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Exposure to Socially Influential Peer Parents: Evidence from Cadre Parents in China

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Abstract

Parents with a special social status generate spillover to children of others. This paper studies the effect of socially influential peer parents on students. Utilizing random classroom assignments of middle schools in China, we explore the effect of parents who are cadres (government officials) on the educational outcome of their children's classmates. Because cadres in China have a broad local influence on resource allocation, their presence elicits responses from surrounding parents and students. We find that increased exposure to peer parents who are cadres raises a student's test score. We find suggestive evidence that changes in parental behaviors as plausible channels. Cadre spillover is stronger in rural areas and schools with more government support, consistent with the variation in the local influence of cadres. (JEL: D91, I25, J62, O53, P36)

Keywords: Cadres, parental investment, peer parent, early-life development.

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1. Introduction

Parents who possess social and political capitals attain advantages in resource allocation that affect the next generation. The inter-generational influence is not only present within a household but also affects the children of others in their networks. In an educational setting, the presence of influential parents in the networks may affect the behaviors of other parents, in turn, influencing surrounding children.

We probe the external influence of cadre parents on other children in China. Cadres (*ganbu*) are government officials who possess significant political power and authority (Barnett and Vogel, 1967; Lee, 1991). Different from the average citizens, they are capable of securing political, economic, and social resources for themselves and others close to them (Li et al., 2012; Zhang et al., 2012; Jin et al., 2014; Tan et al., 2017; Yu et al., 2019). In China, the prestige of cadre parents is distinct from less-visible parental attributes such as education and income (Chiu, 1999; Bian et al., 2005). This presents a unique context to examine the extent to which surrounding economic agents, such as other parents, adapt to the presence of influential parents in their networks. We posit that when a student is placed with classmates (peers) coming from a cadre family, the parent adjusts parenting that affects the student's schoolwork accordingly.

To obtain a causal interpretation about the influence of peer cadre parents on students, the primary challenge is non-random sorting. At the macro level, heterogeneous preferences of parents affect neighborhood and school choices (Bayer et al., 2007), while at the micro level, individual traits and tastes determine the formation of social networks (Jackson, 2010). In this paper, we exploit the unique setting in the Chinese educational system that uses random classroom assignments in the majority of middle schools, analyzing a nationally representative sample of such middle school students from the China Educational Panel Survey (CEPS 2013-2014). In addition to the criterion established in similar studies (such as in Gong et al. (2019) and Xu et al. (2020)) about whether a school implements random student assignments, we

employ an additional check that schools have not faced parental interference in class/teacher assignment to ensure students are randomly assigned into a class. Given the randomization background in the refined school sample and the rich information in the CEPS linking students and parents, we effectively isolate the causal impact of peer parental background from endogenous peer group formation, which is the major challenge in empirical peer effect studies.

Utilizing the unique randomized social networks, we evaluate whether increasing exposure to peer parents who are cadres affects the educational outcome of a student. In the empirical analysis, conditional on school-by-grade fixed effects, we leverage idiosyncratic within-grade variation in the proportion of classmates from a cadre family and estimate its effects on students. We find that cadre parents have a positive effect on the academic performance of their children’s classmates (referred to as cadre spillover hereafter). Adding one more classmate from a cadre family increases a student’s standardized test score by 2%.¹ By contrast, cadre parents do not have any effect (both economically and statistically) on the test score of their child. This does not imply cadre parents have no influence on their child at all, but rather is due to our refined school sample. We check that in the schools that do not implement random class assignment or parents have strong interference in class/teacher assignments, cadre parents have significantly positive impacts on the test score of their own children.

The own effect of cadre parents in non-random sample but not in our refined school sample have two implications. First, it speaks to the importance of our sample criterion in ruling out parental choices, which potentially invalidate the randomization background. Second, and more importantly, the insignificant own effect of cadre parents in the random sample confirms the general understanding that cadres benefit their offspring’s educational success

1. The effect size is similar to the magnitude of peer effects identified by studies that analyze the same data. Gong et al. (2019) find that adding one female students raises a student’s test score by 2.5% of a standard deviation (using a class size of 45), while Xu et al. (2020) find that adding one repeater to the class reduces a student test score by 4.2% of a standard deviation.

mainly through social resource (e.g. school choice and networking) and less about direct transfer of human capital (Li et al., 2012; Yang and Chen, 2016). This second point is also helpful in interpreting the existence of cadre spillover on other children. We find that in the full specification, cadre spillover remains salient after we exhaust peer effect channels generated by various classmate characteristics (including baseline academic ability of peers). To the extent that cadres' own children do not perform better in test score in the random sample and typical peer effect channels do not fully explain cadre spillover, unmeasured peer quality is less viable for elucidating the residual influence of cadre parents on surrounding children.

There is a growing consensus that parenting responds to the surrounding environment (Agostinelli, 2018; Agostinelli et al., 2020; Chung and Zou, 2020; Doepke and Zilibotti, 2017; Guo and Qu, 2022). With the local influence of cadres and the deep-rooted culture of “networking to seek favor” (*guanxi*), we believe own parents play a role in driving the residual cadre spillover in that they react to the increased presence of cadres in their network. In China's *guanxi*-oriented context, people make connections with higher social status members—cadres in our case—to seek favors in the future, either for themselves or their children (Ruan, 2016; Tsui and Farh, 1997; Xie and Postiglione, 2016; Zhao and Gao, 2014). Such instrumental consideration increases parents' involvement in children's friendship networks (Zang, 2006). At the same time, as good academic performance is an important indicator of “good” friends, parents need to make sure their child performs well to break into the *guanxi* network with cadre children (An, 2022; Gold, 1985), leading to parenting changes that affect the children's academic performance. We explore the unique information in the CEPS about parental responses and find supporting evidence about the above points. With the increased presence of cadre peer parents, we find that students' own parents are more involved in their friendship, increase their communication with children about what happened in school, and provide more supervision and guidance of children's homework. These home-based parental involvement, as suggested in the literature, contributes to their children's

educational success (Fan and Chen, 2001). Nevertheless, our study does not exhaust all possible mechanisms of the cadre spillover. There may be alternative mechanisms that are worth exploring in the future.

Two heterogeneous patterns further support our finding that cadres generate external influence. We find that cadre spillover is more evident in rural areas where cadre status is more prestigious than in urban areas.² We also observe stronger spillover in schools receiving more government funding. Both suggest that spillover intensity varies with the general influences of cadres in the community.

This study contributes to the understanding of the economic significance of political ties. The political background of individuals/organizations affects a wide spectrum of economic activities in developed and developing countries (Fisman, 2001; Liu, 2003; Faccio et al., 2006; Li et al., 2008; Goldman et al., 2009; Braggion and Moore, 2013; Markussen and Tarp, 2014). Particularly in China, cadre members generate benefits for themselves and others close to them, including the labor market and health outcomes (Li et al., 2012; Jia et al., 2021; Tan et al., 2017). This paper contributes to the discussion about economic significance of political influences in two ways. First, we document a novel fact that children of cadres do not perform better in educational outcomes. This finding provides further evidence that social networks are the major channels through which benefits of political privilege operate (Jin et al., 2014; Yang and Chen, 2016; Yu et al., 2019). Second, going beyond the traditional focus of within-household transmission (Li et al., 2012; Jia et al., 2021; Tan et al., 2017), we show that political status can have a far-reaching influence on the surrounding economic agents.

Second, our study speaks to the economic literature about early-life development. One active strand of economic analysis focuses on the within-household transmission, such as the correlation of income/education between

2. In this paper, rural areas include traditional rural areas and rural-urban fringe zone of the city/town, where people hold a more positive view towards cadres. We discuss these environments more in Section 7.

parents and their children (Behrman and Rosenzweig, 2002; Black et al., 2005; Lam and Schoeni, 1993; Plug, 2004; Shea, 2000).³ Another prominent area of economic literature emphasizes the influence of neighborhoods (Katz et al., 2001; Montgomery and Hewett, 2005; Ludwig et al., 2013; Fink et al., 2014; Chetty et al., 2016; Chetty and Hendren, 2018; Chyn, 2018). Our discussion duly connects the two important ideas by leveraging the perspective of social network. By generating the “exposure effect”, the interaction between parents and the surrounding environment affects the human capital accumulation of their own children, adding a novel dimension to our understanding of early-life development.⁴ The external influence of parents on surrounding children, though received little attentions from economists, has direct policy implications such as the significance of better neighborhoods and schools on early-life outcomes (Borjas, 1992, 1995; Bisin and Verdier, 2000, 2001).

Lastly, this paper relates to the spillover generated by peer parental background with two important distinctions. In terms of methodology, a common strategy that analyzes nationally representative surveys, such as the National Longitudinal Study of Adolescent to Adult Health (AddHealth) in the US, exploits cohort variation in grade-mate composition (Bifulco et al., 2011, 2014; Olivetti et al., 2020; Fletcher et al., 2020). Our randomization background controls for selection into classes and allows us to leverage random variation at a finer level. Using classmates, instead of grade-mates, to identify social effects also better justifies social interaction (e.g. norm and information spillover) as the underlying force that generates peer parental spillover. In addition to documenting a causal interpretation, we show that the parental background of peers offers a far richer interpretation than a proxy of peer ability. They are also distinct members who generates social influences (Fruehwirth and Gagete-Miranda, 2019; Eble and Hu, 2019; Olivetti et al., 2020; Chung, 2020; Chung

3. For a detailed discussion about the role of parental attributes, interested readers can refer to the review prepared by Black and Devereux (2010). Discussions on developing countries include income, asset, family size, and human capital (Gaiha and Deolalikar, 1993; Swantinathan, 1991; Binder and Woodruff, 2002; Emran and Shilpi, 2019; Fox et al., 2016).

4. Han and Shi (2019) and Xiong (2022) also discuss the response of parenting to socioeconomic conditions.

and Zou, 2020). When parents adapt to the influence of cadre parents, changes in parenting practices affect the students accordingly.

2. Significance of Cadre Status

Cadres are people in administrative positions in government and public institutions, a concept in China that grew from “the leaders of masses” in revolutionary contexts to “the political elite and the functionaries staffing and the huge party-state apparatus” today (Lee, 1991, p. 4). Cadres are considered the privileged class in China (Lin and Xie, 1988; Lu, 2002), with their privilege primarily coming from the following two perspectives: the cultural root in China and the cadres’ existing power.

Culturally speaking, the admiration for cadres permeates the mainstream values and social institutions in China. As the mainstream culture in ancient China, Confucianism encourages civilians to pursue officialdom. According to a Confucius saying, “officialdom is a natural outlet for good scholars, and a student should serve as a government official after completing his learning” (*Xue Er You Ze Shi* in Chinese, Analects,19:13). Becoming a government official was considered the ultimate success in life. Officials, farmers, artisans, and merchants then formed ordered social classes from top to bottom.⁵ Even today, the general public uses the equivalent government official ranks to measure the prestige of jobs in an organization and to determine how much attention and respect should be afforded to the job holders. This practice is referred to as *Guan Ben Wei* in Chinese.⁶ As such, government official ranks have been considered as the primary measure of social status, and *Guan Ben Wei* remains an important feature of Chinese culture even today (Shi, 2014, p 101). This deeply ingrained consensus lays the foundation for the current cadre privilege.

5. The four classes are *Shi*, *Nong*, *Gong*, and *Shang* in Chinese.

6. The word *Guan Ben Wei* is borrowed from the word “gold standard” (*Jin Ben Wei* in Chinese) in Economics. Wang et al. (2014) described a special case of this phenomenon in Chinese universities.

In addition to the cultural roots, the privilege of cadres stems from their persistent power. Before the economic reform of the 1980s, the occupational hierarchy featured a cadre-worker dichotomy. On the one hand, cadres, accounting for a small share of the urban workforce, enjoyed above-average compensation and were entitled the opportunity to be trained and promoted to leadership positions in party and government offices (Walder, 1995; Zhou, 2001; Bian, 2002). People classified as workers had limited chances to be promoted to cadre positions, reinforcing the cadre privilege during the pre-reform period (Bian, 2002). On the other hand, in rural areas, cadres also exercised “political and managerial authority over ordinary peasants” (Bian, 2002, p. 94). Over the course of the state-led economic reform, cadres have been positioned to have greater opportunities to expropriate key resources (e.g. licenses, business information, restrictions on economic activities, among others). The growing market forces enabled, reinforced, or even amplified cadre influence on resource allocation in the market economy (Nee, 1991; Bian and Logan, 1996; Nee and Opper, 2010). Recent studies have documented significant economic gains associated with cadre status, which cannot be explained by cadres’ human capital accumulation (Jin et al., 2014). As such, for decades after the economic reform, cadres have been perceived as people in highly prestigious occupations (Lin and Xie, 1988; Chiu, 1999; Bian, 2002). Since the 1990s, those in senior government positions have been seen as being more prestigious than university professors and scientists (Li, 2005).

The visibility and importance of cadre status are crucial for understanding the external influence of cadre parents. Different from other individual characteristics such as educational level, China Communist Party (CCP) status, or income, cadre status could be more easily observed because of the prevailing Chinese culture of social networking (*Guanxi*) (Gold et al., 2002; Bian, 2018). The *Guanxi* culture requires people to understand and use their networks to survive or get ahead in society (Farrer, 2002; DiTomaso and Bian, 2018). To leverage social connections for specific purposes, Chinese people look for and spread information about members of their networks, for example, others’

cadre status. At the same time, those close to cadres also like to reveal their connections to gain the respect of others (Wank, 2002). As such, the spread of knowledge concerning cadre status does not require direct interaction with cadres. Rather, it can be diffused among the population through other channels like community gossip. As most of the students in our sample attend local middle schools, their parents' cadre status is visible to other parents even if they do not directly know one another.

3. Data and Balancing Test

3.1. Data

This study uses data from the China Education Panel Survey (CEPS), a large-scale, nationally representative, school-based survey of middle school students. It applies a stratified, multistage sampling design with probability proportional to size, randomly selecting 438 classrooms in 112 middle schools in 28 county-level units in mainland China. Students in these classes are all enrolled in the survey. This study uses the first wave of covering approximately 20,000 Grade 7 and Grade 9 students in the 2013-2014 academic year. One important feature of this data set is that it not only contains individual students' information, but also the information about their parents, teachers, and school administrators. This information enables us to construct a sample comprised of students randomly assigned to classrooms. Our identification strategy then relies on the idiosyncratic within school-grade variation in the share of peers' cadre parents. A similar identification strategy has been used in multiple China-based peer-effect studies (Hu, 2015, 2018; Gong et al., 2018, 2019; Eble and Hu, 2019, 2020; Chung and Zou, 2020).⁷

7. This identification strategy may suffer the selection into bias problem if many school grades do not have cadre parents (Miller et al., 2019). Since only one school grade out of 40 does not have cadre parents in our final sample, we re-run our main specifications, dropping the school-grade that does not have any students from cadre families. The results are similar to our main findings in terms of magnitude and significance, suggesting that our results are not biased by including school-grade without cadre parents.

3.2. Measurements

The primary outcome variable in this study is students' academic performance, measured using students' total midterm test scores for three compulsory courses in China's middle schools: Chinese, Math, and English. Because the same syllabus and midterm exams are used within a school grade, midterm test scores are comparable within the school grade (Xu et al., 2020). The top row of Table 1 reports the summary statistics of total scores. In later regressions, we further standardize the total scores at the school-grade level to have a mean of 0 and a standard deviation of 1 for an easy interpretation.

In China, students in the same homeroom class interact extensively as they take the same courses and participate in a variety of activities together. Throughout this paper, we refer peers to homeroom classmates. The key variable of interest is the leave-me-out share of classmates who have a cadre parent (hereafter peers' cadre parents). We classify a parent as a cadre in the CEPS if he/she is either a government official, a staff member in a public institutions, or a civil servant. For each student, we calculate the number of his/her classmates who have at least one cadre parent; then, we divide this leave-me-out total by the class size minus 1. Table 1 shows that, on average, 12.6% of classmates are from cadre families.

3.3. Randomized Classroom Assignment and Balancing Tests

Since peers are defined at the classroom level, the primary concern to identification is non-random classroom assignment, such as tracking or parental intervention. The 2006 Law of Compulsory Education stipulates that the schools shall not divide the classes into key and non-key classes (Article 22). As a result, tracking has not been allowed since then. We exploit this unique setting to analyze the middle schools which randomly assign students to classes.

We follow the sample restrictions by recent CEPS-based studies to ensure our sample is appropriately randomized. The criteria include: (1) The school principal reports that a randomization process is used for placing new students

TABLE 1. Summary Statistics

	Mean/Proportion	S.D.	Min	Max
Outcome Variable				
Raw total score	211.8	25.20	77.97	293.2
Variable of interest				
Peers' cadre parents (%)	0.126	0.128	0	0.467
Individual Characteristics				
Standardized persistence score	0.0812	0.969	-3.426	1.030
Age	13.33	1.199	11	17
Female	52.8%	-	-	-
Ethnicity - Han	94.9%	-	-	-
Only-child	57.8%	-	-	-
Migrant	19.2%	-	-	-
Agricultural Hukou	38.2%	-	-	-
Repeated grade in primary school	7.49%	-	-	-
Skipped grade in primary school	1.00%	-	-	-
Attended kindergarten	85.5%	-	-	-
Family Characteristics				
Cadre parent	13.0%	-	-	-
Low-income family	11.5%	-	-	-
Mother's years of education	10.71	3.339	0	18
Father's years of education	11.14	3.235	0	18
Observations		2989		

a. The raw total score is the sum of the midterm scores of math, Chinese, and English. The scores of each subject are standardized within school-grades with a mean of 70 and a standard deviation of 10 by the survey staff. In our regression analysis, we re-standardize the scores with a mean of zero and a standard deviation of one within school-grades for an easy interpretation.

b. Persistence scores were measured at grade 6.

c. Proportions, instead of means, are reported for indicators.

into classrooms. (2) The school principal confirms that students will not be reassigned to a different classroom in Grades 8 and 9. (3) All homeroom teachers of the same grade report that students are not assigned by test scores. (4) We drop the entire grade with only one class. In Table A.1, we test for the random assignment based on the sample constructed using these criteria. This balancing test shows that conditional on the same school and grade, student and family characteristics are significantly correlated with the share of peers who have a cadre parent, a result that may imply the influence of cadres on the class assignment.

Therefore, we apply an additional restriction to ensure that student assignments are free from parental intervention, given the significant influence

of cadre members. One survey question asks school principals whether parents have asked to place their children in specific classes or with specific teachers. Among the 112 CEPS schools, 42 (37.5%) schools' principals report that no parents have made this request. We, therefore, further restrict our sample to these schools. Our final sample contains 2989 students from 80 classrooms in 28 schools. Table A.2 in the Appendix details our sample selection process.

TABLE 2. Balancing Test

	Proportion of peers with cadre parents	
	(1)	(2)
Age	0.0110 (0.00858)	-0.00112 (0.000676)
Female	-0.00223 (0.00329)	0.000557 (0.000842)
Ethnicity - Han	-0.0353** (0.0145)	-0.00644** (0.00251)
Migrant	-0.0127 (0.00808)	-0.000942 (0.00135)
Agricultural Hukou	-0.0646*** (0.0116)	-0.000846 (0.00110)
Only-child	0.0171** (0.00704)	0.000133 (0.00117)
Repeated grade in primary school	-0.0165* (0.00863)	-0.00172 (0.00168)
Skipped grade in primary school	-0.0195 (0.0153)	0.000677 (0.00249)
Standardized persistence score	0.00556 (0.00343)	-0.0000584 (0.000796)
Attended kindergarten	0.0186*** (0.00677)	-0.000164 (0.00133)
Mother's years of education	0.00603*** (0.00103)	-0.0000205 (0.000266)
Father's years of education	0.00812*** (0.00136)	-0.0000212 (0.000176)
Low-income family	-0.00705 (0.00685)	0.00250* (0.00150)
Constant	-0.139 (0.121)	0.0561*** (0.0125)
Observations	2989	2989
R^2	0.331	0.926
School-grade fixed effects		X

a. Each column represents a separate regression which regresses the leave-me-out proportion of peers with cadre parents on the pre-determined characteristics of students.

b. Standard errors are clustered at the class level and reported in the parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table 2 presents the results from balancing tests for the sample used in this study. In the first column, without school-by-grade fixed effects, student and parent characteristics are highly correlated with the share of peers with cadre parents. This result speaks to the systematic regional differences in classroom quality in China. In Column 2, we include fixed effects that confine the variation within the same grade in the same school, the level at which the randomization occurs; most of the correlations become both economically small and statistically insignificant. For example, the correlation between the share of cadre peers and parental educational background drops by at least 100 times. The indicator of “ethnicity” is the only characteristics that is significantly related to the share of cadre parents at the 5% level. We argue that this correlation is of little concern since the magnitude is small and drops by more than 80% after including the fixed effects.

The supply side response from schools may also invalidate the randomization background. It is possible that schools assign better teachers to classes which include more children from cadre families. In Table A.3 in the Appendix, we show that teacher characteristics are not systematically related to the share of cadre peers, both with or without the school-by-grade fixed effects.

4. Empirical Model

To explore the spillover effects of peers’ cadre parents, we adopt the following model:

$$Y_{i,j,k} = \beta_0 + \beta_1 PeerCadreParent_{-i,j,k} + \beta_2 CadreParent_{i,j,k} + \mathbf{S}'_{i,j,k}\boldsymbol{\gamma} + \mathbf{F}'_{i,j,k}\boldsymbol{\tau} + \mathbf{T}'_{j,k}\boldsymbol{\varphi} + \mathbf{P}'_{-i,j,k}\boldsymbol{\lambda} + \delta_k + \varepsilon_{i,j,k} \quad (1)$$

where $Y_{i,j,k}$ refers to the academic performance of student i in class j in a school-grade k , measured by the total midterm scores of Chinese, math and English. $PeerCadreParent_{-i,j,k}$ represents the *leave-me-out* share of peers with cadre parents for student i in class j in a school-grade k . $CadreParent_{i,j,k}$

is an indicator for student i 's own parents' cadre status. It equals one if at least one of the student's parents is a cadre. $\mathbf{S}_{i,j,k}$ is a vector of variables controlling for students' individual characteristics. $\mathbf{F}_{i,j,k}$ is a vector of variables controlling for students' family backgrounds. The summary statistics of these two sets of variables are in Table 1. $\mathbf{T}_{j,k}$ is a vector of variables controlling for the characteristics of homeroom teachers, including age, gender, professional title, subject taught, and dummy variables indicating college degree, and graduation from a pedagogical university or with a pedagogical major. $\mathbf{P}_{-i,j,k}$ are variables controlling for peers' abilities and family background, including the leave-me-out within-class share (or mean) of female students, repeaters in primary school, skippers in primary school, persistence score at grade 6, college mother, low-income families. These controls ensure the cadre peer parent variable only captures the political influence of cadre status. In the following analysis, we provide more robustness checks.

The school-grade fixed effect (δ_k) enables us to examine the spillover effects of peers' cadre parents at the classroom level, which is the level the randomization occurs. Within the same school-grade, we compare students' academic performance across classes with different shares of peer parents who are cadres. This design addresses the bias from potential confounders due to neighborhood or school sorting. We cluster standard errors at the class level to account for correlations in outcomes for students in the same class.

5. Results

5.1. Main Pattern

The bin scatter plot in Figure 1 presents the raw relationship between a student's academic performance and the share of her classmates with cadre parents. The x-axis represents the within school-grade variation of the leave-me-out share of peers with a cadre parent, and the y-axis represents the within school-grade variation of the standardized midterm test score. This test score

increases when more classmates have cadre parents, suggesting the existence of cadre spillover.

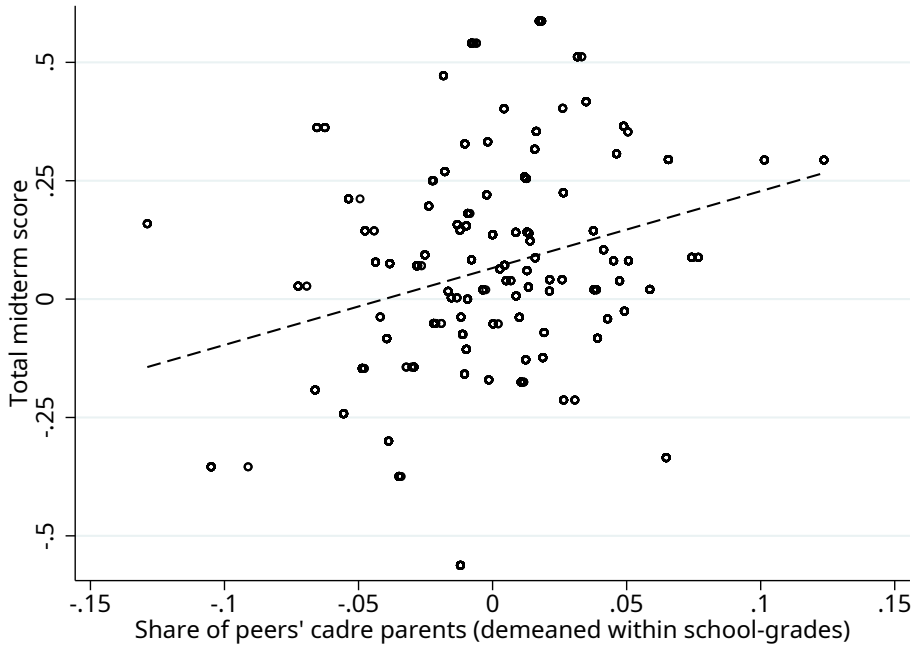


FIGURE 1. Raw Relationship Between the Midterm Test Score and Share of Peers with a Cadre Parent

Note: “Share of peers’ cadre parents” refers to the leave-one-out proportion of peers with a cadre parent. The dashed line is a linear fit of the relationship.

Before assessing the influence of peer cadre parents, we first look at the correlation between own cadre parents and the test score. In the literature on cadre influence in China, cadre parents have significant positive effects on the labor market outcomes of their children. Among the few studies that looked at the educational outcomes, cadre parents mostly benefit their children through social network. For example, Yang and Chen (2016) find that the children of cadre parents are more likely to study in elite college because the political power of cadre parents facilitates the enrollment of elite middle school and high school. To the best of our knowledge, there is no evidence showing that children

in a cadre family have a higher cognitive ability than non-cadre children (Li et al., 2012; Yang and Chen, 2016).

The within-household influence of cadre parent on the child's test score is crucial in explaining any spillover of peer cadre parents. If there exists a small or insignificant within-family correlation as documented in previous studies, we would be less worried about unmeasured peer innate abilities being the driver of our result. In Table 3, we check the within-family influence of cadre parent and spillover of peer cadre parents, using three samples respectively. The first sample incorporates all CEPS students with valid information on all the variables of interests (Columns 1 and 2). The second sample includes students who were randomly assigned to classrooms based on the four randomization criteria used in the prior literature (Columns 3 and 4). The third sample further restricts to students whose classroom assignments were free from parental intervention, which is the sample used in this study (Columns 5 and 6). Columns 1 to 4 of Table 3 suggest that, when classroom assignments are not free from parental interference, having a cadre parent is positively associated with students' test performance. This association remains significant even after we control for the school-grade fixed effects. By contrast, after limiting to our final sample that is free from parent interference, Columns 5 and 6 show a small and statistically insignificant within-family association. In particular, the magnitude in Column 6 with school-grade fixed effects drop by a half with only a slightly bigger standard error compared to the same specification in Column 4, which uses the common sample criteria in the prior literature.

Table 3 delivers three key messages. First, cadre parents have positive influence on their child's test scores but the within-family association goes insignificant once we filter potential non-randomness, such as school sorting and parent interference. This insignificant influence of own cadre parents complements findings that show cadre parents have no direct impacts on their child's cognitive ability (Li et al., 2012; Yang and Chen, 2016). It also supports the consensus that factors other than human capital spillover, such as referral networks (*guanxi*), are more important mechanisms benefiting a

TABLE 3. Comparing cadre and peer care parents in random versus non-random samples

	Midterm test score					
	(1)	(2)	(3)	(4)	(5)	(6)
Cadre parent	0.0710** (0.0312)	0.0915*** (0.0326)	0.0833** (0.0404)	0.108** (0.0429)	0.00749 (0.0568)	0.0543 (0.0623)
Peers' cadre parents (%)		1.660*** (0.398)		1.947*** (0.477)		1.624*** (0.444)
Observation	18262	18262	8231	8231	2989	2989
School-grade	No	Yes	No	Yes	No	Yes
<i>Sample Criteria</i>						
Randomization	No	No	Yes	Yes	Yes	Yes
No parent INT.	No	No	No	No	Yes	Yes

Standard errors in parentheses

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

cadre's offspring. Second, the decrease in influence of own cadre parents justifies our use of "no parental involvement in class assignment" as an additional sample restriction. The insignificant impact of own cadre parents on academic performance also speaks to the importance of alternative channels, which will be discussed in later sections, that drive cadre spillover in addition to peer quality. Last but not the least, by contrast, the spillover of peer cadre parents in all samples is significant and stable in magnitudes. This gives us credence about the exogeneity of our key variable that it does not systematically vary with unobserved factors caused by school and class choices.

Table 4 unfolds the main results with various specifications. Column 1 quantifies the pattern in Figure 1, showing a positive and significant bi-variate relationship between peer cadre parents and a student's test scores (referred to as 'cadre spillover' hereafter), conditional on the school-by-grade fixed effects. In Columns 2 to 4, we gradually add control variables to track changes in the estimate of cadre spillover. An important note to Column 3 and Column 4 is that even when we control for the student, family, and teacher characteristics, the estimate of cadre spillover changes slightly, giving credence about the randomization of our research design.

TABLE 4. Spillover of Peers' Cadre Parents on Students' Academic Performance

	(1)	Total midterm score		(4)
		(2)	(3)	
Peers' cadre parents (%)	1.605*** (0.450)	1.624*** (0.444)	1.488*** (0.423)	1.710*** (0.492)
Cadre parent		0.0543 (0.0623)	-0.0628 (0.0545)	-0.0592 (0.0545)
Observations	2,989	2,989	2,989	2,989
R^2	0.010	0.010	0.101	0.106
School-grade	X	X	X	X
Student/Family controls			X	X
Teacher characteristics				X

a. The dependent variables are midterm test scores standardized at the school-grade level with a mean of zero and a standard deviation of one.

b. "Peers' cadre parents (%)" refers to the leave-one-out proportion of classmates with a cadre parent.

c. All regressions include a school-grade fixed effect. Student/family controls refer to the variables shown in Table 1. Teachers' characteristics include a homeroom teacher's age, gender, professional title, subject taught and dummy variables indicating college degree, and graduation from a pedagogical university or with a pedagogical major. Standard errors in the parentheses are clustered at the class level. ***, **, and * represent 1%, 5%, and 10% significant levels, respectively.

5.2. Residual Influence of Peer Cadre Parents

A major concern of cadre spillover we capture in Column 4 of Table 4 is the unmeasured peer quality. In Table 5, we check the sensitivity of the cadre spillover estimate by gradually adding peer characteristics. In Column 2, we first add the leave-me-out proportion of classmates who are females. Gender peer effect is found to significantly impact students' test scores through changing the learning environment of a class (Gong et al., 2019). Controlling for gender peer effect reduces cadre spillover by 14%.

In addition to the gender peer effect, we need to consider the influence of baseline peer ability. Therefore, we control for the proportion of classmates who have repeated grade. This peer ability measure has profound ability spillover on students (Xu et al., 2020). We also control for the proportion of classmates who have skipped grades to further pick up unmeasured peer quality. As shown in similar studies, the peer averages of "repeated" and "skipped" grades are found to decently capture peer ability (Gong et al., 2019). Besides, we include the average persistence score to further isolate the non-cognitive aspects (i.e.

TABLE 5. Spillover of Peers' Cadre Parents on Student Test Score: Controlling Peer Characteristics

	Total midterm score			
	(1)	(2)	(3)	(4)
Peers' cadre parents (%)	1.710*** (0.492)	1.470*** (0.459)	0.828** (0.373)	0.812** (0.400)
Cadre parent	-0.0592 (0.0545)	-0.0665 (0.0543)	-0.0769 (0.0544)	-0.0758 (0.0544)
Observations	2989	2989	2989	2989
R^2	0.106	0.108	0.119	0.120
School-grade	X	X	X	X
Student/Family controls	X	X	X	X
Teacher characteristics	X	X	X	X
Female peers		X	X	X
Peer ability measures			X	X
Peer parental backgrounds				X
Normalized magnitude of peers' cadre parents	0.038	0.0326	0.0184	0.0180

a. The dependent variables are midterm test scores standardized at the school-grade level with a mean of zero and a standard deviation of one.

b. "Peers' cadre parents" refers to the leave-one-out proportion of peers with a cadre parent.

c. To obtain the effect of *one* cadre peer parent, we normalize the coefficient of "peers' cadre parents" by the average class size of 45.

d. All regressions include a school-grade fixed effect. Student/family controls refer to the variables shown in Table 1. Teachers' characteristics include a homeroom teacher's age, gender, teaching experience, professional title, subject taught and dummy variables indicating college degree, and graduation from a pedagogical university or with a pedagogical major. Standard errors in the parentheses are clustered at the class level. ***, **, and * represent 1%, 5%, and 10% significant levels, respectively.

personality) of peer quality (Zou, 2019). As shown in Column 3 of Table 5, the effect size of cadre spillover drops by a half but remains significant at the 5% level.

Lastly, we address unmeasured influence of peer parents. For example, in Chung (2020) and Olivetti et al. (2020), college-graduating peer parents exert role-modeling effects. Analyzing the CEPS data, Chung and Zou (2020) also find that the exposure to peer mothers who are college-graduates changes parenting practices of own parents. In Column 4 of Table 5, we control for the average college attainment of peer mothers and the income of peer parents. There is only a minimal change in the effect size of cadre spillover. The R-squared from Column 3 to Column 4 also only increases by 0.001. In the spirit

of Altonji et al. (2005) and Oster (2019), the unmeasured characteristics of peer parents could change the magnitude of cadre spillover by a little without adding significant explanatory power to the regression model.

Overall, after accounting for the peer effect mechanisms and unobserved influence of peer parents, the residual cadre spillover remains statistically significant at the 5% level. According to the saturated model in Column 4 of Table 5, increasing the proportion of peers from cadre families by one percentage point increases a student’s test score by 0.81% of a standard deviation (SD). Another way to interpret the result is to normalize the effect size by the average class size of 45 in our sample, as shown in the last row of Table 5. In our full specification in Column 4, adding one more classmate who has a cadre parent to a class of 45 increases a student’s test score by approximately 1.8% of a SD.⁸

Although we have imposed an extra criterion in the sample selection process and perform a balancing test on students’, families’, and teachers’ characteristics to ensure the random assignment of students to classrooms, there may still be concerns that the observed residual cadre spillover is driven by including school-grades that implement unmeasured non-random classroom assignments. Following Gong et al. (2019)’s approach, we further perform an empirical exercise and test whether the residual cadre spillover is driven by the unmeasured non-randomness. Specifically, we randomly drop two school-grades from the sample and conduct 780 regressions (C_{40}^2) using the saturated model in Column 4 of Table 5. If our baseline estimates are driven by school-grades with non-random classroom assignments, the estimates using the reduced samples would significantly deviate from the observed residual cadre spillover. We plot the distribution of these 780 estimates in Figure A.1. The distribution of reduced-sample estimates center around the observed residual cadre spillovers and its upper and lower bounds are in the same direction as our estimates in Column 4 of Table 5, suggesting that the residual cadre spillovers

8. The average class size includes observations that have missing information. See details in Table A.2 in the Appendix.

are unlikely to be driven by the inclusion of school-grades with non-random classroom assignments.

The message of all analysis in this subsection is to show that the residual cadre spillover is more meaningful than unmeasured peer factors. We believe peer quality does not represent the whole story behind cadre spillover. When we control for possible peer effect channels, the residual cadre spillover remains salient. Besides, as noted earlier, in a random classroom assignment free of parental intervention, the influence of cadre parents on their own children’s test score is economically small and statistically insignificant. Previous economic studies on cadre status also find that human capital does not explain the labor market outcomes of cadres’ offspring (Jin et al., 2014; Yu et al., 2019). Therefore, the residual influence is unlikely to be entirely driven by unmeasured human capital spillover among peers. We also do not observe that accounting for the socioeconomic backgrounds of peer parents changes the estimate of cadre spillover substantially.

Notice we do not entirely rule out unobserved peer ability. Peer quality is an important, but we believe it is not the only mechanism that mediates cadre spillover on other children. We next leverage the rich survey details to look into the responses of parents that could potentially explain the residual influence of peer cadre parents.

6. Mechanisms

Parents react to surrounding environments, changing the way they parent, a situation that ultimately affects their children (Doepke and Zilibotti, 2017; Agostinelli, 2018; Chung and Zou, 2020; Agostinelli et al., 2020). In this section, we examine several aspects of parental adjustments as possible channels through which peer cadre parents influence children’s academic performance.

To begin with, the presence of peers from cadre families would lead to parental adjustment in their attitudes towards children’s friendship networks, since Chinese parents consider their children’s friendship networks vital to

successful living in a relation-centered society (Ruan, 2016; Tsui and Farh, 1997; Xie and Postiglione, 2016; Zhao and Gao, 2014). According to the status differential theory (An and McConnell, 2015; An, 2022), relationships between friends can provide instrumental or affective benefits; as high-status individuals typically have more social resources, low-status individuals tend to seek ties with high-status individuals rather than vice versa. Thus, friendship ties are more likely to run from low-status individuals to high-status individuals than vice versa (An, 2022; Zang, 2006). As a privileged class, cadres are significant in China's relation-oriented society. From Chinese parents' perspectives, cultivating their children's friendships with children from cadre families is important to prepare their children to enter the relations-driven world. As a result, we expect that the more peers from cadre families, the more parents will become involved in their children's peer relationships.

The CEPS survey contains unique information about parents' attitude on their child's friendship network. The survey obtains parents' involvement in children's friendship networks using four questions in the parents' survey: (1) Do parents care and are parents strict with their child about whom he/she makes friend with; (2) do parents know whether their child have any friends at school; (3) do parents know the friends who often play together with their child; (4) how often do parents discuss with their child the relationship between the child and his/her friends. We use the factor analysis to collapse the answers to these questions and construct a measure on parents' involvement in children's friendship networks. A higher value indicates a higher level of parental involvement in children's friendship. Column (1) in Table 6 shows that parents tend to get more involved in their children's friendship when more classmates are from cadre families.

To build up the cross-status friendship with children from cadre families, it is crucial to perform well academically. This is because students with better grades have a higher social status in Chinese middle schools and have more choices in friendship, which is helpful for them to break into 'the network of *guanxi*' (*guanxiwag*) (An, 2022; Gold, 1985; Zang, 2006; Zhu, 2020). As a result,

TABLE 6. Parent-student interaction

	(1) Parents' involvement in child's friendship	(2) Parents disc. things happened at school	(3) How much parents have done for child	(4) Parents not providing needed hwk. help
Peers' cadre parents (%)	0.297** (0.142)	2.049*** (0.628)	1.908*** (0.693)	-2.182** (0.933)
Cadre parent	0.0587** (0.0280)	0.0614 (0.169)	0.0286 (0.131)	-0.0807 (0.175)
Observations	2805	2943	2978	2979
Method	OLS	Ordered logit	Ordered logit	Logit

a. "Parents involvement in child's friendship" in Column (1) measures how much parents care about their child's friendship. A higher score indicates that parents care more. It is constructed using the factor analysis of the four questions from the parents' survey: 1. Do parents care and are parents strict with their child about whom he/she makes friend with; 2. Do parents know whether their child have any friends at school; 3. Do parents know the friends who often play together with their child; 4. How often do parents discuss with their child the relationship between the child and his/her friends.

b. "Parents discuss things happened at school" in Column (2) utilizes the question in the parents' survey asking how often parents discuss things happened at school with their child. The answer has three categories: 1. Never, 2. Sometimes, and 3. Often.

c. The dependent variable in Column (3) utilizes the question in the students' survey asking how much students think their parents have done for their child. The answer has 5 categories: 1. Very little, 2. Not very much, 3. Not too much nor too little, 4. A fair amount, 5. A great deal.

d. "Parents not providing needed homework help" in Column (4) utilizes the question in the parents' survey asking whether the family members help the child with his/her homework last week. We code it as 1 if the help was needed but no one helped, and code it as 0 otherwise.

e. All regressions control for student/family, teacher, and peer characteristics, and a school-grade fixed effect as in the last column of Table 5. All but Column (3) also control the relationship between the correspondent of the parents' survey and the child because their dependent variables are from the parents' survey, and different relatives may answer the questions differently.

f. Standard errors in the parentheses are clustered at the class level. ***, **, and * represent 1%, 5%, and 10% significant levels, respectively.

parents would spend more effort giving emotional support and supervision to their children, creating a good family environment conducive for students' academic success.

We observe parenting changes in several aspects. In the CEPS survey, a question asks how often parents discuss things happened at school with their children. Using it as a dependent variable, Column 2 in Table 6 reveals that parents discuss things at school with children more frequently when more classmates are from cadre families. The CEPS survey also asks students about how much they think their parents have done for them on a five-point scale.

Column 3 in Table 6 suggests that the share of peer cadre parent has a positive effect on this measure of parental investment. In Column 4, we also find increased parental supports in school work that parents are less likely withdrawal helps in homework if there are more cadre parents around. These findings on actual behavioral changes provide evidence that, with increased exposure to classmates from cadre families, parents of the students make more effort interacting with and giving support to their children, which, according to the literature, helps students succeed academically (Xie and Postiglione, 2016).

7. Further Evidence

In this section, we offer further evidence about the existence of social influences of cadre parents. We exploit the variation in the public attitude towards cadres and in the extent of local government intervention. The heterogeneous patterns along these dimensions are associated with the strength of social influence of cadre members.

TABLE 7. Heterogeneous Effects of Peers' Cadre Parents on Academic Performance

Midterm test score		
<i>Panel A: Schools in rural areas</i>	Coefficient	S.E.
Peers' cadre parents x rural areas	3.247**	(1.261)
Peers' cadre parents x urban areas	0.423	(0.430)
F stat. of diff. [p-value]	4.209	[0.0435]
<i>Panel B: Government funding (1000 RMB per student)</i>	Coefficient	S.E.
Peers' cadre parents x gov't funding	1.645***	(0.576)

a. The dependent variables in Panels A–C are midterm test scores standardized at the school-grade level with a mean of 0 and a standard deviation of 1.

b. In Panel A, rural areas also include the rural-urban fringe zone of the city/town.

c. All regressions control for student/family, teacher, and peer characteristics, and a school-grade fixed effect as in the last column of Table 5.

d. Standard errors in the parentheses are clustered at the class level. ***, **, and * represent 1%, 5%, and 10% significant level, respectively.

The first dimension utilizes the regional difference in public sentiments towards cadres to provide evidence suggesting that social influence drives the

cadre spillover. Our thought experiment is that if cadre status is prestigious and exerts social influence on others, we should observe a stronger cadre spillover on other children where people hold a more favorable opinion of cadres.

In China, although cadres enjoy high prestige in general, how they are perceived by the general public differs between rural and urban areas. Such difference could be linked to the imbalance in the market development across these areas. Literature suggests that the functioning of the market requires that the distribution of resources should be based on the relative contribution of production factors (McClosky and Zaller, 1984). Current China-based research suggests that in areas with a higher level of market development, the public tends to perceive it as fair if resources are distributed to reflect the scarcity and importance of goods and skills (Tian, 2020). This rule of distribution is in conflict with the *Guanxi* culture, which operates via the exchange of favor and tie-specific resource allocation (Yang, 1994; Bian, 2018). As such, people in areas with a higher level of market development are more likely to view *Guanxi* as unfair (Tian, 2020), which in turn could impact their attitudes towards cadres. Using two nationally representative surveys of Chinese households, the Chinese General Social Survey (CGSS 2013) and the China Family Panel Studies (CFPS 2014), we contrast the public sentiments towards cadres in rural versus urban areas. The results from these two surveys, which can be found in Appendix B, point to the same conclusion: the people in rural areas hold a more positive view of cadres than those in urban areas. We leverage this rural-urban difference to test the existence of the external spillover of cadre parents. In particular, we group the center of the city, the outskirts of the city and the towns outside of the city into low-cadre-satisfaction areas (urban areas), in where cadre parents should have a weaker influence on classmates' academic performance given a less positive public sentiment. Panel A in Table 7 illustrates the cadre spillover for rural and urban areas. The cadre spillover is significant in rural areas, and the magnitude in rural areas are much higher than that in urban areas. These findings suggest that cadre spillover is more prominent in areas where people hold a more positive view towards cadres.

The second dimension utilizes the recent findings from Jia et al. (2021) that cadre influence is stronger with higher government intervention in the local economy. If cadre spillover is driven by the social influence of cadre members, we should observe stronger spillover in areas where the public sector plays a larger role. We measure government intervention using government funding (RMB per student) for a school obtained from the school administration survey. Since the scale of this variable is continuous, instead of separating cadre spillover by category, we estimate both the base and interaction term. Panel B in Table 7 shows that students in a school with more government funding experience higher cadre spillover.

Since we exploit the differences between regions or schools, one might worry the rural-urban comparison and the difference in school funding may only capture cross-sectional differences in the education resources such as school quality. However, as our regression is a fixed effect model that has already control for school differences, the rural/urban and the school base indicator is absorbed by the fixed effects. Therefore, the unobserved regional/school difference does not drive the heterogeneity in cadre spillover.

In summary, the above analysis indicates that cadre spillover is much stronger in areas where people hold more favorable views towards cadres, and in schools with higher local government intervention. These findings lend support to our argument that the cadre spillover is primarily driven by the social influence.

8. Falsification Tests: The Spillover of Peers' Manager Parents

Whereas we have controlled for the average income and education of peer parents, one concern for what we have identified is that the cadre spillover is driven by other unmeasured peer parental characteristics. In another words, the cadre status could be correlated with unmeasured ability or socioeconomic characteristics of peer parents, and replacing “peer cadre parents” with

alternative occupational status of peer parents could well generate similar spillover on students and parents.

In this section, we replicate our main result and the mechanism analysis using another peer parents' occupation: manager. Although managers are among the highly-educated, high-ability, and high-income ones, they possess less social prestige than cadres. If the observed cadre parent spillover is attributable to cadres' unobserved ability or income-related characteristics instead of cadres' social prestige, we should observe similar spillovers and mechanisms associated with peers' manager parents.

TABLE 8. Falsification tests: peers' manager parents

	Main Effect	Mechanism			
	(1)	(2)	(3)	(4)	(5)
	Midterm test score	Parents' involvement in child's friendship	Parents disc. things happened at school	How much parents have done for child	Parents not providing needed hwk. help
Peers' manager parents (%)	-0.550 (0.408)	0.0346 (0.127)	-2.290*** (0.696)	-1.219** (0.595)	-1.227 (1.158)
Manager parent	-0.0478 (0.0552)	0.0400 (0.0251)	0.0900 (0.126)	-0.157* (0.0883)	-0.243 (0.168)
Observations	2984	2801	2938	2973	2974

a. "Peers' manager parents (%)" refers to the leave-one-out proportion of classmates with a manager parent. Managers in the survey are middle or senior management personnel of enterprises/corporations.

b. Column 1 replicates the regression in the last column of Table 5. Columns 2 to 5 replicate the mechanism analysis in Table 6.

c. Standard errors in the parentheses are clustered at the class level. ***, **, and * represent 1%, 5%, and 10% significant levels, respectively.

Column 1 of Table 8 replicates the main result in Table 5, estimating the effects of peers' manager parents on students' academic performance. The result suggests that the exposure to a larger share of peers' manager parents is not associated with higher test scores for students. Besides, we replicate the mechanism analysis in Columns 2 to 5. The coefficients of peers' manager parents are either insignificant or having a opposite sign. The findings in Table 8 suggest that the previously observed peer cadre spillovers are not likely to be

driven by the sorting of parents' unobserved ability or income but instead are attributable to cadres' social influence.

9. Conclusion

The ingrained *Guanxi* culture and the historical path of economic reform have provided cadre members with unique social influence in Chinese society. We borrow insight from the social network literature and take a novel approach to probe the broader influences of cadres, namely the external influence on children in their networks. We utilize classroom randomization in Chinese middle schools to address the concern of non-random sorting so that parents and other children form exogenous social connections.

Our results indicate that more exposure to cadre peer parents increases a student's test score. Its significance offers important updates about the influence of political ties and the inter-generational consequences. Among possible mechanisms, we find significant parental adjustments. Parents take surrounding characteristics into account to determine the best investments in their children. We also find stronger cadre spillover in rural China where cadre status is more prestigious and in schools with strong government support. These heterogeneous patterns further strengthen the conclusion that parents adjust to cadre influences.

Whereas we identify parental adjustment as a viable channel, we do not entirely rule out alternative explanations. For example, the presence of influential parents in a network could improve teacher and school inputs, which in turns offer a better public good for other children and parents. The mechanism discussion leaves a fruitful area for future research to investigate the way influential individuals may affect surrounding agents in the educational settings.

Although the current focus is cadre parents, our findings have broader implications. First, we document that parents' cadre status has a minimal

direct effect on their children's test outcomes. This finding implies that the well-documented cadre-parent premium in the labor market is more attributable to social connections associated with cadre status than the offspring's cognitive ability. We are among the first to identify the external effects of political status. We show that politically influential individuals can affect distinct others through non-market interactions. This finding broadens our understanding of the economic significance of political status and political ties, especially in developing countries.

Our results also apply to the economic literature of early-life development. Whereas economists agree on the importance of better neighborhoods on early-life development, we show that the influence of surrounding non-parental adults is an under-studied source of the "exposure effect". Although we focus on a specific political status, the implications of our results apply generally to the external influence of parents with a high socioeconomic status.

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Appendix A: Additional Tables and Figures

TABLE A.1. Balancing Test Using Comparable Sample from Earlier Studies

	Proportion of peers with cadre parents	
	(1)	(2)
Age	0.00721 (0.00488)	-0.00157*** (0.000473)
Female	0.00153 (0.00214)	0.000664 (0.000502)
Ethnicity - Han	-0.00454 (0.00663)	-0.00313** (0.00159)
Migrant	-0.00961** (0.00455)	-0.000811 (0.000981)
Agricultural Hukou	-0.0449*** (0.00616)	-0.00373*** (0.00123)
Only-child	0.0127*** (0.00414)	0.000245 (0.000844)
Repeated grade in primary school	-0.00785 (0.00543)	-0.00266** (0.00121)
Skipped grade in primary school	-0.0161** (0.00726)	-0.00499 (0.00361)
Standardized persistence score	0.00246 (0.00177)	0.000278 (0.000405)
Attended kindergarten	0.0119*** (0.00365)	0.000297 (0.00113)
Mother's years of education	0.00534*** (0.000775)	0.000312* (0.000160)
Father's years of education	0.00644*** (0.000967)	0.000367* (0.000213)
Low-income family	-0.00261 (0.00398)	0.000438 (0.00121)
Constant	-0.114 (0.0723)	0.0900*** (0.0129)
Observations	7,146	7,146
R^2	0.278	0.896
School-grade fixed effects		X

a. Sample selection follows the criterion in Xu et al. (2020) and Chung and Zou (2020). Each column represents a separate regression which regresses the leave-me-out proportion of peers with cadre parents on the pre-determined characteristics of students.

b. Standard errors are clustered at the class level and reported in the brackets. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

TABLE A.2. Sample Construction Process

Criteria	Remaining number of			
	Schools	Grades	Classes	Students
Initial	112	222	438	19487
Randomized class assignment				
Principal reports a randomized classroom assignment	93	184	362	15900
Principal confirms no reassignment btw. Grade 8 and Grade 9	78	154	302	13046
Homeroom teacher reports no students are assigned by test scores	67	108	210	9029
Dropping entire grades with only one classroom	64	102	204	8760
Principal confirms no parents ask for favor during the assignment	28	43	86	3804
Dropping observations with missing values				
No missing parents' cadre status	28	43	86	3692
No missing midterm scores	28	43	86	3585
No missing students' characteristics	28	43	86	3350
No missing family background	28	43	86	3179
No missing headroom teachers' characteristics	28	43	83	3098
Dropping entire grades with only one classroom	28	40	80	2989

TABLE A.3. Balancing Test for the Assignment of Homeroom Teacher

	Proportion of students with cadre parents	
	(1)	(2)
Female	0.0251 (0.0291)	0.0129 (0.0200)
Age	0.00335 (0.00287)	0.00275 (0.00207)
College	0.0193 (0.0277)	0.00587 (0.0196)
Grad. from pedagogical university or major	0.0223 (0.0467)	-0.0227 (0.0292)
Professional title: below level-A teacher	-0.0414 (0.0334)	-0.0224 (0.0231)
Professional title: above level-A teacher	-0.00723 (0.0460)	-0.0266 (0.0333)
Subject taught: math	0.0221 (0.0458)	0.00391 (0.0301)
Subject taught: English	0.0150 (0.0485)	-0.00606 (0.0302)
Subject taught: other	0.000335 (0.0481)	0.0141 (0.0319)
Constant	-0.0635 (0.120)	-0.0468 (0.0842)
Observations	80	80
R^2	0.114	0.926
School-grade fixed effects		X

a. Each column represents a separate regression that regresses the proportion of students with cadre parents in a homeroom class on the pre-determined characteristics of the homeroom teacher.

b. We group a teacher's professional title into three categories: below level-A, level-A, and above level-A. Level-A teachers are the base group in the regression. In addition, homeroom teachers may teach Chinese, math, English, or other subjects, and we use Chinese homeroom teachers as the base group.

c. Standard errors are reported in the parentheses. $***p < 0.01$, $**p < 0.05$, $*p < 0.1$.

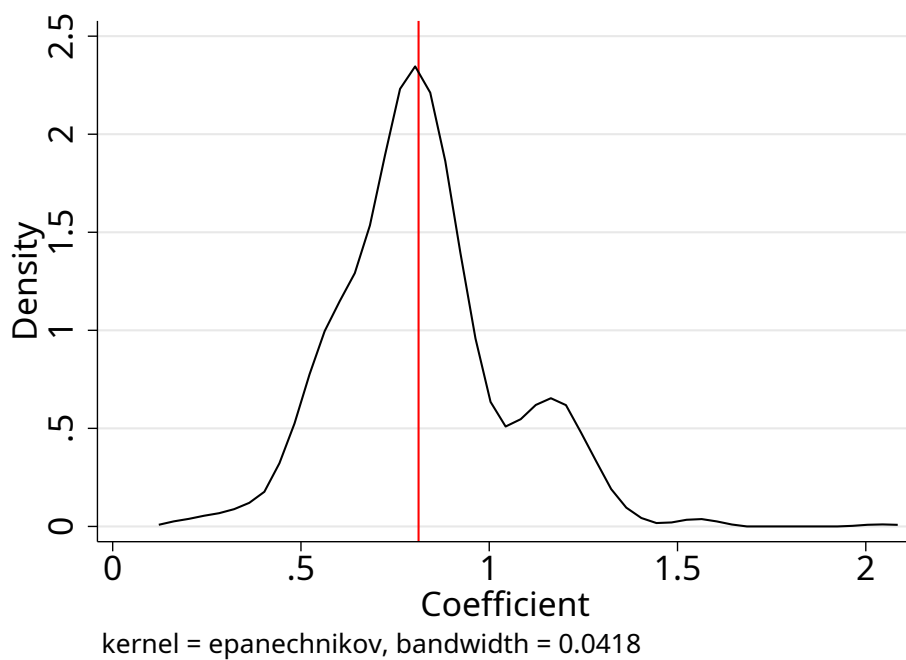


FIGURE A.1. Distribution of Coefficients after Randomly Dropping Two School Grades

The figure plots the distributions of the coefficients of *Peers' cadre parents (%)* from 780 regressions that each time randomly drop two school grades from the sample. Vertical lines indicate our estimate in the last column of Table 5.

Appendix B: The Rural-Urban Differences in Public Sentiments Towards Cadres

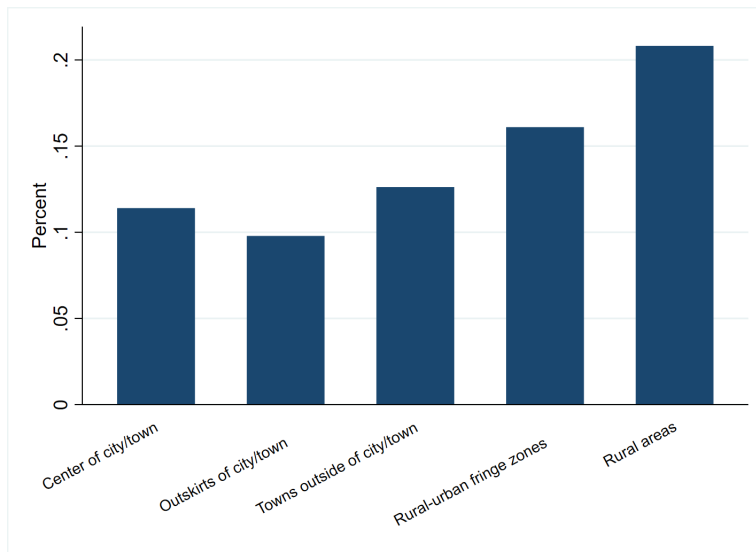
In Figures B.1 and B.2, we show the statistics from two national representative surveys of Chinese households to contrast the public sentiment towards cadres in rural versus that in urban areas. In the CGSS (2013), one question asks the respondents to rate their satisfaction with cadres on a 5-point scale (1=very unsatisfied, 5=very satisfied).⁹ Figure B.1 illustrates the share of respondents rating their satisfaction with cadres higher than 3. The categories on the horizontal axis are ordered by their proximity to urban cities. Approximately 10% of the respondents in the center of a city/town, on the outskirts of a city/town, and towns outside of a city/town report being satisfied with cadres, lower than the 20% share in rural areas.

We cross-check the regional heterogeneity of public sentiment towards cadres using another national survey, the CFPS(2014). A question on this survey asks the respondents to rate their trust in cadres on a 10-point scale (0=no trust, 10=full trust).¹⁰ In Figure B.2, the bars compare the percentage of respondents for each point scale for rural areas with the urban areas.¹¹ Similar to the result for the CGSS, a higher percentage of urban respondents gave a rating between 0 to 4, indicating low trust, whereas a higher percentage of rural respondents gave a rating between 5 to 10, indicating high trust.

9. The Chinese General Social Survey (CGSS) is the first national continuous social survey project in China, which can be considered as the Chinese counterpart of the General Social Survey (GSS) in the U.S. It was jointly initiated in 2003 by Renmin University of China (RUC) and the Hong Kong University of Science and Technology. We use the 2013 wave of this survey, which asks the respondents “How satisfied are you with the morality of cadres?”

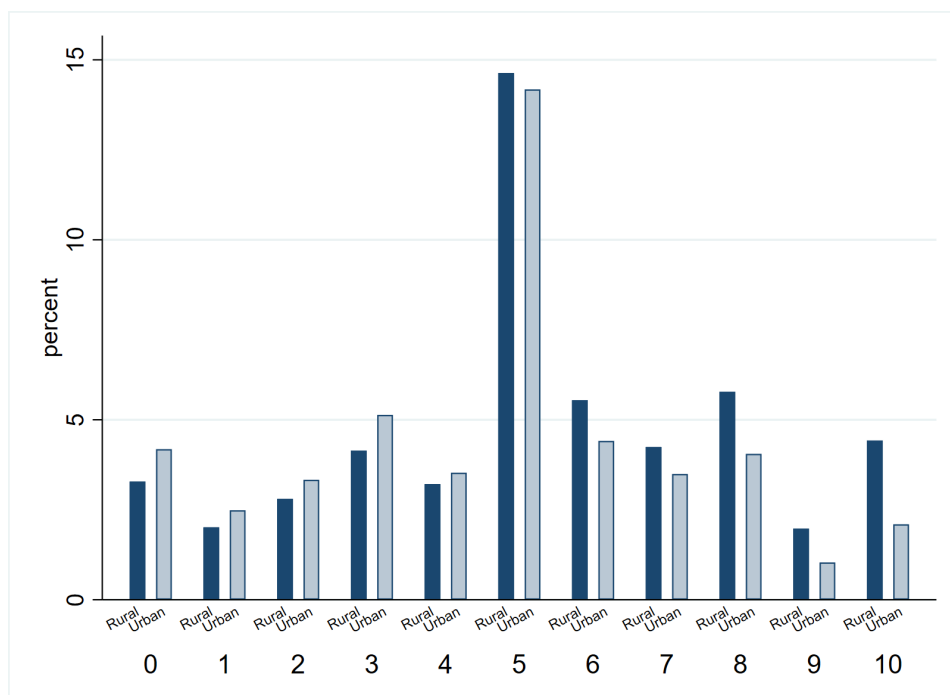
10. China Family Panel Studies (CFPS) is an ongoing nationally representative, annual longitudinal survey of Chinese communities, families, and individuals. It was launched by the Institute of Social Science Survey (ISSS) at Peking University. Interviews were conducted annually from 2010-2012 and biennially since then. Here we use a question in the 2014-wave of the survey. The question was phrased as “How much do you trust cadre (ganbu) ?”

11. The geographical regions in the CGSS were divided into five areas as seen in Figure B.1. Different from the CGSS, regions in the CFPS were classified using a simple rural-urban dichotomy.



Source: Author tabulation using the Chinese General Social Survey (2013)

FIGURE B.1. Higher Public Satisfaction Towards Cadre Members in Rural Than in Urban China



Source: Author tabulation using the China Family Panel Studies (2014)

FIGURE B.2. Higher Levels of Trust in Cadre Members in Rural Than Urban China