

# POLICY BRIEF

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## Investing in Advanced Learners

*Dr. Linda Forsyth Weidenhamer*  
*ISPU Fellow*

**It is urgent for policymakers to understand why they must immediately retool and generously fund state and national education policies to find and develop the United States' gifted and advanced learners.**



43151 Dalcoma Road, Suite 6  
Clinton Township Michigan 48038  
586-416-1150 www.ispu.us

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### **THE PROBLEM: Critical Underinvestment in Gifted and Advanced Learners**

Leading news writers and commentators have begun to uncover what advocates of gifted and talented education have long known: that America's scientific edge has been produced in significant part by foreigners and immigrants. For at least the past decade, doctoral degrees awarded in engineering, the hard sciences, and mathematics have been earned by foreign students in large numbers, often exceeding the number earned by American-born students. These students enter our most elite universities, academically prepared and personally disciplined to accomplish studies in the most intellectually demanding fields. I remember my colleague in the Gifted and Talented Education Office at the California Department of Education, Dr. Paul Plowman, wryly noting in the mid-

1980s that America's successes in scientific achievement were heavily dependent upon foreigners who studied at American universities, then remained and worked in the United States.

*Newsweek* magazine's Fareed Zakaria called this phenomenon "the dirty secret about our scientific edge" in his commentary on the dramatic decline in the enrollment of foreign students in American undergraduate and graduate programs "Americans don't do science anymore," Zakaria wrote. According to a National Science Board (NSB) report published this year, the United States ranks 17<sup>th</sup> among nations surveyed in the proportion of college students who major in science and engineering, whereas it ranked 3<sup>rd</sup> in 1975.<sup>1</sup>

In a recent talk on Intelligence Reorganization, covered by C-SPAN, Professor Fred Hitz from the University of Virginia called for serious "area studies" programs and more offerings of difficult languages for American students at the university level. Dr. Hitz was a CIA Inspector-General from 1990-1998.

Dr. Linda Forsyth Weidenhamer is an Adjunct Scholar at the Institute for Social Policy and Understanding.

Dr. Weidenhamer helped develop the 1979 Gifted and Talented Education (GATE) law and in later years wrote proposed amendments that would strengthen that law, working with the Department of Education and the California Association for the Gifted. From 1984 until mid-1990, she served as the Administrative Consultant for the Gifted and Talented Education (GATE) Unit, which was responsible for the GATE funds and programs. She co-authored and co-managed implementation of a William and Flora Hewlett Foundation grant to train teachers to infuse critical thinking (informal logic) into the core curriculum, and later managed a Department of Education research project on the same subject. While teaching in the Folsom-Cordova Unified School District, she served as president of the teacher's union, chairperson of the District's Policy Advisory Committee, and member of the negotiation team that piloted the "interest-based" negotiation method. She served as president and vice-president of the Sacramento Area Gifted Association and as a director on the State Board of California Association for the Gifted (CAG). In 1991, at the Department of Education, she organized and administered the federally funded Service-Learning programs, which began under President George H. Bush. In 1994, she was appointed to be the first Director of the California Commission on Improving Life Through Service by Gov. Pete Wilson, where she established and managed the federally funded AmeriCorps program throughout the state. Dr. Weidenhamer earned her Ph.D. in Political Science and Education from the University of California, Berkeley.

Professor Hitz's orientation is national security and it is through that lens that he views the undereducation of American students as a serious national problem. Since it will be America's advanced learners who take these courses at the university level, I argue that the problem is the underpreparation of these students in our public schools, kindergarten through grade 12.

On November 23, 2004, Lou Dobbs, who has been covering the outsourcing of American jobs on his nightly news show, *Lou Dobbs Tonight* (CNN), heard a report from CNN reporter Lisa Sylvester, stating that American students "are lagging behind the rest of the world in the maths and sciences," and that the latest wave of outsourcing is in the intellectual domain. Large corporations, she reported, are able to hire lawyers in India for one quarter the cost of those in the United States.<sup>2</sup> The orientation here is economic, as the problem is the ever-rising cost of higher education in the United States, even as access to Pell Grants and other federal higher-education investment diminishes. Thus, salaries for highly educated Americans who have large student loans and lost earning time must be high enough to make it worth the effort and financial investment to secure the necessary training. Yet, corporations of global reach are financially rewarded by outsourcing even well-paid, intellectually demanding jobs. This adds to the complexity of providing a sufficient, highly educated talent pool of investors, researchers, and entrepreneurs for the United States to remain competitive and secure in tomorrow's world.

We are told that our economy will recover because of American *innovation* - because of our lead in research and development of new ideas and new products that bring new jobs. This policy brief argues that the United

States is losing an important source of that innovation, as it suffers from its long-time policy of benign neglect of its own brainpower.

What is happening here? First, we are experiencing a plunge in the number of superbly prepared foreign students entering our top universities in the most difficult, but necessary, fields of study, where notably smaller and smaller percentages of Americans are willing and able to enter. Second, we are experiencing a shift of research and development talent in the sciences, technology, and engineering fields to places outside the United States. Third, we are reaping the consequences of our shortsighted national education policies. What can the United States do to mitigate the damage to security and general welfare, as we face the nasty consequences of a mismatch between our nation's acute needs and our willingness to put serious money and clear policy behind our top students? It is time to treat this matter as an urgent one.

## SOME BACKGROUND

This would not be the first time our nation has felt a sense of urgency about the need to invest in advanced and gifted students. The 1983 publication, *A Nation at Risk: The Imperative for Educational Reform*, by the National Commission on Excellence in Education, is as salient today as it was then, in stating that "Our nation is at risk....Our once unchallenged preeminence in commerce, industry, science, and technological innovation is being overtaken by competitors throughout the world." The Commission defined excellence and set a goal for our schools that should guide us today:

We define "excellence" to mean several related things.

At the level of the individual learner, it means performing on the boundary of individual ability in ways that test and push back personal limits, in school and in the workplace.

Our goal must be to develop the talents of all to their fullest.

Attaining that goal requires that we expect and assist all students to work to the limits of their capabilities.<sup>3</sup>

In 1957, following the Soviet Union's successful launching of Sputnik, the United States realized the need for urgent action to develop a large cadre of future scientists. Both the nation and several states responded to the nation's call to produce more scientists with federal Eisenhower and National Science Foundation grants to develop science programs and several state programs for mentally gifted minors. For instance, in 1962, a 1,000-pupil research project formed the basis for establishing the Mentally Gifted Minor (MGM) program in California, with sufficient state funding to at least stir a majority of the more than 1,000 school districts to compete for MGM funds. In 1979, after revision and expansion, the MGM program became the Gifted and Talented Education (GATE) program to enable identification of a broader population of students. There was an agreement that the state would increase its funding to match the expansion of identification and program costs under new GATE programs.

In the case of California, the State never seemed to gather the will to fund these programs fully. An average of just under \$100 per year per identified pupil was not sufficient to ensure proper placements, continuous progress, and development of advanced curricula for the identified pupils. The problem was

part philosophical and part political. The fear of elitism and the reality of political pressure to attend to closing the gap quote of various constituencies within the student population caused legislators and State education administrators to focus attention and dollars on the basis of ethnicity, race, language, and socio-economic status, rather than committing to the development of every child to his or her fullest academic potential. Because attention follows funding, and because so many school districts in California experienced immense and rapid growth in the numbers of non-English speaking and special-needs students, the districts simply could not sustain the many excellent programs for gifted and advanced learners that had begun in the 1960s and had expanded through the early 1980s.

#### **THE ISSUES: Egalitarianism, Politics, and Dependence on Foreign Students**

The issue of undervaluing the education of advanced learners is tied to the national "value" of egalitarianism, with a concomitant disdain for "elitism," both of these realities have fed into the emergence of interest-group politics as forces in the education policies of the United States.

Americans have a love-hate relationship with extraordinary students, from kindergarten through high school. They are suspicious of those who are perceived as "better than" during the K-12 school years, yet those who are successful as creators of new knowledge, new artistic contribution, and new products that enhance our lives are venerated for their extraordinary achievement. The results are celebrated, but the "getting there" is a overwhelmingly long unsupported struggle for the gifted and talented student.

Leading news writers and commentators have begun to uncover what advocates of gifted and talented education have long known: that America's scientific edge has been produced in significant part by foreigners and immigrants.

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Politicians, such as the elected Superintendents of Public Instruction, must necessarily consider political pressures, including this fear of elitism, that influence education policy to the detriment of getting the job done with those students whose impact on the country's future is the greatest. Not sufficiently "getting the job done" is a reality that has long been disguised by the blessing of foreign undergraduate and graduate students who come well-prepared to work hard and earn degrees in the most challenging subject areas. For many of these students, the United States has been the land of opportunity. Life here was good, and many of the graduate students remained here to make enormous contributions to our nation. It was easy to delude ourselves that our schools were world class in terms of "results" at the top end of the continuum. They were not. And we are in trouble.

There are five basic principles that are particularly salient when decisions are made about the education at the upper end of the continuum of American students. Our public schools must:

- (1) Allow students to continuously progress and advance under a challenging curriculum;
- (2) Provide appropriate placements that are determined solely by the academic progress and needs of students;
- (3) Adopt a challenging core curriculum and use instructional practices that teach and elicit critical thinking, reasoned judgment, and creative problem solving;
- (4) Provide an atmosphere that

seeks and rewards intellectual risk-taking; and

- (5) Provide opportunities for and lessons that teach character development.

We have had trouble ensuring that these principles are put into practice. For 20 years, public education as a system has been subjected to research and solution ideas that have had more to do with interest-group politics than with practical education policy. There is pressure to affirm the equality of all, which is offered as a primary assumption behind the practice of placing all students in heterogeneous groupings the entire instructional day. Gifted Education advocates call this the model of "unpaid teacher's aides," since so many of the gifted and advanced learners spend their days helping other students, rather than operating at the boundaries of their own capabilities. The current definition of school success is not how well schools move willing and able students ahead to greater mastery of the curriculum; it is, rather, determined by the number of students who test at a minimum level of success for each grade. We may attempt to leave no child behind and to "close the gap," but it must not be at the expense of moving no gifted child ahead. Put another way, it is folly to fill in our valleys by cutting off our mountaintops.

Funding determines policy at the state and district levels. Billions of federal and state dollars are poured into helping low-achieving students. For example, of the 100 categorical special needs programs managed by the California Department of Education over the past 20 years, only one was aimed at identifying and serving the advanced learners through the State's Gifted and Talented Education law.

There was and is today no serious federal investment beyond small grants limited number of small grants to states to provide for the academic success of our most advanced learners, including the highly gifted. This leaves the national investment in the nation's future "brain power" to the happenstance of particularly determined and energetic leadership at the state and local levels. There is simply no national or state systemic, lasting, and assured focus on America's advanced learners today. And, as we have seen since 9-11, the number of foreign students seeking university education in the United States is plunging. We ask, then, where do we go from here?

Department and Congress, should accelerate the processing of foreign student visas and work with universities to maintain oversight of the visiting students;

- (2) Congress and the President should immediately fund a large number of full "Manhattan Project" scholarships for high-achieving American students who commit to a program of study, undergraduate and graduate, in areas that are particularly salient to the security and economic competitiveness of this nation; and

**Nothing is more evident today than the fact that the economic, military, and philosophical wars of the present and future are fought on the front of the *developed and applied intelligence of our people.***

### THE THREE-LEGGED STOOL

#### SOLUTION: An Education "Manhattan Project"

The three legs on the stool of our urgent "Manhattan Project" in education comprise a set of solutions which, when taken together, assure achievement of our nation's research and development, our security, and our general welfare goals. These include the following:

- (1) To achieve the short-term goal of maintaining a large pool of scientists, linguists, engineers, mathematicians, and others in high-talent fields, the federal government, namely, the State

- (3) Congress should pass a National Advanced Learners bill, the development of which would be overseen by the Education Department, that provides an array of services for students who are at the upper end of the continuum, academically and intellectually.

### RECOMMENDATIONS

What would an Advanced Learners Program look like? Such a program should not only include the identified gifted students, where those students may currently be identified and served, but should also include services to the school district and services to students

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not identified as gifted, but who are clearly academically high-achieving. In other words, an Advanced Learners Program should serve the "willing and able" students, and should help the school district leaders develop, implement, evaluate, and improve programs aimed at a student population they have long regarded as not needing much attention.

### 1) Services to the School District

The bill should assume that districts will require considerable retooling and administrative help in several ways. Services to the district should include the following:

- Staff Development
- Accountability for advanced learner goals and achievement
- Policy design for gifted and advanced learners to assure continuous progress and appropriate placement
- Curriculum development and articulation (good targets might be a smooth transition into an International Baccalaureate Program at grade 11, or to a large number of Advanced Placement courses, or to an early college attendance)
- Access to magnet programs throughout the district, regardless of students' local-school designations in large districts
- Pilots for innovative programs
- Coordination with other federal- and state-funded education programs.

### 2) Services to Willing and Able Students

The Advanced Learner Program will include services to students who have not been formally identified for a district's gifted and talented education program, if one has been available. Services to students who are willing and able to achieve in a demanding curriculum include:

- Rapid Learner classes or placements, K-8
- Honors classes
- Advanced Placement classes
- International Baccalaureate Programs
- Situational identification placements in rapid learner classes or groupings that can not only be used to watch students' reactions to the curriculum delivered with faster pacing, greater complexity (which uses diversity of higher level resources), and in-depth study. Situational placements may also serve as a springboard to GATE identification, giving access to additional services.
- Extension of innovative programs and learning strategies to regular classrooms. These programs and strategies can be modified to work well in the regular classroom environment.

### 3) Services to Identified Gifted and Talented Students

The Advanced Learner Program will include services to students who have been identified or could be eligible for

services under a state or local gifted and talented education program. This group of students includes exceptionally highly gifted students for whom even advanced classes are not sufficient. Services to identified gifted and exceptionally talented students include the array of advanced learning placements and classes listed above, plus:

- Mentorships
- Independent study
- Individual study plan
- Radical acceleration
- Simultaneous college enrollment
- Counseling
- Seminars

A free public education system was established in this country to promote the general welfare and the blessings of liberty, and in time, the philosophy that each individual ought to develop his or her unique potentials to the fullest. This leg of the stool sets up a system of programs, training, and accountability measures to generate a permanent investment in our most talented youth. Investment is the key word here. We lose the competition

for both standing and security in the world if we do not develop the potentials of our own youth to assure our own supply of new ideas, new products and technology, excellent management, and wise leadership.

Today, we are acutely aware that our nation's schools are among the tools needed for maintaining our nation's security. Nothing is more evident today than the fact that the economic, military, and philosophical wars of the present and future are fought on the front of the *developed and applied intelligence of our people*. If we are to succeed, we must overcome bias against elitism and the tendency to over-bureaucratize procedures that bring the world's most talented young people into our country.

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Footnotes:

<sup>1</sup> Newsweek, November 29, 2004.

<sup>2</sup> Loub Dobbs Tonight, November 23, 2004, 6:00p.m. EST, CNN.

<sup>3</sup> *A Nation at Risk: The Imperative for Educational Reform*, published by the National Commission on Excellence in Education, 1983, p. 4.

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US society is far from being monolithic, whether culturally, socially or politically. It is therefore imperative that the thoughts and insights of each aspect of this heterogeneity play a contributory role in the discourse and debate of issues that affect all Americans. ISPU was established and premised on this idea – that each community must address, debate, and contribute to the pressing issues facing our nation. It is our hope that this effort will give voice to creative new ideas and provide an alternative perspective to the current policy-making echelons of the political, academic and public-relations arenas of the United States.

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