

Working Paper

**An Analysis of U.S. Defense and Economic
Adjustment Programs in Russia**

Linn Schulte-Sasse

July 2001

Linn Schulte-Sasse is a research assistant at the Center for International Security and Cooperation. She has been with CISAC since obtaining her B.A. from Stanford in 1999. She studies issues surrounding the restructuring of the defense industry in the former Soviet Union, specifically past and current U.S.-funded defense and economic adjustment-related programs in Russia. She works on CISAC's Project on Industrial Restructuring and the Political Economy in Russia.

The opinions expressed here are those of the author and do not represent positions of the Center, its supporters, or Stanford University.

Contents

Foreword	5
Introduction	7
Some Past and Current U.S. Programs in Russia	14
Department of Energy.....	15
Department of Defense	16
Department of State.....	17
Commerce Department	19
Interagency Efforts.....	20
USG-Established Agencies Facilitating Trade with Foreign Companies	20
Nongovernmental Organizations with Government Backing.....	21
A Look at Some General Trends, Strengths, and Weaknesses of Various Programs	23
Regional Targeting of Efforts	24
Targeting Specific Problems vs. Underlying Infrastructure and Sustainability	25
Structure of the Programs.....	29
Promoting Partnerships and “Russianizing”	32
Commercial Requirements vs. Foreign-Policy Objectives.....	34
Congressional Restrictions on Programs.....	34
Historical Criticisms of Past Programs—Lack of Foresight.....	35
Interagency and Interprogram Cooperation	35
Coordination and Connecting the Right Tool with the Problem	36
Particular Programs As Illustrations of These Trends	38
Final Considerations in Evaluating Past Performance and Achievements —Measurability Problems and Difficulty of Goals.....	42
Tentative Conclusions and Recommendations for Developing and Implementing Future Programs	45
Conclusions	45
Specific and General Recommendations.....	47
Concluding Remarks.....	49
Acknowledgments	50

Foreword

In the upcoming months U.S. policy toward Russia faces potentially major revisions, or at least a general rethinking of the U.S. government's strategy and perhaps even its fundamental goals in conducting its array of cooperative and assistance programs in Russia. This reexamination is inspired in part by the recent administration change, in part by criticism that the U.S. programs in Russia have received, and in part, perhaps, by the upcoming tenth anniversary of the dissolution of the Soviet Union, which presents a natural time for reflection—upon what we have accomplished in the past decade, where we are now, where we would like to go from here, and how best we might achieve this. Thus, it is important that during this time observers of and participants in the programs, both in and outside of the government, engage in a frank evaluation of the programs that the United States has implemented and/or supported in a variety of realms—economic, social/cultural, and political—in Russia's last decade of "transition." The programs that I examine in this working paper are a fundamental component of the U.S.'s overall Russia policy. Specifically, they are a number of the U.S. government (USG), nongovernmental, and a few multilateral programs in Russia that address defense conversion, nonproliferation, and economic-adjustment-related objectives.¹ By discussing elements of the approaches they have taken, I hope to contribute to the ongoing debates on and an objective examination of those programs.

I am conducting research on these programs at and thanks to the Stanford Center for International Security and Cooperation (CISAC), where I work on CISAC's projects with the Department of Energy's Nuclear Cities Initiative (NCI).² However, I hope and expect that a much wider audience than the NCI program alone will find the results of my work interesting, relevant, and applicable. In the past months I have researched secondary sources, reading what literature is available on the subject of the U.S. programs. This literature is limited, however, and the literature that is available is often either broad and cursory on a number of programs or analytical and in-depth on one program, and often written with a particular agenda or orientation. Hence there is a definite need for some surveys of the programs that synthesize both broader and analytical characteristics. To build upon the information I have gained from written materials, in summer 2000 I began the process of interviewing people, both in and outside of the government, who are involved in these

¹ See below for a more thorough explanation of my specific definition and interpretation of these terms.

² Contract with the Department of Energy: Assistance on the Nuclear Cities Initiative, contract number DE-AC01-99NN40108. Contract with the Lawrence Livermore National Laboratory: Assistance on the Nuclear Cities Initiative in Snezhinsk, contract number LLL B512138.

programs and/or are knowledgeable about them. I have also studied the political and economic backdrop in both the United States and Russia against which these programs have been conceived and implemented. This political and economic context is important to keep in mind throughout any analysis of these programs, though I do not explicitly discuss it in this working paper. The thoughts contained herein are largely a presentation and discussion of insights that people both in and outside of government have shared with me in meetings I have had thus far, but these insights are interwoven with information and analysis inspired by the literature I have read on the programs.

Accordingly, this paper is an interim report. It will serve as the basis for an ultimately larger and more thorough and systematic report on this subject. That report will contain more explicit documentation of sources. However, this paper in the interim serves several purposes. One is to present, in a timely albeit brief fashion, the results of my work to date. I hope to solicit feedback from readers that will be incorporated in the final report. A second is to generate further, more informed debate on a momentous and dynamic topic. A third is to try to fill a part of the aforementioned gap in the current literature on these programs.

While this study has been made possible by the Nuclear Cities Initiative program and by CISAC, the opinions stated herein are my own.

Introduction

The dissolution of the Soviet Union has presented unique opportunities as well as challenges for U.S. national interests and for U.S.-Russian relations—both in traditional security and non-security-related arenas. The last decade of “transition” has provided an opportunity for improved cooperation between the United States and Russia on both economic and political matters, as Russia has increasingly voiced the notion that “free-market democracy” (Russian-style) is a desired conclusion to its transitional period. Since 1991, there have been many collaborative efforts, involving the U.S. and other countries, aimed at helping to ease the transitional processes and challenges the former Soviet Union (with particular focus on Russia) ³ has faced. Yet these efforts have been easier planned and articulated than accomplished. The task of transitioning from a centrally planned, militarized economy to a free-market, demilitarized democracy⁴ has proven to be of enormous magnitude. This includes the related challenge of dealing with the remnants of the former Soviet Union’s military-industrial complex.

Since the beginning of this process, the challenge of transitioning from the command economy has been inevitably and inextricably linked to the task of “downsizing”⁵ or dismantling the military-industrial complex (MIC). In understanding why this is the case, it is important to recognize the extent to which the Soviet economy was so heavily, and

³ Note that the focus of this report is on Russia exclusively. I do not focus upon conversion experiences in other CIS countries, though there are valuable lessons there as well. The reason for this focus is in part to keep the report’s scope to a reasonable level and in part because Russia is of the greatest weapons of mass destruction proliferation concern; the other countries that had a significant concentration of weapons of mass destruction under the Soviet Union for the most part have significantly demilitarized already (at least in terms of hardware, though brain drain is of course still a big issue for those countries). For instance, Ukraine, Kazakhstan, and Belarus are no longer nuclear powers. It would also be a challenge to compare defense conversion in these other countries with defense conversion in Russia because Russia faces different and unique obstacles. Thus, I reserve a comparison of defense conversion programs in other NIS countries for another report.

⁴ Note that if one conceptualizes a centrally planned, militarized economy and a free-market, demilitarized democracy as being on either end of some sort of continuum (whether two- or three-dimensional), it is still debatable where along that continuum Russia lies. For example, some argue that Russia is not altogether “demilitarized,” not only in terms of the size of its military industrial complex but also in its lingering culture of distrust toward both internal (e.g., FSB) and external (e.g., NATO expansion) factors.

⁵ I do not mean “downsizing” as an act necessarily made intentionally by any particular individual(s) (as a CEO might intentionally downsize his/her company, for example), but rather as acts that have the effect of dealing with the remnants of the Soviet MIC, which includes a reduction, adjustment, or reallocation of capacities (not necessarily orchestrated by any particular individuals).

disproportionately, engaged in military activities.⁶ Thus, the ongoing transition to a “normal”—at least by most industrial countries’ standards—balance of military and civilian activity has inevitably involved some form of conversion activity. By conversion activity I mean to encompass a wide spectrum of strategies—from more overt, active efforts at conversion (e.g., the Cooperative Threat Reduction Fast Four program) to a simple reorientation, of individuals or groups, toward market activities (a more passive conversion).⁷ Many of the U.S. and other international efforts to become actively involved in Russia’s transitional processes have been motivated by newer international security concerns resulting from the legacy of the large Soviet emphasis upon military activities. Therefore, many of the so-called assistance or cooperative programs that the U.S. has supported, in its attempts to manage the effects of this legacy, fall within various definitions of defense “conversion”—whether passive or active.⁸ This paper addresses those programs that relate to the reorientation of resources (including people) from the Russian military-industrial complex toward civilian pursuits. There are many other types of programs that deal with economic infrastructure and environment, but those are discussed only to the extent that they influence the environment in which the MIC resources are redirected.

As indicated, the U.S. has its national interest at stake in wanting to follow and possibly influence the transition of the Russian military-industrial complex’s resources, whether personnel or materials. This is for at least two reasons: 1) proliferation concerns directly, and 2) economic development is likely connected to reorienting at least some of the MIC capital (human and otherwise) and economic stability is in turn related to political stability, which is in U.S. interests.⁹ The U.S. also has stated objectives of increasing mutual

⁶ For example, Clifford Gaddy argues that in terms of available job statistics (i.e., the number of people employed in the defense complex), the defense complex was four times as important in Russia in the mid-1980s as in the United States. He uses this as a measurement of the defense complex size because he points out that measuring it as a percentage of GNP is near impossible because of a lack of available data under the Soviet Union—resulting from both secrecy and the absence of market prices. Gaddy, Clifford. *The Price of the Past: Russia’s Struggle with the Legacy of a Militarized Economy*. Brookings Institution Press, Washington, D.C., p. 24, 1996.

⁷ This refers to David Bernstein’s conception of passive versus active conversion. Bernstein writes, “The active conversion includes the tacitly sanctioned utilization of state enterprises’ facilities and labor to establish private business ventures, so-called ‘spontaneous privatization.’ In addition passive conversion has occurred as many skilled employees have left the military enterprises for better paying jobs in the growing commercial sector.” Bernstein, David. *Defense Industry Restructuring in Russia: Case Studies and Analysis*. Center for International Security and Arms Control, Stanford, CA, p.vii, December 1994.

⁸ It is important to recognize that the term defense conversion in this context refers to broader efforts than those of the more conventional sense. I mean those programs implemented in Russia that in some way, whether directly or indirectly, facilitate the downsizing of the Russian defense complex and the conversion—both active and passive—of Russian military design and production facilities and personnel to peaceful civilian uses. Therefore, for the purposes of this paper, it is more appropriate to conceptualize the discussed activities as efforts that have contributed—whether intentionally or not—to the downsizing of the MIC, and try to set aside the conventional connotations surrounding the term defense conversion. To avoid the term’s connotations I sometimes use the alternative term defense adjustment to describe these activities.

⁹ Note that there may be more reasons than these two alone, and speculation about some of the possible, less altruistic motives causes suspicion on the Russian side. For instance, one Russian concern is that a U.S. motive might be the desire to use the assistance programs to provide a potential Trojan horse for U.S. espionage in Russia. A related concern is that the U.S. might be motivated by a pursuit for securing global dominance as the one remaining superpower. It is important to be realistic about the motives involved in the U.S. programs in Russia. It is also important to be cognizant of these Russian concerns and to recognize that there is no quick fix. At the same time, it is important to build as much mutual trust as possible (through confidence-building

transparency and helping the Russians reduce the size of their weapons complex. Its interest relates in large part to the new types of security concerns that the fall of the Soviet Union has sparked. It would seem that the decline of the arms race should have brought numerous anticipated benefits—for example, a so-called peace dividend; i.e., benefits that could result from freeing up resources that had previously been diverted to the military. Indeed, there has been notable progress from many standpoints (e.g., less spending upon conventional military procurements, increased country-to-country cooperation), though any expected peace dividend has fallen far short of expectations. The decline of the arms race and the former Soviet Union's (FSU) transition to a free-market economy—or, put another way, the attempted progression away from a militarized economy—may indeed have ameliorated some security concerns.

Other concerns have arisen, however. Russia is no longer financially able to support its massive military-industrial complex even far below Cold War levels, whether it wants to or not. Thus it has encountered problems with continuing to employ—at least with pay—a significant number of its MIC personnel. As mentioned, the Soviet MIC composed a substantial percentage of the entire Soviet economy and population. This has meant that there are significant numbers of people whose actions could be of proliferation concern. Thus, the post-Soviet condition of the MIC has inspired many countries to perceive new proliferation threats. Many people have both the economic incentive (or the lack of disincentive) and the access to weapons, materials, know-how, and other ingredients that would facilitate the proliferation of weapons of mass destruction (WMD)—few of which are very well protected or accounted for, in the USG's perception. These people are susceptible to economic incentives because Russians have been exposed to widespread economic difficulties since beginning the transition to a market economy, including wage arrears and a lack of employment opportunities; many of those displaced are not able to find comparable employment alternatives. To compound this, the downsizing of the MIC under these conditions has worsened the implications of the lack of an adequate materials and weapons control, protection, and accounting system in Russia, which of course makes the weapons or materials more easily removable without detection. This group of MIC personnel, then, is a focus of attention because it has both the means and the possible incentive to proliferate WMD.

Hence many,¹⁰ including the U.S. government, have been deeply concerned with this threat of proliferation of FSU weapons of mass destruction and know-how. The U.S. Congress, for example, has responded to the security threat by passing various pieces of legislation (such as the Nunn-Lugar Amendment, and since then a series of related efforts) designed to address the new types of threats brought by the fall of the Soviet Union and its reduced support of the MIC. Some of these efforts have been directly aimed at the concerns surrounding the past and current WMD personnel themselves (e.g., the economic incentives), while others have addressed the security of weapons, materials, and systems (the

measures, etc.) between the two countries so that cooperation may be maximally productive and mutually beneficial.

¹⁰ E.g., the European Union, the International Science and Technology Centers, the International Atomic Energy Agency, the Nunn-Turner Initiative, and various foundations.

means).¹¹ The U.S. government has funded many programs to guide Russia in this process. At least part of the initial hope was that the United States, the Department of Energy and its laboratories and Department of Defense in particular, could share some of its own downsizing experiences and lessons to help Russia (and other FSU countries) follow suit. In addition to this resource, quite a few placed hope in the fact that especially toward the end of the Soviet Union's existence, the MIC had increasingly produced civilian goods. The Soviet Union's, and specifically Gorbachev's, rationalization had been that a natural solution to the country's lagging civilian production would be to hand the task to the MIC, as the country's most productive and "successful" sector. Some advocates of the USG Nunn-Lugar programs found hope in the perception that Russia, having already begun to increase production of civilian products through its MIC, seemed somewhat well poised for a successful transition of its defense industry to civilian production, and a corresponding downsizing of the military aspect of the military-industrial complex. One of the basic ideas behind this so-called defense conversion (in the more limited sense) was that its activities would support the reduction of weapons production capability while promoting market economies and democratic political systems.

Though many would applaud the goals of these conversion efforts, the programs themselves have met with increasingly substantial barriers to and a growing loss of faith in the prospect of their success. As is apparent in the direction in which U.S. government assistance has gone since the early 1990s, such defense conversion in Russia is largely regarded as a failure (with a few anecdotal exceptions). Critics have argued that defense conversion within the United States has not even experienced notable success, and the U.S. already had the infrastructure of a market economy in place. Thus, Russia (in spite of any alleged conversion achievements under the command economy of the Soviet Union) may have been even less well-poised to succeed because it must convert to a market economy at the same time as it restructures its military-industrial complex. Many now say that it may simply be easier to start over from scratch rather than converting existing facilities.¹² However, one must keep in mind that this reorientation of resources is still a kind of conversion activity—just not necessarily "defense conversion" in the active sense.

Illustrating the pervasiveness of defense conversion's negative image, in FY1996 Congress banned the Cooperative Threat Reduction program from spending newly appropriated funds on defense conversion projects in the former Soviet Union.¹³ And while a

¹¹ The former, more related to the task of reorienting resources toward civilian uses, are the focus of this paper, as outlined below. The materials, weapons, and weapons systems themselves are of course also a serious and related concern, but for the purposes of this report I treat them as mostly separate. (I also do not address non-WMD-related personnel issues as much.)

¹² For example, Mark Kramer, a Russian specialist at the Davis Center for Russian Studies at Harvard, argues that "Conversion was a myth. Changing an aviation plant into a producer of consumer products is extremely difficult in any country. In Russia you had a structure that was never designed to function in a market economy. These companies have no future." Quote from "Fighting a Losing Battle; Russian Military Plants Struggle to Change with Times," Sabrina Tavernise, *New York Times*, February 24, 2001. Additionally, Sabrina Tavernise writes, "Far more drastic tactics are needed to jump-start the industry, economists say. ... newcomers must build new companies separate from the existing factories, to avoid outdated equipment and worker benefits. Foreign investors in Russia have had more success in building projects from scratch than they have in taking over existing enterprises."

¹³ Note that this issue is more complicated than it seems at first glance. The congressional ban was largely because Congress did not see defense conversion as a DoD task. However, the fact that it was not seen as a

few U.S. government-funded/run programs still continue along a similar vein, as a whole they do not enjoy widespread support, nor do they reap much praise as being successful programs. Clifford Gaddy, for instance, asserts that “By now, the verdict of the market is clear: Russia’s defense enterprises have shown themselves to be singularly ill-suited for transformation into capitalist firms. For many, no realistic degree of ‘adjustment’ will accomplish the task.”¹⁴

The programs that facilitate a more passive reorientation of MIC resources toward civilian pursuits have achieved some notable successes, however. Regardless of whether one believes that active conversion of the defense complex in Russia has failed and whether that specific concept should be abandoned, the proliferation threat has not gone away. The “honeymoon” period with Russia may be perceived by some to be over.¹⁵ Yet most programs that have reduced their operations have done so not because they have been successful or accomplished a lot, but because U.S.-Russia relations and the U.S. political view of Russia have changed (and also sometimes exactly because of how little the programs have been perceived to accomplish). The importance of the motives behind these programs makes an analysis of the U.S. experience to date a worthwhile exercise. Having done that one can then go on to make more educated recommendations for the direction in which U.S. programs should attempt to go in the future.

This paper analyzes past and current U.S. (and a few multilateral) economic, technical assistance, and other programs that have addressed defense and economic adjustment objectives in Russia, as they apply to restructuring the local Russian economies that are highly defense dependent. The purpose is to identify general trends in the approaches that have been more or less successful, given the varying contexts within Russia in which they have been implemented. The paper summarizes the ways each program has been set up for operation and actually has been implemented. Then, the bulk of the paper focuses on assessing some of the approaches that different programs have taken, rather than assessing performance records of individual programs. Having set forth these trends and potential lessons of previous experience, the paper then outlines some guidelines that might improve the development and implementation of future defense and economic adjustment programs. The ultimate purpose of the study is to provide recommendations for the U.S. government as to how its programs in Russia might be structured so that they may better meet both their individual programmatic and overall USG goals.

All of the programs examined herein include in some way or another efforts that facilitate reemployment in civilian pursuits of personnel that worked in the military-industrial complex (largely with weapons of mass destruction); this factor is the reason I have selected these particular programs for study. Reemployment of these personnel may be done directly by providing contract grants to scientists, for example, or indirectly by implementing programs to support economic development in certain regions. (In the latter approach to

DoD task may in part have been related to the general lack of enthusiasm for defense conversion. After all, Congress did not compensate by giving the task and money to a different agency.

¹⁴ “Market Reform and Defense Industry in Russia: Who’s Adjusting to Whom,” Clifford Gaddy, *The Brookings Review*, Vol. 14, No. 3, Summer 1996.

¹⁵ For example, there has been increased disagreement with Russia in recent years over NATO expansion, Kosovo intervention, arms sales to Iran, missile defense, and so on.

economic development, reform must occur on several levels: the enterprise level, the industrial level, the national economic level, and the national political level.) Thus, this paper includes programs that more directly address reemployment of personnel, such as the Initiatives for Proliferation Prevention, the Civilian Research and Development Foundation, the International Science and Technology Centers, the Cooperative Threat Reduction program, and the Nuclear Cities Initiative. However, it also considers programs like the Regional Initiative, the American Business Centers and other Department of Commerce programs, certain USAID and Eurasia Foundation programs, and others that are more indirectly relevant. It is essential that MIC adjustment efforts operate against the backdrop of the development of market economic institutions and infrastructure. These latter programs are therefore also a focus because they affect the environment in which the former programs function—by facilitating the reemployment process through the creation and improvement of infrastructure and other prerequisites of successful reemployment—and because their methodologies may be applicable to those former programs. (It should be noted, of course, that USG resources alone will not get this job done. It is necessary—with the help of USG resources—to stimulate both Western and Russian private investment.)

Comparing the relative successes of programs that are diverse in methods and goals is a difficult task. In the context of this paper, I consider “successes” for each program in two senses. One logical criterion is whether or not an individual program reaches the objectives it has set out to meet. That definition, then, varies from program to program, depending on its stated objectives and strategies for meeting those objectives. A second criterion might be whether or not a program contributed to the overall goals of the USG or achieved positive results (from a USG perspective) other than those it explicitly set out to achieve.¹⁶ Thus, one must make comparisons of successes on a number of levels, given that different programs have different strategies and objectives. It may be that one general strategy for reemployment of WMD personnel has met with greater success, given a certain context, than another. On another level, it may also be that, given that strategy for a problem, one program’s specific method for implementing that strategy has certain advantages over another’s. To illustrate with an example, two different cooperative approaches to providing WMD personnel with civilian employment opportunities are providing contract research and funding business incubators that act as a general resource and are a support service/infrastructure provider. In this example, it may be that the former strategy has certain advantages in a given context over the latter—e.g., more immediate results—or vice versa. (It also does not need to be a matter of either/or. Perhaps both strategies have their place and should be implemented in tandem with one another to maximize overall program effectiveness.) Then, within a chosen strategy, whether it be business incubators or contract research programs, it is important to know what devices and mechanisms are more effective. This paper evaluates programs’ strategies and results with these considerations in mind.

¹⁶ It is possible for a program to be successful on one level but not another. A program may reach its stated goals decisively but not have done much of substance to help restructure the economies of MIC-dominated areas, which is another USG goal, for example. On the other hand, it might have done much to reach the latter goal, but little to meet the former. One must also note that in many of these cases, the measure of success is not easy to quantify. That is a constraint one has to recognize (but be innovative to circumvent) when assessing the successes and failures of MIC downsizing programs.

To summarize, by examining U.S. experience to date this study seeks to identify the strategies, approaches, and structures that have experienced varying degrees of success, to delineate their advantages and disadvantages, and then to draw some recommendations from this experience. The first section of the paper briefly describes the programs under consideration, the second outlines some trends within the various USG program approaches, and the third draws some preliminary conclusions and recommendations. As noted, there have been reports put out by various organizations such as the General Accounting Office that critique the performance of one or a few programs in detail. This report is not meant to be a compilation of such critiques; I do not try to evaluate specific programs (i.e., program-by-program assessing the merits of each program).¹⁷ Rather, I assess the various approaches that the programs have taken, using examples from specific programs in order to discuss the advantages and disadvantages of those approaches. For example, I discuss the various attributes that an approach such as operating a nongovernmental program (as opposed to one within a USG agency) has, and in that context I draw upon examples from specific programs to illustrate some of the arguments made about the nongovernmental program approach. I comment upon the strengths and weaknesses of various strategies and conduct a crosscutting analysis, and based on those comments I draw some recommendations for how best to structure current and future U.S. programs in Russia.

¹⁷ Not only would that essentially be a compilation of the critiques already available, but it might also be unproductive by seeming to pit various programs against one another and to criticize particular programs. I am not interested in criticizing any given program so much as I am in commenting upon the entire current U.S. program experience to the extent that that learning process may then contribute to better U.S. program development and implementation.

Some Past and Current U.S. Programs in Russia

This section briefly describes the specific programs I have examined thus far. As mentioned, they are programs that address the prevention of proliferation of WMD expertise through the reemployment of WMD personnel—some directly and some only indirectly. This primary nonproliferation objective relates to other programs, such as economic adjustment programs and so on, because the latter types affect the conditions under which new jobs can be created and sustained. Thus, I have looked most broadly at programs that are involved in activities that contribute to restructuring the heavily defense-dependent regions. For a more detailed description of the objectives and activities of each program, please refer to the annual report prepared by the State Department's Office of the Coordinator of U.S. Assistance to the NIS, submitted pursuant to Section 104 of the Freedom Support Act,¹⁸ entitled *U.S. Government Assistance to and Cooperative Activities with the New Independent States of the Former Soviet Union*. The Coordinator's Report also includes more quantitative information, such as charts for cumulative funds budgeted (FY1992 through FY1999) for major NIS assistance programs by country,¹⁹ than I include in this paper.

The following programs have been studied: within the Department of Energy, the Initiative for Proliferation and Prevention (IPP) and the Nuclear Cities Initiative (NCI); within the Department of Defense, the Cooperative Threat Reduction (CTR) program, including some activities of the Office of Economic Adjustment (OEA); within the State Department, the Office of the Coordinator of U.S. Assistance to the NIS, the International Science and Technology Center (ISTC), and the Regional Initiative (RI); within the U.S. Agency for International Development²⁰ (USAID), various programs supporting economic restructuring in Russia; and within the Department of Commerce, the Special American Business Internship Training (SABIT) Program, the Business Information Service for the NIS (BISNIS), and the American Business Centers (ABCs). There are also some biological and chemical weapons personnel cooperative programs, such as the U.S. Departments of Agriculture and Health and Human Services scientific collaboration programs that work with the DoD and DOE. The U.S. government has begun Russia-related programs within existing organizations such as the U.S. Trade and Development Agency (TDA), the U.S.

¹⁸ The full title of the Freedom Support Act is the Freedom for Russia and Emerging Eurasian Democracies and Open Markets Support Act.

¹⁹ State Department, *U.S. Government Assistance to and Cooperative Activities with the New Independent States of the Former Soviet Union*, 1999. See Appendix.

²⁰ I include USAID within the section on State Department programs below because USAID receives its foreign policy guidance from the Secretary of State.

Export-Import Bank (Ex-Im Bank), and the Overseas Private Investment Corporation (OPIC). Finally, outside of the U.S. government agencies there are the Civilian Research and Development Foundation (CRDF), the Defense Enterprise Fund (DEF), the U.S.-Russia Investment Fund (TUSRIF), the Eurasia Foundation, a few World Bank efforts, and a few activities in which contractors such as the CARANA Corporation, the United States Industry Coalition (USIC), and the International Executive Service Corps (IESC) have participated.²¹ These last programs may interact with, receive money from, and even be creations of the USG, but their day-to-day operations fall outside its jurisdiction and they are considered nongovernmental. Materials and weapons programs such as the Material Protection, Control and Accounting (MPC&A), Warhead Dismantlement and Fissile Materials Transparency Program, etc. bear only indirect relevance to the goal of restructuring defense-industry-dominated areas. Thus I do not address them in this paper.

Department of Energy

The DOE's Initiative for Proliferation Prevention (IPP) program aims to "provide meaningful, sustainable, non-weapons-related work for former Soviet WMD scientists, engineers, and technicians in the NIS through commercially viable market opportunities."²² It does so by providing seed funding for projects with commercial potential that involve WMD scientists. While IPP (begun in 1994) initially funded more technology validation projects, it now gives greater preference to commercialization projects that cost-share with U.S. industry. IPP has had several different funding sources since its inception; it received Freedom Support Act funding until FY1996 and since then has been funded under the Energy and Water Development Appropriations Act. It also received some CTR funds in FY1996. Its ultimate goal is to facilitate the progression of these projects to self-sustainable commercial joint ventures with U.S. industry (at which point IPP funding ceases). The U.S. Industry Coalition (USIC) and the DOE national laboratories are the two main actors that facilitate this process. USIC, as a liaison with U.S. industry, helps form partnerships between scientists and industry, as well as reviewing projects for commercial potential and helping industry to commercialize projects. (See the section on nongovernmental organizations with government backing, below, for more information about USIC.) The DOE labs provide technical oversight and help in the identification and development of the NIS technologies involved in the projects. While the USIC companies' roles are to provide more business-related expertise, the DOE labs' comparative strength is their familiarity with the science and technology involved.

The Nuclear Cities Initiative (NCI), on the other hand, seeks to assist the Russian Federation in its own reduction of the inherited, Soviet-sized nuclear weapons complex. NCI aims to serve U.S. national security interests by reducing capacity and the ability to reconstitute weapons manufacturing in the closed nuclear cities. NCI removes functions and equipment from the nuclear weapons complex, reduces its physical footprint, and seeks to

²¹ The descriptions below are not entirely comprehensive. Some notable efforts are left out, such as those of TUSRIF, the IESC, the World Bank programs, and some contractors' (such as CARANA's) activities. These are left out only because I have not yet had an opportunity to study those organizations thoroughly. There may be other important additions included in the final report.

²² State Department, *U.S. Government Assistance to and Cooperative Activities with the New Independent States of the Former Soviet Union*, p. 238, 1999.

create sustainable, alternative non-weapons work outside of the nuclear institutes and within a functioning city economy. The NCI program was established in late FY1998, and it has had funds both contributed by IPP and allocated directly by the Energy and Water Development Appropriations Act. Rather than focusing solely on specific projects, its strategy for helping Russia downsize its nuclear weapons complex also concentrates on making the cities more friendly to business investment, development, and technology commercialization. It hopes to do this by adapting the cities' infrastructures, diversifying the local economies, facilitating the efforts of private-sector investors, and generally trying to turn the closed cities into places where businesses can flourish. It aims to implement reform efforts on many different levels, including community development efforts in addition to building development centers and other important infrastructure, and it thereby attempts to invoke a fundamental change in the nuclear complex. It currently is targeting its efforts and resources in three of Russia's ten nuclear cities. NCI has created international development and open computing centers, which it hopes will facilitate business investment and growth, in two of these cities. The DOE labs also play a role in NCI's program similar to the one they play in IPP, fostering relationships with their Russian counterpart scientists and working to identify and develop technology with potential commercial applications.

Department of Defense

The Cooperative Threat Reduction (CTR) program, also known as the Nunn-Lugar program, was initiated in FY1992 as one of the first programs created by Congress in response to the fall of the Soviet Union. CTR has several facets: weapons destruction and dismantlement, "chain of custody" projects,²³ and demilitarization projects. The projects most relevant to this paper fall within the demilitarization component, involving efforts to "facilitate the demilitarization and transition of the NIS countries to democratic institutions and market economies,"²⁴ most of which have been gradually phased out of the DoD (and most shut down) since FY1996. The demilitarization programs have sought to find peaceful, civilian uses and employment for former Soviet WMD-related production resources and employees. CTR's defense conversion program, whose new funding was prohibited after FY1996, granted contracts to U.S. companies to work with former Soviet WMD facilities to convert portions of their production capability into nonmilitary commercial ventures (the most well-known component of which in Russia was the Fast Four program, which attempted the fast conversion of four selected former Soviet WMD facilities in collaboration with private partners).

In FY1995 CTR began channeling its support of defense conversion projects through the Defense Enterprise Fund (DEF), rather than through direct creation of joint ventures, though in FY1997 even that indirect CTR support of defense conversion efforts ended. CTR also funded the ISTC through FY1995 and CRDF with a grant in FY1995. Finally, CTR money has been used to implement a Biological Weapons Threat Reduction program, funding collaborative biotechnical research and other projects, that continues today. However, for those activities that are considered defense conversion, no new CTR money

²³ Chain of custody projects are projects that have the goal of improving the security of weapons of mass destruction at all stages of custody.

²⁴ State Department, *U.S. Government Assistance to and Cooperative Activities with the New Independent States of the Former Soviet Union*, p. 196, 1999.

may be obligated. Nonetheless, CTR's Biological Weapons Proliferation Prevention program uses existing funds to support part of an interagency effort with the State Department and several other agencies. Also under CTR, the Office of Economic Adjustment (OEA) has implemented a project in Russia on the basis of its domestic expertise in providing small grants and technical assistance and in working to replace the former economic activities of U.S. communities affected by defense downsizing (economic adaptation). Occasionally the DoD's Office of Policy, under CTR, has asked the OEA to work with defense communities in the former Soviet Union to help those communities develop new economies and to improve the environment so that businesses can thrive. For example, they have provided grants for economic assessments of the cities' comparative advantages.

Department of State

The Office of the Coordinator of U.S. Assistance to the NIS is housed within the Department of State. It is the central office that plays some type of coordinating role for all of the U.S. government activities that support reform in the NIS. The role of the Coordinator's Office currently is to allocate Freedom Support Act funds (therefore it has more leverage over FSA-funded programs) and to administer some other funds; to provide transparency so that agencies know what one another is doing; to adjudicate among programs where necessary; to represent the programs to the U.S. public and Congress; and to try to intervene wherever necessary to prevent unnecessary duplication (and also to promote collaboration) among program efforts. Thus they coordinate largely by providing information and transparency. For example, the office puts out the Coordinator's report each fiscal year. However, while the office sometimes plays an evaluative role and can occasionally intervene, there is a limit to how much control it has over a program's operation. Agencies that have their own budgets and funding do not have as much incentive to seek the approval of the Coordinator's Office.

Also in the Department of State, the Science Centers Program, which includes the International Science and Technology Center (ISTC) in Moscow, was established in November 1992, though the program was not actually in operation for several years in part because of various political impediments in Russia. ISTC, funded through the Freedom Support Act funds, has the primary goal of preventing the spread of WMD and delivery system technologies by providing opportunities to former Soviet weapons scientists and engineers to redirect their expertise to peaceful activities. There are several components to ISTC's program. One of the major parts is the grant support that ISTC gives to project work at scientific institutes in Russia. Another is the Partner Program, which allows participation by private industry, foundations, universities, and other international and nongovernmental organizations that provide their own funds to support projects consistent with ISTC's objectives. Other USG agencies can also use the program to fund activities through the ISTC, thereby utilizing the Center's tax and customs exemptions and audit/monitoring rights. The Partner Program has the potential to help provide the former weapons scientists with commercial and other links to Western private and public-sector organizations, though currently most of those utilizing the program are other government agencies. A third component is the training and exchanges project, which focuses on enhancing market/business skills needed for technology commercialization, etc. ISTC is not as explicitly focused on market economy development, though its operation has become more similar to

IPP's over time. The use of its funds is sometimes limited by congressional restrictions relating to Russia's cooperation with Iran, etc. ISTC is a multilateral organization with a main office in Moscow. The countries originally party to the ISTC agreement in 1992 were the United States, the European Union, Japan, and the Russian Federation. Since then Norway, the Republic of Korea, Armenia, Belarus, Georgia, Kazakhstan, and Kyrgyzstan have joined the agreement.

The Regional Initiative (RI) was specifically designed to be an interagency effort between USAID, the former USIA (Public Affairs), and the Department of Commerce, with the State Department Coordinator's Office overseeing the RI's resources. The Initiative, originally called the Regional Investment Initiative, was launched in February 1997, at the meeting of the Gore-Chernomyrdin Commission. RI's objective is to promote economic and political change in regions that are already making such efforts on their own, in hopes that these "progressive" regions will become a model for other regions. Its strategy is to concentrate assistance activities in a few regions and develop a strong partnership with the regional and municipal governments and the private sector. RI's efforts are targeted at four regions identified as having sound ideas on economic reform and relatively low levels of corruption, being open to foreign and domestic investment, etc. Once the regions are selected (and this selection could arguably be a sign of prestige, and therefore desired by the regions), the different USG agencies ask regional actors what the region needs and how the USG can best help meet those needs, thereby coming to a mutually agreed-upon program for the region. Because there is no source of money specifically for the RI program, the other agencies must take money for the program from their own Freedom Support Act funds. RI's interagency working group is led by the economic section at the U.S. embassy in Moscow. Each region also has a regional coordinator whose job is essentially to do what the Coordinator's Office does, but in Russia, and that person also serves as the liaison to the regional government and people.

The U.S. Agency for International Development (USAID) also has a number of activities that support economic restructuring, as well as democratic and social transition, in the NIS. Their programs have sought to address privatization, fiscal reform, the strengthening of private enterprises, financial-sector reform, and the rule of law, among other things. Freedom Support Act money gets deposited into USAID's account, which the Coordinator's Office then allocates between USAID and other FSA-funded programs. (USAID then has to transfer to the appropriate agencies whatever FSA money the Coordinator's Office, at its discretion, indicates should go to other programs.) USAID's programs in Russia began in 1992 primarily with mass privatization efforts. As those efforts evolved, USAID also began efforts to develop a financial-sector system somewhat equivalent to the U.S.'s Securities and Exchange Commission; a more investor-friendly banking system by working with Russia's central bank; and an accelerated development of private enterprises, particularly of small and medium enterprises, through incubator programs and training centers that teach business skills and through micro-credit lending. Recently much of the USAID program has been significantly constricted, in part because the congressional funding has decreased.

Commerce Department

The Commerce Department has several programs in Russia that have the objective of helping U.S. companies and industry while simultaneously helping Russian development. Created in 1992, the Special American Business Internship Training (SABIT) program provides NIS scientists and managers with opportunities for training in U.S. innovation and management techniques by placing them with U.S. companies for internships lasting from six weeks to six months. The training is meant to address issues such as how to manage a program or company, how to secure financing, how to handle personnel issues and upgrade facilities, and finally how other businesses work. It is a starting point for helping individual scientists and companies learn to commercialize their technology and find a partner from private industry. The program seeks to create links while also being an educational effort. One of the program's long-term goals is to establish relations between U.S. and Russian companies. The SABIT program is guided largely by the U.S. private sector demand for Russian interns. It is funded through the Freedom Support Act.

The Business Information Service for the NIS (BISNIS) is an information resource for U.S. companies doing business in Russia. The BISNIS program's goal is to facilitate U.S.-NIS trade and investment by providing U.S. companies with information and guidance on regional, sector-specific, and practical aspects of doing business in the NIS, and in turn to expose NIS businesses, organizations, and officials to U.S. business community priorities and interests. It also aims to use technology to provide access to commercial information and resources, and to promote active collaboration among U.S. government and multilateral assistance efforts. BISNIS also facilitates the development of joint ventures between U.S. and Russian partners by providing interested parties with information about the ongoing efforts of various companies looking for potential collaborative efforts so that they might find compatible partners.

The American Business Centers (ABCs), initially set up in 1992 under the Freedom Support Act, now no longer operate in Russia; over the course of FY1999 they were phased out.²⁵ Some of the Centers were run under FSA funds, while a few were financed with Commerce funds. The aim was to encourage and facilitate U.S. companies' operation in Russia, with an emphasis on assisting small and medium-sized firms, while Russians could also learn how better to partner with U.S. companies. The Centers were run by private-sector entities through cooperative agreements with the Department of Commerce, and they provided a broad range of business development and facilitation services for U.S. companies, from office space and access to technological capabilities to market research and advice on local market conditions and business practices. They also provided business training and technical assistance to NIS firms.

²⁵ My impression is that the ABCs "failed" (in the sense that they stopped operating, and not because they were perceived as having successfully completed their work) not necessarily because they did not do an adequate job in Russia of helping American and Russian companies, but rather because the ABCs did not become self-sustaining. This may have more to do with their own financial requirements than with their effectiveness in helping companies.

Interagency Efforts²⁶

The U.S. Departments of Agriculture (USDA), Energy, Health and Human Services (HHS), State, and Defense have all helped to implement an interagency biological weapons personnel redirection effort that is spearheaded by the State Department. The effort is currently somewhat informal in the sense that it is not fully institutionalized; for now its continuation relies largely upon the sustained commitments of the specific individuals involved in the different components of collaboration. The goal is to increase transparency in former biological weapons facilities and redirect former biological weapons scientists to civilian commercial, agricultural, and public health activities. The efforts began in late 1998 and, supported by FSA funds, run mostly through the ISTC program. The USDA and Agricultural Research Service (ARS) Collaborative Research Program, which focuses upon agriculture-related capabilities in animal and plant pathogens, promotes increased contact and collaboration between ARS and Russian scientists through exchange visits, shared results between U.S. and Russian labs, etc. In a similar vein, HHS's Biotechnology Engagement Program, focusing upon addressing domestic public health concerns such as infectious diseases, awards grants to individual projects in this realm that involve both U.S. and NIS components. The U.S. partners (USG scientists and other health professionals) oversee project activity, assess outcomes, etc., but the program is primarily meant to support NIS-based activities involving former BW scientists. Both programs seek to integrate the work of former BW scientists into mainstream scientific work.

USG-Established Agencies Facilitating Trade with Foreign Companies

The U.S. Trade and Development Agency (TDA) is an independent federal agency that provides grants to interested U.S. companies for feasibility studies in many foreign countries. It is one of several agencies that were established by the USG in order to facilitate trade with foreign companies by various means. After the breakup of the Soviet Union, these agencies were expanded to include the former Soviet Union within their programs' jurisdictions. TDA started providing its feasibility study service in the NIS in 1992 and since then has funded many studies on major infrastructure and industrial projects (such as developing a financial management system). Not only do the grants have the effect of providing export opportunities to U.S. companies, but they also have the potential to benefit Russia by encouraging/facilitating investment there. The availability of feasibility studies is meant both to leverage the funds that companies already committed to investing in Russia are currently investing and to encourage otherwise more timid investors to invest. Similarly, the U.S. Export-Import Bank (Ex-Im Bank) is a government export credit agency that provides financing support—through medium- and long-term loan, guarantee, and insurance authorizations—for U.S. exports to foreign countries, having expanded to include exports to NIS countries in the early 1990s.

Additionally, the Overseas Private Investment Corporation (OPIC) is an independent, self-sustaining USG agency that encourages private-sector U.S. investment in “developing countries and emerging markets” by providing investment finance (loans and loan guarantees) to large and small American businesses making long-term investments, in

²⁶ The Regional Initiative is also considered an interagency effort, though I have included it above with State Department programs because the efforts are largely housed in the Coordinator's Office.

order to help them open new businesses or expand existing ones overseas. Its long-term, limited recourse project financing is available to ventures involving significant equity participation by U.S. businesses. OPIC also provides political risk insurance to U.S. investors to mitigate the risks of these overseas business ventures. Its mandate is to facilitate the movement of U.S. capital, skills, and know-how into developing countries by providing them with this insurance and financing. It has been operating in Russia since signing a bilateral agreement with the country in 1992. TDA, Ex-Im Bank, and OPIC are all programs whose services are meant to be driven by U.S. private-sector demand.

Nongovernmental Organizations with Government Backing

The Civilian Research and Development Foundation (CRDF) was authorized by Congress in 1992, but did not have funding to start operating until 1995, when George Soros successfully challenged the USG to match a \$5 million grant he offered. Thus, in August 1995 the National Science Foundation established CRDF with \$5 million from the DoD to match the initial grant that the Soros Foundation provided. Though CRDF's initial government grant came under the CTR program, funds have shifted to the State Department's FSA funds. It has also received money from the NIS and a little from American industry. CRDF is an effort to address the reemployment of scientists one scientist at a time. It funds collaboration on civilian basic and applied research conducted in the NIS to promote both nonproliferation and the development of a market economy. It conducts a cooperative grants program to fund basic science projects, mostly involving former weapons scientists, with universities in the U.S. Additionally, CRDF has a Next Steps to Market program whose applicants compete for funds to support the next steps in commercializing their project technology; thus, the Next Steps program is more applied than the cooperative grants program. It also conducts a travel grants program to bring FSU scientists seeking American partners to the U.S. CRDF has something analogous to a government-to-government agreement that gives it benefits such as tax exemptions. Though it receives government funds, CRDF is nongovernmental, as well as nonprofit.

A second nongovernmental organization with government backing is the Defense Enterprise Fund (DEF), which Congress established in 1994 to assist the four nuclear successor states within the FSU in privatizing their defense industries and converting their military technologies and capabilities to civilian activities. In FY1995, as CTR began pulling out of direct involvement in defense conversion efforts itself (which it had done by trying directly to create joint ventures), the CTR program shifted the focus of its defense conversion efforts to support for joint projects through the DEF. The DEF had been intended to be phased in as a longer-term mechanism for these efforts, and was set up as the shorter-term Fast Four programs were being implemented. The DEF has provided loans and grants and made equity investments in joint projects involving U.S. companies and NIS enterprises formerly involved in producing WMD; it has essentially been a venture capital fund for these activities. It has thus funded defense conversion projects in Russia, but it has also attempted to help the Russian government and defense industry understand the requirements that investment projects must meet to attract private venture capital generally. It selects enterprises qualified for funding that have partnerships with U.S. or other Western companies, with preference given to those formerly involved in WMD work. In FY1997, funding shifted from the DoD to the State Department under FSA funds. However, the

State Department has not allocated funds to the DEF since FY1997, so DEF is running out of government money and is trying to raise additional capital to continue operation.

Another organization outside of the U.S. government is the Eurasia Foundation. It was established in 1993 with a major grant from USAID. Its mission, somewhat similar to USAID's, is to promote democratic and market economic reform at the grassroots level in the NIS. It is privately managed and field-driven (with directors fluent in Russian and staff recruited from the region). Its primary tool for providing assistance is an open-door grants program, and it has the flexibility to deliver these grants quickly. However, it also conducts some grants competitions on a regional basis, in order to target certain priority geographical areas. Grant-making is focused in three program areas: accelerated development and growth of private enterprise; more effective, responsive, and accountable local government; and increased citizen participation in political and economic decision-making—the first of which is most relevant to this paper. Some of the grants made in that area have, for example, been in support of business development through the provision of consulting services to small, technology-based firms in Moscow; establishing and managing equity investment vehicles for small and medium enterprises in the NIS; etc. Another related effort is the Small Business Lending Program initiative that the Eurasia Foundation is undertaking, designed to support a more rigorous small-business sector. That program provides loans to small and medium-sized businesses, though it is currently operating only in the Saratov region of Russia, as well as in Ukraine and Armenia. Finally, Eurasia has provided a partnership grant to the U.S.-based Institute for Training and Development and its Russian partner, the Academy of National Economy, in order to develop a master's of science program in technology commercialization. The rationale is that Russia's impressive reservoir of scientific and technical human resources must be combined with the knowledge and skills to convert new ideas into marketable technologies and products, and Eurasia hopes that this project will advance that cause. Eurasia continues to be funded by USAID, though it also receives contributions from many non-USG organizations, including from private individuals and corporations, as well as Carnegie Corporation of New York.

A final type of nongovernmental program is those NGOs that have functioned as implementers of government programs. For example, the United States Industry Coalition (USIC), funded through a cooperative agreement with DOE, is a nongovernmental body that was created to facilitate IPP's operation. USIC assists U.S. industry members in commercializing successful IPP projects.²⁷ It also participates in partnership formation (recruiting and retaining U.S. companies for involvement in IPP) and in examination of IPP projects for commercial potential. USIC is not-for-profit with an independent board, receiving funding through membership dues (independent of the USG).

²⁷ For a list of some of the more successful projects, please see the FY1999 *U.S. Government Assistance to and Cooperative Activities with the New Independent States of the Former Soviet Union* report, p.239.

A Look at Some General Trends, Strengths, and Weaknesses of Various Programs

In the last few years those involved in the U.S. programs have increasingly recognized that a better evaluation process is needed—to assess what the programs have accomplished thus far and to set up a system for measuring more accurately the results of the current (and future) programs. This is perhaps in part out of political necessity, as the Clinton administration's Russia policy came increasingly under fire toward the end of the president's tenure, and in part out of the simple realization that understanding the accumulated experience is an important step toward improving the chances for success in the future. Yet little progress has been made on this front; it is still hard to find critical analysis of or reflection upon the whole span of programs.²⁸ To some degree, consideration for longer-term consequences was absent from the programs from the start. In the early 1990s as the U.S. began constructing programs that operated in Russia and set up a structure of programs to address the legacies of the FSU military complex, it did so with a sense of urgency and a perception that we needed to move as quickly as possible. Few implementers gave much thought to potential evaluative measures. The overwhelming concern was to address more immediate nonproliferation issues. There was little thought given to long-term sustainability, though admittedly the climate may not have been right for such considerations at the time (for example, longer-term programs and those perceived as being only indirectly related to nonproliferation may not have been as politically feasible to implement then, and the economic climate may not have been as receptive yet either). Now, the programs have turned much more attention to delineating their long-term objectives and steps necessary for success, how to measure success, etc., and more of the programs have been created with a stated longer-term view—such as the Regional Initiative and NCI. These developments have been implemented because they are deemed to be a crucial part of maximizing program effectiveness. Also important to that process is understanding the U.S. experience thus far and making the most of the lessons to be found in it.

The following section aims to begin undertaking that task. It is a compilation of themes, trends, and important points that those with whom I have spoken have observed in the decade these programs have been operating, as well as those that I have detected in my own observations. From these reflections I have tried to draw generalizations regarding characteristics that many have found to be more or less effective. The themes discussed are

²⁸ Some speculate that this lack of reflection remains in part because among the programs' implementers there is inadequate recognition of the value that independent, constructive reviews of the programs might have.

regional targeting of efforts; targeting specific problems versus targeting underlying infrastructure and sustainability; various structures of the programs; promoting U.S.-Russian partnerships and “Russianizing” the programs; commercial requirements vs. foreign policy objectives; congressional restrictions on the programs; historical criticisms of past programs/lack of foresight; interagency and interprogram cooperation; coordination and connecting the right tool to the problem; illustrations of these trends in particular programs; and final considerations in evaluating past performance and achievements—measurability problems and difficulty of goals. As indicated in the Introduction, I do not conduct a systematic evaluation of all the programs, program by program. Rather, I cite strengths and weaknesses of various general strategies that different programs embody, and in this process I present some comments that I have heard regarding specific programs in order to illustrate how they embody those strategies. This paper is therefore a cross-cutting analysis of the spectrum of programs. Different approaches have different strengths and weaknesses in given contexts for given objectives, and in some cases there simply is no “right” position at all. With that in mind, below are some observations regarding these themes.

Regional Targeting of Efforts

A first theme is whether a program concentrates its efforts within specific regions or localities or focuses upon broader, more dispersed efforts geographically. The Regional Initiative is an example of the former approach—currently it targets four regions, which it hopes ultimately to be able to promote as models of success—as is the Nuclear Cities Initiative, containing its efforts within the nuclear cities and starting in three of those cities. NCI is focusing upon entire cities (as opposed to focusing solely upon the nuclear weapons facilities or science centers, as ISTC does, for example) and is trying to turn the closed cities into places where businesses can flourish by developing business infrastructure. Both the RI and NCI encompass a more holistic approach, trying to implement infrastructural changes on a number of different fronts, economic, cultural, and perhaps political, and they work to effect change in an entire local society. The Initiatives for Proliferation Prevention, on the other hand, is not anchored in any specific regions. It funds specific projects involving weapons scientists, no matter where in Russia they are based, similar to the International Science and Technology Center (though ISTC does not work exclusively with former weapons scientists). Nor do either of those programs build infrastructure.

Each system has strengths and weaknesses. Regionally targeted programs have the benefit that a concentration of resources sometimes presents a more effective and measurable utilization of those resources, for example. They are also able to concentrate more upon building important infrastructure. On the other hand, the effects of such programs may not be as widespread, which may pose a problem because change is needed in more than a few localities. Though some of the localized programs may be attempting to create a useful model for reform for other places to follow, those other communities may have difficulty pursuing those models without similar external resources supporting their efforts. Given a finite pool of monetary support, the USG must select the method that it thinks is the most effective use of its relatively scarce resources, weighing geographical concentration of resources with the number of regions it aims to target. There has been increasing consensus in favor of more regionally targeted programs, as the newer programs like the RI and NCI embody, though this is not to discredit the preexisting programs. Some programs have been

criticized for being too broadly dispersed regionally, and in trying to do everything at once have thereby accomplished little.

Some earlier programs that focused more on a top-down, macroeconomic level of reform (price liberalization, macroeconomic stabilization, privatization, etc.) and upon macroeconomic institution building were a particularly extreme illustration of this.²⁹ Some criticize that there has not been enough attention paid to a bottom-up perspective. Recently, bottom-up approaches have gained popularity; thus people's advocacy for programs that are regionally focused. ("Russia needs to be developed one territory at a time" is the given rationale.) In accordance with this, some promote supporting clusters of people on the laboratory level as opposed to the city level. Sister cities/labs is a good mechanism for this. On the other hand, if one's goal is to try to improve basic infrastructure, interacting with local governments may be an essential step. Regardless, the trend is generally away from state-to-state programs and toward regional targeting (though at what level varies from program to program). Some warn against trying to transform the Russian state; rather, they advocate transforming individuals and opportunities outside of the state. Some offer the advice that rather than giving money to the enterprises, one should give it to the city (in the case of the nuclear cities), for example, to transform the opportunities outside of the state enterprise rather than trying to change the state entity itself. Helping grassroots efforts directed toward people—small-business people, regular Russians, support for nongovernmental media,³⁰ etc.—rather than the Russian government is important.

Thus there is a greater consensus now that local-to-local programs, grassroots projects, and small, regional initiatives have been more effective, though geographically broader programs have had the effect of reaching a wider audience at times. Regardless of one's preference for regional or wider-targeted programs, though, there needs to be some kind of coordination between varying levels of state control in Russia so that local efforts are in accordance with national regulations and understanding, and vice versa. It is also important to try to ensure that a program's money is channeled as directly as possible to the level of use in order to maximize the amount of those resources it actually receives, avoiding intermediary government channels (i.e., the government of Russia or even regional governments) where possible. It may very well be that some combination of both programs (or elements of both programs) is ultimately best, thereby achieving some beneficial characteristics of both regionally concentrated and more widely distributed programs.

Targeting Specific Problems vs. Underlying Infrastructure and Sustainability

A second, somewhat related debate concerns targeting specific problems directly versus trying to focus on longer-term but more indirect challenges by addressing issues such as improving business capacity by building infrastructure or developing market skills.³¹ In other words, in

²⁹ I will not get into the big shock therapy vs. gradualism debate here. That is a subject for a (large) book unto itself.

³⁰ Support of nongovernmental media in Russia is an important issue in view of recent media developments in Russia (NTV, etc.). The Eurasia Foundation's Media Viability Fund seeks to strengthen independent media in Russia by providing loans to newspapers for equipment and small grants for technical support, etc.

³¹ The parameters of this debate sometimes coincide with the parameters of the regional targeting debate. Those programs that target a specific problem tend to be more regionally dispersed (e.g., ISTC), whereas those that

the case of the programs related to reemploying WMD personnel, this is the difference between directing attention primarily to engaging the scientists, for example setting up payrolls (e.g., ISTC), versus focusing upon commercial viability of various projects explicitly and upon the development of market economies in the NIS (e.g., IPP, CRDF, NCI), which then indirectly should lead to engaging the scientists. The argument supporting the latter approach rationalizes that the most vital task in the process of reemploying former WMD scientists is to focus upon creating a solution with long-term sustainability. Supporters of this argue that scientists can't be endlessly subsidized, and that therefore the answer lies in facilitating development of the economy and of the abilities that scientists will need to thrive within that economy. (Economic development is linked to a broader question of sustainability because developing a more vibrant economy that will absorb scientists looking for employment and keep businesses afloat is an essential component of creating a system that does not rely upon subsidies from the USG—and therefore poses a more sustainable solution.) However, this is an enormous problem—namely, to go from creative destruction/dismantlement to creative development. There has been a degree of euphoria about technology development's potential to fuel economic growth, but it has not always worked that way, at least thus far. Thus, others argue that we need to target specific and more immediate problems (e.g., directly engaging the scientists), particularly if our real concern is nonproliferation, because the longer-term process is precisely that—it is long-term and much more uncertain. Providing programs with contract grants, on the other hand, is a more straightforward and predictable equation, with more guaranteed outcomes to immediate problems in terms of ensuring that one can employ x number of scientists with a certain amount of money. (The result of contract grants programs is a more measurable and obvious multiple of the amount of money put into the program.)

IPP, CRDF, and NCI are three examples of programs that focus on longer-term challenges. In their efforts to redirect scientists' efforts toward peaceful purposes, IPP and CRDF both explicitly focus on the commercial viability of projects and on the development of market economies in the NIS as an overarching goal. IPP focuses upon providing sustainable, non-weapons-related work to scientists at the institute level through commercially viable market opportunities, and it has had several heralded success stories through the USIC program (which, as outlined above, is its vehicle for technology commercialization and recruits U.S. companies for involvement in the program). CRDF supports collaboration on civilian basic and applied research, but it also has the explicit goal of promoting the development of market economies in the NIS and it focuses upon commercialization of its projects through the Next Steps to Market program. Similarly, NCI strives to help Russia downsize its nuclear weapons complex in large part by building and adapting infrastructure to make it more friendly to business investment. All three of these programs focus more upon direct commercialization and actions to facilitate commercialization as a means of addressing personnel concerns, as opposed to creating contract grant programs with the primary goal being simply to engage the scientists.

In contrast, ISTC has traditionally been an example of this latter type of program that more directly addresses a specific problem. ISTC directs more attention to engaging the

focus upon infrastructure are sometimes more locally concentrated (e.g., NCI or RI). An example of one exception to this, however, is the DOE's lab-to-lab program, versus its NCI program. Both are regionally concentrated, but the former is specific, while the other is more infrastructure-related.

scientists and setting up payrolls. As with both IPP and CRDF, its primary objective is to provide opportunities for peaceful activities to former Soviet weapons personnel; however, the difference is that ISTC does not have as much explicit concern for a resulting commercialization of technology. (In some respects, observers have noted, ISTC has recently become similar to the IPP program, focusing more upon commercialization; however, ISTC operated at least previously as characterized here, and its official policies remain more contract-grant-oriented.)

The existence of this debate does not mean that the problem inevitably has an either/or solution; the solution may be to have some combination of shorter-term and longer-term programs. Particularly because many of the problems that have motivated the programs are pressing, the shorter-term programs may address more immediate needs while the longer-term infrastructure is being built or adapted for the benefit of long-term sustainability.

If one accepts “sustainability” and promoting sustainable business through economic reform as one of the programs’ objectives (again, not necessarily in opposition to targeting specific problems such as engaging scientists), there are certain methods of attaining that goal that are more commonly advocated. First, people argue that one must devote more attention to creating and facilitating sustainable business by dealing with the business climate. There are numerous impediments to investing in Russia—problems with intellectual property rights (IPR), the general financial climate, customs laws, commercial infrastructure, crime and corruption,³² etc. An improved climate for attracting business partners is needed, and addressing certain issues such as IPR regulation and tax reform³³ is a necessary precursor to (or at least must happen in parallel with) increased investment. Not only do these problems exist in Russia, but they are exacerbated by their unpredictability; the fact that not only is there often a high cost to investing in Russia, but that cost often is unpredictable is a significant impediment to investor confidence. Perhaps one of the most overarching problems is in the rule of law. The U.S., for example, has a constrained market economy, constrained by the rule of law, which is currently flawed in Russia. Thus, the issue is not just passing legislation but also implementing and enforcing it.

For most of these problems, some feel that educational efforts are all we can do—that is, to convey that certain steps (tax reforms, for example) may be seen as in Russia’s best interests. However, on a more microeconomic level there are things the U.S. can do (and has done) to promote and develop sustainable business in and attract it to Russia. Some of these efforts are also educational, and some otherwise. The Commerce Department programs, for example, have facilitated the development of successful, long-term relationships between U.S. companies and Russian individuals and companies. They have also encouraged and facilitated U.S. companies’ operation in Russia, along with some of the other organizations that “burden-share” with U.S. companies. These efforts have helped spread standard Western business practices and skills in Russia and have helped stimulate investment there.

³² Corruption is an impediment to operating in Russia not only because it in and of itself is an obstacle but also because resulting safeguards against it often tie the USG’s hands.

³³ Note that tax reforms have recently taken place in the Russian government, but their implementation and its effects have yet to be determined. Admittedly, addressing many of these business climate issues is something that only the Russian government can do.

They have also helped create longer-term relationships between U.S. and Russian companies and individuals, which has facilitated the establishment of cooperative business partnerships and collaborations. These skills are important for the Russian population generally, but are in particular shortage in the scientific population. Along these lines, an important effort is to help scientists become more entrepreneurial and build an understanding of how to create and conduct business(es). Some programs with a specific nonproliferation orientation, such as NCI, have incorporated business training elements into their activities.

Additionally, SABIT, for example, focuses generally upon business training and is another starting point for helping personnel, including scientists, learn to commercialize their technology and find a partner. SABIT may be a particularly appropriate organization to play this role because that is its expertise. SABIT creates links and is an educational effort. Some advocate creating more programs like SABIT, or expanding the resources and realm of SABIT itself, in large part because the SABIT program seems to have provided a good model. It is essential to build the capacity of regional leaders to understand market economics, the role of law, etc.—thus, the importance of an educational effort—as well as to make the workforce generally marketable. This approach focuses upon building and/or enhancing economic advantage, rather than trying to push technology at industry. Many argue that in general the U.S. programs need to be more private-sector-driven. SABIT, in fact, is an example of a program that attributes a large part of its success to its determination to be private-sector-driven; it will not conduct its programs if there is no U.S. company interest.

Many also argue that there is a need to create a resource to which scientists can turn for good advice on how to pursue their ideas—that is, advice on technology commercialization from someone other than the USG, which, as some critics point out, is not a venture capital firm. For example, many American universities (MIT and Stanford, for example) have strong technology-transfer offices that are great resources in the U.S. The Russians need some analogous source, to which they do not have access now. Some U.S. programs are contemplating creating some sort of collaboration between strong U.S. technology transfer offices and organizations in Russia to help Russian scientists and institutes establish similar offices (though these offices would likely not be within the institute structure in Russia because such technology transfer offices have traditionally been separate from the institutes). Additionally, some encourage the creation of more and better self-sustaining business incubators. One problem with this proposal, however, is that the Russians often do not want to utilize such resources because they do not want to place their money and business future largely in someone else's hands. Some argue that Russians only use business incubators to the extent that they can provide a safe haven from certain corruption problems pervasive in Russia.

Note that some feel these economic-reform-related goals should be separate from USG nonproliferation goals. In the context of the more explicitly WMD-scientist-oriented programs, some place greater priority upon the nonproliferation goals and question some of the U.S. program commercialization goals, or at least argue that the two goals should be kept separate—that a program's focus should be either on commercialization or on occupying scientists, but not both. The rationale is related to the argument that focusing upon both objectives might lead to obscuring the realization of either. Others argue, however, that the two issues are inextricably entwined and that each may facilitate the other. If one chooses to

address longer-term goals, there are a number of important steps—such as addressing corruption and taxation issues, supporting possible stock market and other macroeconomic institutional reform efforts, and supporting educational and business training programs—that the U.S. government can (and some argue should) take to help improve the business climate in Russia, encourage and facilitate investment, and improve the marketability of Russian individuals generally. This approach might be taken in conjunction with other programs that address identified problems more directly.

Structure of the Programs

The different structures of the U.S. programs have advantages and disadvantages for their operations. Seven such variables in structure are the presence of a government-to-government agreement; multilateralism vs. bilateralism; within the U.S. government vs. nongovernmental; the existence of offices in Russia; the source(s) of a program's money; the Russian ministries with which a program is set up to work; and the area of technology upon which a program is set up to focus.

First is whether or not a program has a government-to-government agreement. There are both advantages and disadvantages to having such an agreement. On the one hand, having a government-to-government agreement provides economic benefits such as tax exemptions. It also provides a clearer framework under which a program may operate, and it occasionally makes political operations with Russia run more smoothly. It also potentially enhances state-to-state relations. On the other hand, such agreements entail particular bureaucratic challenges. The bureaucracy involved in working directly with the Russian government is problematic. Many programs voice emphatic frustration over dealing with the Russian state. However, regardless of these advantages and disadvantages, government-to-government agreements are increasingly politically necessary. The IPP program, for instance, has encountered more and more difficulties arising from its lack of a government-to-government agreement. The demand for one has in part to do with the fact that the USG explicitly prohibits that its funds go toward paying taxes in Russia, which necessitates some kind of tax exemption agreement between the two states. However, IPP has also encountered demands for such an agreement from the Russian side.

As mentioned, a related issue, associated with maintaining relations on the state-to-state level, is about ensuring that money is targeted at (and hopefully therefore reaches) the appropriate level. For example, many of our older programs were interactions between the two states at the federal level, which has meant that money is transferred from the United States government to the Russian government. There has been an assumption that a transfer of money to the Russian government is a transfer of money to the Russian people, but it has not always worked that way. Transferring money to the Russian state has risked fortifying state power, as well as facilitating command economy habits and leading the way to corruption and theft, some argue. If a government-to-government agreement translates into a structure in which this phenomenon occurs, this may be another disadvantage of having such an agreement.

Government-to-government programs have been important from the perspective of developing and improving relations between the two governments, as well as providing

certain benefits. Sometimes, for better or for worse, they are a political necessity. However, they can also provide bureaucratic challenges, and might lead to a mischanneling or less efficient and less direct allocation of resources. One possible implication of this is that it might be best to have an umbrella government-to-government agreement that would cover multiple programs, thereby maximizing benefits while dispersing costs. In other words, it would give programs the benefits of having such an agreement (such as tax exemptions), but not as many of the hindrances of bureaucratic obstacles that individual programs now must endure.

A second theme is the multilateral or bilateral nature of a program. As with government-to-government agreements, there are advantages and disadvantages to both. Multilateral programs are a challenge to set up. It took ISTC, for example, several years to establish its operations in Russia, in large part because of the extent to which securing approval from all its member countries—in addition to coordinating between those countries and translating all relevant documents into their respective languages, etc.—slowed the process. Multilateral programs are similarly more difficult to maintain because certain operations also require approval from all member countries. However, multilateralism does provide its organizations (e.g., ISTC and the international financial institutions) with a certain credibility as likely being more objective, above bilateral politics, not as likely influenced by or dependent upon the fluctuations of sometimes volatile country-to-country relations, etc. Multilateralism can make a stronger statement in terms of conveying the international norms of business and the ways democracy functions; the advice a multilateral program offers is not necessarily influenced by any given member country's agenda. It also leverages USG money. This is not to say, however, that multilateralism has to or even should be the model. It is beneficial to have a bilateral-multilateral mix, in part because, as mentioned, a program's multilateral nature can make implementation a very slow process. Another reason for bilateral programs is that, compared with multilateral programs, they provide more opportunities for state-to-state interaction, thereby yielding the potential to enhance state-to-state relations through normal program operations. Yet multilateral programs, while perhaps slower in operations, tend to be less susceptible to volatility; hence the merits of a mix.

A third important distinction is whether a program is within or outside of the USG. Many argue that “nongovernmental” status is a real asset in that it lessens the number of governmental bureaucratic obstacles that organizations face. This is argued particularly in the cases of CRDF, the Eurasia Foundation, and to a certain extent theUSIC program, for example. Accountability to the USG poses a real challenge to government programs. Generally, congressional restrictions play a large role in constraining the activities of such programs. As a result, some of the USG programs are criticized as unwieldy, targets for congressional criticism, etc.—as both IPP and USAID's privatization and post-privatization programs have been, for instance (ironically perhaps in part because of the restrictions placed upon them by Congress). They are forced to spend too much time on their own internal governmental requirements and bureaucracy, without focusing enough on learning about Russia or upon expending such valuable energy and resources in Russia. Programs outside of the USG such as the Eurasia Foundation and CRDF, on the other hand, often benefit from increased freedoms. An NGO can have a strict government-approved scope of activities, but it can move faster and more efficiently on individual procurements within this scope.

It would seem that this argues almost unequivocally in favor of taking all, or at least most, programs out of the USG. However, in certain areas the government agencies have relevant expertise (e.g., the DOE labs' technical expertise for IPP and NCI), and there are also cases in which it might be politically necessary to have a program in the government (especially when programs deal with sensitive topics such as nuclear weapons). Additionally, some degree of accountability is needed and desirable, though this subject may become political (particularly when anything relating to military matters and to nonproliferation is involved). A challenge lies in finding some appropriate balance between desired accountability levels and freedom from bureaucracy. Some advocate more nongovernmental programs that have government oversight to ensure adequate accounting, etc.

A fourth dimension is whether or not a program has offices/organizations on the ground in Russia, as ISTC and USAID have, for example. Having on-the-ground offices can be an asset to a program when working with the Russians to help establish a common understanding, dialogue, agreed course of action, etc., especially if the office works closely and effectively with the Russians, including employing them (as discussed in the next section). It can also be an asset in helping the program fight for tax exemptions, in making direct payments, and with various other services. Having people familiar with the country is a substantive advantage. On the other hand, some argue that the missions on the ground are unnecessary and only provide additional bureaucratic entanglements. Often the Russian authorities do not question a program's legal and tax status and operations unless there is an office on the ground. Yet few would question the benefits of in-country presence. The amount of "face time" in Russia that a program has is an important issue. Some argue that more programs should have a continual amount of face time, which I interpret to mean face-to-face discussions. This educates the Americans about Russian needs, as well as reassuring the Russians that the Americans are not merely dictating programs from afar, and in an uninformed manner.

A fifth distinction is in the source of a program's money, which affects its operation. For example, CRDF receives its money both from the USG and from the private sector. A program is typically shaped not just by the politics at the time of its inception but also by the convictions and strategies that continue to motivate its political and financial supporters. The source of a program's money may put financial and political limits upon its operation.

A sixth important consideration is the Russian ministries with which a program must work. Several USG programs assert that working with the ministries can be a real challenge; MinAtom in particular is known to be a challenging partner. Participants in some of the former biological weapons scientist programs, for example, make the point that at times their cooperative efforts are made easier by the fact that they have no monolithic organization equivalent to MinAtom with which to deal.

Finally, on a related note, the field of technology upon which a program chooses to focus—nuclear versus biological versus chemical—affects the outcome of its operations, and therefore the likelihood of success; nuclear weapons issues are particularly sticky, in addition to which nuclear technologies are not as easily commercialized. (The dual-use nature of biological weapons work makes the technology more readily commercializable.) On the other hand, the particularly covert nature of the Soviet biological weapons (BW) program and the

fact that some scientists still refuse to admit there was such a program, much less to disclose information about it, has posed a challenge to BW-scientist-related collaboration.

The above distinctions are all potential differences in the way USG programs can be structured. In each case, which of these options a program chooses to implement in its structure may affect the way it operates and its chances for success. What is best may depend upon a program's objectives and strategy. Across the entire spectrum of programs it is probably best to have a balance of different structures.

Promoting Partnerships and “Russianizing”

There is a consensus that the kinds of programs that promote partnership, cooperation, and relationship-building—engagement with Russia on all levels—are essential. Most of the people with whom I have spoken argue that government-to-government relations with the ministries, science-technology cooperation, city-to-city or organization-to-organization partnerships, business-to-business programs, etc. are all worthwhile and important efforts. Some argue that these programs, in maintaining engagement on all levels, in many ways achieve the greatest results for the efforts and expenditure put into them. A number of such programs already take place on multiple levels. They span from government-to-government cooperation with the ministries (as in the case of NCI, for example) to creating partnerships with regional governments and players (as the RI has done) to creating long-term potential business and individual-to-individual partnerships through programs such as the Commerce Department's SABIT and others. One reason this kind of engagement is important is that these programs have the goal of building positive relationships, as well as a mutual understanding, between the two countries, which in turn is important for promoting peace; in this sense, engagement is essentially an end unto itself. A second reason is that it creates an opportunity for better communication, which in turn improves the smooth operation and effectiveness of the programs. For this reason, it is important to conduct such engagement in a constructive manner.

Some comment that there have been unhelpful and unproductive cases in which Americans have gone over to Russia with preconceived (and undiscussed) notions of what we think the Russians need and have made assumptions that may be wrong. Instead, Americans should take advantage of opportunities for engagement with the Russians, with the intent of learning from and about them and their expectations. Maintaining an open dialogue on realistic expected outcomes is an important part of this process. Whether a program encompasses such explicit partnerships or not, it is important to come to an agreement on both the Russian and American sides about what is needed, first in identifying the problems and then in deciding how to address them. In other words, from their different motives both sides must come to an agreement on a course of action. For this process, we must maximize the potential areas of overlapping interest.

Additionally, some people point out that we sometimes must try to play an important role in promoting interactions among the Russian entities horizontally within the government and vertically and encourage them to work together. In order to accomplish this and other collaboration goals, the USG must have a thorough, realistic understanding of the political climate in Russia and of what is feasible and welcome, figuring out what the Russian

concerns are and addressing them wherever possible while sticking to a few principles that it has defined as priorities. Finally, some argue that the USG needs to lower its voice and have more modesty and humility in its interactions with Russia, at least if the goal is to have collaboration, rather than a “we help you” mentality that often is counterproductive.

Participants in the programs also increasingly cite the necessity to “Russianize” the U.S. programs, including involving more Russians in the planning and implementation of programs. Critics of the programs to date feel the USG should use more Russian locals as implementers— “train the trainers,” and they likely know their own problems and environment better—have more Russian-speaking U.S. employees, and ultimately let the Russians decide how to fix their own problems, while we provide guidance and some tools. For example, the Eurasia Foundation gives aid directly to the Russians and uses Russian intermediaries, in contrast with certain other programs that have been criticized because so much money has gone to U.S. consultants.³⁴ However, one must also note that the Eurasia Foundation has certain unique advantages in that it has the freedom of being outside the USG, while also enjoying the benefits of being a creation of the USG (and a line item in the budget)—thus having more permanence than a contractor would, but also more independence than a program within the USG would. (Because of Eurasia’s unique position, some suggest that the USG should strengthen Eurasia’s resources and expand its role, while having an external review process to monitor it.)

There are several advantages to Russianizing the programs. Costs are lowered as a result of more operations being housed in Russia. It improves our understanding of problems in Russia, as well as of relevant aspects of the political, economic, and social environment there. It also incorporates people who already understand the problem into the solution. Russianizing the programs also builds capacity in Russia, and more of the money ends up in Russia. Many people advocate letting the Russians figure out how best to solve their own problems, while giving them better tools and resources to do so. There are various ways to indigenize a program. Several people suggested giving the Russians grants and then allowing them to pick their own helpers, though this is problematic overseas with accounting for USG money. One suggestion is to have science and technology program proposals go directly to the Russian Ministry of Science and Technology or to more local enterprises within Russia to let them decide what they want to support. This of course would necessitate having some sort of international (or U.S.) accounting in order to monitor where the money from abroad goes (how the Russians spend it). However, there are problems related to accountability in this suggestion, in part simply because the likelihood of political support for such a program is low (because of the political need for—in addition to any desirability of—ensuring that all U.S. taxpayer money is accounted for).

Regardless of whether a program leaves much decision-making ultimately up to the Russians or not, it is important to get buy-in from the Russian side on what the U.S. programs are attempting to accomplish and how they plan to do it, because ultimately change needs to be driven from the Russian side. Where technical assistance has been most effective, some argue, it is because Russian people have been interested in USG assistance; thus, aid follows reform, not the other way around. One implication might be that the U.S.

³⁴ Note that this problem goes back to the issue of spending restrictions on USG programs, etc. Some programs are required to spend their money on U.S. consultants, for example.

government efforts should (and perhaps do) look selectively for areas where the USG perceives that it has value to add to Russia's own attempts at reforming its political and economic system. Regardless, generally promoting partnerships and Russianizing the programs are both important components of adapting the solutions more appropriately and efficiently to the problems. These approaches improve relations and communication, and they allow those familiar with the problem to have a greater say in planning and implementing its solution.

Commercial Requirements vs. Foreign-Policy Objectives

Another common theme in the U.S. programs in Russia is the extent to which a program's commercial requirements clash with its other U.S. foreign-policy objectives. Several of the more commercialization-oriented programs maintain commercial/business restrictions and requirements (e.g., Ex-Im Bank's commercial requirements, as an export credit agency, for credit repayment or the DEF's venture capital requirements, as discussed below) that are not necessarily appropriate or realistic for Russia. Such commercial restrictions are desirable from the standpoint of sustaining a program's projects financially (they are understandable for a Western venture capitalist's requirements, for example). However, a problem arises when one tries to combine these requirements too strictly with other foreign-policy objectives with which they might clash. Many of those requirements simply are not realistic in Russia, and a program that tries to adhere to them while simultaneously pursuing other objectives such as defense conversion might find itself meeting neither its financial criteria nor its foreign-policy objectives. It may be desirable for a program to specify one of those objectives as its primary focus, leaving the other as a secondary guideline. (Note that it is also essential for these programs to have a thorough understanding of the economic, legal, and cultural environment in which they operate.)

For example, the Ex-Im Bank and the Defense Enterprise Fund are two programs that have been guided primarily by commercial considerations, but with underlying foreign-policy objectives as well. They both maintain financial requirements that are arguably necessary for their survival as investors in Russia, but that are restrictive for their other foreign-policy goals. It may be best for them to delineate clearly what their primary objective is and then to pursue that objective. If the USG wants them to continue to pursue foreign-policy objectives, perhaps it should set aside certain funds for use in cases that are deemed politically but not financially attractive.³⁵

Congressional Restrictions on Programs

There are a number of different earmarks and restrictions—related to relations with Iran, religious freedom, Serbia, the war in Chechnya, etc.—upon the programs and their money. Some of these restrictions are accepted as uncontroversial and politically necessary, such as the requirement that U.S. taxpayer money not be taxed in Russia, but others are less so. The motives for these guidelines and limitations are understandable, but some people argue that they often complicate our efforts to carry out assistance. This does not mean that the

³⁵ This relates to the general importance of clearly delineating goals, being realistic about what to expect, prioritizing goals if necessary, and then trying to ensure that a program's methods actually address those goals.

restrictions are undesirable, but rather that the USG must undertake a cost-benefit analysis in determining whether or not a given condition's benefits outweigh the costs. Tying bilateral assistance to these restrictions is often not effective because the Russian government does not see U.S. assistance as critical.³⁶ Thus, the USG does not necessarily have much leverage in using the programs as bargaining tools—to threaten withdrawal of various programs if Russia does not cut military relations with Iraq, for example. As a result, some argue that cutting off the programs hurts our own national interests, and if the Russian government does not perceive this as hurting Russia then it is not in our best interests to attach conditions to the USG programs and use them as bargaining tools.

Historical Criticisms of Past Programs—Lack of Foresight

There are several additional criticisms that relate to a perception of a general lack of foresight in the construction and implementation of the U.S. programs. One is that past programs have been driven too much by our supply of ideas and not by what has been needed or demanded in Russia (or by the private sector in either country). Additionally, there was initially little thought given to long-term sustainability. However, it is again important to keep in mind the sense of urgency with which these programs were first implemented (particularly starting in 1991). There has also been a sense that many programs were set up to spend their money, and not enough attention was paid to how to measure the results or even to what the results were. A third criticism is that people have viewed the different components of assistance in too segmented a fashion—for example, perceiving defense conversion as being very different from economic adjustment—without recognizing connections and interrelations. There has not been enough attention paid to understanding how the various tasks are integrated and related, how they must work together, and how they can complement one another. Another criticism is the percentage of money spent on high-priced U.S. consultants and subcontractors.

Interagency and Interprogram Cooperation

Additionally, some have charged that there has been too much programmatic jealousy—perhaps in part from competition over scarce resources—and not enough goal-sharing. (This is related to the issue of interagency coordination discussed in the subsection below.) Indeed there have been situations in which USG agency members have complained of unproductive and uncooperative relations between various programs. This is not always the case, however. Some programs provide beneficial services for other organizations, as are available through ISTC's Partners' Program. Also, CRDF, as a fund-transfer mechanism for some of the Department of Energy's money (e.g., for the IPP program), has helped other programs, and it has also set up exchanges with Russians and assisted other programs with travel.

³⁶ One may see that the Russian government does not view the assistance as critical in Russia's lack of cooperation, for example, with the conditions that certain international financial institutions have placed upon their assistance. Russia (like the U.S.) weighs what it perceives its benefits from received assistance will be against the costs of adjusting its own behavior in compromise. Part of the problem is that Russia does not necessarily perceive clearly demonstrated benefits as a result of the programs—especially in cases in which more has been promised than delivered, which leads to disappointment with results.

The cooperative efforts in the biological-weapons-scientist-related arena are another example of a program in which improved collaboration has brought about what some deem to be significant results. Additionally, the structure of the newer Regional Initiative—as an interagency effort, between USAID, former USIA (Public Affairs), and the Department of Commerce, overseen by the Coordinator’s Office—reflects a greater recognition of the need to maximize cooperation. Yet while U.S. cooperation has come a long way (as seen in these collaborative efforts, cases of certain programs providing services for others, etc.), most agree that more needs to be done. Experience indicates that cooperation could be better and that effective cooperation is within the realm of possibility. (Granted, one must find ways to overcome the impediments to cooperation resulting from the fact that programs get their money from different places, have different budgets, etc. There are certain administrative impediments to cooperation that need to be recognized, in addition to more personality-related problems.)

Coordination and Connecting the Right Tool with the Problem

On a related note, general interagency coordination is a real asset to the programs’ operations and can enhance the effectiveness of the programs collectively both by ensuring that related efforts work together and by striving to match the right tool (i.e., the appropriate agency or organization) to the right problem. Many commented on the need to optimize interprogram coordination; people argue that the current U.S. efforts lack adequate coordination and that we should avoid having many disparate programs.³⁷ The task remains to find some optimal level of wider-spread coordination among the programs generally. This includes doing a better job of coordinating assistance programs’ presentations to and communications with Congress. One suggested proposal is for the programs to journey to the Hill once per month together and brief Congress, thereby presenting a coherent picture.³⁸ Along these lines, people cite the need to advertise success stories more. Additionally, coordination plays the important role of working to avoid duplication and gaps in the programs where possible. It is also helpful in determining what structures (multilateral vs. bilateral, governmental or nongovernmental, etc.) might best suit a particular program’s objectives and the environment in which it operates.

Some believe that maintaining a better record (likely within the Coordinator’s Office) of what different programs are doing to keep one another apprised of their efforts will be a helpful contribution to the coordination process. In addition to preventing some duplication, having such an inventory available might also help the programs learn from past achievements and mistakes—an essential part of the process. Thus, we should have a better

³⁷ How one can accomplish this feat is yet another question. Some necessary steps may simply involve a campaign to get members of programs to overcome their programmatic jealousies, personality conflicts, etc. It may also involve a revision of the Coordinator’s Office role. Some people have suggested that the “nonproliferation tsar” concept holds promise, but others caution that such a position would be very political, may only create more bureaucracy, etc. Nonetheless, it is likely that some office needs to take a more active role in thinking through USG policy more coherently, making sure the various programs are cohesive and are meeting the U.S. policy goals, and preventing duplication and gaps wherever possible.

³⁸ This is essentially what those involved in biological weapons scientist programs from various agencies do collectively.

overview mechanism for assessing the programs. People also argue that we must look more at the programs in the context of the entire assistance portfolio: recognize how programs relate to one another, how they fit into the entire spectrum of assistance programs, and what complements what. This entails making sure that the programs are well integrated, not artificially separated, as well as thinking through the overall USG strategy in a coherent way. One possibility is to have someone dedicated to coming up with a coherent, comprehensive USG strategy and then to evaluate the spectrum of programs against that strategy. However, we must avoid, to the extent possible, boxing ourselves into a given strategy without leaving room for modifications. In the context of developing a coherent strategy, many stress the importance of seeking models, such as those the RI has attempted to create in its four selected regions, for other programs to follow. In spite of the great amount of U.S. program activity in Russia in the last decade, there are few models to extract from this experience and apply in future program implementation. Once there are models, there must be a means of promoting them. Generally, there is a need for more open communication among the programs and a more established forum, perhaps within the Coordinator's Office, for doing so. As the situation is now, with no forum and little institutionalized coordination, cooperation depends too much upon individual personalities and initiatives. These considerations are instrumental to optimizing coordination possibilities among U.S. programs.

One might ask the question of what the role of the Coordinator's Office is in this coordination. It seems logical that the Coordinator's Office might play a more active role in overseeing collaborative efforts, coordinating the overall USG strategy, etc. There is perhaps additional room within its present scope for the Coordinator's Office to coordinate additional cooperation and strategy-making. However, currently the Coordinator's tendency and what it can realistically do is to play more of a passive than an active role in overseeing the U.S. programs. One criticism of the office, for example, is that it does not conduct any assessment of the programs (and as said there is no one who assesses the programs without some agenda in mind). Another is that it often has little leverage over the programs' operations; i.e., it does not have many means of ensuring that programs pursue its suggestions and instructions. There are likely ways in which the role of the Coordinator's Office could be improved, but this might require a significant revision of its charter as well as its current policies and its self-defined role.

An additional benefit of improved coordination is that it helps maximize the chances that the most effective tools will be matched with the relevant problem. Many observers of the programs point out that we must link the problem not just to who is concerned with it but also to who has the expertise, thereby creating an appropriate division of labor. Sometimes the specific objective and mission given to a U.S. entity evolves into broader goals that that agency or program may not be best suited to address. This is similar to criticisms of the DOE programs: the existing lab-to-lab contacts were the initial reason the DOE took the forefront of the NCI and IPP programs, but the labs are not necessarily as successful at economic development as an organization with business expertise would be. Observers of the NCI and IPP programs acknowledge the resulting absence of needed business expertise in that program. They question whether or not the labs are the appropriate leaders of NCI's efforts. The labs do provide an important component of technical expertise; it is just that they are not necessarily most effectively utilized as the lead player in NCI and IPP's operations.

Of the USG agencies, the Department of Commerce has the most business-related expertise, so the DoC may often be the agency (if a program must be within the USG) most appropriately placed to handle economic aspects of programs. In the NCI/IPP example—where both technical expertise and business expertise are needed—cooperation between the DOE and the DoC, and perhaps even NGOs, might be beneficial, with the business experts as drivers of the technology commercialization efforts. In another example, the OEA helps affected communities adjust to the economic impact of the DoD's actions, for example base closings. The majority of the OEA's work in the United States is actually implemented by the DoC, with the DoD employing its specialization in defense-related issues—thereby creating the appropriate division of labor. However, there is not an economically focused organization like the DoC working in conjunction with the DoD in the former Soviet Union, which means that the OEA's program in Russia has lacked needed business expertise. Ensuring that the right tool is connected to the right problem, along with improving coordination generally, is a theme that runs throughout analyses of the programs.

Particular Programs As Illustrations of These Trends

Drawing comparisons between the various U.S. programs is constrained by the fact that many programs simply have different objectives. Often a person's preference for a given program has more to do with his support for those underlying objectives than with the manner in which those objectives are pursued. Different programs have different strengths and weaknesses, and advocacy of one program over another often relates to that program's ideological stance. A few examples illustrate how the structures of the U.S. programs reflect chosen approaches to the above themes. In this subsection I comment upon some of the ways in which each program has chosen among the possible approaches delineated above. I include comments I have heard about the programs, saving an evaluation of the merits of those comments for the conclusions and recommendations section.

In the case of ISTC, the organization has several characteristics that affect its operation. First, it is multilateral; this may create bureaucracy and slowed proceedings because in most situations all member countries must come to an agreement before acting. However, it also may make the Russian side more comfortable with the results because multilateralism decreases the chances that ISTC is merely trying to advance the interests of a single country. Additionally, the inertia (or stability) that sometimes results from ISTC's multilateral structure (having different governments to please) also makes ISTC's operation less vulnerable to the effects of souring relations between two countries. A second ISTC feature is that it has organizations on the ground in Russia; the presence of its mission there and the fact that it administers its program in a local environment has helped ISTC's operation in certain respects. The domestic organization on the ground has helped ISTC be able to make direct payments to scientists, realize its tax exemptions, etc. ISTC has been able to involve the locals in a much more meaningful way (thereby "Russianizing" its program more) than if it were managing its efforts from the United States, for example. Also, having an international staff there, as separate from the U.S. embassy, with its own stated objective, has increased credibility as well. On the other hand, it was very difficult to establish the mission, and sustaining it is not without its challenges (interacting with the Russian bureaucracy). A third characteristic is that it has a government-to-government agreement,

allowing it tax exemptions (though it initially had to fight to get local officials to obey them), among other things; ISTC has thereby avoided some of the criticisms and problems that IPP has drawn from the General Accounting Office³⁹ and others because of tax and related operational problems. ISTC has occasionally acted as a conduit for other programs through its Partners Program, thereby extending some of these advantages to those programs, without some of the accompanying difficulties.

Fourth, ISTC has been targeting a specific problem (namely, funding scientists), as opposed to building infrastructure. (It is also geographically dispersed as opposed to regionally concentrated.) This is in contrast with NCI's greater concentration upon the development of sustainable economic activity. Some criticize ISTC for not contributing much to economic development and therefore not targeting the root of the problem, but ISTC is not trying to do so; it is trying to keep scientists occupied for the time being. ISTC's ultimate goal is not solely to commercialize technology but to engage scientists. In this respect, it may be one of the more "successful" programs because it has been relatively effective in accomplishing what it set out to do. On the other hand, it has an easier task—of trying to set up a payroll for scientists. If one disagrees with the long-term sustainability of that approach, then one might be more enthusiastic about programs that address more infrastructural concerns. Regardless, though, it is probably best for now to have a combination of programs with both shorter- and longer-term orientations.

CRDF, while sharing some characteristics and goals with ISTC, has a few distinguishing attributes: first, it has a more explicit goal of technology commercialization, and second, it is a nongovernmental organization. The latter factor in particular gives it a freedom from certain bureaucratic constraints in its operation that governmental organizations do not enjoy, and with this flexibility CRDF can meld together several different foreign-policy objectives. Additionally, CRDF gets its money from different sources—the USG as well as the private sector. This also affects its operation; it adds to CRDF's flexibility because often USG money comes with strings attached (as does private-sector money, though with different strings). Not being forced to rely on any one source for money gives it some leeway over its operations.

The Regional Initiative also has a unique combination of characteristics. First, the emphasis its structure places upon interagency coordination (between USAID, former USIA, the Commerce Department, and the Coordinator's Office) reflects a recognition of the importance of such cooperation. Second, its regional concentration of resources reflects a local targeting of efforts. Third, it promotes partnership with the regional governments and prominent players within the four selected regions, in accordance with the importance it attaches to building effective partners, attempting to improve communication with the Russians, etc.⁴⁰ Fourth, the RI tries to create a model in these regions for others to follow.

³⁹ General Accounting Office, *Nuclear Nonproliferation: Concerns With DOE's Efforts to Reduce the Risks Posed by Russia's Unemployed Weapons Scientists*, Chapter Report, GAO/RCED-99-54, February 19, 1999.

⁴⁰ I have also heard the observation, however, that initially the RI did not do a good job of initiating communication with Russian counterparts. There was not adequate management and clarification of expectations (the Russians did not have realistic expectations of what the RI would bring to their regions, and they were quickly disenchanted when they found things they thought had been promised not delivered), nor did RI spend sufficient time coming to some sort of agreement upon what was to be done (where efforts were needed, etc.).

One may debate whether or not the RI's implementation of these ideas has been in accordance with its intent; some find the RI's unique arrangement holds great promise and has accomplished much thus far, while others feel RI's implementation has fallen short of its goals. The fact remains, however, that the RI's structure reflects an attempt to address newer concerns about how the programs are implemented; in the last few years these four characteristics—regional targeting, increasing interprogram and interagency cooperation, promotion of partnerships with the Russian side, and creation of models—have consistently been cited as features to incorporate in order to implement more effective programs. Thus, at least on paper (for now setting aside an evaluation of how the RI has actually been implemented), the RI has incorporated some of the lessons of past U.S. program experience.

USAID's programs in Russia have been among the more controversial. They are consistent recipients of criticism, in part along the same dimensions that the RI has tried to address (such as "Russianizing" its programs). For example, some argue that the mission in Russia is unwieldy and that the programs have simply presented a perpetual target for congressional criticism. In the past there were accusations that USAID has applied old Latin American models without adaptation to the specific situation in Russia, and that it has acted as an entity entirely autonomous from other U.S. efforts in a region (thus not taking advantage of possible coordination or avoiding duplication of efforts, etc.). USAID has also been criticized for employing expensive consultants, which has diverted some of its money from being spent in Russia. Additionally, USAID has big auditing requirements and some argue that, as with many USG programs, it gets caught up in its internal requirements and bureaucracy without focusing enough attention on learning about Russia. USAID also evaluates its own programs in ways that often confuse people. Some comment that it spends too much time on creating "strategic objectives" and not enough time learning about Russia (and learning to speak Russian, etc.). Traditionally USAID has been a self-contained agency and operation and has had little contact with the embassies. This has improved somewhat in Russia specifically, but some continue to argue that USAID needs to be more integrated into U.S. foreign policy. Finally, some hypothesize that USAID, impressed by the sophistication of the individuals it encountered in Russia—the scientists, etc.—failed to realize the pervasiveness of the lack of economic infrastructure and the lack of familiarity with market economics.

On the other hand, some argue that USAID has recently made significant improvements and adaptations in response to these concerns and that it unfairly still suffers from a poor reputation caused by past mistakes. Defenders of the program argue that USAID is Russianizing its programs, that it uses more locals now, and that more employees speak Russian; USAID generally is now working to try to identify a specific problem in Russia that it hopes to address and then let consultants bid on who is best to address it. Some assert that USAID has made progress in learning the following lessons: that the likelihood of success is enhanced by a strong institutional base in Russia; that it is best to present options to the Russians on how to do things, identify the pros and cons of each approach, and let the Russians devise their own solutions; that USAID should be fostering relationships and reform that can be sustained after its programs end and should achieve success by working itself out of a job; and that pushing economic reform without commensurate attention to social issues is detrimental to reform and could undermine other reform efforts.

The Eurasia Foundation is another organization with somewhat similar elements in which some potentially significant lessons can be found. Eurasia is one of the programs most commonly heralded as a success. Of its strengths perhaps first and foremost is its nongovernmental status and the accompanying flexibility. It receives government funds and is connected to the government, but it also can operate flexibly in response to changing circumstances. Also, as indicated above, it is unique in that it enjoys a degree of permanence that a contractor would not have; the Eurasia Foundation is a creation of the government and a line item in the budget. It does not have as large a budget as does USAID and is not as much a target of congressional criticism. Indeed, it has congressional support and a big advisory board, but it lacks the cumbersome procurement process that USG agencies have. Additionally, once Eurasia is allotted its money, it can rely upon that amount for budgeting purposes, whereas USAID takes cuts in its budget throughout the year as its Freedom Support Act funds get reallocated to other programs. Other things cited about Eurasia are: 1) it gives aid directly to the Russians and leaves it more to them to figure out solutions to the problems they face; 2) it utilizes Russian intermediaries more often, thereby training the trainers, making greater use of Russian resources, and providing employment opportunities to Russians; 3) its employees all speak Russian and 95 percent of the employees in Russia are local, 4) it is more realistic (not as ambitious) in its objectives and therefore has greater success in meeting those objectives.

Some observers find real potential in Eurasia's structure and experiences, in large part relating to the fewer restrictions that Eurasia has upon it (in addition to what many view as wisely chosen pursuits); its freedom is its greatest asset. However, many of its strengths are not common outside of the Eurasia Foundation, such as its combination of congressional support and freedom. They may not always be applicable to current programs. Instead, these lessons might be applied through the creation of new, similar programs or an expansion of the current Eurasia Foundation; some suggest that the USG should strengthen Eurasia's capabilities, giving it the task of implementing many of the U.S.'s objectives, with an external review process to monitor it occasionally. However, in certain tasks, Eurasia's very strengths, such as its nongovernmental status, could also present problems. For instance, the nuclear realm is politically sensitive and Eurasia's very freedoms in that case might be problematic. One must be cautious in generalizing from the Eurasia Foundation's experiences because of its unique position, advantages, and limitations to those advantages.

Another category of programs to consider is those that help U.S. companies invest in Russia. Such so-called burden-sharing with U.S. companies is a topic of debate. In addition to those programs within the international financial institutions, OPIC, TDA, Ex-Im Bank, and TUSRIF programs are examples of providers of such assistance, with the goal of facilitating U.S. investment in Russia to the benefit of the involved U.S. companies. Sometimes such sharing is all that is needed to get U.S. companies involved and to help them leverage their own funds. However, one needs to be cautious by making sure that the U.S. companies are serious enough to be willing to take on many of the risks in Russia. An additional characteristic of these organizations (except for TUSRIF) is that they were all initially established to operate in other countries around the world, and their programs are not necessarily well adapted to Russia's needs. For example, as mentioned, Ex-Im Bank's criteria for investment are not necessarily realistic for maintaining activities in Russia; it has specific financial requirements that it must meet in its projects, and Russian companies often cannot meet them. Again, some advocate that Ex-Im Bank be allotted a certain amount of

money from Congress that is exclusively for financing exports to countries that do not meet its normal criteria for investment. These programs sometimes have financial objectives and restrictions that collide with foreign-policy interests of the USG. It is important for the programs to place some clearly delineated priority upon whether or not to emphasize foreign-policy interests at the expense of certain financial objectives, or vice versa—with attention paid to what a program can realistically hope to accomplish in the longer run (e.g., it cannot ignore financial constraints entirely, even if it does choose to place an emphasis upon political goals).⁴¹

Final Considerations in Evaluating Past Performance and Achievements—Measurability Problems and Difficulty of Goals

Finally, when assessing the programs it is important to keep in mind the problems of measurability, as well as the difficulty of the tasks at hand. There are significant practical problems in measuring the results that are achieved. For instance, it is extremely difficult to measure the impact that a given program has upon a specific community, much less upon an entire country. In many cases, a program's work is neither necessary nor sufficient for a community's economic development. We can only say it will make some impact, but it is hard to measure what that impact is, especially as a program's impact may be dispersed over a larger context. One can only guess as to what would have happened were a particular program not to have been implemented, and determining what actions have caused what results is difficult because no one knows all of the factors that contribute to economic development in a specific context.

Some of the longer-term programs have particularly great measurability problems. This is in part a function of how difficult and complicated many programs' tasks are. Not only can one not determine what impact a single program has upon an entire locality, but additionally the very definition of sustainability implies that one cannot measure results easily in the shorter-term (e.g., in a few budget cycles—which might diminish a politician's enthusiasm for supporting a program). Thus, many programs are inherently open to criticism because of the long time scale involved—because not much progress can be made in one budget cycle on the American front, and both the Russians and some in the U.S. (e.g., Congress) want demonstrable short-term results. Even if one could measure these things in a relatively straightforward manner, the results would not necessarily be spectacular because the nature of the problem is simply so great. On top of these considerations is the problem of measuring a negative. For example, how can one measure how many scientists have not taken their WMD expertise abroad as a result of NCI or similar programs?

To compound the fact that measuring results may be difficult, determining which results to try to measure often poses an additional problem. Some programs have run into problems when they have chosen metrics to measure their progress that do not reflect what the program is actually accomplishing. NCI, for instance, has differing metrics depending on whether one views the program from the Russian or U.S. perspective. For example, Russia

⁴¹ Defining and prioritizing a program's goals clearly is especially important in cases in which limited means and resources might restrict the realization of multiple goals. (This does not need to be the case, as sometimes different goals are in fact complementary.)

measures NCI success in terms of the number of jobs created. Yet that number (particularly because of the long-term time scale involved in NCI's infrastructure-building efforts) does not necessarily reflect the progress it has made toward its goal of nuclear-weapons-complex reductions by making the cities more business-friendly. On some level measuring the number of scientists with jobs as a result of NCI's operations may seem like a logical metric because a) reemploying scientists is ultimately one of the fundamental motives behind NCI's existence, and b) this is one of the easier measurements to make. However, the strategy NCI has chosen to pursue this ultimate goal has been to focus partially upon building underlying infrastructure (in addition to providing financial support for projects that it identifies as commercially promising), which is a longer-term process. It has not chosen the method of providing contracts or grants to nuclear scientists. Thus, measuring how many scientists have been reemployed in the short term as a result of NCI's efforts is likely not the best measurement of NCI's recent progress, given the strategy it has adopted. This then hurts NCI politically when metrics do not fully reflect the progress it has made. Instead, measuring the infrastructure it has built and generally explaining and documenting how NCI's infrastructural developments are linked to the longer-term goal of scientist reemployment—though this is more difficult—reveals more about how well NCI is achieving its goals. The difficulties NCI faces in seeking the most effective and accurate measurement of its results is one example of the general challenges that programs encounter in finding a metric that is both measurable and an accurate reflection of what they are accomplishing.

Additionally, when evaluating a program's performance and achievements in this manner it is important to consider that some programs have not achieved their goals because the goals have been tremendously difficult and/or the resources have been inadequate. A program's objectives matter, and the difficulty of achieving those objectives often affects (in part determines) the likelihood of its relative success. The huge difficulty of a problem makes apparent relative "failure" more likely. Furthermore, the resources devoted also affects a program's results. Many U.S. programs are criticized because there is such a disparity between the needs (i.e., the difficulty of the problem) and the resources that the programs have to devote. In fact, two of the biggest factors most commonly cited as reasons for perceived "failures" of the programs (or general impediments to their operation) are a) the reality of inadequate funding, and b) therefore we did not do much, though we expected a lot (which thus made the disappointments even larger in comparison). To compound this, the environment in which the programs operate is a huge impediment to success; Russian conditions do not make it easy for the United States to carry out its assistance programs, and changing that environment is even more difficult.

Thus, a related caution consistently cited is not to set unrealistic expectations for the programs. People advocate the importance of being explicit (given measurability problems) and realistic in setting a program's objectives and in conveying the program's motives and the direction in which its results are likely to go (which is important in presenting a program both to the USG and to the Russian partners). Setting unrealistic objectives prematurely sets a program up for public failure—on its own terms and politically in the sense that it will likely be shut down if it does not meet those objectives. As mentioned, the Russian environment is a challenging one, and it is important to be cognizant of the limitations it presents. Over-striving can sometimes actually help ensure that little is accomplished if it leads to an inefficient allocation of resources (in addition to setting a program up for public

failure when its objectives are found to be simply unrealistic). Some argue that we must recognize that we may be “in for the long haul” with these programs. On the one hand, it is important to be realistic if that is the case; yet, on the other hand, it may very well be that programs would simply never get adequate political support from the start were they not to be advertised as a relatively “quick fix” to important problems. As a result, some of the difficulties surrounding managing expectations may be somewhat inherent to our political system. It is as a result of these considerations that many stress the importance of recognizing the difficulty of the task at hand and being realistic about objectives, duration, and cost.

Despite the difficulty of the programs’ goals and a lack of resounding appraisals of success, however, progress has been made in the last decade on improving the programs’ effectiveness. There has been increased awareness of the problems at hand, as well as some attempt to react to those realizations accordingly. Yet still more is needed. There have not been adequate, continual efforts to evaluate that progress and to learn from the decade of experience that we have now accumulated. More important, those lessons have not yet been put fully into practice in the development and implementation of the current and future range of USG programs in Russia.

Tentative Conclusions and Recommendations for Developing and Implementing Future Programs

In this section I formulate some conclusions (and their implications) from our current and past experiences, as well as resulting recommendations as to how the USG might improve the development and implementation of future defense and economic adjustment programs in Russia. First, as a caveat, one must be careful in making generalizations. It is important to focus on why specific institutions and programs work rather than making sweeping conclusions without mention of specific contexts. What is best for any given program depends upon that program's goals, its chosen strategy for pursuing those goals, and the role that it plays in the broader context of the spectrum of U.S. programs in Russia; and there are likely multiple paths to a similar outcome. With that in mind, in this section I make some cautious generalizations from the themes and observations delineated above. From those conclusions, I outline some suggestions—both general and specific—to consider in the development and implementation of these types of U.S. programs in Russia. The suggestions are directed both at the implementers of the individual programs and at those that have a say in developing future programs. From some insights into the efforts that the U.S. government has already made, I hope to provide some thoughts on where to go from here. Though certain suggestions may seem self-evident, they are included because observers of the programs, myself included, continue to offer them, perhaps because they have not yet been incorporated in the U.S. programs. The subsequent report will contain greater depth and more specifics.

Conclusions

- Regionally targeted programs create a concentration of resources that is sometimes both more effective and more easily measurable. Geographically broader programs, alternatively, often reach a wider audience. Determining what approach is better suited for a given program depends in part upon where its priorities lie and what its goals are. Programs focusing upon a bottom-up perspective and grassroots projects are effective in promoting reform from outside of the Russian state.
- Targeting the specific problem directly has the advantage of typically being a more immediate, straightforward means of addressing the reemployment of scientists (which may be of particular priority when one is motivated by more immediate proliferation concerns). On the other hand, more indirect means, such as developing economic infrastructure, provide a longer-term sustainability that is less dependent upon continuing subsidies. Pursuing this latter approach entails both improving the business

environment and spreading Western business practices (both macro and microeconomic components). Educational efforts and business partnerships such as those the SABIT program facilitates have been effective ways of spreading Western business practices.

- Government-to-government agreements have the advantage of providing certain tax benefits and making a program's legal status in Russia clearer, potentially improving relations between the two states, and they are increasingly a political necessity. However, they also increase the bureaucracy that accompanies working with the Russian government.
- Multilateral programs provide the benefit of greater stability, as they are more immune to volatility in state-to-state interactions and are perceived as above any given country's agenda, and they have greater credibility in conveying international norms of business. However, bilateral programs might foster state-to-state relations and they are faster to create and maintain.
- Nongovernmental programs are free of many of the bureaucratic requirements that government programs must face. They can move faster and more efficiently on many individual procurements, while within a possibly strict government-approved scope of activities. However, sometimes government agencies have the most relevant expertise, and sometimes they are preferred as implementers in areas of sensitive national security concerns.
- Having on-the-ground offices in Russia can help a program work with Russians to establish a common understanding and dialogue, fight for tax exemptions, make direct payments, and so on. However, they can also create additional bureaucratic entanglements, depending upon the legal status of the offices.
- A program's source of money affects its operation because the source may put financial and political limits upon its operation.
- The ministries in Russia with which a program must work affect its operation; some are more compatible partners than others.
- The field of cooperation—nuclear, chemical, and/or biological—affects the likelihood of a program's success if technology commercialization is the objective. Nuclear technologies, for example, are not as easily commercialized as are biological technologies.
- Engagement on all levels is essential to promote positive relationships and to facilitate communication. Maintaining an open dialogue on realistic expected outcomes (of both Russians and Americans) is important.
- "Russianization"—tying these programs' means more directly to what is appropriate in Russia, for example by letting the Russians solve their own problems after giving them the proper tools—has advantages such as improving our own understanding of the problems, incorporating people who better know the problem into the solution, and allowing more program money to end up in Russia.
- A program's commercial requirements and its foreign-policy objectives sometimes clash. Programs usually must specify one priority over another. If foreign-policy objectives are the priority, for example, the USG may want to set aside some funds whose use, where necessary, will not be as strictly constrained by commercial (venture capitalist) standards.
- Tying bilateral assistance to congressional restrictions (using the programs as leverage when trying to get Russia to adhere to certain U.S. political goals) is not necessarily an effective bargaining tactic because Russia often does not view this as sufficiently threatening to its interests to be influenced. Particularly when the programs themselves are in the U.S.'s own interests, this tactic is counterproductive.

- One historical criticism is that programs have had a general lack of foresight. For instance, the programs have historically been driven too much by the U.S. supply of ideas and not necessarily by what is needed or demanded; they have also had inadequate measurement of their results.
- Interagency and interprogram cooperation can be a real asset to an individual program as well as to the collective front of programs, as cooperation leverages each program's efforts. There have been some examples of effective cooperation, but there is much room for improvement.
- On a related note, interagency coordination helps ensure that related efforts work together, that there are minimal unnecessary duplications or gaps in program efforts, and that the right tool is tied to the relevant problem. As with cooperation, there is also room for improvement in USG coordination of its programs including possibly an expanded role for the Coordinator's Office, though this would likely require a change in its current charter and policies.
- In assessing the programs and their results, there are multiple measurability problems.
- The difficulty level of a program's goals, as well as the corresponding resources devoted, affects its chances for success. One must keep this in mind when evaluating performance.
- These debates do not need to be questions of either/or. Often "competing" programs and approaches are in fact complementary efforts.

Specific and General Recommendations

- Continue to promote locally concentrated programs, while maintaining a balance with geographically broader programs.
- Maintain a balance of both problem-specific and more indirect, infrastructural programs, thereby addressing both shorter and longer-term objectives in conjunction with one another.
- Generally, where the USG decides to pursue "sustainability" and longer-term goals, to the extent it can it should work to help make the business climate in Russia more friendly to sustainable business and investment.
- The U.S. should also generally continue to promote and expand educational efforts that spread standard Western business practices, especially in the scientist population where this is particularly needed. (While what the U.S. can do on a macroeconomic scale in Russia is limited, these microeconomic educational efforts are likely to be effective.) This should not necessarily be in the form of workshops, which are not always an effective way of learning, but more in the form of exchanges, etc. (hands-on learning).
- Specifically, capitalize upon the success that the SABIT program has had in the area of business exchanges and partnerships and expand its program, or perhaps create additional similar programs.
- Support the creation of technology transfer offices in Russia, which are an important component of commercialization and economic growth in high tech areas—likely with the help of partnerships with U.S. technology transfer offices.
- The U.S. programs should be more private-sector-driven and more demand-driven.
- Determining what structure is best for a particular program varies from program to program. It is beneficial to maintain an overall mix of different structures.
- Continue programs that promote partnerships on all levels, and keep communication with Russian counterparts open (which is equally important in those programs that do

not explicitly encompass the creation of partnerships as part of their goals). This is also important in order to work to overcome the aforementioned Russian concerns about potential U.S. motives (e.g., espionage) for the programs.

- “Russianize” the programs more by employing more Russians in the implementation of the programs and ensuring that the U.S. program employees are familiar with Russia’s needs.
- Explore ways of giving grants to the Russians to implement their own solutions while maintaining an appropriate degree of accountability and oversight.
- Make sure that the Russians support the efforts of the programs as well.
- For programs involving commercial requirements: in cases in which a program has primarily non-financial goals and typical Western financial standards are unrealistic, the USG should set aside funds that will not be as bound by such financial standards in order to meet its other (e.g., nonproliferation) goals.
- Do not link bilateral assistance to other areas of bilateral dispute when the programs are in the U.S.’s interests and are not a powerful enough leverage in U.S. attempts to influence Russian actions.
- Generally, cooperation among the programs should be maximized. This likely entails improving USG coordination of the programs.
- The programs should journey together to the Hill once per month (or so) to present their progress to Congress—thereby presenting a coherent picture, advertising their success stories more, increasing their familiarity with one another’s efforts, and perhaps increasing the incidents of collaboration.
- Maintain a better inventory of the programs. Consider having one person with perspective on the degree to which the programs fit into the big picture dedicated to coming up with an overall USG strategy. (However, be careful because such a position can be very political.) Also, consider revising the role and charter of the Coordinator’s Office for it to have greater power in coordinating that overall strategy and impelling the programs to pay more heed to its suggestions.
- Make sure that the most effective tool, not just the most interested party, is matched to the relevant problem.
- While considering the importance of maintaining a balance of structures, take the implementation of more programs out of the USG where politically feasible. In other words, if a program’s objectives can be accomplished outside the USG (in cases in which the USG does not have the explicit comparative advantage) with the appropriate levels of accountability, it is advisable to place the program or parts of it outside the USG so as to avoid unnecessary bureaucratic impediments and other obstacles. (For example, organizations like the Eurasia Foundation—outside of the government agencies yet created and supported by the government—in many ways have the best of both worlds.) Consider expanding existing NGO organizations such as Eurasia; placing elements of existing government programs out of the government; and/or creating new programs outside of the government.
- Be realistic in setting goals, define those goals clearly (for people both inside and outside of the programs), and prioritize goals where necessary.
- Programs should recognize the complications that accompany measuring results. For political survival and a more accurate and complete measurement of results, programs should seek to identify a metric of self-measurement that most appropriately matches what they actually accomplish.

Concluding Remarks

Perhaps above all else in the evaluation of these programs it is important to ask the right questions. For instance, one might start by asking why we are getting involved. One must also ask: What is the policy objective? Is the policy objective still valid? Does the program meet that objective?⁴² What are ways to change and combine elements of various programs? Additionally, do the programs work together well and collectively meet the objectives of the U.S. government?

It is important to look at the entire spectrum of assistance programs as they do or do not complement one another and address Russia's needs. It is also important to remember the difficulty of the task at hand when assessing the programs. (For example, remember when assessing the technology-commercialization-related programs that an approximate 10 percent success rate even in the U.S. for start-ups is normal.) With limited resources, success can be elusive, and targeting the programs is important. We must balance where we can make the greatest impact with where we are most needed (which sometimes are the hardest areas).

One might categorize the programs as addressing different levels of need: 1) helping affected workers find new sources of employment, 2) helping affected businesses find new customers, and 3) helping the community in a broader sense grow different sectors of the economy. Different programs focus by design upon different levels of assistance. What a program's objective is affects where that program should focus its efforts. Similarly, different agencies have different objectives and agendas. For example, the State Department's science and technology programs are part of its foreign-policy program, whereas the Office of Science and Technology Policy's programs have the goal of figuring out how best to support domestic R&D objectives, with national security considerations playing a prominent role. The DoC's goal is essentially solely to help American companies and the American private sector abroad, and the DoD's and DOE's programs are primarily implemented with a national security objective. It is important to keep these agendas in mind when assessing the various programs. However, it is also essential to continue to keep in mind that all of these levels of need, efforts, and objectives are interrelated.

We must also remember that we are doing these programs out of our own interests (and must be up-front about those motives), as well, and we must present the programs as such to Congress—as being in our national security and other (e.g., economic) interests. Finally, remember that ultimately, for a majority if not all of these programs, achieving success means and should mean working the programs out of a job. Though one could argue that this creates a potential conflict of interest, it is important to be aware of this reality.

In this paper I have raised additional questions in the process of identifying problems and proposing solutions. Problem identification and asking the right questions are an important part of the process. These are questions that I hope to address and begin to answer more thoroughly in the subsequent report.

⁴² Perhaps the ways of measuring those goals in both the shorter and longer terms would differ.

Acknowledgments

I would like to thank the Department of Energy's Nuclear Cities Initiative office, the Lawrence Livermore National Laboratory, and the Center for International Security and Cooperation (CISAC). These organizations have provided financial and other support to make the research, writing, and publication of this working paper possible. Individuals within these organizations have also given me much invaluable guidance and feedback in all stages of the process. In particular, I would like to thank Dr. Fritz Steinhausler, visiting professor at CISAC, and William Desmond, director of the Nuclear Cities Initiative, for their helpful comments upon the draft. Additionally, thanks to Megan Hendershott, CISAC's editor, for her editing assistance. I would also like to thank members of the following organizations for helping me in this process: the American Business Centers, the Business Information Service for the NIS program, the CARANA Corporation, the Civilian Research and Development Foundation, the Cooperative Threat Reduction program, the Eurasia Foundation, the Initiatives for Proliferation Prevention, the International Science and Technology Centers, the Office of the Coordinator of U.S. Assistance to the NIS, the Overseas Private Investment Corporation, the Regional Initiative, the Special American Business Internship Training program, the Trade and Development Agency, the United States Agency for International Development, the United States Export-Import Bank, the United States Industry Coalition, and the World Bank.⁴³ I would also like to thank the various members of the academic community that studies these issues with whom I have spoken. These people have provided me with information about and insight on the array of U.S. programs in Russia that has been indispensable in writing this paper. Also, thanks to family, friends, and Farm Team members for their encouragement and support. Finally, I would like to thank David Bernstein for his immense contributions to, support of, and guidance in my research.

⁴³ In thanking these organizations, I do not mean to imply that I have (or that this working paper has) any kind of endorsement from these organizations or their members. Rather, past and/or current members of these organizations have provided me with verbal and written information about and literature on their respective programs. In some cases individuals from these programs have also commented upon the spectrum of U.S. programs in Russia. The statements—some descriptive and some more normative—these people have shared with me have been instrumental in the development of my analysis and fundamental understanding of the issues addressed herein. The individuals will remain nameless in this working paper.