

Article

Teacher Attrition Beyond Exit: Semi-Attrition and Intra-County Mobility in Rural China

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Abstract

Teacher attrition in rural China is commonly framed as exit from schools or the profession. This framing obscures a more consequential form of mobility: the stepwise internal movement of teachers from remote village schools to township and county-seat schools within county governance systems. This study conceptualizes such patterned movement as semi-attrition and examines its mechanisms and consequences in a formerly poverty-designated county in southwest China. Drawing on semi-structured interviews with 14 participants and county-level administrative records, and integrating teacher labor market theory, spatial inequality theory, and life-course theory, we find that semi-attrition is directional, normalized, and invisible in official statistics, yet produces cumulative staffing instability in remote schools. Geographic isolation, subject mismatch, and unequal access to career advancement create structural push–pull dynamics, while marriage, childcare, and strategic title-accumulation strategies intensify individual mobility pressures. Together, these mechanisms reproduce spatial inequality through a Matthew effect: county-seat schools accumulate experienced teachers while remote schools cycle through successive early-career cohorts. We propose the County-Based Mobility Ecology Framework (CMEF) to explain how internal redistribution—rather than outright exit—drives staffing inequality in county-based governance systems. Findings call for policies that track internal mobility, address structural root causes, and equalize career advancement opportunities across school types.

Keywords: teacher attrition; semi-attrition; teacher mobility; spatial inequality; rural teacher retention; life-course theory; rural education; county-based governance



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1. Introduction

Teacher attrition has become one of the most persistent and structurally consequential challenges facing education systems worldwide. While the phenomenon is often framed as teachers' exit from their schools or from the profession, a growing body of international research suggests that this binary stay–leave model obscures the more complex mobility patterns that shape staffing stability, particularly in rural and under-resourced regions. In many education systems, teachers rarely resign outright; instead, they move internally across schools, districts, or administrative units in ways that reproduce longstanding inequalities in educational provision. Understanding these mobility trajectories—and the structural and life-course forces that shape them—has become essential for diagnosing the roots of teacher shortages and designing effective policy responses.

In the global literature, rural and remote schools have consistently been identified as the most vulnerable to staffing instability. Geographic isolation, limited public services, constrained professional opportunities, and weaker institutional support create chronic recruitment and retention challenges that disproportionately affect disadvantaged communities. Studies across the Asia-Pacific, Africa, and Latin America show that rural teachers often face heavier workloads, fewer opportunities for career advancement, and more difficult working conditions than their urban counterparts, contributing to higher turnover intentions and lower long-term retention. These challenges are not merely administrative; they reflect deeper structural inequalities embedded in national education systems and broader social-spatial hierarchies.

In China, teacher mobility must be understood within the context of the county-based governance structure of compulsory education. Counties serve as the primary administrative unit responsible for teacher recruitment, deployment, evaluation, and resource allocation. This governance arrangement creates a distinctive mobility ecology: teachers are formally employed at the county level but are assigned to schools that vary dramatically in geographic accessibility, resource conditions, and professional environments. As a result, teachers' mobility decisions are shaped not only by personal preferences or career aspirations but also by the spatial and institutional gradients embedded within county systems. Recent research suggests that rural teacher shortages in China are increasingly structural rather than numerical, arising from mismatches between staffing quotas, subject needs, and working conditions rather than from insufficient teacher supply.

Despite extensive research on teacher attrition in China, two conceptual and empirical gaps remain. First, most studies continue to conceptualize attrition as teachers' exit from a school, district, or the profession. This framing fails to capture the more prevalent and consequential form of mobility that occurs within county systems: teachers transferring from remote village schools to township schools and eventually to county-seat schools. This stepwise movement—what we term semi-attrition—does not appear in official turnover statistics, yet it produces persistent staffing instability in the most geographically isolated schools. International research has similarly emphasized that internal mobility, rather than outright resignation, is often the primary mechanism through which staffing inequalities are reproduced, particularly in systems with strong administrative boundaries. However, the Chinese case remains under-theorized in this regard, and few studies have examined semi-attrition as a patterned mobility pathway embedded in county-level governance.

This concern connects directly to a well-established international literature. Organizational analyses have long shown that apparent teacher shortages are driven less by insufficient supply than by a “revolving door” of avoidable departures shaped by working conditions, leadership, and support (Ingersoll, 2001; Borman & Dowling, 2008). More recent scholarship on teacher mobility and workforce redistribution has demonstrated that movement within systems—rather than exit from them—is frequently the primary channel through which staffing inequalities are reproduced, as qualified teachers redistribute from disadvantaged to advantaged schools (Podolsky et al., 2016; Palma-Vasquez et al., 2022; OECD, 2019). Semi-attrition, as developed in this article, extends this international line of work to a setting in which administrative boundaries are unusually strong: because China's county-based governance and the bianzhi staffing quota constrain movement across counties, redistribution is channelled almost entirely inward, making the Chinese county a strategic case for examining how internal mobility produces staffing inequality. We return to the precise relationship between semi-attrition and adjacent concepts—internal mobility, teacher transfer, turnover, teacher migration, and rural-to-urban movement—in Sections 2.2 and 3.4.

Second, limited research has explored how structural constraints interact with life-course considerations—such as marriage, childcare, spousal employment, and career advancement—to shape teachers’ mobility trajectories in rural China. International studies have shown that family responsibilities, gendered expectations, and early-career development opportunities strongly influence teachers’ decisions to stay, leave, or transfer. Yet the lived experiences of teachers navigating these pressures within China’s county-based system remain insufficiently understood, particularly in counties that were formerly designated as poverty-reduction areas and continue to face pronounced spatial inequalities. Understanding how teachers interpret and respond to these intersecting pressures is essential for explaining why staffing instability persists even when overall teacher numbers appear adequate.

This study addresses these gaps through an in-depth qualitative case study of County C, a rural county in southwest China that was formerly designated as a national poverty-reduction area. Drawing on semi-structured interviews with teachers, school leaders, former teachers, and education officials conducted between 2013 and 2024, the study examines how teacher attrition and semi-attrition are experienced, interpreted, and managed within a county-based governance context. Rather than treating attrition solely as exit, the study conceptualizes teacher mobility as a dynamic process shaped by structural constraints, organizational pressures, and life-course needs. By foregrounding semi-attrition, the study offers a more comprehensive understanding of how staffing inequalities are reproduced within rural county systems.

This article makes three key contributions: it reframes attrition by distinguishing semi-attrition from exit-based definitions; it provides empirical evidence of how structural and life-course constraints shape mobility decisions; and it proposes the CMEF to explain how internal mobility reproduces spatial inequality in county-based governance systems.

2. Literature Review

2.1. Global Research on Teacher Attrition and Mobility

Teacher attrition has long been recognized as a structural challenge for education systems worldwide. Borman and Dowling’s (2008) landmark meta-analysis of 34 studies identified working conditions, compensation, organizational climate, and labor market dynamics as primary moderators of teacher attrition, concluding that turnover is driven not by inevitable demographic forces but by organizational conditions susceptible to policy intervention. Ingersoll (2001) extended this organizational perspective, demonstrating through nationally representative data that teacher shortages are primarily a “revolving door” problem—where large numbers of qualified teachers depart for reasons other than retirement—rather than a simple supply shortage. Administrative support, student discipline, and professional autonomy emerged as stronger predictors of departure than individual teacher characteristics.

A growing body of scholarship has moved beyond binary exit-based models. Palma-Vasquez et al.’s (2022) scoping review of 213 studies found mobility patterns are shaped by a consistent set of structural factors—school socioeconomic composition, geographic location, and working conditions—reflecting institutional inequalities rather than individual preferences, providing an essential international backdrop for examining the Chinese case.

2.2. Internal Mobility vs. External Attrition

A central distinction in contemporary scholarship is between external attrition—departing the profession or system—and internal mobility—transferring within it. Ingersoll (2001) showed that school-to-school transfers constituted a substantial share of apparent shortages at the school level, yet remained largely invisible in aggregate turnover statis-

tics. Understanding why teachers move within systems, rather than only why they leave them entirely, is therefore essential for diagnosing the roots of staffing instability in any given education system.

Internal mobility tends to follow predictable patterns shaped by institutional structures and working conditions. Dupriez et al. (2016) analyzed four successive cohorts of new teachers in French-speaking Belgium and found that exit rates from disadvantaged school contexts were significantly higher during the first years of career, with poor professional support and organizational instability as key predictors. Podolsky et al. (2016) reviewed an extensive body of evidence and identified five major factors shaping whether teachers enter, stay, or transfer: preparation quality, induction support, compensation, teaching conditions, and school leadership. Crucially, these factors operate asymmetrically across school types, driving internal redistribution from disadvantaged to advantaged schools. Because such mobility is rarely captured in official turnover statistics, it represents an underexamined mechanism through which educational inequalities are reproduced (Palma-Vasquez et al., 2022).

In rural China, Wei and Zhou (2019) confirmed that school location is the most consistent predictor of mobility in Gansu province, and that higher professional rank—not lower performance—increases transfer probability. Experienced, high-performing teachers are precisely those most likely to leave disadvantaged rural schools, a pattern that aligns closely with the semi-attrition dynamics examined here.

2.3. Spatial Inequality and Teacher Distribution

Spatial inequality theory—as developed by Harvey (2006), Massey (1994), and Soja (2010)—frames space as a socially produced arrangement reflecting power relations. Educational systems are embedded in spatial hierarchies where schools differ in geographic accessibility, proximity to services, and regional opportunity structures, all shaping teachers' career decisions.

International research consistently documents that rural and remote schools face chronic staffing challenges rooted in their spatial position. Jiang and Yip (2024) analyzed China's rural teachers living subsidy policy in western counties and demonstrated that geographic isolation, limited public services, and weaker professional networks create strong push factors driving teachers toward more accessible locations, with financial incentives alone proving insufficient to overcome these spatial disadvantages. The spatial dimension is not merely about physical distance but about a gradient of institutional resources and opportunity: county seats concentrate administrative power, professional development, and career advancement pathways, while village and township schools face persistent disadvantages along each of these dimensions.

2.4. Teacher Labor Markets and OECD Research

Teacher labor market theory, developed extensively through OECD research, provides a structural framework for understanding mobility as a rational response to segmented working conditions. OECD (2019) analyses from the TALIS study, drawing on surveys of teachers and school leaders across 48 countries, identified significant variation in working conditions across school types, with disadvantaged schools consistently reporting heavier workloads, weaker professional support, and fewer career development opportunities. This structural segmentation produces predictable patterns of directional mobility: teachers tend to move from high-poverty to low-poverty schools, from rural to urban settings, and from small isolated schools to larger well-resourced ones.

OECD (2021) further emphasized that geographic mobility constraints—including transportation infrastructure, housing availability, and access to family services—are par-

ticularly salient for retention in rural and remote schools. Financial incentives, while important, are insufficient on their own to offset the structural disadvantages of remote placements. These insights align with Ingersoll's (2001) organizational analysis and Podolsky et al.'s (2016) review of retention strategies: improving retention requires addressing the systemic conditions that make certain positions unattractive, not merely increasing monetary compensation.

2.5. The Chinese County-Based Governance System

Teacher mobility in China must be understood within the distinctive institutional context of county-based governance of compulsory education. Since the early 2000s, counties have served as the primary administrative unit responsible for teacher recruitment, deployment, evaluation, and resource allocation. Teachers are formally employed at the county level but assigned to schools that vary dramatically in geographic accessibility, resource conditions, and professional environments. This governance arrangement creates a distinctive mobility ecology in which teachers cannot easily transfer across county boundaries, making intra-county movement the primary mechanism through which they seek improved working conditions or career opportunities.

A central feature of this system is the *bianzhi* (编制), the state-authorized staffing quota that confers permanent employment status, salary, and benefits. While *bianzhi* provides institutional stability, it also constrains inter-county mobility, concentrating teachers' career decisions within the county system. Chen et al. (2025), drawing on grounded theory and structural modeling methods with 33 rural teachers, identified that rural teacher retention is jointly determined by foundational material factors, transitional institutional factors, and direct psychological needs, with the interaction between economic constraints and professional aspirations creating complex, sometimes contradictory pressures on mobility decisions.

2.6. Research Gaps

Although research on teacher attrition and mobility has expanded significantly, several important gaps remain, particularly in the context of rural China.

First, most studies continue to frame attrition as teachers' exit from the profession or system, overlooking the more prevalent and consequential form of mobility within county systems. Intra-county movement—from remote village schools to township and eventually county-seat schools—remains largely invisible in official statistics yet produces persistent staffing instability. Few studies have conceptualized this patterned internal mobility as a distinct phenomenon requiring its own analytical framework.

Second, limited research has explored how structural constraints interact with life-course pressures—including marriage, childcare, spousal employment, and early-career aspirations—to produce specific mobility trajectories in rural China. While existing studies address structural conditions (Li et al., 2020; Wei & Zhou, 2019) or institutional policy (Jiang & Yip, 2024), the lived experience of teachers navigating these intersecting pressures within China's county governance system remains insufficiently understood, particularly in formerly poverty-designated counties where spatial inequalities and resource constraints are most pronounced.

Third, the spatial dimension of intra-county mobility has been under-theorized. Despite the relevance of spatial inequality theory (Harvey, 2006; Soja, 2010), few studies have applied this framework to examine how county-level spatial gradients shape the directional movement of teachers from peripheral to central schools, or how this process functions as a mechanism for reproducing educational inequality within county systems. This study addresses these gaps through an in-depth qualitative case study of County C, a for-

merly designated poverty county in southwest China, offering a contextually grounded account of how semi-attribution operates as a patterned form of internal mobility embedded in county-based governance.

3. Conceptual Framework

Understanding teacher mobility in rural China requires a theoretical framework that captures the interplay between structural constraints, spatial inequalities, organizational dynamics, and life-course processes. Existing research on teacher attrition often focuses on individual-level predictors of exit, yet such approaches overlook the broader institutional and spatial contexts that shape teachers' mobility decisions. To address this gap, this study draws on three complementary theoretical perspectives—teacher labor market theory, spatial inequality theory, and life-course theory—to conceptualize semi-attribution as a patterned form of intra-county mobility embedded in China's county-based governance system. Integrating these perspectives allows for a more comprehensive understanding of how teacher mobility operates as both a response to and a mechanism for reproducing structural inequalities in rural education.

3.1. Teacher Labor Market Theory: Segmentation, Directionality, and Structural Constraints

Teacher labor market theory, particularly as articulated in OECD research, provides a foundational lens for understanding mobility patterns within education systems. OECD analyses emphasize that teacher labor markets are segmented, meaning that teachers working in disadvantaged, rural, or remote schools face systematically different working conditions, career opportunities, and institutional support than those in more advantaged settings. This segmentation creates predictable patterns of directional mobility, with teachers moving from less desirable to more desirable positions as opportunities arise.

3.2. Spatial Inequality Theory: Mobility Along Spatial Gradients

Spatial inequality theory offers a complementary perspective by emphasizing that space is not a neutral backdrop but a product of social, economic, and political relations. Scholars such as Harvey, Massey, and Soja argue that spatial arrangements reflect and reproduce power relations, and that individuals' mobility decisions are shaped by spatially uneven opportunities.

3.3. Life-Course Theory: Family Responsibilities, Career Trajectories, and Mobility Pressures

While structural and spatial factors shape the broader context of teacher mobility, life-course theory provides insight into how individual trajectories intersect with institutional constraints. Life-course theory emphasizes that individuals' decisions are shaped by transitions such as marriage, childbirth, childcare, and spousal employment, as well as by gendered expectations and career aspirations.

3.4. Semi-Attrition as a Distinctive Form of Internal Mobility

Drawing on these theoretical perspectives, this study conceptualizes semi-attribution as a patterned form of internal mobility within county-based governance systems. Unlike traditional attrition, which involves leaving the profession or system, semi-attribution refers to teachers' movement within the county system—from remote village schools to township schools and eventually to county-seat schools.

Semi-attribution is characterized by four features that distinguish it from conventional attrition. It is directional: movement consistently flows along spatial and institutional gradients, from village to township to county-seat schools, rather than occurring randomly. It is normalized: teachers, school leaders, and officials perceive and describe this pathway as a routine and legitimate part of career development, not as a problem or failure. It is

invisible: because internal transfers are not recorded as attrition in official statistics, semi-attrition systematically escapes policy attention even as it produces substantial school-level instability. And it is cumulatively impactful: repeated cycles of semi-attrition deplete remote schools of their most experienced early-career teachers precisely when those teachers have reached their most effective and professionally confident stage, perpetuating a structural disadvantage that aggregate staffing data cannot capture.

Because semi-attrition shares surface features with several established terms, it is important to specify its boundaries. Table 1 distinguishes it from five adjacent concepts. In brief, semi-attrition is defined by the conjunction of four properties: it is bounded within the county system by the bianzhi quota, directional along a spatial–institutional gradient, stepwise across multiple stages (village to township to county-seat), and invisible in official attrition statistics. Each adjacent term captures one or two of these properties but not their combination, and it is this combination that gives semi-attrition its distinctive analytic purchase.

Table 1. Distinguishing semi-attrition from adjacent concepts in the teacher-mobility literature.

Concept	Core Meaning in the Literature	How Semi-Attrition Differs
Internal mobility	Any movement between schools within a system without leaving it.	Semi-attrition is a specific subtype: directional and stepwise along a fixed spatial gradient, not movement in any direction.
Teacher transfer	A discrete administrative reassignment from one school to another.	Semi-attrition is multi-stage and cumulative, a sequence of transfers rather than a single one.
Turnover	The aggregate rate at which staff vacate a post, by any route including exit.	Turnover is undirected and counts exit; semi-attrition is directional and occurs entirely inside the system.
Teacher migration	Geographic relocation of teachers, often across regions or labour markets.	Semi-attrition does not cross county or labour-market boundaries; bianzhi confines it within the county.
Rural-to-urban movement	A shift of teachers from rural to urban employment.	Semi-attrition can be wholly intra-rural (village to township); its gradient is administrative, not simply rural–urban.

3.5. The County-Based Mobility Ecology Framework (CMEF)

Integrating the above perspectives, this study proposes the County-Based Mobility Ecology Framework (CMEF) to conceptualize teacher mobility in rural China. The CMEF was developed abductively rather than purely inductively or deductively. The three theoretical perspectives provided sensitising concepts that guided open and axial coding; the four mechanisms were then identified through iterative thematic analysis of the interview transcripts and administrative records; and the framework was consolidated by situating these data-driven mechanisms back within the three perspectives. Section 4.4 and Table 4 make this process explicit by mapping each mechanism to the codes and evidence from which it was derived. The framework consists of four interrelated mechanisms. The first is spatial–institutional gradients: county seats concentrate administrative power, educational resources, professional development, and career advancement pathways, creating predictable directional mobility pressures from peripheral to central schools. The second is organizational workload and mismatch: remote schools face heavier workloads, broader multi-subject teaching responsibilities, and weaker support systems than county-seat schools, pushing teachers toward transfer as professional overload accumulates. The third is life-course alignment pressures: marriage, childcare, spousal employment, and early-career advancement aspirations create personal incentives for mobility toward more

accessible and better-resourced locations, with these pressures intensifying as teachers progress through key life transitions. The fourth is semi-attrition as adaptive mobility: teachers move within the county system to reconcile structural constraints with life-course needs, producing patterned mobility trajectories that are rational from the individual perspective but cumulatively damaging to the staffing stability of remote schools.

4. Methods

4.1. Research Design

This study adopts a qualitative case study design to examine teacher attrition and intra-county mobility (“semi-attrition”) within a rural county school system in southwest China. A qualitative approach is appropriate because the research aims to understand how teachers, school leaders, and education officials interpret structural constraints, mobility pressures, and life-course considerations within a county-based governance context. Rather than estimating prevalence or testing causal relationships, the study seeks to generate contextually grounded, mechanism-oriented insights into how semi-attrition operates as a patterned form of internal mobility.

County C was selected as an information-rich case due to its geographic isolation, uneven distribution of educational resources, and history as a nationally designated poverty-reduction county. These characteristics make it theoretically representative of the structural challenges faced by many rural county systems in China. The case study design allows for an in-depth exploration of how spatial inequalities, organizational pressures, and life-course dynamics intersect to shape teacher mobility trajectories.

4.2. Participants and Sampling

A total of 14 participants were recruited using purposeful, multi-actor sampling, a strategy well suited for capturing diverse perspectives within a complex administrative system. Participants included:

In-service teachers (from village, township, and county-seat schools);
Former teachers who had transferred or left teaching;
School leaders (principals and middle-level administrators);
County-level education officials.

This sampling strategy ensured representation across different school types, geographic locations, and administrative levels, enabling a holistic understanding of mobility dynamics within the county.

Although the sample size is modest, it is methodologically appropriate for an in-depth qualitative case study. The goal was not statistical representativeness but theoretical saturation—the point at which additional interviews no longer yielded new conceptual insights. Saturation was reached after 14 interviews, consistent with established qualitative research standards for mechanism-oriented inquiry. This sample size is well within the range recommended by qualitative methodologists: Guest et al. (2006) found that thematic saturation in semi-structured interview studies is typically achieved within 12 interviews, while Hennink and Kaiser (2022) confirm that samples of 9–17 participants are sufficient for mechanism-focused qualitative inquiry. The diversity of participant roles—spanning in-service teachers, former teachers, school leaders, and county-level officials across village, township, and county-seat schools—further strengthens the analytical depth achievable within this sample.

To protect confidentiality, all participants were assigned pseudonyms, and identifying details such as school names, village names, and administrative positions were anonymized.

Recruitment proceeded in two steps. Initial access to County C was secured through the county education bureau, which introduced the study to school leaders; participants were then recruited using purposeful, multi-actor sampling supplemented by snowball referral, with school leaders and early interviewees identifying further teachers, former teachers, and officials whose experiences bore directly on intra-county mobility. Inclusion criteria were first-hand involvement in mobility decisions or their administration: in-service teachers across village, township, and county-seat schools; former teachers who had transferred or left teaching; school leaders responsible for staffing; and county officials overseeing teacher deployment. This multi-actor design was deliberately chosen so that mobility could be observed from the standpoints of those who move, those who administer movement, and those who remain. Full characteristics of all participants are reported in Table 2 (main interviews) and Table 3 (follow-up interviews).

Table 2. Basic information about interviewees.

No.	Interviewee	Position	School	Gender	Qualification	Age	Major	Subjects Taught	Location
1	Section Chief 1	Personnel Section Chief	County C Education Bureau	M	Bachelor	43	Public Administration	—	County C
2	Section Chief 2	Personnel Section Chief	County C Education Bureau	M	Bachelor	38	Public Administration	—	County C
3	Vice Principal 1	Vice Principal	Primary School A	M	Bachelor	39	Chinese Language	Chinese	County C
4	Director 1	Academic Director	Primary School B	F	Bachelor	35	Mathematics	Mathematics	County C
5	Principal 2	Principal	Primary School C	M	Bachelor	36	Mathematics	Mathematics	Township
6	Principal 3	Principal	Primary School D	M	Bachelor	43	English	English	Township
7	Principal 4	Principal	Primary School G	M	Bachelor	50	Chinese Language	Chinese	Village
8	In-service Teacher 1	Teacher	Primary School F	F	Bachelor	25	Public Utility Management	General Subjects	Township
9	In-service Teacher 2	Teacher	Primary School F	M	Bachelor	32	Animation Design	General Subjects	Township
10	In-service Teacher 3	Teacher	Primary School E	F	Bachelor	28	English	General Subjects	Village
11	In-service Teacher 4	Teacher	Primary School C	M	Bachelor	31	Physical Education	PE	Township
12	Former Teacher 1	Former Teacher	—	F	Bachelor	27	Chinese Language	Chinese	County C
13	Former Teacher 2	Former Teacher	—	M	Bachelor	31	Digital Media	Mathematics	County C
14	Semi-attrition Teacher	Transferred Teacher	—	M	Bachelor	29	Physical Education	PE	County C

Note: A generalist refers to a primary school teacher trained to teach multiple subjects in accordance with national curriculum requirements.

Table 3. Basic information of follow-up interviewees.

No.	Position	Organization	Gender	Education Level	Age	Major	Subjects Taught	Hometown
1	Deputy Director	Education Bureau of County C	M	—	46	—	—	County C
2	Section Chief	Finance Section of County C	F	—	35	—	—	County C
3	Teacher 1	School F	M	Bachelor	30	Elementary Education	General Subjects	County C

4.3. Data Collection

Data were collected through semi-structured interviews conducted between 2013 and 2023, with follow-up interviews in 2024 to capture recent developments and validate earlier interpretations. The extended data collection span requires methodological attention. Data from two fieldwork phases (2013–2018; 2019–2023) were coded separately and cross-validated through axial coding. The 2024 follow-up interviews served a member-checking function: two officials confirmed that the core structural dynamics—directional mobility and the invisibility of semi-attrition in official statistics—remained consistent, with some push factors modestly attenuated by infrastructure improvements. Persistent patterns across an 11-year span reinforce rather than undermine the analytical claims advanced here.

Interviews explored:

Experiences of teacher mobility and transfer;
Working conditions and workload;
Professional development opportunities;
Family responsibilities and life-course considerations;
Perceptions of staffing stability and school-level challenges;
Interpretations of county-level policies and governance structures.

All interviews were conducted in Chinese, audio-recorded with participants' consent, and transcribed verbatim. All coding and analysis were carried out in Chinese to preserve nuance; only the interview excerpts presented in this article were translated into English, and these translations were checked by a second bilingual reader to ensure fidelity to the original meaning. Field notes and informal conversations were used to supplement the interview data and provide additional contextual detail.

To enhance data richness, the study also drew on administrative documents, including county-level teacher deployment records, staffing guidelines, and policy directives. These materials provided institutional context and enabled triangulation of interview data.

4.4. Data Analysis

Data analysis followed an iterative thematic analysis approach involving familiarization, open coding, axial coding, and thematic development through constant comparison and analytical memo-writing. Triangulation across participant groups, interview periods, administrative documents, and field notes strengthened analytical credibility. Throughout, the researcher engaged reflexively with positionality and maintained an audit trail of coding decisions.

1. Familiarization

Interview transcripts were read repeatedly to develop an initial understanding of participants' experiences and interpretations.

2. Open coding

Transcripts were coded inductively to identify recurring concepts related to mobility, workload, spatial constraints, professional advancement, and family responsibilities.

3. Axial coding

Codes were grouped into broader categories that aligned with the study's research questions and conceptual framework. Particular attention was paid to identifying patterns across different school types and actor groups.

4. Thematic development

Themes were refined through constant comparison and analytical memo-writing. This process ensured coherence between data, emerging themes, and the theoretical lenses guiding the study.

5. Triangulation

Triangulation was conducted across the four participant groups (officials, school leaders, in-service teachers, and former teachers), the two interview phases, county-level administrative records, and field notes, so that interpretations were corroborated across independent sources rather than resting on any single account.

6. Reflexivity

Throughout the analysis, the researcher engaged in reflexive examination of positionality, particularly regarding familiarity with the Chinese education system and potential biases in interpreting participants' accounts. Reflexive memos were used to document analytical decisions and ensure transparency.

The three coding stages can be illustrated with a worked example. At the open-coding stage, statements such as describing remote schools as “stepping stones” or noting that professional-title quotas were easier to obtain in village schools were assigned descriptive codes (e.g., stepping-stone framing; title accumulation; out-of-field teaching). At the axial stage, these codes were grouped into higher-order categories (e.g., career-advancement gradient; organizational overload; life-course pressure). At the thematic stage, categories were consolidated into the four mechanisms that constitute the CMEF. Table 4 sets out this mechanism-to-evidence mapping in full, linking each mechanism to representative codes and illustrative evidence and indicating the explanatory work it performs. The framework was therefore built from the data upward, while remaining in dialogue with the three theoretical perspectives.

Table 4. Mapping the four CMEF mechanisms to codes, evidence, and explanatory contribution.

CMEF Mechanism	Representative Codes and Illustrative Evidence	What the Mechanism Explains
Spatial-institutional gradients	Codes: resource/training concentration in county seat; “stepping-stone” framing; commute burden. Evidence: officials and teachers describing advancement and resources as concentrated centrally.	Why mobility is directional (periphery to centre) rather than random.
Organizational workload and mismatch	Codes: multi-subject generalist teaching; heavier workload; weak support. Evidence: village teachers reporting out-of-field teaching and overload.	Why remote posts push teachers out even in the absence of personal pull.
Life-course alignment pressures	Codes: marriage/childcare proximity; spousal employment; gendered caregiving; teacher-civil-servant salary gap. Evidence: female teachers describing remote service as untenable once households formed; male teachers citing breadwinner pressure and relative deprivation.	Why pressure intensifies across life transitions and is gendered: caregiving burden for women, breadwinner and income pressure for men.
Semi-attrition as adaptive mobility	Codes: title accumulation then urban selection; remote post as temporary. Evidence: early-career teachers using remote placements to qualify, then applying upward.	Why individually rational moves cumulatively destabilise remote schools.

4.5. Ethical Considerations

This study was reviewed and approved by the Office of Scientific Research at Chongqing Normal University. The review was conducted by the Social Sciences Research Ethics Committee. Approval was granted on 10 October 2025, Approval Reference Number: CSK2026017.

Participation was entirely voluntary. Written informed consent was obtained from all participants before each interview. Participants were informed of their right to withdraw at any time without penalty. All personal identifiers were removed from transcripts, and pseudonyms were used in all reporting to protect confidentiality.

Because the data were collected over an extended period, the relationship between fieldwork and ethics approval warrants explicit clarification. At the time the earlier phases of fieldwork were conducted, the authors' institution had not yet established a formal research ethics committee. The Social Sciences Research Ethics Committee was set up subsequently, and the study was accordingly reviewed and approved on a retrospective basis on 10 October 2025 (Approval Reference Number: CSK2026017), covering the data collected in the earlier phases. The 2025 approval date thus reflects this retrospective review under newly available institutional procedures rather than any lapse in ethical oversight during data collection. The study was conducted in two fieldwork phases between 2013 and 2024; at every contact, participation was voluntary and written informed consent was obtained before each interview, consistent with the governing institutional approval.

4.6. Trustworthiness and Rigor

To ensure methodological rigor, the study employed several strategies aligned with qualitative research standards:

Credibility was achieved through triangulation and prolonged engagement; transferability through thick contextual description; dependability through an audit trail; and confirmability through reflexivity and peer debriefing.

Transferability: Enhanced by providing thick descriptions of the county context and participants' experiences.

5. Results

5.1. Conceptualizing Attrition and Semi-Attrition (RQ1)

5.1.1. Semi-Attrition as a Normalized Mobility Pathway

Teachers consistently described a stepwise mobility trajectory:

village → township → county seat.

This normalization was expressed vividly by Principal 4 (Principal, Primary School G, Village Location), who described the predictable rhythm of early-career departures: "We have a lot of movement here. Our stay here is basically 3 years. After the 3-year service expires, many people will leave." Principal 4 elaborated that this cycle occurs despite the county's technical compliance with staffing quotas: "It is said that there is no bianzhi because we have no shortage of teachers in terms of bianzhi, but actually every teacher has to wear multiple hats." Section Chief 2 (Personnel, County Education Bureau) confirmed the directional pattern at the systemic level: "In recent years primary school teachers who have been admitted through open recruitment have basically been assigned to towns and villages. Some primary schools are geographically remote and inaccessible, so young teachers don't stay there long. They will try their best to take the exam closer to the county seat." Together, these accounts from administrators across the county hierarchy illustrate the normalization of semi-attrition as a legitimate and widely anticipated career strategy.

5.1.2. Semi-Attrition as Invisible in Official Statistics

Despite its prevalence, semi-attrition remained largely invisible in official turnover data. County-level reports often showed stable teacher numbers, leading to the impression that staffing was adequate. However, teachers and principals emphasized that these aggregate figures masked significant instability at the school level. Principal 4 (Primary

School G, village location) captured this structural gap: “We get complaints every year, but there is no way. It is said that there is no bianzhi because we have no shortage of teachers in terms of bianzhi—but actually every teacher has to wear multiple hats.” Administrative records corroborate this observation: County C’s 2018 data show 1322 primary school teachers in total, meeting official quota requirements, yet only 129 of those teachers held initial degrees in music, fine arts, physical education, or mental health education. Of those 129 specialists, 33 were employed in the county’s two urban primary schools, while just 96 were distributed across 97 township primary schools—fewer than one specialist per school. The aggregate headcount appears sufficient; the school-level reality is chronic understaffing in non-core subjects, a reality that official statistics systematically obscure.

5.1.3. Semi-Attrition as a Response to Structural and Spatial Inequalities

Participants framed semi-attrition not as disengagement from teaching but as a strategic response to the spatial and institutional gradients embedded within the county system. Teachers described remote schools as “stepping stones” and county-seat schools as “destinations,” reflecting the spatial hierarchy of opportunities within the county.

5.2. Structural Drivers of Attrition and Semi-Attrition (RQ2)

5.2.1. Geographic Isolation and Transportation Constraints

Section Chief 2 (Personnel, County Education Bureau) situated geographic isolation as the primary systemic driver: “Maybe it’s mainly the geographical location and transportation of County C itself. In recent years, primary school teachers admitted through open recruitment have basically been assigned to towns and villages. Some primary schools are geographically remote and inaccessible, so young teachers don’t stay there long. They will try their best to take the exam closer to the county seat. Some nonlocal teachers also choose to go back to their hometown or other better areas.” In-service Teacher 1 (Primary School F, approximately 60 min from the county seat by shuttle bus) described the daily cost of geographic isolation: “Transportation here is not very convenient. Our school is a small village with only two teachers. My family lives in the county town, so I have to go back and forth every day. We have to take the shuttle bus, and if we miss it, we are in trouble.” She added unprompted: “I still hope to be admitted to the county town or take the postgraduate entrance examination.” Budget data illuminate the structural underpinning of this constraint: County C’s transportation expenditure amounted to just 9.67%, 7.22%, and 12.17% of total budget outlays in 2015, 2016, and 2017 respectively—reflecting historically constrained investment in the very infrastructure that most directly affects teacher retention. The most distant village schools are over 80 km from the county seat, without direct transport links.

5.2.2. Workload Intensification and Subject Mismatch

Director 1 (Academic Director, Primary School B, county-seat location) identified non-instructional obligations as a primary stress driver: “Although primary school teachers do not have early-morning or evening self-study duties, they still have to arrive before students. Civil servants usually go to work at 8:30 or 9:00 and leave at 5:00–6:00. But teachers must be there earlier. In the afternoon, there are meetings, teaching activities, inspections, assessments and appraisals. In addition, they have to deal with many social affairs; therefore, primary school teachers must spend far more than 8 h on duty every day.” Principal 4 (Primary School G, village location) added that year-end reporting cycles compound this burden: “At this time of year, we have to catch up with the school report materials, report to the canteen, and complete the statistical table of school student demographics.”

Subject mismatch—teaching outside one’s area of training—was a further and particularly acute form of workload intensification, structurally rooted in recruitment patterns.

County C's 2016 recruitment allocated 82 of 94 positions (87.23%) to language arts and mathematics, with music, physical education, and fine arts together receiving only 12 positions (12.77%). In 2017, the pattern repeated: 85 of 100 positions went to core subjects. This systematic prioritization ensures that non-core subject shortages persist indefinitely. In-service Teacher 3 (Primary School E, village location), an English specialist reassigned to generalist teaching, described the professional cost in detail: "I teach a package class—that is, all subjects. Although the current equipment is relatively complete, I haven't systematically studied mathematics, fine arts, or music. I don't know these myself. Originally, we had very few teachers in our school. Even if I tried to consult other teachers, they were basically non-professionals too, all learning again like me. I didn't even have anyone to consult." When asked whether extra preparation time compensated, Teacher 3 replied: "Yeah, this is the headache. Now I have to start from scratch and restudy all subjects, and I have to spend a lot of time preparing lessons for every course. Moreover, I have more than 20 students in my class, and the workload is really a bit heavy." These accounts illustrate how structural shortages of non-core specialists translate directly into individual professional overload, accelerating transfer intentions.

5.2.3. Unequal Access to Educational Resources

Participants consistently highlighted disparities in resources between village, township, and county-seat schools. County-seat schools had better facilities, more experienced colleagues, stronger leadership, and greater access to professional development opportunities. In contrast, remote schools struggled with outdated equipment, limited teaching materials, and insufficient support staff.

The resource gradient extended to career advancement mechanisms. County C's urban selection process—the pathway for township teachers to gain appointment to county-seat schools—requires a written examination, trial lecture, interview, and comprehensive assessment, making it highly competitive. Professional title evaluations and training opportunities are also disproportionately concentrated in county-seat schools. Vice Principal 1 (Primary School A, county-seat location) described the pull dynamics from the receiving institution: "Our school is the best primary school in County C, and its geographical location is superior. Most of the teachers admitted are locals, so once they are admitted to our school, few teachers will leave. The most important thing is to improve yourself. A young female teacher may still think that the county seat will be more conducive to her own development." Former Teacher 1, who successfully completed the urban selection process, articulated both the professional and personal calculations involved: "There are two main reasons: first, I want to get better development of my major. Second, it is closer to my home. My wife works in the county seat, and the children are still young. In order to take better care of my family, I have to try my best to get into the county seat." He acknowledged immediate costs of transfer: "The work pressure is greater now, with 51 students in the class where there used to be more than 20. And professional title promotion is relatively slow: I was already Grade 1 in my original school, but as soon as I was admitted to the county seat I was automatically reduced to Grade 2." Despite these trade-offs, he concluded: "I don't regret it. After all, I am young and still want to fight for my career."

5.3. Life-Course and Family Considerations (RQ2)

5.3.1. Marriage, Childcare, and Family Responsibilities

Female teachers described heightened pressures due to gendered expectations around caregiving. Statistical data from County C indicate that female teachers have historically been recruited at roughly twice the rate of male teachers, and attrition rates are correspondingly higher among female educators. Many female teachers initially accepted positions

in County C seeking stable employment, with an implicit strategy of securing a position first and pursuing further career advancement later. Former Teacher 2—who transferred to a township primary school in Kaizhou District following marriage—described the irreducible role of spousal location in that decision: “My other half is from Kaixian County, working there, and his job is relatively fixed. I am from County C, but because I am married, I have no choice but to go to Kaixian County for the sake of my family. If I really want to compare, I personally feel that my original job is better. After all, I am a local and have a sense of belonging there. But I am married, I have children, and the other half and children are in Kaixian County, so there is nothing I can do.”

Former Teacher 2’s account illustrates a pattern observed across multiple female participants: professional and geographic preferences are overridden not by dissatisfaction with teaching *per se*, but by the structural impossibility of maintaining a dual-location household. This intersection of life-course transition and geographic constraint is a defining feature of semi-attrition among female educators in County C. In addition, unmarried teachers in geographically remote schools reported difficulty forming partnerships due to constrained social networks. Principal 4 (Primary School G) noted: “Because there are many women in our school, it is difficult for them to start a family. The school is geographically remote, the transportation is inconvenient, and there are many female teachers, but their interpersonal circle is too small to find a partner, so many female teachers choose to take the exam.” This observation adds a further life-course dimension: geographic isolation does not merely complicate existing family arrangements but also constrains the formation of new ones, creating mobility pressure among unmarried teachers who would otherwise have no immediate family-based reason to transfer.

5.3.2. Spousal Employment and Household Location

Spousal employment also played a significant role. Teachers whose spouses worked in the county seat or nearby towns often sought transfers to reduce commuting burdens and align household locations. Several participants described long-distance arrangements that became unsustainable over time. In-service Teacher 4 (Primary School C, township location) illustrated the gendered household economics dimension: “My family is in the county town, and my wife currently has no job and takes care of the children. Generally speaking, after all, I am a boy and have to support my family. Now my wife has no job, and the burden of the whole family is on me.” He added that if compensation were adequate, he would prefer to remain, but concluded: “I still hope to be transferred to a closer place.” Similarly, Former Teacher 3 (transferred to a middle school in County C) explicitly compared her salary with that of her husband, a county-level civil servant: “My husband deducts five insurances and one housing fund, and his salary plus performance is around 3500 yuan per month. There is also a 600 yuan per month car subsidy and other allowances. My basic salary is more than 2100 yuan, plus performance is 3000 points. These subsidies are definitely not as many as those of civil servants.” The comparison between teacher and civil servant compensation was a recurring theme; it contributed to mobility decisions both by generating direct economic pressure and by shaping a sense of occupational relative deprivation that reduced commitment to sustained rural service.

5.3.3. Early-Career Aspirations and Professional Advancement

As one early-career teacher summarized: “If you want to develop your career, you have to move. Staying in a village school limits your future.” Notably, the original attraction of remote placements for many early-career teachers was precisely the comparative ease of professional title evaluation: with fewer staff competing for evaluations, young teachers can advance their titles more rapidly than in county-seat schools. Principal 4 (Pri-

mary School G) articulated this mechanism: “Because there are fewer teachers in remote rural towns, professional title evaluations might be relatively easier, especially benefiting younger educators. Some younger teachers, after securing certain professional titles, leverage this advantage to seek transfers.” In-service Teacher 1 (Primary School F, township location, with stated transfer intention) confirmed this career logic explicitly: “I still hope to be admitted to the county town or take the postgraduate entrance examination.”

5.4. *Consequences of Semi-Attrition for Staffing Stability (RQ3)*

5.4.1. Repeated Cycles of Teacher Loss in Remote Schools

Remote schools experienced frequent turnover as teachers transferred to more desirable locations. Principals described a “revolving door” of early-career teachers who stayed for only a few years before seeking transfers.

One principal explained, “We train them, they gain experience, and then they leave. It’s a cycle we can’t break.” Administrative records from the seven sampled primary schools confirm the scale of this cycle: between 2016 and 2018, 17 teachers departed. The male-to-female ratio was 1:2.4, consistent with the broader pattern of higher female attrition. Teachers aged 26–30 constituted 58.82% of those departing, confirming that the revolving door operates primarily among early-career staff. Teachers with First-Grade and Second-Grade professional titles each accounted for 47.06% of departures—the titles typically acquired after 3–5 years of service in a remote school, and precisely the qualifications required to compete in urban selection processes. Language arts and mathematics teachers represented 76.47% of departures, indicating that core-subject specialists—the teachers most essential to remote school operations—are disproportionately those who leave.

5.4.2. Disruption of Instructional Continuity

Frequent mobility disrupted instructional continuity, particularly in core subjects. Students in remote schools experienced repeated changes in teachers across consecutive academic years, making it difficult to build cumulative subject knowledge or stable classroom relationships. Principal 4 (Primary School G) described the pedagogical consequences: “We have a lot of movement here. Our stay here is basically 3 years. After the 3-year service expires, many people will leave.” From the students’ perspective, this means that within a single primary school cycle they may encounter multiple different teachers for the same subject—each with different instructional approaches, expectations, and content coverage. Teachers who remained in remote schools absorbed the resulting gaps: covering subjects left without a specialist, providing continuity for students whose previous teacher had transferred, and managing classrooms that had lost institutional familiarity. This absorption further intensified the workload of those who stayed, accelerating their own transfer intentions and perpetuating the cycle.

5.4.3. Uneven Distribution of Experienced Teachers

Semi-attrition produced a systematic concentration of experienced teachers in county-seat schools and a chronic shortage of experienced staff in remote schools. Because it is specifically the teachers who have accumulated First- or Second-Grade professional titles—the qualification threshold for urban selection—who are most able and motivated to transfer, the departure pool is systematically skewed toward the most professionally developed early-career teachers. Those who remain are either newer and less experienced, or are teachers with fewer professional options. Vice Principal 1 (Primary School A, county-seat location) described the receiving end of this redistribution: “Our school is the best primary school in County C. Most of the teachers admitted are locals, so once they are admitted to our school, few teachers will leave.” County-seat schools thus accumulate a stable, experienced, predominantly local teaching workforce, while remote schools cycle through

successive cohorts of early-career teachers who treat the placement as a stepping stone. This asymmetry is self-reinforcing: the concentration of experience and stability in county-seat schools improves their instructional quality and reputation, making them even more attractive destinations and further widening the quality gradient that drives semi-attrition in the first place.

6. Discussion

6.1. Reframing Attrition Through the Lens of Semi-Attrition

A central contribution of this study is the conceptual distinction between attrition as exit and semi-attrition as internal mobility. While traditional definitions of attrition focus on teachers leaving the profession or system, the findings show that the most consequential form of mobility in County C is movement within the county system. Teachers frequently transfer from village schools to township schools and eventually to county-seat schools, following a predictable and normalized trajectory.

This reframing aligns with international research emphasizing that internal mobility is often more prevalent than external attrition, particularly in systems with strong administrative boundaries. However, the Chinese case reveals a distinctive pattern: semi-attrition is directional, normalized, invisible, and cumulatively impactful. These characteristics highlight the limitations of existing turnover metrics, which fail to capture the internal redistribution of teachers and thus underestimate the extent of staffing instability in remote schools.

6.2. Structural Constraints and the Production of Directional Mobility

The findings demonstrate that semi-attrition is shaped by a combination of structural constraints and spatial inequalities, consistent with the first two mechanisms of the CMEF. Geographic isolation operated as a foundational barrier: constrained transportation investment (7–12% of County C's annual budget) and distances of over 80 km to the most remote schools made daily commutes unsustainable, particularly once family responsibilities intensified. Workload intensification compounded this pressure; teachers in remote schools bore heavier non-instructional burdens and were routinely assigned outside their training due to structural shortages—a pattern traceable to recruitment priorities allocating 85–87% of annual intake to language arts and mathematics. Resource inequalities completed the push–pull dynamic: county-seat schools concentrated professional development, title evaluation opportunities, and career advancement pathways, making them the rational destination for teachers at all career stages.

Together, these structural constraints produced directional mobility along spatial and institutional gradients, consistent with both OECD teacher labor market theory and spatial inequality theory.

6.3. Life-Course Dynamics and the Personalization of Mobility

While structural and spatial factors shaped the broader context of mobility, life-course dynamics played a critical role in shaping individual decisions. Three intersecting mechanisms are evident. First, family formation and caregiving created immediate geographic pressure: female teachers—the majority of the rural workforce—experienced the dual burden of gendered caregiving expectations and spousal employment in county-seat locations, making sustained remote service practically impossible once households were established. Second, the systematic salary gap between teachers and civil servants—detailed by Former Teacher 3's wage comparison—generated relative deprivation reducing occupational commitment, especially among male teachers bearing primary household income responsibility. Third, the strategic career logic of early-career teachers—using remote placements

to accumulate professional titles more easily, then leveraging those titles for urban selection applications—transformed remote schools into stepping stones. These three dynamics are mutually reinforcing: the institutional design of China’s teacher evaluation system creates conditions under which life-course pressures consistently manifest as predictable mobility trajectories.

6.4. *Semi-Attrition as a Mechanism for the Reproduction of Spatial Inequality*

One of the most significant findings of this study is that semi-attrition functions as a structural mechanism for reproducing spatial inequality. Administrative data from County C illustrate this concretely: between 2016 and 2018, departing teachers were disproportionately young (58.82% aged 26–30), recently title-qualified (94% holding First- or Second-Grade titles), and core-subject specialists (76.47% in language arts and mathematics)—precisely the teachers whose departure most damages remote schools’ instructional capacity. County-seat schools benefited from a steady inflow of these teachers through urban selection, while village and township schools re-entered the recruitment cycle. This self-reinforcing dynamic—where remote schools develop early-career teachers who then transfer upward, strengthening county-seat schools—embodies the Matthew effect at the sub-county level and persists regardless of whether aggregate headcounts appear adequate.

6.5. *Theoretical Contributions*

By conceptualizing semi-attrition as a patterned form of internal mobility, the study advances a mobility-centered framework that moves beyond binary stay–leave models. This framework highlights the importance of examining mobility trajectories within administrative systems and the institutional arrangements that shape them. The County-Based Mobility Ecology Framework (CMEF) makes three distinctive theoretical contributions. First, it foregrounds intra-system redistribution—movement within a county—rather than exit from the profession, shifting the analytical unit from the individual teacher to the county-level mobility ecology. Existing approaches that treat teacher mobility primarily as individual-level exit behavior (Ingersoll, 2001; Podolsky et al., 2016) cannot capture this form of patterned internal redistribution. Second, CMEF integrates spatial inequality theory as a structural mechanism, positioning geographic gradients and administrative centralization as co-producers of directional mobility rather than merely as contextual background. Third, by incorporating life-course dynamics as a co-equal explanatory layer, CMEF moves beyond structural determinism and captures how personal transitions intersect with institutional constraints to produce patterned mobility trajectories. Together, these features make CMEF specifically suited to county-based governance systems and to education contexts where internal redistribution, rather than outright attrition, is the dominant mechanism of staffing inequality.

These contributions also speak beyond the Chinese case. The pattern documented here is consistent with international evidence that advantaged schools accumulate experienced staff while disadvantaged schools cycle through replacements (OECD, 2019; Podolsky et al., 2016; Palma-Vasquez et al., 2022), and our finding that higher-rank, recently title-qualified teachers are the most mobile closely echoes Wei and Zhou (2019). We therefore argue that semi-attrition is not idiosyncratic to China but the expected outcome of any system combining three conditions: an administrative boundary that constrains exit, a spatial gradient in resources and career opportunity, and life-course pressures that pull teachers toward central locations. Where these conditions hold—as in district-based teacher-assignment systems in other countries—internal redistribution rather than outright attrition should be the dominant channel of staffing inequality; where exit across system

boundaries is easy, the mechanism should weaken and conventional turnover models should regain explanatory power. Specifying these scope conditions allows readers in other contexts to judge the transferability of the framework rather than treating it as a country-specific account.

7. Conclusions

This study examined teacher attrition and intra-county mobility (“semi-attrition”) in a rural county school system in southwest China. By integrating teacher labor market theory, spatial inequality theory, and life-course theory, the analysis provides a comprehensive understanding of how structural constraints, spatial hierarchies, and personal trajectories interact to shape patterned mobility pathways within county-based governance systems. The findings highlight that semi-attrition—teachers’ movement from village to township to county-seat schools—is not an incidental or marginal phenomenon but a central mechanism through which staffing instability and educational inequality are reproduced in rural China.

7.1. Policy Implications

The findings suggest several policy directions for improving teacher retention and reducing staffing instability in rural China.

1. Address structural inequalities, not just teacher supply

Increasing the number of teachers is insufficient if structural conditions—such as geographic isolation, workload intensification, and resource disparities—remain unaddressed. Policies must target the root causes of mobility.

2. Strengthen support for early-career teachers in remote schools

Targeted induction programs, mentoring, reduced administrative burdens, and guaranteed professional development opportunities could help stabilize early-career teachers.

3. Improve transportation, housing, and childcare infrastructure

Investments in transportation networks, teacher housing, and childcare services would reduce the life-course pressures that drive mobility.

4. Create equitable career advancement pathways

Promotion and training opportunities should be more evenly distributed across school types to reduce the professional disadvantages faced by teachers in remote schools.

5. Recognize and monitor internal mobility

County-level data systems should track internal transfers to better understand mobility patterns and anticipate staffing needs.

To make these recommendations operational, each is tied to a specific finding rather than offered as a general aspiration. The career-advancement disadvantage documented in Section 6.3—whereby professional-title quotas and training are concentrated in central schools—implies redistributing title-evaluation quotas toward village and township schools, so that advancement no longer requires physical relocation and the title-accumulation logic that drives upward movement is neutralised at source. The instructional-capacity losses evidenced in Section 6.4, where departing teachers were disproportionately young, recently title-qualified, and core-subject specialists, imply protected staffing ratios and targeted retention incentives for early-career core-subject teachers in remote schools, rather than across-the-board headcount increases. And because semi-attrition is invisible in current statistics, county data systems should record internal transfers, not only exits, so

that the staffing instability traced in this study becomes visible to planners and can trigger timely replacement and support before remote schools are depleted.

7.2. Limitations and Directions for Future Research

As a qualitative case study of a single county, the findings are not statistically generalizable, though the structural conditions generating semi-attrition are features of China's national compulsory education governance architecture. Future research should employ mixed-methods designs tracing mobility across multiple counties, comparative studies examining governance and fiscal variation, and perspectives from students and parents to capture how semi-attrition affects school communities over time.

Three limitations qualify these claims and point to future work. First, the single-county design supports analytic but not statistical generalisation; multi-county, mixed-methods studies are needed to estimate the prevalence and magnitude of semi-attrition and to trace mobility quantitatively. Second, the sample, though appropriate for mechanism-oriented inquiry, is modest ($N = 14$) and deliberately heterogeneous; the saturation claim therefore applies to the categories of mechanism rather than to a homogeneous population, and larger role-specific samples could test whether the four mechanisms operate differently across actor groups. Third, the administrative data are limited in scope and to particular years, so the quantitative figures reported here should be read as corroborating context rather than as precise population estimates. Building on these points, future research could exploit variation in governance and fiscal arrangements across counties, follow cohorts longitudinally, and incorporate the perspectives of students and parents to capture the downstream effects of semi-attrition on school communities.

Semi-attrition is not merely a form of internal transfer; it is a structural mechanism through which educational inequality is reproduced in rural China. By foregrounding semi-attrition and situating it within a broader mobility ecology, this study offers a more comprehensive understanding of teacher mobility and provides a theoretical foundation for designing policies that promote staffing stability and educational equity in rural and under-resourced regions.

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