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Thank you for the opportunity to testify before this subcommittee on the topic of China's One-Child Policy. The policy was first announced in 1978—33 years ago—and Chinese authorities claim it has prevented approximately 400 million births from 1979 to 2011. While the official position of the Chinese government is that the policy will remain in place until at least 2015, there are rumors that fines and punishments for having a second child (for those couples who are not entitled to a second child) may no longer be enforced. It is apparent that the Chinese government is re-thinking the wisdom of the One-Child Policy in light of current national security concerns.

As a Security Studies specialist, my remarks will focus on the effects China's One-Child policy has had on the national security of that nation. My argument will be that the One-Child policy has not enhanced China's security, but demonstrably weakened it. As Nick Eberstadt famously phrased it, what are the consequences for a society that has chosen to become, simultaneously, both more gray and more male? For that is indisputably what the Chinese government has chosen by implementing the One-Child Policy. The ratio of elderly persons to current workers is plummeting (from 5.4 in 2009 to a projected 2.5 in 2030 and 1.6 in 2050, according to CSIS), at the same time that the birth sex ratio has risen (officially) to over 118 boy babies born for every 100 girls babies, and may in fact be as high as 122 or more. Indeed, certain areas of China are approaching a ratio of 140.

It is time to ask whether the One-Child Policy has undermined China's ability to sustain itself as a stable and a prospering society.

Introduction

The most frequently discussed transnational demographic change of the twenty-first century is that of global aging. Many developed nations are aging, and quite a few have birth rates that are at subreplacement levels. Researchers and policymakers alike have become intensely interested in understanding the social, economic, and security consequences of that vast demographic shift among the most powerful nations in the international system.

But in Asia there is a second unprecedented demographic alteration taking place: over the last twenty years, birth sex ratios have become increasingly skewed in favor of males. This phenomenon can be found in nations such as China, India, Pakistan, Bangladesh, Nepal, Taiwan, and South Korea. Overall, there are at least 90 million missing women in Asia, and over 10% of young adult men in these nations

will be hard pressed to form traditional families of their own. And for China, a rising power, *both* demographic shifts are at work—China is not only one of the “aging” countries, it is also the country with the greatest shift in sex ratios. China’s last census shows that over 118 male babies are born for every 100 girl babies born, and in reality this ratio is likely higher, closer to 122:100 (normal ratios are 105-107 males born per 100 females born).

In my co-authored book, *Bare Branches: The Security Implications of Asia’s Surplus Male Population* (MIT, 2004, with Andrea M. Den Boer), we assert that the increasing skewedness of birth sex ratios in Asia will lead to greater societal instability and crime, with real ramifications for regional and even international security. In this paper, I will re-cap that analysis, as well as adding to it a new and original discussion of the interaction effects between abnormal sex ratios, economic and cultural trends pertinent to China, and global aging, with particular emphasis on consequences for regional and international security.

I. Missing Daughters in China

That there is an abnormal deficit of females in Asia can be fairly readily confirmed through standard demographic analysis. There are established ranges for normal variation in overall population sex ratios, as well as early childhood and birth sex ratios. These ratios are adjusted for country-specific circumstances such as, for example, maternal mortality rates and infant mortality rates. Using official census data, it is then a relatively straightforward task to determine if there are fewer women than could reasonably be expected in a given population. Of course, there are perturbing variables: for example, many of the Gulf States have very abnormal sex ratios favoring males, but this is due to the high number of guest workers, predominantly male, that labor in the oil economies of these states. Once these types of factors have been taken into account, we find that a deficit of females in Asia is a real phenomenon.

To see the scale of the deficit, some comparisons are in order. If we examine overall population sex ratios, the ratio for, say, Latin America is 99.5 males per 100 females (using 2000 figures)—the corresponding figure for Asia is 106 males per 100 females. But one must also keep in mind the sheer size of the populations of Asia: India and China alone comprise about 40% of the world’s population. Thus, the overall sex ratio of the world is 104.1, despite the fact that the ratios for the rest of the world (excluding Oceania) range from 103.1 (Europe) to 99.5 (Africa).¹

Birth sex ratios in several Asian countries are also outside of the established norm of 105-107 boy babies born for every 100 girl babies. The Indian government’s estimate of its birth sex ratio is approximately 113 boy babies born for every 100 girl babies, with some locales noting ratios of 156 and higher. The Chinese government states that its birth sex ratio is slightly over 118 (2010 Census results), though some Chinese scholars have gone on record as stating the birth sex ratio is at least 121-122. Again, in some locations, the ratio is higher: the island of

¹ Population Division of the Department of Economics and Social Affairs of the United Nations Secretariat, *World Population Progress: The 2002 Revision* and *World Urbanization Prospects: The 2001 Revision*, <http://esa.un.org/unpp/>

Hainan's birth sex ratio is 135 (in 2000). Other countries of concern include Pakistan, Bangladesh, Nepal, Bhutan, Taiwan, Afghanistan, and South Korea. No data is available for North Korea.²

Another indicator of gender imbalance is early childhood mortality. Boys typically have a higher early childhood mortality rate, which virtually cancels out their birth sex ratio numerical advantage by age 5. The reasons for this higher mortality include sex-linked genetic mutations, such as hemophilia, as well as higher death rates for boys from common childhood diseases, such as dysentery. However, in some of the Asian nations just mentioned, including China, early childhood mortality rates for girls are actually higher than those for boys.³ Furthermore, orphanage populations are predominantly female in these nations.

Other statistics also factor into the observed gender imbalance. In the West, for example, male suicides far outnumber female suicides. But in countries with deficits of women, female suicides outnumber male suicides. In fact, approximately 55% of all female suicides in the world are Chinese women of childbearing age.⁴

What forces drive the deficit of females in Asian nations such as China? How do we account for the disappearance of so many women from these populations—estimated conservatively at over 90 million missing women in seven Asian countries alone?

Some scholars assert that there may be a physical cause at work preventing female births, such as the disease hepatitis B, antigens of which have been associated with higher birth sex ratios.⁵ This has been disproved as a significant contributing factor. Rather, it is worth considering the following experience of the municipality of Shenzhen in southern China. Alarmed at their rising birth sex ratio, which reached 118 in 2002, local officials instituted a strict crackdown on black market ultrasound clinics. Offering 200 yuan for tips as to where these clinics could be found, officials then vigorously prosecuted owners of the machines and technicians using them, with prison terms affixed. By 2004—that is, in just two years--the birth sex ratio had dropped to 108.⁶

It is fair to say that accounts such as these provide support for the thesis that the modern gender imbalance in Asia, as with historical gender imbalances in Asia and elsewhere, is largely a man-made phenomenon. Girls are being culled from the population, whether through prenatal sex identification and female sex selective abortion, or through relative neglect compared to male offspring in early childhood

² See Table 2.3 on p. 60 of Valerie M. Hudson and Andrea M. Den Boer, *Bare Branches: The Security Implications of Asia's Surplus Male Population*, Cambridge: MIT Press, 2005.

³ *Ibid*, pp. 176-77.

⁴ Christopher J.L. Murray and Alan D. Lopez (eds.), *The Global Burden of Disease: A Comprehensive Assessment of Mortality and Disability from Diseases, Injuries, and Risk Factors in 1990 and Projected to 2020*, Cambridge, Mass: Harvard University Press, 1996, p. 448 and Elisabeth Rosenthal, "Women's Suicides Reveal Rural China's Bitter Roots," *New York Times*, January 24, 1999, sec. 1, p. 1.

⁵ Oster, Emily, "Hepatitis B and the Case of the Missing Women," *Journal of Political Economy*, 113, no. 6 (December 2005): 1163-1216.

⁶ *People's Daily Online*, 'Shenzhen's Newborn Sex Ratio More Balanced', 15 April 2005, http://english.people.com.cn/200504/15/eng20050415_181218.html.

(including abandonment), or through desperate life circumstances that might result in suicide. The gender imbalance in Asia is primarily the result of son preference and the profound devaluation of female life.

One could justifiably suggest that this value ordering is not confined to Asia; why, then, is the deficit of women found almost exclusively there? This question can only be approached through a multifactorial cultural analysis, which we will not detail in this short statement. Suffice it to say that one must examine variables such as religious prohibition or sanction of the practice, traditions of patrilocality and old age security obtained through male offspring, issues of dowry, hypergyny, and caste purity in India, as well as the effect of interventions such as the one-child policy in China. Other factors to consider include the web of incentives, disincentives, and capabilities surrounding the issue of prenatal sex determination technology. The 2010 census in China provides the most recent comprehensive statistics for China's population, but only preliminary results have been released thus far. According to the census the overall sex ratio in China was 105.2, far above the 98-99 that is normal. The birth sex ratio for China in 2010 was over 118. We have more detailed figures from the 2000 census. Of the 14 million births from November 1999 to November 2000, 7.6 million were male and only 6.5 million were female, resulting in a birth sex ratio of 116.9.⁷ China's birth sex ratio has been increasing for the past twenty years: in 1981, shortly after the introduction of China's one-child policy designed to slow population growth, the sex ratio at birth was 108.5. Birth sex ratios varied from province to province, with only two provinces at or near the expected sex ratio of 105.0 (Tibet and Xinjiang) and some provinces exhibiting sex ratios as high as 128.2 (Hubei), 130.3, (Guangdong), and 135.6 (Hainan). We look forward to the release of these types of detailed figures from the 2010 Census in the near future.

Childhood sex ratios are similarly high: sex ratios for children ages 1-4 have increased from 107.0 in 1982 to 120.8 in 2000.⁸ Early childhood sex ratios vary throughout China according to the 2000 census, with only one province (Tibet) exhibiting a sex ratio at or below a ratio of 105.0, and ten provinces exhibiting sex ratios above China's average (with ratios as high as 135.7 in Hainan, 136.4 in Henan and 136.8 in Jiangxi).⁹ Whereas childhood sex ratios typically fall below that of the birth sex ratio due to higher male infant and early childhood mortality patterns, some of China's childhood sex ratios are actually higher than birth sex ratios, indicating the presence of discriminatory practices against female infants and children.

⁷ Guowuyuan renkou pucha bangongshi, *Zhongguo 2000 nian renkou pucha ziliao*, Volume 1, Table 1-12. Preliminary 2010 results: <http://af.reuters.com/article/metalsNews/idAFL3E7FS1Z920110428?sp=true>

⁸ China, Population Census Office, *The 1982 Population Census of China*; China, State Statistical Bureau; and Guowuyuan renkou pucha bangongshi, *Zhongguo 2000 nian renkou pucha ziliao*, Volume 1, Table 1-7.

⁹ Guowuyuan renkou pucha bangongshi, *Zhongguo 2000 nian renkou pucha ziliao*, Volume 1, Table 1-7.

The result of the high sex ratios at birth, coupled with differential infant and childhood mortality patterns in China is that there are 40.6 million women missing from the population (in 2000; we still await the results for 2010). Furthermore, women are not missing in older cohorts: missing women are found in young cohorts of the population, and the younger the cohort, the greater the proportion and number of missing women. This is a demographic phenomenon whose effects are only now beginning to be felt in the larger society, but these effects will grow over time with each passing year.

II. Security Implications of Rising Numbers of Bare Branches in China

The other face of the coin from the missing daughters of China, are the excess sons of China. For every daughter culled from the population, a son will become "surplus"—or in colloquial Chinese, a "bare branch" on the family tree. Our estimates are that by the year 2020, young adult bare branches (ages 15-34) will number approximately 23-25 million in China alone, which constitutes 13% of this young adult male population. No society has ever had to cope with these numbers of bare branches before. The boys born in 1985, when Chinese birth sex ratios originally began to rise significantly, are turning 21 this year, and the percentage of boys that are surplus increases in lock-step according to the year in which they were born. That is, there is a higher percentage of surplus sons in the 1986 birth population than in 1985, and in 1987 than 1986, and so forth.

It is important to understand which young men become the bare branches who will have little chance of marrying and establishing a family. Well-off young men with education, skills, money, looks, or some combination thereof, will marry. It is the young men without advantages--those who are poor, unskilled, illiterate--who will find themselves without the ability to form families. The men at these lower socio-economic levels already feel disenfranchised from established society; their inability to form a family deepens their aggrievement with the existing social order.

In every human society, one important task is to transition young adult males who have little stake in a social order based on law--and who would prefer a social order based on physical force wherein they would possess a natural advantage--to the position of having a meaningful stake in society. That is typically accomplished through marriage and the birth of children, marking the passage from bachelorhood to head of household status. One of the few "laws" in sociology is that male criminal behavior drops significantly upon marriage or serious commitment. In societies where that passage is non-voluntarily delayed for a majority of men, as in some Middle Eastern countries, or where that transition cannot occur for a sizeable percentage of young men, as in China and India, there will be negative social repercussions. By 2020, at least 13% of young adult males in China will not be making that transition.

The foremost repercussions will be an increase in societal instability, marked by increases in crime, violent crime, crimes against women, vice, substance abuse,

and the formation of gangs involved in all of these antisocial behaviors.¹⁰ Unattached young adult males are several times more likely to engage in these types of behaviors than attached young adult males. Furthermore, unattached young adult males tend to congregate, and when they do, their behavior as a group is more antisocial than the behavior of each individual would be by himself. These empirical findings hold cross-nationally: young adult males, especially unattached young adult males, monopolize violence in every human society.

In addition to these types of antisocial behavior, sometimes bare branch gangs coalesce into small armies, which may further coalesce into larger forces that challenge the authority of the government in their area. One such example is the Nien Rebellion in China in the mid-1800's, which opposed the imperial government in the north at the same time that another movement, the Taiping, was active in the south.¹¹ The Nien originated in the Huai-pei area of China around 1851, as it was known at the time, where because of severe natural and man-made disasters, families turned to female infanticide to such a degree that the sex ratio was approximately 129. Young men, mostly bare branches, coalesced into smuggling gangs. Over time, the gangs merged, and as their forces grew larger, so did their aspirations. A county magistrate in Nien territory concluded that three categories of men were creating the unrest--bare branches, smugglers, and bandits--and that the overlap between the three groups was very great. By 1862, the Nien were in control of territory containing almost six million people. It took the imperial army until 1868 to finally crush the rebellion.

We have detailed other historical cases in both China and India where abnormal sex ratios led to domestic instability and conflict between national and regionally-based coalitions of bare branches.¹² Because of space constraints, I wish to turn to a non-Asian case--that of medieval Portugal--to explore international security ramifications of abnormal sex ratios.

Due to an interesting confluence of factors, son preference was enacted in medieval Portugal, leading to an adult sex ratio of 112, with youth ratio somewhat higher. During this time, lower class Portuguese bare branches would throw in their lot with bare branch sons of landed nobility to produce an array of small armies whose chief means of support was plunder and banditry. During periods of political upheaval, bands of bare branches, backed by force of arms, supported challengers to the regime who promised to redistribute the country's wealth. Alternatively, the regime would send bare branches on foreign adventures of conquest and colonization. One historical anthropologist, James Boone, cites the case of João I, the illegitimate half-brother of the Portuguese monarch, who seized the throne after the latter's death with the help of bare branch armies (Boone calls them "cadet bands"). When João I discovered that these bands, through piracy and robbery, were beginning to threaten his own rule, he obtained Papal consent to launch the

¹⁰ Please see discussion pp. 192-200 in Valerie M. Hudson and Andrea M. Den Boer, *op cit.*, for a wide-ranging literature review on the phenomena explored here.

¹¹ This account draws upon Elizabeth Perry, *Rebels and Revolutionaries in North China, 1845-1945*, Stanford, Calif: Stanford University Press, 1980.

¹² See pp. 214-227 in Hudson and Den Boer, *op cit.*

Reconquista—Portugal’s military campaign along the North African coast. Boone remarks, “It was above all *the cadets*, who lacked land and other sources of revenue within the country who desired war, which would permit them to acceded to a situation of social and material independence.”¹³ Another historian notes, “It is obvious that it was the bands of ‘youths’ excluded by so many social prohibitions from the main body of settled men, fathers of families and heads of houses, with their prolonged spells of turbulent behavior making them an unstable fringe of society, who created and sustained the crusades.”¹⁴ By the mid-sixteenth century, nearly 25% of adult noble males had died in the crusades, which did serve to reduce the number of bare branches in Portuguese society—albeit while simultaneously initiating interstate war.

III. Government Response in China

Governments do recognize the growing threat from bare branch collectives. Historical commentaries from China, India, and other nations make reference to bare branches as a source of instability. The problem for these governments is how to meet this internal threat. The focus of most governmental policies becomes lowering the number of bare branches. Several strategies have been used historically to this end: encouragement of outmigration, colonization of frontier areas, initiation of large scale public works projects, easing immigration of women, and so forth. We do see some of these strategies in use already in China, such as the increasing migration of Chinese, especially young adult males, to the Russian Far East and other areas, expansion of settlement efforts in Xinjiang, erection of the Three Gorges Dam and immense canal projects, and a more-or-less blind eye to cross-border chattel markets in women from North Korea, Laos, Vietnam, Myanmar and other nations. But arguably China has not yet faced the real future of this possible threat. As noted previously, the boys born in 1985 are 19 turning 21 this year, and with each passing year, both the sheer number and the proportion of bare branches in China (and India, and Pakistan, and Taiwan, and several other surrounding nations) will grow immensely.

In our survey of the historical literature, we also found two other troubling trends. Governments facing appreciable numbers of bare branches would move toward greater authoritarianism to counter the instability created. And in a few cases, it became clear that the government coopted bare branches into the military to lower their level of resentment, but then found it necessary to send those armies away on distant adventures for fear of the ramifications of keeping these bloated armies close to population centers and seats of power. Arming bare branches, and training them in military tactics, only amplified the threat they posed to the government. In a sense, then, the prospects for both democracy and peace were diminished by the creation of large numbers of bare branches in society.

¹³ James Boone, “Noble Family Structure and Expansionist Warfare in the Late Middle Ages,” in Rada Dyson-Hudson and Michael A. Little (eds.), *Rethinking Human Adaptation: Biological and Cultural Models*, Boulder, Colo: Westview Press, 1980, p. 94.

¹⁴ Boone, *ibid*, p. 94.

As security analysts contemplate the future of conflicts such as Jammu and Kashmir, and the Taiwan Strait, it is worthwhile to keep in mind that the calculus of deterrence may be altered by the presence of large numbers of bare branches in the affected countries over the next 2-3 decades. Though abnormal sex ratios are certainly no necessary condition for any conflict or war (for example, the sex ratio of Rwanda in 1994 was normal), predispositions to conflict may be aggravated by the existence of a large surplus of young adult males in one's society. The reason for this is that when the domestic instability caused by bare branch collectives evolves into a more direct threat to government control of society, the government will see the internal threat from bare branches as more threatening than traditional external threats. We have seen how, in the case of medieval Portugal, interstate war was initiated by the Portuguese monarch in order to save his own rule from the threat posed by bare branch collectives. That those wars were long and bloody turned out to be the very reason they were initiated: to send bare branches away from the country and to cause high levels of attrition among them.

In a move that can only be applauded, on July 15, 2004 the Chinese government announced a new, nationwide initiative to normalize the birth sex ratio by the year 2010. (The government later changed the target year to 2016.) This is to be accomplished by offering financial incentives to parents of daughters, including small old age pensions. In December 2004, the Chinese government also proposed the criminalization of sex selective abortion, though that measure was later dropped. Some provinces have banned abortion beyond 14-16 weeks, which is before sex can be identified through ultrasound. Others have required that a panel of three doctors approve the abortion of a female fetus. Still others have offered large rewards for turning in information relating to "black market" ultrasound clinics. There is also talk of loosening the one-child policy to become a two-child policy in the next 5-10 years. However, it is also fair to say that the horse has left the barn for at least the next twenty years: the alterations in the birth sex ratios of 1985-2010 cannot now be undone for China (or any of the other nations with abnormal sex ratios). Asia, and possibly the world, will live with the results of this contempt for daughters for many years to come.

Furthermore, scientists are perfecting a blood test that will allow non-invasive identification of the sex of fetuses at seven weeks' gestation through a simple blood test. The pace of technology will make it even easier to discard unwanted female fetuses in the very near future.¹⁵

IV. Interaction Effects in China: Economic, Cultural, and Demographic Factors

We cannot look at China's abnormal sex ratios in a vacuum. There are other factors of an economic, cultural, and demographic nature, which must be considered alongside the rise of bare branches in China.

Most of the developed nations of the world, including all of Europe (east and west) and Japan, are aging. China is aging also, due to the one-child policy. The

¹⁵ Lindsey Tanner (Associated Press), "Boy or Girl? A Simple Test Raises Ethical Concerns," Deseret News, 9 August 2011, <http://www.deseretnews.com/article/700169557/Boy-or-girl-A-simple-test-raises-ethical-concerns.html>, accessed 20 September 2011.

2010 Census figures show that the over-60 cohort is now 13% of China's population. China is different from the other aging countries of the world, however, in that it is not yet fully developed, and most of its population is still poor. Robert Stowe England notes that by 2055, China's elderly population will exceed the elderly population of all of North America, Europe, and Japan combined.¹⁶ Furthermore, the working age population of China is expected to peak in 2025, and begin to decline thereafter.

Aging will have numerous economic effects, which are already beginning to be felt in Europe and Japan. Declining working-age populations are a drag on economic growth. Consumption patterns between workers and the elderly are quite different, also, with the elderly consuming much less than workers (especially in the area of durable goods), except in the area of health care. According to Nyce and Schieber, to maintain current standard of living in countries with a shrinking population, these nations will have to import more or produce more, but if consumer spending falls also, there are likely to be lay-offs and rising unemployment as well.¹⁷ Aging societies also have significantly lower savings rates, as the elderly must divest themselves of their assets to maintain their standard of living in a context of rising health care costs. As a result, capital investment both at home and abroad may be compromised. Businesses may experience a lower return on investment in their homeland, but increasing investment abroad may lead to a net capital outflow, which may result in the weakening of the currencies of aging societies. Nyce and Schieber also note that if aging brings with it higher pension costs, this will lead to fewer low income jobs, wage depression, slowing economic growth and job creation, declining interest from foreign investors, lower entrepreneurship, and higher budget deficits.¹⁸

The CSIS Commission on Global Aging also suggests that aging societies will shift their spending priorities, with a lower priority now placed on infrastructure, defense, and education. Labor force declines also translate into lower tax revenues for governments, and if these governments are tempted by deficit financing, global financial stability may be compromised. The CSIS Commission feels that there may be a shift in global economic, political, and perhaps even military power away from aging societies. The lack of savings may cause interest rates to rise globally, perhaps even prompting a global recession.¹⁹

Interestingly, this Commission also predicts that the position of China could be quite crucial in the context of global aging. China has increasingly become a repository for pension wealth from developed countries, and the Commission wonders if this means that China can continue its high economic growth even in the

¹⁶ Robert Stowe England, *The Demographic Challenge to China's Economic Prospects*, CSIS Report, Westport, Conn: Praeger, 2005, p. 1.

¹⁷ Steven A. Nyce and Sylvester J. Schieber, *The Economic Implications of Aging Societies*, New York: Cambridge University Press, 2005, p. 166.

¹⁸ Nyce and Scheiber, *op cit.*, pp. 226-9, 237.

¹⁹ *Meeting the Challenges of Global Aging*, CSIS Commission on Global Aging, Washington, DC: CSIS Press, 2002.

context of its own aging, or whether China was begin to act in a more mercantilist fashion, which might lead to a new global depression.²⁰

Nyce and Schieber remind us that economic slowdowns are accompanied by significant domestic unrest.²¹ Indeed, since China's accession to the WTO, unemployment rates have risen significantly: true unemployment in China may be 12-20%.²² This has been accompanied by an explosion of labor unrest in China. Crime, too, has increased alarmingly in China, which many attribute to the breakdown of the *hukou* system of residence registration and the resulting tidal wave of "floaters" migrating to the metropolises. Some estimates state that approximately 10% of the population of China are among the "floating population," and that the floating population is a grave internal security risk.²³ The floating population is overwhelmingly young adult, and predominantly male.²⁴ Nicholas Kristof, the noted correspondent, writes that, "Wildcat protests, some violent and involving thousands of people, have been exploding around the country. By the Chinese government's own count, there are now more than 200 protests a day, prompted by everything from layoffs to governmental seizures of land. The protests may grow if, as seems likely, China's economic model appears less miraculous in the years ahead."²⁵ Gang activity, a hallmark of bare branch economic resistance to societal marginalization, has also grown explosively in recent years.

When we look at global aging, China's aging, and the likely economic effects of aging and combine that with an analysis of the effects of abnormal sex ratios on a society, the synergistic effects are likely to be quite dangerous for the Chinese government. In addition to current global economic woes, there will also come an inevitable economic slowdown primarily due to aging in the most advanced economies. This global slowdown is likely to amplify the economic storm clouds already looming for China. A society with a masculinized young adult population, such as China's, is likely to respond to significant economic hardship with severe domestic instability and crime. The Chinese regime will be hard-pressed to maintain its usual control over society as a result, and will likely become more authoritarian as time goes on to meet this internal security challenge.

The question for the government will be, how can it attract the allegiance of its bare branches, and channel them towards less internally destructive deeds? One temptation may be to play the card of nationalism, and it is here that we must examine some elements of Chinese culture for clues to the future.

It has often been noted by psychologists that youth take their understanding of their nation and its place in the world from the experiences of their forebears,

²⁰ CSIS Commission, *ibid.*, p. 52.

²¹ Nyce and Schieber, *op cit.*, p. 179.

²² England, *op cit.*, p. 66.

²³ Brian Nichiporuk, *The Security Dynamics of Demographic Factors*, MR-1088-WFHF/RF/DLPF/A (RAND, 2000), p. 39.

²⁴ Hudson and Den Boer, *op cit.*, p. 234.

²⁵ Nicholas Kristof, "Rumblings from China, *New York Times*, 2 July 2006, A29.

typically the generation of their grandparents.²⁶ What types of vivid experiences will the grandparents of today's young adults in China tell them about? This generation of forebears would have been born about 1935. They would have lived as young children through the invasion of Japan, which would have left them with deep-seated animosity towards the Japanese. But they would also have seen in their youth the corruption of the Nationalists during the civil war period, and feel a sense of unfulfillment that that regime escaped to Taiwan, preventing the complete unification of China. They would feel a great deal of ambivalence about U.S. support of the regime on Taiwan. At the same time, they would have been starting their careers during the Cultural Revolution, and may have seen their own families, especially their parents, devastated through ideological extremism. They may, in fact, prefer a strong technocratic authoritarian hand to quell social chaos and ensure economic prosperity. This generation, then, is highly nationalistic, anti-Japanese, has strong feelings about the reunification of Taiwan with the mainland, is ambivalent towards the United States, and may be more inclined to respect authoritarian measures to ensure social stability.

It may be that the Chinese government would be able to play upon these themes to maintain power in the context of an aging, more masculine society experiencing a profound economic slowdown. The government could use anti-Japanese, anti-Taiwan independence themes to galvanize not only the elderly generation, but more importantly, the young adult generation. Masculine societies are very susceptible to political campaigns stressing national pride vis a vis a competing nation. But masculine societies are a double-edged sword in this, also, for if the government is perceived as weak or as unsuccessful in these contests of national pride, it will be very vulnerable to internal dissension that would bring a "stronger" government to power.

It is also worth noting that an increasingly masculinized society may also be a society more prone to certain types of disease. It has recently been noted that the surplus young adult males of China provide what epidemiologists call a "bridging population" for transmission of HIV/AIDs into Chinese society.²⁷ Researchers have found that surplus males engage in riskier sexual behavior (multiple partners, use of prostitutes, non-use of condoms), increased sale of blood, and increased use of illicit drugs. All of these behaviors increase the likelihood of contracting HIV, and since China has only rudimentary screening and care of HIV patients, contraction of HIV infection portends almost inevitable development of full-blown AIDS. China's AIDS problem, only recently acknowledged by the national government, will almost certainly be worsened by its abnormal sex ratios.

²⁶ See, for example, Jason Hart, "'Children and Nationalism in a Palestinian Refugee Camp in Jordan,'" *Childhood* 9(1): 35-47, 2002; Sharon Stephens, "Childhood and Nationalism," *Childhood* 4(1):5-17.

²⁷ Joseph D. Tucker, Gail E. Henderson, Tian F. Wang, Ying Y. Huang, William Parish, Sui M. Pan, Xiang S. Chen, Myron S. Cohen, "Surplus Men, Sex Work, and the Spread of HIV in China," *AIDS*, 2005, 19:539-47.

V. Overall Assessment for Security Planners

From all that we have analyzed to this point, the abnormal sex ratios of China do not bode well for its future. Even if sex ratios were rectified today (which they will not be), young adult sex ratios in China will result in a significant percentage of bare branches for the next 30 years. Around the year 2020, China will enter a crucial period. In 2020, China will still be adding workers to its population, while the richest nations of the world fade from global dominion due to aging. A lingering global economic slowdown, plus the opportunities afforded by the fading of the West and Japan, will create a unique crucible for possible dramatic change in China's security situation.

Over time, as the current recession is deepened into a chronic condition by the aging of the richest nations, is likely to create significant unrest and instability in China, all made worse by its abnormal sex ratios. Regionally-based threats to the national government's primacy may arise. Gang-based violence, already worsening, may coagulate into larger threats, as gangs combine to augment their power vis a vis the government. China may be tempted to improve its situation with mercantilist policies, but economists feel this would more likely lead to a prolonged global depression, which would only worsen China's outlook.

Faced with worsening instability at home, and an unsolvable economic decline, China's government may well be tempted to use foreign policy to "ride the tiger" of domestic instability. The twin themes of anti-Japanese feeling and unfulfillment of China's reunification with Taiwan will still be deeply resonant to much of the population of China at that time. In fact, these may be the only themes left that could unite the Chinese population behind the national government. In addition, the government will be searching for contests of national pride involving martial prowess, which will be highly attractive to the bare branch population that will be causing it severe internal problems. The threat from within at this time may be seen by the government as much more pressing than the forces of international deterrence. Might a situation develop where the government sees a way to kill two birds with one stone, seizing a greater share of international power through successful international use of force, while also thinning the ranks of its bare branches through attrition warfare? The perceived alternative may be to see China disintegrate into smaller geographical units, an alternative the Chinese Communist Party is unlikely to ever countenance.

There are also opportunities to the north. The Russian Far East is rapidly depopulating, and is at the same time the site of most of Russia's great mineral and oil wealth. There has been a tremendous influx of Chinese into this area, with the result that over 8% of the population of the Russian Far East is, in fact, Chinese. Bare branches have traditionally been the first colonizers sent abroad, and it may be that Chinese bare branches will play an important role in the Sinification of the Russian Far East. Economic control of these natural resources would place China in a much better position to lighten the economic decline its country faced. But it would also have grave geopolitical consequences for the international community. Would Russia countenance this demographic colonization of the seat of its wealth? Could Russia stop this trend, even if it wanted to do so? What would be the economic consequences for the West?

In conclusion, then, in the next two to three decades, we are likely to see observable security ramifications of the masculinization of China's young adult population, especially when combined with an understanding of the consequences of global aging, the particularities of Chinese nationalism, and the epidemiology of pandemics such as AIDS. Indeed, some of these ramifications are already coming into view. China's contempt for its daughters may lead to a more dangerous world not only for the Chinese themselves, but for everyone.

Conclusion

While it is true that the demographic die has been cast for the next few decades in China, it is also true that relinquishing the One-Child Policy would positively affect China's future prospects for stability, security, and prosperity. That the Chinese government is now pondering whether to turn to a Two-Child policy is an interesting development, indicating that the government now sees more clearly the security issues the One-Child Policy has raised. Even so, steering the ship of culture to a new heading is a very difficult undertaking. In experiments performed by the government in selected areas, institution of a Two-Child Policy did not change the fertility rate. Most families still preferred to have only one child. And son preference did not abate, either. On the basis of these experimental findings, we are now forced to wonder whether the One-Child policy will have significant cultural effects that will long outlast the policy itself. If that is the case, that will truly be a tragedy for China.