Cultural Traits and Behavior During Crisis: Evidence from Courier Daily Performance During the Pandemic[*]

HENG CHEN
University of Hong Kong

YUYU CHEN
Peking University

YUXI XIE
Peking University

QINGXU YANG
Peking University

February 23, 2024

Abstract. This paper studies the differential responses to crisis situations exhibited by individuals from different cultural and historical backgrounds. Using a novel dataset covering 10,000 couriers and 4 million daily delivery records spanning the periods before, during, and after the 2020 COVID-19 outbreak, we show that migrant couriers, in response to heightened infection risks, reduced delivery volumes. Couriers from hometowns governed by the Chinese Soviet Republic in the 1930s decreased volumes significantly more than their counterparts. Combining a large-scale survey of 2,800 couriers working for the same company and other social value surveys, we show that the panic-like response of Soviet base couriers can be partially attributed to the activation of distrust in the government, rather than lower levels of altruism or economic circumstances of their upbringing. Further evidence suggests that trust in government affects how couriers perceive risks and utilize various information sources. (JEL: D9, D74)

Keywords: crisis, cultural trait, political trust, activation

---

1. Introduction

Why do people react differently and make distinct decisions in times of crisis? Does history haunt our choices when peril rises? Despite its significance, our understanding of these questions remains limited. This is partly due to the inherent rarity of crises, which makes behaviors harder to document, and partly because contemporary contexts may select which elements of cultural background to respond to crises, rendering analysis more challenging and elusive. In this study, we address this issue by leveraging a unique dataset and examine how individuals from distinct cultural and historical backgrounds respond to crisis situations.

We obtained a novel dataset that enables us to overcome the challenge of observing behaviors during a crisis. This dataset consists of 4 million daily delivery records from 10,000 couriers employed by a leading Chinese logistics company. Covering the period from 2018 to 2020, the dataset allows us to accurately measure individual-level behaviors and economic decision-making before, during, and after the initial phase of the 2020 pandemic. This period was characterized by a sudden increase in risks, and people were inclined to panic due to their limited understanding of the virus, which was later identified as COVID-19. These performance records offer precise and frequent measurements of couriers' labor supply, making them a highly reliable source of information regarding how couriers coped with heightened risks during the crisis. Furthermore, a significant portion of couriers in our sample are migrant workers with diverse backgrounds, working together in a shared environment. This provides us with an opportunity to investigate how the historical legacies of their hometowns influence their behaviors and decision-making processes during the crisis.

The historical footprints that we examine are a less-explored geographic and cultural variation stemming from the 20th-century Chinese revolution: the former Soviet base regions. During the first civil war between the Chinese Communist Party (CCP) and the Kuomintang (KMT) from 1927 to 1937, the CCP assumed control of and governed 13 distinct regions, transforming them into a pioneering experimental field for communism. Emulating the Bolshevik governance style, the CCP introduced resolute authoritarian rule and fervent ideological fervor. Recent historical studies suggest that the radical and violent policies they implemented had significant, lasting consequences, notably hindering economic development and undermining pro-society traits in those areas. This backdrop gives us an opportunity to investigate whether historical legacies re-emerge to influence behavior during crises as well as the potential channels through which historical events manifest and activate these changes, whether through the economic milieu or cultural traits.

Our first key research question focuses on the behavioral differences among couri-

ers originating from former Soviet base areas and non-base areas during the initial wave of lockdowns in 2020. During the pandemic lockdowns, couriers unexpectedly emerged as essential workers. The lockdowns were imposed in cities with significant COVID-19 outbreaks during the initial wave of the pandemic to contain the spread of the virus. In these locked-down cities, the logistics industry played a crucial role in supplying essential goods, and couriers were among the few occupations allowed to continue operating amid the restrictions. However, their delivery tasks involving human contact became unexpectedly risky during the crisis. This shift in the working environment may have led couriers to reduce their labor supply to minimize contact and lessen the risk of infection. We use this change in labor supply as a metric to evaluate couriers' response to crisis situations. This proxy is valid because the demand for courier services increased during the pandemic, making the labor supply of piece-rate couriers the binding constraint.

Specifically, we explore whether couriers from Soviet base areas reduced their labor supply to a greater or lesser degree than their counterparts from non-base areas. To establish the differences in behavior between the two groups, we utilize a generalized difference-in-differences (DID) strategy, leveraging exogenous variations resulting from the unexpected implementation of city-wide lockdowns. We control for two sets of fixed effects – individual fixed effects and calendar-day fixed effects. The courier-level characteristics are absorbed by individual fixed effects. Importantly, because by construction couriers in our sample do not switch jobs across outlets or cities, outlet or city fixed effects are absorbed too. The day fixed effects account for the common shocks stemming from the evolution of the pandemic across all cities on any given day, such as nationwide pandemic-related information. To capture potential distinct impacts arising from courier demographics in the context of heightened risks, we introduce interactions involving couriers' demographic attributes (such as gender, birth year, etc.) with the lockdown treatment.

The couriers' attendance records allow us to separate the adjustment in labor supply at the intensive vs. extensive margin. Our baseline analysis indicates that the labor supply decisions of couriers from base and non-base areas exhibit no discernible differences in the periods prior to and following the lockdowns. Interestingly, there was only a significant disparity among those who continued to work during the lockdowns. Couriers from base areas decreased their delivery volumes by 25 percentage points more than their non-base counterparts. Our findings remain robust even when we address several potential identification issues, such as entry and exit, negative weights, and using multiple alternative measures of the crisis. In addition, we use a similar specification (DID) to examine the extensive margin and find that base-area couriers were less likely to report to work than non-base couriers during lockdowns:

the disparity is wider by roughly half a day per week.

What mechanisms underlie the differential responses during the crisis, despite the absence of any differences in the behaviors of the two groups prior to and after the crisis? To complement the dataset from the logistics company, we surveyed 2,800 couriers employed by the same company to gather information about their beliefs, values, economic circumstances, and pandemic-related experiences. We explore likely channels through which their hometown backgrounds exert influence during a crisis. These channels include economic characteristics, geographic attributes associated with their hometowns, and a range of cultural traits. Additionally, we examine factors that could potentially contribute to observed behavioral differences. These factors include couriers' information sources, experiences in the local working environment, and social interactions. Figure 1 summarizes the main categories of channels examined.

It is plausible that the hometown effect may be linked to the economic and geographic characteristics of couriers' hometowns, even though most of the couriers in our sample are migrant workers. For example, couriers who were raised in economically underdeveloped regions (such as poverty-stricken counties) or specific geographic settings (such as inland or mountainous areas) might have developed distinct cognitive patterns for evaluating and managing risks. These patterns could be activated to influence their decisions when confronted with heightened risks.

We employ a horserace strategy to examine this conjecture: we introduce an interaction term between the economic or geographic attributes of an individual courier's hometown and their lockdown experience into our baseline estimations.[1] The hometown effect consistently maintains its significance and similar magnitude across all horserace tests, while the impact of multiple economic and geographic characteristics is minimal and statistically insignificant. Therefore, the economic and geographic characteristics of courier hometowns are unlikely to serve as the key mechanism.

Next, we turn to the expression of cultural traits such as trust and altruism among couriers during crises. Section 3 and Appendix A.2 provide evidence suggesting that individuals from former Soviet base regions exhibit a lower level of trust in the local government compared to those from non-base areas. However, we observe no significant differences in trust in the central government or the general population. Given that trust in the local government is closely associated with confidence in its capacity to effectively manage the pandemic and the credibility of information disseminated by the local authorities, a lack of trust in the local government could elevate risk per-

---

[1]If a particular attribute can account for a portion of the observed behavioral disparity, we would anticipate a reduction in the magnitude of the hometown effect if the regression controls for an interaction term between the attribute and lockdown experience.
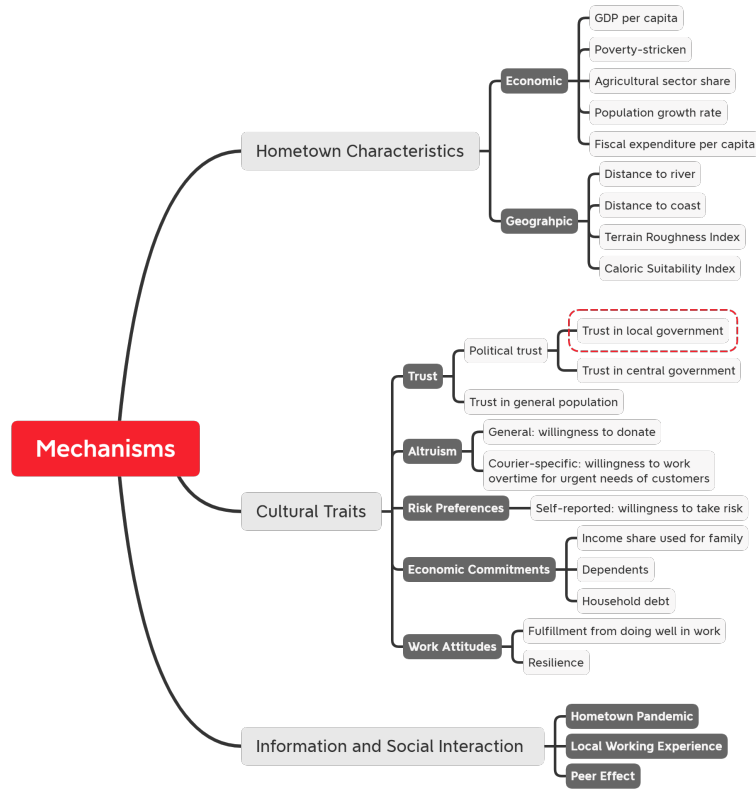
Figure 1. *Summary of Examined Mechanisms. Examined hometown features include GDP per capita, county poverty status, agricultural sector share, population growth rate, fiscal expenditure per capita, as well as geographic aspects such as distance to river, coast, terrain roughness, and agricultural suitability. The cultural traits include trust, altruism, risk preference, economic commitments, and work attitudes. In the realm of information and social interaction, we explore the effects of hometown pandemic, local work experience, and peer influence. While various factors could affect labor supply decisions, we find that trust in the local government (red dashed circle) contributes to the behavioral differences between couriers from former Soviet base and non-base regions.*

ceptions among couriers and suppress their labor supply.

To quantify the impact of this channel, we create trust indexes at the regional level using data from the 2010 Chinese General Social Survey (CGSS). These indexes are then assigned to individual couriers in our sample based on their hometown. On the one hand, our approach has the advantage of creating trust indexes independently of hometown identity (i.e., base area vs. non-base area). On the other hand, the indexes only reflect variations in trust across courier home prefectures. This measurement approach could contain errors and noise, such as idiosyncratic characteristics of couriers deviating from the hometown average and the influence of their working environment. These factors might introduce a downward bias in our estimation.

Employing a similar horserace strategy, which involves introducing interactions between each courier's individual level of trust and their lockdown experience, we

find that the coefficient on the interaction of trust in the local government and lock-down is positive and statistically significant. This implies that couriers who exhibit more distrust in the local government delivered less packages during lockdowns compared to those with higher levels of trust.

Furthermore, we observe a significant reduction of approximately one-third in the hometown effect magnitude. This suggests that this portion can be attributed to trust in the local government. In addition, our event-study model demonstrates that the impact of trust in the local government was activated during the lockdowns but not before. Trust in the central government and the general population was not activated during this time.

How did the activated (dis)trust shape couriers' decisions? We hypothesize that the activated trust in the local government affected their perceived risk level during the lockdowns, driven by their confidence (or lack thereof) in the local government's capabilities and credibility. To determine whether this is the case, we use our survey data to examine the correlation between couriers' trust in local government and their perceived risk during the initial period of pandemic. We find that couriers from areas with a low level of trust in the local government tend to report higher levels of perceived risk, but did not disclose significantly more cases of COVID-19 infections among their acquaintances. This increased risk perception is correlated with fewer deliveries during lockdowns.

We explore three additional factors that are potentially linked to how trust in the local government affects couriers' labor supply. First, we observe that lower trust in the local government is correlated with a heightened reliance on alternative information sources in decision-making, such as the pandemic situation in couriers' hometowns. We not only observe a greater decrease in labor supply among couriers whose hometowns experienced more severe pandemic conditions concurrently during the lockdown period, but the effect is even more pronounced for couriers who came from regions with low trust in government. Second, our findings indicate that couriers' experience in the working city prior to the crisis indeed helps reduce panic but does not mitigate the effect of trust in the local government. Finally, we find little evidence to support peer effects, specifically whether the social networks of migrants from the same hometowns alleviate or exacerbate their reaction to the crisis.

The causal relationships between political conflicts, violence, and the erosion of social capital, including trust, have been explored in multiple contexts and therefore are not our focus in this paper. Yet, section 5.4 (and Appendix A.6) employs an instrumental variable (IV) approach to present supplementary evidence that the early Soviet experiences contributed to the diminished levels of political trust.

Since it is plausible that cultural traits beyond political trust could have also contributed to the hometown effects we observe, we evaluate our survey data related to couriers' beliefs, values, and economic situations to determine whether this is the case. We find that couriers from former Soviet base areas exhibit lower levels of altruism and economic commitment compared to their counterparts from non-base areas, but neither of these factors could account for the hometown effects we identify. We detect no significant differences in risk preferences or work attitudes, including resilience and fulfillment, between the two groups.

Our study contributes to several strands of literature in economics. Existing studies on crises extensively document their long-term impacts across various domains, such as health, education, migration, and preferences (Almond 2006; Almond, Edlund, and Palme 2009; Malmendier and Nagel 2011; Boustan, Kahn, and Rhode 2012). However, there is a scarcity of research examining individuals' responses *during* crises. One reason for this is the lack of data. Due to the infrequency and sudden onset of crises, it is challenging to observe and record individuals' behavioral changes in such circumstances. Our study fills this gap in the literature by analyzing a unique dataset: the daily work records of couriers during the 2020 pandemic outbreak.

Our findings deepen the understanding of how crises influence behavior. A number of scientific studies have revealed that uncertain environments can significantly impact human cognition, mental health, and subsequently influence human behavior (De Kloet, Joëls, and Holsboer 2005; Lupien et al. 2007; Porcelli and Delgado 2009). We show that crises can act as catalysts, activating the influence of one's cultural traits.[2]

This paper thus contributes to the literature on the expression of cultural traits. Recent research in this area has established the *contingent effects* that the impacts of historical events can remain dormant for long periods of time and they emerge to wield influence only under specific circumstances.[3] For instance, Cantoni, Hagemeister, and Westcott (2020) discover that the recent rise of populism in Germany was activated by the ideological shift of the Alternative for Germany (AfD, Alternative für Deutschland) Party, which provided a platform for expressing entrenched right-wing tendencies. Fouka and Voth (2022) demonstrate that the traumatic collective memories of

---

[2]Our findings suggest that political trust plays a role in shaping individuals' subjective perceptions of risk in such environments, which aligns with previous studies in other fields, such as Bronfman et al. (2016) and Han et al. (2017), who demonstrate that trust in authority correlates with the subjective risk perception during natural disasters.

[3]Prior studies have documented that significant historical events can have enduring impacts on societies by reshaping the course of economic development (Acemoglu, Hassan, and Robinson 2011 and Dell 2010) and altering cultural traits (Nunn and Wantchekon 2011). Numerous studies have documented the lasting impacts of culture for economic growth and choice of institution, such as Putnam (1993), Tabellini (2010), Algan and Cahuc (2010), Nunn and Wantchekon (2011), Voigtländer and Voth (2012), Algan et al. (2017), Dell, Lane, and Querubin (2018), and Lowes and Montero (2021a); also see the survey by Guiso, Sapienza, and Zingales (2006).

the German troops' massacres during World War II were triggered by and resurfaced during the 2009 Greek debt crisis. Consequently, German car sales notably declined in Greece, especially in regions heavily affected by German reprisals. A number of other studies have underscored the role of political context in activating cultural influences.[4]

While our work enriches this literature by establishing that variations in political trust may exist in a latent state and influence decisions when activated, we also offer three new contributions. First, we establish that within our context, heightened uncertainty can trigger the activation of cultural traits. Second, our findings highlight the contextual nature of history activation. While both political trust and altruism can be equally important, the context determines which trait becomes activated. Third, our work presents evidence of how cultural traits are activated and manifest themselves at the individual level, in contrast to most previous studies that exploit variations at the regional level. This enables us to closely examine how cultural traits influence individual behavior in high-stakes scenarios and investigate the underlying mechanisms.

Our study emphasizes the importance of distinguishing between different forms of trust. We demonstrate that political trust, rather than trust in general, plays a significant role in our context. Furthermore, we find that trust in the local – rather than central – government is what matters in this setting. This novel evidence advances the emerging literature on political trust. While Acemoglu et al. (2020) and Khan et al. (2021) explore the *sources* of political trust, a number of studies focus on its *consequences*, particularly during the COVID-19 crisis, such as policy compliance (Bargain and Aminjonov 2020), health behaviors (Han et al. 2023), and vaccine acceptance (Lazarus et al. 2021 and Trent et al. 2022).[5] We highlight how political trust shaped individuals' subjective perceptions of risk and affected how they utilize different information sources during crises.

Finally, our study contributes to the literature on communist regimes (e.g., Alesina and Fuchs-Schündeln 2007, Bai and Zhou 2019, Chen and Kung 2022, Fang et al. 2023 and Francois, Trebbi, and Xiao 2023). The establishment of the Chinese Soviet regime was one of the most significant events in 20th-century Chinese history. However, the operation of the regime itself and its long-term influence have been understudied.

---

[4]For example, Ochsner and Roesel (2017) find that East Austrian municipalities pillaged by Turkish troops during the sieges of Vienna exhibited significantly higher levels of support for right-wing parties during the 2005 right-wing populists' campaign. Rozenas and Zhukov (2019) discover that mass repression's influence on political loyalty depends on the contemporary political opportunity structure. Communities affected by Stalin's "terror by hunger" exhibited higher loyalty to Moscow when the regime could effectively retaliate, but displayed greater opposition during periods of reduced threat of retribution.

[5]Our study in the context of the COVID-19 pandemic is broadly related to recent works that study whether civic capital exerts a significant influence on people's behavior during the pandemic (Alfaro et al. 2022, Barrios et al. 2021 and Durante, Guiso, and Gulino 2021). Our study showcases the context-dependent nature of social capital on economic decisions.

2.   Data and Surveys

2.1.   The Logistics Company, Couriers, and Performance Data

The research department of a leading logistics company in China gave us access to a dataset of courier performance records. The company, listed on the Nasdaq, was once valued at more than 100 billion USD. It has over 200,000 couriers working in more than 5,000 express delivery outlets across 31 provinces. Each outlet delivers packages to a specific area of the city. Each courier is randomly assigned to deliver in a non-overlapping subdistrict within the area. The subdistricts are carefully divided to ensure balanced workloads among the couriers.[6] Couriers are assigned to a subdistrict on their first day of work. This assignment will not change unless a formal request is filed by the outlet director and is approved by higher-level management.

The company does not set a daily performance quota. Couriers enjoy considerable freedom to arrange their own working schedules, as long as they fulfill the delivery tasks for the subdistricts for which they are responsible. At times, couriers may report to the outlet director that they cannot deliver the assigned packages in a timely manner, mostly due to unexpected difficulties (e.g. extreme weather or traffic incidents) or a sudden surge in demand (e.g. during shopping festivals). In response, the director will reassign some of his or her tasks to other couriers who have the capacity to handle extra packages. A similar rearrangement of tasks occurs when couriers take leave.

All couriers are piece-rate workers; the company did not adjust its rate in 2020. Couriers' income depends solely on their delivery volume; they are all provided with the same set of standard benefits (e.g. medical insurance) specified by the labor law. During the pandemic, the company distributed free medical supplies at outlets including face masks and hand sanitizer, but offered no monetary subsidies. All couriers are at the same rank and lack a clear career advancement path.[7]

The dataset contains more than 4 million daily performance records from January 2018 to December 2020, i.e., daily delivery volumes at the courier level. Given it covers the period before the COVID-19 crisis and the whole year of 2020, it allows us to explore couriers' labor supply decisions before, during, and after the crisis.

The company constructed this sample using a two-stage sampling strategy. First, 1,000 delivery outlets were randomly selected from all of the company's operating outlets in mainland China. Thus cities with more outlets were more likely to be included. Second, current workers were randomly drawn from each outlet. The number

---

[6]Subdistricts were adjusted several times in the earlier years, but have remained the same since 2013.

[7]The company usually appoints outlet directors and rarely promotes couriers to directors. Outlet directors earn a fixed wage, which is usually less than that of high-performing couriers.

of workers drawn from each outlet is proportional to the size of the outlet. The company only sampled its current employees in their current outlets. This strategy yielded a random sample of 10,000 workers. Accordingly, their performance records and personal characteristics are extracted.

Our sample contains workers who were couriers during the entire data period. We exclude supporting and managerial staff and couriers who became managerial staff before the end of 2020. Our final sample contains 7,995 couriers in 946 delivery outlets, which are distributed across 217 cities in 26 provinces. On average, there were 1.4 outlets in each county, 4.4 outlets in each city, 8 couriers in each outlet, and 37 couriers in each city. We restrict the study period to January 2019 to December 2020. A courier's labor supply is measured as the number of packages delivered per day. When couriers are on leave or take holidays, the delivery volumes are coded as missing.

The dataset also provides couriers' personal characteristics, including their birth year, gender, education, marital status, and the first six digits of their ID card number, which we use to locate their hometowns (these numbers correspond to the couriers' county of residence when they registered for an identity card, typically their hometown). We collect information on the demographic and economic characteristics on their hometowns, such as GDP per capita, the share of the agricultural sector in local output, population growth rate and local fiscal expenditure per capita from city and county yearbooks. We further gather information on whether the county is poverty stricken from the publications of the national poverty alleviation office. We also collect geographic features of courier hometowns, including altitude (SRTM30+ Global 1-km Digital Elevation Model, DEM), terrain ruggedness index (calculated from DEM), caloric suitability index (Galor and Özak 2016), distance to the coast, and distance to the nearest river (global self-consistent, hierarchical, high-resolution shoreline database).

To identify the former Soviet base areas, we use the official list of Counties for the Protection and Utilization of Revolutionary Cultural Relics issued by the National Cultural Heritage Administration. There were a total of 13 recognized Soviet base areas during the First Civil War (1927–1937), consisting of 501 counties across 15 provinces.

The couriers in our sample originate from 1,840 counties across 29 provinces; 397 (21 percent) of these counties are classified as Soviet base areas. Couriers who grew up in former Soviet base areas are labeled *base-area couriers* (roughly 20 percent of our sample) and the rest as *non-base couriers*. Close to 90 percent of couriers in our sample are migrant workers who have relocated from their hometowns for work.

9

2.2. Lockdowns and Panics During the Pandemic (2020): Background and Data

Crisis and lockdown. The COVID-19 pandemic began in China in December 2019. The disease rapidly spread to several cities, infecting a substantial number of individuals and imposing a significant threat to public health and the healthcare system. In response to this escalating crisis, the Chinese government implemented a series of stringent measures, the most notable of which was locking down the city of Wuhan on January 23. A total of 23 cities were locked down between January 23 and February 7. In lockdown cities, residents were allowed to leave their homes only for essential purposes such as purchasing necessities or seeking medical treatment. Households were typically permitted to leave a maximum of once a week. The majority of economic activities halted. Only a few industries, including the logistics industry, were granted permission to operate.

Rumors and panic. During the initial stage of the pandemic, there was a significant lack of knowledge regarding the characteristics of the virus. Uncertainty about the situation contributed to the proliferation of rumors and induced panic among the public. Individuals relied heavily on briefs and data published by the local health commissions. However, due to the government's initial attempts to cover up the severity of the pandemic, there was considerable skepticism regarding the accuracy and transparency of the reported numbers. Many individuals distrusted their local government and were inclined to believe the pandemic was more severe than officially stated. There were widespread concerns regarding the contagiousness and severity of the disease, accompanied by apprehensions surrounding the healthcare system's capacity to provide adequate treatment to those infected.

Lockdown data. We treat a city as having entered a crisis mode when a lockdown was in place. Appendix Table A1 lists the 27 cities that experienced lockdowns in 2020, which we refer to as *lockdown cities*; the rest are *non-lockdown cities*.[8] Most lockdowns started between late January and early February 2020 in Hubei Province, after the initial outbreak prompted the Wuhan lockdown. By April 2020, this phase of the pandemic had been effectively controlled. In the rest of the year, only a few cities were locked down to contain sporadic local outbreaks. No city experienced more than one lockdown in 2020. The average length of lockdowns in 2020 was 46.6 days.

We then merged the list of lockdown cities with the location of delivery outlets in our sample. In the resulting sample, 18 cities were locked down and 728 of the 7,995

---

[8]We refer to Chen et al. (2022) for this list and for the start and end dates of each lockdown. Chen et al. (2022) manually collected the names of lockdown cities and start dates from local government announcements. Where the end dates were not openly announced, they assume the lockdown ended 7 days before the "clearance" day (the first day when no new cases were recorded for the previous 14 days).

couriers experienced a lockdown in 2020. To complement our investigation, we also collected the daily number of COVID cases in each city released by the Chinese Center for Disease Control and Prevention.

2.3. Summary Statistics and Balancing Tests

Appendix Table A2 presents the summary statistics for couriers' characteristics. Most couriers were in their thirties in 2020. Around 40 percent have a high school education, and 70 percent were married at the time of the survey. Around 20 percent of the couriers in the sample come from Soviet base areas. While the economic development of the couriers' hometowns varies, most come from underdeveloped areas. Over 75 percent of the couriers are from counties with a GDP per capita below the national average and an agricultural sector share above the national average.

We conduct a number of tests to establish that lockdown decisions were orthogonal to the characteristics and distribution of base vs. non-base couriers (Figure 2 displays the results). We first test whether couriers who worked in lockdown vs. non-lockdown cities had different characteristics. The balance test effects are presented as standardized z-score indices with 95 percent confidence intervals. This first set of tests investigates whether non-base couriers who worked in lockdown and non-lockdown cities exhibit similar characteristics, such as birth year, education level, marital status, and hometown development level. The magnitudes of differences in these characteristics are very small and insignificant. The second set of tests examines characteristics of base couriers in lockdown vs. non-lockdown cities and obtains similar results.

Furthermore, we test whether base and non-base couriers have different characteristics within each city type (i.e., lockdown or non-lockdown). The third (fourth) set of tests shown in Figure 2 examines whether base and non-base couriers in non-lockdown (lockdown) cities have systematically different demographic characteristics. All the differences are small and insignificant.

Finally, we test whether base and non-base couriers are equally likely to work in cities that experienced a lockdown in 2020. Using the 7,995 couriers in our sample, we find that 8.96 percent of non-base couriers, and 9.63 percent of base couriers, worked in lockdown cities (see Appendix Figure A1). The cross-group difference is very small and insignificant (i.e., 0.0067, p-value = 0.652), suggesting that there are no apparent selection patterns that either base or non-base couriers are more likely to work in lockdown cities. Combined, these results suggest that neither courier distribution nor characteristics is correlated with municipalities' lockdown decisions .

11
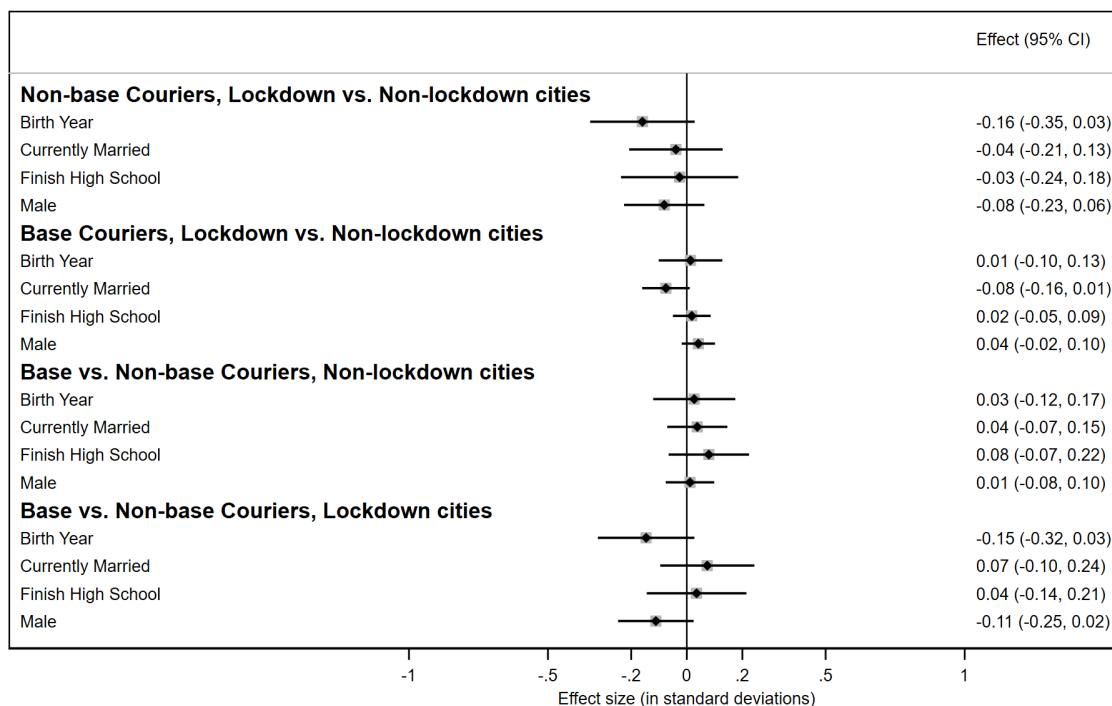
Figure 2. *Balance Tests. This figure presents the results of balance tests on couriers' demographic backgrounds. The first (second) set of tests examines whether non-base (base) couriers working in lockdown and non-lockdown cities have similar demographic characteristics. The third (fourth) set of tests depicts the differences in demographic characteristics between base and non-base couriers in non-lockdown (lockdown) cities. The tested characteristics include the couriers' gender, birth year, education, and marital status. All effects are presented as standardized z-score indices with 95 percent confidence intervals. Standard errors clustered at courier home city level.*

2.4. Large-scale Survey of Couriers

Identifying which cultural attributes influence the behavior of couriers from former Soviet regions requires data on couriers' cultural traits. Since such traits are not directly observable in the main dataset, we conducted a large-scale survey in collaboration with the same logistics company as part of its regular internal surveys. The couriers were accustomed to receiving and responding to such internal surveys, and could earn tokens to redeem on a leading Chinese online shopping platform.

As we were unable to reach the couriers in our main sample, we focused on a group of couriers whose experiences closely resemble those in our sample. Surveying this group allowed us to create various hometown-level indexes and apply them to the couriers in our main sample.

We used two criteria to select this second group of couriers (n = 2,800). First, they must work in one of the 17 lockdown cities (including 52 counties) from our main

12

sample.[9] Second, they must have been employed before 2020 to ensure they were working for the company during the pandemic. Based on our criteria, the company helped distribute a total of 2,800 questionnaires. We received 2,542 valid responses, most of which were completed within 24 hours.

This survey included an array of measurements to capture various values and beliefs. For example, we include measures of risk preferences to evaluate couriers' attitudes towards risk. We also inquire about their risk evaluations and perceptions of different aspects at the onset of the pandemic. Furthermore, our survey encompasses gauges of pro-society values, such as altruism, along with characteristics that could affect the labor supply, such as economic commitments and work ethics. The company provides courier demographics including age, gender, educational attainment, and hometown (identified using the first six digits of their courier ID number). Appendix Table A3 describes the courier characteristics in the survey data and demonstrates that couriers in both samples have comparable demographic characteristics.

The survey contained a measure of trust in the general population, but we were not permitted to include any measures of trust in institutions due to the company's self-censorship. We therefore refer to the Chinese General Social Survey (CGSS), which is the primary data resource for China studies and the only large-scale survey project that openly shares data in mainland China.[10] We use data from the 2010 wave – the only one that contained questions on individuals' trust in institutions (e.g. local governments, the central government, local media, and public security bureaus) because of their sensitive nature.

3. Background: Early Experiences of Soviet Regimes and Legacies

3.1. Early Soviet Experiences

Before the CCP rose to power in 1949, China was a divided nation, especially during the first civil war between the CCP and the KMT. At that time, the KMT-led Republic of China governed the majority of the country, while the CCP established the Soviet Republic of China, which controlled fragmented and isolated Soviet base areas in rural China (see Figure 3). These Soviets represented the CCP's initial attempt to create a government and served as an experimental field for communist ideology. The institutions and policies implemented in the Soviets were markedly different from those in other parts of China: the Constitution of the Soviet Republic of China declared it a

---

[9]We do not cover counties with fewer than five couriers in our main sample.

[10]The CGSS, launched in 2003, is a nationally representative continuous survey project. Multiple waves of fieldwork was conducted from 2010 to 2019, with data released for 2010, 2011, 2012, 2013, 2015, 2017, and 2018. As of December 2014, there were more than 20,000 registered CGSS data users, and over 700 academic articles have been published based on CGSS data.

Figure 3. Distribution of Former Soviet Regions. Areas shaded red represent revolutionary base areas; darker shades indicate earlier CCP occupation. Map data is acquired from the Atlas for the Hundred-Year History of the CCP. There are a total of 13 Soviet regions. The Jinggangshan (①), Hailufeng(②), Qiongya (③), and Shaan-Gan (④) regions were established in 1927. The Xiang-E-Gan (⑤) and Min-Zhe-Gan (⑥) regions were established in 1928. The Zuoyoujiang (⑦), Xiang-Exi (⑧), E-Yu-Wan (⑨) and Xiang-Gan (⑩) regions were established in 1930. The Central Soviet region (⑪) was established in 1931, the Chuan-Shaan (⑫) Soviet region was established in 1933, and the Xiang-E-Chuan-Qian (⑬) region was established in 1934.

"democratic dictatorship of the proletariat and the peasantry" (pp86, Saich 2021).

Nearly one century later, those regions continue to exhibit two distinct sets of features compared to the rest of China. First, contrast to its historical preeminence as the cradle of Chinese communist revolution, the contemporary economic performance of the former Soviet regions lags behind. Till 2018, while the population in the former Soviet regions account for approximately 20 percent of the national population, the total GDP in those regions combined only accounts for 13 percent of the national GDP. Per capita GDP in base regions is 9.5 percent lower than in non-base regions, while fiscal expenditure per capita is 14.3 percent lower compared to non-base regions. Counties in former Soviet regions are also 11 percent more likely to be poverty stricken.

Contrary to prevailing perceptions and portrayals in political propaganda, the base regions exhibit lower levels of social capital and trust in the local government and its affiliated institutions. However, this lack of trust in the government does not extend to the central government or the general public (or strangers). Additionally, individuals from these Soviet base regions exhibit distinctly lower levels of altruism, even though their work ethics are comparable to those from other regions. Appendix A.2 describes the details of the empirical analysis.

What factors are responsible for the poor economic performance and lower social

14

capital of the former Soviet areas? Historical studies suggest that the prevalence of extreme political violence and a high degree of political instability during the CCP occupations were likely contributors. On the one hand, the early Soviet experiences were marked by persistent conflicts and political upheaval. Within the Soviets, the violent implementation of radical policies and political movements strained relations between the CCP and local communities.[11]

On the other hand, ongoing fights for control between the CCP and KMT led to massive casualties in the Soviet areas. In the early expansion phase, the CCP's strategy involved instigating uprisings among disadvantaged peasants in KMT-controlled regions. These uprisings often resulted in uncontrollable violence: local residents would unleash fierce reprisals against the CCP and Soviet areas. As the CCP's power grew, the KMT's Chiang Kai-shek launched five suppression campaigns against the Soviet bases starting in 1930, which eventually led to the CCP's retreat and the start of the Long March. The brutal KMT occupation led to the burning of villages, massacres of perceived CCP sympathizers, and the sale of women and children. While China's overall population grew slightly during this period, the Soviet regions experienced a sharp drop in inhabitants during the CCP occupation and subsequent KMT reprisals.[12]

Previous studies have shown that political trauma, violence, and conflicts can dismantle social capital (e.g., Dell 2012, Rohner, Thoenig, and Zilibotti 2013, Besley and Reynal-Querol 2014, Lupu and Peisakhin 2017, and Couttenier et al. 2019), cause political distrust (e.g. Lowes and Montero 2021b), and obstruct economic development (e.g. Blattman and Miguel 2010 and Trebbi and Weese 2019). Appendix A.6 provides further evidence that such early Soviet experiences led to an erosion of trust in local authorities.

---

[11]For instance, redistributing land from wealthy landlords to the poor initially garnered local support, but subsequent policies took such radical and violent turns that they inadvertently alienated the local population. The land investigation campaign (*Chatian Yundong*) was designed to uncover "landlords and wealthy peasants disguised as poor and middle peasants" (Huang 2003, Huang 2005, Huang 2011). During the course of the investigation, local officials – driven by political pressure to meet performance targets – labeled numerous poor and middle peasants as class enemies, leading to the seizure of their land and brutal assaults on them and their families. Peasants fled to the mountains or regions controlled by the KMT. The intolerable violence and terror drove some individuals to commit suicide.

[12]For central counties in the Soviet regions, the post-Soviet population was only 60 percent of the pre-Soviet population; the losses were disproportionately concentrated among young adults. Soviet base areas in Jiangxi Province experienced a 23 percent decrease in population during the CCP occupation; by 1935, when the KMT regained control, the proportion of young adults in Jiangxi Province's Soviet regions had dwindled to less than 20 percent, and an even lower level in central Soviet counties. The population density of Soviet areas in Fujian Province decreased from 82 people per square kilometer in 1928 to 56 people in 1936.

(a) Before Lockdown   **(b)** During Lockdown   **(c)** After Lockdown
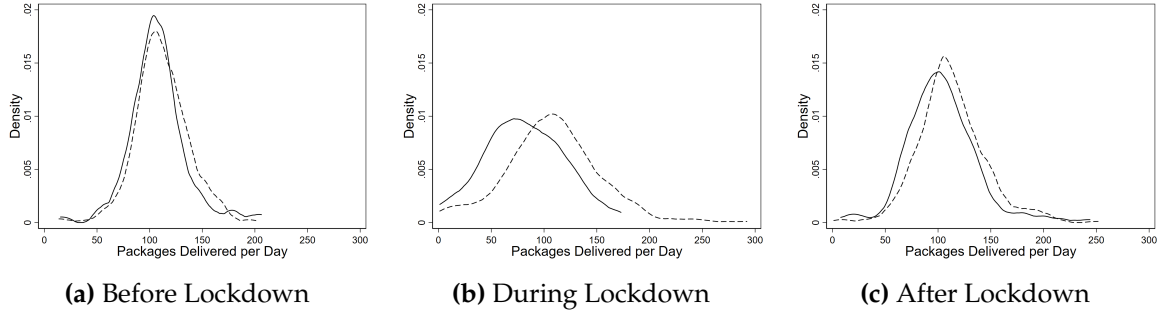
Figure 4. *Delivery Volume Distribution. The figures illustrate the distribution of mean delivery volumes for base (solid lines) and non-base (dashed lines) couriers in lockdown cities before, during, and after the lockdowns. The displayed delivery volumes are trimmed at the 97.5th percentile.*

3.2. Basic Patterns of Couriers' Performance During Crises

Do these historical backgrounds indeed influence individual behaviors during crises? Specifically, did the behavior of couriers from base vs. non-base areas differ during the pandemic? Figure 4 compares their delivery volumes in lockdown cities before, during, and after the lockdowns. Before the lockdowns, the difference was negligible (Figure 4a). Both distributions become less compressed during the lockdowns, but for base-area couriers it shifts to the left much more than for non-base-area couriers, suggesting that the former reduced their delivery volumes more than the latter (Figure 4b). The pattern after lockdowns (Figure 4c) resembles pre-lockdown levels. In the following section, we empirically test these intriguing behavioral differences using a DID research design.

4. Behavioral Differences During the Crisis

4.1. Empirical Strategy

In this section we investigate whether couriers from base vs. non-base areas behaved differently during the COVID-19 pandemic crisis.

Baseline specifications. Since our data is recorded at the courier-day level, we can separate the effects at the intensive vs. extensive margin. We first focus on the former, which pertain to the labor supply adjustment decisions when couriers reported for work. We utilize a generalized DID strategy to compare how couriers from base vs. non-base areas reacted to city lockdowns. We specify the following courier-day-level estimation:

$$\text{Delivery}_{it} = \beta_0 + \beta \text{Base-Home}_i \times \text{LD}_{it} + \alpha \text{LD}_{it} + \gamma_i + \delta_t + \epsilon_{it}, \tag{1}$$

16

where Delivery$_{it}$ is the log delivery volume of courier i on day t. Base-Home$_i$ is a dummy variable coded 1 if courier i comes from a Soviet base area. LD$_{it}$ is a dummy variable measuring courier i's experience, which equals 1 if the city where courier i works is in lockdown on day t. We control for two sets of fixed effects: γ_i for individual fixed effects and δ_t for calendar-day fixed effects. The individual fixed effects absorb courier-level characteristics, including Base-Home$_i$. Importantly, because all the couriers in this constructed sample do not switch jobs across outlets or cities, outlet and city fixed effects are absorbed too. The day fixed effects account for the common shocks generated by the evolution of the pandemic in all cities on any given day, such as nationwide information about the pandemic. All standard errors are clustered at the outlet level.

Our main coefficient of interest β is the interaction term Base-Home$_i \times$ LD$_{it}$, which we use to evaluate whether couriers from former Soviet base areas behaved significantly differently from others during lockdowns relative to normal periods. Fixed differences across individuals cannot drive our estimated effects because we control for individual fixed effects and exploit variations across lockdown and normal periods. Similarly, we difference out changes over time by controlling for calendar-day fixed effects.

One caveat with the interpretation of the coefficient is that the characteristics of the working environment could also impact couriers' decisions on labor supply during lockdowns. For instance, the behavior of local residents who receive deliveries may differ in base and non-base areas due to their distinct cultural identities. In our sample, only 9.8 percent of delivery outlets were located in base areas. To control for this possibility, we introduce a dummy variable, Base-Work$_i$, which takes a value of 1 if the delivery outlet where courier i works is located in a Soviet base area county and include an interaction term, Base-Work$_i \times$ LD$_{it}$, in our regression.

To capture any differential effects from courier demographics due to the heightened risks, we also include interactions of couriers' demographic characteristics (gender, birth year, whether finished high school, whether married, and migrant status) with the lockdown dummy. We estimate the following specification:

$$\text{Delivery}_{it} = \beta_0 + \beta \text{Base-Home}_i \times \text{LD}_{it}$$
$$+ \beta_W \text{Base-Work}_i \times \text{LD}_{it} + \beta_D \text{Demographics}_i \times \text{LD}_{it} + \alpha \text{LD}_{it} + \gamma_i + \delta_t + \epsilon_{it}.$$
$$(2)$$

We estimate Equation (2) using the full sample, including couriers working in both lockdown and non-lockdown cities. We also provide estimates using a subsample of couriers working in lockdown cities. Since city-level lockdown decisions were uncor-

related with the distribution of couriers' backgrounds, couriers in non-lockdown cities should exhibit labor supply behaviors similar to those in lockdown cities during normal times. Thus, we expect the estimated effects obtained from both specifications to have similar magnitudes. We should stress that this specification only captures effects at the intensive margin, if any.

Our dataset has a major advantage: around 85 percent of the couriers in the sample are migrant workers who left their hometowns to work in their current cities of residence. Therefore, we construct a subsample of migrant workers and outlets located in non-base areas, which allows us to separate the impacts of hometown identity from those of the current working environment.

We are also interested in whether couriers' delivery volumes reverted to their pre-pandemic levels after the lockdowns. We therefore introduce a dummy variable, Post-LD_{it}, which takes a value of 1 when the lockdown city where courier i is working has been reopened on day t. We incorporate Post-LD_{it} and its interaction term with Base-Home_i into Equation (2). Similar to Equation (2), we control for the impact of the working location environment and courier demographics by including interaction terms between Base-Work_i and Demographic_i and both LD_{it} and Post-LD_{it}.

$$
\begin{aligned}
\text{Delivery}_{it} = {} & \beta^L \text{Base-Home}_i \times \text{LD}_{it} + \beta^P \text{Base-Home}_i \times \text{Post-LD}_{it} \\
& + \beta_w^L \text{Base-Work}_i \times \text{LD}_{it} + \beta_w^P \text{Base-Work}_i \times \text{Post-LD}_{it} \\
& + \beta_D^L \text{Demographics}_i \times \text{LD}_{it} + \beta_D^P \text{Demographics}_i \times \text{Post-LD}_{it} \\
& + \alpha_1 \text{LD}_{it} + \alpha_2 \text{Post-LD}_{it} + \gamma_i + \delta_t + \epsilon_{it}.
\end{aligned}
\tag{3}
$$

The coefficient β^L captures whether couriers from former Soviet base areas behave differently from others during lockdowns, relative to the pre-lockdown period. The coefficient β^P captures whether such differences persisted after the lockdowns end.

4.2. Main Results and Consistency

We estimate Equation (1) using the full sample. Column (1) of Table 1 displays the results. The coefficient on the interaction term of courier hometown identity and lockdown is negative and significant: base-area couriers reduced their daily delivery volumes during lockdowns by 33.6 percentage points more than their non-base counterparts. After controlling for the effect of working location environment and courier demographics (i.e., Equation (2)), the effect, reported in column (2), remains significantly negative, while the magnitude shrinks to 25.6 percentage points.

We further estimate Equation (3) and present the results in column (3). The coefficient β^L on the interaction between lockdown and hometown identity remains sig-

Table 1. *Baseline Difference-in-differences Estimation*

	Dependent Variable: Log Delivery Volume							
	All Cities				Lockdown Cities			
	All Couriers			Subsample	All Couriers			Subsample
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Base-Home × LD	-0.336***	-0.256***	-0.242***	-0.264***	-0.349***	-0.240***	-0.222***	-0.241***
	(0.064)	(0.082)	(0.077)	(0.093)	(0.065)	(0.078)	(0.073)	(0.090)
Base-Home × Post-LD			0.026				0.031	
			(0.048)				(0.048)	
LD	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Base-Work × LD		Yes	Yes			Yes	Yes	
Demographics × LD		Yes	Yes	Yes		Yes	Yes	Yes
Post-LD			Yes				Yes	
Base-Work × Post-LD			Yes				Yes	
Demographics × Post-LD			Yes				Yes	
Individual FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Calendar Day FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	3,621,328	3,292,530	3,292,530	2,704,091	325,287	222,542	222,542	184,903
N-courier	7,989	7,239	7,239	5,858	728	498	498	413

Notes: This table summarizes the estimation for the baseline difference-in-differences (DID) model, which uses log daily delivery volumes as the dependent variable. Columns (1) to (4) present results using the full sample, while columns (5) to (8) present results using only couriers working in lockdown cities. All regressions control for individual and calendar day fixed effects. In columns (1) and (5), we present estimates for regressions that include only the interaction term of Base-Home and the lockdown dummy. In columns (2), (3), (6) and (7), interactions of the lockdown dummy and whether the outlet where couriers work locates in a former soviet region is included to control for the effect of working location environment. Interactions of the lockdown dummy and courier gender, birth year, education attainment and marital status are also included to control for the effect of courier demographics. Column (4) and (8) further remove all non-migrant couriers and drop all outlets located in the former Soviet base areas. Only coefficients of interest are presented. Robust standard error is shown in parentheses, clustered at the outlet level. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

nificantly negative with a similar magnitude. The coefficient β^P on the interaction between the post-lockdown dummy and hometown identity is small and insignificant, which suggests that couriers' delivery volumes returned to pre-lockdown levels after the lockdowns were lifted.

Column (4) presents the results of re-estimating Equation (2) using the subsample that excludes all outlets in base areas and all non-migrant couriers. The estimated coefficient is essentially the same as those reported in columns (2) and (3), which control for both Base-Work$_i$ × LD$_{it}$ and Demographics$_i$ × LD$_{it}$.

We also re-run our exercises on the subsample of cities that experienced lockdowns. Columns (5)–(8) present the estimates using the same specifications as columns (1)–(4), respectively. The estimated coefficients are similar in terms of significance and magnitude to those of the full sample.

Reliability of two-way fixed-effects (TWFE) estimation. Our empirical strategy relies on the consistency of TWFE regressions. However, recent research has raised concerns about this class of models, such as the negative weights problem (De Chaisemartin and d'Haultfoeuille 2020; Callaway and Sant'Anna 2021; Goodman-Bacon 2021; Sun and Abraham 2021; De Chaisemartin and d'Haultfoeuille 2022).[13]

---

[13]The coefficient on the main effect β in TWFE models estimates the weighted sums of average treat-

The variation in the timing of lockdowns across cities in our study is limited: most occurred between January 23 (Wuhan) and February 7 (Harbin); only two cities, Jilin (Jilin Province) and Baoding (Hebei Province), experienced lockdowns in the second quarter of 2020 (May 13 and June 18, respectively). Our setting thus more closely resembles a standard DID scenario with uniform treatment timing, which mitigates concerns related to the negative weights problem.

Nevertheless, we assess the potential that "bad controls" are biasing our estimation using the method developed by De Chaisemartin and d'Haultfoeuille (2020) to calculate the proportion of negative weights. If all weights are positive or only a small fraction of weights is negative, this identification worry is less concerning. In our baseline estimation using the full sample, all weights are strictly positive, and the minimum standard deviation of ATE is 1.73. This indicates that the presence of negative weights is unlikely to introduce bias into our estimates. For the subsample of lockdown cities, only 0.3 percent (23 out of 6,171) of the weights are strictly negative.

Although this tiny fraction of negative weights is unlikely to be driving our findings, we further address this issue by estimating Equation (2) using the subsample of first-wave lockdown cities (i.e. excluding Jilin and Baoding), which effectively reduces the treatment timing heterogeneity and the likelihood of using already-treated groups as "bad controls." Consistent with this conjecture, we find that 100 percent of the weights estimated from this subsample are strictly positive (columns (1) and (6) of Table A8). The significance and magnitude of the relevant coefficient are very similar to our benchmark estimation (columns (2) and (6) of Table 1).

4.3. Event Study

One crucial assumption underlying the DID strategy is that couriers from base areas would have followed a trend parallel to that of non-base couriers if the lockdowns had not occurred. We employ the following event-study model to test whether this parallel-trends assumption holds:

$$
\begin{aligned}
\text{Delivery}_{it} = {} & \beta_0 + \sum_{k=-16}^{8} \beta^k \text{Base-Home}_i \times \text{Week-to-LD}_{it}^k \\
& + \beta_w \text{Base-Work}_i \times \text{LD}_{it} + \beta_D \text{Demographics}_i \times \text{LD}_{it} \quad\quad (4) \\
& + \sum_{k=-16}^{8} \alpha^k \text{Week-to-LD}_{it}^k + \gamma_i + \delta_t + \varepsilon_{it},
\end{aligned}
$$

ment effects for all possible 2 × 2 DID comparisons between each treated group unit and each treated period. If treatment effects vary across groups or over time, the TWFE estimator will not provide consistent estimates for the average treatment effects (ATEs).

where Week-to-LD$_{it}^k$ ($k = -16, ...8$) are dummy variables for the k-th week relative to the start of the lockdown in courier i's working city on day t. The value $k = 0$ indicates that day t was in the week when the lockdown was imposed; $k = -16$ represents the 16th week before the lockdown and all preceding weeks. Conversely, the value $k = 8$ represents the 8th week after the lockdown and all subsequent weeks. We treat the week before the lockdown ($k = -1$) as the base period. To avoid any contamination from post-lockdown periods, we exclude all observations from the analysis that fall in the post-lockdown period in cities that experienced lockdowns.

The coefficient β^k is a DID estimator that measures the change in the difference between delivery volumes for base and non-base couriers in week k relative to the difference in the week before the lockdown (i.e., $k = -1$). Figure 5a illustrates the estimated coefficients β^k, where k is the number of weeks relative to the lockdown, and their 95 percent confidence intervals. For the period prior to lockdowns (i.e., for all $k < 0$), β^k is small and statistically insignificant. This indicates that couriers with different hometown identities share a common trend before the lockdowns, and our estimated results are unlikely to be driven by differential pre-trends of delivery volumes.

The coefficients β^0 turn negative during the week the lockdowns were imposed. When k increases, the coefficients β^k become significantly negative. When k is large enough (i.e., $k \geq 6$), β^k is not significantly different from zero. This pattern is also expected: as the crisis initiates and intensifies, hometown identity will have a more pronounced influence; but as the crisis gradually comes under control, the impact of hometown identity diminishes.

Furthermore, we divide the sample into two subsamples, one for base couriers and another for non-base couriers, and estimate the treatment effects of lockdowns separately for each group. The event-study model is then effectively reduced to Equation (5). To ensure the robustness of our findings, we employ the estimator developed by Sun and Abraham (2021):

$$\text{Delivery}_{it} = \beta_0 + \sum_{k=-16}^{8} \beta^k \times \text{Week-to-LD}_{it}^k + \beta_w \text{Base-Work}_i \times \text{LD}_{it}$$
$$+ \beta_D \text{Demographics}_i \times \text{LD}_{it} + \gamma_i + \delta_t + \varepsilon_{it} \tag{5}$$

Before the lockdowns, we observe no discernible trends in delivery volumes for each group, and there are minimal differences between the two groups (Figure 5b).

In fact, when we narrow the time period before the pandemic (i.e., 2019), we detect no significant correlation between hometown identity and courier delivery outcomes (results summarized in column (1), Table A9 in Appendix 4). This confirms there were no discernible performance differences between base and non-base couriers before the

(a) Event Study   **(b)** Event Study, Robust Estimator
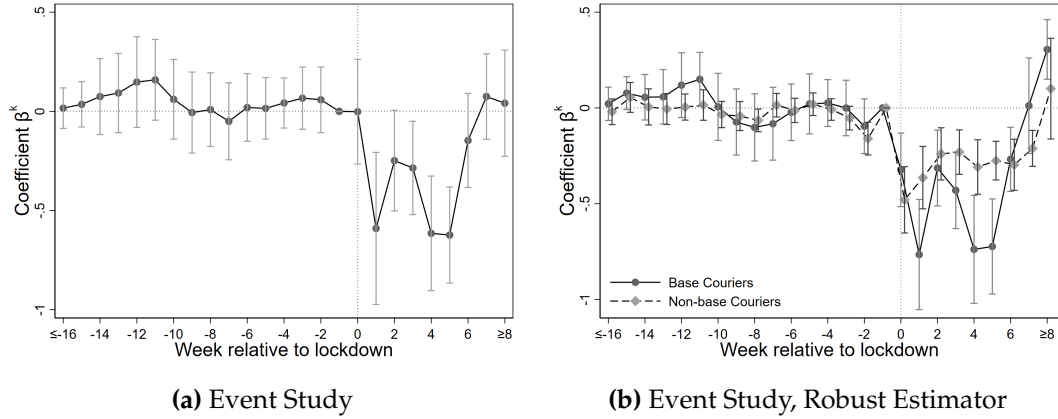
Figure 5. Event Study for Courier Delivery Volumes. Figure 5a presents the results of the event-study model, i.e., Equation (4), using the week before the lockdown as the base period.. Figure 5b plots the estimates obtained using the base and non-base courier subsamples, respectively, where the event-study model is effectively reduced to Equation (5). For Figure 5b, the robust estimator developed by Sun and Abraham (2021) is used. The dots denote the estimated coefficients and the bars 95 percent confidence intervals. Standard errors are clustered at the outlet level.

pandemic, indicating that the two groups of couriers are highly comparable. This result is even stronger than the necessary parallel-trends assumption.

4.4. Identification Issues, Robustness and Auxiliary Results

Couriers' entry and exit decisions. The pandemic may have also affected couriers' entry decisions. For instance, new couriers might have altered their preferences for working locations after witnessing the COVID-19 outbreak and government responses in lockdown cities. To address this concern, we restrict our sample to couriers hired prior to 2020 and re-estimate Equation (2). The results are presented in columns (3) and (8) of Table A8. The estimated effect remains very similar, suggesting that our estimation is not driven by selection bias.

We interviewed the company management to investigate courier exit patterns during the research period. The monthly turnover rate for couriers remained consistently low, around 2–3 percent, and declined only marginally during the pandemic.[14] Courier exits are therefore likely to have only a minimal impact on our findings.

Using neighboring counties only. Although we control for factors such as courier demographics and working location, the concern remains that non-base couriers are somehow not comparable to those from base areas. To address this issue, we further refine our sample by including only Soviet base counties and their neighboring counterparts. The average distance between two counties in China is approximately

---

[14]This slight decrease in the turnover rate is likely attributed to the reduced job market activities during the pandemic.

30 km. Therefore, we narrow our sample to encompass only Soviet base counties and counties situated within either a 30 km or 60 km radius from them. Tables A10 and A11, respectively, present the findings. Although the sample size drops by 66 and 53 percent, respectively, the effect sizes and statistical significance remain consistent.

Heterogeneity in lockdown intensities. Since the intensities of lockdowns differed across cities, we allow the effect of a lockdown to vary by the scope of the lockdown policies in our estimation. We add the interaction of lockdown intensity (i.e., full lockdown, partial lockdown, or no lockdown) with the lockdown dummy LD_{it} to Equation (2). The estimated results are presented in columns (2) and (7) of Table A8. The estimated effect changes little, suggesting that our estimation is not driven by heterogeneity in lockdown intensities.

Dropping lockdown cities one at a time. Our sample contains only 18 cities that experienced lockdowns in 2020. To ensure that our results are not driven by a single lockdown city, we re-estimate Equation (2) excluding the lockdown cities one at a time. All the estimated effects remain statistically significant and exhibit similar magnitudes to the main results (see Table A12 in Appendix A.3).

Alternative measures of crisis. We further demonstrate the robustness of our results by examining two alternative definitions of the COVID-19 crisis. First, we modify the definition of LD_{it} and set the start dates of the lockdown in each city to be the same as in Wuhan. This approach takes into account the potential effect of information spillover, as couriers might have altered their behavior after they became aware of the lockdown in Wuhan and anticipated a similar lockdown in their own cities. The coefficients remain similar to the baseline estimates (see columns (4) and (9) of Table A8). Second, we employ the number of confirmed COVID-19 cases as an alternative measure of the risk of infection. We replace LD_{it} in Equation (2) with $LogCase_{it}$, which represents the logarithm of the number of confirmed COVID-19 cases in the city where courier i works on day t. The results are displayed in columns (5) and (10) of Table A8. The coefficient remains significantly negative, which indicates that base couriers delivered significantly fewer packages than non-base couriers when the local risk of infection was more severe. For every 1 percent increase in the number of confirmed COVID-19 cases, the performance gap between base and non-base couriers widens by 1.8 percentage points.

Extensive margin. The previous analysis identifies the effect of hometown identity on courier labor supply at the intensive margin (i.e., daily delivery volumes). Here we explore the impact at the extensive margin using two measures of couriers' attendance: (1) a daily attendance dummy (coded 1 if courier i comes to work on day t, and 0 otherwise) and (2) the number of days the courier went to work in a specific week. We

estimate Equations (2) and (3) at the courier-day level using the attendance dummy as the dependent variable. We also estimate the same set of equations at the courier-week level using the number of attendance days in a week as the dependent variable.

We observe that base-area couriers are less likely than non-base couriers to report to work during lockdowns. The gap at the extensive margin is wider during lockdowns, with a difference of approximately 10 percent or 0.6 days per week as measured by the two attendance measures (details in Appendix A.4.)

Thus far, our empirical analysis has established that the labor supply decisions of base-area and non-base couriers do not exhibit any differences in the periods leading up to and following the lockdowns; they only display divergent patterns during the lockdowns. What mechanisms could be responsible for driving the behavioral differences among couriers with different hometown identities during a crisis? In Sections 5 and 6, we investigate various plausible characteristics related to their hometowns: cultural, economic and geographic.

5. Political Trust Activation

This section investigates couriers' expression of cultural traits during the COVID pandemic crisis, with a particular focus on trust. Our data allows us to identify the types of trust that come into play during crisis scenarios (Section 5.1) and analyze how trust influences couriers' decision-making processes (Section 5.2). Section 5.3 provides evidence of how trust affects individuals' utilization of information sources during crises. Finally, using an IV strategy, we show that the lack of political trust in former Soviet regions can be attributed to early Soviet experiences (Section 5.4).

5.1. Activating Trust

Section 3 and Appendix A.2 demonstrate that individuals from former Soviet base areas exhibit less trust in the government compared to those from non-base areas, but no significant differences in trust in the central government or the general population were observed. Since trust in the local government is closely associated with confidence in its ability to effectively manage the pandemic and the reliability of the information it releases, a lack of such trust could have heightened the perceived risk of the pandemic among couriers and suppressed their labor supply. This section presents empirical evidence to support the hypothesis that (mis)trust in the local government was activated, which influenced couriers' delivery performances during the crisis.

Since we cannot directly observe or measure individual couriers' traits such as trust, we construct trust indexes for their hometowns using available survey data. We then assign trust levels to each courier based on the trust indexes of their hometown.

24

This approach has been commonly used in prior studies, including Guiso, Sapienza, and Zingales (2004) and Alesina and Giuliano (2011).

We created our trust indexes in three steps. First, we utilized data from the 2010 wave of the CGSS and regressed trust scales for the general public, local government, and central government on region-level dummies. These regressions controlled for individual and regional factors including age, gender, education, marital status, *Hukou* type, income, unemployment, CCP membership, regional GDP, agricultural sector share, and regional poverty status. We used the region fixed effects coefficients obtained from the regressions to proxy for each region's level of trust. In a second step, we standardized the fixed effects for each trust measure across regions to facilitate a comparable interpretation of the estimation results. Third, we assigned the standardized regional trust indexes to individual couriers in our sample. Using this approach, each courier whose hometown was surveyed in the CGSS survey was assigned a trust index for their region.

We constructed prefecture-level indexes of cultural traits and assigned them to couriers in the main sample based on their home prefectures. For couriers whose home prefecture does not appear in the CGSS sample, we assigned the generated index of the geographically closest prefecture to the couriers' home prefecture, if available. In the subsequent analyses, we examine alternative assignment methods as a robustness test and establish that our findings remain robust to alternative assignment methods. The approach we adopted allowed a total of 3,044 couriers in our sample to be matched, including 325 who worked in lockdown cities.[15]

Two comments are worth noting. First, the trust indexes were created independently of whether the hometowns were in a base or non-base area (i.e., they were generated without factoring in the Soviet base measure). Second, the constructed indexes only capture variations in trust across courier home prefectures. This measurement could potentially contain noises, including idiosyncratic characteristics of couriers deviating from the hometown average and the influence of their working environment (such as local trust level), which might introduce a downward bias in our estimation.

We examine the role of trust during lockdowns in three steps. First, we present estimates for Equation (2) using the merged subsample. The coefficient on the interaction term Base-Home$_i$ × LD$_{it}$ serves as a benchmark estimation. Second, we estimate the direct effect of trust without controlling for couriers' hometown identity using the

---

[15]Ideally, we would have created county-level indexes of cultural traits and assigned them to individual couriers in our sample. However, due to the limited number of couriers residing in counties covered by the CGSS survey, this would have generated an extremely small sample: only 247 couriers could be matched, 12 of whom worked in lockdown cities.

Table 2. Trust and Courier Delivery Volumes

| | Benchmark | Trust in | | | | | | |
| | | Local Government | | Central Government | | | General Population | |
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Base-Home × LD	-0.351***		-0.237**		-0.319***			-0.346***
	(0.096)		(0.098)		(0.093)			(0.097)
Local Gov × LD		0.236***	0.159***			0.226***		
		(0.051)	(0.050)			(0.072)		
Central Gov × LD				0.216**	0.160**	0.021		
				(0.086)	(0.080)	(0.109)		
Gen Pop × LD							0.052	0.016
							(0.043)	(0.037)
LD	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Base-Work × LD	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Demographics × LD	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Individual FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Calendar Day FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	1,253,440	1,253,440	1,253,440	1,253,440	1,253,440	1,253,440	1,253,440	1,253,440
N-courier	2,718	2,718	2,718	2,718	2,718	2,718	2,718	2,718

Notes: This table summarizes the results testing whether trust explains the culture effect. The regressions are conducted using the subsample of couriers who are assigned non-missing trust indexes generated from the existing CGSS survey. While 3,044 couriers are matched with the index, we use 2,718 couriers with non-missing demographics in the regression. Individual fixed effects and calendar day fixed effects are controlled in all regressions. The effects of working location environment and courier demographics are also controlled. Only coefficients of interest are presented. Robust standard errors are clustered at the outlet level. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

following regression:

$$
\begin{aligned}
\text{Delivery}_{it} = {} & \beta_0 + \beta_T \text{Trust}_i \times \text{LD}_{it} \\
& + \beta_W \text{Base-Work}_i \times \text{LD}_{it} + \beta_D \text{Demographics}_i \times \text{LD}_{it} + \alpha \text{LD}_{it} + \gamma_i + \delta_t + \varepsilon_{it},
\end{aligned}
$$

(6)

where the coefficient β_T captures the effect of varying levels of trust on couriers' labor supply decisions during lockdowns, relative to the normal times.

Finally, we conduct a horserace between hometown identity (i.e., Base-Home$_i$) and trust by including the interaction term between trust and the lockdown dummy in Equation (2). In this estimation, the coefficient β measures the impact of hometown identity on couriers' behavior after controlling for the effect of varying levels of trust across individuals during lockdowns, captured by β_T. Comparing the estimates with the results from the first two steps allows us to assess the extent to which trust influenced couriers' behavior as part of their hometown identity.

Table 2 summarizes the results. Column (1) reports the benchmark estimates using the subsample of couriers matched with the trust indexes. Compared to non-base couriers, base couriers decreased their delivery volumes by an additional 35 percentage points. The estimate is larger but still comparable to that of the full sample. Column (2) presents the direct effect of trust in the local government: a one standard

deviation increase in trust in the local government boosts the delivery volume during lockdowns by 23 percentage points.

Column (3) presents the horserace regression estimates. The coefficient on the channel of trust in the local government remains positive and significant. However, the coefficient on hometown identity decreases considerably in magnitude from 35 to 24 percentage points. This suggests that trust in the local government explains a substantial portion of the observed effect of hometown identity, i.e., about a third of the benchmark effect.

We further show that our finding is robust to the construction of the trust index. We construct alternative trust levels for the non-matched courier home prefectures by using the mean trust levels of prefectures within 100 km of the prefecture of interest. This assignment method is valid under the assumption that the trust levels of neighboring prefectures are highly correlated. Using this approach, we matched 2,795 couriers in the main sample, 311 of whom worked in lockdown cities. Table A14 summarizes the results using the alternative assignment methods, which are similar to the approach using the trust levels of the geographically closest prefectures.

To further illustrate that trust in the local government was activated *during* lockdowns but not before, we estimate the following event-study model:

$$
\text{Delivery}_{it} = \beta_0 + \sum_{k=-16}^{7} \beta_T^k \text{Trust}_i \times \text{Week-to-LD}_{it}^k + \sum_{k=-16}^{7} \alpha^k \text{Week-to-LD}_{it}^k \tag{7}
$$
$$
+ \beta_W \text{Base-Work}_i \times \text{LD}_{it} + \beta_D \text{Demographics}_i \times \text{LD}_{it} + \gamma_i + \delta_t + \varepsilon_{it},
$$

where k is the number of weeks relative to the start of lockdown and the base period is the week before the lockdown (i.e., $k = -1$). The coefficient β_T^k captures the impact of trust on delivery volumes. Figure 6 displays the estimated values of β_T^k and their corresponding 95 percent confidence intervals. For all $k < 0$, the magnitude of β_T^k is small and statistically insignificant. The dynamic effects are also intuitive: trust in the local government is initially activated following the lockdown, and influences labor supply decisions. However, its impact diminishes over time, likely because the panic period is over.

In fact, when restricting the sample period to 2019 (before the pandemic), we show that the correlation between trust in the local government and courier delivery volume is statistically and economically insignificant (results summarized in columns (2) and (4) of Table A9). This implies that trust in the local government was not activated and did not influence couriers' labor supply decisions until the lockdowns occurred.

Next, we investigate the channel of trust in the central government by estimating

27
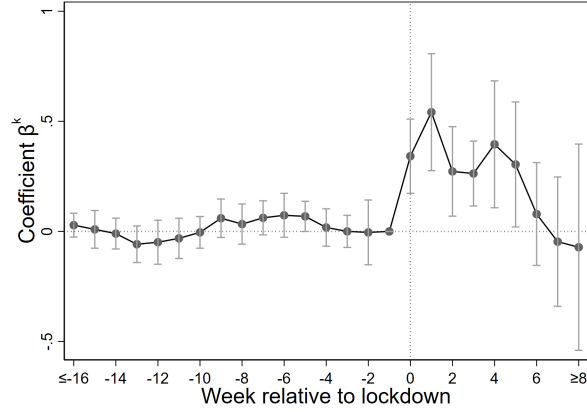
Figure 6. *Event Study for Trust in Local Government. The figure presents the results of the event study model in Equation (7), controlling for individual and calendar-day fixed effects, and the effects of working location environment and courier demographics. The dots denote the estimated coefficients and the bars represent 95 percent confidence intervals. Standard errors are clustered at the outlet level.*

Equation (6) using the constructed individual level of trust in the central government. Column (4) presents the results, which indicate that an increase in trust in the central government boosts couriers' delivery volume during lockdowns. In the horserace specification presented in column (5), the coefficient on the hometown identity remains significant with only a slight change in magnitude. However, when the interaction term between trust in the local government and lockdown is included in column (6), the effects of trust in the central government disappear, while those for trust in the local government remain significant. These results suggest that it is much less likely that trust in the central government was activated and contributed to the hometown effect, which is reasonable because local governments were responsible for managing the pandemic in each city.

Finally, we examine the channel of trust in the general population and present respective estimates in columns (7) and (8), which illustrate that trust in the general population has no significant effect on delivery volumes during lockdowns.

Overall, the findings in this section go beyond the notion that trust plays a significant role in shaping economic decision-making. It is crucial to note that it is not just any form of trust, but a particular type of trust that was activated at the individual level during a crisis – specifically, trust in the local government in this setting.

5.2. Trust Activation and Risk Perception

The results in the previous section indicate that trust in the local government was activated during lockdowns and exerted a sizable influence on couriers' labor supply decisions. This section explores how this activated trust affects couriers' decisions.

We hypothesize that trust in the local government influenced couriers' behavior by

28

altering their risk perceptions during the lockdowns. Among couriers who work in the same outlet and encounter the same level of risks, those who have greater trust in the local government are more likely to have faith in its ability to contain the pandemic. They would also place more trust in the pandemic-related information released by the government and would be less likely to panic over rumors and misinformation. As a result, couriers with more trust in the local government would perceive the risk of contracting COVID-19 to be lower than those who have less trust. Since a courier's job involves numerous human-to-human interactions, those with a lower perceived risk are more likely to work and deliver more packages during lockdowns, while those with a higher perceived risk may be less willing to work.

To test this conjecture, we created standardized prefectural-level indexes for courier risk perceptions using data from our survey, following the same steps as outlined in Section 5.1. We then assigned these indexes to couriers in our main sample, according to their hometowns. Of the 728 couriers in the lockdown cities subsample with delivery performance data available, we were able to match 478 with our own survey data and 325 with trust indexes constructed from the 2010 CGSS data. Of these matched couriers, 181 were matched with both our survey data and the trust indexes.

The survey asked couriers to rate their perceptions of the risk of infection for the general public at the beginning of the 2020 pandemic on a scale from 1 ("Very low risk") to 5 ("Extremely high risk"). We defined couriers who answered 5 ("Extremely high risk") and 4 ("Very high risk") as having high infection risk perceptions, and those who provided lower values as having low infection risk perceptions. Couriers were also asked to describe the extent to which the pandemic has affected their lives, using a scale from 1 ("Very little") to 5 ("Very much"). We categorize couriers who answered 4 ("Much") and 5 ("Very much") as more influenced. In addition, couriers were asked if any of their acquaintances had been infected by COVID-19, which can be considered an objective measure of infection risk.

First, we investigate whether trust in the local government is significantly correlated with perceived risk using the sample of 181 couriers who were assigned both trust indexes from CGSS data and risk perception indexes from our survey and estimate the following equation:

$$\text{Risk}_{ij} = \beta_0 + \beta \text{Trust in Local Gov}_{ij} + \text{Outlet}_j + \varepsilon_{ij}, \tag{8}$$

where Risk_{ij} denotes the COVID-19 risk assessment of courier i who works in outlet j, and $\text{Trust in Local Gov}_i$ is the standardized level of trust in local government for courier i in outlet j. To account for the objective severity of the pandemic, we controlled for the outlet fixed effect Outlet_j. The coefficient β measures the correlation

Table 3. *Trust in Local Government, Perceived Risk and Delivery Volumes*

	Risk-General	Experience	Infection	Log Delivery Volumes		
Dependent Variable						
	(1)	(2)	(3)	(4)	(5)	(6)
Trust in Local Gov	-0.189**	-0.054	-0.045			
	(0.091)	(0.149)	(0.123)			
Risk-General × LD				-0.080*		
				(0.043)		
Experience × LD					-0.133	
					(0.086)	
Infection × LD						-0.109
						(0.084)
Outlet FE	Yes	Yes	Yes			
LD				Yes	Yes	Yes
Base-Work × LD				Yes	Yes	Yes
Demographics × LD				Yes	Yes	Yes
Individual FE				Yes	Yes	Yes
Calendar Day FE				Yes	Yes	Yes
N	181	181	181	154,289	154,289	154,289
N-courier	181	181	181	341	341	341

Notes: This table summarizes the investigation whether trust influence delivery volumes through changing risk perceptions. The first three columns present the correlations between trust in local government and the perceived and objective infection risk for couriers using the sample of couriers who are assigned both non-missing values of risk perception indexes generated from the conducted large-scale survey on couriers and non-missing values of political trust indexes generated from the existing CGSS survey. Robust standard errors are in the parentheses. The latter three column presents the results for the DID estimation examining whether risk perceptions affect delivery volumes. Only couriers with non-missing demographics are used in the regression. Individual fixed effects, calendar day fixed effects and the effects of working location environment and courier demographics are controlled. Standard errors are clustered at outlet level. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

between trust in the local government and perceived risk.

Column (1) of Table 3 presents the estimated results, which indicate that couriers who came from low-trust (in local government) areas tend to report higher perceived risks for the general population. A one-standard-deviation increase in the level of trust in the local government is associated with a 0.19-standard-deviation decrease in the perceived infection risk for the general population.

In columns (2) and (3) of Table 3, we explore the relationship between subjective and actual experiences of COVID-19 and the level of trust in the local government. We find that couriers from low-trust areas (in local government) did not report being more affected by the pandemic. Moreover, lower trust in the local government was not associated with higher actual risks of COVID-19 infection among acquaintances.

In summary, our findings indicate a negative correlation between couriers' level of trust in the local government and their perception of risks associated with the pandemic. However, this type of trust did not affect their self-reported experiences. There-

fore, it is unlikely that couriers with various levels of trust in the local government have different experiences that drive their risk assessment.

Next, we investigate whether a higher level of perceived risk influenced couriers' delivery volumes during the lockdowns using the subsample of couriers who could be assigned risk indexes based on the survey data we collected. Since this subsample does not require the trust index to be matched, it is larger. We estimate the following equation:

$$
\begin{aligned}
\text{Delivery}_{it} = {} & \beta_0 + \beta_R \text{Risk}_i \times \text{LD}_{it} + \beta_1 \text{Base-Work}_i \times \text{LD}_{it} \\
& + \text{Demographics}_i \times \text{LD}_{it} + \alpha \text{LD}_{it} + \gamma_i + \delta_t + \varepsilon_{it},
\end{aligned}
\tag{9}
$$

where Risk_i denotes the risk level (perceived or actual) of courier i. The coefficient β_R estimates how perceived risk influenced delivery volumes during lockdowns. If β_R is negative, it implies that couriers were less likely to deliver packages if they perceived a higher risk of COVID-19 infection.

Columns (4)–(6) of Table 3 display the estimated results. On the one hand, when the perceived risk of infection for the general population increases by one standard deviation, couriers' delivery volumes during lockdowns decrease by an additional 8 percentage points. On the other hand, we do not find that self-reported experiences or actual COVID-19 infections significantly affected delivery volumes during lockdowns. Taken together, these results support our conjecture that the perceived risk is a consequence of the activated (lack of) trust in the local government, and that it further influences the courier labor supply during lockdowns.

5.3. Hometown Pandemic, Local Working Experience, and Peer Effects

Hometown pandemic. So far, our evidence indicates that base couriers with lower levels of trust in the local government perceived the pandemic as riskier, leading to steeper reductions in their labor supply. If this conjecture holds, couriers with low trust might rely more on alternative information sources to assess the severity of the crisis.

One potential source of information that could help them assess the situation in the cities where they work could be the pandemic situation in their hometowns. For example, couriers who receive information about more COVID-19 cases in their hometowns through family or social networks might perceive the pandemic situation as more serious. We would expect couriers with less trust in the local government to rely more on alternative sources of information such as family or social network. In other words, hometown pandemic conditions should have a heterogeneous effect between couriers with high vs. low trust in the local government.

We investigate this conjecture in two steps. First, we focus on the migrant subsam-

Table 4. *Hometown Pandemic and Trust Activation*

	Dependent Variable: Log Delivery Volume					
	Both Types			Low Trust	High Trust	DDD
	(1)	(2)	(3)	(4)	(5)	(6)
Base-home × LD	-0.356***	-0.407***	-0.276**			
	(0.097)	(0.105)	(0.117)			
Pandemic-home × LD		-0.090***	-0.097***	-0.137***	-0.104***	-0.083***
		(0.028)	(0.026)	(0.036)	(0.016)	(0.021)
Local Gov × LD			0.200***			-0.095
			(0.055)			(0.123)
Pandemic-home × Local Gov × LD						0.108***
						(0.033)
Local Gov × Pandemic_home						0.002
						(0.005)
Pandemic-home		Yes	Yes	Yes	Yes	Yes
LD	Yes	Yes	Yes	Yes	Yes	Yes
Base-work × LD	Yes	Yes	Yes	Yes	Yes	Yes
Demographic × LD	Yes	Yes	Yes	Yes	Yes	Yes
Individual FE	Yes	Yes	Yes	Yes	Yes	Yes
Daily FE	Yes	Yes	Yes	Yes	Yes	Yes
N	905,878	905,878	905,878	547,030	358,848	905,878
N-couriers	2,169	2,169	2,169	1,296	873	2,169

Notes: This table summarizes results for the horserace regressions of pandemic in courier hometowns. Only migrant couriers are used in the regressions. For comparability, we only use couriers with non-missing hometown pandemic condition measures in the regressions. In all regressions we control for individual fixed effects, calendar day fixed effects, and the effects of working location environment and courier demographics. Only coefficients of interests are presented. Standard errors are clustered at the outlet level. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

ple and use the log of the daily number of confirmed COVID-19 cases in the couriers' hometowns (i.e., Pandemic-home) to proxy for the severity of the pandemic in their hometowns. Column (1) of Table 4 replicates the baseline results, and column (2) presents the results when we include the interaction term of Pandemic-home and the lockdown dummy (i.e., LD). We observe a greater decrease in labor supply among couriers whose hometowns experienced more severe pandemic conditions concurrently during the lockdown period. This supports our conjecture that their perception of the severity of the crisis was influenced by the pandemic situation in their hometowns. In column (3), we further include the interaction term for trust in the local government and lockdown. We find that the impact of trust in the local government remains significant and is of a similar magnitude even after accounting for the effect of hometown pandemic conditions.

In a second step, we define a courier as having high or low trust in the local government if their trust index score is above or below average, respectively (i.e., the standardized trust index is larger or smaller than 0). The results are summarized in columns (4)–(6). We find that the effect of hometown pandemic conditions is 30 percent greater in magnitude for couriers who have a low level of trust in the local government. This heterogeneity remains significant when tested using the difference-in-

differences-in-differences (DDD) specification, where the interaction term Local Gov $\times$ Pandemic-home $\times$ LD is significantly positive.

It is plausible that couriers rely more on information from their hometowns simply because their hometowns are located near where they work. To account for this possibility, we calculate the geographic distance of courier hometowns from the counties they work in (i.e., log distance), and add the interaction term between log distance and LD_{it} to our specification. The results are presented in Table A15 of Appendix 5. The heterogeneous pattern remains similar.

Local working experience. While migrant couriers are prone to panic during times of crisis, local working experience can act as a mitigating factor in two ways. First, couriers who have worked and lived in a city for an extended period of time would have been more adept at acquiring and interpreting local information during lockdowns. Therefore, this local working experience enables them to better prepare for unexpected situations. Second, the longer time spent in these working locations may diminish the influence of hometown culture on migrant couriers.

Table 5. Local Working Experience

	Dependent Variable: Log Delivery Volume		
	(1)	(2)	(3)
Base-home $\times$ LD	-0.351***	-0.317***	-0.195**
	(0.096)	(0.095)	(0.092)
Work Exp $\times$ LD		0.011**	0.011**
		(0.005)	(0.004)
Local Gov $\times$ LD			0.166***
			(0.048)
LD	Yes	Yes	Yes
Base-work $\times$ LD	Yes	Yes	Yes
Demographic $\times$ LD	Yes	Yes	Yes
Individual FE	Yes	Yes	Yes
Daily FE	Yes	Yes	Yes
N	1,253,440	1,253,440	1,253,440
N-couriers	2,718	2,718	2,718

Notes: This table summarizes results for the horserace regressions of couriers' local working experience. In all regressions we control for individual fixed effects, calendar day fixed effects, and the effects of working location environment and courier demographics. Only coefficients of interests are presented. Standard errors are clustered at the outlet level. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

To test this conjecture, we define a courier's local working experience, denoted as Work Exp, as the number of months he or she has been working in their city since January 2018. While column (1) of Table 5 replicates the baseline results (column (1) of Table 2), column (2) presents the results when horseracing the local working experience with hometown identity. Consistent with our expectations, local working

Table 6. Peer Effect?

	(1)	(2)	(3)	(4)	(5)
Base-home × LD	-0.366***	-0.344***	-0.233**	-0.361***	-0.256***
	(0.096)	(0.106)	(0.108)	(0.096)	(0.099)
Local Gov × LD			0.147***		0.142***
			(0.051)		(0.049)
Peer-home city × LD		-0.132	-0.141		
		(0.148)	(0.144)		
Peer-home province × LD				-0.081	-0.062
				(0.169)	(0.164)
LD	Yes	Yes	Yes	Yes	Yes
Individual FE	Yes	Yes	Yes	Yes	Yes
Daily FE	Yes	Yes	Yes	Yes	Yes
Base-work × LD	Yes	Yes	Yes	Yes	Yes
Demographic × LD	Yes	Yes	Yes	Yes	Yes
N	1,096,326	1,096,326	1,096,326	1,096,326	1,096,326
N-courier	2,351	2,351	2,351	2,351	2,351

Notes: Only migrant couriers are used for the analysis. For comparability, we only use couriers with non-missing peer proportion measures in the regressions. In all regressions we control for individual fixed effects, calendar day fixed effects, and the effects of working location environment and courier demographics. Only coefficients of interests are presented. Standard errors are clustered at the outlet level. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$)

experience increases the labor supply during lockdowns. Column (3) shows the result when incorporating the mechanism of trust in the local government. We observe that the impact of local working experience does not absorb the effect of trust in the local government. The coefficient on Local Gov × LD remains significant and unchanged when controlling for local working experience ×LD.

Peer effect. The peer effect is another factor contributing to trust activation among migrant couriers. Interactions with peers can have contrasting impacts. During the initial panic, increased interactions with peers may intensify distrust in the government and amplify fear and stress, leading to a decrease in the labor supply. Conversely, having more peers in the same working environment might make migrants feel safer due to a larger supportive social network, reducing the likelihood of panic.

To explore, we define a courier's hometown peers as other couriers who work in the same city and come from the same home prefecture. Since couriers are randomly selected at the outlet level and outlets are also randomly selected, the calculated hometown peer proportion in our sample reflects the proportion of peers in the whole population. On average, hometown peers comprise 12 percent of a courier's workmates. We investigate the impact of hometown peers, measured as the proportion of peers in the same working environment. The results are presented in Table 6.

Columns (1)–(3) summarize the findings regarding the peer effect. When the interaction term for the peer effect is included (column (2)), the coefficient remains statistically insignificant and there is minimal change in the coefficient on the interaction

term between Base-home and LD. Moreover, considering the influence of trust in local government (column (3)) shows that the proportion of peers still does not significantly impact the labor supply and does not alter the effect of hometown identity and political trust. Redefining hometown peers to include couriers from the same home province yields consistent results (columns (4) and (5)). In summary, our analysis does not provide evidence of a significant peer effect.

5.4.   The Legacy of Early Soviet Experiences: Political Trust

The previous sections establish that the observed differences in couriers' behavior during lockdowns can be partly attributed to variations in their level of political trust. This section summarizes the supplementary evidence indicating that the early Soviet experiences shaped the level of political trust. Appendix A.6 elaborates the relevant empirical analysis and historical background information.

The primary challenge associated with establishing a causal relationship is the possibility that omitted variables influenced the establishment of Soviet regime bases and political trust simultaneously. To address this potential problem, we employ an IV approach. We construct an instrument by utilizing a county's geographic distance to the sites of military mutinies led by the CCP after the dissolution of KMT–CCP cooperation, which ultimately led to the emergence of the Chinese Soviet regime.

Our instrumental variable satisfies the exclusion restriction for two main reasons. First, the occurrence of military mutinies is inherently random, and relies more on political advocacy and KMT officers' military strategies than support from the general public in those locations. Thus, the military mutinies were not correlated with the level of political trust among the general population in affected locations. Second, the rebel army's marching and retreating routes after the mutinies were highly unpredictable. Pursued by the KMT army, their retreat route was heavily influenced by factors such as weather conditions, geographic obstacles, and the deployment of KMT forces. As a result, the ultimate destination was largely random and not determined by its political trust of local population.

We identify 15 significant mutinies that occurred between 1927 and 1931 and utilize each county's average distance from these mutiny locations as an instrument. The two-stage least-squares (2SLS) estimate remains significant and negative for trust in local government, and insignificant for trust in the central government and the general population, after instrumenting the county's Soviet base identity. These findings support the idea that early Soviet experiences reduced trust in local governments.

35

6. Other Traits and Hometown Characteristics

The previous section presented evidence supporting the activation of political distrust as a mechanism during a crisis. However, it is very plausible that other traits or characteristics were also activated during lockdowns, which may have contributed to our findings regarding the effects of hometown identity. We explored various factors, such as altruism, risk preference, work attitudes, economic commitments, and hometown characteristics of couriers, to understand their impact. In this section, we summarize our empirical investigation. Appendix A.7 reports the results and details.

Altruism. During lockdowns, delivery services became the primary source of essential goods for local residents, such as food and medical supplies. Therefore, altruism could be another trait underlying the hometown identity that results in the labor supply disparity: more altruistic couriers may have been more likely to consider residents' needs and thus deliver more. Indeed, we find that couriers who came from former base areas exhibit lower levels of altruism (see Section 3).

To examine whether altruism was also activated during lockdowns, we created prefectural-level altruism indexes using data from our survey and apply a horserace strategy to examine its impact. In the horserace regressions, the coefficients on the interaction term of all constructed altruism indexes are small and insignificant, indicating that the difference in delivery volumes during lockdowns is unlikely to be attributed to the activation of altruism.

Risk preference. Another crucial aspect related to coping with risks is individual risk preferences. When the risk of infection is high, individuals who are more risk averse are more inclined to minimize human interactions. Consequently, couriers with greater risk aversion are expected to reduce their labor supply more than those with lower risk aversion. However, we find no statistically significant differences in risk aversion between base and non-base couriers in our survey. In the horserace regressions, the risk preference effect remains insignificant and the magnitude of the effect of hometown identity remains unchanged even after controlling for the interaction between risk aversion and lockdown.

Work attitudes. One may wonder whether the differential labor supply of base vs. non-base couriers during the lockdowns stems from differences in their attitudes toward work. For instance, couriers from former Soviet base areas may have a lower aptitude for handling the stress and risks induced by lockdowns than their counterparts. They may lack a sense of fulfillment and derive less satisfaction from executing their duties competently. Consequently, when the risks associated with their work increase, they may be more hesitant to work. Based on our survey on work attitudes and subsequent empirical analysis, they are unlikely to be driving forces in this context.

Economic commitments. Workers who serve as their family's primary breadwinner tend to have a small labor supply elasticity (Heckman 1993). In our context, couriers may not have the flexibility to reduce their work hours even when faced with a high risk of infection, as their family's financial needs may force them to continue working. We find that couriers from former Soviet base areas indeed have fewer economic responsibilities in their families compared to their non-base counterparts. However, controlling for the effect of economic commitments does not change the significance or magnitude of the behavioral difference. Therefore, courier economic commitments are unlikely to be the underlying factor driving the effect of home identity.

Hometown characteristics: economy and geography. We continue to consider the possibility that the hometown effect could still be attributed to the economic and geographic characteristics of courier hometowns. Even if the majority of couriers are migrant workers, and thus their hometown environments no longer directly affect their labor supply decisions, these characteristics could still matter if they contribute to certain values and beliefs that couriers carry over to their working environment.

As discussed in Section 3.1, the former Soviet base areas are less developed and more likely to be poverty stricken. Couriers who grew up in such areas may have developed different economic decision-making patterns or mechanisms to cope with risks. For example, economic hardships experienced in childhood might influence one's cognitive ability to navigate uncertainty, a trait that could manifest itself in lower labor supply during lockdowns. Alternatively, growing up in poverty might make couriers unwilling to forgo current income in favor of long-term outcomes, such as health (Haushofer and Fehr 2014).

Furthermore, individuals raised in specific geographic environments, such as former Soviet bases located inland in mountainous areas, might have developed unique economic decision-making patterns or coping mechanisms for dealing with risks. These regions, characterized by rugged terrain and distance from coastlines, might have fostered distinct traits among communities, which could be activated in times of heightened uncertainty.[16]

We note that the hometown effect remains unchanged even after including economic and geographic factors in the horserace regressions. The impact of trust in the local government remains consistent when accounting for interactions between economic and geographic traits and the lockdown dummy. These results imply that the behavioral difference across the two groups during the crisis is unlikely to be substantially influenced by the economic and geographic characteristics of hometowns.

---

[16]As documented by Nunn and Puga (2012), rugged terrain would hinder trade and other productive activities and therefore negatively affect income in general. Rodrik, Subramanian, and Trebbi (2004) show that geographic conditions have a strong effect on income by influencing institutions' quality.

7. Conclusion

What drives individuals to exhibit diverse behaviors during crises? Our research unveils that the historical legacies could shape distinct choices in times of crisis. Specifically, we document that couriers from former Soviet base regions display notable differences in behavior when faced with a sudden escalation of risk compared to their colleagues from other regions. The heightened risks acted as a catalyst that activated the impacts of historical legacies – particularly cultural traits such as political trust. When an individual's assessment of risks depends on the capability and credibility of the local government, trust in the local government becomes active and influences individuals' behaviors. Alternative forms of trust or other types of cultural traits remain dormant and do not influence behaviors.

This set of findings prompts two additional research inquiries. Firstly, why was trust in local government the sole trait activated, while others such as altruism were not? In other words, if we agree with the premise that contemporary contexts dictate which traits are activated, then precisely by what mechanism does this occur? Gennaioli and Shleifer (2010) presents a "local thinking" theory that helps answer the question. Couriers might assess the crisis they face and make subsequent economic decisions based on "what comes to mind first." In our scenario, the "stimulus salience" is government credibility, leading to "associative activation." While this explanation is speculative, it opens up a promising avenue for further exploration in this field.

Secondly, it is also intriguing that trust in the local government explains only a fraction of the behavioral variations between base and non-base couriers. What other factors might drive the heightened panic among base couriers during the crisis? A fruitful direction for future research is how environments with a traumatic history can have lasting effects on individuals' cognitive capacity to address risks as well as their defensive behaviors during crises.

References

Acemoglu, D., A. Cheema, A. I. Khwaja, and J. A. Robinson (2020). Trust in State and Nonstate Actors: Evidence from Dispute Resolution in Pakistan. *Journal of Political Economy 128*(8), 3090–3147.

Acemoglu, D., T. A. Hassan, and J. A. Robinson (2011). Social Structure and Development: A Legacy of the Holocaust in Russia. *The Quarterly Journal of Economics 126*(2), 895–946.

Alesina, A. and N. Fuchs-Schündeln (2007). Good-bye Lenin (or Not?): The Effect of Communism on People's Preferences. *American Economic Review 97*(4), 1507–1528.

Alesina, A. and P. Giuliano (2011). Family Ties and Political Participation. *Journal of the European Economic Association 9*(5), 817–839.

Alfaro, L., E. Faia, N. Lamersdorf, and F. Saidi (2022). Health Externalities and Policy: The Role of Social Preferences. *Management Science 68*(9), 6751–6761.

Algan, Y. and P. Cahuc (2010). Inherited Trust and Growth. *American Economic Review 100*(5), 2060–2092.

Algan, Y., S. Guriev, E. Papaioannou, and E. Passari (2017). The European Trust Crisis and the Rise of Populism. *Brookings Papers on Economic Activity 2017*(2), 309–400.

Almond, D. (2006). Is the 1918 Influenza Pandemic over? Long-term Effects of In-utero Influenza Exposure in the Post-1940 US Population. *Journal of Political Economy 114*(4), 672–712.

Almond, D., L. Edlund, and M. Palme (2009). Chernobyl's Subclinical Legacy: Prenatal Exposure to Radioactive Fallout and School Outcomes in Sweden. *The Quarterly Journal of Economics 124*(4), 1729–1772.

Bai, Y. and T. Zhou (2019). "Mao's Last Revolution": A Dictator's Loyalty-Competence Tradeoff. *Public Choice 180*(3-4), 469–500.

Bargain, O. and U. Aminjonov (2020). Trust and Compliance to Public Health Policies in Times of COVID-19. *Journal of Public Economics 192*, 104316.

Barrios, J. M., E. Benmelech, Y. V. Hochberg, P. Sapienza, and L. Zingales (2021). Civic Capital and Social Distancing during the COVID-19 Pandemic. *Journal of Public Economics 193*, 104310.

Besley, T. and M. Reynal-Querol (2014). The Legacy of Historical Conflict: Evidence from Africa. *American Political Science Review 108*(2), 319–336.

Blattman, C. and E. Miguel (2010). Civil War. *Journal of Economic Literature 48*(1), 3–57.

Boustan, L. P., M. E. Kahn, and P. W. Rhode (2012). Moving to Higher Ground: Migration Response to Natural Disasters in the Early Twentieth Century. *American Economic Review 102*(3), 238–244.

Bronfman, N. C., P. C. Cisternas, E. López-Vázquez, and L. A. Cifuentes (2016). Trust and Risk Perception of Natural Hazards: Implications for Risk Preparedness in Chile. *Natural Hazards 81*, 307–327.

Callaway, B. and P. H. Sant'Anna (2021). Difference-in-Differences with Multiple Time Periods. *Journal of Econometrics 225*(2), 200–230.

Cantoni, D., F. Hagemeister, and M. Westcott (2020). Persistence and Activation of Right-Wing Political Ideology.

Chen, J., W. Chen, E. Liu, J. Luo, and Z. M. Song (2022). The Economic Cost of Locking Down like China: Evidence from City-to-City Truck Flows. *working paper*.

Chen, T. and J. K.-S. Kung (2022). The Rise of the Chinese Communist Party. *Available at SSRN 3748521*.

Couttenier, M., V. Petrencu, D. Rohner, and M. Thoenig (2019). The Violent Legacy of Conflict: Evidence on Asylum Seekers, Crime, and Public Policy in Switzerland. *American Economic Review 109*(12), 4378–4425.

Dalton, R. J. (1994). Communists and Democrats: Democratic Attitudes in the Two Germanies. *British Journal of Political Science 24*(4), 469–493.

Davenport, C., H. Mokleiv Nygård, H. Fjelde, and D. Armstrong (2019). The Consequences of Contention: Understanding the Aftereffects of Political Conflict and Violence. *Annual Review of Political Science 22*, 361–377.

De Chaisemartin, C. and X. d'Haultfoeuille (2020). Two-Way Fixed Effects Estimators with Heterogeneous Treatment Effects. *American Economic Review 110*(9), 2964–96.

De Chaisemartin, C. and X. d'Haultfoeuille (2022). Two-Way Fixed Effects and Differences-in-Differences with Heterogeneous Treatment Effects: A Survey. Technical report, National Bureau of Economic Research.

De Kloet, E. R., M. Joëls, and F. Holsboer (2005). Stress and the Brain: from Adaptation to Disease. *Nature Reviews Neuroscience 6*(6), 463–475.

Dell, M. (2010). The Persistent Effects of Peru's Mining Mita. *Econometrica 78*(6), 1863–1903.

Dell, M. (2012). Path Dependence in Development: Evidence from the Mexican Revolution. *Harvard University*.

Dell, M., N. Lane, and P. Querubin (2018). The Historical State, Local Collective Action, and Economic Development in Vietnam. *Econometrica 86*(6), 2083–2121.

Durante, R., L. Guiso, and G. Gulino (2021). Social Capital: Civic Culture and Social Distancing During COVID-19. *Journal of Public Economics 194*, 104342.

Ekiert, G. and S. E. Hanson (2003). Capitalism and Democracy in Central and Eastern Europe: Assessing the Legacy of Communist Rule. *Cambridge University Press*.

Fang, H., L. Hou, M. Liu, L. C. Xu, and P. Zhang (2023). Political Survival, Local Accountability, and Long-Term Development: Evidence from an Authoritarian Country. *Journal of Comparative Economics 51*(1), 15–40.

Fouka, V. and H.-J. Voth (2022). Collective Remembrance and Private Choice: German-Greek Conflict and Behavior in Times of Crisis. *American Political Science Review*, 1–20.

Francois, P., F. Trebbi, and K. Xiao (2023). Factions in Nondemocracies: Theory and Evidence from the Chinese Communist Party. *Econometrica 91*(2), 565–603.

Galor, O. and Ö. Özak (2016). The Agricultural Origins of Time Preference. *American Economic Review 106*(10), 3064–3103.

Gennaioli, N. and A. Shleifer (2010). What Comes to Mind. *The Quarterly Journal of Economics 125*(4), 1399–1433.

Goodman-Bacon, A. (2021). Difference-in-Differences with Variation in Treatment Timing. *Journal of Econometrics 225*(2), 254–277.

Guiso, L., P. Sapienza, and L. Zingales (2004). The Role of Social Capital in Financial Development. *American Economic Review 94*(3), 526–556.

Guiso, L., P. Sapienza, and L. Zingales (2006). Does Culture Affect Economic Outcomes? *Journal of Economic Perspectives 20*(2), 23–48.

Han, Q. et al. (2023). Trust in Government Regarding COVID-19 and Its Associations with Preventive Health Behavior and Prosocial Behavior During the Pandemic: A Cross-sectional and Longitudinal Study. *Psychological Medicine 53*(1), 149–159.

Han, Z., X. Lu, E. I. Hörhager, and J. Yan (2017). The Effects of Trust in Government on Earthquake Survivors' Risk Perception and Preparedness in China. *Natural Hazards 86*, 437–452.

Haushofer, J. and E. Fehr (2014). On the Psychology of Poverty. *Science 344*(6186), 862–867.

Heckman, J. J. (1993). What Has Been Learned about Labor Supply in the Past Twenty Years? *American Economic Review 83*(2), 116–121.

Huang, D. (2003). Reasons Beneath the Failure of the Fifth Anti-Suppression: Not Treating CCP Military Policy as the Primary Line (in Chinese). *Modern Chinese History Studies* (05), 80–113.

Huang, D. (2005). Escaping and Returning: People's Response to the CCP's Policy in the Soviets (in Chinese). *Social Science Research* (6), 124–132.

Huang, D. (2011). The Land Investigation Campaign: Theory, Strategy, and Practice (in Chinese). *Theoretical and Empirical Studies of Rural China in Modern Time*, 163–176.

Khan, A., S. Nasim, M. Shaukat, and A. Stegmann (2021). Building Trust in the State with Information: Evidence from Urban Punjab. *Journal of Public Economics 202*, 104494.

Lazarus, J. V. et al. (2021). A Global Survey of Potential Acceptance of a COVID-19 Vaccine. *Nature Medicine 27*(2), 225–228.

Lowes, S. and E. Montero (2021a). Concessions, Violence, and Indirect Rule: Evidence from the Congo Free State. *The Quarterly Journal of Economics 136*(4), 2047–2091.

Lowes, S. and E. Montero (2021b). The Legacy of Colonial Medicine in Central Africa. *American Economic Review 111*(4), 1284–1314.

Lupien, S. J., F. Maheu, M. Tu, A. Fiocco, and T. E. Schramek (2007). The Effects of Stress and Stress Hormones on Human Cognition: Implications for the Field of Brain and Cognition. *Brain and Cognition 65*(3), 209–237.

Lupu, N. and L. Peisakhin (2017). The Legacy of Political Violence Across Generations. *American Journal of Political Science 61*(4), 836–851.

Malmendier, U. and S. Nagel (2011). Depression Babies: Do Macroeconomic Experiences Affect Risk Taking? *The Quarterly Journal of Economics 126*(1), 373–416.

Nunn, N. and D. Puga (2012). Ruggedness: The Blessing of Bad Geography in Africa. *Review of Economics and Statistics 94*(1), 20–36.

Nunn, N. and L. Wantchekon (2011). The Slave Trade and the Origins of Mistrust in Africa. *American Economic Review 101*(7), 3221–3252.

Ochsner, C. and F. Roesel (2017). Activated History: The Case of the Turkish Sieges of Vienna.

Pop-Eleches, G. (2007). Historical Legacies and Post-Communist Regime Change. *The Journal of Politics 69*(4), 908–926.

Porcelli, A. J. and M. R. Delgado (2009). Acute Stress Modulates Risk Taking in Financial Decision Making. *Psychological Science 20*(3), 278–283.

Putnam, R. (1993). The Prosperous Community: Social Capital and Public Life. *The American 4*.

Rodrik, D., A. Subramanian, and F. Trebbi (2004). Institutions Rule: The Primacy of Institutions over Geography and Integration in Economic Development. *Journal of Economic Growth 9*, 131–165.

Rohner, D., M. Thoenig, and F. Zilibotti (2013). Seeds of Distrust: Conflict in Uganda. *Journal of Economic Growth 18*, 217–252.

Rozenas, A. and Y. M. Zhukov (2019). Mass Repression and Political Loyalty: Evidence from Stalin's 'Terror by Hunger'. *American Political Science Review 113*(2), 569–583.

Saich, T. (2021). From Rebel to Ruler: One Hundred Years of the Chinese Communist Party. *Harvard University Press*.

Simpser, A., D. Slater, and J. Wittenberg (2018). Dead but Not Gone: Contemporary Legacies of Communism, Imperialism, and Authoritarianism. *Annual Review of Political Science 21*, 419–439.

Sun, L. and S. Abraham (2021). Estimating Dynamic Treatment Effects in Event Studies with Heterogeneous Treatment Effects. *Journal of Econometrics 225*(2), 175–199.

Tabellini, G. (2010). Culture and Institutions: Economic Development in the Regions of Europe. *Journal of the European Economic Association 8*(4), 677–716.

Trebbi, F. and E. Weese (2019). Insurgency and Small Wars: Estimation of Unobserved Coalition structures. *Econometrica 87*(2), 463–496.

Trent, M. et al. (2022). Trust in Government, Intention to Vaccinate, and COVID-19 Vaccine Hesitancy: A Comparative Survey of Five Large Cities in the United States, United Kingdom, and Australia. *Vaccine 40*(17), 2498–2505.

Tucker, J. A., A. C. Pacek, and A. J. Berinsky (2002). Transitional Winners and Losers: Attitudes toward EU Membership in Post-Communist Countries. *American Journal of Political Science*, 557–571.

Voigtländer, N. and H.-J. Voth (2012). Persecution Perpetuated: The Medieval Origins of Anti-Semitic Violence in Nazi Germany. *The Quarterly Journal of Economics 127*(3), 1339–1392.

Appendix

A.1. Additional Tables For Section 2

Table A1. *List of Cities Having Experienced Lockdowns in 2020*

Lockdown City	Province	Start Date	End Date	Scale	In Our Sample
Wuhan	Hubei	2020/1/23	2020/4/8	Full Lockdown	Yes
Huanggang	Hubei	2020/1/23	2020/3/25	Full Lockdown	Yes
Ezhou	Hubei	2020/1/23	2020/3/25	Full Lockdown	Yes
Xiaogan	Hubei	2020/1/24	2020/3/25	Full Lockdown	No
Jingzhou	Hubei	2020/1/24	2020/3/17	Full Lockdown	Yes
Suizhou	Hubei	2020/1/24	2020/3/25	Full Lockdown	No
Huangshi	Hubei	2020/1/24	2020/3/13	Full Lockdown	Yes
Yichang	Hubei	2020/1/24	2020/3/25	Full Lockdown	Yes
Jingmen	Hubei	2020/1/24	2020/3/25	Full Lockdown	No
Xianning	Hubei	2020/1/24	2020/3/25	Full Lockdown	Yes
Shiyan	Hubei	2020/1/24	2020/3/25	Full Lockdown	Yes
Xiantao	Hubei	2020/1/24	2020/3/25	Full Lockdown	No
Tianmen	Hubei	2020/1/24	2020/3/25	Full Lockdown	No
Enshi	Hubei	2020/1/24	2020/3/25	Full Lockdown	Yes
Qianjiang	Hubei	2020/1/24	2020/3/13	Full Lockdown	No
Shennongjia	Hubei	2020/1/27	2020/3/25	Full Lockdown	No
Xiangyang	Hubei	2020/1/28	2020/3/25	Full Lockdown	Yes
Wenzhou	Hubei	2020/2/2	2020/2/20	Partial Lockdown	Yes
Zhengzhou	Henan	2020/2/4	2020/3/23	Partial Lockdown	Yes
Zhumadian	Henan	2020/2/4	2020/2/23	Partial Lockdown	Yes
Hangzhou	Zhejiang	2020/2/5	2020/2/26	Partial Lockdown	Yes
Ningbo	Zhejiang	2020/2/6	2020/2/27	Partial Lockdown	Yes
Haerbin	Heilongijang	2020/2/7	2020/3/10	Partial Lockdown	Yes
Jilin	Jilin	2020/5/13	2020/6/7	Partial Lockdown	Yes
Baoding	Hebei	2020/6/18	2020/7/2	Partial Lockdown	Yes
Urumqi	Xinjiang	2020/7/18	2020/8/26	Partial Lockdown	No
Dehong	Yunnan	2020/9/14	2020/9/21	Partial Lockdown	No

Notes: This table provides the list of cities in China which have experienced lockdowns in 2020 when coping with the COVID-19 pandemic (summarized from Chen et al. 2022). While our data is randomly sampled, 9 out of 27 cities are not included in our sample. Start Date and End Date denote the date the lockdown was imposed and lifted respectively. Scale denotes the intensity of the lockdown. A full-scale lockdown involves suspension of all traffics, closed-off management for all residential buildings and no leaving from the city, while a partial lockdown only imposed the policies above for a county or a district of the city.
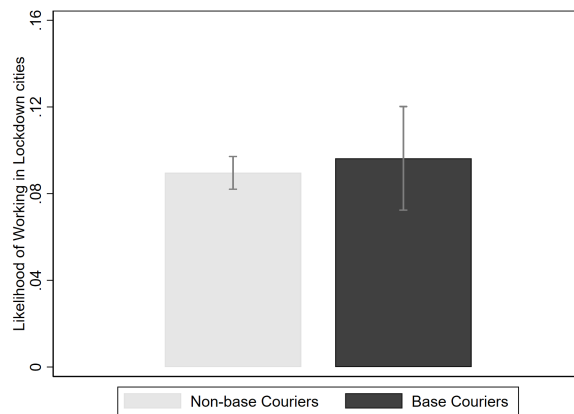
Figure A1. *Couriers' Likelihood of Working in Lockdown Cities, Base vs. Non-base Couriers. We regress the dummy of whether the city in which a courier works experienced a lockdown on whether the courier comes from a former Soviet base area. To account for migration patterns in different regions and ensure we only compare the working location choices of base and non-base couriers from the same city, we control for courier home city fixed effects. Using estimates from the regression, we calculate and plot the likelihood that base and non-base couriers work in lockdown cities. The bars indicate 95 percent confidence intervals.*

Table A2. Summary Statistics: Courier Characteristics

Variable	Obs	Mean	Std. Dev.	Min	Max
Panel A: Courier Dempgraphics					
Delivery	7,995	130.486	69.261	1.849	1928.164
Workdays	7,995	6.567	0.707	0.078	9
Base-Home	7,995	0.195	0.396	0	1
Birth Year	7,995	1988.145	6.085	1962.5	2002.5
Education	7,378	0.434	0.496	0	1
Married	7,855	0.713	0.452	0	1
Male	7,995	0.976	0.152	0	1
Migrant	7,995	0.847	0.36	0	1
Panel B: Hometown Characteristics					
GDP	1727	5.435	3.459	0.68	31.43
Poverty	1716	0.205	0.403	0	1
Agri	1724	0.139	0.097	0.001	0.676
Pop Growth	1603	6.21	4.894	-13.22	21.89
FisExpen	1615	10374.34	6573.979	4450.16	94121.688
Coast Dis	1641	411227.25	330256.55	386.774	2573111.5
River Dis	1641	51056.378	56149.587	108.342	600148.19
TRI	1641	0.387	0.088	0.046	0.872
CSI	1620	3803.133	777.524	0	5881.101

Notes: This table provides courier-level summary statistics. Delivery denotes the daily delivery volumes for each courier. Workdays denotes the total days a courier attend work and deliver at least one package in a week. Each year is divided to 53 weeks, with the last week having 8 or 9 days for regular years and leap years respectively. We provide in the table the summary statitstics for average delivery volumes and work days for each courier in the whole research period. Base-Home is a dummy variable and equals 1 if courier is from a former Soviet base area. Birth Year denotes the birth years of couriers. The original data records this variable with an accuracy of 5 years. For example, for a courier born in 1984, the data labels him as born between 1980 and 1985. Here we use the medium value of each birth year bin as an approximation, i.e., the courier mentioned above would have birth year 1982.5 in our final data. Education denotes the highest education finished by a courier. Here Education is a dummy variable and equals 1 if the courier has finished high school education. Married is a dummy variable and equals 1 if the courier is currently married. GDP is the GDP per capita in ten thousand RMB for a courier's hometown. Poverty is whether a courier's hometown is poverty-stricken. Agri is the primary share of GDP for a courier's hometown. Pop Growth is the natural popualtion growth rate for a courier's home city. FisExpen is the fiscal expenditure per capita in RMB for a courier's home city. Coast Dis is the distance of a courier's hometown to the coastline in meters. River Dis is the distance of a courier's hometown to the nearest river in meters. TRI is the terrain ruggedness index for a courier's hometown. CSI is the caloric suitability index for a courier's hometown.

3

Table A3. *Summary Statistics: Courier Characteristics*

Variable	Delivery Volume Data, Lockdown Cities Sample		Ex-post Courier Attitudes Survey, Lockdown Cities Sample	
	Mean/SD	Obs	Mean/SD	Obs
Base-Home	0.383	728	0.295	2,542
	(0.487)		(0.456)	
Birth Year*	1987.933	728	1990.212	2,541
	(5.892)		(5.781)	
Education	0.465	507	0.485	2,542
	(0.499)		(0.5)	
Male	0.973	728	0.963	2,542
	(0.164)		(0.188)	

Notes: This table compares summary statistics for couriers in our main sample and couriers in our conducted large-scale survey. The first two columns summarize the characteristics of couriers working in lockdown cities in the main sample (the delivery volume data), while the latter two columns summarize the characteristics of couriers from our own survey. "Base-Home" is a dummy variable that equals 1 if the courier is from a former Soviet base area. "Birth Year" denotes the birth year of couriers, and "Education" is a dummy variable that equals 1 if the courier has completed high school education.
* In the delivery volume data, courier birth year is recorded with a 5-year accuracy, and we approximate it by using the median value of each birth year bin. In the ex-post survey, however, we obtain the accurate birth year information.

A.2. Former Soviet Base Regions: Economic Development and Cultural Traits

First, to examine the economic development of the former Soviet base regions, we regress county-level economic indicators from 2018 against the dummy variable Base, which takes a value of 1 if the county belongs to a former Soviet base region. The results are summarized in Table A4. The GDP per capita of former Soviet base regions lags by 9.5 percent compared to non-base regions, and per capita fiscal expenditure is 14.3 percent lower in former Soviet base areas. Although the share of the agricultural sector is marginally higher, the difference is not statistically significant, and the population growth rate is 1.7 percentage points higher.[17] We find that base counties are 11.2 percent more likely to be poverty stricken than non-base counties.

Table A4. Contemporary Economic Development in the Former Soviet Base Areas

	log GDP per capita (1)	Poverty Stricken (2)	Agricultural Sector Share (3)	Population Growth Rate (4)	log Fiscal Expenditure per capita (5)
Base	-0.095***	0.112***	0.415	1.776***	-0.143***
	(0.021)	(0.023)	(0.405)	(0.209)	(0.018)
Outcome Mean	1.758	0.275	13.802	6.088	9.279
N	2,796	2,868	2,801	2,482	2,503

Notes: This table summarizes the correlation between Soviet base area dummy and indicators of contemporary economic development. The regressions are conducted at county-level, with the dependent variable being economic indicators and the independent variable being whether a county locates in a former Soviet region. Only coefficients of interest are presented. Robust standard errors are in the parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Second, we examine values and beliefs in the former Soviet regions. We start with trust and political trust. Due to self-censorship by the collaborating company, we are unable to directly survey couriers on their trust in the government. We therefore use survey data from the 2010 wave of the CGSS. We regress respondents' responses on a dummy variable, Base-Home, which takes a value of 1 if the respondent lives in a county that used to be part of the former Soviet base areas. All regressions control for individual-level demographics such as gender, age, ethnicity, educational attainment, marital status, *Hukou* status, CCP membership, participation in the labor force, and household income. We also control for the aforementioned regional economic characteristics – log GDP per capita, whether the county is poverty stricken, output share of the agricultural sector, population growth rate, and log fiscal expenditure per capita.

---

[17]Some economic indicators, such as GDP per capita and the share of the agricultural sector, are available at the county level. Where these indicators have missing values, we substitute them with the corresponding prefecture-level indicator. Other metrics, including the population growth rate and fiscal expenditure per capita, are solely accessible at the prefecture level. To approximate the developmental status at the county level, we adopt the indicators' values from the prefecture in which the county is located.

Table A5. *Trust and Experiences in the Former Soviet Base Areas*

	Trust in			Obedience	Observe	Treated Unfairly
	Gen Pop	Local Gov	Central Gov	to Gov	Protest	by Gov
	(1)	(2)	(3)	(4)	(5)	(6)
Base-home	-0.045	-0.109***	-0.019	-0.127**	0.060**	0.018
	(0.027)	(0.033)	(0.049)	(0.053)	(0.029)	(0.015)
log GDP per capita	Yes	Yes	Yes	Yes	Yes	Yes
Poverty-stricken	Yes	Yes	Yes	Yes	Yes	Yes
Agricultural sector share	Yes	Yes	Yes	Yes	Yes	Yes
Population growth	Yes	Yes	Yes	Yes	Yes	Yes
log Fiscal expenditure per capita	Yes	Yes	Yes	Yes	Yes	Yes
Demographics	Yes	Yes	Yes	Yes	Yes	Yes
Outcome mean	0.162	0.259	0.613	0.313	0.119	0.100
N	5,484	5,469	5,474	5,471	5,482	5,484

Notes: This table summarizes the correlation between Soviet base area identity and people's beliefs and experiences, using data from wave 2010 of the existing CGSS survey. Basic demographic controls include gender, age, educational attainment, marital status, hukou status, ethnicity, religion, CCP membership and household income and unemployement status. Regional controls include county-level GDP in log and primary sector share in 2018, city-level population growth rate and log fiscal expenditure per capita in 2018 and whether the county is recognized as poverty stricken. Only coefficients of interest are presented. Standard errors are clustered at prefecture level. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A5 presents the results.

Columns (1) to (3) of Table A5 present the results for trust. Respondents were asked to rate their trust in the general public (or strangers), local government, and central government from 1 ("do not trust at all") to 5 ("absolute trust"). We categorize respondents who select 5 ("absolute trust") as having a high level of trust in the general public or authorities. Our categorization is informative, given that, within the context of China, the majority of responses fall within category 4 ("trust") or 5 ("absolute trust").

The results reported in column (2) indicate that individuals residing in former Soviet base areas exhibit significantly lower levels of trust in local governments, while columns (1) and (3) establish that there is no significant difference between base and non-base areas in trust in the central government or the general public. Given that trust in the local government is highly correlated with trust in the central government (0.437, see Figure A2a), this finding is quite revealing about individuals' attitudes toward local governments.

Another dimension related to trust in institutions is the relationship between the government and citizens. Respondents were asked to express their level of agreement with the statement "ordinary people should obey the government"on a scale from 1 ("Completely Disagree") to 5 ("Completely Agree"). The results using this response as the dependent variable are presented in column (4), which demonstrate that individuals in base areas display lower levels of obedience toward the government. Re-

(a) Trust in Local and Central Governments   **(b)** Individuals Should Obey Government
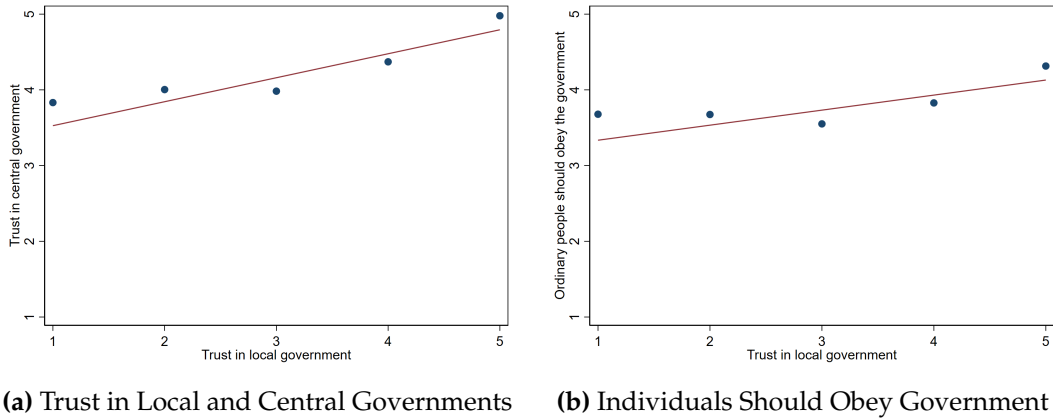
Figure A2. Correlations with Trust in the Local Government. Figure A2a illustrates the correlation between trust in the central vs. local government, while Figure A2b depicts the correlation between the degree of agreement with the statement that ordinary citizens should obey and trust the local government. Each data point represents the average level of trust in the central government or level of agreement, respectively, based on the conditional trust level in local government being 1 ("do not trust at all"), 2 ("do not trust"), 3 ("indifferent between trust and distrust"), 4 ("trust"), or 5 ("absolute trust").

spondents were also asked whether they had witnessed any mass protests in the past 3 years. Column (5) indicates that individuals from former base areas are more likely to have reported observing protests, which is consistent with the finding of lower levels of obedience attitudes.[18]

The survey also asked respondents whether the government has treated them unfairly. In column (6), we find that individuals in base areas do *not* report that they are more likely to be treated unfairly by the government, i.e., the correlation is small and insignificant. It suggests that the lower trust in local government could be a result of culture rather than contemporary experiences.

We then examine all the other questions in the survey related to trust in institutions in a similar fashion. Respondents were also asked to rate their trust in various institutions on a 5-point scale. Similar to the variable definition above, we define respondents choosing 5 ("absolute trust") as having a high level of trust in an institution. The specification adopted is similar to that in Table A5 and the results are presented in Table A6.

The results can be roughly divided into three categories: trust in local government institutions, trust in central government institutions, and trust in non-governmental organizations (NGOs). First, typical institutions linked to the local government in-

---

[18]Intuitively, trust in the local government and obedience attitudes toward the government are highly correlated. Figure A2b suggests that those who have greater trust in the local government tend to agree more that individuals should obey the government.

Table A6. *Trust in Other Institutions in the Former Soviet Base Areas*

	Trust in							
	Court	Army	Police	Central Media	Local Media	NGO	Corporation	Congress
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Base-Home	-0.068*	-0.069	-0.111**	-0.081	-0.091**	-0.038**	-0.033**	-0.068
	(0.040)	(0.045)	(0.043)	(0.051)	(0.036)	(0.017)	(0.015)	(0.054)
log GDP per capita	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Poverty-stricken	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Agricultural sector share	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Population growth	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
log Fiscal expenditure per capita	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Demographics	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Outcome mean	0.377	0.595	0.366	0.428	0.226	0.085	0.075	0.593
N	5,458	5,459	5,468	5,459	5,448	5,369	5,411	5,452

Notes: This table summarizes the correlation between base area identity and people's trust in institutions, using data from wave 2010 of the existing CGSS survey. Basic demographic controls include gender, age, educational attainment, marital status, hukou status, ethnicity, religion, CCP membership and household income and unemployement status. County-level log GDP per capita, whether the county is poverty-stricken and agricultural sector share, and city-level population growth rate and log fiscal expenditure per capita are also controlled. Only coefficients of interest are presented. Standard errors are clustered at prefecture level. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

clude the court, the police department, and local media.[19] Estimates in columns (1), (3), and (5) indicate that in the former Soviet base areas, trust in these three institutions is significantly lower, aligning with the lower trust in local government observed in these regions.

Second, we observe that trust in institutions associated with the central government displays no significant disparities between the former base and non-base regions. These institutions encompass the army (column (2)), central media (column (4)), and the National People's Congress (column (8)).

Finally, we investigate whether trust in NGOs varies between base and non-base regions. Our findings indicate that trust in NGOs and corporations is lower in the former Soviet base regions.

Next, we turn to another pro-society value – altruism. Our survey of the couriers incorporates a standard measure of altruism by asking respondents how much they would donate to charity if they unexpectedly received 100 yuan. Additionally, we present a scenario-based question to gauge altruistic behavior in their work environment: "Imagine you are about to finish work for the day when a customer calls and urgently needs medication delivered today. Would you be willing to work overtime to make the delivery?" (1 = ("Extremely unwilling to work overtime for the customer"); 5 = ("Totally willing to work overtime for the customer"). Couriers who answer with a 4 ("Willing to work overtime for the customer") or 5 are categorized as altruistic.

---

[19]During the survey period, the Internet and social media had not yet replaced traditional mass communication as the primary news source. Therefore, the term "media" primarily pertains to conventional media like television channels, newspapers, and magazines, which are disseminated or published in accordance with state guidance and principles.

Table A7. Correlation between Traits and Hometown Identity

	Altruism		Risk Aversion
	Donation	Help	
	(1)	(2)	(3)
Base-Home	-5.778***	-0.093***	0.009
	(1.817)	(0.026)	(0.024)
log GDP per capita	Yes	Yes	Yes
Poverty-stricken	Yes	Yes	Yes
Agricultural sector share	Yes	Yes	Yes
Population growth	Yes	Yes	Yes
log Fiscal expenditure per capita	Yes	Yes	Yes
Demographics	Yes	Yes	Yes
Outcome mean	56.978	0.738	0.210
N	1,423	1,423	1,423

Notes: This table summarizes the correlation between base area identity and couriers' level of altruism and risk aversion, using data from the conducted large-scale survey on couriers from the logistics company. Basic demographic controls include gender, age and educational attainment. Regional controls include county-level GDP per capita in logs, whether a county is poverty-stricken and primary sector share and city-level population growth rate and log fiscal expenditure per capita in 2018. Only coefficients of interest are presented. Standard errors are clustered at courier home prefecture level. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

We explore the altruistic inclinations of couriers originating from former Soviet base regions by conducting a regression analysis on the aforementioned responses, while controlling for all available demographic attributes (courier gender, age, and educational attainment) as well as the regional economic characteristics of the courier's hometown (log GDP per capita, whether the county is poverty stricken, share of the agricultural sector, population growth rate, and log fiscal expenditure per capita). The results, presented in Table A7, show that couriers from base areas demonstrate significantly lower levels of altruism compared to their non-base counterparts, regardless of the altruism measures used in the analysis (columns (1) and (2)).

We also assess the couriers' attitudes toward risk by having them rate their willingness to take risks on a scale from 1 ("Extremely unwilling to take risk") to 5 ("Totally willing to take risk"). Couriers providing a rating of 1 or 2 ("Unwilling to take risk") are categorized as risk averse. Using a similar specification, we present the results in column (3) of Table A7, which indicate that couriers from both base and non-base areas exhibit comparable risk preferences.

A.3. Additional Tables for Section 4

Table A8. Robustness.

	All Cities					Lockdown Cities				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Base-Home × LD	-0.237***	-0.274***	-0.255***			-0.248***	-0.232**	-0.241***		
	(0.081)	(0.103)	(0.084)			(0.075)	(0.099)	(0.080)		
Base-Home × LD_Wuhan				-0.282***					-0.238***	
				(0.086)					(0.079)	
Base-Home × LogCase					-0.018***					-0.041***
					(0.006)					(0.013)
LD	Yes	Yes	Yes			Yes	Yes	Yes		
LD_Wuhan				Yes					Yes	
LogCase					Yes					Yes
Base-Work × LD	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Demographics × LD	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Scale × LD		Yes					Yes			
Individual FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Calendar Day FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	3,265,415	3,292,530	2,972,812	3,292,530	1,844,304	195,427	222,542	195,735	222,542	128,372
N-courier	7,174	7,239	4,876	7,239	7,192	433	498	325	498	498

Notes: This table presents results for the robustness tests. Regressions in the first five columns use the whole sample, while regressions in the latter five columns include only couriers in lockdown cities. Individual fixed effects and calendar day fixed effects are controlled in all regressions. The effects of working location environment and courier demographics are also controlled. Only coefficients of interest are presented. Standard errors are clustered at the outlet level. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A9. *Courier Delivery Volumes in 2019*

| | Dependent Variable: log Delivery Volume | | | |
| | All Cities | | Lockdown Cities | |
	(1)	(2)	(3)	(4)
Base-Home	0.007		-0.075	
	(0.013)		(0.048)	
Trust in Local Gov		-0.009		0.035
		(0.015)		(0.055)
Outlet FE	Yes	Yes	Yes	Yes
Calendar Day FE	Yes	Yes	Yes	Yes
log GDP per capita	Yes	Yes	Yes	Yes
Poverty-stricken	Yes	Yes	Yes	Yes
Agricultural sector share	Yes	Yes	Yes	Yes
Population growth	Yes	Yes	Yes	Yes
log Fiscal expenditure per capita	Yes	Yes	Yes	Yes
Demographics	Yes	Yes	Yes	Yes
N	1,203,644	485,926	79,813	32,076
N-couriers	4,445	1,777	302	111

Notes: This table summarizes the effect of Soviet base identity and trust in local government on courier delivery volume in 2019, before the COVID pandemic. Outlet fixed effects and calendar day fixed effects are controlled. Courier demographic characteristics, including gender, birth year, education attainment and marital status, and regional characteristics including GDP per capita, whether the county is a poverty-stricken county, agricultural sector share, population growth rate and fiscal expenditure per capita are also controlled. Standard errors are clustered at outlet level.* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A10. *Baseline Difference-in-differences Estimation with Only Counties within 30 km Radius*

	Dependent Variable: Log Delivery Volume							
	All Cities				Lockdown Cities			
	All Couriers			Subsample	All Couriers			Subsample
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Base-Home × LD	-0.304**	-0.263***	-0.262***	-0.340***	-0.306**	-0.228**	-0.223**	-0.312***
	(0.120)	(0.099)	(0.098)	(0.095)	(0.134)	(0.095)	(0.095)	(0.091)
Base-Home × Post-LD			-0.005				0.000	
			(0.044)				(0.044)	
LD	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Base-Work × LD		Yes	Yes			Yes	Yes	
Demographics × LD		Yes	Yes	Yes		Yes	Yes	Yes
Post-LD			Yes				Yes	
Base-Work × Post-LD			Yes				Yes	
Demographics × Post-LD			Yes				Yes	
Individual FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Calendar Day FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	1,176,846	1,041,971	1,041,971	790,993	175,369	98,952	98,952	72,302
N-courier	2,637	2,326	2,326	1,736	392	222	222	163

Notes: This table is a replication of Table 1 using only couriers from base counties and neighboring counties within a 30 km radius. Only coefficients of interest are presented. Standard errors are clustered at outlet level. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A11. *Baseline Difference-in-differences Estimation, with Only Counties within 60 km Radius*

	Dependent Variable: Log Delivery Volume							
	All Cities				Lockdown Cities			
	All Couriers			Subsample	All Couriers			Subsample
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Base-Home × LD	-0.330***	-0.279***	-0.265***	-0.286***	-0.355***	-0.269***	-0.252***	-0.272***
	(0.079)	(0.088)	(0.088)	(0.096)	(0.089)	(0.083)	(0.083)	(0.092)
Base-Home × Post-LD			0.022				0.026	
			(0.046)				(0.046)	
LD	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Base-Work × LD		Yes	Yes			Yes	Yes	
Demographics × LD		Yes	Yes	Yes		Yes	Yes	Yes
Post-LD			Yes				Yes	
Base-Work × Post-LD			Yes				Yes	
Demographics × Post-LD			Yes				Yes	
Individual FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Calendar Day FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	1,681,430	1,505,455	1,505,455	1,210,690	214,287	130,046	130,046	100,792
N-courier	3,752	3,346	3,346	3,346	476	288	288	223

Notes: This table is a replication of Table 1 using only couriers from base counties and neighboring counties within a 60 km radius. Only coefficients of interest are presented. Standard errors are clustered at outlet level. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A12. *Robustness of Main Results, Dropping Couriers Working in One Lockdown City at a Time*

| Lockdown City | All Cities | | | | Lockdown Cities | | | |
Dropped	Coef.	p-value	N	N-courier	Coef.	p-value	N	N-courier
Baoding	-0.251	(0.002)	3,269,807	7,184	-0.256	0.001	199,819	443
Shiyan	-0.256	(0.002)	3,290,238	7,231	-0.240	0.003	220,250	490
Jilin	-0.243	(0.003)	3,288,138	7,229	-0.229	0.004	218,150	488
Xianning	-0.264	(0.001)	3,291,170	7,235	-0.248	0.002	221,182	494
Haerbin	-0.261	(0.002)	3,288,238	7,226	-0.245	0.002	218,250	485
Ningbo	-0.275	(0.002)	3,266,940	7,188	-0.254	0.003	196,952	447
Yichang	-0.257	(0.002)	3,291,167	7,236	-0.241	0.003	221,179	495
Enshi	-0.252	(0.002)	3,288,272	7,229	-0.233	0.004	218,284	488
Hangzhou	-0.303	(0.001)	3,244,259	7,145	-0.295	0.001	174,271	404
Wuhan	-0.293	(0.018)	3,271,680	7,191	-0.269	0.027	201,692	450
Wenzhou	-0.218	(0.002)	3,274,475	7,204	-0.207	0.005	204,487	463
Jingzhou	-0.256	(0.002)	3,292,530	7,239	-0.240	0.003	222,542	498
Xiangyang	-0.248	(0.008)	3,284,074	7,222	-0.229	0.012	214,086	481
Zhengzhou	-0.206	(0.026)	3,242,647	7,117	-0.202	0.023	172,659	376
Ezhou	-0.257	(0.002)	3,291,196	7,237	-0.240	0.003	221,208	496
Zhumadian	-0.266	(0.001)	3,284,257	7,216	-0.245	0.002	214,269	475
Huanggang	-0.257	(0.002)	3,292,227	7,238	-0.241	0.003	222,239	497
Huangshi	-0.254	(0.002)	3,291,683	7,237	-0.238	0.003	221,695	496

Notes: This table summarizes the robustness of the baseline DID results dropping couriers working in one lockdown city at a time. The first column presents the name of the dropped lockdown city. The specification is the same as Equation (2). Only coefficients on the interaction term of Base-home and the lockdown dummy are displayed. Individual and calendar day fixed effects and the effecst of working location environment and courier demographics are controlled. Standard errors are clustered at outlet level.

A.4. Extensive Margin

We estimate Equation (2) using the attendance dummy as the dependent variable and the full sample. Column (1) of Table A13 presents the results. The coefficient for the culture effect is significantly negative, suggesting that base-area couriers worked less during lockdowns than their non-base colleagues, relative to the pre-lockdown normal periods. During lockdowns, base-area couriers' attendance declined by 10.5 percentage more than that of non-base couriers. Column (2) presents the estimates using Equation (3). The culture effect remains significantly negative with a similar magnitude, while the coefficient on the interaction term of the post-lockdown dummy is small and insignificant. Thus, similar to the finding at the intensive margin, the gap in attendance returned to pre-lockdown levels after the lockdowns ended. We present the estimation results using the lockdown cities subsample in columns (3) and (4), which are similar.

Columns (5)–(8) of Table A13 summarize the estimates using the same specifications as in columns (1)–(4), respectively, but the dependent variable is the number of couriers' work days at the week level. The effect of the extensive margin remains significant and negative. During lockdowns, the gap in the number of workdays per week between base and non-base couriers increased by roughly 0.6 days compared to the pre-lockdown period. The magnitude of the effect is consistent with that estimated using attendance as the dependent variable.

Table A13. Extensive Margin

	Whether come to work				Work days per week			
	All Cities		Lockdown Cities		All Cities		Lockdown Cities	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Base-Home × LD	-0.105***	-0.110***	-0.097**	-0.102**	-0.569**	-0.609**	-0.551**	-0.583**
	(0.040)	(0.042)	(0.041)	(0.042)	(0.246)	(0.257)	(0.251)	(0.262)
Base-Home × Post-LD		-0.011		-0.008		-0.078		-0.058
		(0.012)		(0.012)		(0.085)		(0.084)
LD	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Base-Work × LD	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Demographics × LD	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Post-LD		Yes		Yes		Yes		Yes
Base-Work × Post-LD		Yes		Yes		Yes		Yes
Demographics × Post-LD		Yes		Yes		Yes		Yes
Individual FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Calendar Day FE	Yes	Yes	Yes	Yes				
Week FE					Yes	Yes	Yes	Yes
N	3,576,739	3,576,739	242,445	242,445	509,798	509,798	34,555	34,555
N-courier	7,239	7,239	498	498	7,202	7,202	496	496

Notes: This table presents results for the extensive margin, using work days per week as the dependent variable. Column (1), (2), (5), (6) summarize estimates for the full sample, and column (3), (4), (7), (8) summarize estimates for couriers working in lockdown cities. Individual fixed effects, calendar day fixed effects and effects of working location environment and courier demographics are controlled in all regressions. Only coefficients of interest are presented. Standard error are clustered at the outlet level. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

A.5. Additional Tables for Section 5

Table A14. *Robustness of Assignment Methods for Non-matched Prefectures*

| | Dependent Variable: log Delivery Volume | | | | |
| | Basline | 100km, Avg. | | 100km, Weighted Avg. | |
	(1)	(2)	(3)	(4)	(5)
Base-Home × LD	-0.377***		-0.263***		-0.264***
	(0.096)		(0.091)		(0.092)
Local Gov × LD		0.226***	0.147***	0.226***	0.147***
		(0.053)	(0.054)	(0.053)	(0.054)
LD	Yes	Yes	Yes	Yes	Yes
Base-Work × LD	Yes	Yes	Yes	Yes	Yes
Demographics × LD	Yes	Yes	Yes	Yes	Yes
Individual FE	Yes	Yes	Yes	Yes	Yes
Calendar Day FE	Yes	Yes	Yes	Yes	Yes
N	1,143,481	1,143,481	1,143,481	1,143,481	1,143,481
N-courier	2,477	2,477	2,477	2,477	2,477

Notes: This table tests the robustness of results in column (1) to (3) in Table 2 using alternative methods to assign the generated indexes to couriers in the main sample. While 2,795 couriers are matched with the index, we use 2,477 couriers with non-missing demographics in the regression. Only coefficients of interest are presented. Standard errors are clusteredd at the outlet level. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A15. *Hometown Pandemic and Trust Activation*

	Dependent Variable: Log Delivery Volume					
	Both Types			Low Trust	High Trust	DDD
	(1)	(2)	(3)	(4)	(5)	(6)
Base-home × LD	-0.360***	-0.428***	-0.299**			
	(0.115)	(0.129)	(0.143)			
Pandemic-home × LD		-0.087***	-0.095***	-0.136***	-0.094***	-0.082***
		(0.031)	(0.029)	(0.044)	(0.019)	(0.022)
Local Gov × LD			0.192***			-0.101
			(0.061)			(0.128)
Pandemic-home × Local Gov × LD						0.106***
						(0.037)
Local Gov × Pandemic_home						0.003
						(0.005)
Dist to Home × LD	-0.001	-0.046	-0.054	-0.057	0.008	-0.048
	(0.040)	(0.047)	(0.047)	(0.065)	(0.054)	(0.044)
LD	Yes	Yes	Yes	Yes	Yes	Yes
Base-work × LD	Yes	Yes	Yes	Yes	Yes	Yes
Demographic × LD	Yes	Yes	Yes	Yes	Yes	Yes
Individual FE	Yes	Yes	Yes	Yes	Yes	Yes
Daily FE	Yes	Yes	Yes	Yes	Yes	Yes
N	789,020	789,020	789,020	461,995	327,025	789,020
N-couriers	1,893	1,893	1,893	1,094	799	1,893

Notes: This table summarizes results for the horserace regressions of pandemic in courier hometowns. Only migrant couriers are used for the analysis. For comparability, we only use couriers with non-missing hometown pandemic condition measures in the regressions. In all regressions we control for individual fixed effects, calendar day fixed effects, and the effects of working location environment and courier demographics. Only coefficients of interests are presented. Standard errors are clustered at the outlet level. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

A.6. The Soviet Republic Regime in the 1930s and Political Trust

The analysis in Section 3 and Appendix A.2 documents that levels of political trust tend to be lower in former Soviet base regions. The key identifying concern is that there may exist an omitted variable that simultaneously influences the establishment of the Soviet regions *and* political trust. To address this concern, we employ an IV approach and use each county's geographic distance from the locations of military mutinies led by the CCP after the CCP–KMT fallout as an instrument.

Our instrument is constructed by leveraging the historical context surrounding the establishment of the Chinese Soviet Republic, which is essentially an indirect consequence of a series of CCP mutiny attempts from 1927 to 1931. Following the rupture of the KMT–CCP cooperation, the top CCP leadership formed independent armed forces against the KMT troops and established its own regime. The party adopted a strategy to persuade officials and soldiers with left-wing ideas in the KMT army to incite military mutinies in urban areas.[20] Starting with the Nanchang Uprising, dozens of mutinies were launched across the country. Despite some initial triumphs, the rebels soon started retreating due to the stark difference in military strength. Eventually, all the remaining rebel forces had to disperse into rural areas, where they rebuilt their strengths and established the Soviet base areas. Distance to mutiny locations could therefore be an important determinant of a county's likelihood of becoming part of a Soviet region.

On the one hand, the emergence of Soviet regions was an indirect outcome of the CCP's mutiny attempts. Thus, the distance to mutiny locations could serve as a pivotal determinant of a county's likelihood to receive retreating rebel forces and subsequently become part of a Soviet region. On the other hand, the occurrence of military mutinies and the destination for the retreating rebel army are inherently random, hinging heavily on military tactics and unpredictable natural factors.[21] In other words, both the mutinies and the distance to mutiny locations are exogenous to regional-level characteristics such as political trust.

By referencing the *History of the Chinese Communist Party*, we identify 15 significant mutinies that occurred from 1927 to 1931, predating the establishment of the central

---

[20]In July 1927, the Standing Committee of the CCP Central Committee convened the first Lushan Conference in Jiujiang, Jiangxi Province. During this conference, a resolution was passed to politically oppose the Wuhan and Nanjing governments and to advocate the establishment of a new regime through an armed mutiny. Since the CCP did not have its own troops before the Nanchang Uprising of August 1927, it actively recruited left-wing officers and soldiers from the KMT army.

[21]For instance, during the Nanchang Uprising the forces retreated from Nanchang to Xunwu in Guangdong Province. They later returned to Ruijin in Jiangxi Province while being pursued by KMT forces. Subsequently, they relocated to Changting in Fujian Province before eventually entering Hunan Province to unite with other troops and establish a base in Jinggangshan. During this time the troop count dwindled from approximately 20,000 to fewer than 1,000.

Table A16. *2SLS Estimates for Trust in the Former Soviet Base Areas*

	Base-Home	Trust in Local Gov		Trust in Central Gov		Trust in Gen Pop	
		Dependent Variable					
Panel A, All Mutinies	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Log Dis to Mutiny	-0.532***						
	(0.152)						
Base-Home		-0.107***	-0.233***	-0.021	-0.053	-0.045	-0.066
		(0.034)	(0.083)	(0.049)	(0.107)	(0.028)	(0.062)
Outcome Mean	0.238	0.259	0.259	0.613	0.613	0.162	0.162
N	5,488	5,469	5,469	5,474	5,474	5,484	5,484
F-statistics	12.2						
Panel B, Nationalist Army Mutinies	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Log Dis to Mutiny	-0.434***						
	(0.137)						
Base-Home		-0.107***	-0.267***	-0.021	-0.048	-0.045	-0.072
		(0.034)	(0.091)	(0.049)	(0.107)	(0.028)	(0.066)
Outcome Mean	0.238	0.259	0.259	0.613	0.613	0.162	0.162
N	5,488	5,469	5,469	5,474	5,474	5,484	5,484
F-statistics	10.1						
log GDP per capita	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Poverty-stricken	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Agricultural sector share	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Population growth	Yes	Yes	Yes	Yes	Yes	Yes	Yes
log Fiscal expenditure per capita	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Demographics	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Notes: This table summarizes the 2SLS estimates for the effect of Soviet base areas on contemporary political trust. Column (1) presents results for the first stage regression. Column (3), (5), (7) present the 2SLS estimates, while column (2), (4), (6) present the respective OLS estimates for comparison. Basic demographic controls include gender, age, educational attainment, marital status, hukou status, ethnicity, religion, CCP membership, household income and unemployement status. Regional controls include county-level GDP in logs and primary sector share in 2018, whether the county is poverty-stricken, and city-level population growth rate and log fiscal expenditure per capita in 2018. Only coefficients of interest are presented. Standard errors are clustered at prefecture level. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Soviet area. We use the records of the geographic coordinates of these mutinies to calculate each county's average distance from these mutiny locations.

To estimate the causal relationship between Soviet base areas and political trust, we apply a 2SLS strategy. We consider the following regression:

$$\text{Trust}_i = \beta_0 + \beta\text{Base-Home}_i + \alpha X_i + \varepsilon_i, \tag{A1}$$

where Trust_i is the level of trust in the local government, central government, or the general population. Base-Home_i is a dummy variable for whether individual i is from a former Soviet region. We instrument the hometown identity using the log average distance to the 15 mutiny locations. X_i represents the same set of control variables as in Section A.2, including individual demographics and regional economic characteristics.

We report the IV estimates in Table A16, panel A. The first-stage estimates in column (1) indicate that counties located closer to mutiny locations were significantly more likely to later become Soviet bases. The F-statistic is 12.2, which indicates that

the average distance to mutinies is a robust predictor of the subsequent establishment of Soviet regions.

The 2SLS estimates are presented in columns (3), (5), and (7) of Table A16; columns (2), (4), and (6) reproduce the corresponding OLS estimation results for comparison. Column (2) confirms the negative correlation between Soviet base areas and trust in the local government. Column (3) shows that the 2SLS estimate remains significant and negative. Columns (5) and (7) provide the 2SLS estimates for trust in the central government and trust in the general population, respectively. Consistent with the OLS estimates presented in columns (4) and (6), the 2SLS estimates are still small and not statistically significant.

While mutinies were led by CCP and their supporters in the KMT army, they often involved collaboration between the CCP, the KMT army, and local peasants or guerrillas. Therefore, we check the robustness of these results by focusing on eight mutinies involving *only* KMT soldiers and use the distance to those mutiny locations as an alternative instrument. The results, presented in panel B of Table A16, demonstrate that the estimated coefficients remain consistent.

A.7. Other Traits and Hometown Characteristics

This Appendix presents the empirical details for Section 6 in the paper. It examines factors other than political trust that may contribute to the behavioral differences we observe between base and non-base couriers, including altruism, risk preference, work attitudes, economic commitments, and courier hometown characteristics.

Altruism. To examine whether altruism was also activated during lockdowns, we created prefectural-level altruism indexes using data from our survey, following the approach detailed in Section 5. The survey included two measures of altruism. The first is a standard measure that asks respondents how much they would donate to charity if they unexpectedly received 100 yuan. The second is a scenario-based question to gauge altruistic behavior in their work environment. Appendix A.2 provides details of this measure. Subsequently, we assigned the corresponding altruism values to couriers with the same hometowns in the main sample. We first use the subsample of couriers with non-missing altruism measures from our survey to estimate Equation (2) as a benchmark. Then, we estimate a horserace regression similar to Equation (6), but we replace Trust$_i$ with the altruism indexes. The coefficient β in the horserace regression captures the effect of hometown identity on delivery volumes during lockdowns while also controlling for the effect of altruism. Table A17 presents the results in columns (1) to (3). The interaction terms of both altruism indexes are not significant.

Risk preference. We construct standardized risk aversion indexes using the survey responses and apply a similar approach as described above to assign them to couriers in the main sample. Column (4) of Table A17 shows that the coefficient on the interaction term is not significant and the magnitude of the effect of hometown identity does not change.

Work attitudes. Our survey includes questions related to work attitudes. Couriers were asked to rate their ability to handle pressure on a scale from 1 ("Completely Disagree") to 5 ("Completely Agree"). We defined couriers who responded with a rating of 5 or 4 as resilient, and those who rated themselves lower as not resilient. Couriers were also asked to indicate the extent to which they experience a strong sense of fulfillment when performing their job well using a similar scale. Those who rated themselves 5 or 4 were defined as fulfilled with their work. The correlation between work attitudes and hometown identity is presented in columns (1) and (2) of Table A18. These results yield no significant differences between base and non-base couriers. We conducted horserace regressions using the same methodology discussed above. The results, presented in columns (5) and (6) of Table A17, suggest that accounting for the impact of work attitudes during lockdowns does not alter the significance or magnitude of the

	Baseline	Altruism		Risk Aversion	Work Attitudes		Economic Commitments		
				Dependent Variables: log Delivery Volume					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Base-Home × LD	-0.234***	-0.265***	-0.245***	-0.231***	-0.236***	-0.234***	-0.246***	-0.199**	-0.227***
	(0.081)	(0.085)	(0.091)	(0.083)	(0.081)	(0.081)	(0.082)	(0.086)	(0.084)
Donation × LD		-0.075							
		(0.064)							
Help × LD			-0.021						
			(0.061)						
Risk × LD				0.031					
				(0.058)					
Resilience × LD					-0.010				
					(0.059)				
Fulfillment × LD						-0.002			
						(0.059)			
Family Support × LD							-0.003		
							(0.003)		
Dependents × LD								0.120	
								(0.088)	
Debt × LD									0.033
									(0.073)
LD	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Base-Work × LD	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Demographics × LD	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Individual FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Daily FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	154,289	154,289	154,289	154,289	154,289	154,289	154,289	154,289	154,289
N-courier	341	341	341	341	341	341	341	341	341

Notes: This table summarizes results for the horserace regressions of alternative traits. We only include couriers with non-missing demographics in our sample. In all regressions we control for individual fixed effects, calendar day fixed effects, and the effect of working location environment and courier demographics. Only coefficients of interests are presented. Standard errors are clustered at the outlet level. $^{*}\ p < 0.10$, $^{**}\ p < 0.05$, $^{***}\ p < 0.01$

effect of hometown identity.

Economic commitments. Our survey includes three measures of economic commitments. First, we asked couriers what proportion of their income they spend on family members as a direct measure. Second, we inquire about the presence of dependents in their family, such as children under 12 or elders over 60, to assess their responsibility to provide for them. Finally, we ask if the courier's family has any outstanding debt exceeding 50,000 yuan. We first examine the correlation between couriers' economic commitments and their hometown identity. Columns (3)–(5) of Table A18 report the results. Our findings indicate that couriers from former Soviet base areas have fewer economic responsibilities in their families than their non-base counterparts. These couriers allocate a lower percentage of their income to their family members, and are marginally less likely to have dependents such as children or elderly relatives in their households.

To investigate whether economic commitments could be influencing our results, we construct region-level indexes of economic commitments using our survey data following the same approach as in the previous sections. Using similar specifications, we display the respective results in columns (7)–(9) of Table A17. Our find-

Table A18. Correlation between Other Individual Characteristics and Hometown Identity

	Work Attitudes		Economic Commitments		
	Resilience (1)	Fulfillment (2)	Family Support (3)	Dependents (4)	Debt (5)
Base-Home	-0.007	-0.030	-4.226***	-0.033*	-0.046
	(0.022)	(0.023)	(1.370)	(0.018)	(0.038)
log GDP per capita	Yes	Yes	Yes	Yes	Yes
Poverty-stricken	Yes	Yes	Yes	Yes	Yes
Agricultural sector share	Yes	Yes	Yes	Yes	Yes
Population growth	Yes	Yes	Yes	Yes	Yes
log Fiscal expenditure per capita	Yes	Yes	Yes	Yes	Yes
Demographics	Yes	Yes	Yes	Yes	Yes
Outcome mean	0.740	0.824	49.459	0.833	0.630
N	1,423	1,423	1,423	1,423	1,423

Notes: This table summarizes the correlation between base area identity and couriers' work attitudes and economic commitments, using data from the conducted large-scale survey on couriers from the logistics company. Basic demographic controls include gender, age and educational attainment. Regional controls include county-level GDP per capita in logs and primary sector share, whether the county is poverty-stricken, and city-level population growth rate and log fiscal expenditure per capita in 2018. Only coefficients of interest are presented. Standard errors are clustered at courier home prefecture level. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

ings indicate that neither the significance level nor the magnitude of the coefficient for Base-Home$_i$ × LD$_{it}$ changed much compared to the baseline estimation.

Hometown characteristics: economy and geography. To test whether hometown economic development could explain courier behavior during the lockdowns, we apply a horserace strategy: we add an interaction term between the economic characteristics of courier i's hometown and his lockdown experience to Equation (2). Table A19 summarizes the results from the horserace regressions; columns (1)–(6) present the results when each observable is added individually, and column (7) presents the estimates when all observables are added simultaneously. The hometown effect indeed remains significant and of a similar magnitude across all horserace tests, while the effect of all economic characteristics is small and insignificant.

We follow the same horserace strategy and test whether the geographic characteristics of couriers' hometowns can account for the hometown effect. Table A20 summarizes the results. We find that the hometown effect does not change when geographic features are added to the regressions. Distance to the coast is the only geographic characteristic that has some effect on courier labor supply. However, it does not change the significance or magnitude of the coefficient for Base-Home × LD whether added alone or in combination with other geographic characteristics.

We further investigate the robustness of the political trust activation mechanism by controlling for the economic and geographic characteristics of courier hometowns. Table A21 summarizes the results of our investigation. Both the effect of trust in local

Table A19. Horserace: Economic Characteristics of Courier Hometowns

	Dependent Variables: log Delivery Volume						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Base-Home × LD	-0.266***	-0.266***	-0.267***	-0.270***	-0.272***	-0.266***	-0.269***
	(0.086)	(0.086)	(0.085)	(0.086)	(0.086)	(0.085)	(0.088)
GDP pc × LD		-0.070					-0.039
		(0.072)					(0.208)
Poverty × LD			0.020				0.003
			(0.079)				(0.086)
Agri × LD				0.290			-0.199
				(0.438)			(0.665)
PopGrow × LD					-0.011		-0.011
					(0.013)		(0.012)
FisExpen × LD						-0.064	-0.049
						(0.068)	(0.164)
LD	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Base-Work × LD	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Demographic × LD	Yes	Yes	Yes		Yes	Yes	Yes
Individual FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Daily FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	2,997,778	2,997,778	2,997,778	2,997,778	2,997,778	2,997,778	2,997,778
N-courier	6,587	6,587	6,587	6,587	6,587	6,587	6,587

Notes: This table summarizes results for the horserace regressions of courier hometown economic characteristics. For comparability, we only use couriers with non-missing hometown characteristics in the regressions. In all regressions we control for individual fixed effects, calendar day fixed effects, and the effects of working location environment and courier demographics. Only coefficients of interests are presented. Standard errors are clustered at the outlet level. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

government on its own and the fraction of the hometown effect it accounts for remain stable.

Table A20. *Horserace: Geographical Charateristics of Courier Hometowns*

	(1)	(2)	(3)	(4)	(5)	(6)
			Dependent Variables: log Delivery Volume			
Base-Home × LD	-0.270***	-0.275***	-0.274***	-0.258***	-0.268***	-0.265***
	(0.083)	(0.081)	(0.085)	(0.085)	(0.083)	(0.085)
CoastDis × LD		0.071*				0.074**
		(0.042)				(0.037)
RiverDis × LD			-0.010			0.003
			(0.029)			(0.028)
TRI × LD				0.275		0.242
				(0.304)		(0.302)
CSI × LD					0.000	-0.000
					(0.000)	(0.000)
LD	Yes	Yes	Yes	Yes	Yes	Yes
Base-Work × LD	Yes	Yes	Yes	Yes	Yes	Yes
Demographics × LD	Yes	Yes	Yes	Yes	Yes	Yes
Individual FE	Yes	Yes	Yes	Yes	Yes	Yes
Calendar Day FE	Yes	Yes	Yes	Yes	Yes	Yes
N	3,082,221	3,082,221	3,082,221	3,082,221	3,082,221	3,082,221
N-courier	6,789	6,789	6,789	6,789	6,789	6,789

Notes: This table summarizes results for the horserace regressions of courier hometown geographic characteristics. For comparability, we only use couriers with non-missing hometown characteristics in the regressions. In all regressions we control for individual fixed effects, calendar day fixed effects, and the effect of working location environment and courier demographics. Only coefficients of interests are presented. Standard errors are clustered at the outlet level. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A21. *Robustness for Trust and Courier Delivery Volume*

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
				Denepdent Variable: log Delivery Volume					
Base-Home × LD	-0.376***		-0.249**		-0.265**		-0.239**		-0.295**
	(0.097)		(0.107)		(0.109)		(0.109)		(0.124)
Local Gov × LD		0.237***	0.144**	0.225***	0.120**	0.213***	0.133**	0.225***	0.130**
		(0.053)	(0.057)	(0.054)	(0.056)	(0.065)	(0.064)	(0.067)	(0.063)
Econ × LD				Yes	Yes			Yes	Yes
Geo × LD						Yes	Yes	Yes	Yes
LD	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Base-Work × LD	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Demographics × LD	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Individual FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Calendar Day FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	1,170,105	1,170,105	1,170,105	1,170,105	1,170,105	1,170,105	1,170,105	1,170,105	1,170,105
N-courier	2,537	2,537	2,537	2,537	2,537	2,537	2,537	2,537	2,537

Notes: This table tests the robustness of results in column (1) to (3) in Table 2 when controlling for the effect of courier hometown characteristics. For comparability, we only use couriers with non-missing hometown characteristics in the regressions. Econ × LD denotes the set of courier hometown economic characteristics (including log GDP per capita, whether the county is reckoned as poverty-stricken, agricultural sector share, population growth rate and log fiscal expenditure per capita) interacted with the lockdown dummy. Geo × LD denotes the set of courier hometown geographic characteristics (including log distance to coast, log distance to river, TRI and CSI) interacted with the lockdown dummy. In all regressions we control for individual fixed effects, calendar day fixed effects, and the effect of working location environment and courier demographics. Only coefficients of interests are presented. Standard errors are clustered at the outlet level. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$