

Nuhoglu Soysal, Yasemin; Cebolla Boado, Héctor

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Transnationalization of Educational Aspirations: Evidence from China

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Transnationalization of Educational Aspirations: Evidence from China

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journals.sagepub.com/home/sro**Yasemin Nuhoglu Soysal**

WZB, Germany

Héctor Cebolla Boado 

CSIC, Spain

Abstract

The international migration of students has garnered a lot of attention from researchers due to its growing popularity and significance. However, the current state of research in this field is limited. On one hand, there is a scarcity of high-quality, large-scale data, and existing studies primarily focus on students who are already abroad. On the other hand, the field predominantly revolves around Bourdieusian-inspired arguments that narrowly view international education as a strategic investment by parents and a means of perpetuating social advantage. This article addresses these limitations by utilizing nationally representative survey data from China, the largest single source of international students globally. Our findings challenge the existing literature by revealing that parental aspirations to send their children abroad are more widespread across diverse social backgrounds than previously suggested. Furthermore, we observe that exposure to transnational environments amplifies aspirations for international education across various parental backgrounds and mitigates differences in aspirations based on parental education levels. We argue that these empirical patterns reflect the global standardization and diffusion of models and ideals of self, of which international education has increasingly become a part within the context of the transnationalization of higher education itself.

Keywords

China, cultural capital and social reproduction, educational aspirations, global standardization of models and ideals of self, international education transnationalization of higher education

The increase in the number of internationally circulating higher education students in the last 50 years has been striking: from approximately 250,000 in 1965 to 5 million in 2020. Since the 1990s, there has been more than a fourfold increase. Asian countries source

Corresponding author:

Yasemin Nuhoglu Soysal, Berlin Social Science Center, WZB Reichpietschufer 50, 10785 Berlin, Germany.

Email: yasemin.soyosal@wzb.eu

more than half of today's international students, with China, India, and South Korea leading as the primary sending countries. Chinese students constitute the single largest and fastest-growing body of international students. The total number of Chinese nationals studying overseas in 2019 was 703,500, marking an increase of 41,400, or 6.3%, over the previous year (Ministry of Education, PRC, 2022a). According to official figures, the Chinese represent 17.5% of the total stock of students abroad (UNESCO, 2022).

These figures explain the growing interest in studying the dynamics surrounding the international migration of students and the privileged focus China has in this literature. Although rapidly growing, research in this field has significant limitations. On one hand, there is a lack of high-quality, large-scale representative data, and the existing research tends to focus on students who have already moved across borders, neglecting the drivers of international migration for education that are entangled with student origins (Cebolla-Boado et al., 2018). On the other hand, the literature does not pay sufficient attention to the processes that have transformed higher education worldwide. In this article, we focus our analysis on student origins and study parental aspirations and intentions to send their children abroad for their higher education, using the China Family Panel Study (CFPS), a large-scale representative sample of Chinese households produced by Peking University since 2010 (Xie and Hu, 2014). Going beyond the conventional understanding of international education (IE) as a mechanism of elite reproduction, we focus on the link between education and migration as an aspiration and self-expression, which are increasingly standardized in the context of the transnational transformations of higher education itself.

In addition to its prominent contribution to the global flow of international students, the choice of China is also relevant because of its highly dynamic migration and educational context. Since 1978, migration and educational expansion have been connected with the 'modernization' of China (i.e. transition to a market economy and broad social reforms), which significantly increased the possibility of upward social mobility for the younger generations (Liu, 2007). This expectation of mobility created unprecedented levels of internal migration, which have been captured in recent national survey data sets such as the CFPS. For generations born in the 1980s and the 1990s, rural to urban migration has been the principal means of improving family well-being (Xu and Xie, 2015). At the same time, China has experienced a rapid expansion of its education system (Treiman, 2013). The reintroduction of the standardized National Higher Education Entrance Examination (*Gaokao*) in 1978 inaugurated the modern system of higher education in China and furthered the idea of 'meritocracy' in education (Liu, 2013).

In addition, the 'one-child policy', along with increasing middle-class incomes, has fed into this educational expansion by making it possible to pool resources that multi-generational families can invest in children's education (Cai et al., 2010). According to the Ministry of Education, the number of registered students in all higher education institutions in 2021 totaled 44.3 million across the country (Ministry of Education, PRC, 2022b). The drastic expansion of tertiary education enrolments over the last two decades in China transformed the system into a social space of fierce competition (Samir et al., 2010). Combined with vast regional differences in access to and quality of education, this has boosted internal and international migration for educational reasons.

Explaining IE aspirations

Youth, including large segments of the disadvantaged population, have been documented to be highly aspirational and optimistic in their educational expectations (Alexander et al., 2008; Khattab, 2003; Soysal and Cebolla-Boado, 2020). Scholars of social stratification often depict youth aspirations and expectations as rational calculations pursuing either social influence (Haller, 1982; Sewell and Hauser, 1972) or maximizing economic gains (Breen, 2001; Morgan et al., 2013), or both (Zimmermann, 2020). Scarcer views in the field offer cultural accounts of educational aspirations, arguing that aspirations should be understood as assertions of identity shaped by cultural schemas and standards of the virtuous individual (Frye, 2012).

Research on IE has been mainly inspired by the social stratification scholarship but reinterprets it from a Bourdesian perspective in line with a growing interest in habitus and cultural capital in broader sociology to account for inequalities by social background (Jaeger, 2022). Two strands of arguments are manifest (Lipura and Collins, 2020). The first emphasizes positional gains, such as a degree from a prestigious university and language competence, and the competitive advantage that IE enables (Brooks and Waters, 2011; Findlay et al., 2012; Findlay and King, 2010; Gerhards and Hans, 2013; Waters, 2008). The second highlights the non-material benefits of IE, such as self-growth and cosmopolitan experiences and outlook (Collins, 2013; Marginson, 2014; Tran, 2015). Both strands follow the Bourdesian logic of capital conversion and conceptualize IE as cultural capital, which can ultimately be commodified over the life course to ensure intergenerational transmission of social advantage. Thus, the literature often discusses IE in the context of middle- and upper-class families strategizing about international schools and sending their children abroad to maximize cultural capital in the family while at the same time participating in the reproduction of the symbolic power of international higher education in a hierarchically structured global field (Yu, 2021).

In the context of China, scholars emphasized the utilization of educational migration by the newly rich to convert economic capital to cultural capital, which in turn commodified IE as a status symbol accessible only to the socially and politically advantaged (Xiang and Shen, 2009). Others saw studying abroad as a strategy for well-to-do Chinese families to compensate for potential failure in a highly competitive domestic educational system (Zhou et al., 2019).

In sum, IE as an elite social reproduction strategy is highly prevalent in the current research agenda. Despite its predominance, we find studies starting from such a view narrow and restrictive in their explanatory accounts. Notably, they do not consider broader environmental factors such as the diffusion of transnationally standardized models of individual and life course, which precipitate educational and mobility aspirations across different social groups and contexts. Our article innovates on this aspect and invites rethinking individual and familial level explanations of IE and how aspirations for IE are formed by privileging transnational cultural models and standards in our analytical accounts.

In the broader macro-sociological literature, world society scholarship offers arguments and empirical models that elaborate global cultural models and their diffusion

(Jepperson and Meyer, 2021; Meyer, 2010). As their research has shown, a significant aspect of the global education field is its emphasis on the increasingly standardized models of the agentic, self-motivated, and aspirational individual (Lerch et al., 2022; Meyer and Jepperson, 2000). Individuals with such traits are predicted to succeed in labor markets and overall life goals and especially so in knowledge society contexts (Hasse and Krucken, 2013). Since the 1990s, the agentic and aspirational individual model has been transmitted through scientific ideologies and policies of education, espoused by international organizations, government, and market agencies of various sorts, equipping individuals on a global level with uniform narratives of the self (Frank and Meyer, 2002; Lerch et al., 2017; Soysal and Wong, 2015). Particularly in higher education, a highly transnationalized field, we observe a standardized conception of the student that centers around individual agency, ambition, competitiveness, and openness to new experiences (Soysal and Cebolla-Boado, 2020). This conception cuts across higher education sectors worldwide, affecting self-orientations and societal expectations. From this perspective, IE emerges as a transnationally standardized aspiration, an assertion and projection of self-transformation in line with an idealized future (Frye, 2012). As such, educational and mobility aspirations become taken-for-granted goals in themselves, in contrast to the narrower understandings of IE as a strategic investment and elite reproduction.

Conceptualizing IE as a transnationally standardized aspiration suggests a different distribution of aspirations than the elite reproduction perspective would predict. We formulate the following specific hypotheses:

1. Bourdieusian accounts of IE inspired by elite reproduction arguments suggest a positive selection by relevant background factors among parents choosing to send their children abroad. Thus we expect parents with higher social backgrounds (income, education), who are more involved with their children's education, and whose children perform better in school to be more likely to aspire to and invest in IE for their children.
2. As a transnationally standardized aspiration, IE implies convergence of aspirations across background variables. Thus we expect parents' aspirations and intentions for IE to be independent of their social background, their involvement in children's education, and children's school performance.

To address the transnational sources of IE aspirations more directly, we further consider the effect of being embedded in less or more transnational environments. Following the world society theory (Meyer, 2010), if we understand the diffusion of cultural models as a function of transnational linkages, we should expect higher likelihoods of IE aspirations with higher transnational exposure. Moreover, transnational embeddedness may not only increase the average level of aspirations for IE but may also mitigate the social background differences in aspirations. Exposure to the transnational could thus be a booster of aspiration and an equalizer, making IE an object of desire for many and more diverse people. We formulate the following additional hypotheses:

3. Families embedded in transnationally exposed environments are more likely to consider IE an option for their offspring.
4. Social background differences in aspirations for IE are less evident in transnationally exposed environments, where models and standards to emulate are likely to be more widespread.

Data, variables, and methods

In this article, we use data from the CFPS, a large-scale representative sample of Chinese households produced by Peking University since 2010 (Xie and Hu, 2014). We use the 2010 wave, the only wave with questions about aspirations for IE. CFPS collects household and individual information through computer-assisted, person-to-person interviews of all family members beyond the age of nine. The sample is drawn from a multi-stage probability sampling with implicit stratification in three stages: county (or equivalent), village (or equivalent), and household. Consequently, the sampling covers 25 geographical units in China—Hong Kong, Macao, and the provinces of Xinjiang, Qinghai, Inner Mongolia, and Hainan being explicitly excluded. Half of the households come from the following provinces with large urban concentrations: Shanghai, Liaoning, Henan, Gansu, and Guangdong. The questionnaires collect essential information on families, households, and their broader social context. The CFPS is the best-available empirical representative tool for household dynamics and the involvement of parents in their children's education. The children's questionnaire, completed by parents, contains complete information on school education and includes researcher-conducted assessments of children's cognitive abilities.

In the 2010 wave, parents in the sample were asked whether they had ever thought of sending their child abroad for study and, if so, when they thought it would be an appropriate age. Table 1 shows the distribution of responses to these questions for the entire CFPS sample (ages 0 to 15) and three separate definitions of our analytic samples for analysis. The first refers to the number of respondents for whom basic controls are available. The second refers to those for whom the index of parental involvement has valid values (the variables contributing to this index are scant in valid responses). Finally, the last column shows the observations for whom valid test scores (numeracy and literacy in the Chinese language) are available. The CFPS provides this information only for students aged 10 to 15.

For the sake of simplicity, and in light of the small number of respondents who considered IE before tertiary education, we collapsed this trichotomous variable into a dummy (1: considered IE; 0: did not consider IE) to be used as the dependent variable in our subsequent analyses.

Our independent variables consist of the following. For social background, we use the highest level of parental education as the relevant stratification variable (1: primary, 2: secondary; 3: bachelor's degree and above). We also use household income, measured as a continuous variable, which we recodified into deciles in the analyses.

For the prior performance of the child, we include performance in mathematics. This is the result of a cognitive test, which was standardized across ages (mean 0; standard

Table 1. Sample size and responses to the question: ‘Have you ever considered sending your child abroad to study?’.

	CFPS sample (ages 0–15)	Basic analytic sample	Sample including parental involvement	Sample including children’s test scores (ages 10–15)
Did not consider	3327	3289	1514	1273
Before tertiary education	231	230	89	67
For tertiary education	795	787	336	239
Total N	4353	4306	1939	1639

CFPS: China Family Panel Study.
Legend: Percentages (and the number of cases in parentheses).

deviation 1). Parental involvement is a synthetic index built by using regression scoring after factor analyses of information regarding whether the parents talk to their child about school; if they supervise homework; and if they control time spent watching TV (response categories: very often, often, sometimes, rarely, never). Table 2 in the Appendix includes the result of the corresponding factor analysis. Note that these two variables, performance and involvement, are only available for a limited subset of cases (students aged 10–15).

Finally, we use provincial data to build a synthetic index of exposure to the transnational at the province level from two different sources.¹ First, we include information from the National Statistical Bureau on the number of patent applications for inventions of industrial enterprises/province population; the number of foreign visitors/province population; the number of registered websites/province population; total value of foreign investments/gross domestic product (GDP); total value of imports and exports of foreign-funded enterprises (1000 US dollars)/GDP. Second, we utilize data from Borsi et al. (2022) on higher education density in the 31 Chinese provinces since we regard universities as active agents in the transnationalization of aspirations and life course ideals. Universities are globally oriented institutions that actively contribute to exposing their environments to the transnational. Using factor analysis and then regression scoring (see Table 3 in the Appendix), all these measures are merged into a single synthetic index of exposure to the transnational. We use the continuous version of the index for the descriptive analyses and a recodified version of it in our treatment effect modeling strategy in which we differentiate between being above (treatment) and below (control) the mean exposure to the transnational.²

As additional controls, we include gender (1: female, 0: male) and whether the child has siblings (0) or is a single child (1). Table 4 in the Appendix summarizes the distribution of all variables.

Throughout our empirical analyses, we use linear regression models rather than the conventional logistic regression models, which are often affected by omitted variables and allow a less straightforward interpretation (Mood, 2010). The final set of analyses is conducted using IPWRA (inverse probability weighting with regression adjustment) treatment effects to explain differences in the slope of the effect of our independent variables on the inclination to consider IE. IPWRA helps us consider the non-random distribution of people across provinces that are differentially exposed to transnational settings.

This helps to control for selection biases across levels of exposure to the transnational before any interpretation of the correlation between exposure and aspirations is made.

Findings

Figure 1 shows the descriptive distribution of the aspirations for IE as directly obtained from the CFPS. It shows that almost one in four respondents (23.5%) has considered sending their offspring to study abroad. Tertiary education is by far the most preferred educational stage; only around 5% of the parents considered secondary education outside China.

Given the distribution of this variable, in the following analyses, we used a dichotomous version of it in which respondents having ever considered IE at any level were codified as '1' and the rest as '0'.

Social background effect

Our first set of models examines parental socio-economic backgrounds, specifically parental education and income, the most common proxies of status used in the literature on IE. In Figure 2, the panel on the left shows the predicted probabilities for the deciles of household income. The model predicts that one in four Chinese parents report considering IE, regardless of household income level. Only the wealthiest 10% are more likely to consider sending their children abroad (the predicted probability is above 0.32 for this group). This only partially supports the elite reproduction hypothesis, as even among the poorest Chinese households in our sample parents that report considering IE are more than 20%. The panel on the right (Figure 2) shows similar results for educational levels. For parents whose educational attainment is primary or less, the predicted probability of

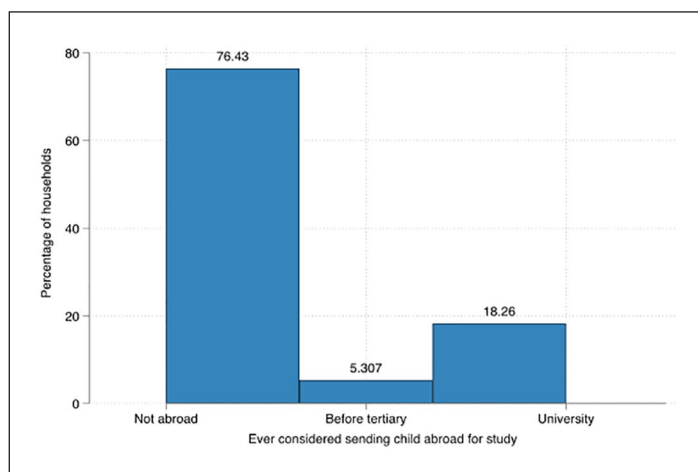


Figure 1. Unconditional preferences for international education by level.

Source: CFPS 2010.

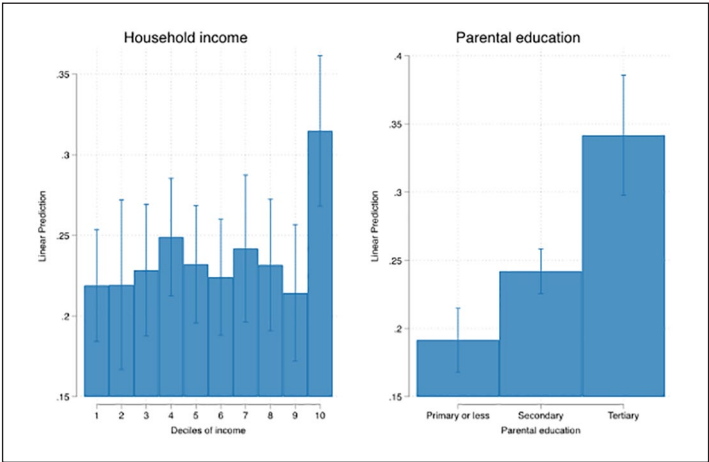


Figure 2. Probabilities of considering IE by household income and parental education.

Source: Our elaboration from CFPS 2010. Estimated from linear probability models. Model 1 in Table 5 in the Appendix.

considering sending their children abroad is slightly below 0.2; for parents with an educational level at least secondary it is 0.24, and for parents with an educational level tertiary and above it is close to 0.35. These figures show some social gradient (see also Zhou et al., 2019); however, they also clearly indicate that aspirations for IE are more homogenously distributed by social background than the elite reproduction literature suggests.

Figure 3, considering parental involvement in children’s education and children’s academic performance, points to the same conclusion. Although there is a positive slope suggesting parents who are involved and whose children are academically successful are more inclined toward IE, it would be misleading to ignore that a sizable proportion of even the least involved parents and parents with the least successful children broadly have IE aspirations for their children.

In sum, our results point to an interesting regularity suggesting that while there is some positive effect of social background, aspirations for international higher education are fairly widespread among a significant proportion of Chinese parents – a finding that deviates from the existing literature.

Transnational effect

Our next set of analyses assesses whether transnational exposure at the provincial level increases the likelihood that parents express IE aspirations and attenuates the effects of social background. We employ two empirical strategies. First, we estimate the effect of exposure to the transnational on the likelihood of considering IE using linear probability models, as we did with the parental socioeconomic variables. The results from our basic model (Figure 4) suggest that higher levels of exposure to the

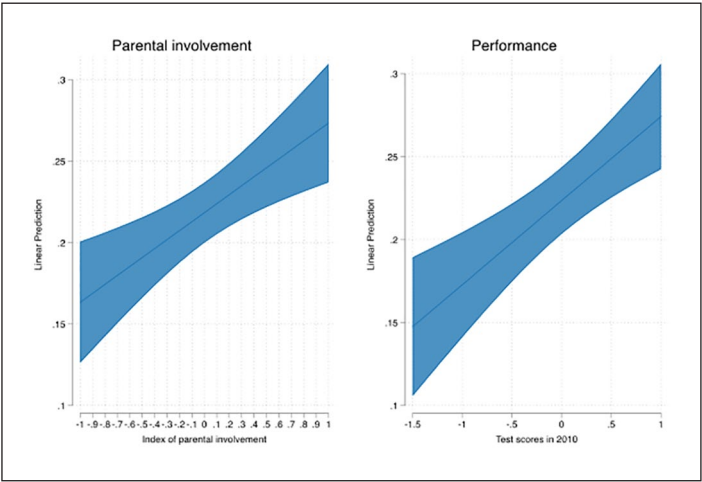


Figure 3. Probability of considering IE by the level of parental involvement in the children’s education and children’s academic performance.
Source: Our elaboration from CFPS 2010. Estimated from linear probability models. Models 2 and 3 in Table 5 in the Appendix.

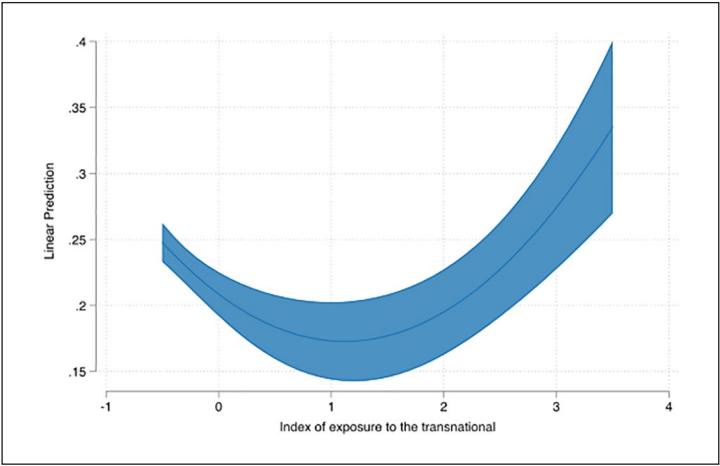


Figure 4. Probability of considering IE by exposure to the transnational.
Source: Our elaboration from CFPS 2010. Estimated from linear probability models. Model 4 in Table 5 in the Appendix.

transnational are associated with an increase in the share of parents who aspire to IE. The size of this effect is remarkable as seen in the plot, which follows a quadratic pattern with sharp increases in the proportion of respondents considering IE when highly exposed to the transnational, with the diffusion of aspirations taking place at higher levels of transnationalization.³

Second, we use a more stringent method of estimation, where we consider exposure to the transnational as a quasi-experimental condition. This is to increase the reliability of our results as respondents in settings that are differently exposed to the transnational may differ in systematic aspects that may also be relevant to our dependent variable. The ideal strategy to model our effects of interest would be to randomize individuals across levels of exposure. Since this is impossible, an alternative method is to use the estimation techniques known as treatment effects. These are derived from propensity score matching, allowing for conditionality on observed baseline covariates and enhancing our ability to identify causal effects using observational data. There are different approaches to estimating the average treatment effect; we use inverse probability weighting (IPWRA). IPWRA estimators use weighted regression coefficients to compute treatment-level predicted outcomes, where the weights are the estimated inverse probabilities of treatment.

The experimental logic we employ requires us to differentiate across levels of exposure to the transnational, with high levels of exposure being considered as treatment and low levels of exposure as control. For the sake of simplicity, treatment status is modeled using a dichotomous variable. We divided provinces into two groups according to their score in our synthetic index: those above the mean level of the transnational exposure index and those below. We then tested the separate impact of parental education on IE aspirations in each of them.

The advantage of quasi-experimental models is that they allow correction for the non-randomness of treatment status. Specifically, regional wealth could increase a province's exposure to the transnational. Accordingly, the estimate of 'exposure to the transnational' would mix the effect of wealth and that of exposure to the transnational, which we ideally want to isolate. Treatment effect models with regression adjustment allow estimating treatment status with predictors of interest (in our case, per capita GDP, to discard the effect due to differences in provincial wealth) prior to estimating the average treatment effect.

Results are presented in Table 6 in the Appendix. The average treatment effect associated with being more exposed to the transnational is 0.11. This means that while in environments that are more transnationally exposed, 35% of the parents aspire for IE, in less transnationally exposed environments, 24% do so.

Beyond this robust identification of the transnational effect on the formation of IE aspirations, the treatment effects model provides a crucial insight regarding the social background effect. The regression adjustment in the table is presented separately for the treated and control groups. Thus, the effect of all our predictors is tested independently. Interestingly, the gradient for parental education is only significant in the control group equation, that is, in low levels of exposure to the transnational. In other words, when less exposed to the transnational, higher levels of education are associated with higher aspirations for IE. Yet, we do not find the same in more transnationalized provinces. Specifically, there are no significant differences between parents with primary or secondary educational backgrounds. The intercept of the control equation suggests that in these settings, IE is aspired to by 18% of the parents without tertiary education. Here, having a tertiary education background increases the percentage of parents aspiring for IE by 8.5 percentage points. By contrast, for the treated group, no estimate of social background is

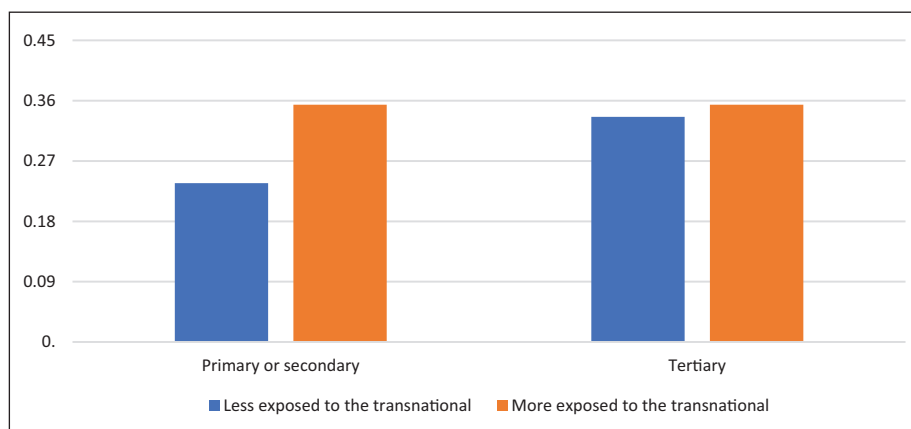


Figure 5. Differences in the proportion of parents considering IE by parental education and level of exposure to the transnational.

Source: Our elaboration from CFPS 2010 and the China Bureau of Statistics data. Estimated from Table 6 in the Appendix. Note that only significant estimates are considered in the post-estimation.

statistically significant. Figure 5 summarizes differences in the likelihood that parents with tertiary versus only primary or secondary education may consider IE for their children when differently exposed to the transnational.

In sum, aspirations for IE are more widespread in provinces with a high level of exposure to the transnational. Furthermore, high transnational exposure erases the effect of parental educational background – an effect which we find only in provinces less exposed to the transnational. As suggested by the dominant Bourdieusian view of IE, the social background does indeed create differences in the inclination of parents to send their offspring to study abroad. However, social background differentials in aspirations for IE exist only in contexts where families are less exposed to transnational environments and thus to the standardized ideals of self and IE as a signifier of that self.

Robustness checks

The reported results are robust to the inclusion of further sociodemographic variables completing the model specification. We have also confirmed the stability of our results when estimating hierarchical models using random constants with provincial effects.

Discussion and conclusion

Our theoretical framework and empirical findings challenge the nearly uncontested predominance of Bourdesian thinking in the research field on IE. Theoretically, we put forward a cultural account of IE aspirations, which takes into consideration the transnationally standardized conceptions and ideals of self,

in contrast to elite reproduction formulations of IE widely adopted in the literature. Explaining the manifest IE aspirations among a significant portion of Chinese families across socio-economic backgrounds and household and individual characteristics requires going beyond the mainstream approaches in the IE research field.

Our empirical intervention is twofold. First, while familial socio-economic status, parental investment in child-rearing, and academic achievement matter, aspirations for IE are more democratized than commonly hypothesized. There is a social gradient in line with social and economic advantages; however, IE aspirations are widely present even among the least-advantaged Chinese families in our sample. Second, we find that transnational exposure at the province level increases the likelihood of IE aspirations among Chinese parents on average and diminishes the effect of parental socio-economic background. Transnational settings facilitate global models and standards to penetrate more easily and neutralize differences in aspirations for IE by social background. Pointedly, exposure to the transnational is a significant determinant of aspirations for IE beyond provincial wealth as measured by GDP per capita.

We argue that these two lines of empirical interventions point to the transnationally standardized nature of IE aspirations as a function of global cultural models and ideals of self and suggest new avenues of research on educational migrations. The existing research overlooks this broader context within which educational aspirations are formed. Whether the pattern of democratic aspirations for IE that we found in our study is exclusive to China is an open question that should be addressed by future research. We also expect future research to refine our measurement of exposure to the transnational with alternative dimensions and measures beyond provincial aggregations.

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ORCID iD

Héctor Cebolla Boado  <https://orcid.org/0000-0002-5804-8715>

Notes

1. We acknowledge that ideally the index should capture closer dimensions of exposure to the transnational in the respondents' environments, given that within provinces, differences between large and small cities are likely. Data limitations however prevent us from using city-level information.
2. Note that the variables included in the index are not measured at the individual level but at the province level, defining the environment and not individuals' ties. We conceptualize transnational as an environmental factor not necessarily as a 'network' effect (through interpersonal or institutional connections), as commonly understood in the literature (Brooks and Waters, 2010).

3. The theoretical interpretation for this nonlinear effect is based on the notion that the intensity of aspiration diffusion increases with higher exposure to the transnational. However, testing this logic is imperfect due to the lower levels of exposure observed in Chinese provinces in 2010. This could potentially account for the narrower confidence intervals and the slight negative slope observed below exposure=0.

References

- Alexander K, Bozick R and Entwisle D (2008) Warming up, cooling out, or holding steady? Persistence and change in educational expectations after high school. *Sociology of Education* 81(4): 371–396.
- Borsi MT, Mendoza OMV and Comim F (2022) Measuring the provincial supply of higher education institutions in China. *China Economic Review* 71: 101724.
- Breen R (2001) *A rational choice model of educational inequality*. Working Paper 166, Juan March Institute of Advanced Study, Madrid.
- Brooks R and Waters J (2010) Social networks and educational mobility: The experiences of UK students. *Globalisation, Societies and Education* 8(1): 143–157.
- Brooks R and Waters J (2011) *Student Mobilities, Migration and the Internationalization of Higher Education*. London: Palgrave Macmillan.
- Cai H, Chen Y and Zhou LA. (2010) Income and consumption inequality in urban China: 1992–2003. *Economic Development and Cultural Change* 58(3): 385–413.
- Cebolla-Boado H, Hu Y and Soysal YN (2018) Why study abroad? Sorting of Chinese students across British universities. *British Journal of Sociology of Education* 34(3): 365–380.
- Collins FL (2013) Regional pathways: Transnational imaginaries, infrastructures and implications of student mobility within Asia. *Asian and Pacific Migration Journal* 22(4): 475–500.
- Findlay AM and King R (2010) *Motivations and Experiences of UK Students Studying Abroad*. BIS Research Paper 8. Department for Business, Innovation and Skills, University of Dundee, London.
- Findlay AM, King R, Smith FM, et al. (2012) World class? An investigation of globalisation, difference and international student mobility. *Transactions of the Institute of British Geographers* 37(1): 118–131.
- Frank DJ and Meyer JW (2002) The profusion of individual roles and identities in the postwar period. *Sociological Theory* 20: 86–105.
- Frye M (2012) Bright futures in Malawi's New Dawn: Educational aspirations as assertions of identity. *American Journal of Sociology* 117(6): 1565–1624.
- Gerhards J and Hans S (2013) Transnational human capital, education, and social inequality: Analyses of international student exchange. *Zeitschrift für Soziologie* 42(2): 99–117.
- Haller AO (1982) Reflections on the social psychology of status attainment. In: Hauser RM, Mechanic D and Haller AO (eds) *Social Structure and Behavior: Essays in Honor of William Hamilton Sewell*. London: Elsevier, pp. 3–28.
- Hasse R and Krucken G (2013) Competition and actorhood: A further expansion of the neo-institutional agenda. *Sociologia Internationalis* 51(2): 181–205.
- Jaeger MM (2022) Cultural capital and educational inequality: An assessment of the state of the art. In: Gërxhani G, Graff Nd and Raub W (eds) *Handbook of Sociological Science*. Cheltenham; Northampton, MA: Edward Elgar Publishing, pp. 121–134.
- Jeperson RL and Meyer JW (2021) *Institutional Theory: The Cultural Construction of Organizations, States and Identities*. Cambridge: Cambridge University Press.
- Khattab N (2003) Explaining educational aspirations of minority students: The role of social capital and students' perceptions. *Social Psychology of Education* 6(4): 283–302.

- Lerch J, Bromley P and Meyer JW (2022) Global neoliberalism as a cultural order and its expansive educational effects. *International Journal of Sociology* 52(2): 97–127.
- Lerch J, Bromley P, Ramirez FO, et al. (2017) The rise of individual agency in conceptions of society: Textbooks worldwide, 1950–2011. *International Sociology* 32(1): 38–60.
- Lipura SJ and Collins FL (2020) Towards an integrative understanding of contemporary educational mobilities: A critical agenda for international student mobilities research. *Globalisation, Societies and Education* 18(3): 343–359.
- Liu J (2007) The expansion of higher education and uneven access to opportunities for participation in it, 1978–2003. *Chinese Education & Society* 40(1): 36–59.
- Liu Y (2013) Meritocracy and the Gaokao: A survey study of higher education selection and socio-economic participation in East China. *British Journal of Sociology of Education* 34(5–6): 868–887.
- Marginson S (2014) Student self-formation in international education. *Journal of Studies in International Education* 18(1): 6–22.
- Meyer JW (2010) World society, institutional theories, and the actor. *Annual Review of Sociology* 36: 1–20.
- Meyer JW and Jepperson RL (2000) The “Actors” of modern society: The cultural construction of social agency. *Sociological Theory* 18(1): 100–120.
- Ministry of Education, PRC (2022a) Statistics on Chinese learners studying overseas 2019. Available at: http://en.moe.gov.cn/news/press_releases/202012/t20201224_507474.html
- Ministry of Education, PRC (2022b) Statistical report on China’s educational achievements in 2021. Available at: <http://en.moe.gov.cn/documents/reports/>
- Mood C (2010) Logistic regression: Why we cannot do what we think we can do, and what we can do about it. *European Sociological Review* 26(1): 67–82.
- Morgan SL, Leenman TS, Todd JL, et al. (2013) Occupational plans, beliefs about educational requirements, and patterns of college entry. *Sociology of Education* 86(3): 197–217.
- Samir KC, Barakat B, Goujon A, et al. (2010) Projection of populations by level of educational attainment, age, and sex for 120 countries for 2005–2050. *Demographic Research* 22: 383–472.
- Sewell WH and Hauser RM (1972) Causes and consequences of higher education: Models of the status attainment process. *American Journal of Agricultural Economics* 54(5): 851–861.
- Soysal NY and Cebolla-Boado H (2020) Observing the unobservable: Selectivity among Chinese higher education students in China and Europe. *Frontiers* 5: 9.
- Soysal NY and Wong SK (2015) Citizenship as a national and transnational enterprise: How education shapes regional and global relevance. In: Soysal NY (ed.) *Transnational Trajectories in East Asia: Nation, Region, and Citizenship*. New York: Routledge, 17–45.
- Tran LT (2015) Mobility as ‘Becoming’: A Bourdieuan analysis of the factors shaping international student mobility. *British Journal of Sociology of Education* 37(8): 1268–1289.
- Treiman DJ (2013) Trends in educational attainment in China. *Chinese Sociological Review* 45(3): 3–25.
- UNESCO (2022) Global flow of tertiary-level students. Available at: <http://uis.unesco.org/en/uis-student-flow>
- Waters JL (2008) *Education, Migration, and Cultural Capital in the Chinese Diaspora*. New York: Cambria Press.
- Xiang B and Shen W (2009) International student migration and social stratification in China. *International Journal of Educational Development* 29(5): 513–522.
- Xie Y and Hu J (2014) An introduction to the China family panel studies (CFPS). *Chinese Sociological Review* 47(1): 3–29.
- Xu H and Xie Y (2015) The causal effects of rural-to-urban migration on children’s well-being in China. *European Sociological Review* 31(4): 502–519.

Yu J (2021) Consuming UK transnational Higher Education in China: A Bourdieusian approach to Chinese students' perceptions and experiences. *Sociological Research Online* 26(1): 222–239.

Zhou X, Li J and Jordan LP (2019) Parental intent for children to study abroad: The aole of educational aspiration and children's characteristics. *Cambridge Journal of Education* 49(6): 789–807.

Zimmermann T (2020) Social influence or rational choice? Two models and their contribution to explaining class differentials in student educational aspirations. *European Sociological Review* 36(1): 65–81.

Author biographies

Yasemin Nuhoglu Soysal is Research Professor of Global Sociology at WZB Berlin (<https://www.wzb.eu/en/persons/yasemin-soysal>), Professor of Sociology at Free University Berlin, and leading research member of the SCRIPTS Cluster of Excellence (<https://www.scripts-berlin.eu>). Prior to it, she was Professor of Sociology and member of the Center for Migration Studies and Human Rights Center at University of Essex, and John L. Loeb Associate Professor of Sociology and Faculty Associate of the Center for European Studies and the Center for International Affairs at Harvard University. Her research brings transnational and global perspectives to the study of the historical development and contemporary reconfigurations of the nation-state, citizenship, and human rights, with specific interest in the transnational transformations of the national.

Héctor Cebolla Boado is Senior Scientist at the National Research Council, Institute of Economics, Demography and Geography (Madrid, Spain). He obtained his PhD, from the University of Oxford. He has been an associate professor of Sociology at UNED (Madrid, Spain), and a visiting professor at Pompeu Fabra University (Barcelona, Spain) and the University of Bielefeld (Germany). His research deals with the explanation of ethnic differentials in education and health among migrants and natives, both in countries of origin and destination.

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Appendix

Table 2. Parental involvement; Factor analysis, Factor loadings.

Variable	Loadings	Uniqueness
Speak about child's problems	0.4562	0.7773
Ask about their problems	0.5420	0.6998
Supervise their developments	0.5581	0.6824
Impose restrictions on their behavior	0.4172	0.8085

Eigenvalue: 1.00; Difference: 0.84.

Table 3. Exposure to the transnational; Factor analysis, Factor loadings.

Variable	Loadings	Uniqueness
Chinese higher education density index	0.1610	0.4842
Number of Patent Applications for Inventions of Industrial Enterprises above Designated Size (piece)	0.9225	0.0205
Number of Foreign Visitors/Population	0.9538	0.0355
Websites/Population	0.9204	0.0417
Foreign investment/GDP	0.8559	0.1615
Exports and imports/GDP	0.9520	0.0135

Eigenvalue: 4.27; Difference: 3.53.

Table 4. Distribution of variables involved in the empirical analyses.

	N	Mean	SD	Min	Max
Considers IE	4306	0.24	0.42	0.00	1.00
Female	4306	0.48	0.50	0.00	1.00
Primary education	4306	0.31	0.46	0.00	1.00
Secondary education	4306	0.59	0.49	0.00	1.00
Tertiary education	4306	0.10	0.30	0.00	1.00
Age	4306	7.35	4.37	0.00	14.00
Household income/1000	4306	2.23	2.89	0.00	50.00
One child	4306	0.16	0.37	0.00	1.00
Mean test scores	1639.00	-0.00	0.87	-3.43	2.98
Transnational exposure index	4300	-0.00	0.98	-0.56	3.59
Inventions	4300	5.09	10.11	0.04	28.26
Foreign investments	4300	0.04	0.05	0.00	1.36
Websites	4300	0.01	0.02	0.00	0.21
Foreign visitors	4300	0.00	0.00	0.00	0.02
Exports- imports	4300	2.30	3.71	0.03	12.41
Index of density of higher education	4300	0.17	0.16	0.00	1.00
GDP per capita	4300	24,942.55	13,152.41	2292.00	69,165.00
Speak about child's problems	1941	2.85	1.18	1.00	5.00
Ask about their problems	1940	2.01	0.90	1.00	5.00
Supervise their developments	1940	2.84	1.35	1.00	5.00
Impose restrictions on their behavior	1941	2.54	1.12	1.00	5.00
Parental involvement	1939	0.01	0.59	-1.74	1.17

IE: international education; GDP: Gross domestic product.

Table 5. Linear probability models with province fixed effects.

	(1)	(2)	(3)	(4)
Female	0.00085	(0.013)	-0.0066	(0.021)
One child	0.034	(0.018)	0.021	(0.027)
Parental education	0.051***	(0.015)	0.035	(0.023)
Secondary	0.15***	(0.026)	0.058	(0.046)
Tertiary	0.00046	(0.032)	-0.036	(0.050)
Household income	0.0095	(0.027)	0.0019	(0.042)
2nd decile	0.030	(0.025)	-0.0050	(0.039)
3rd decile	0.013	(0.025)	-0.030	(0.039)
4th decile	0.0052	(0.025)	-0.055	(0.039)
5th decile	0.023	(0.029)	-0.020	(0.046)
6th decile	0.013	(0.027)	-0.029	(0.045)
7th decile	-0.0045	(0.028)	-0.031	(0.047)
8th decile	0.096**	(0.030)	0.081	(0.052)
9th decile			0.051***	(0.013)
10th decile				
Test scores				
Parental involvement			0.055***	(0.016)
Transnational Exposure				
Exposure*exposure				
Constant	0.17***	(0.020)	0.21***	(0.032)
N	4306		1639	
F	6.31		2.91	
r ²	0.019		0.024	

*p < 0.05; **p < 0.01; ***p < 0.001.

Table 6. Inverse probability weighting with regression adjustment treatment effect models. Treatment: the effect of exposure to transnational; treatment status predictor: per capita GDP.

			(I)	
ATE			0.11***	(0.035)
P0 mean			0.24***	(0.0096)
Control group	Female		0.017	(0.018)
	One child		0.021	(0.020)
	Parental education	Secondary	0.085***	(0.041)
		Tertiary	0.048*	(0.029)
	Household income	2nd decile	-0.035	(0.042)
		3rd decile	0.018	(0.035)
		4th decile	0.035	(0.035)
		5th decile	0.049	(0.036)
		6th decile	0.0095	(0.036)
		7th decile	0.015	(0.043)
		8th decile	-0.027	(0.045)
		9th decile	0.019	(0.043)
		10th decile	0.066	(0.051)
	Constant		0.18***	(0.029)
Treatment group	Female	Treatment group	0.071	(0.068)
	One child		0.037	(0.075)
	Parental education	Secondary	0.16	(0.14)
		Tertiary	0.055	(0.094)
	Household income	2nd decile	0.077	(0.19)
		3rd decile	-0.18	(0.092)
		4th decile	0.16	(0.15)
		5th decile	-0.031	(0.13)
		6th decile	0.066	(0.13)
		7th decile	0.27	(0.15)
		8th decile	-0.076	(0.10)
		9th decile	-0.063	(0.15)
	10th decile	0.24	(0.13)	
Constant		0.23***	(0.094)	
Treatment equation	GDP per capita		0.00021***	(0.0000076)
	Constant		-4.89***	(0.18)
N			4300	

GDP: Gross domestic product; ATE: Average treatment effect

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.