

# Dynamic Inequality and Intervention: *Lessons from a Small Country*

Students enter school with different levels of academic readiness, and these differences increase through the grades. Mr. Grubb uses lessons gleaned from Finland's schools to suggest ways in which the U.S. could decrease this inequality.

BY W. NORTON GRUBB

**E**VERY LEVEL of education in our country suffers from one particular form of inequality. Whether in kindergarten or in college, some students enter ready to perform at higher levels than others — because of various dimensions of family background, or the quality of prior schooling, or motivation, or discouragement caused by years of disparaging treatment, or physical or mental health conditions, or too many other factors to catalogue easily. Then the question is whether schools and colleges recognize these differences and work *effectively* to reduce them, or whether they ignore inequalities and leave them to students themselves and parents and successive levels of schooling to correct — or fail to correct.

The problem I call dynamic inequality arises from the fact that students start formal schooling at age 5 or 6, and the initial differences among them continue to grow over time. For example, modest black/white differences at the beginning of kindergarten, largely explained by simple socioeconomic variables, increase until the spring of third grade; another estimate is that initial black/white differences are roughly doubled by the end of 12th grade, though with changes in the metric by which differences are measured, the gap may grow as much as fourfold.<sup>1</sup> Similarly, the range of scores for the middle 50% of students on the Peabody Individual Achievement Test widens steadily and monotonically over time.<sup>2</sup> In my analysis of NELS:88 data over

eighth, 10th, and 12th grades, test scores diverge in predictable ways: over these five years, the gaps become larger among racial/ethnic groups, among groups defined by family background (especially maternal education and parental aspirations for their children), and between genders, with male dominance in math, history, and science scores and female dominance in English scores growing over time.<sup>3</sup>

There's no reason to think that the growth in in-



equality is steady. At certain points in our education system, there are likely to be small “bursts” or explosions of inequality. For example, in the transition from eighth to ninth grade, some students (mostly those performing at low levels) leave school or fail to attend, so their progress grinds to a halt on all measures of outcomes. Some students are assigned to remedial tracks, to general tracks, or to the remnants of traditional vocational education, and their progress is likely to be relatively small. At the other extreme, high-performing students get into honors or AP courses, and under pressure from these advanced curricula their progress is likely to be significantly higher than that of other students. Many students in the middle follow middling courses in high school, neither honors nor remedial, and their

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progress might be steady but modest.

Other bursts of inequality might take place at the transition into middle school, when students begin taking a variety of subjects from different teachers and when tracking often starts. Some educators have mentioned the transition from third to fourth grade as a similar problem, when teachers stop teaching how to read and how to do basic arithmetic; those students who have not mastered these basic skills then fall further and further behind as basic skills are used to explore more complex learning. And the transition into postsecondary education surely leads to another boom in inequality, as some students enter the best universities in the world, dropouts usually fail to gain access to further schooling, and everyone in between strives for access to a system of postsecondary education that is highly differentiated.

These patterns of dynamic inequality create enormous differences by grade 12, when some individuals have dropped out and are still reading at the sixth-grade level, while others have accumulated many AP credits and are about to enter top-ranked universities. The variation at age 30 is larger still, comparing high school dropouts to individuals with advanced degrees. Indeed, the U.S. has some of the most unequal levels of educational achievement among developed countries. The PISA (Programme for International Student Assessment) study of reading levels among 15-year-olds showed that the U.S. has among the highest levels of inequality of all OECD (Organisation for Economic Co-operation and Development) countries. The International Adult Literacy Survey found that more than one-fifth of American adults aged 16 to 65 are at Level 1 in prose, document, and quantitative literacy scales — a level describing “persons with very poor skills” — with another quarter at Level 2, still below “a suitable minimum for coping with the demands of everyday life and work in a complex, advanced society.” Our system of education creates high levels of educational inequality, just as our economic system and weak welfare state generate high levels of income inequality.<sup>4</sup>

This situation leads to the question of what schools could do to minimize the divergence in educational outcomes. Typically, when the differences among students grow too large, or when the results on standardized tests and exit exams become catastrophic, or when students enter particular levels of the education system unprepared for the level of work expected, then something is done, even if it’s too little and too late. Such efforts are generally called “intervention” in elementary and secondary education, “developmental education” in community colleges, “basic-skills instruction” in four-year

colleges, or “remediation,” with its negative connotations, at any level. No one thinks it’s good to wait until these differences become magnified, at entrance to high school or college, but that happens all the time — witness the large amount of developmental and basic-skills courses in postsecondary education.

Nearly every country suffers from this same problem, since certain features of virtually all societies are responsible: variation in family background; variation in the quality of schooling; sometimes sharp differences in the treatment of boys and girls, or of racial and ethnic minorities, or of urban and rural residents. In addition, many countries have points in their systems where testing and tracking create new forms or bursts of inequality. But countries differ in how they respond to the problem. In this article I present the ways that one small but particularly thoughtful country — Finland — has developed a nested series of interventions that seem quite effective in reducing inequality, at least over grades 1 through 9.

The question is not, obviously enough, whether the U.S. can imitate everything that Finland does, since some aspects of that nation’s politics and culture cannot be readily transferred. But the Finnish interventions, which I will describe in the first section, contrast sharply with common practices in this country, which I will describe in the second section, and provide some lessons about what effective intervention might require. It’s not true, as most people protest when I tell my Finland stories, that the small size of the country and its relative homogeneity make these lessons inapplicable to the U.S. Rather, as I argue in the final section, the important lessons involve the nature of teacher training, the kinds of personnel available in schools, and the point at which attempts are made to eliminate differences in student achievement — all factors that could be modified in this country to more closely resemble the Finnish approach.

## INTERVENTION IN FINLAND

Finland — a small country by U.S. standards, with just five million people — found itself squarely in the international spotlight because of its 15-year-olds’ PISA results in 2000. On a combined literacy scale, Finland scored the highest of all countries tested, by a substantial margin. The variation in reading scores was smaller than that of all but a few other countries, and those countries had much lower averages. On the math scale, only Korea did better, and no other country had a smaller variation than Finland; in science, Finland was third only to Japan and Korea and again had the smallest

variation of any country. Furthermore, the effects of socioeconomic status on reading scores were smaller than in any other countries except Iceland, Japan, and Korea. These results were generally repeated in the 2003 PISA, so the initial findings were not flukes. Other indicators also emphasize the relative equality of Finland's education system; for example, its dropout rate from upper-secondary school is only 6% (compared to 25% to 30% in the U.S.). Something is taking place to minimize the inequality of test scores and of educational progress, and the question is whether there might be lessons from Finland for practices in the U.S.

Based on a two-week visit as part of an OECD team,<sup>5</sup> I conclude that a series of interlocking and consistent policies are responsible for this relatively equitable performance, at least in comprehensive education between grades 1 and 9. The Finns have established a multilayered approach that responds quickly to any signs that students are falling behind. Furthermore, they have developed this system in just 30 years (comprehensive schools were created in the early 1970s from differentiated primary schools) and without spending a great deal of money. Finally, when we asked questions about the practices for students who fall behind, we received identical responses in every school we visited; this consistency indicates a policy, embedded in teacher training and the staffing patterns of schools, that is uniform throughout the country (with some exceptions noted below) — in contrast to the enormous differences in intervention practices in the U.S.

The first line of attack against inequality in Finnish education is the teacher, who is responsible for recognizing when any student is failing to master any particular competence — for example, having trouble with certain letter combinations, or particular number facts, or specific concepts in social studies or history. Identifying students who have fallen behind their peers or who are not keeping up with the standards of the national curriculum therefore does not wait for an annual exam or even a diagnostic exam

given at the end of a unit; correction is virtually instantaneous. The teacher works with the identified students one-on-one, or sometimes in groups of two to four, to correct the particular problems they experience. This happens sometimes during lunch, after school, or before school (depending on schedules and busing patterns), and sometimes during the day, since a good deal of class time is involved in small-group and individual activity, freeing the teacher to work intensively with some students.

The second line of attack is the teacher's assistant — sometimes called a school assistant, since she works

with several teachers within a school. She is not a fully trained teacher, but a secondary school graduate with a year of specialized higher education in how to work with students who are behind. The assistant might sit beside a student during class, providing help, answers to questions, and encouragement for those whose attention flags — a practice sometimes called “push-in” in the U.S. but rarely used except in special education. Sometimes the teacher’s assistant works one-on-one or with small groups at other times of the day. But — unlike outside tutors in the U.S. — the teacher’s assistant is always working directly with the classroom teacher on the material of the regular class and on specific topics that students need help with.

The third line of attack is the special-needs teacher. This is a teacher credentialed for the comprehensive school but with one year’s additional preparation in various learning problems and special education. Again, in consultation with the regular teacher, the special-needs teacher works one-on-one or in small groups with students who have not been adequately helped by the first two lines of attack. While the special-needs teacher is credentialed to teach special *education*, the two are distinct. Special education includes students with severe disabilities (about 1.8% of all students), who attend special schools, and students with less serious disabilities (another 4.4%), who are mainstreamed; both these groups are specifically diagnosed. A third group — about 17% of pupils according to Ministry of Education officials, or roughly 20% by local estimates — are special-needs students who are not specifically diagnosed but simply need additional help from special-needs teachers to keep up.

For students whose progress is still not adequate, the last approach is the multidisciplinary team. The team consists of the teacher, the special-needs teacher, the school’s counselor, and several individuals from outside the school — a social worker from the department of social services, representatives of the health and mental health systems as necessary, and individuals from the public housing system if that seems to be part of the problem. The multidisciplinary team therefore has access to a broader array of services and supports, and through the members of the team the school has the ability to identify and correct any problem that is beyond the capacity of the school itself to address. Funding for all social services, like funding for education, comes from the national government to municipalities, so gathering the resources necessary for the multidisciplinary team does not require time-consuming inter-governmental collaboration. One of the underlying ideas is that if nonschool problems can be solved by

other professionals, then teachers are free to concentrate on instruction.

Overall, these approaches to minimizing how much students fall behind share two features of many U.S. intervention efforts — intensification, or providing more time by more teachers, and alternative approaches (rather than “more of the same”), particularly in the efforts of the special-needs teachers and the multidisciplinary teams. But rather than relying on a grab bag of after-school programs and tutoring efforts, randomly distributed by grade levels and subjects, in Finland these approaches are used in consistent ways.

### CONDITIONS SUPPORTING EQUITY IN FINLAND

There are some features of the Finnish education system and welfare state that facilitate this multilayered approach. One is that class sizes are small — often 16 to 18 students, rarely more than 20. The policy of keeping classes small is not just based on an unarticulated hope that small size will lead to more individualized attention and better performance but is intended to create the conditions for individual monitoring and correction of students’ performance. In addition, schools are small — often around 200 students in a K-6 school, only rarely more than 300 — so that personnel other than the classroom teachers, such as school counselors, special-needs teachers, school assistants, and the principal, can come to know all students and participate in monitoring their progress and behavior. Children are surrounded by competent, respectful adults who know them well, and the large, alienating schools typical of the U.S. are virtually unknown.

In addition, there is much greater stability of both students and teachers in the Finnish system. Teachers do not move between schools a great deal, as they do in the U.S., partly because the differences among schools — among “bad” schools, usually in urban areas, and “good” suburban schools to which teachers try to move — are not that great. Most schools try to keep teachers with the same group of students for several years (“looping”) — sometimes two, three, or even six years, often depending on the preferences of teachers. There is less mobility among students too, partly because Finland provides subsidized public housing, which means that families do not experience the housing problems that contribute to so much movement among low-income students in the U.S.; partly because parents are apparently reluctant to move during the school year, respecting the student’s need for stability over their own locational preferences. Stability allows teachers to know their students better, again facilitating the identifica-

tion and correction of any learning problems.

Teacher training is also more thorough in Finland than it is in the U.S. There are, to be sure, some uncredentialed teachers, about 15% of the teacher force, largely in rural areas. But a concentration of uncredentialed teachers in urban districts with low-income students is not the dominant pattern. To become credentialed, teachers must be admitted to teaching programs within universities, in a competitive selection process with an acceptance rate of only 10%. Then candidates earn the equivalent of master's degrees, taking four to five years, studying both the variety of disciplines taught in grades 1-9 and pedagogy. Classroom instruction is interspersed with teaching internships, in a series of practica with different pedagogical problems — typically one or two periods of time, usually half a year, in each of four years of preparation, in either a local school or a university-sponsored teacher training school. One principle of teacher preparation is that experience in the classroom, guided by a mentor teacher, provides new teachers the ability to cope with a variety of classroom issues, from students performing at different levels to the special needs of immigrant children to more difficult cases of fetal alcohol syndrome or ADHD requiring evaluation by special education teachers. Another explicit principle is that teachers are prepared to become independent professionals, with judgment and expertise in both subject-matter and pedagogical alternatives, rather than automatons delivering a teacher-proof curriculum. It's hard to imagine teachers serving such a crucial role in addressing unequal progress without this intensive preparation.

Indeed, the Finns have created a virtuous circle surrounding teaching. High status and good working conditions — small classes, adequate support from counselors and special-needs teachers, a voice in school decisions, low levels of discipline problems — create large pools of applicants, leading to highly selective and intensive teacher preparation programs, which in turn lead to success in the early years of teaching, relative stability of the teacher work force, success with students (of which the PISA results are only one example), and a continuation of the high status of teaching. Indeed, the profession of teacher is now the most popular among upper-secondary students, even more popular than careers in IT, medicine, or business. All of this has occurred without high salaries — teacher salaries in Finland in 2000 ranked 17th out of 29 OECD countries.

Finally, the involvement of the strong Finnish welfare state is crucial to the success of education in several ways. Nowhere did we hear of students unable to at-

tend school because of chronic health problems; these are the responsibility of a comprehensive health system. Students with mental health problems or family troubles have the resources of the mental health and social welfare system. As noted earlier, public housing takes care of housing needs, reducing the mobility of students. The ability of multidisciplinary teams to call on the resources of the welfare state as well as the education system comes from a special governance structure: block grants for education, health, and social services are allocated to municipalities, which have responsibilities for a wide array of social programs. Therefore municipalities command all the resources necessary for multidisciplinary teams, and the mix of educational and noneducational resources necessary to support any one student comes from the same source. The Finns take it as axiomatic that both high-quality schooling and nonschool programs are necessary for equity.

These various components of the Finnish efforts are self-reinforcing in obvious ways. Teachers couldn't provide such individual attention to students' progress if they didn't have strong preparation or if classes were too large. They couldn't count on the reinforcements of school assistants, special-needs teachers, or counselors if those positions were not funded. Schools couldn't rely on the resources of health and mental health services and nutrition and housing programs if there weren't a strong welfare state with flexible allocation of resources from municipalities. And of course it helps enormously that Finland is a country with a low level of inequality to begin with, second only to Denmark among countries in the Luxembourg Income Study — while the U.S. ranks dead last in income equality among developed countries. In so many ways, inequality in the parents' generation begets inequality among their children. But Finland has taken active steps to minimize the extent of income inequality, both through a well-developed welfare state and through norms that don't tolerate the grotesque earnings inequalities of the U.S. Neither income inequality nor educational inequality is inevitable; these are social choices, and the U.S. has chosen one extreme and Finland another.

Overall, the Finnish approach to greater equity in schooling relies on building the capacity of schools — the competencies of teachers, the availability of support personnel like school assistants and special-needs teachers, the creation of conditions that enhance the ability of teachers to work effectively (such as small scale and teacher participation in decision making) — as well as the capacity of social programs to back up schools. It does *not* rely on excessive amounts of low-level testing or on draconian accountability systems. A sample

of about 100 schools per year is selected for testing, to see whether there are systemic weaknesses that national policy should address, and municipalities can “buy into” these tests for their own diagnostic purposes. But the test results are never made public (except inadvertently), and the Finns have explicitly rejected the “naming and shaming” that goes on in American and British schools through the publication of test scores. Tests are to be used for diagnosis and improvement only, not for invidious comparisons, or excoriating teachers, or demeaning students, or identifying the groups performing the worst.

Furthermore, the Finns have not spent their way into excellence. Spending per student in primary education is only 62% of that in the U.S., and 64% of what we spend in secondary education (figures based on equalized purchasing power). Instead — consistent with the “improved” school finance that my colleagues and I have tried to articulate<sup>6</sup> — they use moderate levels of resources wisely, to create the best teaching conditions they can imagine. Money may be necessary to operate equitable schools, but it is never sufficient, and the kind of commitment and consistent practice embedded in Finnish schools provides the vision necessary to drive both high average performance and relatively equitable results.

Now, not everything in Finnish education works well to reduce inequality. The excellent early childhood programs are not consistently used to equalize school readiness, and some of the groups most in need of preschool resources — immigrants, low-income families, rural families — are less likely to enroll. The equity provisions of the comprehensive schools are not always uniform: some special-needs teachers are stretched among too many schools; some areas (especially rural areas in the far north) lack sufficient qualified teachers; some schools have less funding for counselors and school assistants than others. When students begin upper-secondary education (years 10-12), they must take a standardized exam and then apply for academic secondary schools, and this process allows well-known differences in family backgrounds to emerge; my hunch is that a small burst of inequality takes place at this point. Like most countries, Finland has not been able to create a first-rate system of vocational education, so the 37% of students unable to get into academic upper-secondary schools are in forms of vocational education that train them only for entry-level jobs, in a period when high unemployment rates prevent most youths from finding any work; only a very few (about 15%) are able to move into polytechnics (roughly like our community colleges). And the transition to postsecondary educa-

tion is just as inequitable, with entrance examinations and expensive preparatory courses replicating familiar patterns of inequality. But the parts of the Finnish education system that fall short should not overshadow the powerful lessons of the grade 1-9 comprehensive schools: it's possible to have schooling that is excellent and equitable too, but this goal can be accomplished only through consistent policies relying on the competence of teachers and various instructional support systems.

What about “proof” that the Finnish system works well — as if “proof” were possible for something as complex as an entire education system? The PISA results are part of the “proof,” of course. Conversely, U.S. performance on PISA is mediocre on all counts. Our literacy scores were at the OECD average, and variation among American students was higher than in any other country except New Zealand; for math and science, both average scores and variation were at the OECD average. Perhaps more telling are the scores on the International Adult Literacy Survey (IALS), since IALS measures competencies across the breadth of the population instead of just 15-year olds. On a test of prose literacy, only 10.4% of Finnish adults scored at Level 1, half the proportion (20.7%) of the U.S., a level indicating “persons with very poor skills.” For the ability to extract information from documents, 12.6% of Finns compared to 23.7% of Americans were at Level 1; for quantitative literacy, the comparable figures were 11% and 21%. In the middle of the distribution, Finland and the U.S. are roughly comparable, but Finland has consistently fewer adults at the bottom levels and more at the top levels.<sup>7</sup> If, in our test-besotted age, we believe the results of such international assessments, then the U.S. needs a lot of improvement before it catches up to Finland or most other developed countries.

There are, to be sure, several differences between Finland and the U.S. that are responsible for these results, as I clarify in the last section. But the attention to equity in Finnish schooling, with a series of consistent classroom practices, is certainly one of the causes, and one that the U.S. could more readily replicate than others.

## **INTERVENTION IN AMERICAN SCHOOLING**

There's no question that American schools are now highly aware of the differences among students and of the needs to raise all students to the level of competence and to narrow the racial/ethnic gaps in achievement. The federal No Child Left Behind (NCLB) Act, with its various penalties and funding tied to interventions including mandatory tutoring and choice of other schools, and the individual state accountabili-

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ty systems have underscored these needs.

However, with a few exceptions, states and the federal government have left schools to develop the activities to help low-performing students. Immediately, this means that the variation among schools in what they do must be enormous, because such variation emerges almost every time schools are left to their own devices. To find out more about patterns in schools, my colleagues and I visited 12 schools in the Bay Area to learn about the variety of efforts to help students who are behind, observe intervention classes and activities like after-school programs and Saturday classes, and determine how schools made the decisions they made.<sup>8</sup> This is, of course, a pitifully small sample of the almost 96,000 schools in the country, and we hope that others will extend our analysis of school-level practices — particularly in states with more generous funding and more competent district and state administration than we saw in California.

As we expected, schools varied widely in their approaches to helping children who have fallen behind. A few have developed comprehensive approaches, such as investing in differentiated instruction as well as in a variety of reinforcement or “skills” courses; as one principal explained the school’s strategy, “One thing doesn’t work for everyone. You start with the basic or core aspects of the school [classroom instruction] and then look for opportunities and pieces and whatever might work for some individual students.” Several schools adopted more comprehensive approaches to diagnosis and correction, using a variety of assessments timed as little as two weeks apart to identify students who were doing poorly and then providing them various interventions, often from off-the-shelf curricula. One high school is in the process of developing a series of theme-based academies or schools-within-schools, hoping that small learning communities as well as a variety of academic supports can help low-performing students. In general the schools with more comprehensive approaches also have hero-principals with comprehensive vision and substantial energy, illustrating once again the centrality of strong principals.

But the majority of schools have adopted a grab bag of disconnected reforms: some remedial math and English classes for students who are below basic and far below basic; after-school programs, usually incorporating one hour of homework support with volunteer tutors and one hour of free time or play or “enrichment” activities like music and art; tutoring with volunteer tutors from nearby universities, churches, or businesses. These interventions largely address reading, with math a distant second; there are virtually no efforts to

provide support in the variety of other school subjects, since they are not usually tested in accountability exams. Often, these efforts emphasize the youngest students: K-2 students in elementary schools, sixth-graders in middle schools, and ninth-graders in high school, especially with the creation of freshman academies or freshman-year experiences. The logic of addressing students at the points of transition and at the beginning of a level of schooling, when the difficulties of catching up are not as great, is obvious, and yet these practices mean that the consistent support in Finland, throughout the grades and in all subjects, is missing from the U.S. schools we have seen.

Intervention in most schools we have visited involves additional classes, usually called “math skills” or “English skills,” often taught with off-the-shelf curricula like Read 180, SRA Reach, and Open Court. This practice follows the logic of intensification, or “more of the same,” though why this should work when students have not responded successfully to earlier versions of the same pedagogical approach is unclear. Furthermore, with the exception of interventions like Reading Recovery, which uses small groups and specifically trained teachers, the common interventions do not rely on one-on-one or small-group instruction, and the special training of the Finnish school assistants and special-needs teachers is quite rare in the Bay Area schools we saw. There are one or two exceptions, in which special ed teachers are used to teach skills classes for students not designated special ed. These skills classes are usually pull-out classes, which means that students are taken out of subjects not considered to be part of the core, like science and social studies; when this happens at the high school level, there’s virtually no chance that such students can complete the roster of courses required for admission to state universities. Finally, there’s commonly no attempt to link the work of the regular classroom to intensification in skills classes, after-school programs, or tutoring; the Finnish practice of having the classroom teacher direct school assistants and special-needs teachers, in the interest of consistency across approaches, is nowhere in evidence. Interestingly, the California framework in mathematics specifically warns against inconsistent practices: “Providing too many instructional directions for any student, with a loss of continuity in instruction, could be as bad as using too few.”<sup>9</sup>

When schools follow the practice of assessment and correction or diagnosing which students are behind and then sending them to various forms of remediation, they use a number of common practices — tutoring, after-school programs, intensification, and changes in instructional approaches (like differentiated instruc-

tion) — as well as a blizzard of off-the-shelf curriculum materials. The problem is that the effectiveness of these forms of correction is questionable. The reviews of after-school programs have been generally negative, though the consensus position on what might make after-school options effective includes a clear mission; high expectations; a safe, healthy, and emotionally supportive environment, which some of these programs do not provide; a small total enrollment; trained personnel who remain with the program; appropriate content and pedagogy related to students' needs, including connection to regular classrooms; integrated family and community partners; and frequent assessments.<sup>10</sup> Many of these elements are present in the Finnish system but depend on school aides and special-needs teachers rather than formal after-school activities. Tutoring has had more positive results in the U.S.: one-on-one and small-group tutoring programs using college students and *trained* community volunteers have been found to have modest effects on test scores.<sup>11</sup>

However, the vast variety of off-the-shelf curricula are suspect. Evaluation results and careful research are extremely elusive, the claims for most of these programs as research-based (or proven practices!) are exaggerated, and the quality of outcome evaluations is usually quite low, with no comparison groups, comparison groups of unknown composition, no attention to what comparison groups are doing, and other basic evaluation problems. Some of these programs may work, particularly when they offer a coherent and structured curriculum combined with some professional development as a substitute for incoherent teacher-developed practices that fail to meet state standards — that is, when they substitute something for nothing. But overall, these various interventions lack the conditions that appear to make the Finnish approach so effective: one-on-one or small-group practices conducted by highly trained instructors, connected to the ongoing curriculum of regular classrooms, and consistent across subjects and grade levels.

### **CONDITIONS CONTRIBUTING TO INEQUALITY IN THE U.S.**

In terms of teacher training, very few U.S. teachers have been prepared to teach low-performing students in special ways, though differentiated instruction has its enthusiasts. In contrast to the virtuous circle surrounding teaching in Finland, the U.S. has created in urban schools a vicious circle of poor working conditions, declining teaching status, and shortages of teachers in high-need areas — all exacerbated by teacher-

bashing and the impossible demands of public officials, the tasks of state assessments, and the requirements of NCLB. Politically, there isn't enough money to compensate teachers for the deteriorating conditions of public schools, especially in urban districts, and so shortages of minimally qualified teachers — never mind the well-prepared teachers of Finland — are the rule in the schools that low-performing students attend. Correcting this — achieving the goal of NCLB of having “qualified teachers” in every classroom — seems nearly impossible even with the low standards of American teacher training; if we adopted the much higher standards of Finland, we would have to radically remake the entire system and culture of teacher preparation.

Finally, when we examine noneducational services, the ideal of having schools provide a variety of social services has been frequently articulated in the U.S., particularly in the visions of Comer schools and full-service schools.<sup>12</sup> But these dreams are largely unrealized because the services that are complementary to education are provided by other agencies with other budgets and other priorities. Occasionally a hero-principal can muster city or private resources to locate some services on campus, but this approach tends to be irregular and idiosyncratic, rather than an institutionalized feature of the welfare state. And any American educator suggesting that schools need nonschool policies to overcome the effects of family background is now accused of violating the mantra that “all children can learn,” in contrast to the Finnish acceptance that both school and nonschool services are necessary.

The result is that the outcomes of the American education system are wildly unequal. Children start schools at unequal levels of preparation, the result of inequalities among parents — inequalities of education, of income and occupation, of aspirations for their children, and of some other dimensions of family background — that K-12 schools themselves cannot control and that are not corrected by existing early childhood programs. Starting in elementary school, differences among students begin to widen, and few schools have developed a set of consistent and effective ways to prevent learning from diverging. The gap continues to widen during high school, in both test scores and measures of progress — leading to high rates of dropping out, perhaps the single most powerful indicator of inequality in this country. No one has paid much attention to potential “bursts” of inequality at transition points. Neither districts, nor state governments, nor the federal government has articulated educational policies that might correct this divergence or support schools



in their efforts to do so. The noneducational policies associated with the Department of Health and Human Services or Housing and Urban Development that might support low-performing students are both weak and declining. So the high levels of inequality documented in PISA and IALS test scores are the results of systemic inattention to dynamic inequality.

### THE VALIDITY OF INTERNATIONAL COMPARISONS

The purpose of international comparisons is not, of course, to suggest that we can copy all Finnish values and practices — any more than we could adopt Japanese practices when their science and math scores were so much in the news, or the German vocational system when that country was beating us in international competition. The challenge is to figure out which practices from other countries we could use as guides for our own.

When I mention Finland to Americans, their instant reaction is that Finland is too small and too homogeneous to be a useful comparison. But size isn't the issue: education policy in the U.S. is largely made in the states, and there are many states not far from Finland's size — only six states have populations over 12 million. It isn't the small size of Finland that makes a difference; it's that a system of preparing teachers, school aides, and special-needs teachers has institutionalized a classroom-based approach to intervention. And this system could be replicated in any state of the U.S.

Likewise, homogeneity should not be the issue — indeed, we need a system of dynamic equity precisely because we have such a heterogeneous society. Perhaps the complaint about the homogeneity of countries like Finland masks a political point — that heterogeneity makes the political task of legislating for public schools more difficult. It is easier to legislate school taxes and improvement when voters don't have to spend on “other people's children.” But the successful practices in Finland do not depend on high levels of spending; instead, modest expenditures are carefully used to create the system's nested set of interventions. So these objections to using Finland as a guide seem baseless.

If we focus instead on the instructional practices in Finland, we can use them to indicate what we should be striving for. One Finnish goal is quick identification of students who are not mastering specific skills; this

requires small classrooms staffed by alert teachers who have been trained to diagnose student difficulties as they arise rather than waiting for assessments some weeks or months in the future. Finland has also opted for correction close to the classroom — either one-on-one or in small groups, using well-trained school aides and special-needs teachers, all supervised by the regular classroom teacher — instead of correction in large skills courses and after-school programs or through tutoring provided by well-intentioned but untrained individuals. A third Finnish practice is the use of a single curriculum and pedagogical approach — the national curriculum, in Finland's case — rather than a barrage of different approaches, many of them off-the-shelf programs with low-quality and inconclusive research behind them. American schools could mimic the Finnish practices in many ways. Indeed, one of the schools we observed in the Bay Area has created a vision for intervention remarkably like the Finnish system, though its implementation has just begun.

What we cannot replicate at the moment is the participation of the strong Finnish welfare state. Ours is a limited welfare state, one that defers to the market at every opportunity.<sup>13</sup> The efforts of schools to obtain social services, ultimately paid for by state and federal agencies, have been difficult and partial, and so the cooperation of something like the Finnish multidisciplinary team would be hard to achieve. It could, of course, become routine if welfare legislation funded social services to low-income and low-performing schoolchildren as part of a larger commitment to narrowing the achievement gap and leaving no child behind.<sup>14</sup> But until the U.S. moves from wishful rhetoric about full-service schools to federal action on social services, the noneducational supports that some students need will remain unavailable.

Similarly, we surely cannot replicate the culture into which Finnish children are born. Finland is a nation of readers, as the Finns proudly point out, with a strong and much-used system of libraries, while the U.S. has become a culture tuned in to television and movies and video games. The Finnish commitment to music is amazing — even small towns have impressive music facilities — and Finns spend their leisure time actively, walking and hiking and skiing; in contrast, all too many Americans have turned into couch potatoes. The American culture of entertainment and cool is itself hostile to sustained inquiry

and disciplined learning, and the strain of anti-intellectualism that has always been present in American life has only gotten worse.<sup>15</sup> These differences make the task of schooling all that much harder in the U.S. than in Finland; there's no way to borrow such elements of culture from another country, even if we could emulate specific educational practices.

Things aren't going to get any better under No Child Left Behind. This legislation has now reached its truly destructive stage, when tutors will be required and schools will be reconstituted and teams of free-market "consultants" will be called in to "rescue" schools. Note once again the difference between this and the Finnish approach: the Finns have labored hard and consistently over 30 years to make sure that several layers of competent professionals are present within all schools, rather than thinking that somehow outsiders can be brought in at the last minute to turn around failing schools. What we're likely to get in the U.S. is yet further fragmentation in instruction, further interventions uncoordinated with the basic classroom instruction, more poorly trained tutors, more and more examples of "too many instructional directions for any student, with a loss of continuity in instruction." Whatever NCLB has accomplished in setting high standards for all students, its approach to correcting the problem of low performance will only make it worse.

The Finnish experience demonstrates that approaches to equitable schooling should rely on multiple and reinforcing forms of intervention, with support available to teachers from other staff members (such as special-needs teachers and school assistants); that they should be systematic and coherent; that they should rely on a high level of competence among all teachers and other instructional personnel in the system; that developing the capacities of schools is much more important than testing the hell out of students; and that some nonschool policies associated with the welfare state are also necessary. These are all guidelines that states, or districts, or (in more limited ways) individual schools can follow. But until the American system starts moving, in its own way, to develop some of these practices, the high-flown talk about leaving no child behind will remain empty rhetoric.

1. Roland G. Fryer, Jr., and Steven D. Levitt, "The Black-White Test Score Gap Through Third Grade," NBER Working Paper 11049, National Bureau of Economic Research, Cambridge, Mass., 2005. See also Meredith Phillips, James Crouse, and John Ralph, "Does the Black-White Test Score Gap Widen After Children Enter School?," in Christopher Jencks and Meredith Phillips, eds., *The Black-White Test Score Gap* (Washington, D.C.: Brookings Institution, 1998), pp. 229-72. Phillips and his colleagues estimate that 56% of the 12th-grade math gap is attrib-

utable to initial differences, so the gap roughly doubles over time; the corresponding figure for reading scores is 43%. However, by another measure — years behind in vocabulary — the gap is multiplied four-fold over 12 years.

2. Charles H. Hargis, "Setting Standards: An Exercise in Futility?," *Phi Delta Kappan*, January 2006, pp. 393-95.

3. W. Norton Grubb, "Dynamic Inequality I: Using NELS:88 to Analyze Schooling Outcomes over Time," unpublished paper, University of California, Berkeley, 2006.

4. On variation in the reading scale, see Irwin Kirsch et al., *Reading for Change: Performance and Engagement Across Countries* (Paris: OECD, 2002), Tables 4.1, 4.15. On the mathematical literacy scale, see *Knowledge and Skills for Life: First Results from PISA 2000* (Paris: OECD, 2001), Table 3.1. For IALS data, see *Literacy in the Information Age: Final Report of the International Adult Literacy Survey* (Paris and Ottawa: OECD and Statistics Canada, Ministry of Industry, 2000), Table 2.2. Information on income distributions comes from the Luxembourg Income Study, [www.lisproject.org/keyfigures/ineqtable.htm](http://www.lisproject.org/keyfigures/ineqtable.htm).

5. This visit by three outside experts and one OECD staff member took place in April 2005 as part of a five-country thematic review of inequality in education. As is conventional in these country visits, the team spent two weeks observing schools, interviewing policy makers, and talking with researchers. I was the lead author or rapporteur of the final report: *Equity in Education Thematic Review: Finland Country Note* (Paris: OECD, 2005).

6. See W. Norton Grubb, Luis A. Huerta, and Laura Goe, "Straw into Gold, Revenues into Results: Spinning Out the Implications of the 'Improved' School Finance," *Journal of Education Finance*, Spring 2006, pp. 334-59.

7. *Literacy in the Information Age*, Table 2.2.

8. See W. Norton Grubb et al., "Dynamic Inequality III: Exploring What Schools Do for Low-Performing Students," unpublished paper, School of Education, University of California, Berkeley, November 2006.

9. Curriculum Development and Supplemental Materials Division, *Mathematics Framework for California Public Schools, Kindergarten Through Grade Twelve* (Sacramento: California Department of Education, 2006), p. 339.

10. See Thomas J. Kane, *The Impact of After-School Programs: Interpreting the Results of Four Recent Evaluations* (New York: William T. Grant Foundation, 2004); Susan Bodilly and Megan Beckett, *Making Out-of-School Time Matter: Evidence for an Action Agenda* (Santa Monica, Calif.: RAND, 2005); and Patricia A. Lauer et al., "Out-of-School-Time Programs: A Meta-Analysis of Effects for At-Risk Students," *Review of Educational Research*, Summer 2006, pp. 275-313.

11. The benefits correspond to a move from the 50th to the 65th percentile and an effect size of .40; see Batya Elbaum et al., "How Effective Are One-to-One Tutoring Programs in Reading for Elementary Students at Risk for Reading Failure? A Meta-Analysis of the Intervention Research," *Journal of Educational Psychology*, December 2000, pp. 605-19.

12. See James P. Comer, ed., *Rallying the Whole Village: The Comer Process for Reforming Education* (New York: Teachers College Press, 1996). See also Joy G. Dryfoos, *Full Service Schools: A Revolution in Health and Social Services for Children, Youth, and Families* (San Francisco: Jossey-Bass, 1994).

13. For an analysis of different welfare states, see especially Gösta Esping-Anderson, *The Three Worlds of Welfare Capitalism* (Princeton: Princeton University Press, 1990).

14. I am now in the process of developing an additional title for the reauthorization of TANF (Temporary Assistance for Needy Families) that would add funding for social services to schools. Conceptually, this is easy; politically, it depends on whether the animosity toward the poor and their children can be overcome by the existing claims that no child should be left behind.

15. The obligatory citation is Richard Hofstadter, *Anti-Intellectualism in American Life* (New York: Knopf, 1963). **✶**

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