

RUSSIA'S DEMOGRAPHIC CRISIS AND THE MILITARY: STRATEGIC IMPACT AND SECURITY IMPLICATIONS IN THE 21ST CENTURY

BY

COLONEL THOMAS J. ANDREA
United States Army Reserve

DISTRIBUTION STATEMENT A:

Approved for Public Release.
Distribution is Unlimited.

USAWC CLASS OF 2007

This SSCFP is submitted in partial fulfillment of the requirements imposed on Senior Service College Fellows. The views expressed in this student academic research paper are those of the author and do not reflect the official policy or position of the Department of the Army, Department of Defense, or the U.S. Government.



U.S. Army War College, Carlisle Barracks, PA 17013-5050

REPORT DOCUMENTATION PAGE				<i>Form Approved</i> OMB No. 0704-0188	
Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing this collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports (0704-0188), 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. PLEASE DO NOT RETURN YOUR FORM TO THE ABOVE ADDRESS.					
1. REPORT DATE (DD-MM-YYYY) 13-04-2007		2. REPORT TYPE Civilian Research Paper		3. DATES COVERED (From - To) 28-08-06 to 13-04-07	
4. TITLE AND SUBTITLE Russia's Demographic Crisis and the Military: Strategic Impact and Security Implications in the 21 st Century				5a. CONTRACT NUMBER	
				5b. GRANT NUMBER	
				5c. PROGRAM ELEMENT NUMBER	
6. AUTHOR(S) Colonel Thomas J. Andrea, USAR				5d. PROJECT NUMBER	
				5e. TASK NUMBER	
				5f. WORK UNIT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) U.S. Army War College with Duty at Tufts University - The Fletcher School				8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES) Tufts University International Security Studies Program The Fletcher School of Law and Diplomacy				10. SPONSOR/MONITOR'S ACRONYM(S)	
				11. SPONSOR/MONITOR'S REPORT NUMBER(S)	
12. DISTRIBUTION / AVAILABILITY STATEMENT DISTRIBUTION A: UNLIMITED					
13. SUPPLEMENTARY NOTES The views of the academic research paper are those of the author and do not necessarily reflect the official policy or position of the U.S. Government, the Department of Defense, or any of its agencies.					
14. ABSTRACT Russia has been experiencing a natural population decline since 1992 and the current demographic trends indicate few signs that this sharp and steady population loss will abate any time soon. The impact on Russian society, from its economy to security, continues to be the subject of heated and intense discussion and debate. Russia is plagued with a decreasing fertility rate, an increasing mortality rate, a deteriorating health care system, and unbalanced migratory patterns of the populace, each contributing factors to varying degrees on the continued political, economic, and social turmoil the country is facing. This paper examines the various root causes of the demographic crisis analyzing their impact on the society and focuses in particular on the human resource impact and implications affecting the Armed Forces of the Russian Federation. The demographic crisis in Russia limits the policy options available to its political and military leaders and creates havoc for the international community as to how it could and should deal with Russia as a major power on the world stage. The post-September 11 th environment requires greater cooperation and alliances among nations to combat a growing number of trans-national and asymmetrical threats such as terrorism, insurgencies, nuclear proliferation, and the trafficking of drugs and people. A strong and stable Russia is a critical component in the on-going efforts of the free world to re-shape the global security landscape to meet the new and emerging threats of the 21 st century.					
15. SUBJECT TERMS Population Change, Fertility Rate, Mortality Rate, Health Care Issues, Current and Future Policy Security Issues					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT UNLIMITED	18. NUMBER OF PAGES 28	19a. NAME OF RESPONSIBLE PERSON COL Thomas J. Andrea
a. REPORT UNCLASSIFIED	b. ABSTRACT UNCLASSIFIED	c. THIS PAGE UNCLASSIFIED			19b. TELEPHONE NUMBER (include area code) (781)454-8569

USAWC CIVILIAN RESEARCH PROJECT

**RUSSIA'S DEMOGRAPHIC CRISIS AND THE MILITARY: STRATEGIC IMPACT
AND SECURITY IMPLICATIONS IN THE 21ST CENTURY**

By

Colonel Thomas J. Andrea
United States Army Reserve

Professor Richard H. Schultz
Project Adviser

Fletcher School of Law and Diplomacy
Tufts University

The views expressed in this student academic research paper are those of the author and do not reflect the official policy or position of the Department of the Army, Department of Defense, or the U.S. Government.

ABSTRACT

AUTHOR: Colonel Thomas J. Andrea

TITLE: Russia's Demographic Crisis and the Military: Strategic Impact and Security Implications in the 21st Century

FORMAT: Civilian Research Project, The Fletcher School, Tufts University

DATE: 13 April 2007 **AY 2007** **WORD COUNT:** 7,062 **PAGES:** 25

KEY TERMS: Population Change, Fertility and Mortality Rates, HIV/AIDS

CLASSIFICATION: Unclassified

Russia has been experiencing a natural population decline since 1992 and the current demographic trends indicate few signs that this sharp and steady population loss will abate any time soon. The impact on Russian society, from its economy to security, continues to be the subject of heated and intense discussion and debate. Russia is plagued with a decreasing fertility rate, an increasing mortality rate, a deteriorating health care system, and unbalanced migratory patterns of the populace, each contributing factors to varying degrees on the continued political, economic, and social turmoil the country is facing. This paper examines the various root causes of the demographic crisis analyzing their impact on the society and focuses in particular on the human resource impact and implications affecting the Armed Forces of the Russian Federation. The demographic crisis in Russia limits the policy options available to its political and military leaders and creates havoc for the international community as to how it could and should deal with Russia as a major power on the world stage. The post-September 11th environment requires greater cooperation and alliances among nations to combat a growing number of trans-national and asymmetrical threats such as terrorism, insurgencies, nuclear proliferation, and the trafficking of drugs and people. A strong and stable Russia is a critical component in the on-going efforts of the free world to re-shape the global security landscape to meet the new and emerging threats of the 21st century.

RUSSIA'S DEMOGRAPHIC CRISIS AND THE MILITARY: STRATEGIC IMPACT AND SECURITY IMPLICATIONS IN THE 21ST CENTURY

During the Cold War period, the great powers of the world often focused their strategic thinking strategies primarily around geo-political issues. In the post-Cold War era however, policymakers increasingly understand the importance of incorporating pressing human security issues such as population, crime, hunger, disease, and human migration into developing national security strategies. Since the collapse of the fainter Soviet Union, Russia has experienced unprecedented economic and social upheaval and the Kremlin has struggled to clearly define the exact power role Russia should play on the world stage to best promote and protect its national security interests and maintain its long-standing international status as a formidable world power.

In the mid-1990s, Russia attempted to implement a policy that would shift the world away from what it perceived to be a uni-polar world dominated by the United States. The goal was to create a multi-polar one in which the great powers of the world would 'check and balance' each others actions so that no single nation could impose its unilateral will against the national security interests of another.¹ Although Russia has struggled to successfully implement this multi-polar policy, its desire to be considered a great super power in the world has not wavered. The new economic, social, and political realities facing Russia in the post-September 11th world is causing the government to address the country's current issues, its overall strategic aims and objectives, its security threats, and its actual place and role in the world in the 21st century. However, the demographic catastrophe unfolding in Russia is having a devastating impact on Russia's ability to develop a comprehensive national strategy that adequately addresses the pressing internal and external policy issues and security threats facing the nation. The steady loss of human

¹ Ambrosio, Thomas, *Challenging America's Global Preeminence: Russia's Quest for Multipolarity*, Ashgate, (2005)

capital, both in terms of quantity and quality, is having a direct and adverse impact on all of Russian society.

The Russian population is declining each year and the well-being of the populace, socially and economically, continues to erode. More and more Russians are displaying self-destructive behavior, driving many to premature deaths. The social and economic upheaval following the breakup of the Soviet Union has profoundly damaged the collective psyche and national identity of the Russian people. In response to widespread public outcry and growing concerns over continued population losses, President Putin has made the reversal of these troubling demographic trends a stated national priority. Given Russia's geo-strategic location and influence in the world, particularly in the sphere of the Commonwealth of Independent States (CIS), the so-called "depopulation" of Russia has direct and profound security implications nationally and internationally. For example, many Russians fear that the country is not generating enough working-age men to fill the ranks of the military. Others question whether the economy will be able to sustain itself if the population continues to shrink. A growing number of Russian xenophobes, particularly Russian nationalists and urbanites, believe that if current immigration trends continue, the ethnic and religious makeup of the country will be drastically altered for years to come. This paper examines the various root causes of Russia's demographic crisis, focusing primarily on the human resource ramifications and manpower implications affecting the Armed Forces of the Russian Federation.

To understand the dimensions of the demographic crisis in Russia, one must first have an appreciation of the magnitude of the problem. Since the fall of the Soviet Union, Russia has experienced a steadily falling birthrate and an increasingly rising mortality rate. Although Russia remains the largest country in the world geographically, its overall population ranking in

the world continues to decline. During the days of the Soviet Union, Russia ranked 3rd in world population. In 2000, Russia fell to 6th place and if the projected demographic decline continues, Russia may be ranked 13th by 2040.² The Russian birth rate has been declining since 1987 from 2.5 million births in 1987 to 1.5 million today (2007 est).³ At the same time, the mortality rate, which actually began increasing in the 1960s, has risen consecutively since 1992 to 2.1 million deaths today (2007 est).⁴ For every 1000 Russians there are 16.04 deaths (2007 est) and just 10.92 births (2007 est) leading to an overall population decline of about 750,000 to 800,000 people a year.⁵ As such, it is conceivable that Russia's 2003 population of about 145 million could fall to fewer than 100 million people by 2050 if these disturbing demographic trends are not reversed.⁶ Russia has the lowest male life expectancy rate (58 years) of all the major western countries and is among the lowest in the West with its fertility rate (1.34 children per woman).⁷ Although the full impact of Russian demographic trends is not fully known, most experts agree that a shrinking population will have serious and stark security implications for the Russian Federation if urgent and concrete measures are not taken to reverse these trends. Russia's ability to protect its vast borders or to properly respond to internal and external threats is in jeopardy without sufficient manpower. The post-September 11th geo-strategic environment requires the great powers of the world such as the United States, Europe, China, and Russia to work in a cooperative, synergistic alliance to thwart the growing number of international asymmetrical threats such as trans-national terrorism, organized crime, nuclear proliferation, and the trafficking of drugs and humans. A strong and stable Russia is a vital component in helping the

² DaVanzo, Julie and Grammich, Clifford, *Dire Demographics: Population Trends in the Russian Federation*, RAND, http://www.rand.org/pubs/monograph_reports/MR1273/, p. 4 (2003)

³ CIA, *The World Factbook 2007*, <https://www.odci.gov/cia/publications/factbook/index/>

⁴ Ibid

⁵ Ibid

⁶ DaVanzo, Julie and Oliker, Olga, *A Shrinking Russia*, Atlantic Monthly (2003)

⁷ World Health Organization, Russian Federation Core Health Indicators, www3.who.int/whosis/country/indicators.cfm?country=rus

international community meet the growing and emerging security challenges of the new world order. The sharp demographic decline in Russia, with its destabilizing effects, seems to be a dual-edged sword: limiting the policy options and security strategies available to Russian leaders, and creating increased havoc and uncertainty for the international community as to how Russia could and should be dealt with. In other words, demographic instability in Russia is leading to political instability worldwide.

Russia's demographic disintegration is the result of declining births and increased deaths. Fewer children are being born, abortions are common, and the use of and access to contraceptives is at an all time high. Low wages, a chronic housing shortage, and growing concerns among the populace that the government can not adequately provide sufficient educational opportunities, medical care, and even food are causing many young Russians to elect to have fewer or no children at all. Conversely, the rising mortality rate is due in great part to an increasingly aging population, growing rates in cardiovascular and respiratory diseases such as cancer and tuberculosis, an HIV/AIDS epidemic, high alcoholism and smoking rates, and various external causes such as accidents, homicides and suicides. Perhaps the most alarming trend is the number of deaths among working-age Russian males. In 1999 for example, Russian males age 15-24 had a mortality rate approximately three times that of their U.S. counterparts; an infectious and parasitic disease rate nine times higher; a circulatory and respiratory rate four times higher; and a mortality rate due to external causes three times higher.⁸

I will address each of the causes affecting the fertility and mortality trends in Russia in some detail, but it is important to point out that Russia's demographic crisis is much more complex and far-reaching than simply tabulating its birth and death rates. Due in great part to Russia's

⁸ World Health Organization, www3.who.int/whosis/en; and RAND Corp-" Too Few Good Men: The Security Implications of Russian Demographics, <http://www.rand.orollabor/popmatters> (2003)

vastness and historical development as a nation, demographic trends and their related socio-economic problems tend to vary widely by region impacting Russian society to varying degrees. For example, illegal drug use and HIV/AIDS cases are more prevalent in urban vice rural regions, the bulk being located in and around Moscow and Saint Petersburg. Russia also has a very low and uneven distribution in population. When the Soviet Union collapsed, Russia held three-quarters of its former territory, but only retained about half its population.⁹ In European Russia, the population density is only 27 people per square kilometer in comparison to 119 people per square kilometer for the European Union.¹⁰ Asian Russia accounts for 75 percent of Russian territory, but consists of only 22 percent of the population.¹¹ Demographic trends reveal that this unevenness in population density is growing ever greater. The scarcely populated Northern and Eastern regions continue to experience population declines while the more densely populated Southern and Western regions continue to grow. As a result, it is possible that Russia could witness a population distribution wherein 80 percent of its citizens will reside in European Russia with a further decline in the Far Eastern region population to perhaps as little as 3.5 percent by 2025.¹² It is estimated that over 13,000 villages, mostly in the Center, Northwest, Volga, and Far Eastern regions have already been abandoned and another 35,000 towns have fewer than 10 inhabitants, mostly as a result of the elderly populations dying out.¹³

Some ethnic Russian politicians, nationalists, and the media have used the decline and imbalance in population as a rallying call against non-ethnic Russians. In particular, the influx of Chinese migrants in the Far East and the increase of Muslim nationalities in the Caucasus and

⁹ Vishnevskii, A.A., *Russia's Development Perspectives: The Role of Demographic Factors*, Scientific Works (2003), p. 20

¹⁰ Ibid., p. 20

¹¹ Ibid., p. 20

¹² Andreev, E.S. Scherbov, *Population of Russia: What Can We Expect in the Future?*, World Development, Vol 26, No. 11: 1939-55 (1998)

¹³ Heleniak, Timothy, *The 2002 Census in Russia: Preliminary Results*, Eurasian Geography and Economics (2003)

Central Asian regions have stirred up feelings of resentment and fear among ethnic Russians. The majority of the Russian population views Chinese migration as a threat to its sovereignty and national identity and has reacted to date in a very xenophobic manner. One estimate reveals that by mid-century, the Chinese population in Russia may be as high as 20 million people.¹⁴ Equally troubling is the reaction of the Russian population toward the in-migration of Muslim populations in the Caucasus and Central Asian regions. Growing demographic disparities are helping to fuel increasing ethnic, political and social tensions within the country. Given the fact that Russia has always associated population with the strength of the nation, economically and militarily, the associated policy issues, national security implications, and damage to the collective Russian psyche can not be understated. The shrinking Russian population, especially among ethnic Russians, is already having a dramatic and adverse impact on internal, national, and international security and stability.

ROOT CAUSES

Fertility Rate Trends

Russian fertility rates have been steadily falling since the collapse of the Soviet Union. In 1987 women had an average of 2.194 children over the course of their lifetime, but by 2000 the rate had fallen to just 1.214 births per woman.¹⁵ The birth rate is currently at 9.95 births per 1,000 population (2006 est).¹⁶ Although there was a modest increase in the fertility rate in the 1980s due to a variety of pro-natalist incentives such as extended, paid maternity leave and easier qualification for housing and other benefits, the overall trend since 1987 has been a steady and sharp decline in the number of births in Russia. A decline in the number of child-bearing age

¹⁴ Herd, G.P., *Russia's Demographic Crisis and Federal Instability, Russian Regions and Regionalism, Strength Through Weakness* (2003)

¹⁵ Heleniak, Timothy, *Geographic Aspects of Population Aging in the Russian Federation*, *Eurasian Geography and Economics*, Vol. 44, No. 5: 325-47 (2003)

¹⁶ CIA, *The World Factbook 2007*, <https://www.odci.gov/cia/publications/factbook/index/html>

women, increased urbanization and education attainment, an expanded availability and use of contraceptives, and a widespread sense of dissatisfaction about the future are all contributing factors to the low fertility rate problem. Although Russia is not the only country witnessing a shrinking population, the impact is more acute in comparison with countries such as Germany, Italy, and Spain given the fragile social and economic situation Russia is currently facing.

Previous Soviet policies combined with the political and social upheaval after the collapse of the Soviet Union have had a huge and lasting negative impact on Russian society. Russians have always associated population with might, particularly military and economic might. In the post-World War II period, the Soviets initiated a policy designed to generate economic development through large-scale industrialization. Due in great part to the critical manpower shortage created as a result of the war, many Russian women were pushed into the workforce. Although the Soviets emphasized the glory of motherhood and increased the benefits to families with children, the overall effect on Russian families, in particular women seemed to be increased demands both at work and home. In Russia today, political uncertainty and socio-economic problems are having a devastating effect on the population. Increased poverty, insufficient wages, a chronic housing shortage, and the increased prices of consumer goods are causing many Russians to postpone or avoid having children altogether. In general, Russians are disillusioned with the progress of the on-going political, social, and economic reform initiatives. The overall quality of life of the average Russian remains low in comparison with the West and, as such, is having a direct and devastating impact on the country's fertility rate.

Russian fertility rates also vary greatly by region. The urban areas around Moscow and Saint Petersburg tend to have some of the lowest birth rates within the country while parts of Siberia and the Caucasus have among the highest. This demographic trend poses a particular ethnic and

cultural challenge for Russia in that communities with high Islamic and Oriental populations are experiencing higher birth rates on average than their ethnic Russian counterparts.

The declining fertility rate is also being driven by the large numbers of abortions performed in Russia. Russia has one of the highest abortion rates in the world. In 2004, it is estimated that there were approximately 1.6 million abortions performed (one fifth of them under the age of 18) and about 1.5 million births.¹⁷ In other words, there were more abortions than births in Russia in 2004. In addition to reducing the number of births, the procedures often performed have led to serious medical problems among Russian women. Complications from abortions result in one of four maternal deaths and one in ten women are left sterile.¹⁸

The high abortion rate in Russia over the last several decades can be attributed largely to past Soviet policies and financial incentive gains among Russian medical professionals. Historically, the Soviets frowned upon the dissemination and use of contraceptives. They believed that economic growth and prosperity would increase the birth rate and decrease the abortion rate. Stalin even prohibited abortions for approximately 20 years in an attempt to increase population growth. Additionally, there have been financial incentives to keep abortion rates high. Russian physicians are poorly paid in comparison with their Western counterparts and profits from performing abortions are greater than promoting contraceptive use.

Since the late 1980s however, the number of abortions performed in Russia has steadily been decreasing due in great part to the expanded use of and access to contraceptive methods such as intrauterine devices, birth control pills, and condoms. Between 1991 and 2002, the numbers of

¹⁷ MosNews, http://www.mosnews.com/news/2005/08/23/abortion_problems.shtml

¹⁸ DaVanzo, Julie and Grammich, Clifford, *Dire Demographics: Population Trends in the Russian Federation*, RAND, http://www.rand.org/pubs/monograph_reports/MR1273/, p. 27 (2003)

abortion performed in Russia was halved dropping from four million in 1990 to 1.9 million in 2002 (3.4 abortions per woman to just 1.8).¹⁹

However, within the Russian government there is much debate and concern about the current abortion and family planning programs. Some Russian nationals backed by the support of the Russian Orthodox Church are calling for a reduction in the number of abortions performed and limited access to contraceptives. This revived debate over abortion and contraception plays deeply into the Russian psyche with some concluding that the core soul of the country has become sick since the collapse of the Soviet Union and that the very survival of Russia is at stake if fertility rates do not increase.

Migration trends within Russia have also had a profound impact on the overall size and distribution of the population. Migratory patterns influence factors as diverse as age structures, labor forces, social services, fiscal systems, and local cultures.²⁰ In Russia, the dominant trend of external migration has been the return of many ethnic Russians or Russian-speaking people from the CIS. However, the peak influx of 800,000 return migrants in 1994 fell to just a little over 72,000 in 2001.²¹ This sharp decline indicates that, in the future, Russia will not be able to rely as much on returning immigrants to off-set its population decline. The majority of ethnic Russians living in the CIS who wished to repatriate seem to already have done so.

An uncertain and unpredictable dimension to this equation remains the number of illegal immigrants entering Russia. Estimates range from 700,000 to as many as 15 million people.²² As such, Russia is currently caught up in an awkward balancing act, encouraging certain groups of migrants to immigrate, namely skilled workers, while discouraging the entry of other less

¹⁹ Blum_ Alain, *Naitre, vivre et mourir en URSS*, Paris, Payot, 2004

²⁰ Heleniak, Timothy, *Internal Migration in Russia during the Economic Transition*, *Post-Soviet Geography and Economics*, Vol. 38, No. 2: 81-104, p. 98 (1997)

²¹ Heleniak, Timothy, *Russia's Demographic Decline Continues*, (2001), page 3, hEEp://www.prb.org

²² Ibid., p. 5

desirable groups. The Russian government is trying to regulate legal migration with the goal of moving migrants to regions of the country where they are most needed.²³ To date, however, this initiative has proven difficult to enforce. Illegal immigrants in Russia tend to live on the fringes of society often lacking Russian language skills. Many Russians also correlate illegal immigrants with criminal activities, real or perceived, further complicating their integration into Russian society.

Mortality Rate Trends

In addition to declining birth rates, Russia has also experienced a sharp increase in its mortality rates beginning in the late 1980s, especially among working-age Russian males. Overall life expectancy is down for both males and females since the mid-1960s. Russian females tend to live eight years less than their American counterparts and Russian males 14 years less than American men.²⁴ In 2004, statistics revealed that Russian males had a life expectancy of just 58.9 years, and Russian females lived on average to the age of 72.3.²⁵ In 2006, there were over 2 million deaths in Russia with a mortality rate average of 14.65 births per 1,000 person population.²⁶

Population aging is one factor contributing to Russia's steadily increasing mortality rate. Between 1989 and 2002, the working-age population declined from 24.5 to 18.6 percent while the retired age population increased from 18.5 to 20.7 percent.²⁷ The United Nations considers a country old if more than seven percent of the population is aged 65 or older. Some of the rural regions in central Russia have retired aged populations reaching the 30 percent mark.²⁸ It is

²³ Ibid., p. 3

²⁴ Russian Federation State Committee on Statistics, http://www.gks.ru/free_doc/2006/rus06e/05-08.htm, and The United States Census Bureau, <http://www.census.gov>

²⁵ Russian Federation State Committee on Statistics, http://www.gks.ru/free_doc/2006/rus06e/05-08.htm

²⁶ CIA, *The World Factbook 2007*, <https://www.odci.gov/cia/publications/factbook/index/html>

²⁷ Heleniak, Timothy, *Geographic Aspects of Population Aging in the Russian Federation*, (2001)

²⁸ Vladimirov, D.G., *The Older Generation as a Factor of Economic Development*, Sociological Research, (2004)

estimated that the aging population will increase from 30 to 37 million by 2020 (an increase of 21 to 27 percent of the population) while the working-age population will decline from 91.4 million to 77.9 million (63 to 56 percent).²⁹ The stress on the working-age population to support and care for this aging population is already being felt in Russian society as it is in the West and will continue to increase if the aging trend is not reversed.

Another significant factor attributing to Russia's growing mortality rate is the deteriorating state of its health care system. A continued lack of funds coupled with equipment and supply shortages and an overall poor organizational structure have led to a steady decay in the quality of health services. As such, the quality of and access to medical services in Russia remains quite low today and dissatisfaction with the current system remains high among the citizenry. The problems within the Russian health care system are not new. Part of the Soviet legacy was the creation of a highly centralized, state-run health care system that emphasized quantity over quality. However, basic medical care was promised and made available to all its citizens.

Since 1991 however, the uneven development of the post-Soviet health care system has become more apparent as evidenced by the sharp increase and seeming inability of the Russian medical community to control such serious, life-threatening diseases as tuberculosis, cancer, and HIV/AIDS. The Russian economic crisis following the disintegration of the Soviet Union simply exacerbated the problem. Additionally, the rise in the number of private health care companies that tend to cater to the newly emerging Russian elite class seems to be creating a population of "haves" and have-nots" in regards to health care in Russia. Russia currently

²⁹ Russian Federation State Committee on Statistics, <http://www.gks.ru/scripts/en>

spends only a fraction (three percent) of its federal budget on health care than in past years. In 1994 health care expenditure constituted 12 percent of the total budget and 20 percent in 1990.³⁰

The sad state of Russia's health care system contributing to increased mortality rates can perhaps be best evidenced by the increased number of tuberculosis cases in Russia since the collapse of the Soviet Union and its seeming inability to combat the disease. In prerevolutionary Russia and during the World War I and II periods, Russia suffered the loss of millions to tuberculosis. Following this period however, the Soviets strove to reduce the tuberculosis rate by placing an emphasis on its reduction and dedicating many resources to combat the disease, so much so that by the 1960s the Soviets were actually boasting the potential eradication of tuberculosis from their country. However, due to the steady decay of Russia's social and economic systems since the fall of the Soviet Union, the tuberculosis rate has more than doubled in the 1990s. Although this trend has slowed somewhat since 2000, the fear now is that a new drug-resistant form of tuberculosis may create a new, incurable virus so rates may once again rise.³¹

Another indicator of the crisis within the Russian health care system is the HIV/AIDS explosion occurring in Russia. Russia has the largest HIV epidemic in all of Europe and accounts for approximately two-thirds of all the cases in Eastern Europe and Central Asia. From 2003 to 2005 alone, the number of estimated HIV cases jumped from 760,000 to 940,000.³² In 2001, it was estimated that the HIV/AIDS prevalence rate in Russia as a whole was 1.1 percent of the total population with 860,000 people afflicted with the disease resulting in 9,000 deaths.³³

³⁰ Rozenfeld, Boris A., The Crisis of Russian Health Care and Attempts to Reform, RAND, http://www.rand.org/pubs/confproceedings/CF_24/CF_I_24.chap5.html

³¹ Channel Newsasia, <http://channelnewsasia.com/stories/europe/view/266089/1/html>, Posted 24 March 2007

³² UNAIDS/WHO 2006 Report on the Global AIDS Epidemic, http://www.unaids.org/en/HIV_data/2006_GlobalReport/default.asp

³³ CIA-The World Fact Book-Russia, <https://www.cia.gov/cia/publications/factbook/print/rs.html>

The HIV/AIDS epidemic is estimated to explode to an astonishing five to eight million cases by 2010 if gone unchecked.³⁴ The highest HIV prevalence rates are centered around Moscow and Saint Petersburg. Intravenous drug users, sex workers, and prisoners account for the majority of the HIV/AIDS in Russia. In particular, the 20 to 30 year-old age group appears to be the hardest hit by the HIV/AIDS crisis. As Russia's population is getting older and the number of births continues to decline, the impact of the loss of so many young wage earners is certain to have a direct and negative impact on the Russian economy, its labor supply, and its ability to support the growing elderly population. Although it appears that the number of HIV/AIDS cases in Russia will, in all probability, continue to rise in the foreseeable future, Russian authorities are making attempts to reverse this trend by introducing a variety of harm reduction and prevention programs and by improving testing and treatment measures.

In addition to the alarming number of tuberculosis, cancer, and HIV/AIDS rates, Russia's increased mortality rate can also be attributed to its high level of alcohol consumption and smoking. In 2003, it was estimated that 80 percent of all Russian males drank with 35 percent identified as having a drinking problem and 18 percent who suffered from negative consequences related to alcohol such as accidents or poisoning.³⁵ The mortality rate and alcohol consumption can best be linked by the increased number of external incidents associated with alcohol abuse such as accidents, injuries, violent acts, suicides, and acute alcohol poisoning. Alcohol use in Russia is eight times higher than the rate of consumption in America. The average Russian consumes 8.9 liters per year per person excluding beer and home-made alcohol accounting for 15 percent of the total disease burden in Russia.³⁶ Smoking causes another 12

³⁴ National Intelligence Council, www.odci.gov/nic, September 2002

³⁵ Journal of Epidemiology and Community Health, *Contribution of Drinking Patterns to Differences in Alcohol Related Problems Between Three Urban Populations*, (2004)

³⁶ World Health Organization, http://www.euro.who.int/Document/E88202_Russia/pdf

percent of the disease burden in Russia with a 63 percent prevalence rate among males and 10 percent for females.³⁷ The high rates of alcohol abuse, suicides, accidents, violence and cardiovascular disease are major contributors to the falling life expectancy rates and rising gender gaps in life expectancy in Russia today. The continued unstable economic conditions in Russia combined with the rise in poverty help fuel increased, unhealthy lifestyles and a seeming disregard of the risk factors associated with excessive drinking and smoking.

NATIONAL SECURITY IMPLICATIONS

Demographics and the Russian Military

The demographic crisis in Russia, both in terms of its shrinking population and its changing ethnic mix due to in and out-migration, has severely limited the policy options available to Russian political and military leaders in areas ranging from economic reform to national security matters. The impact that the demographic crisis is having on Russia can perhaps best be evidenced by the current dismal state of the Russian military. Given the new strategic landscape emerging in the 21st century, most of the world powers today have been working diligently to develop and implement new national security strategies designed to meet and counter the current and projected threats each nation deems it faces. What makes the situation in Russia somewhat unique is that attempts to reform the military unfortunately occurred during a period of great political and economic turmoil. The collapse of communism, the attempt at introducing a market economy, and the ensuing national identity crisis that followed this domestic upheaval have had a profound and devastating impact on the Russian military and its ability to reform itself.

Russia has a long history of civil-military affairs. Traditionally, the government has dominated Russian society. To that end, the military played a monumental role in aiding the

³⁷ Ibid

Soviet regime to attain the country's national strategic aims and objectives throughout the 20th century. The Red Army gained legendary status among the Russian people as the strong and solid institution responsible for beating Nazi Germany and the primary driving force in maintaining Russia's global dominance and recognition as the second greatest superpower after the United States throughout the second half of the 20th century. In other words, the Russian army was a source of great pride and a symbol of national unity and cohesion, expanding and protecting the nation's vast borders throughout the Cold War period. As such, it is quite understandable why Russians often identify military strength with the very core of their national identity.

However, the collapse of the Soviet Union and the social and political upheaval which immediately followed have basically led to the undoing of the once great and massive Red Army. Today's armed forces in Russia are merely a scaled-down, inferior version of the old Soviet military machine. Although perhaps not a total failure, the Russian armed forces have demonstrated an overall inability to adapt strategically to the new political and economic environments both at home and abroad. As a result, true military reform has for the most part been a failure to date. The Russian military consists primarily of conscripts, a mostly nonexistent warrant and non-commissioned officer corps, and an officer corps that is bloated and corrupt.

Russia has made feeble attempts at best to reform its military establishment since the fall of the Soviet Union in the early 1990s. The Soviet army was actually dismantled in 1991-1992 and legally formed into the Armed Forces of the Russian Federation in 1992. Since that time however, genuine military reform has proven to be too difficult to realize. Both political and military leaders have allowed the old, entrenched system to remain in place. Politicians continue

to rely on the loyal support of senior officers in exchange for leaving the military establishment intact and the military brass continues for the most part to preserve their monopoly over defense-related matters.³⁸

The Russian military is clearly in a state of rapid decay and stagnation. The armed forces have shrunk from about a four million-man peak during the Soviet era to about one million people today.³⁹ However, the drop in the total number of military personnel does not in itself reveal the numerous structural and personnel problems riddling the Russian armed forces. It is often said that military forces often mirror a nation's society for better or worse. If true, then the Russian military is a genuine reflection of the political, economic and social ills facing the greater society at large. The military, much like all of Russian society, is in disarray. Corruption is rampant, the budget has been slashed, and discipline has all but vanished. Political and military leaders have repeatedly demonstrated their inability to re-shape and reform the military into a credible, professional force capable of responding to and meeting the security objectives and threats Russia is facing both at home and abroad.

The Russian military consists primarily of low-paid, poorly trained, badly equipped, mal-educated conscripts and contract workers. Its doctrine and overall organizational structure remain outdated, focusing primarily on a conventional war from the West. Although the Russian government officially claimed that its military reform efforts were completed in 2003, most politicians and the citizenry remain frustrated and disillusioned with the current state of the Russian armed forces. The pace of reform has been slow and inconsistent for a number of reasons. First, many political leaders have demonstrated a general lack of knowledge or interest in defense matters. As alluded to earlier, Russian politicians will often allow the top brass to

³⁸ Tremn, Dmitri, Gold Eagle, Red Star, The Russian Military (2005)

³⁹ Herspring, Dale, Putin and Military Reform: Some First Hesitant Steps, Russia Weekly (2002)

manage the military without providing any oversight in exchange for political support. In essence, the military is allowed to a great degree to reform itself which of course is unrealistic for any armed force to realize. Secondly, the senior military leadership, which still wields a considerable amount of power and authority, has resisted many of the transformation efforts for self-serving, protectionist reasons. Russian generals and admirals truly have no clear incentive to overhaul the military's organizational structure. As such, military reform has moved forward somewhat, but at a very slow and unpredictable pace.

The Russian armed forces face huge structural, financial, and social problems, leaving the military in a state of chaos and disorder. In 2006, it was estimated that there were 21 million men available and fit to serve in the various branches of the armed forces.⁴⁰ However, due to a variety of draft deferments or failure to meet the medical requirements needed to enter into military service, the actual conscription rate was only about 11 percent.⁴¹ One study revealed that 31 percent of Russian youth aged 15-24 were unfit for military service due to poor health and another 30 percent of Russian troops currently serving in uniform who require medical supervision for being underweight.⁴² Conscripts often represent the lower rungs of Russian society. Alcohol abuse, illicit drug use, crime, corruption, hazing, and a variety of health issues and economic hardship continue to plague the Russian military establishment.

When President Putin took office back in 2000, he inherited a Russian military that was basically a legacy force from the days of the Soviet Union, but in a much greater state of decay. Weapon and equipment systems were aging and in need of replacement, corruption was rampant, training was inadequate, and the defense budget was small (only four percent of the country's

⁴⁰ CIA, The World Factbook 2006, <https://www.cia.gov/cia/publications/factbook/geos/rs.html>

⁴¹ Colts, Alexander, Military Reform in Russia, Journal of Slavic Military Studies, Vol 17, 2004, page 30

⁴² BBC Monitoring (ITAR-TASS), 30 October 2002

gross national product in 2004).⁴³ As such, President Putin attempted to enact military reforms designed to transform the Russian military into a lighter, smaller, more mobile and cohesive force with an emphasis on increased professionalism and enhanced deployment capabilities.

Unfortunately, Russian military reform efforts have been relatively unsuccessful to date. The many weaknesses and inefficiencies of today's Russian military can perhaps best be evidenced by the on-going war in Chechnya. The Russian military has clearly demonstrated its inability to quell the civil unrest there and its overall conduct of the war has been appalling. The war in Chechnya has served to highlight the numerous and serious personnel and equipment problems the Russian military is facing. Many of the draftees are simply unfit for military duty, medically or educationally. The troops are poorly paid and there is a chronic housing shortage. Discipline has almost completely broken down, corruption and embezzlement exist at all levels, and equipment problems, both a shortage of new equipment and spare parts for the old, continue to degrade the combat readiness and performance of the force. As such, it is little wonder that many Russian troops are deserting the ranks or avoiding military service altogether. The war in Chechnya has shattered Russia's military prestige in the world's eyes and has revealed the gravity and extent of the problems the armed forces are encountering.

Some critics argue that Russian military reform has restructured the force, focusing too much on reduction in size rather than re-shaping the military based on mission and threat.⁴⁴ By all estimates, the Russian military is in a state of disarray and perhaps terminal decline. The quality of the force, both personnel and equipment, is inferior compared to the former Soviet army. Russian political and military leaders seem to be unable or unwillingly to meaningfully

⁴³ International Institute for Strategic Studies, *The Military Balance 2006*, Routledge

⁴⁴ Ball, Deborah Yarsike, *The Security of Russia's Nuclear Arsenal: The Human Factor*, Lawrence Livermore National Laboratory, p. 1, (1999)

restructure the armed forces to meet the country's rapidly changing national security interests and threats in a post-September 11th world.

A key component to the combat readiness of any military force is the overall health and well-being of the troops in its ranks. In this area, Russia is failing miserably. Statistically, about half of all draftees are unfit for military service due to a variety of health-related issues.⁴⁵ The large number of personnel requiring medical treatment for cardiovascular and respiratory diseases, tuberculosis, cancer, HIV/AIDS, sexually transmitted diseases, and psychiatric disorders clearly reflects the larger social problems of the society as a whole. Environmental factors such as non-potable water, air pollution, and a food chain that is often contaminated are also significantly contributing to the health crisis among the civilian population and the military.

Alcohol and drug abuse within the Russian military are also reaching epidemic proportions. One study revealed that in 2000 approximately 12 percent of draftees are alcoholics and another eight percent admitted to using illegal substances.⁴⁶ Aside from the obvious personal damage to individuals' health and overall combat readiness, there is great concern and debate as to whether or not alcohol and drug dependent personnel are serving in the prestigious strategic missile troop corps. Strategic missile troops are responsible for guarding Russia's tactical nuclear weapons. Although the actual extent of the problem is not fully known, it is common sense to deduct that any percentage of alcoholics or drug addicts within these elite ranks could pose a huge personnel reliability risk for Russia and the world if not controlled. Many Russian troops, officers and enlisted, are already vulnerable to bribes and kick-backs to help compensate for the poor pay and quality of life to which they are regularly subjected. Russia must strive to better reduce the

⁴⁵ Ibid, p. 2

⁴⁶ Ball, Deborah Yarsike, "The Social Crisis of the Russian Military," in Mark G. Field and Judyth L. Twigg, eds., *Russia's Torn Safety Nets: Health and Social Welfare During the Transition*, New York: Saint Martin Press, 2000

number of individuals entering into military service with alcohol or drug-related problems. Increased screening measures such as polygraph machines and alcohol and drug detection equipment are badly needed and would go a long way in stemming the alcohol and drug abuse problems within the ranks.

Another unfortunately common and devastating problem that has plagued the Russian armed forces for years has been the widespread practice of 'hazing'. The practice includes the beating of mostly first and second year conscripts. Hospitalizations are common and the stories of hazing are legendary among the populace, increasing the desire among many to avoid military service at all costs. Hazing is simply one of the symptoms of a poorly disciplined force with weak leadership. The chain-of-command, both officers and senior enlisted, has shown general apathy toward the practice of hazing, doing little or nothing to stop it.

Russian military personnel are also facing unprecedented hardships in their overall quality of life. In the days of the old Soviet Union, military members were guaranteed essential benefits and entitlements to include housing, pay, medical care and a pension in return for service to the Motherland. Today, a serious housing shortage exists within Russia, both for military personnel and for the general population. In Moscow for example, it is not uncommon to wait 10 years for an apartment to become available. The wages paid to military personnel are dismal, even among the officer corps. A private makes 180 dollars a month; a lieutenant makes 200 dollars a month; and a colonel makes just 330 dollars a month.⁴⁷ As such, there is great and legitimate concern that Russian military personnel are turning to illegal activities such as the selling of equipment or weapon systems to support themselves or their families as compensation for the meager wages earned.

⁴⁷ Miller, Steven and Trenin, Dmitri, *"The Russian Military: Power and Policy"*, MIT Press (2004)

Related, crime within the military ranks is on the rise. Embezzlement and corruption are rampant from the highest-ranking officers to the lowest conscripts. There are many documented cases of military personnel selling everything from rifles to even tanks and planes. Organized crime has also crept into the ranks. The general behavior of senior officers remains bad. For example, it is common practice among the top brass to inappropriately use conscripts to build dachas using money and materiel stolen from the military establishment.

The manpower crisis within the Russian armed forces will continue to be affected by the negative demographic trends and structural problems within the military sector. The Russian military badly lacks a professional warrant and non-commissioned officer corps and maintains an officer corps that is too large and rank-heavy. Many of the best and brightest are leaving or simply not entering the military to search for better career opportunities. The competition with the civilian economy and the growing security sectors will also directly impact both the quantity and quality of the available pool of recruits needed to fill the ranks of the military establishment.

As such, it is my belief that universal conscription will remain in place in Russia for the foreseeable future. There does not appear to be any radical changes to the military establishment in the short to medium term. Instead, Russian leaders seem more likely to tinker and tweak the broken system. There are measures in place to scale back the out-of-control deferral system and to shorten the length of mandatory service to recruit and retain service members. For example, there is currently an initiative in place to reduce conscripted service from a two to a one year obligation and to attain a 70 percent volunteer force by 2008.⁴⁸ However, the well-respected military journalist Alexander Golts estimates that 'military officials anticipate that only 15

⁴⁸ CIA, The World Factbook 2006, <https://www.cia.gov/cia/publications/factbook/index.html>

percent of the armed forces will be staffed by volunteers in 2008'.⁴⁹ As such, Golts believes Russian authorities will be required to use an increased number of contract workers in the interim period to fill the military personnel gap. Like conscripts however, contract soldiers' salaries are also low so there is no guarantee that Russia will be able to adequately fill its military ranks in the out-years. Additionally, there is hope that the recent monetary boost in the Russian energy sector may provide additional resources for the strapped military. If this materializes, it is possible that improvements in housing and health care may for service members may be made available. In the interim however, it is likely that Russia will continue to source its military as cheaply as possible.

Russia seems to be developing a security strategy that supports and justifies its current military posture, both strength and organizational structure, based on a dual-mission doctrine: deterrence of an attack from the West or China, and suppression of ever increasing insurgent threats and small-scale wars such as Chechnya mainly along its southern border.⁵⁰ The former rationalizes the need and use of conventional forces and the still quite formidable nuclear arsenal while the latter positions Russia to increase its sphere of influence in the CIS.

However, in order for Russia to implement such a strategy should it so elect to do so, it must first seriously address its crippling personnel issues. One possibility may be the possible downsizing of the military infrastructure much as the United States has done over the last several decades. A smaller numerical force, but one that is better trained, equipped, and paid may be more feasible considering the demographic and financial constraints the Russian military is facing. Putin's initiative to create a smaller, lighter, more mobile force with increased professionalism and deployability needs to be revived. If Russia is to protect its stated national

⁴⁹ Golts, *Ibid.*, p. 35

⁵⁰ Trenin, Dmitri, *Gold Eagle, Red Star, The Russian Military* (2005)

interests and be a reliable partner in helping to fight the Global War on Terror, it must overhaul its organizational structure and fix its human resource problems. A shift in manpower to elite units such as special forces or troops trained in humanitarian and peacekeeping missions seems to be warranted in my estimation. Such forces are precisely what Russia needs to more effectively combat the ever-increasing trans-national and asymmetrical threats it is facing such as terrorism, organized crime, and the trafficking of drugs and people.

Additionally, Russia may want to consider increasing its reliance on recruiting more women to fill its diminished ranks. In 2005, there were approximately 90,000 women serving in the armed forces.⁵¹ Currently, women are mostly serving in support roles such as nursing and communications. The expanded use of women in the military, given their track record of greater reliability and life expectancy in comparison with Russian men, would exponentially increase the pool of eligible recruits to fill the ranks of Russia's sprawling military complex.

Although such wide-sweeping, restructuring efforts would, in all probability, take decades to realize, I believe that Russia must embark on a genuine overhaul of its military to be a solid and credible major superpower in the 21st century. The demographic crisis in Russia will simply accelerate the pressure on policymakers to make such tough political, economic, and national security decisions.

CONCLUSION

Russia's demographic crisis and its impact on the Russian population, economy, security, and society as a whole will continue to be a subject of heated debate and discussion for years to come. The very core of Russia's identity to include its stability and sovereignty are at great risk of being severely undermined if these disturbing demographic trends continue. As there appears

⁵¹ Pravda, More Than 90,000 Women Serve in Russian Armed Forces, <http://newsfrom.Russia.com/main/2004/03/02/52602.html>

to be no short or mid-term fix to increase fertility rates and decrease mortality rates, Russia may have to simply learn to live with a reduced population. As such, a better approach may be to focus more on the quality of life rather than on the quantity of the population. Economic reforms, an improved health care system, smarter immigration policies, and enhanced public education campaigns promoting better general and reproductive health would greatly benefit Russian society. In turn, a more healthy and able-bodied Russia would allow the government to better apply its precious and limited human capital against its most pressing national interests such as military security or territorial integrity.

Bibliography

- Ambrosio, Thomas, "Challenging America's Global Preeminence: Russia's Quest for Multipolarity" *Ashgate*, 2005
- Andreev, Evgeni and Scherbov, Sergei, "Population of Russia: What Can We Expect in the Future?", *World Development*, Vol 26, No. 11: 1939-55, 1998
- Ball, Deborah Yarsike, "The Security of Russia's Nuclear Arsenal: The Human Factor", *Lawrence Livermore National Laboratory*, p. 1, 1999
- Ball, Deborah Yarsike, "The Social Crisis of the Russian Military," in Mark G. Field and Judyth L. Twigg, eds., *Russia's Torn Safety Nets: Health and Social Welfare During the Transition*, New York: Saint Martin Press, 2000
- BBC Monitoring (ITAR-TASS), 2002
- Bloom, David E., and Pia N. Malaney, "Macroeconomic Consequences of the Russian Mortality Crisis", *World Development*, 1998
- Blum, Alaine, "Naitre, Vivre et Mourir en URSS", Paris, *Payot*, 2004
- Channel Newsasia, <http://channelnewsasia.com/stories/europe/view/266089/1/html>, 2007
- Chen, Lincoln C., Friederike Wittgenstein, and Elizabeth McKeon, "The Upsurge of Mortality in Russia: Causes and Policy Implications," *Population and Development Review*, 1996
- CIA, The World Factbook 2006, <https://www.cia.gov/cia/publications/factbook/geos/rs.html>
- CIA, The World Factbook 2007, <https://www.odci.gov/cia/publications/factbook/index/html>
- D'Agostino, Joseph A., "Motherless Russia – Muslim and Chinese Vie for Huge Assets of Dying Nation", *Population Research Institute*, December 2006
- DaVanzo, Julie, ed., "Russia's Demographic "Crisis", Santa Monica, Calif.: *RAND*, CF-124, 2001
- DaVanzo, Julie and Oliker, Olga, "A Shrinking Russia", *Atlantic Monthly*, 2003
- Dietwald, Claus, "Myths and Realities of Russia's Population Crisis", *Johnson's Russia List*, 2006
- Feshbach, Murray, "Russia's Population Meltdown," *The Wilson Quarterly*, Winter 2001

- Feshbach, Murray, "HIV/AIDS in the Russian Military – Update", *Woodrow Wilson International Center for Scholars*, 2005
- Field, Mark, "The Health and Demographic Crisis in Post-Soviet Russia, in Mark G. Field and Judyth L. Twigg eds., *Russia's Torn Safety Nets: Health and Social Welfare During the Transition*, New York: *Saint Martin's Press*, 2000
- Golts, Alexander, "Military Reform in Russia", *Journal of Slavic Military Studies*, Vol 17, p. 30, 2004
- Heleniak, Timothy, "Internal Migration in Russia during the Economic Transition", *Post-Soviet Geography and Economics*, Vol. 38, No. 2: 81-104, p. 98, 1997
- Heleniak, Timothy, Russia's Demographic Decline Continues, <http://www.prb.org>, p.3, 2001
- Heleniak, Timothy, "Russia's Demographic Dilemma," *CERES Newsletter*, Washington, D.C.: Georgetown University, 2001
- Heleniak, Timothy, "The 2002 Census in Russia: Preliminary Results", *Eurasian Geography and Economics*, 2003
- Heleniak, Timothy, "Geographic Aspects of Population Aging in the Russian Federation", *Eurasian Geography and Economics*, Vol. 44, No. 5: 325-47, 2003
- Herd, G.P., "Russia's Demographic Crisis and Federal Instability: Russian Regions and Regionalism, *Strength Through Weakness*, 2003
- Herspring, Dale, "Putin and Military Reform: Some First Hesitant Steps", *Russia Weekly*, 2002
- Holachek, Jeffrey, "Russia's Shrinking Population and the Russian Military's HIV/AIDS Problem", *The Atlantic Council of the United States*, 2006
- International Institute for Strategic Studies, "The Military Balance", *Routledge*, 2006
- Isakova, Irina, "Russia Defense Reforms: Current Trends", *Strategic Studies Institute*, 2006
- Journal of Epidemiology and Community Health, "Contribution of Drinking Patterns to Differences in Alcohol Related Problems Between Three Urban Populations", 2004
- McCarthy, Kevin, "World Population Shifts: Boom or Doom?", Santa Monica, Calif, *RAND*, DB-308, 2001
- Minakir, Pavel A., "Chinese Immigration in the Russian Far East: Regional, National, and International Dimensions" in Jeremy R. Azrael and Emil A. Payin, eds., "Cooperation and Conflict in the Former Soviet Union: Implications for Migration", Santa Monica, Calif.: *RAND CF-130*, 2001

MosNews, http://www.mosnews.com/news/2005/08/23/abortion_problems.shtml

National Intelligence Council, www.odei.gov.nie, 2002

Perevedentsev, Victor, "The Demographic Situation in Post-Soviet Russia", in George J. Demko, Grigory Ioffe, and Zhanna Zayonchkovskaya. Eds., "Population Under Duress: The Geodemography of Post-Soviet Russia", Boulder, Colo., *Westview Press*, 1999

Rosefielde, Steven, "Russia in the 21st Century – The Prodigal Superpower", *University of North Carolina, Chapel Hill*, 2004

Rozenfeld, Boris, "The Crisis of Russian Health Care and Attempts to Reform", *RAND*, http://www.rand.org/pubs/conf_proceedings/CF124/CF124.chap5.html

Russian Federation State Committee on Statistics, http://www.gks.ru/free_doc/2006/rus06e/05-08.htm, and The United States Census Bureau, <http://www.census.gov>

Shkolnikov, Vladimir M., Giovanni A. Comia, David A. Leon, and France Mesle, "Causes of the Russian Mortality Crisis: Evidence and Interpretations", *World Development*, 1998

Trenin, Dmitri, "Gold Eagle, Red Star", *The Russian Military*, 2005

Twigg, Judyth L., "HIV/AIDS in Russia and Eurasia", *Palgrave/MacMillan*, 2007

UNAIDS/WHO 2006 Report on the Global AIDS Epidemic, http://www.unaids.org/en/HIV_data12006_GlobalReport/default.asp

Vassin, Sergei A., "The Determinants and Implications of an Ageing Population in Russia", in Julie DaVanzo, ed., "Russia's Demographic Crisis", Santa Monica, Calif: *RAND CF-124*, 1996

Vishnevskii, A., "The Demographic Potential of Russia", trans. Robert Valliere, *Russian Social Science Review*, 1999

Vishnevskii, A., "Russia's Development Perspectives: The Role of Demographic Factors", *Scientific Works*, 2003

Vladimirov, D.G., "The Older Generation as a Factor of Economic Development", *Sociological Research*, 2004

Weitz, Richard, "Demographics Undermining Russia's Position in Asia", *World Politics Watch*, 2007

Working, Russell, "Will Chinese Roots Grow?", *Moscow Times*, July 2000

World Health Organization, Russian Federation Core Health Indicators,
www3.who.int/whosis/country/indicators.cfm?country=rus.

World Health Organization, www3.who.int/whosis/en; and RAND Corp-"Too Few Good Men:
The Security Implications of Russian Demographics, <http://www.rand.org/labor/popmatters>
(2003)

Yurevich, A.V., and I.P. Tsapenko, "Intellectual Emigration from Russia", *Herald of the Russian Academy of Sciences*, 1998

Zayonchkovskaya, Zhanna, "Chinese Demographic Expansion into Russia: Myth or
Inevitability?", in George J. Demko, Grigory Ioffe, and Zhanna Zayonchkovskaya, eds.,
"Population Under Duress: The Geodemography of Post-Soviet Russia", Boulder, Colo:
Westview Press, 1999