

Diaspora Strategies: Optimal Return Windows and the New Dynamics of Asian Scientific Mobility

The transition of East and Southeast Asia (ESEA) from a source of “brain drain” to a locus of strategic “brain gain” constitutes a pivotal reconfiguration of the global scientific landscape. However, the region’s massive investments in diaspora recruitment rely on an implicit, untested assumption: that return migration is universally beneficial regardless of career stage. This premise overlooks the complex temporal and structural dynamics of scientific careers. To bridge this gap, this study analyses the longitudinal trajectories of over 800,000 ESEA-born scientists, identified from a global dataset of 43 million scholars. Methodologically, we employ a robust staggered Difference-in-Differences (DID) design to establish causality. To isolate the causal effect of return, we construct a rigorous counterfactual by comparing returnees with a matched control group of “not-yet-returned” peers. Furthermore, we integrate moderation analyses using Hofstede’s cultural dimensions and longitudinal co-authorship network metrics. Our results reveal a distinct optimal return window: scientists who return during their mid-to-late career stages achieve the highest and most sustained premium in research impact. This finding empirically challenges a prevailing policy focus that is heavily weighted toward recruiting senior laureates, suggesting that a broader and more strategic window of efficacy exists and should be leveraged. Mechanism analysis shows that this premium is contingent upon cultural fit and, crucially, pre-return embeddedness in regional networks. We conceptualise this mechanism as a dual network anchor, where successful return represents the culmination of a strategic coupling between global capital and local receptivity. Theoretically, we advance the concept of knowledge arbitrage timing, positing that the returns to mobility are maximised when globally accrued resources are deployed within a specific, receptive local career phase. For policy, our findings advocate a shift from blanket incentives to precision interventions, targeting scholars poised at this critical juncture to transform symbolic return into sustainable, embedded innovation.