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The Unintended Long-Term Consequences of Mao's Mass Send-Down Movement: Marriage, Social Network, and Happiness

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Summary. — This paper uses the China General Social Survey (CGSS) 2003 to evaluate the long-term consequences of a forced migration, the state's "send-down" movement (shang shan xia xiang, or up to the mountains, down to the villages) during the Chinese Cultural Revolution, on individuals' nonmaterial well-being. The send-down program resettled over 16 million urban youths to the countryside to carry out hard manual labor over the years 1968–78. Most of them were allowed to return to urban areas when the Cultural Revolution ended. To estimate the long-term impacts of the send-down experience, we compare the outcomes of individuals with send-down experience to those of individuals without send-down experience but having similar characteristics and family backgrounds during the send-down period. We conduct primarily OLS estimates with a careful sample selection. We find that those who had the send-down experience have worse marriage outcomes, lower-quality social networks, and a lower level of happiness than non-send-downs. The negative effects of the forced migration are robust against regression methods and various model specifications. Our study adds to the growing literature in economics that seeks to evaluate the impact of forced migration.

Key words — send-down movement, forced migration, marriage, social network, happiness, China

1. INTRODUCTION

The send-down movement during China's Cultural Revolution forced more than 16 million adolescents (most 16–19 years of age) to move away from their families to the countryside to live and work with peasants in poverty and under harsh political/mobility control (1968–78). [1] These rusticated youth (*zhi qing* or *zhi shi qing nian*) stayed in the countryside from one to as many as 10 years. Most managed to move back to urban areas after the central government ended the movement in 1978. Life in the countryside was obviously a big challenge to the rusticated youth, as evidenced by two sociologists who have personal experience: "To many urban youth, including us, the send-down episode remains among the most difficult experiences in our lives—we suffered from removal from our families, an unfamiliar environment, harsh physical labor, and so on" (Chen & Cheng, 1999, p. 37).

Though the life in poor rural areas was extremely hard for the rusticated youth (Zhou, 2004), some recent studies indicate that this negative life event may have no long-term negative impact (Xie, Jiang, & Greenman, 2008), and may even have some positive economic consequences. Zhou and Hou (1999) find a higher proportion of rusticated youth entering college and the workforce as cadres in government, both groups enjoying high social status in China. Through running fixed-effects estimates with twin data, Li, Rosenzweig, and Zhang (2010) find that the send-down years had a positive effect on income. Zhou (2013) also finds a significant and positive effect on such youths' education after their return to the urban areas. The reason might be because, upon return, those send-downs were more motivated to strive for better performance, similar to returning refugees induced by conflicts to simply try harder (Kondylis, 2008).

Despite the evidence of rustication's positive impacts in a few measures of material well-being, whether there is a long-term effect on individuals' nonmaterial well-being is relatively unknown. Only one paper studies the long-term impact on one's nonmaterial aspects of life, such as values and beliefs (Gong, Lu, & Xie, 2014). Because material well-being indicators might not be enough to fully represent the quality of life, it is desirable to examine the send-down effect on nonmaterial well-being. In this paper we aim to fill in the literature gap. We study three important and correlated groups of nonmaterial well-being measures: marriage outcome, social network, and self-reported happiness. [2]

We primarily use the China General Social Survey (CGSS) 2003 for this study. We utilize a detailed set of variables of parents' characteristics when respondents were 18 years old in the CGSS data to compare sent-down individuals to non-sent-down individuals who shared similar characteristics, such as birth cohort, education level, and family background during the send-down movement.

When the send-downs returned to urban areas, they already averaged more than 22 years old. While most young men and women in urban areas had already started searching for spouses at this age, because marriage was almost mandatory in China in the 1980s, the sent-down youth had just returned to urban areas or were struggling to adjust to their life after returning. Were send-downs able to find a quality match under their time and financial constraints, given the assortative mating in the marriage market (Greenwood, Guner, Kocharkov, & Santos, 2014; Mu & Xie, 2014; Xu, Ji, & Tung, 2000)? We find that the send-downs married 1.2 years later than non-send-downs. In addition, despite the fact that 99% of respondents did marry, the proportion of send-downs still married in 2003 was much lower than that of the non-send-downs. Their late entry into the marriage market may have hampered send-downs in finding a high-quality match. We further find evidence suggesting lower quality matches for the send-downs: compared to their non-sent-down counterparts, they are more likely to "marry down" in terms of family

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wealth, their spouses are less likely to communicate troubles and stress to them, and their spouses are also less likely to do housework.

Given the fact that the send-downs were forced to separate from their families and original social networks for an average of 5–6 years during adolescence,[3] we know little about how such separation could affect the long-term formation of those individuals' social networks. As we learn from Glaeser, Laibson, and Sacerdote (2002) that social connections decline sharply with physical distance, we suspect the forced separation would impact the send-downs' social network negatively. Using self-reported estimates of the intimacy of their relationships with relatives and friends as a measure of the density of the social network, we find that the send-down experience had a negative impact on the *density* of their later social networks.[4] Evidence suggests that the send-down experience also reduced the *size* of their social network: the sent-down individuals greeted fewer relatives during the Spring Festival, one of the most important periods for family gatherings in China.

We then turn to analyze the long-term consequences of the send-down experience on individuals' happiness. The harsh manual labor experience in rural areas was extremely difficult for the sent-down youth who were, on average, only 17 years old and most likely had never been in rural areas prior to being sent down. However, decades after they returned to urban areas, did the send-downs overcome the transition and become as happy as their non-sent-down counterparts or even happier, parallel with the pattern of their material well-being? In contrast to the literature, which supports a positive effect of the send-down experience on material well-being, we find a negative effect on happiness.[5]

To build the robustness of our results, we conduct more tests. First, we use selection on observables to assess the potential bias from unobservables, following Oster (2015). Second, we run ordered logistics regressions for categorical dependent variables such as self-reported happiness and intimacy. Furthermore, we impose more restrictions with respect to family backgrounds that might affect one's chances of being sent down and the length of stay in rural areas (see Section 6(b) for details). Finally, we use the propensity matching method to tackle the potential selection issues. The various robustness checks all yield consistent results.

This study contributes to several literatures. A growing number of people are being forcibly displaced around the world, due to factors such as conflicts, development projects, weather shocks, and disasters. Studies on conflict-related displacement in developing countries find it has a negative impact on material well-being (Fiala, 2015; Fransen, Siegel, & Vargas-Silva, 2016; Ibañez & Moya, 2010; Ibañez & Velez, 2008; Kondylis, 2010; O'Reilly, 2015), though heterogeneous effects on different groups of people are also discovered (Alix-Garcia, Bartlett, & Saah, 2012; Fiala, 2009; Kondylis, 2008).[6] The studies on the impacts on child health (Bozzoli & Brück, 2010) and education (Fransen *et al.*, 2016) generally find negative impacts.[7] Our study contributes to the growing literature on the impact of forced migration by exploring the following previously understudied outcomes: marriage, social network, and happiness. By studying the effects a quarter century after displacement, this paper shows that the effects of displacement in early life are highly persistent.

This paper also contributes to the literature on happiness. In recent years, happiness has been taken more and more seriously as a direct and comprehensive measure of well-being, embodying both economic and noneconomic aspects of life; validity and reliability are widely supported (Helliwell, Layard, & Sachs, 2012, 2013, 2015; OECD, 2013). There is a large and rapidly growing set of literature on the determinants of happiness and policy implications (Clark, Frijters, & Shields, 2008; Di Tella & MacCulloch, 2006; Diener, Lucas, Schimmack, & Helliwell, 2009; Frey & Stutzer, 2002, 2013). The study of migration and happiness in developing countries is rare. Knight and Gunatilaka (2010) are among the first to compare the happiness of rural–urban migrants settled in urban areas with that of rural residents in contemporary China. Different from their study on voluntary migration from rural to urban areas, we study the impact of the forced migration from urban to rural areas. To our knowledge, our paper is among the first to study the long-term impact of displacement on happiness.

This paper also adds debate on involuntary resettlement induced by development or conservation projects. While such projects are usually aimed at developing the regional economy or protecting the local environment or ecosystem, studies find resettlement may reduce income (Cernea & Schmidt-Soltau, 2006; Wilmsen, 2016; Wilmsen, Webber, & Duan, 2011), harm social capital (Tilt & Gerkey, 2016), and even damage informal risk sharing (Lam & Paul, 2013). The evidence of the send-down program, as well as those findings in the previous literature, suggest that policy makers should use extra caution when initiating forced resettlement programs as those programs may adversely affect many aspects of life for those resettled (Hall, 1994).

This paper also suggests that the dimension of such impact could also depend on the age of affected individuals. As for the send-downs, they were affected when they entered the marriage market, which resulted in low-quality marriage outcomes over their lives. Policy makers who design remediation programs for forced migration would need to consider more dimensions of the impacts as well as potential age-specific effects.

The remainder of this paper is organized into sections, as follows: Section 2 provides a brief introduction to the background of the Cultural Revolution and the send-down movement in Mao's era in China. Section 3 describes our data. Section 4 explains the identification strategy. Section 5 presents estimates of the impact of send-down on individuals' marriage outcomes, social networks, and happiness. Section 6 covers various robustness checks. The last section has conclusions.

2. BACKGROUND

The send-down policy started as early as 1960. Only a small number of individuals were persuaded by government or volunteered to go to rural areas in the beginning. The massive send-down policy was initiated by Chairmen Mao in 1968 with his famous speech: "It is necessary for educated young people to go to the countryside to be reeducated by the poor and lower middle class peasants. Cadres and other city people should be persuaded to send their sons and daughters who have finished junior or senior high school, college, or university to the countryside" (Pan, 2002, p. 371).[8] The send-down movement ended in 1978, 2 years after Mao's death. Most of the sent-down youth returned to urban areas before 1980 (Zhou & Hou, 1999).

The main targets of the send-down policy (1968–78) were junior and senior high school students in their graduation year.[9] Each local government had a send-down quota to fill each year. The quota varied largely by year and by city (Bernstein, 1977; Zhou, 2013). If the quota was larger than the number of age-eligible youth in a city, all those youth