

Beyond the Push-Pull Binary: Motivational Ambiguity and Institutional Scripts among Chinese Returned Visiting Scholars in the U.S.

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Abstract

The international mobility of Chinese visiting scholars has expanded dramatically, yet their pre-departure motivations remain undertheorized. Applying the classical push-pull framework wholesale to this population risks a category mistake, as visiting scholars occupy a structurally distinct position from degree-seeking students. This study examines the motivational architecture of 144 Chinese visiting scholars with completed visiting appointments at U.S. institutions, using an exploratory quantitative design. Principal component analysis extracted eight motivational components accounting for 71.135% of variance. These components were classified into three directional zones: pure home-institutional pushes (Career Pursuit, Institutional Respite, Administrative Compliance), pure host-institutional pulls (Intercultural Immersion, Program Attraction), and a structurally ambiguous middle ground (Academic Pursuit, Status Attainment, Domestic Obligations) that resists clean directional classification. Univariate ANOVAs further revealed that gender exerted minimal influence; academic title produced a steep gradient on Administrative Compliance (lecturers > associate professors > professors); and scholars from local universities scored higher on Intercultural Immersion than their 985/211 peers, with the title- and tier-related effects remaining significant after Benjamini-Hochberg adjustment. The findings suggest that the push-pull model must be rebuilt from the middle—through the insertion of institutional career scripts, career stages, and resource stratification—before it can adequately explain short-term academic mobility.

Keywords

Career Stages, Push-Pull Framework, Returned Visiting Scholars

1. Introduction

The international mobility of Chinese academics has reached a scale that can no longer be treated as a peripheral phenomenon in higher education research. Over the past two decades, this flow has expanded from a trickle of state-sponsored elites to a broad-based institutional practice. According to the China Scholarship Council (CSC), the number of funded faculty members undertaking overseas visits grew from 2044 in 1996 to 14,400 in 2020—a sevenfold growth (Gong & Xu, 2021). The United States, as the world's largest host of international scholars, has absorbed the bulk of this outbound traffic. Institute of International Education (Open Doors) data indicate that Chinese visiting scholars in the U.S. numbered 15,206 in 2002-2003 and climbed to 25,983 in 2024-2025, retaining China's position as the top country of origin throughout this period, despite temporary contractions during the COVID-19 pandemic (IIE, 2026).

However, the literature on Chinese international mobility remains unbalanced. It has focused mainly on degree-seeking students—young people who study abroad to earn degrees and go through important life transitions. By contrast, the short-term academic visitor, who interrupts an established career trajectory for a bounded overseas sojourn, has been relegated to the margins of empirical inquiry. Existing studies on Chinese visiting scholars have largely confined themselves to post-arrival experiences and outcomes, including academic socialization (Mo et al., 2015), professional growth (Hu et al., 2020), and transformative learning (Zhao & Liu, 2022a, 2022b). The pre-departure decision—why an already-tenured or tenure-track scholar chooses to leave, and what calculus governs that choice—remains conspicuously under-theorized.

This imbalance is not just a gap in the literature; it is a real theoretical problem. Visiting scholars are motivated in fundamentally different ways from students. They are mid-career professionals who go abroad for a limited period, through institutional arrangements, and for career advancement rather than basic education. They rarely leave simply because they lack opportunities at home—the standard push factor for students. More often, their decisions reflect administrative requirements, career stage expectations, and funded programs. To understand these decisions, we need a framework that can capture institutional pressures and practical opportunities without forcing them into categories designed for students.

The push-pull model offers a well-established lens for examining cross-border academic mobility, having been widely adopted in higher education research to interpret student flows (An & Duan, 2020; Mazzarol & Soutar, 2002). However, its application to visiting scholars—who occupy a liminal structural position between students and permanent faculty, and whose mobility is typically organizationally mediated rather than individually initiated—remains underexplored. This study therefore recalibrates the push-pull perspective to examine the motivational configuration of Chinese returned visiting scholars in the U.S. context. By distinguishing between home-institutional pushes and host-institution pulls, the re-

search asks: 1) Which factors dominated the motivational field of Chinese visiting scholars? 2) How did gender, professional title, and institutional tier mediate the relative salience of these factors? In doing so, it aims to extend the explanatory scope of push-pull theory to non-degree academic mobility and to inform evidence-based management of visiting scholar programs.

2. Literature Review

The Push-Pull Framework: From Migration Theory to Educational Mobility

The push-pull model, originally formulated by Lee (1966) to explain population migration, has become the dominant theoretical lens for examining international student mobility. In its educational adaptation, the model posits that “push” factors within the home country propel individuals toward overseas study, while “pull” factors in the host country attract them to specific destinations (Mazzarol & Soutar, 2002). Early applications, such as McMahon’s (1992) analysis of student flows from 18 developing countries to the United States during the 1960s and 1970s, established a foundational taxonomy: pushes include limited domestic educational capacity and economic constraints, while pulls encompass the host country’s economic, political, and social ascendancy. Subsequent empirical work across diverse contexts has largely confirmed this binary structure, identifying institutional reputation, career prospects, and cultural exposure as recurrent pull forces, and domestic scarcity and quality deficits as common push forces (Wilkins et al., 2011).

Conceptual Cautions: The Risks of Category Transposition

Yet this theory was originally developed to explain population migration (Lee, 1966); its application to degree-seeking students—young people who travel abroad to earn academic degrees and reshape their lives—represents a later disciplinary borrowing rather than a native theoretical fit. Visiting scholars occupy a fundamentally different structural position. They are typically mid-career professionals who go abroad for a limited period, through institutional arrangements, and for career advancement rather than basic education. Simply applying the same push-pull categories to them risks what Ryle (1949) called a category mistake: assuming that the same motivations govern two groups whose situations differ in kind, not just in degree.

For visiting scholars, decisions are rarely driven by a simple lack of opportunities at home—the classic push factor for students. Instead, they are often shaped by administrative requirements, career stage expectations, and funded programs that are not central to student mobility research. The key question is not “why did they leave?” but “what institutional rules made leaving a sensible, even necessary, career step?” This shift means we should treat push factors not as individual-level constraints but as organizational requirements built into national academic systems.

The Chinese Context: Institutional Logics as Structuring Forces

This issue is especially clear in the Chinese higher education system, where in-

stitutional rules strongly shape academic mobility. The promotion system based on job titles, the centralized management of the China Scholarship Council (CSC), and the sharp resource gaps between top universities and local ones create an environment where personal preferences often take a back seat to administrative needs.

In this context, “push” factors are less about personal dissatisfaction and more about institutional career scripts—requirements that scholars must meet to move up professionally. Likewise, “pull” factors are filtered through research fit and supervisor availability rather than university rankings or lifestyle amenities, reflecting the practical nature of short-term academic visits.

What distinguishes the Chinese case is not merely the presence of these institutional forces, but their density and coordination. The CSC does not simply fund mobility; it certifies it as a form of career capital. The home university does not merely permit leave; it often mandates it as a condition for promotion. In this environment, the boundary between “push” and “pull” becomes porous: a CSC fellowship can function simultaneously as a push (home-institutional requirement) and a pull (host-country opportunity). This structural ambiguity suggests that a refined push-pull framework for Chinese visiting scholars must account for factors that are not cleanly separable into home- and host-country domains.

The Visiting Scholar Gap: What Existing Research Reveals and Conceals

Empirical research specifically addressing the motivations of Chinese visiting scholars remains notably sparse. Liu et al. (2020) provided a rare exception by examining language teachers’ motivations for pursuing visiting appointments at top-tier universities, identifying six motivational sources: internal needs, stress relief, academic positioning, academic contact, academic symbolism, and policy support. While this study offers a valuable departure point, its scope is circumscribed in two critical respects. First, its focus on language teachers—a group whose professional identity is inherently bound up with cross-cultural and linguistic immersion—limits generalizability to scholars in non-linguistic disciplines. Second, by including domestic as well as international destinations, the study does not isolate the specific gravitational pull of U.S. host institutions, leaving the American context analytically underdeveloped.

Beyond this single empirical study, the broader literature on visiting scholars has tended to treat motivation as a settled background variable rather than an object of inquiry in its own right. Researchers have asked how scholars adapted, what they learned, and whether they returned, but have rarely asked why they went with the theoretical rigor applied to student choice. This silence is all the more striking given that visiting scholars represent a growing share of international academic flows and that their decisions are shaped by a distinct set of institutional and personal variables.

Theoretical Limitations and the Structure-Agency Problem

Beyond empirical gaps, the push-pull model itself presents theoretical limitations that complicate its application to visiting scholar mobility. As Wilkins et al.

(2011) observed, the model traditionally privileges macro-level external forces over individual agency, rendering personal characteristics, professional trajectories, and family considerations largely invisible. Chen (2007) further noted that while push factors may be either positive or negative in valence, pull factors are typically treated as uniformly attractive, obscuring the possibility that host-country features may exert ambivalent or conditional appeals. A prestigious university, for instance, may pull a scholar through its research resources while simultaneously pushing through its high cost of living or political climate—effects that the binary model cannot easily accommodate.

Li and Bray (2007) showed that the “internationalization of individuals”—changes in personal views, family plans, and professional networks—is the basic unit of academic mobility. Scholars have proposed integrative models that combine personal reasons with institutional and national factors (Cubillo et al., 2006), though these frameworks remain largely theoretical and untested on non-degree populations. This means that to understand visiting scholar motivation, we must look at both structural pushes and pulls and how scholars interpret, resist, or use these forces differently depending on gender, rank, discipline, and type of institution. In other words, we should not abandon the push-pull framework but rebuild it from the middle—adding a middle level of institutional and individual factors that connect large-scale forces with personal choices.

3. Research Questions

The discussion above shows that a fixed list of push and pull factors is not enough to explain visiting scholar motivation. Instead, we need to see it as a mix of home pressures, host attractions, and factors that do not fit neatly into either category—such as government-funded programs that both push scholars to go abroad and direct where they go. This study therefore asks not just which factors matter, but how they work together and how their importance is shaped by scholars’ specific positions in their institutions.

Accordingly, the study addresses two interrelated questions:

Research Question 1 (RQ1): How was the motivational field of Chinese returned visiting scholars in the U.S. structured along the push-pull continuum? Specifically, which factors operated as unambiguous home-institutional pushes, which as unambiguous host-institutional pulls, and which occupied the ambiguous middle ground where home- and host-country logics overlap?

Research Question 2 (RQ2): How did scholars’ institutional positions—operationalized through career stage (academic rank/professional title), gender, and home-university tier (Project 985, Project 211, or local institution)—mediate the relative salience of these motivational forces?

These questions will be addressed through a two-stage analytical strategy. First, principal component analysis (PCA) with Varimax rotation will be performed to extract the underlying dimensional structure of visiting scholars’ motivations, allowing emergent factor groupings to surface without imposing the student-centric

categories of classical push-pull theory. Second, univariate ANOVAs will be conducted to examine whether the resulting motivational profiles differ across the institutional position variables specified in RQ2.

By answering these questions, this study aims to: 1 map the motivational architecture of Chinese visiting scholars in the U.S. context; 2 unpack the meso-level mediation through which career stage, gender, and institutional stratification shape the relative weight of push and pull forces; and 3 refine the explanatory boundaries of push-pull theory for non-degree academic mobility, thereby informing evidence-based institutional design for both sending and receiving universities.

4. Methodology

Research Design

This study employs a quantitative cross-sectional design. A principal component analysis (PCA) was conducted to identify the underlying dimensional structure of visiting scholars' motivations, allowing emergent component groupings to surface without imposing the student-centric categories of classical push-pull theory. Univariate ANOVAs were subsequently performed to examine whether the resulting motivational profiles differed across the institutional position variables specified in RQ2: gender, academic title, and home-university tier.

Instrument Development

The questionnaire was developed in two stages. First, an initial item pool was generated by adapting validated scales from international student mobility research (e.g., Mazzarol & Soutar, 2002; Cubillo et al., 2006), supplemented by items capturing China-specific institutional forces—such as CSC sponsorship requirements, title-promotion mandates, and home-university administrative regulations—those prior instruments had not addressed. These context-specific items were derived from a preliminary review of CSC policy documents and informal consultations with returned visiting scholars. Second, the 30-item draft was reviewed by five experts in higher education and cross-cultural research to establish content validity. Two attention-check items (Q18 and Q26) were included to identify careless responding: Q18 instructed respondents to select “strongly agree” regardless of content, and Q26 presented a logically inconsistent statement. Respondents failing either item were excluded.

The remaining 28 items were theoretically pre-sorted into 14 push and 14 pull statements based on their directional logic (home-institutional vs. host-institutional), but this classification was treated as a provisional heuristic rather than a confirmed structure. All items were administered in Mandarin Chinese and used a 6-point Likert scale ranging from 1 (strongly disagree) to 6 (strongly agree). The items were randomly ordered on the questionnaire to minimize response set bias (see Appendix A). The instrument demonstrated acceptable internal consistency, with Cronbach's α coefficients of .85 for the push subscale and .88 for the pull subscale. It should be noted that these coefficients reflect the theoretically pre-

sorted 14/14 classification, serving as a check on the initial tool's reliability; the subsequent analysis follows the factor structure extracted by principal component analysis (PCA).

Participants and Sampling

The sample was restricted to Chinese scholars who 1) had completed a non-degree visiting appointment (e.g., J-1 Research Scholar or equivalent status) at an accredited U.S. institution; 2) had resided in the United States for at least six months; 3) completed the visit between 2015 and 2025; and 4) had returned to their home institution by the time of survey administration. Participants were recruited through purposive and snowball sampling within professional networks and WeChat groups for returned visiting scholars. Between mid-October 2024 and mid-February 2025, 160 questionnaires were submitted nationwide via Wenjuanxing, a widely used Chinese online survey platform. Of these, 16 cases failed one or both attention-check items (see the Instrument Development section) and were excluded, yielding 144 valid responses. Recruitment through closed professional networks and direct WeChat invitations, together with the eligibility screening above, ensured that respondents met the definition of returned visiting scholars, minimizing non-targeted participation. The majority of respondents (96.5%) were between 25 and 45 years old, consistent with the mid-career profile typical of visiting scholars. Accordingly, all substantive claims in this study concern scholars who had completed U.S. visiting appointments. Detailed demographic characteristics of the sample are summarized in **Table 1**.

Table 1. Demographic profile of Chinese visiting scholars in the United States.

	Category	Number	Percent
Gender			
	Male	74	51.39
	Female	70	48.61
Academic title			
	Lecturers	41	28.47
	Associate professors	79	54.86
	Professors	18	12.5
	Other	6	4.17
Home uni tier			
	Project 985/211	59	40.97
	Local (non-designated)	85	59.03
Total		144	100.00

Data Collection Procedures

This study was approved by the Institutional Review Board of the authors' university (Protocol No. IRB-2024-678). All respondents provided informed consent prior to participation, and confidentiality was assured through anonymization of

all identifiable information.

Data Analysis

Quantitative data were analyzed using SPSS 20. First, principal component analysis (PCA) with Varimax rotation was performed on the 28 retained items to extract the underlying motivational structure. The Kaiser-Meyer-Olkin (KMO) measure and Bartlett's test of sphericity were examined to assess factorability. Components with eigenvalues greater than 1.0 and item loadings above 0.40 were retained. Item-to-component assignment followed two rules: 1) an item was retained on the component where it loaded highest, provided the loading exceeded 0.40—two items failing this criterion (Q2, Q7) were removed; and 2) items loading above 0.40 on two components (Q23, Q25, Q30) were assigned to the component with the higher loading. The PCA was then rerun on the remaining 26 items, and all subsequent results are based on this final solution (see Appendix B). For each retained multi-item component, a unit-weighted composite score was computed by averaging its constituent items; these composites served as dependent variables in the subsequent analyses. Cronbach's α for the seven multi-item components ranged from 0.60 to 0.87 (**Table 2**); the two shortest scales (three-item Administrative Compliance and two-item Domestic Obligations) fell slightly below the conventional 0.70 threshold, which is common for brief exploratory scales (Hair et al., 2010). Second, univariate ANOVAs were conducted to examine whether the resulting motivational profiles differed across gender, academic title, and home-university tier. Box's M test was examined to assess the homogeneity of variance-covariance matrices prior to the ANOVAs. Where ANOVA assumptions were met and significant effects emerged, Tukey's HSD post-hoc comparisons were performed.

5. Results

Component Structure: A Directional Taxonomy

The Kaiser-Meyer-Olkin measure of sampling adequacy was .778, exceeding the conventional threshold of 0.70, and Bartlett's test of sphericity was significant ($\chi^2(378) = 1850.07, p < 0.001$), indicating that the data were adequate for component extraction. Both statistics were computed on the initial 28-item set, prior to the removal of Q2 and Q7 (see the Data Analysis section).

The scree plot (**Figure 1**) showed that the eigenvalue curve leveled off after the eighth component, and the eigenvalue-greater-than-one rule likewise retained eight components, which together accounted for 71.1% of the total variance. Parallel analysis suggested a more parsimonious solution (three components at the 95th-percentile criterion; four at the mean criterion). We retained the eight-component solution for three converging reasons: each component 1) exceeded the eigenvalue-greater-than-one criterion, 2) contained at least one item loading above 0.40, with Components 1-7 each comprising two or more items; and 3) was interpretable within the push-pull framework developed in the Literature Review. The divergence across retention criteria is acknowledged in the Limitations.

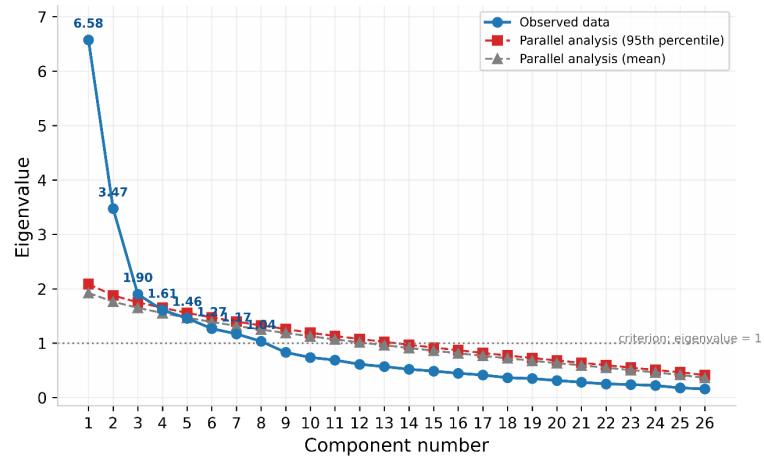


Figure 1. Scree plot of observed eigenvalues with parallel-analysis reference values based on 1000 random permutations of the 26-item correlation matrix.

The complete rotated component matrix is provided in Appendix B. To address RQ1, the extracted components were interpreted thematically and classified by their directional composition—that is, by examining whether the constituent items originated from the pre-categorized push pool (home-institutional forces), the pull pool (host-institutional attractions), or both. This classification permits an empirical assessment of whether visiting scholar motivations align with the classical push-pull binary or instead exhibit the structural ambiguity hypothesized in the Literature Review.

Component 1: Career Pursuit (eigenvalue = 6.576, 14.289% of variance, cumulative = 14.289%). This component comprises seven items with loadings ranging from 0.487 to 0.831, including improving the institute’s research and teaching capacity, enhancing the scholar’s own teaching and research competence, following academic dynamics, and establishing contact with experts in the field. All items were drawn from the pre-categorized push pool, indicating a pure push component reflecting home-institutional pressures for professional development.

Component 2: Academic Pursuit (eigenvalue = 3.474, 13.303% of variance, cumulative = 27.592%). This component comprises five items with loadings ranging from 0.569 to 0.818, including finishing the current research program, writing and publishing articles, obtaining guidance from senior experts, being attracted by a leading scholar in the field, and the academic climate of the host institution. Because this component combines items that discharge home-institutional research obligations while accessing host-institutional expertise and academic climate, it is classified as structurally ambiguous, resisting clean directional assignment.

Component 3: Institutional Respite (eigenvalue = 1.901, 8.902% of variance, cumulative = 36.494%). This component comprises three items with loadings ranging from 0.759 to 0.867, capturing the desire to relieve teaching burnout, recover from work pressure, and escape from the polluted environment. All items originated from the push pool, constituting a pure push component.

Component 4: Status Attainment (eigenvalue = 1.610, 8.680% of variance, cu-

mulative = 45.174%). This component comprises three items with loadings ranging from 0.571 to 0.856, relating to standing out from others, being taken as a role model by students, and the honor of studying at the host institution. The first two items derive from the push pool (status differentiation within the home system), while the third derives from the pull pool (the symbolic value of the host institution). This component is therefore structurally ambiguous, straddling home- and host-country logics.

Component 5: Administrative Compliance (eigenvalue = 1.458, 6.801% of variance, cumulative = 51.976%). This component comprises three items with loadings ranging from 0.485 to 0.857, reflecting institutional pressure: going not by one's own choice, being a precondition for promotion, and helping apply for research grants. All items are pure push, representing what the Literature Review termed institutional career scripts.

Component 6: Domestic Obligations (eigenvalue = 1.269, 6.154% of variance, cumulative = 58.130%). This component comprises two items with loadings ranging from 0.762 to 0.859, concerning family-related mobility: assisting children's adaptation to American education and helping children learn English. These items were pre-categorized as pull because they reference host-country educational settings; yet they do not express attraction to the host education system itself. Instead, they reflect a family maximization logic under conditions of institutional scarcity: because overseas visits are infrequent and competitively secured at the home institution, scholars leverage them as bundled investments that serve both professional and familial ends. The host-country educational opportunity is thus mediated by the home-institutional mobility channel rather than operating as a free-standing pull. This conditional dependence renders the component structurally ambiguous.

Component 7: Intercultural Immersion (eigenvalue = 1.171, 6.971% of variance, cumulative = 65.101%). This component comprises two items, with loadings ranging from 0.776 to 0.853, reflecting the desire to improve intercultural competence and broaden horizons. Both are pure pull.

Component 8: Program Attraction (eigenvalue = 1.035, 6.034% of variance, cumulative = 71.135%). This component consists of a single item concerning the attraction of top-ranked programs. Because single-item components are psychometrically unstable, this component was excluded from subsequent inferential analyses but retained here for descriptive completeness. It is classified as pure pull.

Directional Summary. Of the eight extracted components, three are unambiguously push-oriented (Components 1, 3, 5), two are unambiguously pull-oriented (Components 7, 8), and three occupy a structurally ambiguous middle ground where home- and host-country logics overlap (Components 2, 4, 6). This distribution suggests that the motivational field of Chinese visiting scholars is not cleanly bifurcated along the classical push-pull continuum; rather, a substantial proportion of variance is generated by forces that resist directional classification. **Table 2** presents the eight components, their eigenvalues, variance explained, and directional classification.

Table 2. Principal component analysis results and directional classification.

Component	Label	Eigen-value	Variance explained (%)	Cumulative (%)	No. of items	Loading range	Cronbach's α	Directional classification
1	Career pursuit	6.576	14.289	14.289	7	0.487 - 0.831	0.87	Pure push
2	Academic pursuit	3.474	13.303	27.592	5	0.569 - 0.818	0.82	Structurally ambiguous
3	Institutional respite	1.901	8.902	36.494	3	0.759 - 0.867	0.80	Pure push
4	Status attainment	1.610	8.680	45.174	3	0.571 - 0.856	0.71	Structurally ambiguous
5	Administrative compliance	1.458	6.801	51.976	3	0.485 - 0.857	0.60	Pure push
6	Domestic obligations	1.269	6.154	58.130	2	0.762 - 0.859	0.64	Structurally ambiguous
7	Intercultural immersion	1.171	6.971	65.101	2	0.776 - 0.853	0.70	Pure pull
8	Program attraction	1.035	6.034	71.135	1	0.797	–	Pure pull (excluded)

Note. Extraction method: principal component analysis with Varimax rotation (Kaiser normalization). KMO = 0.778; Bartlett's test of sphericity: $\chi^2(378) = 1850.07$, $p < 0.001$. KMO and Bartlett's test were computed on the initial 28-item set, prior to the removal of Q2 and Q7. Eigenvalues are reported in extraction order; percentages of variance are based on rotation sums of squared loadings, which may render the percentage of variance explained non-monotonic across components. Q2 and Q7 were removed prior to analysis because their highest loadings fell below 0.40; items loading above 0.40 on two components (Q23, Q25, Q30) were assigned to the higher-loading component. Component 8 was single-item and was excluded from inferential analyses. α is not reported for the single-item component.

Group Differences in Motivational Profiles

Prior to conducting the univariate ANOVAs, Box's M test was examined to assess the homogeneity of variance-covariance matrices. The test was nonsignificant, $M = 108.43$, $F(84, 105000) = 1.14$, $p = 0.243$, indicating that the assumption was met. Three separate univariate ANOVAs were then conducted on the seven multi-item component scores (excluding Component 8) to examine whether motivational profiles differed across the three grouping variables specified in RQ2: gender, academic title, and home-university tier. Because the analysis comprised 21 omnibus tests (seven components $\times$ three grouping variables), Benjamini-Hochberg-adjusted p values are reported alongside unadjusted values; effects with adjusted $p < 0.05$ are interpreted as robust, and effects significant only before adjustment are reported as tentative tendencies, as summarized in **Table 3**.

Gender

No gender difference survived Benjamini-Hochberg adjustment. The only effect approaching significance was for Component 7 (Intercultural Immersion), $F(1, 142) = 4.325$, $p = 0.039$, partial $\eta^2 = 0.030$, with female scholars ($M = 5.33$, $SD = 0.90$) scoring higher than male scholars ($M = 5.03$, $SD = 0.84$); after adjustment this effect was no longer significant ($q = 0.203$). This pattern counters the conventional assumption that female scholars are more family-oriented while male scholars are more career-oriented. Rather, women in contemporary Chinese academia appear equally subject to institutional career pressures as their male colleagues,

with only a tentative tendency to attach greater value to host-country cultural exposure. This difference may partly reflect disciplinary composition, as female scholars in the sample were more likely to be concentrated in arts and humanities fields where cross-cultural immersion is traditionally accorded higher value.

Table 3. Univariate ANOVA results for motivational components by grouping variables.

Component	Gender $F(1, 142)$	P	q	Title F (3, 140)	P	q	Tier F (1, 142)	P	q	Directional classification
1. Career pursuit	3.328	0.070	0.246	1.661	0.178	0.312	0.094	0.829	0.875	Pure push
2. Academic pursuit	0.693	0.406	0.610	2.152	0.097	0.258	0.733	0.351	0.567	Structurally ambiguous
3. Institutional respite	2.070	0.152	0.291	0.461	0.710	0.828	2.507	0.116	0.258	Pure push
4. Status attainment	0.045	0.833	0.875	0.874	0.456	0.639	5.463	0.021	0.146	Structurally ambiguous
5. Administrative compliance	2.408	0.123	0.258	4.785	0.003	0.044*	0.537	0.563	0.740	Pure push
6. Domestic obligations	2.568	0.111	0.258	0.094	0.963	0.963	3.967	0.048	0.203	Structurally ambiguous
7. Intercultural immersion	4.325	0.039	0.203	0.619	0.604	0.746	8.487	0.004	0.044*	Pure pull

Note. Gender: male vs. female. Academic title: lecturer, associate professor, professor, other. University tier: Project 985/211 vs. local (non-designated). Bold p values are significant at $p < 0.05$ before adjustment; q values are Benjamini-Hochberg-adjusted across the 21 omnibus tests; * $q < 0.05$. Effect sizes (partial η^2) and group means are reported in the following section.

Academic Title

Univariate ANOVAs indicated that academic title differed significantly on Component 5 (Administrative Compliance), $F(3, 140) = 4.785$, $p = 0.003$, partial $\eta^2 = 0.093$, and this effect remained significant after Benjamini-Hochberg adjustment ($q = 0.044$), whereas the remaining six components showed no significant differences. Tukey's HSD post-hoc comparisons located the effect between adjacent ranks: lecturers ($M = 3.34$, $SD = 1.14$) scored significantly higher than associate professors ($M = 2.79$, $SD = 1.02$, $p = 0.049$) and professors ($M = 2.26$, $SD = 1.27$, $p = 0.004$); the difference between associate professors and professors ($p = 0.259$) and between any titled group and the small "other" category ($n = 6$) was not significant. The descending gradient—lecturers > associate professors > professors—mirrors the Chinese academic promotion hierarchy. For junior faculty at the bottom of this ladder, the overseas visit functions as an institutional career script: a mandated checkpoint on the path to promotion. For senior scholars who have already cleared this hurdle, the same visit becomes a discretionary activity, largely free from administrative pressure.

Home-University Tier

Univariate ANOVAs revealed a significant tier difference on Component 7 (Intercultural Immersion), $F(1, 142) = 8.487$, $p = 0.004$, partial $\eta^2 = 0.056$, with scholars from local (non-designated) universities ($M = 5.35$, $SD = 0.72$) scoring higher than their 985/211 peers ($M = 4.92$, $SD = 1.02$); this effect remained significant after Benjamini-Hochberg adjustment ($q = 0.044$). Two further effects were significant only before adjustment and are therefore reported as tentative tendencies: Component 4 (Status Attainment), $F(1, 142) = 5.463$, $p = 0.021$, partial $\eta^2 = 0.037$, and Component

6 (Domestic Obligations), $F(1, 142) = 3.967$, $p = 0.048$, partial $\eta^2 = 0.027$, both with local-university scholars scoring higher (3.47 vs. 3.03; 3.06 vs. 2.59, respectively). No significant differences emerged on the remaining four components.

The robust effect on intercultural immersion likely stems from the fact that international exposure is relatively novel at local institutions. Whereas 985/211 scholars may have prior overseas experience or routine international contact, local university scholars treat the visit as a once-in-a-career opportunity to maximize gains across multiple domains.

For Component 4 (Status Attainment), which reached significance only before multiple-comparison adjustment, the pattern suggests that for scholars at local universities, overseas visits are not routine professional travel but rare events that carry concentrated symbolic value. Their heightened emphasis on status attainment reflects what Bourdieu (1984) would term strategies of distinction in a field of unequal capital distribution: when institutional resources for international mobility are scarce, the visit becomes a powerful marker of professional differentiation.

The greater weight placed on family-related obligations may also reflect a maximization logic under conditions of scarcity. Because overseas visits are infrequent and competitively secured at local institutions, scholars tend to leverage them as family investments—extending the mobility opportunity to include children’s educational benefits—rather than treating them as individualized professional activities. Many of these institutions are located outside major metropolitan centers such as Beijing, Shanghai, or Nanjing, where international academic exchange is less routine, further amplifying the perceived value of extracting both professional and familial gains from a single visit. Means, standard deviations, effect sizes, and Tukey HSD results for all significant and marginal effects are summarized in Table 4.

Table 4. Effect sizes and descriptive statistics for significant and marginal effects.

Effect	Group	<i>M</i> (SD)	<i>n</i>	Partial η^2	Tukey HSD
C5 administrative compliance $\times$ title	Lecturer	3.34 (1.14)	41	0.093	Lecturer > Associate ($p = 0.049$); Lecturer > Professor ($p = 0.004$)
	Associate professor	2.79 (1.02)	79		
	Professor	2.26 (1.27)	18		
	Other	2.44 (1.34)	6		
C7 intercultural immersion $\times$ tier	985/211	4.92 (1.02)	59	0.056	985/211 < Local ($p = 0.004$)
	Local	5.35 (0.72)	85		
C7 intercultural immersion $\times$ gender	Male	5.03 (0.84)	74	0.030	female > male (uncorrected $p = 0.039$)
	Female	5.33 (0.90)	70		
C4 status attainment $\times$ tier	985/211	3.03 (1.14)	59	0.037	local > 985/211 (uncorrected $p = 0.021$)
	Local	3.47 (1.06)	85		
C6 domestic obligations $\times$ tier	985/211	2.59 (1.27)	59	0.027	local > 985/211 (uncorrected $p = 0.048$)
	Local	3.06 (1.48)	85		

Note. Composite scores are reported on the original 6-point metric. Only effects with unadjusted $p < 0.05$ are listed; C5 $\times$ title and C7 $\times$ tier remain significant after Benjamini-Hochberg adjustment (Table 3).

6. Discussion

The principal finding of this study is that Chinese visiting scholars' motivations cannot be reduced to a simple push-pull binary. While the extracted components do cluster into home-institutional and host-institutional forces, a substantial proportion of variance is captured by factors that straddle both domains—most notably Academic Pursuit, Status Attainment, and Domestic Obligations. These ambiguous components suggest that the visiting appointment is not merely a reaction to home pressures or an attraction to host amenities, but a transnational project in which scholars strategically recombine home obligations with host resources to accumulate capital valued in both systems. The classical push-pull model, by forcing these cross-cutting forces into directional categories, commits a category error when applied wholesale to short-term academic mobility.

The grouping variables further reveal that motivational forces are not experienced uniformly but are stratified by structural position. Gender exerted no robust influence across the seven components: women appear equally subject to institutional career pressures as their male colleagues, diverging only in a tentative, non-robust tendency to attach greater importance to host-country cultural exposure. Academic title, by contrast, produced a steep gradient on administrative compliance that survived multiple-comparison adjustment: junior faculty experience the heaviest institutional pressure, while senior scholars encounter virtually none. This descending gradient mirrors the Chinese promotion hierarchy, in which overseas visits function as mandatory checkpoints for lecturers but become elective opportunities for professors. Home-university tier reveals a further mediating mechanism: scholars from local institutions assign greater weight to inter-cultural immersion than their 985/211 peers—an effect robust to adjustment—with tentative tendencies in the same direction for status attainment and domestic obligations, suggesting that resource scarcity amplifies the perceived value of the visit. When international mobility is rare, it is treated as a concentrated investment from which scholars seek to extract symbolic, familial, and cultural gains simultaneously.

These patterns carry three interrelated theoretical implications. First, they establish structural ambiguity as an empirical property of the motivational field. The significant variance generated by forces that resist clean directional classification indicates that the push-pull model must accommodate cross-cutting dimensions rather than treat them as residual noise. Second, the findings identify institutional career scripts as a meso-level mechanism mediating between macro-structural forces and individual agency. The same factor—administrative compliance—functions as a strong push for lecturers, a weak push for associate professors, and a neutral condition for professors, calling for a stratified push-pull model in which the strength and even the direction of a factor depend on the actor's position in the academic hierarchy. Third, the relatively weak host-country pulls suggest that the choice of American campuses tends to be more instrumental than aspirational. Rankings and lifestyle amenities appear secondary to research alignment and su-

pervisor availability, representing a distinctive feature of short-term scholarly mobility that the classical model, built for degree-seeking students, fails to capture.

7. Conclusion

This study examined the motivational architecture of 144 Chinese returned visiting scholars through principal component analysis and univariate ANOVAs. PCA extracted eight motivational components accounting for 71.135% of variance, which were classified into three directional zones: pure home-institutional pushes (Career Pursuit, Institutional Respite, Administrative Compliance), pure host-institutional pulls (Intercultural Immersion, Program Attraction), and a structurally ambiguous middle ground (Academic Pursuit, Status Attainment, Domestic Obligations). ANOVA results indicated that the strength of these motivational forces depends on scholars' structural positions: academic title produced a steep gradient on Administrative Compliance (lecturers > associate professors > professors), and scholars from local universities scored higher on Intercultural Immersion than their 985/211 peers—both effects robust to Benjamini-Hochberg adjustment—whereas gender exerted minimal influence. Tentative, uncorrected tendencies in the same direction emerged for status attainment and domestic obligations, suggesting that resource scarcity amplifies the perceived value of the visit.

These findings demonstrate that short-term academic mobility cannot be adequately explained by the classical push-pull model alone. The motivational field is characterized by structural ambiguity, where forces resist clean directional classification, and is mediated by institutional career scripts that stratify the experience across career stages and resource contexts. Chinese visiting scholars are mid-career professionals whose mobility is instrumentalized toward home-country goals rather than driven primarily by host-country attractions. To understand their decisions, the push-pull framework must be rebuilt from the middle—through the insertion of institutional positions, career stages, and resource stratification that mediate between macro forces and personal choice.

Recommendations

In practical terms, home institutions should consider decoupling visiting programs from rigid promotion checkpoints. When overseas visits are perceived as bureaucratic compliance rather than intellectual development, their scholarly benefits are likely to diminish. U.S. host institutions, meanwhile, should recognize that generic marketing of institutional rankings is inefficient. Instead, they should foreground research alignment and supervisor availability—the very elements that constitute the potent but ambiguous factor of Academic Pursuit.

Limitations

Several limitations qualify these findings. The sample was recruited through professional networks and snowball sampling within returned-scholar communities, and may over-represent certain types of U.S. host institutions (most of the re-

spondents visited public universities in the eastern United States). Motivational profiles may differ for scholars hosted by West Coast, private, or medical institutions. The cross-sectional design captures motivations retrospectively, raising the possibility of post-hoc rationalization. Future research should employ longitudinal designs to track how motivations evolve before, during, and after the visit.

In addition, the number of retained components diverged across retention criteria (eight by the eigenvalue-greater-than-one rule, three by parallel analysis at the 95th-percentile criterion). Although the eight-component solution was retained for its theoretical interpretability and item-level adequacy, future research should cross-validate this structure in independent samples of visiting scholars.

Ethics Statements

All participants provided their informed consent to participate in this study. The research protocol was approved by the Ethics Committee of Beijing Foreign Studies University.

Generative AI Statement

The author used Kimi for grammar correction. After using this tool, the author reviewed and edited the content extensively and takes full responsibility for the final version of this work.

Conflicts of Interest

The author declares no competing interests.

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Appendix A. Questionnaire Items (Administered in Mandarin Chinese)

No.	Original Chinese item	English translation
1	我来此访学，因为我访学的院系在我的研究领域排名领先。	I came here for scholarly visiting because the department at this institute ranks high in my research field.
2	我是想通过访学提高自己的科研能力。	By doing scholarly visiting, I want to improve my research competence.
3	来此访学，因为所在国家为英语国家，有助于提升我的英语水平，增强跨文化交际能力。	This university is located in an English-speaking country; working here contributes to improving my English proficiency and intercultural competence.
4	我来此访学是为了孩子学习英语，因为孩子正处于学习语言的关键时期。	I came here to be a visiting scholar for my child's sake, who is at the critical period of learning language.
5	我希望通过访学进一步提高自己的教学/业务水平。	I hope being a visiting scholar here will help improve my teaching competence.
6	我来此访学，是因为长期教学/工作负荷较重，希望调整身心状态。	I came here to work as a visiting scholar, so as to relieve my burnout caused by prolonged teaching and workload.
7	海外访学可以为今后职称评定积累有利条件。	Being a visiting scholar overseas is conducive to my future promotion.
8	访学是单位的安排，不是我的主动选择。	It is the arrangement of my institute to do scholarly visiting, instead of my choice.
9	访学经历有助于提升我在学生/同事中的学术认可度，树立专业榜样。	Doing research as a visiting scholar will increase my authority and recognition among students and colleagues, so they could take me as a role model.
10	国内生态环境欠佳，希望访学期间改善生活环境。	Being a visiting scholar in a good environment like here can help me escape from the polluted environment back home.
11	访学能够开阔自己的视野，了解和体验西方文化。	Being an overseas visiting scholar can help broaden my horizon and understand western civilization.
12	我平时工作压力很大，借助访学可以放松一下。	Since I am almost overwhelmed by work pressure, being a visitor here helps me recover.
13	我来此访学是因为我的导师或该领域某位领军学者在此，他/她是我研究领域的权威。	I came here because my supervisor or another leading professor in this institute attracts me here, for he/she is an authority in my field.
14	有了访学经历，有助于提升我在同行中的学术认可度。	The experience of being an overseas visiting scholar helps me stand out from others.
15	我希望借助访学，通过自己努力，提高自己所在院系/单位的教学/业务水平。	I hope this visit, by means of my efforts, will contribute to the improvement of teaching in my institute.
16	在此访学，我可以更好地了解学术动态，收集学术资料。	This visit will help me follow the dynamics of my field.
17	获得资助来此访学，本身就是研究实力的体现，也是一种荣誉。	Winning the scholarship to study abroad testifies to my research competitiveness and hence it is an honor to study here.
18	如果您正在仔细阅读本问卷，请在本题选择“完全同意”。	If you are reading this questionnaire carefully, please select “strongly agree” for this item.
19	访学的目的之一是为了孩子，孩子即将在此地就读大学，希望提前帮助其适应当地教育环境。	One of the reasons for being a scholar here is that my kid is going to enter a university in this country, and by having him/her come with me I can help him/her adapt to this country's education.

Continued

20	访学是迫于晋升的需要，是一种无奈的选择。	It is a precondition for getting promoted to do scholarly visiting overseas.
21	希望我的访学经历能够帮助我更好地申报省部/国家级课题。	My visit is expected to help me apply for provincial or state research grant.
22	借助访学，通过与同事合作，希望提高自己所在单位/院系的科研/业务水平。	Through doing scholarly visiting here, in cooperation with my colleagues, I can make my contribution to improving my institute's research.
23	在这里访学，可以更好地推进自己正在开展的研究工作。	While being a visiting scholar here, I can advance my research in a more efficient way.
24	访学会使自己有机会了解西方大学的教学/科研特点和教学/科研模式。	This visit will help me understand the teaching and research strength of Western universities.
25	我来此访学，因为我了解到这里学术氛围浓厚。	I came here because of the very academic climate of this institute.
26	我在填写问卷时通常不看题目内容，直接随意选择答案。	When filling out questionnaires, I usually do not read the item content and select answers randomly.
27	希望通过访学可以更好地完成自己所承担的课题。	Being a visiting scholar here can help me finish my current research program.
28	在这里访学，我可以得到自己研究领域资深专家的指导。	By being a visiting scholar here, I can get the guidance from the senior experts in my field.
29	希望通过访学能够发表几篇高质量的论文。	I hope during this visit I can write and publish a few high-quality articles.
30	我希望通过访学与我研究领域的专家和教授建立学术交流。	By being a scholar here, I can get in contact with the experts or professors in my field.

Note. All items used a 6-point Likert scale ranging from 1 (strongly disagree) to 6 (strongly agree). Items were randomly ordered in the administered questionnaire. Q18 and Q26 were attention-check items and were excluded from factor analysis. Respondents failing either attention-check item were removed from the sample.

Appendix B. Rotated Component Matrix (Varimax)

Item	Item wording (abbreviated)	1 career pursuit	2 academic pursuit	3 institutional respite	4 status attainment	5 administrative compliance	6 domestic obligations	7 intercultural immersion	8 program attraction
Q1	Department ranks high in my field	0.205	-0.020	-0.032	-0.066	0.007	-0.041	0.094	0.797
Q3	English-speaking country, intercultural competence	0.206	0.080	-0.009	0.111	-0.045	0.131	0.853	0.042
Q4	Child at critical period of learning language	0.022	0.010	0.319	0.071	-0.090	0.762	0.207	-0.039
Q5	Improve my teaching competence	0.705	0.109	-0.092	-0.008	-0.037	-0.044	0.309	0.033

Continued

Q6	Relieve burnout caused by teaching	0.030	-0.064	0.867	-0.079	0.006	0.188	-0.003	-0.034
Q8	Arrangement of institute, not my choice	-0.196	-0.004	0.090	0.138	0.735	0.011	0.088	-0.133
Q9	Increase authority among students	0.136	0.027	0.089	0.812	0.088	0.021	0.007	-0.104
Q10	Escape from polluted environment	-0.018	0.046	0.759	0.309	0.097	0.167	0.106	0.037
Q11	Broaden horizon, understand western civilization	0.176	0.197	0.220	0.004	0.026	-0.038	0.776	0.065
Q12	Overwhelmed by work pressure, recover	-0.010	-0.070	0.792	0.263	0.111	0.049	0.092	-0.016
Q13	Supervisor is authority in my field	0.107	0.615	-0.013	0.101	-0.060	-0.085	-0.145	0.445
Q14	Stand out from others	-0.040	0.050	0.250	0.856	0.059	0.072	0.042	0.021
Q15	Contribute to teaching in my institute	0.684	0.022	-0.092	0.235	-0.084	-0.098	0.120	0.335
Q16	Follow dynamics of my field	0.487	0.209	0.082	0.134	-0.296	-0.043	0.233	0.307
Q17	Honor to study here	0.245	0.177	-0.103	0.571	-0.106	0.285	0.253	0.213
Q19	Kid going to enter university	-0.023	-0.073	0.125	0.097	0.166	0.859	-0.046	0.000
Q20	Precondition for getting promoted	0.026	0.008	0.067	-0.006	0.857	0.079	-0.094	0.125
Q21	Apply for provincial/state research grant	0.477	0.140	0.144	0.403	0.485	0.060	0.072	-0.180
Q22	Improve institute's research	0.831	0.234	-0.028	0.102	0.043	0.079	0.048	0.090
Q23	Advance research in more efficient way	0.546	0.519	0.114	-0.134	0.127	-0.133	0.149	-0.093
Q24	Teaching/research strength of Western universities	0.732	0.269	0.086	-0.023	-0.077	0.001	0.181	0.143

Continued

Q25	Academic climate of this institute	0.283	0.569	0.066	−0.015	0.126	0.167	0.101	0.498
Q27	Finish current research program	0.215	0.818	−0.015	−0.028	0.109	−0.121	0.154	−0.032
Q28	Guidance from senior experts	0.227	0.758	−0.128	0.189	0.024	0.002	0.197	0.229
Q29	Write and publish good articles	0.064	0.810	−0.062	0.073	−0.119	0.028	0.019	−0.213
Q30	Contact experts in my field	0.575	0.537	0.094	−0.002	−0.096	0.104	0.078	0.109
	Eigenvalue	6.576	3.474	1.901	1.610	1.458	1.269	1.171	1.035
	Variance (%)	14.289	13.303	8.902	8.680	6.801	6.154	6.971	6.034
	Cumulative (%)	14.289	27.592	36.494	45.174	51.976	58.130	65.101	71.135

Note. Extraction method: principal component analysis. Rotation method: Varimax with Kaiser normalization. Q2 and Q7 were removed prior to analysis because their highest loadings fell below 0.40; items loading above 0.40 on two components (Q23, Q25, Q30) were assigned to the component with the higher loading. The highest loading for each item is boldfaced.