Working Paper Series

WP 08-4 MARCH 2008

Migration Experiences of North Korean Refugees: Survey Evidence from China

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Abstract

Chronic food shortages, political repression, and poverty have driven tens of thousands of North Koreans into China. This paper reports results from a large-scale survey of this population. The survey provides insight not only into the material circumstances of the refugees but also into their psychological state and aspirations. One key finding is that many North Korean refugees suffer severe psychological stress akin to post-traumatic stress disorder (PTSD). This distress is caused in part by experiences in China. However, we demonstrate that it is also a result of the long shadow cast by the North Korean famine and abuses suffered at the hands of the North Korean political regime. These traumas, in turn, affect the ability of the refugees to hold jobs in China and accumulate resources for on-migration to third countries. Most of the refugees want to permanently resettle in South Korea, though younger, better-educated refugees have a greater inclination to prefer the United States as a final destination.

JEL codes: P2, P3, F22
Keywords: North Korea, China, refugees, migration

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Author's note: This research was underwritten by a very generous grant from the Smith Richardson Foundation; we would like to thank Allan Song for his cooperation. We would also like to thank seminar participants at Yale University and the Peterson Institute for helpful comments on an earlier version of the paper. Erik Weeks provided exemplary research assistance.

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Chronic food shortages, political repression, and the continuing weakness of the economy have driven tens of thousands of North Koreans to cross the border into China's northeastern provinces.[1] A distinctive feature of this refugee experience is the particular inhospitality of the recipient country to which they have fled. The Chinese government has responded to this influx with intensified surveillance of the border and periodic crackdowns on the refugee community, while consistently refusing to grant North Korean refugees asylum or to establish a process through which their refugee status claims could be processed. As a consequence, most of these refugees are forced to undertake an arduous journey to third countries, abetted by nongovernmental organizations (NGOs) and professional smugglers.

Yet we know from data collected by the South Korean government that even those who succeed in getting out have often spent substantial time in China, many having fled during the peak famine years of the mid-1990s. Through individual testimony, open-ended interviews, and more systematic survey research, we are gradually gaining greater insight into the life experiences of these refugees. This growing body of work considers the conditions that motivated migration in the first place, conditions in China, particular issues such as trafficking, and the subsequent ability of refugees to assimilate once they have reached a third country.

This paper extends this work by providing information from a large-scale survey of refugees conducted from August 2004 to February 2005 in China. A novel feature of the survey is that it provides insight not only into the material circumstances of the refugees but also into their psychological state and aspirations.

A key finding of the survey, confirmed by more detailed clinical work in South Korea, is that many North Korean refugees suffer severe psychological stress akin to post-traumatic stress disorder (PTSD). This distress is caused in part by the precariousness of refugee life in China. However, we show that it is also a result of the long shadow cast by the North Korean famine and abuses suffered at the hands of North Korean authorities. These traumas, in turn, affect the ability of the refugees to hold jobs in China and accumulate resources for on-migration.

Relatively few refugees want to remain in China: Most want to permanently resettle in South Korea, though younger, better-educated refugees have a greater inclination to prefer the United States as a final destination. These findings also confirm research on North Korean refugees in South Korea that points to substantial adjustment problems, problems that are a reminder of the difficult social and psychological issues that would attend any process of reunification.

The remainder of this paper follows the narrative arc of the refugees' experiences. The first section outlines the nature of the survey, provides basic demographic information on the sample, and discusses its

1. The precise number of North Koreans who have made this journey remains uncertain; estimates range from 20,000 to as high as 400,000. The high end of this range probably exaggerates the number currently in China (Refugees International 2005, 5–6). See Lee (2006, 18–19) for a summary of alternative estimates.

representativeness vis-à-vis both the North Korean and refugee populations. The second section examines the reasons why refugees left North Korea and outlines in somewhat more detail the risks they encounter in doing so. The third section focuses on how the refugees organize escape and establish lives in China.

In the fourth and fifth sections, we extend this analysis of objective conditions to a more detailed consideration of the psychology of the refugees. This human dimension of the refugees' plight is a recurrent theme in refugee testimony, and we find, not surprisingly, that refugees suffer from fear, anxiety, and other psychological problems associated with the uncertainty of their circumstances. We use multivariate regression techniques to generate a more nuanced portrait of the determinants of this psychological distress. This analysis permits us to isolate the effects of demographic factors as well as refugees' experiences in both China and North Korea. We also find some evidence that women are more vulnerable to psychological distress than men. In the sixth section of the paper we further examine the refugees' experiences in China in the context of their aspirations for the future, including preferences for permanent resettlement. Our findings and their relevance are summarized in the concluding section.

I. WHO ARE THE REFUGEES? A DEMOGRAPHIC PROFILE

The survey was conducted from August 2004 to September 2005 by 48 individuals trained by one of the authors before conducting the interviews. [2] A total of 1,346 refugees were interviewed at 11 sites: Shenyang, Changchun, Harbin, Yangbin, Tumen, Helong, Hunchun, Dandong, Jilin, Tonghua, and Wangqing. We do not claim that the sample is random. Neither we nor anyone else knows the underlying characteristics of the refugee population, and cluster-type techniques used in other contexts to address this problem were impossible to implement due to the covert nature of the survey and the underground status of the respondents.[3] Nonetheless, we are able to compare the demographic characteristics of this sample against those of others in previous surveys and, with the possible exception of a bias toward refugees living in urban areas, believe that it is probably a reasonable reflection of the North Korean refugee population. However, as our subsequent analysis will show, it is possible to use multiple regression analysis to control for at least some possible sources of bias in sampling.

2. As is typical in such survey work, the number of valid responses usually falls below this number, as indicated in the tables that follow.

3. To reduce the likelihood of interviewing the same individuals multiple times, the respondents were not paid. Given the use of multiple interviewers over an extended period, however, the possibility of a single individual being interviewed more than once cannot be categorically excluded. In the case of Shenyang, interviews were conducted on two occasions. The identities of the respondents in the first set of interviews were recorded, and these individuals were excluded from the second round of interviews. Because these refugees do not have legal status in China, in the cases where respondents were suspicious and refused to answer on paper, the responses were memorized by the interviewers to dissipate this anxiety. Due to the tightened security situation in the border region, conducting such interviews has become much more difficult, if not altogether impossible, since the interview period.

Along a number of important dimensions, the sample also roughly mirrors what we know about the North Korean adult population as a whole, albeit with two particularly salient differences: Members of lower-income classes and residents of the northeast provinces are both overrepresented, as has been the case with previous surveys conducted in both China and South Korea (cf. Robinson et al. 1999, 2001a, 2001b; Lee et al. 2001; Chon et al. 2007).[4] Most of the respondents were prime age adults; the median age of the respondents was 38 years. Females slightly outnumbered males, 52 to 48 percent. A slight majority of the sample reported high school education (53 percent), but 44 percent reported having only elementary education. Most respondents were laborers (54 percent), with farmers (34 percent) the next largest occupational group. Other reported occupations included student, trader, professional or technician, administrator, soldier, party official, and government official, although some of these were quite small in number.

Most respondents were from North Hamgyong province (57 percent), followed by South Hamgyong province (19 percent). Although this distribution of responses actually makes these provinces somewhat *less* overrepresented than in earlier surveys, these provinces account for only about 24 percent of the North Korean population (Eberstadt and Banister 1992). There are two main reasons for this bias. The more obvious is proximity. The eastern end of the Tumen River has become the main route for egress.

Internal travel in North Korea has historically been controlled and exposes the individual to risk not only of harassment and mistreatment but also imprisonment. Those living closer to the border simply have less far to travel.

The second reason for the overrepresentation of refugees from the northeast is that these provinces were hit hardest by the food shortages and famine of the 1990s (Smith 2005; Haggard and Noland 2005, 2007). North Korea is surprisingly industrialized and urbanized for a country of its per capita income. As food shortages became apparent in the early 1990s, the working classes of the industrial cities in the northeast were particularly vulnerable to the declining ability of the public distribution system (PDS) to provide adequate rations (Haggard and Noland 2007, chapter 2). These traditionally food-deprived provinces were highly dependent on the PDS, and famine appears to have started there well before it hit

4. A smaller survey conducted in South Korea (Y. H. Lee 2007) is an exception: The socioeconomic profile of respondents is decidedly more upscale. This sample may be unrepresentative (as might be inferred by comparison to a larger survey conducted by Chon et al. 2007), or it might reflect the fact that North Koreans from more advantaged backgrounds are more likely to have the resources and connections (either on their own or through family connections in South Korea) to on-migrate from China to a third country for ultimate settlement in South Korea. Under this second interpretation, the socioeconomic profile of our sample may reflect a sample selection issue: More advantaged refugees spend less time in China and are more likely to successfully migrate to a third country and thus escape counting in our survey. For details, see Blaine Harden, "As More Take a Chance on Fleeing North Korea, Routes for All Budgets," *Washington Post,* November 18, 2007. Interestingly, the northeastern provinces are less overrepresented in our survey than in Y. H. Lee (2007).

the rice-growing western provinces. During 1994, the North Korean government reportedly stopped sending food shipments to North and South Hamgyong and Ryanggang altogether.

It is important to underscore, however, that while this overweighting of the northeast limits the conclusions that can be drawn from the sample with respect to the North Korean population as a whole, it does not necessarily present a problem for drawing inferences about the North Korean refugee community in China, which almost certainly is similarly skewed. In addition, we can use multivariate regression techniques to control for region to some extent since all provinces in the country, as well as the privileged capital city of Pyongyang, are represented among the respondents.

II. MOTIVATION AND POLITICAL AND LEGAL SOURCES OF RISK

Refugees consider leaving their homeland for diverse reasons, some having to do with the "push" factors associated with deprivation or persecution, others having to do with "pull" factors based on opportunities in the target country. Over the years, the predominant motivation for North Koreans deciding to cross the border into China has fluctuated somewhat. Early interviews with refugees from the famine period and immediately after found, not surprisingly, that hunger and the search for food was a major push factor (Good Friends 1999, 14). By 2002, however, a Human Rights Watch report found that hunger was just one of the motives for flight; others included loss of status, frustration over lack of opportunities, political persecution due to family history, and wish to live in similar conditions as those North Koreans who live outside of North Korea (Human Rights Watch 2002). Refugees debriefed in South Korea cited following others who had already left as yet another motive (Lee 2006, table 1).

Our survey asked refugees whether they left for economic, political, or other reasons. For this sample of refugees, the economy was the overwhelming reason for leaving North Korea (95 percent); political dissatisfaction was a very distant second (2 percent). In a narrow sense, this pattern of responses would appear to confirm the Chinese government's claim that the North Koreans are "economic migrants" rather than refugees fearing persecution.[5] However, as we will see in more detail below, economic circumstances in North Korea, including the distribution of food, are very closely tied to the political order; as a result, we should be cautious in interpreting this response.

Weighing against the various motivations for leaving are the risks of attempting exit or of being repatriated from China. In the case of the North Korean refugees, these risks are very substantial and provide insight into their psychological state. Before changes in the North Korean penal code in 2004—just prior to the survey—a person who illegally crossed "a frontier of the Republic" faced a sentence of up to three years in a *kwalliso*, a political penal labor colony (Hawk 2003). Several factors influenced

5. See Kurlantzik and Mason (2006) for an analysis of the legal reasons why this Chinese claim is unfounded.

the severity of the actual punishment meted out to North Koreans who were caught attempting to leave or who have been forcibly repatriated. Those who are classified as "political offenders" face the most severe penalties. Individuals believed to have crossed the border with the purpose of defecting or seeking asylum in a third country were subject to a minimum of five years of "labor correction." In "serious" cases, defectors or asylum seekers were subjected to indefinite terms of imprisonment and forced labor, confiscation of property, or death. Those who did not appear politically dangerous were sent to a village unit labor camp, where they spent between three months and three years in forced labor.

Regulations under the 2004 penal code appear to have codified the differential treatment between economic refugees and those cases deemed political. A defector who is sent back to North Korea is subject to interrogation and investigation by the City or Country Security Agency. If the agency concludes that the defector crossed the border for economic reasons, the new code stipulates sentences of up to two years of "labor correction." The government has even signaled the promise of a pardon under the 2004 penal code, and several NGOs operating in the region have confirmed that punishments seem to be less severe than in the past. On the other hand, defectors believed to have crossed the border for political reasons can be charged with the crime of treason and are still vulnerable to longer-term detention (Kim 2006). However, interviews with 30 refugees conducted between 2005 and 2007 suggest that such judicial proceedings are often skipped, torture remains prevalent in detention facilities, and death rates in incarceration remain high (Muico 2007). In 2008 there have been reports of public executions, including the February execution of 15 people in Onsung County. It has also been claimed that as of March 1, 2007, the sentence for unauthorized exit has been increased from that specified in the 2004 penal code revision (Good Friends 2008).

Women face an additional set of risks. The North Korean regime has taken a particularly dim view of marriages between North Korean women and Chinese men.[6] Repatriated women who are suspected of becoming pregnant in China have been subject to forced abortions, and infanticide has been practiced (Hawk 2003). The legal code changes also specify relaxed treatment for pregnant women, though in practice these protocols are breached, and in some cases forced abortions continue to be practiced (Lee 2006; Michael Sheridan, "Nation Under a Nuclear Cloud: 'Racially Impure' Children Killed," *Sunday Times*, October 15, 2006). Moreover, the North Korean authorities have been unwilling to accept the repatriation of children from marriages to Chinese men (a practice that has also created a particularly acute problem with respect to orphaned North Koreans in China). As a result, women who are repatriated risk not only incarceration but also separation from their children.

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6. See, for example, the April 26, 2006 *Rodong Sinmun* reproduced on the website of the Korean Central News Agency, April 28, 2006, "*Rodong Sinmun* Censures Theory of 'Multiracial Society,'" www.kcna.co.jp (accessed January 13, 2008). Chinese authorities have more practical concerns about intermarriage, although it has also been reported that local authorities have issued various forms of official identification documents to North Korean women in rural areas where marriageable women are in short supply (S. Lee 2007).

The risks of leaving North Korea are by no means limited to interdiction by North Korean authorities but rather rest largely on the position that the Chinese government has taken with respect to the refugees (Kurlantzick and Mason 2006). Although China is a party to the Refugee Convention, it has consistently taken the view that the North Koreans are “economic migrants” and thus not afforded protection under the convention. According to the South Korean Unification Ministry, a secret agreement was signed between China and North Korea in the early 1960s governing security in the border area. In 1986 another bilateral agreement was signed calling for the return of North Koreans and laying out security protocols. Since 2001, surveillance along the border has intensified. Following a number of incidents in which North Koreans entered foreign embassies and consulates seeking asylum in 2002, Chinese authorities forcibly repatriated tens of thousands of North Koreans, and there are concerns that in the run-up to the Beijing Olympics, the Chinese authorities will crack down again. In addition to the risks associated with treatment by North Korean authorities, there are credible reports of torture in the Chinese detention facilities as well (Amnesty International 2000, 2001, 2004; Lee 2006, 53).

III. LEAVING NORTH KOREA, COMING TO CHINA

The act of migration requires resources and planning and is rarely done without some kind of support, be it from friends, family, or experienced traffickers motivated by financial gain, political conviction, or religious fervor. Such networks and connections enable refugees to leave in the first place and provide support on the other side of the border. Three-quarters of respondents reported receiving assistance getting out of the country. Of these more than half reported that they had paid for assistance, suggesting that bribery of officials and/or networks of professional smugglers play a large role in escape. Although it is believed that missionaries and NGOs are playing a major role in the underground railway, their importance appears to be relatively minor with respect to initial egress; barely 1 percent of the sample reported NGOs as a source of assistance.

Once they get to China, however, the nature of the support network naturally changes. The survey asked whether people received help from Korean-Chinese, missionaries, or others. The overwhelming majority (88 percent) reported receiving help from the Korean-Chinese community directly. These patterns of assistance are also seen where the refugees live. Approximately 76 percent of refugees reported living with Korean-Chinese. Another 5 percent cite “missionaries,” most of whom come from within the Korean-Chinese community as well. Over 5 percent reported living in the mountains or on the street.

An important question is the stability of the North Korean community in China and their intentions with respect to staying, moving to third countries, or going back to North Korea. A striking finding of our survey was that 32 percent of our respondents had been in China for three or more years

(table 1). For most migrants, residence in China, where our survey was conducted, is not their ultimate goal: It is a temporary residence until they can assemble the resources to continue on to some preferred location for permanent settlement. Yet while most migrants do not want to reside permanently in China, their "transitional" stay often proves protracted.

There are statistically significant differences across genders in the duration of residence in China. Nearly 41 percent of women had been in China for more than three years, but only 23 percent of men had. This may reflect the fact that some women had married Chinese men or entered into gender-related forms of servitude. Alternatively, the disproportionate numbers of women among long-term residents of China (who would have exited North Korea during the famine period) might reflect the well-known "demographic advantage": that women are more likely to survive severe food shortages and famine and hence a relatively high share of women crossed the border during that period (Macintyre 2002). In either case, as we will show in more detail below, greater time in China neither improved psychological state, as an "adjustment" interpretation might suggest, nor reduced it, as an "exploitation" interpretation would indicate.[7]

IV. PSYCHOLOGICAL CONDITIONS OF REFUGEES: THE PREVALENCE OF DISTRESS

A growing clinical literature has established that the particular difficulties faced by North Korean refugees have been associated with major psychiatric disorders, including post-traumatic stress disorder (Jeon 2000, Lee et al. 2001).[8] Controlled clinical studies by doctors working with North Korean refugees in South Korea found few of their patients to be free of psychological disorders, with rates of PTSD ranging from 30 percent (Jeon et al. 2005) to 48 percent (Baubet et al. 2003) to 51 percent partial PTSD and 26 percent full PTSD (Kim, Yoon, and Han 2007).

Table 2 provides an overview of the responses to our questions about psychological state, grouped into three clusters of questions: those dealing with anxiety and fear; those dealing with other psychological issues, particularly anger and capacity to concentrate; and those related to refugees' perception of the future. Table 3 displays the mean responses on these questions and the standard deviation.[9]

7. Both effects could also be operating simultaneously, with the null finding reflecting our inability to distinguish among subgroups within our sample.

8. Interestingly, the duration of such disorders may actually be lower among refugees than among internally displaced people: Individuals who became refugees faced similar traumatic events but usually of shorter duration because they were able to escape (Cardozo 2003). There is no reason to believe that the experiences of North Koreans in China should differ in this regard. However, it is important to note that psychological trauma is a durable and constituted state. Individuals are typically not cured without treatment, as illustrated by the high prevalence of patients with trauma who have been in South Korea for some time.

9. In the interests of brevity, we report results for only a subset of the survey questions. The full set of results is reported in Chang, Haggard, and Noland (2006).

Our survey indicates that a majority of North Korean refugees in China exhibit significant psychological distress, findings consistent with those obtained by Lee et al. (2001) for a smaller group of subjects. Among the questions asked, mean scores are highest for those relating to the anxiety of their status: usually anxious, bad things will happen, and fear for family. The descriptive statistics also suggest differences between men and women on this cluster of questions, with women showing greater incidence of fear and anxiety; we probe this more systematically in the regressions in the next section.

Clearly, the sources of this anxiety are multiple and encompass events in North Korea that pushed refugees across the border, the stresses associated with the trip itself, as well as conditions in China once refugees arrived. To get at the immediate causes of stress, we asked the refugee respondents the main reason for their anxiety; the answers to these questions are reported in table 4. Their lack of status in China was an overwhelming source of anxiety: Approximately 67 percent identified fear of arrest and repatriation as their biggest concern, while another 15 percent identified the related concern over uncertainty about their residence. The second most reported reason for their anxiety is for their family in North Korea (16 percent).[10]

There is some evidence of differential responses according to gender. Almost from the moment they cross the border—and sometimes when they are still in North Korea—refugee women are subject to multiple sources of trauma. Respondents in one survey of 100 female refugees in China conducted between August 2001 and October 2003 reported experiences including arrest (44 percent), extradition (34 percent), human trafficking (24 percent), rape (20 percent), and prostitution (9 percent) (Kang 2006).[11] Indeed, as shown in table 4, women are more likely to trace their anxiety to fear of arrest than men, who show more concern with respect to their residence. While our survey did not probe directly into whether women had been involved in trafficking or prostitution, respondents were asked if they knew of women being trafficked in China, and 53 percent answered affirmatively. Interestingly, hunger is not a widely reported source of contemporaneous concern, at least among North Koreans who have made it to China.

However, it cannot be assumed that the sources of psychological distress are related only to the immediate experiences of refugee life in China. The respondents were also asked a battery of questions

10. Operating in a clinical setting in South Korea, Jeon et al. (2005) found that the most frequently cited trauma among this sample while in China was "fear of risk to life if discovered while in hiding" (83 percent), anxiety about being in a strange place (81 percent), with family-related concerns also prominent.

11. Marriage brokers provide North Korean women as wives, particularly in the rural areas, where the historical preference for male babies has led over time to an acute shortage of marriage-age Chinese women. Having a Chinese husband, however, may or may not guarantee a North Korean woman's safety, as she is still subject to repatriation. Moreover, some women sold into Chinese families suffer physical, sexual, mental, and emotional abuse against which they have very little recourse because of their status. Other studies have documented that some women resort to prostitution as a source of income (Human Rights Watch 2002, 12–15; Amnesty International 2004, 28; Muico 2005; Kang 2006; Lee 2006). In addition, North Korean women also suffer abuse from Chinese guards along the border and North Korean officials upon repatriation (Anthony Faiola, "North Korean Women Find Life of Abuse Waiting in China," *Washington Post*, March 3, 2004).

about their experiences in North Korea, including whether they lost family members to the famine, whether relatives were arrested, about separation from their families, whether they had been incarcerated, and about their experiences while in prison.

These experiences are harrowing. More than 23 percent of men and 37 percent of women reported having had family members die of hunger. More than 40 percent of the respondents were unaware of the international food aid distribution effort; of those who were aware of it, less than 4 percent believed that they were beneficiaries. When asked about the disposition of the aid, most expressed the belief that the aid went to the military (90 percent) or party and government officials (27 percent).[12]

Twenty-three percent of the respondents reported separation from adult family members. In 59 percent of these cases, this was associated with family members crossing the border into China; the second most cited reason was disappearance after traveling without permission (table 5). Disappearance for speaking out against the regime was relatively rare (2 percent). Seventy-nine percent of the sample reported separation from children. In 66 percent of these cases, the children were left behind in North Korea; in nearly 19 percent of the cases, however, children had died due to hunger or illness.[13]

More than one-quarter of the sample reported having been arrested, and nearly 10 percent of the respondents reported having been incarcerated in political detention facilities. While there were no statistically significant differences in self-reported arrest rates across genders, males were significantly more likely to report incarceration in political detention facilities than were females. Among those incarcerated in political detention facilities, 90 percent reported witnessing forced starvation, 60 percent reported witnessing deaths due to beating or torture, 27 percent reported witnessing executions (table 6). It has been alleged that pregnant women thought to be carrying binational children have been subject to forced abortions or infanticide; 5 percent of the respondents indicated that they had witnessed these practices. Lastly, it has been claimed that North Korea conducts medical experiments on prisoners;[14] 55 percent of the respondents believed (but did not necessarily witness) that this had occurred at the facilities in which they were incarcerated.

12. This does not prove that aid was used in this fashion, only that the respondents believe this to be the case. However, this pattern of beliefs is mirrored in a survey of 250 refugees in South Korea conducted by an NGO founded by North Korean refugees. According to this survey, 60 percent of the respondents believed that South Korean rice aid was allocated to the military on a priority basis, and only 7.6 percent believed that they themselves were recipients. See Baek Seung-joo, "S. Korea Knew Its Rice Feeds N. Korean Military," available at http://english.chosun.com (accessed on February 20, 2008).

13. The way that this question was administered permitted only a single response—it is quite possible that the causes of separation occurred systematically more frequently than reported in table 8.

14. Barbara Demick, "North Korea's Use of Chemical Torture Alleged," *Los Angeles Times,* March 3, 2004; Abraham Cooper, "Toxic Indifference to North Korea," *Washington Post*, March 26, 2005.

V. MODELING PSYCHOLOGICAL DISTRESS

Insight into the sources of psychological distress can be gained by modeling the survey responses as a function of the respondents' demographic characteristics and self-reported personal experiences (table 7).[15] We group the psychological responses—as we have in tables 2 and 3—into three broad categories: anxiety and fear (*anxious*, *fear*, *fearfamily*); other psychological problems (*anger*, *concentrate*), and orientation toward the future (*attain*, *hope*). Apart from basic demographic characteristics, with which we begin, five experiential variables appear to be highly correlated with these dimensions of self-reported psychological status: the status of knowing of food aid but believing that one was not a beneficiary (*food aid*); incarceration in a political detention facility (*camp*), which also captures in part the experiences in the prison system that we have outlined;[16] arrest (*arrest*); knowledge of human trafficking (*trafficking*); and death of a family member due to hunger (*death*).

Beginning with the most basic demographic variables,[17] *age* is a statistically significant correlate in five of the seven regressions, in all cases being associated with more negative psychological status. This is particularly true with respect to the questions dealing with orientation toward the future; not surprisingly, advancing age is correlated with a greater sense of hopelessness and despair about reaching life objectives.

Education tended to increase fear and anxiety but did not have effects on other psychological problems noted or on orientation toward the future. Despite the correlation between occupation and educational attainment, *elementary* remained significant in all three of the fear and anxiety questions, with low levels of education being associated with less fear and anxiety.

Occupational status (*trader*, *student*, *farmer*, *other job*) is frequently correlated with psychological state. Traders showed a significantly higher level of psychological distress, and across all questions, than workers (the omitted occupational category). Farmers—perhaps because of their lack of other skills—did show a more despairing outlook toward the future. The migrations of the relatively small number of traders may reflect more idiosyncratic, specific, and personal experiences. Trading was often illicit and thus highly vulnerable in North Korea and was subject to a variety of idiosyncratic risks in China as well.

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15. Given the skewness of the sample and the likely violation of the normally distributed error term assumption underlying standard ordered probit estimation, the regressions reported in table 1 were estimated semi-nonparametrically with the order of the Hermite polynomial used to approximate the density of the error distribution set at 3 in all specifications in accord with maximum likelihood tests and the Schwartz Bayesian information criterion; the Akaike information criterion, "which in some cases is found to have a tendency towards the selection of models with too many parameters, even asymptotically" tended to be in agreement with the other two criteria (Stewart 2003, 8).

16. Little or no additional explanatory power was obtained by entering variables associated with having witnessed torture, executions, and the like while in the camps; there is a high degree of multicollinearity across these variables, and for these respondents, the values of the left-hand-side psychological variables tend to cluster at the most negative node.

17. It is also worth mentioning the dogs that did not bark: Various specifications of variables relating to provincial origin were uncorrelated with psychological outcomes and are not reported.

Stories of deals gone bad are not uncommon; a typical scenario involves an individual North Korean trader cheated by his or her Chinese counterparty and left in limbo, unwilling or unable to return to North Korea to face retribution from creditors. In contrast, one can imagine a situation in which the farmers' migration was essentially a class phenomenon driven by broadly deteriorating conditions, involving if not mass then group defections, linking to more extensive social networks in China through which the farmers can draw solace and support from similarly situated refugees. Conversely, students had the most hopeful future orientation.

Despite statistically significant differences in many of the responses, gender was significant in only two of the seven regressions once other factors are taken into account. Nonetheless, we did find that women experienced higher anxiety and fear for other family members than men, reflecting their particular vulnerabilities.

An important finding, however, is that the impact of these demographic variables was dwarfed by the experiential ones. Death of a family member due to hunger (*death*) and knowing of the food aid program but believing that one was not a beneficiary (*food aid*) were significant in all seven regressions; these experiences were strongly associated with adverse psychological outcomes. Incarceration in political detention facilities (*camp*) and knowledge of trafficking in women (*trafficking*)—an experiential variable that captures knowledge of a particular risk—were significant in six of the seven regressions. *Arrest* was significant in four of seven cases, including both questions relating to future orientation.

But perhaps the most compelling result in table 7 is the magnitude of the psychological effect of famine-related experiences in North Korea and exposure to the North Korean penal system. In all seven regressions, the largest estimated coefficient of the five experiential variables is famine-related. In six of the seven cases, the coefficients on *food aid* are estimated with the largest values of any of the experiential variables (though not always by a statistically significant margin), consistently larger in magnitude, for example, than the coefficients on having been incarcerated in a political detention facility. The only case in which *food aid* is not estimated with the largest coefficient, the *concentrate* regression, the largest estimated coefficient is on the variable for having family members die due to hunger, *death*. The famine and the government's mismanagement of it continue to reverberate through North Korean society and appear to remain important determinants of psychological distress long after the famine had passed and the individuals in question had left the country.

VI. EXPERIENCES IN CHINA AND FUTURE ASPIRATIONS

The vast majority of North Korean refugees in China do not want to return to their country of origin (table 8). This reluctance to return to North Korea is particularly striking given the fact that the

overwhelming majority of respondents—90 percent—reported still having family there and many have returned, in some cases on multiple occasions. Among our respondents, 20 percent had returned to North Korea of their own volition. More than a quarter of the sample had been repatriated, and of those, 25 percent (83) had been repatriated twice and another 15 percent (49) had been repatriated three or more times; in these cases, even imprisonment was not a deterrent. Again, this pattern is consistent with a substantial minority of respondents reporting multiple border crossings in a previous survey (Lee et al. 2001, table 1).

When asked if they planned future returns, the only group with a markedly higher propensity to return was students (31 percent), although "student" may be a proxy for age and physical condition. We asked refugees their reasons for returning to North Korea, and the overwhelming majority cited the effort to bring money (80 percent) or food (11 percent) back to North Korea; only a very small share returned to do business or because they found prospects in China bleak. At least among this sample of refugees, the phenomenon of return appears to be largely limited to short-term visits by young people bearing remittances.

Most refugees in China do not seek to reside there permanently (table 8). Only 14 percent of refugees stated that China was their preferred final destination, although this may well be the result of the country's current stance toward the refugees; if China were to loosen its stance, it might well become more attractive. As of now, however, the vast majority of refugees would prefer to be elsewhere.

Given China's unwillingness to countenance asylum claims, on-migration implies an arduous journey via a third country for the majority of refugees seeking permanent resettlement elsewhere. For many this means seeking employment in China to accumulate resources for on-migration. Yet only 22 percent of the refugees reported being employed. Low levels of employment reported by the refugees may stem from a multiplicity of factors including fear of detection or lack of skills, including language skills as well as psychological state.

Exploitative work conditions may reinforce such impediments. To be able to work in China, one needs a *hukou* (residence permit) or a *shenfenzheng* (ID card), which North Koreans cannot obtain legally. The lack of papers places the North Koreans at the mercy of employers willing to employ them illegally. These conditions invite exploitation and have pushed refugees into low-wage "dirty, difficult, and dangerous" work, a common circumstance for refugees (Lankov 2004, Lee 2006). The survey asked whether the respondent was receiving a fair wage, and only 13 percent of the 1,152 responding said they were; 78 percent reported receiving little wages, and 9 percent reported receiving none. (An often-reported example of the last case is farm workers, who are denied wages after being promised that they would be paid after the harvest.) Admittedly, fairness is a subjective concept. Nevertheless, given that real wages and their purchasing power are unquestionably higher in China than in North Korea, the finding that 7 out of 8 respondents believe that they are being treated unfairly is striking.

We would like to model the ability to secure employment in China, and, implicitly, the ability to subsequently accumulate resources and on-migrate. The problem immediately arises as to how to treat the impact of psychological distress on employment: Anxiety, inability to concentrate, and despair are all potential determinants of the ability to secure and maintain employment, yet lack of employment may itself cause psychological distress.

Statistically, this means that right-hand-side regressors may be determined endogenously or that the regression is subject to reverse causation. In principle, this can be addressed through the use of instrumental variables—namely variables that are highly correlated with the regressor in question but that cannot independently causally explain the left-hand-side variable, often because they are chronologically predetermined. In the case of the jobs regression, we use events in North Korea (the status of knowing of food aid but believing that one had not received it; separation from family members, which cannot influence one's employment in China except through psychological impact) as instruments for the average psychological score derived from the seven indicators reported in table 2 (*avgpsych*). This two-stage probit regression is reported in the first column of table 9.

Psychological distress strongly impedes employment in China. Indeed, it is one of only a handful of variables strongly correlated with employment. Although difficult to tease out in a statistical sense, the data are certainly consistent with the interpretation that adverse circumstances in China and psychological state are mutually reinforcing: Vulnerability creates psychological problems, which in turn magnify the problems refugees face in coping with their difficult environment.

Interestingly, length of time in China is also negatively associated with employment. There are at least two possible interpretations. One is that we are sampling from a subpopulation that for whatever reason (unrecorded physical disability, for example) has essentially become stuck in the border region, unable to hold down a job, accumulate resources, and move on. The other interpretation is that this group has become integrated into the Korean-Chinese community and does not need employment to survive. The two hypotheses are not mutually exclusive.

In contrast, having child dependents encourages employment, presumably because of greater need for income. None of the other demographic variables matter once these are taken into account. The only other significant correlate with employment is knowledge of trafficking; it is positively associated with employment.

As reported in table 8, the two most frequently identified preferred destinations for permanent resettlement are South Korea (64 percent) and the United States (19 percent). The question of where refugees would like to live provides an interesting window both on the nature of the information available to them and on their aspirations. The next eight columns of table 9 report probit regressions on the preference for those two destinations.

In contrast to the regressions on psychological status, demographic variables generally appear to be more correlated with outcomes than are experiential variables on this issue. The most striking findings had to do with education and age. Secondary and postsecondary education were statistically significant predictors of the preference to live in the United States in seven of eight cases; in contrast, they were negatively associated with a preference for South Korea as the final destination, significantly so in most cases. Similarly, *age* was strongly negatively correlated with a preference to emigrate to the United States, and in a couple of specifications, the occupational category *student* was negatively associated with a preference for South Korea.

Refugees who originated in the three northeastern provinces of North Korea had a distinct disinterest in the United States as a destination for permanent resettlement, the only example from our analysis in which provincial origins mattered to an outcome. One possible explanation is that refugees originating in provinces further from the border represent a more enterprising self-selected group, which might be consistent with the notion that younger, better-educated, and possibly more risk-tolerant refugees are interested in migrating to the United States. That said, regional effects were not evident in the regressions on the psychological variables.

A number of experiential variables were correlated with preferences for emigration, though not robustly so. Knowledge of *trafficking* is positively associated with a preference for the United States. *Camp* and *death* are also positively associated with desire to permanently resettle in the United States and negatively associated with interest in South Korea, though these correlations become insignificant when other experiential variables are added. The preference for the United States among those formerly incarcerated in prison camps may reflect the belief that former political prisoners may have an easier time making successful asylum claims in the United States.

In short, the United States is the favored destination for younger, better-educated respondents, possibly reflecting better English language ability, less affinity for South Korea, and a greater willingness to take risks. Older and less-educated respondents prefer South Korea.

VII. CONCLUSION

We have reported the results of a highly unusual survey of North Korean refugees in China, emphasizing not only the sources of their vulnerability but also the psychological consequences of the difficult journeys they have undertaken. The survey confirms that refugees face a particular set of vulnerabilities that range from their insecure legal and personal status, risks of deportation, to difficulties in securing livelihoods. Our survey also provides evidence that refugees—and particularly women—are additionally vulnerable to predatory behavior and trafficking.

That these vulnerabilities would have a pronounced effect on the mental health of refugees is not surprising; an overwhelming number of those interviewed struggle with anxiety and fear. However, the multivariate regressions indicate that the psychological problems facing refugees are not simply a result, or even primarily a function, of their vulnerability in China but rather point to their experiences in North Korea prior to exit and treatment by the North Korean authorities: first and foremost, perceptions of unfairness with respect to the distribution of food aid, the death of family members during the famine, and incarceration in the North Korean gulag.

The responses help understand the growing political groundswell to address the North Korean refugee problem. The vulnerability of these refugees is clearly related to the Chinese government's position that they are economic migrants, not eligible for protection under existing international protocols, and even susceptible to deportation, incarceration, and gross human rights violations. Since the time of this survey, there is evidence that the Chinese have intensified their crackdown on North Koreans in the country, probably with somewhat contradictory effects. On the one hand, the crackdown has almost certainly contributed to a slowdown in the number of refugees entering China and to the return—either voluntary or forced—of substantial numbers of those in the country. On the other hand, the crackdown may have intensified the vulnerabilities outlined here with respect to those who have chosen to stay.

Despite their hardships, it is important to recall that the refugees we have interviewed chose to flee North Korea because they believed conditions in China were better than those in North Korea. Few have chosen to go back, and those who do have done so on a temporary basis. Moreover, there is little evidence among this group that they seek to permanently return to North Korea. While it is important to focus international attention on the particular plight of the refugee, it is also important to recall that the refugee problem is only the very small tip of a much larger iceberg of deprivation and repression within North Korea itself.

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Table 1 Length of time in China

Period	Males Number	Males Percent	Females Number	Females Percent	Total Number	Total Percent
Less than 6 months	34	5.3	34	5.0	68	5.2
6 to 12 months	81	12.7	71	10.4	152	11.5
1 to 2 years	101	15.8	102	15.0	203	15.4
2 to 3 years	277	43.3	197	29.0	474	35.9
More than 3 years	146	22.8	276	40.6	422	32.0
Total	639	100.0	680	100.0	1,319	100.0

Table 2 Indicators of psychological distress (percent)

Indicator	Males Agree	Males Strongly agree	Females Agree	Females Strongly agree	Total Agree	Total Strongly agree
Fear and anxiety						
Usually anxious	45.0	22.6	48.0	35.0	46.6	29.1
Bad things will happen to me	68.9	27.0	58.9	39.0	63.7	33.3
Fear for my family	70.6	26.2	54.9	42.8	62.5	34.9
Always in fear	56.6	21.0	52.7	35.2	54.7	28.4
Other psychological problems						
Get angry easily	28.5	12.3	40.2	15.7	34.8	14.0
Hard to concentrate	57.1	13.5	53.1	18.6	55.1	16.2
Future orientation						
Not sure of future	29.3	10.3	36.6	12.2	33.1	11.2
Not able to reach goals	34.3	10.1	39.9	12.4	37.3	11.2
Current situation is hopeless	25.7	11.5	32.1	14.1	29.0	12.9

Table 3 Mean scores of responses on psychological state

Indicator	Males Mean	Males Standard deviation	Females Mean	Females Standard deviation	Total Mean	Total Standard deviation
Fear and anxiety						
Usually anxious	3.9	0.79	4.2	0.73	4.0	0.77
Bad things will happen to me	4.2	0.56	4.4	0.54	4.3	0.56
Fear for my family	4.2	0.53	4.4	0.56	4.3	0.55
Always in fear	4.0	0.74	4.2	0.70	4.1	0.73
Other psychological problems						
Get angry easily	3.3	1.01	3.5	1.04	3.4	1.03
Hard to concentrate	3.7	0.89	3.8	0.93	3.7	0.91
Future orientation						
Not sure of future	3.3	0.92	3.4	0.95	3.4	0.93
Not able to reach goals	3.4	0.88	3.5	0.97	3.4	0.93
Current situation is hopeless	3.3	0.92	3.4	1.04	3.3	0.99

Table 4 Reported reasons for anxiety

Reason	Males		Females		Total	
	Number	Percent	Number	Percent	Number	Percent
Arrest	348	57.1	471	77.2	819	67.1
Hunger	9	1.5	2	0.3	11	0.9
Home	131	21.5	58	9.5	189	15.5
Family in North Korea	120	19.7	77	12.6	197	16.2
Others	2	0.3	2	0.3	4	0.3
Total	610	100	610	100.0	1,220	100.0

Table 5 Family members arrested or whereabouts unknown

Question/response	Number	Percent
No	944	77.3
Yes	278	22.8
Total	1,222	100.0
If yes, why?		
Speaking against the regime	6	2.3
Traveling without permission	38	14.8
Crossing the border to China	152	59.1
Stealing food	5	2.0
Don't know	56	21.8
Total	257	100.0

Table 6 Labor camp/political prison

Question/ response	Males		Females		Total	
	Number	Percent	Number	Percent	Number	Percent
Sent to labor camp/political prison						
No	521	84.6	613	95.9	1,134	90.4
Yes	95	15.4	26	4.1	121	9.6
Total	616	100	639	100	1,255	100
If yes, did you witness the execution of prisoners?						
No	71	74.7	17	65.4	88	72.7
Yes	24	25.3	9	34.6	33	27.3
Total	95	100	26	100	121	100
If yes, did you witness forced starvation?						
No	3	3.2	9	34.6	12	9.9
Yes	92	96.8	17	65.4	109	90.1
Total	95	100	26	100	121	100
If yes, did you witness death due to torture/beating?						
No	30	31.6	18	69.2	48	39.7
Yes	65	68.4	8	30.8	73	60.3
Total	95	100	26	100.0	121	100
If yes, did you witness the killing of infants?						
No	90	94.7	25	96.2	115	95.0
Yes	5	5.3	1	3.8	6	5.0
Total	95	100	26	100	121	100
Prisoners sentenced to death are used for experimentation						
No	35	36.8	19	73.1	54	44.6
Yes	60	63.2	7	26.9	67	55.4
Total	95	100	26	100	121	100

Table 7 Psychological state of North Korean refugees (semi-nonparametric estimation of extended ordered probit)

Variable	Fear and anxiety			Other psychological problems		Hope for the future	
	anxious	***fear***	***fearfamily***	***anger***	***concentrate***	***attain***	***hope***
food aid	0.69***	0.48***	0.54***	1.00***	0.85***	1.16***	1.10***
	(0.10)	(0.09)	(0.10)	(0.13)	(0.17)	(0.10)	(0.12)
camp	0.53***	0.31**	0.44***	0.30**	0.19	0.71***	0.55***
	(0.12)	(0.12)	(0.12)	(0.12)	(0.15)	(0.12)	(0.12)
arrest	0.09	0.18*	0.15	0.22*	0.05	0.40***	0.25**
	(0.08)	(0.09)	(0.09)	(0.09)	(0.13)	(0.09)	(0.08)
trafficking	0.45***	0.47***	0.43***	0.31**	–-0.08	0.30***	0.42***
	(0.09)	(0.09)	(0.09)	(0.11)	(0.14)	(0.08)	(0.10)
death	0.38***	0.41***	0.44***	0.78***	0.96***	0.32***	0.35***
	(0.08)	(0.08)	(0.07)	(0.10)	(0.12)	(0.08)	(0.08)
female	0.18**	0.04	0.17*	0.08	0.10	0.01	0.02
	(0.06)	(0.07)	(0.07)	(0.06)	(0.08)	(0.06)	(0.06)
age	0.24***	0.05	–0.07	0.85***	0.52***	0.41***	0.48***
	(0.07)	(0.07)	(0.06)	(0.05)	(0.07)	(0.04)	(0.05)
elementary	–0.46***	–0.41***	-0.43***	–0.08	0.10	–0.14	–0.12
	(0.08)	(0.09)	(0.09)	(0.11)	(0.13)	(0.08)	(0.08)
farmer	–0.19**	–0.17*	-0.01	0.11	0.11	0.16**	0.31***
	(0.06)	(0.08)	(0.07)	(0.06)	(0.08)	(0.06)	(0.06)
trader	1.11*	0.76	0.70	2.06**	3.51***	1.16***	1.15***
	(0.47)	(0.43)	(0.44)	(0.66)	(1.03)	(0.28)	(0.27)
student	0.54***	–0.15	–0.13	–0.86***	–1.03***	–0.70***	–0.72***
	(0.16)	(0.22)	(0.21)	(0.20)	(0.23)	(0.19)	(0.22)
other job	0.34**	0.13	0.13	0.33	–0.30	–0.30**	–0.22*
	(0.11)	(0.12)	(0.12)	(0.19)	(0.17)	(0.11)	(0.11)
N	1,104	1,105	1,100	1,100	1,099	1,102	1,101
Chi-squared	262.24	248.87	284.90	965.23	318.31	1,040.26	1,211.48
p	0.00	0.00	0.00	0.00	0.00	0.00	0.00

* p<0.05, ** p<0.01, *** p<0.001

Note: Standard errors in parentheses.

Table 8 Preferred destinations for permanent resettlement

Destination	Number	Percent
North Korea	13	1.0
South Korea	802	64.3
United States	238	19.1
China	178	14.3
Russia	3	0.2
Japan	7	0.6
Others	6	0.5
Total	1,247	100.0

Table 9 Job in China and preferred final destination

	Job in China	Prefer to live in the United States				Prefer to live in South Korea			
Variable	**2SPLS(1)**	**US-P(1)**	**US-P(2)**	**US-P(3)**	**US-P(4)**	**SK-P(1)**	**SK-P(2)**	**SK-P(3)**	**SK-P(4)**
***avgpsych*[a]**	−1.16***								
	(0.33)								
food aid		0.16				0.21			
		(0.16)				(0.13)			
camp		0.30	0.44**			−0.37*	−0.43**		
		(0.18)	(0.15)			(0.16)	(0.14)		
arrest		0.13				−0.06			
		(0.14)				(0.12)			
trafficking	0.78***	0.54***		0.60***		−0.22		−0.17	
	(0.22)	(0.16)		(0.13)		(0.13)		(0.10)	
job in China		0.07				0.21*			
		(0.13)				(0.11)			
death		0.00			0.24*	−0.18			−0.27**
		(0.13)			(0.11)	(0.12)			(0.10)
children	0.61***								
	(0.16)								
in China	−0.37***								
	(0.08)								
female	0.02	−0.06	0.01	−0.10	−0.05	−0.11	−0.12	−0.06	−0.06
	(0.11)	(0.11)	(0.10)	(0.10)	(0.10)	(0.09)	(0.08)	(0.08)	(0.08)
northeast	0.06	−0.39**	−0.39***	−0.36**	−0.38***	0.06	0.02	0.01	0.03
	(0.15)	(0.12)	(0.11)	(0.11)	(0.11)	(0.11)	(0.11)	(0.10)	(0.10)
Pyongyang	0.56	0.41	0.23	0.40	0.23	−0.33	−0.19	−0.26	−0.22
	(0.34)	(0.30)	(0.29)	(0.29)	(0.29)	(0.29)	(0.28)	(0.28)	(0.28)
age	0.36	−0.99***	−0.95***	−0.86***	−0.89***	0.18	0.12	0.05	0.03
	(0.24)	(0.21)	(0.20)	(0.20)	(0.20)	(0.18)	(0.17)	(0.16)	(0.17)
secondary		0.45**	0.83***	0.53***	0.78***	−0.27*	−0.40***	−0.32**	−0.31**
		(0.15)	(0.11)	(0.13)	(0.12)	(0.12)	(0.09)	(0.11)	(0.10)
post-secondary		0.59	0.61*	0.59*	0.71*	−0.60*	−0.45	−0.44	−0.46
		(0.33)	(0.31)	(0.30)	(0.29)	(0.26)	(0.25)	(0.24)	(0.24)
elementary	−0.25								
	(0.16)								
farmer	0.00	−0.17	−0.10	−0.11	−0.16	0.07	0.04	0.05	0.09
	(0.12)	(0.12)	(0.11)	(0.11)	(0.11)	(0.09)	(0.09)	(0.09)	(0.09)
trader	−0.20	0.18	0.34	0.31	0.24	−0.06	−0.20	−0.24	−0.10
	(0.59)	(0.32)	(0.30)	(0.31)	(0.31)	(0.31)	(0.30)	(0.30)	(0.30)

(table continues next page)

Table 9 *(continued)*

	Job in China	Prefer to live in the United States				Prefer to live in South Korea			
	2SPLS(1)	**US-P(1)**	**US-P(2)**	**US-P(3)**	**US-P(4)**	**SK-P(1)**	**SK-P(2)**	**SK-P(3)**	**SK-P(4)**
student	–0.36	–0.03	–0.14	–0.10	–0.14	–0.46	–0.46	–0.49*	–0.51*
	(0.51)	(0.30)	(0.28)	(0.27)	(0.29)	(0.27)	(0.25)	(0.24)	(0.26)
other job	0.13	0.18	0.13	0.14	0.12	–0.20	–0.20	–0.21	–0.18
	(0.19)	(0.20)	(0.19)	(0.20)	(0.19)	(0.17)	(0.17)	(0.17)	(0.17)
Regression summary statistics									
N	982	1,065	1,130	1,144	1,134	1,065	1,130	1144	1134
Pseudo r-squared	0.11	0.19	0.16	0.16	0.15	0.05	0.04	0.04	0.04
Chi-squared	104.97	197.20	169.92	178.39	168.09	70.04	62.05	52.76	58.42
p	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

* p<0.05, ** p<0.01, *** p<0.001

a. Instruments = *food aid*, family members missing, disappeared, or abducted

Notes: Job in China is estimated using two-stage probit least squares (2SPLS), preferred final destination is estimated using a probit (P) model. Standard errors in parentheses.