
Long March, Bitter Fruit: The Public Health Impact of Rural-to-Urban Migration in the People's Republic of China

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Few cases in the comparative study of internal migration systems have drawn as much attention or elicited as much controversy as the People's Republic of China. Over its first decade of rule, the Chinese Communist Party crafted a two-tiered social, economic, and political system that bifurcated society along a rural-urban axis. Policies adopted during this period favored the growth of urban industry at the expense of rural welfare, with peasants receiving little in exchange for mandatory grain sales that helped subsidize an extensive social security system for the urban labor force.¹ Buffered from the chronic malnutrition, high infant mortality and low life expectancy that characterized life in the countryside, the urban public health environment became the envy of the developing world. A household registration and grain rationing system that functioned as a "de facto internal passport mechanism" effectively restricted migration between these polar worlds.²

The dismantling of the grain rationing system and return of a cash economy and petty capitalism in the early 1980s partially broke down the 'invisible walls' encircling Chinese cities by weakening many of the Mao-era migration control measures.³ Although still registering all households as urban or rural, the state acquiesced by the mid-1980s to allow peasant migrants to make a temporary home in the cities.⁴ By filing the appropriate paperwork and paying a fee, a peasant can now engage in temporary work in a city, but cannot participate in the urban welfare system without a formal urban *hukou*, or household registration. It is estimated that at any given time 40-100 million peasants are away from their formal places of residence and working or seeking work in urban areas.⁵ A few stay permanently in cities, where they live as aliens outside of the system, while the majority engages in short-term or seasonal work before returning to the countryside. Most neglect to notify urban officials of their arrival, because of the low benefit and variable costs involved.⁶

Peasant migrants have become a nameless but not faceless presence in Chinese cities. They are a highly visible subpopulation, identifiable by their physiques, skin tone, clothing, and dialects. They comprise more than 20 percent of the population of Shanghai, 25 percent of Beijing, 33 percent of Guangzhou, and 37.8 percent of Hangzhou.⁷ Dorothy Solinger and others have argued that the social

status of these migrants parallels the status of illegal aliens living in foreign countries.⁸

Numerous studies have analyzed internal migration in China—its causes and effects on agriculture and urban economies have drawn much attention and spawned ongoing debate. Few studies, however, have looked directly at the health impact of rural-to-urban migration in China. Most analysts view non-*hukou* migration—that is, migration without the formal transfer of *hukou* from rural to urban locale—as an act that entails considerable hardship yet leads to a substantial increase in earning power. These factors clearly have a bearing on health, but the overall impact of migration on public health has not been well delineated. Does the hardship endured by peasant migrants lead to a corrosion of health? Or do higher wages and a more 'developed' urban environment bring about an improvement of health? Do migrants place a strain on the urban infrastructure and contribute to a deterioration of the broader urban public health environment or do they provide benefits to urban host communities? Can the wages remitted home by migrants alleviate rural poverty—or is disease more likely brought home than the means to improve the local standard of living? This paper intends to pursue answers to these questions by examining the positive and negative health effects of non-*hukou* rural-to-urban migration on three distinct groups—the migrants themselves, receiving area communities, and sending area communities.⁹

POSITIVE EFFECTS ON THE HEALTH OF MIGRATING INDIVIDUALS

Income Gain

Since the decision to seek work in an urban area is predominantly motivated by a desire to enhance individual or household earning power,¹⁰ income gain is the logical starting point for this analysis. Although the relationship between income and health is anything but clear, it is assumed that poverty and ill health are strongly associated. Poverty in the Chinese countryside is much more than a lack of pocket money—it is a major cause of infirmity. More rural Chinese die as a result of diseases associated with poverty than the non-communicable diseases responsible for most

urban mortality.¹¹

Although rising incomes have been associated with the adoption of less healthy diets and lifestyles in other contexts, the money earned by migrant workers in China is more likely to allow them to gain ground against poverty than accumulate wealth. The high ratio of persons to acres of arable land, the rising price of inputs such as fertilizer and pesticides, and intense competition have kept agricultural incomes low throughout much of China. Without supplementing household income through non-agricultural labor, many rural families have great difficulty making ends meet. Working in cities allows migrants to make three or four times as much as they would in the countryside,¹² even though most make considerably less than workers with formal urban residency. A minority of migrants, such as those involved in scrap collection, earns more than most locals,¹³ but the majority earns considerably less. Although it is difficult to generalize, the money earned by migrants more often than not represents a much-needed supplement to regular household income.

Access to better food and water

The quality of migrant diets varies considerably, but a significant number of migrants have access to better food and water than their rural compatriots. Although rural diets have improved considerably since the initiation of reforms in the late 1970s, urban diets remain significantly better.¹⁴ Whether rural migrants realize an improvement in their diets when they move to urban areas depends on what types of jobs they hold. Nannies tend to live and eat with the families for whom they work and therefore improve their diet considerably.¹⁵ Others, such as those working in the food services, take their meals onsite and tend to eat a sufficiently balanced diet. As addressed in the following section, however, migrants working in many other sectors have inadequate diets.

Water quality, while highly variable even within one region, tends to be higher in urban areas. According to World Bank statistics, 87 percent of urbanites and 68 percent of rural residents have access to clean drinking water.¹⁶ Other statistics reflect a similar rural-urban discrepancy. One study states that levels of contamination with animal and human excreta often exceed permissible levels by as much as 86 percent in rural areas and 28 percent in urban areas.¹⁷

In recent years, new sources of contamination have compounded water pollution problems in the countryside. The use of chemical pesticides and fertilizers doubled between the mid 1980s and mid 1990s and these products have found their way into drinking supplies in high concentrations.¹⁸ The World Resources Institute (WRI) has identified the rapid development of Township and Village Enterprises and the

absence of regulation of their environmental impact as another major source of pollution in the countryside.¹⁹ Wu et al have found high levels of organic matter, acids, alkalis, nitrogen, phosphate, phenols, cyanide, lead, cadmium, mercury, and bichromate in rural water supplies, with mercury concentrations 45 to 700 percent and lead concentrations 3600 to 5216 percent higher than standard.²⁰

Unclean drinking water has exacted a heavy toll on the health of both rural and urban populations. High rates of diarrhea, hepatitis, ascariis, hookworm infection, trachoma, and dracunculiasis have all been linked to water pollution,²¹ and flourosis is a major problem in the rural North.²² The two leading infectious diseases in China over the last two decades—diarrheal diseases and viral hepatitis—are associated with fecal pollution of drinking water.²³ Polluted water is also a prime suspect in the etiology of liver and stomach cancer, two leading causes of death in rural China.²⁴ Liver cancer deaths have doubled in the last twenty years and are now the highest in the world.²⁵

It is likely that some migrants consume cleaner water in urban areas than in their rural homes and may enjoy a resulting improvement of health. As noted in a following section, however, many migrants have little access to clean water even in areas where formal urban residents drink relatively clean water. Moving to an area with cleaner water benefits only those migrants who have access to the treated water supplies enjoyed by local residents, especially boiled water.

Access to superior health services

The health service infrastructure in urban areas is far superior to that of rural areas. The per capita number of doctors, nurses, clinics, and hospital beds is significantly greater, while medical staffs tend to be better trained and health equipment more technologically advanced.²⁶ A few migrants, especially those working in coveted state sector jobs or certain joint venture factories, do enjoy a minimum level of health coverage.²⁷ The great majority, however, can access health services only on a fee-for-service basis. The rapidly rising cost of health services has priced most migrants out of the market. Moving to an area with higher quality health services thus offers little benefit to most migrants, who are in fact less likely to make use of the expensive health services in urban areas than near their rural homes.²⁸

Cultural and social experience

While the subjective advantages of experiencing life in the city are difficult to quantify, some migrants—especially women—report a sense of satisfaction that results from a

perceived improvement in their cultural life and social status.²⁹ Many nannies and female factory workers claim a newfound sense of power, self-esteem, and autonomy.³⁰ This derives in part from having their own income and also from their personal encounter with an urban conception of male-female relations that is more egalitarian than found in much of the countryside. Nannies, who spend months or years living with urban families, return to the countryside with new conceptions of love, companionate marriage, home comforts, and smaller families.³¹ These changes, while largely positive, can in some cases lead to frustration when the female migrant becomes reacquainted with the entrenched social system at home. At the very least, though, women tend to retain a new measure of control over household resources—a few even exercise a new ability to buy their way out of unhappy marriages.³²

Christopher Smith suggests that the power that comes with the ability to contribute to the household budget may help curtail the deterioration of rural women's health that has resulted from the dismantling of the collective health care system.³³

NEGATIVE EFFECTS

ON THE HEALTH OF MIGRATING INDIVIDUALS

Risks and costs inherent in traveling to, and getting established in, urban centers

Migrants face a great number of risks between the time they leave their rural homes and settle into jobs and living arrangements in the cities. The expense and perceived danger involved in transportation deter many from engaging in migration.³⁴ The substantial cost of transportation is a major reason that it is generally not the poorest of the poor who migrate, but those with at least a minimal amount of capital.³⁵ Migrants commonly fall victim to crime while en route. Moreover, the transportation infrastructure is poor and automobile accidents represent a significant and rising cause of morbidity and mortality.

Although many migrants have prearranged jobs and coordinate their move through networks of friends and relatives, many have no job lined up when they arrive and stay on the streets until they can find a job and a place to live.³⁶ Many take just enough money for transportation and find themselves isolated in a foreign city without the means to return home after failing to find a satisfactory job.³⁷ This group is particularly vulnerable to exploitation. Women in particular are often bullied, raped, or dragged into prostitution.³⁸

In order to secure a job in an urban enterprise, migrants often have to pay a substantial fee or buy into a "loan."³⁹ Job contractors take money in advance and often provide misleading information or disappear without rendering

promised services.⁴⁰ Thus, peasant migrants often assume risks and invest precious capital without realizing any return.⁴¹

Vulnerability and lack of legal protection once settled

Even those who find jobs and an adequate place to live lack legal protection and remain vulnerable to exploitation. Paychecks are often withheld from migrant workers and promises broken with impunity.⁴² Once owed back pay, migrants are often unwilling to give up the chance of regaining their back wages by cutting their losses and walking away and thus continue to subject themselves to unjust treatment. Contractors, managers, and bosses know that migrant workers are often desperate for work—regardless of low pay and poor treatment—and have few means of defending themselves in disputes. Migrant workers, especially those who have not filed the appropriate paper work, are highly unlikely to seek the aid of police or other state security officials for fear of detainment or deportation. Migrants have enough trouble with the local authorities without actively seeking them out.

In addition to arresting migrants for minor offenses, police often target them as suspects and detain them without evidence.⁴³ Municipal officials and the urban public alike associate peasant migrants with rising crime and social disorder. A recent political campaign against crime culminated in the rapid arrest and execution of several migrants who did not have the benefit of a fair trial.⁴⁴

Officials in Beijing and other cities tidied up for events marking the celebration of the return of Macao and the 50th anniversary of the founding of the People's Republic by clearing peasant migrants and other unattractive elements off the streets. Security forces ejected or detained illegal migrants and threatened action against any hotel, boarding house, or hostel that gave them shelter.⁴⁵ Human Rights in China reported that conditions in migrant detention centers are exceptionally grim, with detained peasants lacking access to sanitation facilities, suffering beatings, and not being allowed to leave until paying a fee.⁴⁶

Occupational disadvantages

Migrants tend to take the dirty, dangerous, and low-paying jobs spurned by local residents. Rates of work-related illness and injury are very high. One-fifth of the migrant workers in the Pearl River Delta foreign-invested factories sustained work-related medical difficulties.⁴⁷ These workers exhibited especially high rates of anemia and white blood cell abnormalities, suggesting they suffer from a poor diet or exposure to lead or mercury poisoning.

Industrial accidents are also very common. Accidents

on construction sites, for instance, have claimed numerous lives.⁴⁸ Fires also represent a significant cause of death. A fire in a raincoat factory whose doors and windows were locked killed 60 workers in Dongguan in 1991,⁴⁹ and a fire in a Shenzhen factory claimed 80 more workers two years later.⁵⁰

Despite the above-mentioned improvement in diet enjoyed by nannies and some food service workers, migrants in many other occupational sectors have rather meager diets. One study states that members of Beijing construction teams eat a diet that consists of porridge in the morning and three steamed rolls and boiled white cabbage for both lunch and dinner.⁵¹ A survey found that this poor diet was one of the primary sources of dissatisfaction among migrant construction workers.⁵² It is assumed that engaging in intense physical labor while subsisting on nutritionally deficient fare is a significant cause of ill health.

Housing and sanitation

Poor housing is a common problem shared by peasant migrants in many different contexts, but in Chinese cities housing problems are especially severe. The majority of urban residents receives housing from their employers or the government at a subsidized rate. The small but growing free market for housing serves primarily the foreign community and the new indigenous entrepreneurial elite. With no access to subsidized housing and no means of affording expensive free-market housing, rural migrants have few reasonable housing options available.

One common strategy involves several migrants pooling their resources and renting a room from an urban resident, but several municipal governments have largely negated this option by making it illegal for urban residents to rent space to migrants.⁵³ The police levy heavy fines on urban residents caught violating this law.⁵⁴ When migrants do find rooms, they tend to crowd into them to lower the per person cost. A typical room may house four to five adults, an equal number of sewing machines, one or more infants, and only two or three beds—all within ten square meters.⁵⁵ Many never succeed in finding shelter in a permanent structure. A minority sleeps outdoors or under bridges, while many use cardboard, bamboo, cloth, or a number of other available materials to construct their own makeshift housing.⁵⁶ Such shelters naturally lack electricity, water, and often furniture. Scrap collectors tend to live near the trash heaps on which they make their living, often sleeping inside makeshift structures crafted from materials collected from the trash heap itself.⁵⁷ Migrant construction teams tend to sleep on site in crowded tents or other temporary shelters.⁵⁸

Some build their own brick or cement structures within new migrant enclaves, such as Beijing's Zhejiang Village.

This enclave consists almost exclusively of migrants from two counties in Zhejiang Province. Running a sophisticated network of textile production lines, members of this enclave have created a mini-society within the center of Beijing, replete with self-run school, clinics, and businesses. In 1997, however, municipal security agencies destroyed the majority of structures in this community in a massive bulldozing effort.⁵⁹ This community has since been rebuilt, but migrant enclave communities face an uncertain future in Chinese cities.

The migrant housing problem is intimately tied with the growing sanitation problem in Chinese cities. A significant portion of migrants lives without access to adequate sewage facilities. One survey indicated that only 11 percent of peasant migrants in Shanghai had regular access to toilets.⁶⁰ Where toilets do exist they often drain to open sewers that line roads running through densely populated areas. Some areas have only pits for defecation along the side of the street. Many migrants also lack convenient access to washing and showering facilities. Public faucets and even decorative fountains often provide migrants with their best source of water for cleaning.⁶¹

Excluding peasant migrants from decent housing and failing to address the sanitation needs of the dense migrant population have created conditions that promote the spread of disease. Diarrhea, hepatitis, and measles have become increasingly serious problems among migrant populations.⁶² Even diseases that had hitherto been eradicated from Chinese cities, such as malaria and polio, have reemerged in migrant slums.⁶³ One study has identified a high incidence rate of tuberculosis among peasant migrants in Beijing.⁶⁴

Lack of access to health and social services

As alien members of urban societies, peasant migrants have no entitlement to the urban welfare system. As stated above, fee-for-service health care exists, but its high cost renders migrants likely to seek care only as a last resort if at all. Preventive programs are almost non-existent. Even vaccination programs—long viewed as a strong point of the Chinese system—fail to include migrant children, for whom the need is greatest.

One study demonstrated that overall coverage of BCG, OPV, DPT, and MV was under 35 percent in children of migrating families.⁶⁵ This figure is far below the level of coverage enjoyed by both urban children and non-migrating rural children, for whom vaccination rates are reported to be well over 90 percent.⁶⁶

The proliferation of advertisements for private STD clinics around migrant enclaves is a strong indication of the high prevalence of STDs among migrant workers.⁶⁷ Young rural women who move to the cities to work voluntarily or involuntarily as commercial sex workers and the young

peasant laborers who frequent them have fueled China's growing HIV/AIDS epidemic.⁶⁸ *AIDS Weekly Plus* reports that 96 percent of migrant workers are sexually active, but only 10 percent know how to prevent the transmission of HIV.⁶⁹ The failure to educate peasant migrants on the modes of HIV transmission and to promote feasible preventive measures has laid the groundwork for an epidemic that will not only impact the health of migrant populations, but likely spread throughout the nation.⁷⁰

The lack of access to general education represents another major problem. One study states that only 40 percent of migrant children in Beijing are enrolled in school.⁷¹ Another states that only 10 percent of migrant children nationwide are attending school.⁷² Schools have often refused to accept migrant children. In 1996 the government granted children permission to enroll in urban schools, but only if they paid an exorbitant fee. The lack of resources to pay this fee has effectively prevented migrant children from attending school.⁷³

A number of migrant communities have established their own schools with no governmental assistance, but the government has forcibly closed many of them and passed a law banning them.⁷⁴ Many have reopened their doors, only to be shut down by the government multiple times.

As a result of these exclusionary policies, two to three million children nationwide receive no formal schooling.⁷⁵ The government's active exclusion of migrant children from both government and private schools has exacerbated the gross inequalities that have reemerged in cities and further buttressed the two-tiered nature of Chinese society.

Psychological costs

Although many migrants, particularly women, report a sense of personal satisfaction associated with their migration experience, several studies have found that migration often exacts a significant psychological cost. One study found that 90 percent of migrant workers reported finding urban life unfamiliar and difficult to adapt to.⁷⁶

Migrants exchange the familiar for a less secure social context in which they are often degraded and marginalized. They occupy the lowest socioeconomic rung in urban society and suffer neglect, scorn, and abuse at the hands of local residents. Children in particular face ostracism and ridicule,⁷⁷ while rates of hate crimes committed by urban residents against migrants have risen steadily.⁷⁸

One study found that migrant workers in Shenzhen exhibit poor mental health, with especially high levels of obsession, phobia, and interpersonal hypersensitivity.⁷⁹ Another study found that migrant children and those born in cities to migrant parents are likely to engage in anti-social behavior and suffer high levels of depression and low self-esteem.⁸⁰

Positive effects on sending areas

One of the most salient themes of rural-to-urban migration in China is the continuing connectivity between the migrant and the sending area. Migrants not only remit a significant portion of their income back to their rural homes, but most also return home to work in the fields during the most labor-intensive periods of the agricultural cycle and also return to celebrate major holidays. It is because of this high degree of connectivity that an examination of the public health impact of rural-to-urban migration must take into account the consequences of migration on sending areas.

Accumulation of capital

The *raison d'être* of circular migration is bringing income back into the home area. Sending remittances home is a near universal feature of rural-to-urban migration in China—usually in the amount of 50 to 60 percent of a migrant's total wages.⁸¹ The nationwide remittance total is estimated at 180 billion RMB per year, which is roughly equal to 15 percent of the GDP of China's agricultural sector and up to 25 percent of that of provinces with high levels of migration, such as Anhui.⁸²

The household tends to serve as the locus of decision-making about the utilization of labor and is also the unit that receives remitted wages. The money gained through remittances is vital to household welfare.⁸³ As stated earlier, low levels of arable land per person and expensive inputs reduce the profitability of farming and make household budgets difficult to balance. Kam Wing Chan estimates that one-third of the total rural agricultural labor force is redundant.⁸⁴ This labor power is a vital resource for rural families. Shifting one worker from farm to migratory work raises family income by an average of 49.1 percent.⁸⁵ Although sometimes spent on nonessential or luxury items, remittances are best seen as a vital supplement to family incomes that are generally low—and in some cases perilously low. Remittances are vital in improving household diets,⁸⁶ and represent an important source of income diversification.⁸⁷

Remittances are also used in sending areas for house construction, wedding finance, and local investment.⁸⁸ One author states that a casual observer can determine which families have sent daughters to work as maids in urban homes by walking down village roads and comparing the quality of family homes.⁸⁹

Some migrants invest in village projects, such as the construction of roads, bridges, community halls, drainage pipes, and schools.⁹⁰ Overall levels of investment in community infrastructure, however, appear relatively low⁹¹—but that is not to say that benefits accrue only to those households directly receiving remittances. The capital accumulated through migratory work has been invested in local enter-

prises that employ village compatriots locally. In Sichuan Province over 300,000 returning migrants have started their own businesses in their home regions.⁹²

Local governments also stand to benefit from the exportation of rural labor. Some migrants, such as officially organized rural construction teams, pay taxes to rural home governments.⁹³ Government officials in rural areas, such as in Sichuan Province⁹⁴ and Miyun County near Beijing,⁹⁵ have officially encouraged locals to engage in short-term work in cities because of all of the above-mentioned benefits.

Flow of intangible benefits

In addition to absorbing an influx of money from urban areas, rural sending areas also receive a number of intangible benefits. Returning migrants bring with them "continuous flows of information, skills, capital, innovation, and life-style influences."⁹⁶ Whether these skills impart a large benefit on local rural economies is debatable, but some level of contribution to social change is likely.

One of the key areas in which returning migrants initiate social change is in gender relations. As stated above, female migrants gain a new sense of autonomy with the ability to contribute to household income. Some of this carries over to their home communities. Returning migrants are more likely to have a say in household affairs than those who have never left.⁹⁷ Moreover, although urbanites have tagged peasant migrants with the pejorative term "excess-birth guerrillas," most evidence indicates that migration tends to have a delaying effect on the reproductive life of women.⁹⁸ Peasant migrants tend to have more children than urbanites, but fewer than their rural compatriots who never engage in migration.

NEGATIVE EFFECTS ON SENDING AREAS

Increase of intra-community inequality

Because migration requires start-up costs in the form of transportation fees and the money required for subsistence until a job is found, it is not the poorest of the poor that comprise the migrant ranks. As the middle and upper tiers of rural society improve their standards of living through the accumulation of money earned through migratory labor, intra-community inequalities are exacerbated.⁹⁹ Rising inequality has numerous deleterious effects on health in rural China. Those with expendable resources can afford to utilize health services, but others are increasingly shut out as the system moves toward a fee-for-service pay structure.¹⁰⁰ Even some who realize a nominal amount of growth in their income have difficulty drawing themselves out of poverty because of rising prices of provisions and

agricultural inputs.¹⁰¹

Negative impact on agriculture

Many within and outside of China have raised the concern that high rates of migration in the countryside have led to a "brain and muscle drain," a depression of agricultural production, and an over-reliance of village economies on remittances. Individuals shifted away from agricultural production tend to be of prime working age. In some areas, families who survive on remittances alone tend to farm their land half-heartedly or in some cases not at all.¹⁰² In certain cases, however, land is leased to others who assume responsibility for production. Moreover, the fact that migrants maintain strong connections to their rural homes and tend to engage in short-term or seasonal work rather than making permanent homes elsewhere mitigates some of the negative effects migration might otherwise have on agricultural production.

As for the question of over-reliance on remittances, the benefits of income diversification likely outweigh the potential drawbacks. The great majority of households receiving remittances not only continue to engage in agricultural production, but still have more labor power invested in agriculture than is necessary for maximum efficiency.

Introduction of infectious disease

Circulatory migration naturally facilitates the spread of disease from one area to another. Poor living conditions and a propensity to engage in risky behavior render migrants highly susceptible to infection while residing in urban areas and those who contract infections often introduce disease to their home areas when they return. Some peasant migrants in China replicate the pattern of spouse-to-spouse transmission of HIV often accompanying labor migration in Sub-Saharan Africa.

Positive effects on receiving areas

Early in the reform period key government officials, including Deng Xiaoping, reached the conclusion that a) economic development requires labor mobility, b) the problem of the huge surplus labor force in the countryside could not be solved without allowing for geographical mobility for workers, c) urbanization is an essential part of modernization and development, and d) private enterprise can help absorb unemployed or underemployed workers.¹⁰³

Although certain government officials, including municipal managers and security forces, oppose the influx of peasant migrants, allowing peasant migrants to live and work in cities represents an important component of a national development strategy. One of the most widely accepted points in the literature on internal migration is that cheap migrant

labor has rendered a remarkable contribution to the robust growth of eastern Chinese cities over the last two decades. It is the seemingly endless supply of cheap migrant labor that has driven China's construction boom, export-processing zones, and surging factories. Migrants do the dirty and dangerous work that registered urban citizens do not want to do, and they do it cheaply. This contribution to national economic growth goals is the primary reason the government tolerates the influx of legal, quasi-legal, and illegal migrants from the countryside.

Municipal governments fear infrastructure strain and loss of stability but do earn revenue through the collection of fees from migrant laborers. The fee for exchange of rural *hukou* to urban *hukou* is 50,000 RMB per person in Beijing. Although only a tiny percentage of migrants can afford to complete this transaction, the Beijing municipal government has collected 200-300 million RMB in exchange fees, and has largely invested this money in urban infrastructure.¹⁰⁴ Other fees are collected as well, including multiple types of short-term registration fees. Though sometimes deposited in municipal coffers, these fees often find their way into the pockets of corrupt officials.¹⁰⁵

Urban residents do collect some money, as well. Sun Changmin reports that roughly 2 million migrants rent rooms from local residents in Shanghai, where authorities have not cracked down on the practice.¹⁰⁶ With an average annual rent of 500 RMB per person, Sun estimates that local residents collect approximately 1 billion RMB per year from migrants.

Measured in terms of contribution to economic growth, migration has brought clear benefits to urban receiving areas. It is much less clear, however, how migration has affected the *health* of these receiving areas. It is not taken for granted that growth is necessarily good for health. Unlike the economic benefits enjoyed by sending communities, where remittances often contribute to the alleviation of poverty, it is difficult to suggest that urban growth has rendered a significant contribution to the alleviation of poverty. Urban poverty rates were far lower to begin with than rural rates and urban mortality results largely from chronic disease rather than diseases associated with poverty.

Growth in Chinese cities has been highly inequitable over the last two decades. Wealth tends to amass in the hands of the political and entrepreneurial elite (sometimes one and the same), rather than disseminating broadly across society. Overall, it is not clear that the benefits of growth—rising income for some, government investment in infrastructure improvement—outweigh the drawbacks, which will be explored in the following section. Migration renders no obvious contribution to receiving areas that is specifically health-related.

NEGATIVE EFFECTS ON RECEIVING AREAS

Employment competition

One problem posed by migration is the increased competition migrants bring to urban labor markets. Some urban residents have complained that their prospects for finding jobs suffer because of the large number of migrant workers willing to work for a very low wage.¹⁰⁷ This problem is exacerbated by the reform of Mao-era state-owned enterprises (SOEs), a process that has required the laying off of millions of workers. The government has hoped that continued growth of the private sector will absorb these workers, and it has to a degree, but private companies looking for low-cost and low skilled labor often hire migrants rather than local residents.¹⁰⁸

In order to stem this trend and protect local workers, the Beijing municipal government has raised the number of occupations off-limits to migrant laborers from 15 in 1996, to 35 in 1997, to 103 in 2000.¹⁰⁹ China's accession to the World Trade Organization will likely exacerbate this problem in the short term by increasing unemployment in the state sector and rendering more rural labor redundant by increasing the market share of imported food products at the expense of nationally grown products.¹¹⁰

Urban unemployment is a problem that merits consideration in a health-oriented analysis. Those laid off from SOEs are legally entitled to a pension and a small subsidy for health care, but in reality many receive but a fraction of the entitled amount. These individuals are less likely to eat a sufficiently balanced diet and less likely to utilize health services.

Strain on urban infrastructure

Chinese media often suggest that the waves of migrant workers (*mingong chao*) who have entered cities place a great strain on urban infrastructure, including transportation, water, sewage, housing, garbage, and health and social services. While this charge may contain some truth,¹¹¹ the strain is likely not nearly as large as reported in sensational media accounts.¹¹² As stated earlier, migrants do not compete for the same housing as registered urban residents. Similarly, migrants rarely access health and social services—if at all, they do so on a fee-for-service basis.

The claim that migrants strain city garbage services holds little credibility in light of the fact that migrant workers constitute the lion's share of many cities' formal and informal garbage collection force. These workers make a large contribution to garbage collection and provide cities with free recycling services.¹¹³

Migrants do, however, place a strain on the transportation system, especially during the holidays when the great

majority of peasants return home shortly before the beginning of the Spring Festival. Popular media have called the holiday rush home the largest simultaneous migration in human history. Migrants also contribute to the crowding of city buses throughout the year. Nonetheless, migrants pay full fares and thus can be viewed as subsidizing the transportation of legal urban residents, who often receive discounted fares. Moreover, many migrants stay on or near their work sites and therefore do not participate in the daily commute.

Water may be the one area in which migrants do strain the urban infrastructure in a manner that deteriorates urban health. Clean water is an increasingly scarce resource in China. Most cities have a limited capacity to supply clean water. Shanghai, for instance, supplies roughly 300,000 tons of unclean water a day to residents because demand exceeds the city's capacity to supply treated water.¹¹⁴ Migrants may be responsible for placing some of this excess demand on the water supply, but not all, since most lack consistent access to clean water and therefore consume little compared to registered urban residents.¹¹⁵

Overall, claims that migrants strain the urban infrastructure have some credibility but not to the degree claimed by the Chinese media. Peasant migrants are largely excluded from what Solinger labels the "urban public goods regime."¹¹⁶ The urban welfare system and urban infrastructure are largely beyond the reach of migrants, who tend to fend for themselves and find their own solutions to their daily needs.¹¹⁷

Rising crime and crumbling social cohesion

The Chinese media and municipal security agencies similarly cast peasant migrants as a major cause behind the nation's rapidly rising crime rates. Since the mid-1980s, crime has risen 6 percent annually, with "serious" crimes rising 18 percent per year.¹¹⁸ The official Xinhua news agency states that migrants are responsible for 54.8 percent of all crimes in Beijing and that migrants have "disrupted the city's social stability and security."¹¹⁹ Another source claims that the percentage of crimes committed by migrants in Shanghai's Pudong District rose from 33 percent in 1988 to 70 percent in 1993 and that migrant gangs rather than individuals are now responsible for the majority of crimes.¹²⁰

Davin makes an important point in stating that these claims tell us as much about urban biases than actual crime patterns,¹²¹ but a number of factors support the claim that migrants do in fact account for a significant percentage of urban crime. The economic, social, and political marginalization of peasant migrants points toward the likelihood of high rates of criminal behavior in this demographic group. Moreover, the majority of migrants are young males in the age range most prone to criminal activity. Migrants

comprise a very large percentage of the total urban male population in this high-risk age group. It is highly likely that migrants therefore do commit a significant percentage of total urban crimes.

Spread of disease and return of urban blight

Although formal urban residents still have low rates of infant mortality and relatively high life expectancy, the urban blight so common in other developing countries has returned to Chinese cities after a long absence. Shantytowns have risen as new features of the urban landscape. As stated in an earlier section, several diseases that had been controlled with considerable success in Chinese cities have re-emerged. Malaria and polio, for instance, have returned after being nearly eradicated.¹²²

Migrant workers contract these diseases with greater frequency, but residents with urban *hukou* naturally are not immune. Migrants and permanent residents interact on a regular basis and migrants often handle food supplies. Through direct human-to-human transmission of disease and contamination of food and water supplies, the health of migrants and permanent residents alike is threatened.

DISCUSSION

If little else, the above sections have demonstrated the difficulty of making absolute judgments about the overall effects of migration. In the words of Christopher Smith, most conclusions about the impact of migration are "articles of faith—unsupported and perhaps unsupportable by hard data."¹²³ Those who view migration as an effective means of alleviating poverty and those who view migration as a menace to public health can each summon ample evidence to support their claims. Migration creates problems as it solves problems and contributes to both an improvement and a deterioration of health.

Nonetheless, it is possible to make some constructive evaluations about the net public health impact of migration in China. Most evidence indicates that the migration experience is fraught with hazards, especially for children who are excluded from schools and health services. Migrating individuals expose themselves to hardship and disease. Most migrants sacrifice—or at least risk sacrificing—their well being in order to earn a higher wage. Only those among this group—and they may be numerous—who utilize their earnings as a means of making headway against poverty can realistically expect to realize a long-term improvement of health. The manner in which wages are invested is of vital importance.

A key factor in determining the quality of the migration experience is gender. Although in some ways more vulnerable to exploitation than men because traditional gender power structures are superimposed on other uneven power

relationships in the urban workplace, women tend to realize an increase in autonomy that few men report experiencing. Women tend to gain more from the migration experience than men.

The prospects for sending area communities are inextricably tied with those of the migrating individuals. If migrants return home with their health intact and savings in their pockets, their households and broader communities will also benefit. Again, the most significant way in which migration can lead to a lasting improvement of health is if the capital, skills, and ideas brought back from the cities are applied in a manner that leads to a long-term reduction of poverty.

The primary benefit for receiving areas is also economic. However, since the economic gains in cities are rarely applied to poverty reduction, but lead instead to highly inequitable growth in which benefits accrue largely to the economic and political elite, it is difficult to argue that the influx of rural peasants exerts a positive health impact on Chinese cities. It is rather the negative effects of in-migration—such as the deterioration of the sanitation environment, the reemergence of shantytowns, the rising prevalence of communicable diseases, and mounting crime problems—that make a deeper impression on the urban public health environment.

Although several of the problems facing the three groups analyzed in this paper are common to migration in other developing countries, many are exacerbated by specific government policies—both remnant socialist institutions such as the household registration system and protectionist policies municipal governments have implemented in the past decade. The government is teetering between two competing policy goals—achieving rapid industrial and economic growth, on the one hand, and maintaining the social and political status quo on the other. In order to achieve the former, the government strives to tap into the massive reserve of cheap rural labor, while achieving the latter re-

quires the government to protect urban workers, minimize social disorder, and maintain a degree of control over population mobility.

Many of these protectionist policies do not deter migration, but simply make the migration experience more difficult and create numerous public health problems. Migrants are rendered aliens within their own country and deprived of a fair wage, adequate housing, health and social services, and equal protection under the law, while exploited for their labor. Migrant laborers are of course victims, but they are also agents. They leave the countryside for their own reasons, though most often to contribute to household income. They are overworked and undercared for, but the money they remit home represents an important source of diversification of household income and often keeps peasant families from teetering off the edge of the abyss.

The solution to the migration problem is not reimposing draconian mobility controls that would once again subject peasants to “internal colonization.”¹²⁴ Nor does the answer lie in immediately doing away with the household registration system, because an abrupt influx of large numbers of peasants would likely overwhelm the urban infrastructure.

Rather, what is needed to create a healthier and more just society is a reorientation toward long-term policies that address the fundamental inequalities that polarize China along an urban-rural axis. The household registration system and its auxiliary protectionist policies should be phased out over the course of several years in conjunction with the rise of new policies that promote the welfare of rural citizens. Long-term investment in rural education and infrastructure should become major policy goals, while low-interest loans are provided for equitable local development. The state should not only educate and vaccinate migrant children, improve environmental sanitation, and safeguard migrants’ rights, but also strive to close the divide between urban and rural areas and free the peasantry from a legacy of exploitation.

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