

# 11. Lockdowns are protecting China's rural families from COVID-19, but the economic burden is heavy

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In response to the COVID-19 outbreak in December 2019, China implemented a nationwide travel blockade and quarantine policy that required all public spaces, businesses, and schools to shut their doors until further notice and placed restrictions on individuals leaving their homes or traveling.

The lockdown was also implemented across China's vast rural areas, home to more than [700 million people](#). These quarantine measures started during the annual Spring Festival in mid-January, when most rural residents had returned to their family homes to celebrate the Lunar New Year together. Many were migrant workers who had expected to return to China's urban and industrial centers to continue working in factories, construction sites, and service sectors.

In China's urban hubs, local governments, school systems, and businesses made efforts to offset the consequences of these policies: many [firms worked with employees remotely](#) through online platforms, and [urban schools moved to online learning activities](#). These efforts helped reduce the fears and economic repercussions for those who were able to work from home and had access to high-speed internet. But what about the rest of China – the "[Other China](#)"?

Little is known about what actions were taken in rural areas as part of the nationwide quarantine, and even less is known about the effects of COVID-19 in China's rural villages outside the COVID-19 epicenter during and after the quarantine. To date, no study has empirically examined the economic and social impacts of COVID-19 or its countermeasures in a rural context. China's rural residents are a relatively poor subpopulation, with a meager social safety net at best. Understanding the economic and social effects of COVID-19 on China's vulnerable rural population can offer urgently needed lessons as the outbreak spreads to other middle- and low-income countries and regions around the world.

To assess the effects of COVID-19 control measures on the health and economy of China's rural population, a team of researchers, led by the [Rural Education Action Program](#) (REAP) at Stanford University, conducted phone surveys with 726 randomly selected village informants across seven rural Chinese provinces outside of Hubei, the epicenter of the virus.<sup>1</sup>

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<sup>1</sup> The response rate was almost 100%, since the respondents were either the mother or the father of a rural student who had been part of a study that REAP had conducted over the past year or two. After answering the phone, our survey enumerators identified themselves as a team member who had been a part of their child's school activities in the recent past. Parents almost summarily agreed to talk to us. The schools in the original studies were randomly chosen and the one parent of the child from each school was randomly chosen, meaning we have a sample that is fairly representative of rural areas outside of the epicenter.

Our village-level survey examined three overarching questions:

1. What disease control measures were in place?
2. How many COVID-19 infections and fatalities were there in each village? (That is, were the dramatic quarantine measures working to stop the virus from spreading?)
3. What were the indirect impacts of these disease control measures on employment, health (beyond COVID-19 issues), and schooling?

First and foremost, our survey in mid-February found that all villages had universally implemented extremely strict quarantine measures to stop the spread of the virus:

- 100% of all villages had erected strict and high barriers to quarantine their villages off from the rest of China.
- 98% reported that all group gatherings (including weddings and funerals) had been temporarily banned.
- 97% reported that villagers could not visit the homes of friends or family within the village.
- 86% reported that even their close family or friends living outside the village were not permitted to enter.
- 96% of informants reported that villagers were required to wear masks to go outside (although only 16% reported that masks were available for purchase).
- 95% reported they could leave the village to seek healthcare.

So, what was the direct impact on the spread of COVID-19?

This is the good news: The survey was clear that the draconian quarantine measures successfully contained the spread of COVID-19 in rural villages. Only 4 village informants out of 726 reported COVID-19 infections in their villages, and of the nearly 700,000 residents in these villages, only about 10 had contracted the virus. No one in any surveyed village reported deaths from the virus. This suggests that lockdown measures can effectively minimize the spread of the virus.

However, the question remains: what is the cost in terms of the lives and livelihoods of rural villagers?

Most notably, we found virtually no one was working in the off-farm sector – either in a city as a migrant worker or in the local township/county seat as an off-farm laborer. Three-quarters of informants reported that villagers had stopped working because their workplaces were closed. An even greater share could not work due to restrictions on transportation or difficulty in finding housing in the places they typically worked. This means that the employment of rural workers was essentially zero for a full month after the start of the quarantine. Not surprisingly, 92% of village informants reported that disease control measures had reduced their income levels.

Our research also found a number of other impacts from the lockdowns on education, nutrition, and access to healthcare:

- 79% reported a negative impact on local children’s education.
- 63% reported that the prices of foodstuffs were higher than in 2019. Although the majority said fruits, vegetables, and grains were all available, nearly half said the quality of their diets fell – raising questions about the impact on nutrition.
- 62% believed it had become more difficult to seek non-COVID-19 healthcare.

While everyone in China was feeling the effect of the COVID-19 outbreak after one month of restrictions, it is almost certain that rural residents took the brunt of the economic and social impacts. Our analysis suggests a radical decline in employment in China’s rural areas, due at least in part to restrictions preventing migrant workers from returning to work. Whereas urban, salary-earning workers were getting paid during the quarantine [as required by edicts issued by China’s central government](#), rural workers are almost never on salary – if they don’t work, they don’t get paid. If we conservatively assume 75% of rural migrants were confined to their villages in February, nearly 200 million rural individuals, who make an average of [\\$500 every month](#), were not working. On a larger scale, this means that after one month of COVID-19 restrictions, China’s economy lost around \$100 billion in rural migrant worker wages alone. If we then add the lost wages of the large rural workforce that live and work near their home villages, the total economic loss is significantly higher than \$100 billion and exceeds the highest [estimate of the global economic impact of SARS](#) – and it still does not account for all the other losses to the economy.

At the same time, however, there have been some positive developments. As in urban areas, rural governments have taken measures to reduce the negative effects of COVID-19 by encouraging online schooling: 71% of village informants reported that students were attending classes online. However, we have yet to determine the quality and rate of their learning in online classes. Our follow-up study will tell us more.

Now we’re left asking, what happens after all control measures are lifted and rural residents are forced to try to provide for their families with a significant loss in income?

Our team conducted a follow-up phone call survey in mid-March, which looks predominantly at how people reacted to their economic losses when the quarantine policies were ending. Even with the lifting of the restrictions on movement in March, at least half – and potentially up to 60% or 70% – of the rural workers, who had been working in the previous year, were still not working. The radical decline in employment during and after the quarantine clearly was already impacting the livelihoods of rural communities. Over half (53%) of the villages surveyed reported their local workers had lost approximately two months’ worth of income. This represents about 17% of their annual income. As a result, families have been forced to decide what essential commodities to cut down on so as to survive on their now-limited funds. Villagers in the survey villages reduced their spending on food (55%), education (10%), and (non-COVID-19) healthcare (9%). The prices of common goods in 2020 also were reported to be higher than the previous year (2019) in both February (63%) and March (66%) surveys. In practice, this means that people are buying more grains and staples in bulk at low cost in lieu of

more expensive goods like meat and produce. It also indicates that nutrition has declined – at least among a share of rural families. This is particularly concerning for families with young children, as REAP’s past research shows that nutritional deficiencies in early childhood can [significantly inhibit cognitive development](#), which is linked to adverse outcomes in later life.

As COVID-19 continues to spread across the globe, our findings have strong implications for other countries that have adopted similar lockdown policies. Workers around the world are facing potentially huge losses of income in the coming weeks and months. As governments implement COVID-19 control measures, they must also consider the needs of economically vulnerable communities, or face dramatic increases in economic hardship and poverty among the hardest hit.

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