placing students in courses.

Approximately 40% of counselors acknowledge various levels parental involvement, ranging from mild nudges to intense confrontations. A macro school with a medium-high FRL composition noted that parents often desire advanced tracks for their children, signaling some pressure. A counselor in the medium district in the medium-low FRL category mentioned an interesting dynamic; if parents want their child to enroll in a more challenging class, the counselor advises the student to excel on upcoming standardized tests. Achieving a high-ranking norm-referenced score on the standardized test can become a ticket to advanced courses.

Large districts in the medium-high FRL range reveal a more nuanced situation. There are instances where affluent parents exert excessive pressure, and this can lead to school board members stepping in to make sure the counselor places the students in the advanced course(s). A medium-sized district in the medium-high FRL bracket describes intense discussions with parents who might not understand the “stark difference between high and elementary school academic expectations.” In conclusion, while many districts experience limited parental pressure concerning course placements, there are distinct pockets where parental aspirations can sometimes overshadow students' academic readiness. Most of these instances revolve around

pursuing advanced tracks or higher academic challenges. Moreover, these parental pressures highlight the lack of consistent and transparent course enrollment systems for Arkansas schools.

Question 5. If parents have insisted on an academic course harder than what their child is prepared for, how do those situations normally turn out? What is your personal experience?

District counselors report varied outcomes when parents insist on enrolling their ninth-grade children in courses beyond the students' academic readiness as perceived by the counselors. Smaller districts, especially those with medium-high FRL compositions, tend to see students drop challenging courses early on, and larger districts often witness students struggling to keep up. However, certain districts, particularly macro-sized ones with medium-high FRL, opt for a collaborative approach, engaging teachers to support these students. In stark contrast, some high FRL districts' families are known to transfer to different school districts to ensure their children can enroll in more challenging courses. A consistent theme across districts, especially smaller ones with medium-high FRL, is the value of effective counseling, which often prevents such situations by guiding parents on course suitability.

Question 6. Lastly, can you describe how your course placement for eighth-grade students into ninth grade might differ based on your school's category (district enrollment size, district FRL composition, geographic location)?

The course placement process for students transitioning from eighth to ninth grade differs across districts based on district enrollment size, FRL composition, and geographic location. In smaller districts with medium-high FRL, the intimate setting allows counselors to connect directly with parents to tailor course placements. In contrast, larger, low FRL districts while

maintaining intimacy in student interactions, often witness a lack of parental experience in the placement process. Medium enrollment districts with medium-low FRL focus on student success plans, where direct meetings with students are prioritized, noting that typically only children of teachers have parents involved in placements. Given their expansive scale, macro-sized districts with medium-high FRL can place students in advanced courses based on interest while also striving to identify a more diverse set of high-academic-ability students. Large, medium-low FRL district counselors, however, face difficulties in establishing intimate connections with students, which hinders their ability to fully comprehend each student's interests. One counselor highlighted the challenges of working in a large district, stating that the sheer number of students makes it difficult to know every student by name.

A unique constraint for medium districts with medium-low FRL is the limited availability of advanced courses. These counselors noted placing the right number of students for advanced courses is like, “a jigsaw puzzle.” In contrast, micro-sized districts with medium-high FRL, due to their size, often have a deeper understanding of individual students. One counselor noted an observable divide between White and Black students in a large school district in one region, as this counselor noted, is potentially influenced by the FRL status. Small, high FRL district counselors depict a scenario where students must navigate course placement independently from their parents due to a lack of parental involvement. In certain micro-sized high FRL district, students must switch districts to access desired courses. One counselor expressed a straightforward perspective, stating, "Course placement isn't the issue." The primary challenge lies in the level of parental support, or its absence, along with educators' strong desire for parents to inspire their children to pursue advanced courses. In essence, regardless of school

characteristics, counselors share a common aspiration to establish stronger connections with students and hope for increased parental involvement in the course selection process.

V. Discussion

This study presents a comprehensive analysis of ninth-grade advanced course placement in Arkansas, uncovering significant enrollment disparities rooted in race and socioeconomic status. Our quantitative analysis reveals that the most pronounced disparities exist among Black ninth-grade students, who are less likely to enroll in advanced courses compared to their peers of other racial and ethnic backgrounds after controlling for prior academic achievement. Additionally, our qualitative findings emphasize the importance of parental involvement, particularly for students from lower socioeconomic backgrounds, as a key factor influencing advanced course placement decisions by counselors. These results not only reflect nationwide trends but also illuminate the persistent equity challenges within Arkansas's educational system.

Statistical Inequitable Enrollment

Our findings highlight enduring enrollment disparities in advanced courses in ninth grade associated with a lack of transparent and systematic course placement. This underscores a consistent theme in educational research that points to systemic obstacles impeding access to such courses despite these students' proven academic potential (Ebrahiminejad et al., 2021; Kolluri, 2020; Moreno et al., 2021; Patrick et al., 2020; Ricciardi & Winsler, 2021; Xu et al., 2021). Although Ebrahiminejad et al. (2021) found female students to be less likely to enroll in advanced courses, we find evidence that female ninth-grade students in Arkansas are as or more likely to enroll in advanced courses their ninth-grade year than males with similar academic abilities. Additionally, contrary to Archbald and Farley-Ripple's (2012) observation that

disparities in course placement can be mitigated by controlling for prior achievement, our study reveals that significant enrollment likelihood gaps persist for ninth-grade students in Arkansas. This aligns with Ricciardi and Winsler's (2021) research, indicating that Black students are less likely to enroll in advanced courses even when accounting for prior academic achievements.

Arkansas course enrollment gaps are particularly concerning, given the role of advanced courses as conduits to future academic success and professional pathways (New York Equity Coalition, 2023). In Arkansas, despite policy efforts to improve access, Black students' enrollment rates in advanced courses remain disproportionately low (Arce-Trigatti, 2014), and the broader availability of these courses has not closed racial enrollment gaps (Iatarola, 2016). This suggests that merely increasing access to advanced courses is insufficient to ensure educational equity without addressing the deeper factors at play.

The persistent inequities in advanced course access for ninth-grade students extend beyond racial lines to socioeconomic divides. Our study's findings corroborate the narrative that ninth-grade students from wealthier, predominantly White backgrounds are afforded more access to AP courses (Ebrahiminejad et al., 2021). This is further substantiated by the New York Equity Coalition (2023), which notes the stark underrepresentation of students from low-income backgrounds in pivotal courses like eighth-grade Algebra I, a key predictor of postsecondary success. Chatterji et al. (2021) suggests students in rural areas face greater challenges in accessing advanced courses than their suburban peers. This may exacerbate the disadvantages for students from lower socioeconomic backgrounds who are often relegated to less rigorous course sequences (Bryd, 2015; Moore & Slate, 2008; Ogut & Circi, 2023). Our analysis reveals that even after controlling for prior academic achievement, ninth-grade students participating in the

FRL program remain significantly less likely to engage in advanced coursework, underscoring the entrenched nature of these disparities.

Counselor Placements

Our findings in the counselor survey and counselor interviews were triangulated with prior findings in the literature. First in medium-sized districts, counselors underscore the complexity of facilitating eighth-grade students' transition into ninth-grade advanced courses. Our survey and interviews revealed that a pivotal factor in offering such courses is the presence of students with a strong track record of academic achievement, aligning with previous research findings (Chatterji et al., 2021; Iatarola, 2016; Kettler & Hurst, 2017). Counselors also noted the difficulties in staffing advanced courses with enough qualified teachers some years, echoing Iatarola et al.'s (2011) observation that instructional staff qualifications impact the provision of advanced courses. This reflects a shift in perspective, emphasizing that student demand, rather than resources or instructor availability, is the key driver for schools to offer advanced courses (Conger et al., 2009; Iatarola et al., 2011). These insights corroborate the literature, suggesting that while course offerings are a consideration, they do not primarily dictate course enrollment decisions in these settings.

Secondly, our counselors' considerations for placing ninth-grade students into advanced courses mirror those found in Hatfield's (2022) study of teachers. Counselors prioritize student interest, work ethic, and prior academic performance, which could be crucial indicators of a student's readiness for advanced coursework. Echoing Hatfield's observations, one of our counselors noted that some students, previously on an advanced track, opt out of continued advancement due to a reluctance to face further academic challenges. Our findings reinforce the

counselor belief, as Hatfield also concluded; all students have the potential for success in advanced courses given the appropriate support.

Unfortunately, our study uncovers some biases in counselor decisions, paralleling issues identified in the existing literature (Francis et al., 2019; Shure, 2010). One counselor acknowledged race as a consideration in advanced course placement, supporting Posthuma's (2010) contention that counselors can inadvertently become 'gatekeepers' against minority student advancement. This is reminiscent of Bryan et al.'s (2011) findings, where advanced classes were predominantly attended by students from more privileged backgrounds, a sentiment echoed in our interviews. Additionally, a few of our counselors indicated that the absence of involvement from parents of students of lower socioeconomic status often results in these students being less likely to track into advanced coursework, a concern that aligns with Sciarra's (2010) previous research.

Lastly, in larger districts with a medium-high concentration of FRL students, counselors emphasize the use of data-driven approaches for determining advanced course placements. They indicate that if students are not on the advanced course trajectory by seventh grade, they must undertake additional work to qualify for these programs. This aligns with Ricciardi and Winsler's (2021) findings, which suggest that early prerequisites in middle school can become barriers, demanding high test scores, a strong GPA, and favorable teacher recommendations from an early stage. Students who do not meet these early indicators of academic achievement, or who do not establish a solid rapport with their teachers from the outset, may find themselves at a disadvantage when it comes to accessing advanced coursework later.

Implications and Future Directions

This study's examination of advanced course enrollment for Arkansas ninth-grade students provides insights into the disparities for Black and FRL students, even among similarly scoring prior academic achievements. This implies a need for systemic change in course placement policies and practices to ensure all students equitable access to advanced coursework. Advanced courses act as a transformative element in a student's educational journey, serving as a powerful springboard for future academic success and career development. There is a need to reassess institutional practices that may perpetuate enrollment inequities in districts. Although this study did not uncover evidence of counselor bias in course placement, it is essential to ensure counseling practices proactively support minority and low-income students in accessing advanced courses, reflecting strategies supported by Davis et al. (2013), Ohrt et al. (2009), and Swanson & Nagy (2014).

Targeted interventions that identify and nurture potential among students from disadvantaged backgrounds are critical. Early exposure to foundational courses like Algebra I, as suggested by McEachin et al. (2020) and Wehde-Roddiger et al. (2012), can significantly increase interest in advanced mathematics and readiness for subsequent academic challenges. Initiatives such as summer enrichment programs, tutoring, mentorship, and robust parental engagement strategies are vital in this regard. Avery and Goodman (2022) further emphasized the impact of early academic recognition on students' propensity to enroll in challenging courses later.

Transparent and inclusive policies for advanced course enrollment are imperative to reduce the advanced course enrollment gap for minority and FRL students. This study supports

the New York Equity Coalition's (2023) proposal for automatic enrollment policies that consider various student readiness indicators, ensuring advanced coursework opportunities are accessible to all students. Additionally, principals play a crucial role in shaping access and opportunities for advanced courses, as indicated by Devine (2022), necessitating their consistent advocacy for policy changes that enhance access, especially for Black and Hispanic students.

Schools must also deepen engagement with parents and communities, particularly in regions with high concentrations of FRL students. Partnerships with community organizations could extend support beyond the classroom, reinforcing the importance of advanced coursework and longer-term benefits (Burgun, 2015). Moreover, the study aligns with Ricciardi and Winsler's (2021) findings that Black students, despite prior academic success, continue to face lower enrollment odds in advanced courses. This indicates that school issues extend beyond individual academic readiness, necessitating a holistic approach that includes multiple assessment tools and broader policy reforms (Archbald & Farley-Ripple, 2012; Burgun, 2015).

The persistent underrepresentation of marginalized student populations in advanced courses suggests that educational leaders not only offer these opportunities but also actively facilitate pathways for success. The efficacy of interventions that provide support and bridge identification and retention gaps, particularly for high-achieving Black students, underscores the potential for positive change (Cook Sandifer & Gibson, 2020; Davis et al., 2013; Maldonado, 2019). Simply increasing the availability of advanced courses is not a panacea for the deep-rooted disparities within the educational system.

A more in-depth examination into the systemic barriers that underlie these disparities is needed. Future research should explore the degrees of educational inequities, investigating the

socio-cultural, psychological, and institutional factors that influence course placement decisions. This exploration is crucial for the development of targeted, data-driven interventions that go beyond access and address the conditions necessary for student success in advanced coursework.

Limitations

Our study provides a detailed examination of the enrollment disparities in advanced coursework among ninth-grade students in Arkansas, contributing valuable data to the existing body of research. There are, however, several limitations that should be considered when interpreting the findings. First, our quantitative analysis's dataset does not include qualitative factors like student motivation, teacher-student interactions, and parental involvement, which can significantly impact course placement decisions. Furthermore, our logit model, although quantitatively robust, can only establish associations rather than causal relationships because students are not randomly assigned into districts.

Second, our survey and interview data provide insights into the perceptions and practices of school counselors, but they are subject to self-report bias and may not fully represent the diverse range of experiences among all school counselors in Arkansas. Responses may be influenced by the desire to present oneself or one's institution in a favorable light. The response rate for our survey was 10%.

Recommendations

This study revealed persistent and significant racial and socioeconomic status disparities in likelihoods of enrollment in ninth-grade advanced courses Arkansas, calling for concerted efforts to address these inequities and create a more equitable system for enrolling students in

advanced courses. To promote equitable access to advanced coursework and ensure that all students have the opportunity to excel, we recommend two systems.

First, we recommend the adoption of a local norm-based placement system in all Arkansas school districts, which can be both legally defensible and locally sensitive, to enhance fairness in advanced course placement. This system would use local norm scores to evaluate students against their peers within the same district, allowing for a more contextually relevant assessment of readiness for advanced coursework. By shifting the focus from a myriad of factors districts consider for course placement for ninth-grade students, districts can better identify and nurture the potential of students who may otherwise by overlooked. School leaders, as emphasized by Burgun (2015), must actively facilitate true accessibility and maintain high content quality for students, ensuring that advanced courses are not merely listed in catalogs but are accessible to all who demonstrate potential.

Second, once all students have been ranked on a consistent scale that considers grades, state assessment scores, teacher recommendations, etc., schools should automatically enroll students who meet the local norm criteria into advanced courses, with an option for parents or guardians to opt their child out if they have concerns of preferences for an alternative placement (New York Equity Coalition, 2023). This approach not only streamlines the enrollment process, but also ensures that deserving students are not inadvertently excluded due to lack of parental awareness or involvement.

VI. Conclusion

This mixed-methods study offers a critical lens on the patterns of advanced course enrollment among ninth-grade students in Arkansas and reveals inequities that persist despite the

state's efforts to promote equal educational opportunities for advanced courses. The findings underscore a troubling yet familiar narrative: that Black and FRL students continue to face disproportionate challenges in accessing advanced coursework, which are crucial for academic success and future opportunities. Trying to reach educational equity is prevalent with deep-seeded barriers that cannot be dismantled by access alone. While the study highlights the disparities in ninth grade advanced course placement based on socioeconomic and racial lines, it also serves as a call to action for educators, policymakers, and communities. These results demand a collective commitment to nuanced, student-centered approaches that address the root causes of these disparities. Future research needs a re-evaluation of the structures and systems within districts that, even inadvertently, perpetuate the gap between opportunity and achievement.

Our recommendations serve as a call to action for educators and districts. They demand a collective commitment to a student-centered approach that addresses the root causes of these racial and socioeconomic status disparities in advanced course enrollment. The results of this research should not be viewed as the conclusion but rather as a starting point for ongoing investigation and action. The findings of this study encourage us to continue striving for an education system that offers every ninth-grade student, regardless of their background, the opportunity and support needed to excel. This calls for a transformative approach to ensure equitable access; schools should implement a standardized local-norm approach for advanced course placement to create a more inclusive educational landscape that nurtures the potential of all students.

VII. References

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VIII. Appendix

Table 1a

Excluded Districts from the Pooled Quantitative Analysis, 2017-2022

Districts
Emerson-Taylor-Bradley School District

Harrisburg School District
Marvell-Elaine School District
Responsive Ed Solutions Quest Middle
Shirley School District
Strong-Huttig School District

Table 2a

Full and Analytic Sample Comparison

	Original	Analytic	Difference
Total N	164,697	163,616	-1,081
% Female	48.9	48.9	0.0
% White	61.4	61.4	0.0
% Black	19.3	19.2	-0.1
% Hispanic	13.6	13.6	0.0
% Asian	1.6	1.6	0.0
% Other Races	5.8	5.8	0.0
% Free or Reduced-Lunch	60.1	60.0	0.1
% Gifted and Talented	13.1	13.1	0.0
% English Language Learning	6.4	6.4	0.0
% Special Education	11.8	11.8	0.0

Table 3a

Counselor Survey Instrument

Q1. How involved are you in placing 8th grade students into 9th grade courses?	Rarely Sometimes Very often Always			
Q2. How much influence do you have over placing 8th grade students into 9th grade courses?	Little influence Some influence Moderate influence High influence			
Q3. How important are the following characteristics, qualities, or abilities when placing 8th grade students into 9th grade courses?				
	Not at all important	Somewhat important	Moderately important	Extremely important
Previous academic performance (like course grades)				
Standardized state test scores				
Teacher recommendation				
Student interest				

Student ELL (English Language Learning) status	
Student participation in GT (Gifted and Talented) program	
Student with SPED (Special Education) services	
Student participation in FRL (Free or Reduced-Lunch) program	
Q4. To what extent do you agree or disagree that your school appropriately considers all 8th grade students for advanced/honors/Advanced Placement courses?	Strongly disagree Disagree Agree Strongly agree
Q5. To what extent do you feel pressure from your students' guardians to place 8th grade students into 9th grade academic courses?	No pressure Little pressure Moderate pressure High pressure
Q6. How often do guardians insist on a 9th grade academic course that is harder than what their 8th grade student is prepared for?	Very rarely Rarely Sometimes Often
Q7. What is your gender?	Female Male Non-binary/Other Prefer not to say
Q8. What is your race/ethnicity?	White American Indian/Alaskan Native Asian Black or African American Hispanic Native Hawaiian or Pacific Islander Other Prefer not to say
Q9. How many years have you been providing services as a counselor/mental-health professional in the schools? This includes this upcoming school year.	
Q10. Credentials. Please mark all that apply.	Licensed/Certified School Counselor Licensed/Certified School Social Worker Licensed/Certified School Psychologist Licensed Professional Counselor (LPC) Licensed Marriage and Family Therapist (MFT) Other
Q11. With what age group do you currently work? Please mark all that apply	Pre-K-12
Q12. What is the highest degree of education you have completed?	Bachelor's degree Master's degree Professional degree beyond Bachelor's degree

Table 3b

Counselor Demographics of 2023 Summer Counselor Survey

Counselor Survey Demographics		
Race	*Frequency*	*Percent*
American Indian/Alaskan Native	0	0.0
Asian	0	0.0
Black or African American	10	11.1
Hispanic	0	0.0
Native Hawaiian	0	0.0
Other	0	0.0
Prefer not to say	2	2.2
White	78	86.7
Total	90	100
Gender	*Frequency*	*Percent*
Female	83	92.2
Non-binary/Other	0	0.0
Male	5	5.6
Prefer not to say	2	2.2
Total	90	100
Years of Experience	*Frequency*	*Percent*
Beginning Career	24	26.7
Middle Career	39	43.3
End Career	18	20.0
Extended Career	9	10.0
Total	90	100
Education	*Frequency*	*Percent*
Bachelor's	3	3.3
Master's	77	85.5
Professional	6	6.7
Doctorate (EdD or PhD)	4	4.4
Total	90	100
*Grades Served**	*Frequency*	*Percent*

Elementary	11	12.2
Middle	56	62.2
High	64	71.0

*License**	*Frequency*	*Percent*
Licensed/Certified School Counselor	87	96.7
Licensed/Certified School Psychologist	1	1.1
Licensed Professional Counselor	7	7.8
Licensed Secondary Teacher	1	1.1
Unlicensed	1	1.1

*Note: Can select more than one option

Table 4a

Percent of Sample Across District FRL Composition Categories

FRL composition	District N	Av. District FRL	N	% of Sample
High (100 - 75 %)	64	83.1	16,971	10.4
Medium-High (74 - 70 %)	68	72.2	47,502	29.0
Medium-Low (69 - 50 %)	74	60.9	50,648	31.0
Low (49 - 0 %)	47	38.7	48,495	29.6
State	251	60.1	163,616	100.0

Table 4b

Percent of Sample Across District Enrollment Size Categories

Enrollment Size	District n	Av. District Enrollment	N	% of Sample
Macro (22,000 - 5,000)	15	11,483	59,335	36.3
Large (4,999 - 2,000)	41	3,202	44,712	27.3
Medium (1,999 - 1,000)	60	1,406	29,903	18.3
Small (999 - 500)	87	719	23,381	14.3
Micro (499 - 30)	48	329	6,285	3.8
State	251	1,816	163,616	100.0

Table 4c

Percent of Sample Across District Region Location

Region	District n	n	%
1 (Northwest)	76	61,127	37.4
2 (Northeast)	65	31,850	19.5

3 (Central)	53	47,703	29.2
4 (Southwest)	35	14,911	9.1
5 (Southeast)	22	8,025	4.9