

Project Publications

International Space Security

The project on Reconsidering the Rules of Space, funded by the Carnegie Corporation, has been examining major policy issues affecting the commercial, military, and scientific uses of space. This multi-volume project is led by Academy Fellow John D. Steinbruner (University of Maryland).

The newest publication from the project, *The Minimum Means of Reprisal: China's Search for Security in the Nuclear Age* by Jeffrey Lewis, was published by MIT Press in February. The book examines China's nuclear defense investments; strategic force deployments, including space weapons; and arms control behavior. Jeffrey Lewis is executive director of the Managing the Atom Project at the Belfer Center for Science and International Affairs in Harvard University's Kennedy School of Government.

Another recent publication, "Chinese Perspectives on Space Weapons," was released in January 2007 as part of *Russian and Chinese Responses to U.S. Military Plans in Space*, an Academy occasional paper. Physicist Hui Zhang examines Chinese security concerns about U.S. missile defense and space policies and how the Chinese government may respond to those concerns, and outlines tech-



nical and legal measures the international community might take to protect all countries' scientific, commercial, and military uses of space. Hui Zhang is a research associate at the Kennedy School's Belfer Center, where he focuses on nuclear arms control and space security.

Earlier studies in the series include:

- *The Physics of Space Security* (2005) by David Wright, Laura Grego, and Lisbeth Gronlund (all, Union of Concerned Scientists). This volume provides a review for nonspecialists of the physics govern-

ing a wide variety of space operations. The authors describe the capabilities of anti-satellite weapons and weapons in space and how these capabilities compare, in both effectiveness and cost, to alternative defense systems. They also consider the options open to nations that wish to defend against these capabilities, and explain the various methods for interfering with satellite systems and space-based weapons.

- *United States Space Policy: Challenges and Opportunities* (2005) by George Abbey (Rice University) and Neal Lane (Rice University). This study identifies three important shifts in U.S. plans for space – proposals by the military to place weapons in space, decreased funding for civilian space science, and an unwillingness to collaborate with international partners on space initiatives – as threats to the nation's long-term scientific interests in space.

These studies provide a historic, political, and technical context for major policy issues affecting the commercial, military, and scientific uses of space. Further information about the project and copies of the papers are available online on the Academy website. ■

Children and the Nazi Persecution

What Happened to the Children Who Fleed Nazi Persecution, by Gerald Holton and Gerhard Sonnert with Preface by Bernard Bailyn, examines the 1930s and 1940s flight of nearly thirty thousand children and adolescents from National Socialist persecution in Central Europe to the safety of the United States. The first study of its kind, focusing on a generation of children who typically arrived without command of the English language or means of support, and often without parents, Holton and Sonnert's book documents the factors leading to the collective educational and occupational success of this refugee population. In addition to accounting for the psychological anguish that lingers

for some members of this generation, they consider the ways in which gender might have affected individuals' experiences and career results. A product of Harvard's "Project Second Wave," the five-year study, which involved almost 2,500 participants, began with key questions concerning issues of identity and intellectual formation for these child and adolescent immigrants.

Approved by the Academy's Committee on Studies and funded by a generous grant from the Andrew W. Mellon Foundation, *What Happened to the Children Who Fleed Nazi Persecution* was published in December 2006 by Palgrave Macmillan (ISBN 1-4039-7625-2).

Gerald Holton, a Fellow of the Academy since 1956, is Mallinckrodt Research Professor of Physics and Research Professor of the History of Science at Harvard University. Gerhard Sonnert is a sociologist of science and research associate in the Department of Physics at Harvard University. Bernard Bailyn, elected to the Academy in 1963, is Adams University Professor and James Duncan Phillips Professor of Early American History Emeritus at Harvard University.

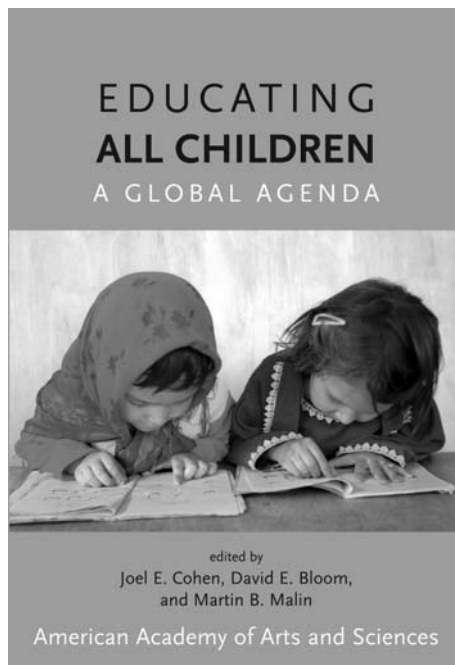
For ordering information, visit Palgrave Macmillan's website: <http://www.palgrave-usa.com>. For project information, see: <http://www.physics.harvard.edu/holton/projectsecondwave.htm>. ■

Educating All Children: A Global Agenda

A new book from an ongoing Academy study reports on the impact of providing high-quality education to every child in the world between the ages of 6 and 16. According to the authors, achieving universal basic and secondary education by the middle of the twenty-first century is both possible and affordable. The volume presents a cohesive picture of past, present, and future steps necessary to reach this goal, and concludes that five changes are essential to achieve universal primary and secondary education by mid-century:

- Open discussions, nationally, regionally, and internationally, on what people want primary and secondary education to achieve – that is, the goals of education;
- A commitment to improving the effectiveness and economic efficiency of education;
- A commitment to extending high-quality secondary education to all children;
- Recognition of the diverse character of educational systems in different countries, and adaptation of aid policies and educational assessment requirements to local contexts;
- More funding from rich countries for education in poor countries.

Although greater numbers of people are completing primary, secondary, and tertiary education than ever before, ensuring universally available high-quality schooling still faces major obstacles. In *Educating All Children*, leading experts discuss the current state of education and how to measure global educational progress, the history of compulsory education, political and financial obstacles to expanding education, the role of educational assessment and evaluation in developing countries, cost estimates for providing universal education (and why they differ so widely), the potential consequences of expanded global education, and the relationship between education and health.



Universal *primary* education has long been advocated in international forums, but the editors contend that *secondary* education must also be universally available. They note that many benefits of education do not accrue until students have had ten years or more of schooling and that “primary education is more attractive if high-quality secondary education beckons.”

At the current rate of progress, the international commitment to universal primary education by 2015, as expressed in the United Nations’ Millennium Development Goals, will not be met. According to the study, by 2015, roughly 114 million children – most in the world’s poorest countries – will still not be enrolled in primary school and 185 million will not be receiving a secondary education.

The Academy is planning additional work to understand and help to overcome challenges to the implementation of universal, high-quality basic and secondary education by mid-century.

The volume is edited by Academy Fellows Joel E. Cohen (Rockefeller and Columbia Universities) and David E. Bloom (Harvard University School of Public Health) and Academy Program Director Martin B. Malin.

The project received generous support from the William and Flora Hewlett Foundation, John S. Reed, the Golden Family Foundation, Paul Zuckerman, the Zlinkoff Fund, an anonymous donor, and the American Academy of Arts and Sciences.

Educating All Children: A Global Agenda is published by the MIT Press. To order copies, call the MIT Press at 800-405-1619 or visit <http://mitpress.mit.edu>.

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“*Educating All Children: A Global Agenda* is a timely reminder of the importance of universal access to education in the fight against poverty.”
– Gordon Brown, British Chancellor of the Exchequer

“This is among the most interesting books on education and development I have read in a decade.”
– Stephen P. Heyneman, Professor of International Education Policy at Vanderbilt University