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Lessons from Special Education in Finland**

**Charles Sabel, AnnaLee Saxenian, Reijo Miettinen, Peer Hull Kristensen,
and Jarkko Hautamäki**

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The welfare state is in transition. It is widely acknowledged that schooling in the broadest sense—the acquisition of the capacity to learn to learn in primary and secondary school; the application and development of that capacity throughout all the phases of an ever longer work life—is increasingly a necessary condition for employability and through employability continuing, active and honorable membership in society. Conversely, redistributive transfers from market “winners” to market “losers”—the insurance mechanism at the heart of the traditional welfare state—is diminishing in relative importance as a guarantor of decent social inclusion, though it still far from irrelevant as a component of social security. Underlying the relatively recent but widespread realization of the requirement for life-long learning for diverse kinds of students,¹ and the increasing emphasis in policy discussion on skill development in “active” labor market policies for different groups at risk of exclusion, is the recognition that to safeguard social solidarity, a welfare state must today provide effective enabling or capacitating services, tailored to particular needs, to equip individuals and families to mitigate risks against which they cannot be reliably insured. The shift away from insurance and towards skill-based risk mitigation, moreover, can increase the productivity of the economy as well as its capacity for innovation: the increased availability of skills makes firms more flexible, allowing them to undertake novel projects that would have previously overtaxed their ability to respond to unfamiliar situations. At the limit, in tight labor markets, competition for skilled employees may induce firms to look for innovative projects to attract workers who demand challenging tasks as a condition of continued learning. To the extent that increases in individual skill levels reshape the labor market and the reshaped labor market influence the organization and strategy of firms the shift towards a welfare state based on capacitating services of each can contribute to the prosperity of all.

Against this backdrop the impressive success of the Finnish school system naturally commands attention. Finnish 15-year olds regularly outperform their peers in other advanced countries in the quite demanding PISA test of reading, mathematics, problem solving and scientific knowledge. The distribution of these results strongly suggests that schooling in Finland is contributing greatly to social solidarity: The variance or divergence from the mean result, of individual students’ results is smaller in Finland than in any other country, as is the variance of the performance between individual schools. While each quintile in the Finnish distribution of science scores (the lowest scoring 20 percent of the test takers, the next highest 20 percent, and so on) outscores the corresponding quintile in other countries, it is the bottom quintile of Finnish students who outperform the most, and thereby raises the mean to the top of the international league tables. As might be expected from this outcome, the influence of the parents’ social and economic status (SES) of their test performance of their children, while still detectable in Finland, is more attenuated there than anywhere else. The Finnish school system is thus an institution for disrupting the transmission of inequality in life chances from one generation to the next. By the same token (and given that a score in the highest three of the six categories on the PISA science scale, where most Finnish students place, arguably demonstrates capacity for life-long learning) the school system provides an essential capacitating service that reduces the risk of inequality and exclusion within each generational cohort. Understanding how the Finnish school system produces these results is thus likely to shed significant light not only on the conditions for success of

¹ One measure of the novelty of the recognition that education is fundamental to social solidarity is that standard treatments of the welfare state in the 1970s and 80s excluded it from consideration, sometimes with the historical justification that creation of public schools antedated the 1883 German sick-pay statute usually taken as the first piece of modern social welfare legislation. The consensus was, as Wilensky (1975) put it, that “education is different” (p. 3). See also Iversen and Stephens, (2008) p. 3.

a fundamental building block of the new welfare state—primary and secondary schools—but also on the encompassing question of how to institutionalize effective capacitating services.

But it is precisely here, in explaining how the Finnish school system actually works, that discussion and analysis falter. Current explanations of the PISA success focus largely, almost exclusively, on circumstances outside the school, indeed often outside the educational system broadly conceived—on inputs to schooling rather than the organization of and activities in schools and classrooms.² Perhaps the most prominent explanation of this general type points to the contribution of a homogeneous society that values education (and indeed long took the imparting of literacy to be a family, not a social responsibility), and reading in particular (as evidenced in strikingly high rates of library utilization by students and citizens). Another explanation focuses on the role of highly competent teachers, selected by rigorous competition, thoroughly trained in substantive disciplines and pedagogy in demanding university courses, and rewarded for their accomplishments by high social prestige (including attractiveness as marriage partners) and professional autonomy in the classroom (but not especially high pay, as judged by OECD averages). Related ones emphasize the importance of a national curriculum directing attention to essentials but leaving room for adjustment to local needs, and the absence of testing, especially high stakes testing (where test results have important consequences for individual pupils, teachers or schools), with a corresponding reliance on the judgment of teachers to guide pedagogy. Still other accounts look to the fundamental importance of a national commitment to equity and equality.

There is no doubt something to each of these explanations—it would be very difficult, at any rate, to prove, for instance, that the Finnish Lutheran esteem for reading has no influence on schooling—and we will see that teacher training does play an important part in school success. It is moreover entirely understandable, in the light of the manifold and manifest failures of large-scale organizations in recent decades and the resulting skepticism about their capacity to carry out complex and rapidly shifting tasks, to assume that the schools' success must reflect features of the society in which they are embedded rather than of the organization of the schools themselves. But there are six circumstances that strongly suggest that none of these explanations alone will bear the weight that is placed upon it in current discussion, and that all together are partial or limited in the sense that they simply do not address school practices that are evidently crucial to explaining educational success.

First, Finland's extraordinary educational performance is a relatively recent development of the last decades, not an abiding or traditional feature of the society. Until the 1970s Finland, like most other Northern European societies, had a two-track system of education, with one track leading to the university and the professions and the other to vocational training and skilled blue-collar work. In the 1970s Finland, in response to long-standing egalitarian complaints against the rigid and early tracking of students, and again like many other societies in its neighborhood, created comprehensive schools in which students of differing aptitude were taught together in the same building and often in the same classes. Before these reforms, which included transferring teaching education from specialized seminaries to the universities, the scores of Finnish students (apart from reading) were mediocre in international comparisons, and rates of grade repetition were high—a characteristic indication of a low-quality school system, as it is typically much more effective, for students and schools, to detect and correct individual learning problems as they occur, rather to compel a

² An important but limited exception is the brief account of the school system currently posted by the Finnish Ministry of Education, which points in the direction of the analysis pursued below. See <http://www.minedu.fi/OPM/Koulutus/artikkelit/pisa-tutkimus/index.html?lang=en>, visited May 12, 2010.

student to repeat a whole grade on the off chance that she will overcome obstacles the second time that went unnoticed the first. After the reforms grade repetition rates went down, even though teaching to classes of mixed aptitude might be considered more difficult than teaching to homogenous groups, and performance in international comparisons went up. Thus no feature of Finnish culture—neither love of learning nor respect for teachers—can explain current performance.

Second, even within Finland's immediate Nordic neighborhood there are countries with relatively homogeneous populations, egalitarian traditions, commitments to education for all (as measured by expenditures per student) at least equal to Finland's, and similar combinations of national curricula and deep respect for school autonomy that do not do well on the PISA tests. Denmark is a striking example. It spends more per pupil than any other country in the OECD but the US, and shifted to comprehensive schools at about the same time and for the same reasons as Finland. But whereas the PISA results of 2000 and the following years were a pleasant surprise for the Finns, they were an unpleasant one for the Danes: Despite a demonstrated willingness to expend resources and respect for schools and teachers as keepers of the living word of the nation's culture, Denmark usually places near Germany, slightly above the OECD average. Plainly, egalitarian commitments, even in combination with marked attention to schooling, are not enough to ensure high performance.

The Danish result is especially interesting because the country is generally recognized as a successful pioneer of comprehensive active labor market policies that create life-long learning opportunities for those who have already entered the labor market, and especially for those who, having done poorly at school, entered the labor market with few skills. Finland does much less well in this domain; and recent efforts to address the problem are judged unpromising. One implication of the contrast is that national traditions of solidarity do not themselves yield successful institutions of solidarity, even in countries in which there is no general obstacle to creating such institutions. Indeed the contrast raises the further and broader question of whether the decisive conditions for success of the institutions of life-long learning, and the capacititating services of the new welfare state generally, are to be sought at the level of national endowments, rather than in specific domains of activity and policy.

The third circumstance concerns testing. While the Finnish system does not use high stakes tests until the transition from general secondary to tertiary (university) schooling, it is simply wrong to conclude from this, as some observers apparently do, that teachers rely almost exclusively on their own evaluations of student performance, to the near exclusion of standardized instruments for assessment. In fact, Finnish education relies on the information from diagnostic testing from the start, well before the beginning of formal instruction. At two-and-half Finnish children are tested for emergent cognitive problems, and by the time they reach pre-school, at age six, their teachers will be able to anticipate learning difficulties on the basis of a rich battery of further tests. Once formal schooling begins students are frequently tested—and recent legislation will make this continuous monitoring even more fine meshed.³ These tests, in addition to being low-stakes (with neither punishments nor rewards attached to outcomes) are also typically diagnostic and formative: their aim is not just, and usually not even primarily, to register failures in learning, but to indicate where, at what step in problem solving, a breakdown occurred, and thus to help suggest what might be done overcome it. These diagnostic tests are created and continuously refined by a battery of institutes

³ Formally the new school law enters into force on Jan. 1, 2011, but three sections, having to do with the rights of parents to participate in student welfare work and with confidentiality and data access have been applicable since August 1, 2010.

specializing in cognitive development and related disciplines, as well as specialized textbook publishers, in close consultation with the classroom teachers who actually use the instruments they make. Thus Finnish teachers do indeed play a crucial role in student assessment, but they do so with the help of tests, and in collaboration with test makers, that has gone largely unremarked in the discussion of the school system.

The fourth circumstance likewise concerns an underexposed aspect of school activity: special education. Some 30 percent of Finnish comprehensive school students receive special education services, by all accounts a much higher fraction of the school population than in other OECD countries, although precisely comparable data is hard to come by.⁴ More than two thirds of these students (22 of the 30 percent) receive short-term special-needs instruction, in standard classroom settings, with the aim of addressing particular learning problems and continuing with the normal course of study. The remainder have deeper and more pervasive cognitive or behavioral problems. They are diagnosed by a school psychologist as requiring more intensive and continuous attention and are often grouped for instruction in specialized classrooms. Special education teachers—certified teachers who must compete for the opportunity to complete rigorous, further courses on responding to a wide range of learning disorders—provide both kinds of services. The students who access short-term special instruction—each will typically receive several “courses” of such educational “therapy” in proceeding through comprehensive school—are of course the ones most likely to score in the lowest quintile of the distribution of PISA outcomes. As we have just seen, the outperformance of the lowest Finnish quintile in international comparison which contributes decisively to the overall result. So it follows that a significant part of the Finnish success in primary and secondary schooling is owed to special education teachers, who in turn rely on and are also active in collaborating in the creation of (diagnostic) test instruments.

Fifth, the provision of special education services of all kinds is carefully and regularly monitored in each school by a student welfare group (SWG). The SWG includes the school principal, the school psychologist (sometimes working for several schools and with several SWGs), the school nurse, special education teacher(s) and sometimes, as requested, a representative of the municipal social welfare administration. In the normal case, the SWG reviews the performance of each class (and sometimes each student) in the school at least once a year. This allows identification and tracking of students in need of remedial, part-time special education. When a student is identified as requiring full-time special education, the SWG checks that the individualized study plans—the Finnish acronym is HOJKS⁵—guiding the development of each pupil needs support are being followed to good effect, and if not, what corrections are necessary. It is the SWG, in close collaboration with classroom and special education teachers, which bundles services according to individual needs, including, where necessary, calls for services outside the school system itself: municipal social-welfare services, for example, or mental health services provided by a local teaching or psychiatric hospital.⁶

Sixth and finally, a National Board of Education (NBE), officially part of the Ministry of Education but with substantial autonomy, provides the school system as a whole with some capacity for self-reflection and correction. The NBE, in consultation with the relevant stakeholders, prepares the framework or core curriculum for public schools. It participates in an annual evaluation of the performance of a sample of 5 to

⁴ See European Agency for the Development in Special Needs education, <http://www.european-agency.org/country-information>.

⁵ Henkilökohtainen (personal) Opetuksen (teaching) Järjestämistä (organisation) Koskeva (regarding, concerning) Suunnitelma (plan)

⁶ To avoid misunderstanding at the outset: integration of services functions better within the school than between the school and the municipal social welfare administration. One aim of the reforms proposals to be discussed below is to improve this link. See infra.

10 percent of the student population to monitor the extent of regional or social disparities and, if need be, prompt improvement in individual schools included in the sample. (Schools are never ranked.) Together with the Ministry of Education and other public agencies the NBE funds the co-development by classroom teachers and outside experts of diagnostic tools, and training for special education teachers in their use. It also funds in-service training of teachers, principals, and SWGs. On the basis of these continuing and rich interactions with all parts of the school system the NBE identifies shortcomings in the organization of the school system and suggests ways of addressing them (which are then formally presented by the Ministry of Education to parliament as draft revisions of education law). Put another way, the NBE is broadly responsible for guiding or steering the implementation of current reforms (within the limits afforded by school and municipal autonomy), and in light of the experience thus gained proposing the next round of improvements.

Overall then, there is strong circumstantial evidence that the success of the Finnish school system depends significantly on classroom, school, and school-system practices—collaboration between regular and special teachers, as well as between teachers and test makers; the review of service provision by the SWG; some monitoring of system-wide performance by the NBE—whatever the role (if any) of very broad societal inputs such as egalitarian values or love of learning or books. More precisely, the Finnish school success depends on classroom practices that systemically tailor pedagogy to the needs of individual students—the same kind of capacitating services on which the new welfare increasingly relies.

Understanding these practices, and the institutions that make them possible, in relation to the general task of organizing individualized service provision in the new welfare state is accordingly the goal of this essay. At the same time, because the Finnish school system, like any successful provider of individualized services, must continuously learn from its difficulties, we have tried to balance discussion of how the special education regime achieves its results, and of evidence of its effect, with discussion of systematic problems (variations in the treatment of students apparently unrelated to differences in their needs; important gaps in the monitoring of system-wide performance) that are the focus of current reform discussion. We make no pretense of offering an exhaustive account of the Finnish school system. In particular we omit discussion of the protracted political conflicts that accompanied and shaped the present system. or the new type of solidary institution it exemplifies. Our focus is not on how things came to be, but on the lessons to be learned from what has been achieved, and on what is to be learned to achieve more. Accordingly we intend our conclusions with respect to Finnish schools to be detailed and particular enough to suggest possible reforms of the current system, and applications of the techniques it has mastered to other domains in Finland, as well as to school systems and related institutions in other countries. To facilitate this kind of generalization our framework of analysis highlights the ways that the organizational features required for the customization of services—especially the ability of the organization as a whole to learn from diverse local experiences—can arise in settings as different as the broken public bureaucracies of the United States and the incremental reform of professional groups in (some) Nordic countries.

The essay is four parts. Part 2 sets out the theoretical frame of the argument. It explains briefly why social solidarity increasingly depends on the provision of capacitating or enabling circumstances; why those services must increasingly be adapted to individual needs to be effective; and what is organizationally problematic (from the point of view of current theories of organization) about the success of countries such as Finland, Denmark and the US in delivering these services. It sketches two paths—a Nordic way, building on traditional professions, and a roundabout, US way, re-building broken bureaucracies originally intended

as substitutes for professionalism—to a new type of institution—neither traditional profession nor conventional bureaucracy, but with elements of each—that addresses the apparent problem. These paths have complementary strengths and weaknesses so that each can benefit by learning from the experience and innovations of the other as it proceeds its own way towards their convergence.

Part 3 reviews the transformation of the Finnish school system from the 1970s on, focusing on the origins and especially the functioning of key elements of special education: early childhood testing, co-development of test instruments by teachers and other actors, and monitoring of the provision of services in each school by the SWG, and the decentralization of school governance. We present here some quasi-experimental evidence that, as the PISA results suggest, special education raises the achievement levels of students with recurrent learning difficulties—and thus the overall performance of the Finnish school system. To buttress the conclusion that the “treatment” that explains the favorable school outcome is indeed individualized pedagogy—the classroom practices build around the collaboration of special education and classroom teachers—we look at the failures of school reform in Denmark: a country strikingly like Finland in its approach to education, except that (relying almost exclusively on the bottom-up initiatives of teachers themselves) it has proven incapable of transforming the teaching profession and therefore incapable of providing crucial services to weaker students.

By way of conclusion we return, in Part 4, to weaknesses in the natural or Nordic development path—and specifically to problems in Finnish special education revealed by current attempts at reform. We consider the Danes’ travails in reforming their public schools and ask whether current plans to extend special education and further integrate it with regular classroom teaching may encounter “Danish” problems by excessive reliance on professional collegiality and informal exchanges among professional groups as mechanisms for pooling information about and evaluating current performance. If so, techniques developed in the US and elsewhere for the diagnostic monitoring of the process by which services are customized might prove useful.

2. Individualized Service Provision and the Organizational Puzzle of its Success

A salient cause of the shift to service-based solidarity is the breakdown of key elements of transfer-based, insurance system that defined the welfare state from the post-War War Two years through the 1980s. The source of the difficulty—crippling for any insurance system—was the rise of non-actuarial risk: risks of harm so unforeseeable that it is impossible to say who should pay how much in premiums to create an insurance pool sufficient to indemnify those who are actually incur losses. Changes in the labor market illustrate the problem. If risks of unemployment in a particular line of work are mostly seasonable—as when harsh winter weather regularly and predictably interrupts some kinds of construction—it is straightforward to set aside funds from fair-weather earnings as a reserve on which to live during regular spells of winter unemployment. But when, as increasingly is the case, unemployment is structural, caused by radical shifts in product design or production technology that permanently devalue whole skill categories (a shift to computer-controlled manufacturing that displaces conventional machinists), unemployment insurance, by itself, is not a bridge to another job in the same line of work, or indeed to any job at all.

Rather, when risk pooling fails the effective strategy is to help individuals and families to self-insure against risks by enabling them to acquire the capacities they need to surmount the disruptions they face. If each of us can acquire, with the support of public training or capacitating services, general skills that make us

employable in a wide and changing range of jobs, this employability protects us against labor market risks even when conventional unemployment insurance cannot.

Explaining the Shift to Service-based Social Security

There are three general and mutually complementary sets of reasons why, to be effective, these capacitating services must typically be customized to individual needs, and individualized services addressing different domains must be bundled together. The first set of reasons for customization and bundling has to do with what can be stylized as the new understanding of learning—an understanding of what is entailed in overcoming obstacles to attaining the capacity to do something—and, conversely, of the self-reinforcing consequences of failing to acquire basic capacities. This understanding has emerged in recent decades in education, vocational training, and human services such as child welfare and the treatment of substance abuse; variants of it inform Finnish education in general and Finnish special education in particular as reflected in increasing references to notions like learning to learn, meta-cognition and life-long learning.

In the new understanding learning is idiosyncratic. In a population of learners, all acquiring some new skill or capacity at their normal rate, each person is engaged in a different and unique activity: mastering the new skill by combining basic abilities in an individual way. For example, learning to read always requires combining the ability to decode phoneme strings—the “phonics” approach to literacy—with the ability to recognize words in semantic context—the “whole language” approach. But the combinations are idiosyncratic. At various stages in the progress to literacy, some pupils find it easier to “sound out” words than to identify them from their setting, while for others the setting is rich in clues about the word, and the rules of pronunciation are a distraction. Effective teaching under these conditions means choosing the combination of pedagogic approaches best suited to each child in her phase of development: customizing the pedagogy to the child.⁷

A correlate to the idea of the idiosyncrasy of learning is the idea that learning problems arise from disruptions of the normal flexibility of individual personality—and that such disruptions typically result from co-morbidity: cognitive difficulties exacerbating behavioral difficulties, exacerbating family or psychological problems. If each learning task can be mastered in many different ways, a normal learner will by trial and error eventually find a way that works, even if, with expert guidance, he might have come to another method that would have produced better or quicker results. But if this search process is obstructed by other and more urgent individual concerns unrelated to the cognitive task itself, the learner is thwarted by the first difficulty encountered. A familiar and common example is attention deficit disorders that make it difficult to focus on the cognitive task at all. Hence, given co morbidity, individualized capacitating services in different domains have to be provided in customized bundles: the learning problem can’t be addressed (or in many cases even properly diagnosed) if the attention problems are not addressed as well.

Because they are in this way deeply rooted in many aspects of a learner’s life, learning problems or disorders are seen in the new understanding as chronic and relapsing. Like a disposition to substance abuse, or an eating or mental disorder, learning problems are tractable in that the frequency, duration and severity of “spells” of disruptive behavior can be reduced. But there are seldom definitive and enduring cures for the underlying condition. Customizing a learning plan, especially for a student with difficulties, is therefore a continuing, not a one-time task: strategies have to be revised in the light of breakthroughs and reverses, and

⁷ For a good discussion of the concepts underpinning both approaches see Dahl, K. L., P. L. Scharer, et al. (1999). For their combination in practice see Fountas, I. C. and G. S. Pinnell (1995).

it is crucial to have a reliable record of what has and has not worked in the past in determining what to try next. In the Anglo-phone literature this approach is known as response-to-intervention. (Haager et al., 2007)

Realization of the need for continuing support goes hand in hand with the recognition that the costs of early failure—an incapacity to learn to read at the normal rate, for example—are rapidly compounded, and narrow life chances in ways that frequently crush individuals and cumulatively impose large burdens on society. Those with poor reading or math skills are at high risk of leaving school early, with grim prospects on the labor market if they do. Conversely, apparently small gains in reading or mathematical proficiency in the early years of formal schooling increase the chances of later school success (by reducing the chances for snowballing failures), and so the probability of successful graduation, with corresponding labor market rewards. Provision of customized bundles of capacitating services must not only be continuously adjusted; in the new understanding it must as well begin as early as possible.

Customization of services is, second, a response to the increasing differentiation – or heterogeneity – of the population. Even as it is recognized that the “same” kinds of people with the “same” kinds of problems require differentiated services to address the idiosyncrasies in their problem solving, the number of different kinds of people requiring services is increasing dramatically. Changes in migration patterns, family structure and labor-market behavior—especially the massive entry of women into the work force—have put an end to the era of the standard household headed by a native-born male, working full time—often for decades at the same firm—to support a stay-at-home housewife and children. The multiplication of new living situations and domestic arrangements, with new burdens on family members often regardless of marital status, entails new demands for the diversification and coordination of social services.

These changes are reinforced by a third set of changes in the understanding of disability, and what society owes persons with disabilities. Through roughly the 1970s disability was understood medically, as a significant, well-defined impairment of normal or healthy human functioning that persistently obstructed participation in the work force and other spheres of social life. Governments in the developed countries and organizations representing the disabled took the corresponding public obligation to be the provision, through transfer payments, of a decent standard of living. A decent society, in other words, was obligated to ensure that disability did not lead to degradation.

But since the 1970s the disabled themselves and their organizations have rejected this medical model in favor of a social one that takes disability as a normal, not an extraordinary or pathological condition. Most of us, after all, will at some point in our lives be impaired in a way that does or could threaten our capacity to participate in many life spheres. Exclusion stunts development; what is stunted atrophies and degrades. To the extent that disability in the sense of a risk of degradation through stunted development is indeed a pervasive social condition, not a cluster of medical abnormalities, the appropriate response is not to provide a variant of accident or health insurance. The response to disability as a social condition requires rather a comprehensive social response, commonly now given legislative expression as a requirement of “reasonable accommodation” to risks of exclusion: social adjustments to include those with disabilities—in this view, nearly all of us, at one time or another—as fully as possible in education, the workplace and public life. This is done both by providing services that increase individual capacity to participate and by re-configuring these life domains to make them more amenable to such participation. Thus the social model of disability shares with the new understanding of learning the assumption that, given widespread but corrigible limits in our abilities to respond to developmental challenges, we will need at least occasionally and often periodically the support of customized capacitating services to avoid a cascade of exclusionary failure (Perju, forthcoming).

All these changes are, finally, contributing to a slow redefinition in the very idea of social justice: a shift away from understanding fairness or equality as treating all in the same way, and towards an understanding of equality as an obligation to give due regard to the needs of each, and so enable all to flourish. The old understanding of equality as equal treatment made it awkward to speak of individualizing services precisely because equal treatment required that services be uniform to be legitimate. It is partly for that reason that the shift towards individualization has often gone almost unremarked in countries such as Finland and the other Nordics—in transition from one concept of equality to the other—where it most pronounced.

The Nordic Welfare States as Frontrunners in the Shift to the Service-Based Welfare State and the Puzzles that Success Poses

Although there are significant signs of the shift to service-based solidarity in many advanced countries, the Nordic countries are regarded, certainly within the EU, and increasingly in international discussion, as the exemplars of the new type welfare state. What is distinctive about them is precisely that they spend a higher share of public revenues on services ranging from day-care to active labor market policy than do countries in other welfare “families” (such as the Continental or Bismarkian systems) that collect an equivalently high share of GDP in taxes, but redistribute this income as insurance payments and other benefits typically linked to occupational history. Table 1 indicates the magnitudes of the differences:

Table 1: Public Sector Social Outlays (share of GDP)

Countries	Cash Transfers	Direct Provision of Services	Active Labor Market Policies	Total public sector social outlays
English Speaking	9.8	7.2	0.4	17.4
Europe	16.8	8.0	1.0	25.8
Nordic	14.2	11.4	1.2	26.8
United States	7.9	6.7	0.2	14.8

Source: OECD(2004), *Social Expenditure database 1980-2001* (www.oecd.org/els/social/expenditure). Values cited are for 2001.

(Sachs, 2006)

The relatively high expenditures on services in the Nordic welfare states correlate during the last decade and half with, on the one hand, high rankings in the league tables of international competitiveness (including capacity for innovation, flexibility on the labor market and so on), and increased social protection. André Sapir (2005, p 7 ff.), for example, finds that the Nordic model of service provision combines “high efficiency” in the economy with “high equity” in the distribution of life chances: It attains the first by facilitating access to labor markets and so leading to comparatively high employment rates; it achieves the second by reducing the risk to individuals of falling into poverty. He finds that the reduction of poverty risk is only in small part explained by redistribution through taxes and transfers. But he detects a stronger link between poverty reduction and educational attainment, which serves as a proxy for provision of capacitating services in a general sense.

Ideally we would like to connect these and other studies of broad outcomes to the institutional analysis of the Finnish school system, the focus here, or the closely related Danish active labor market policy, and show

how exactly the organizational mechanisms produce the benefits arguably associated with them. But it is of course extremely difficult to infer institutional mechanisms from highly aggregated data on their effects, just as it is, conversely, extremely difficult to draw out the overall social contributions of particular institutions from even a careful analysis of their organization. Fortunately, for now we do not need to supply an account that compellingly links micro, institutional mechanisms to macro, social welfare outcomes. Rather, for present purposes it is enough to note that the combination of plausible accounts of individualized service delivery and data on general effects of service provisions suggest at least *some* significant development in the direction of the logic of the customization of capacitating services, and that *any* development in this direction poses theoretical puzzles that invite us to re-examine familiar, perhaps half-forgotten but still influential ideas about the feasible extent and organization of the public sector.

To see why this is so recall that the consensus articulated in Anglo-American scholarship in the 1970s and 80s and never broadly and emphatically repudiated (though less frequently and aggressively asserted in many quarters today than then) was that welfare states were self-defeating and simply unworkable. The high share of GDP (around 45 percent) collected in taxes and expended by the state at various levels, and the high marginal rates of taxation that went with it dulled incentives to work and invest of the most capable. Social-welfare payments dulled the work incentives and led to a culture of dependency among the most vulnerable. Public borrowing crowded private borrowing out of financial markets, further discouraging investment, it was claimed. (Buiter, 1977)

Apart from these concerns, the welfare state was taken to be simply impractical because it depended for the distribution of benefits, whether in the provisions services or in determination of eligibility for transfers, on public bureaucracies. These were doomed to failure both because they were bureaucracies and because they were public. (Niskanen, 1968, 1978)

The general problem with bureaucracy, indeed of any large organization, was the impossibility of controlling low-level discretion. The situation of potential beneficiaries was typically complex. It was up to the teacher, or perhaps the school to determine whether, all things considered, a particular child qualified for a specialized class; it was up to the social-service caseworker to determine whether a particular family qualified for certain grant programs. These decisions by front-line workers, or “street-level” bureaucrats as they were often called, frequently depended on subtle, discretionary judgments that could not be observed, and could only be very imperfectly reconstructed for purposes of (infrequent) review by superiors (Lipsky, 1980, 2010). The life chances of individuals were thus often significantly affected by the discretionary decisions of unaccountable front-line workers, who, it was feared, could privilege those they found sympathetic or punish those who offended them in any way. Indeed, applying and interpreting general rules to particular cases under these conditions the street-level bureaucrats in effect inverted the hierarchical pyramid: they, not the high ranking and formally accountable officials at the apex of the organization in effect made policy.

Efforts to limit their discretion by imposing more detailed rules—a strategy pursued especially vigorously in the United States—proved self-defeating. Adding more, and more detailed regulations made the organization as a whole more rigid, and so less able to respond to even large changes in its environment, while creating potential conflicts among rules—which allowed street-level bureaucrats to again exercise discretion in choosing which to enforce.

These inherent problems of bureaucracy were compounded by public control (Chubb and Moe, 1988). Successive political fights over which rules to embed in the bureaucracy led, with changes in upper-level administration, to a cumulative hodgepodge of conflicting instructions. Under these conditions public administration could hardly be an instrument of public policy; and much effort was consequently devoted to exploring the possibilities of achieving the purposes of the welfare state by market means—vouchers for the purchase of school services, for example—that would eliminate the need for detailed planning and control of over provision by large, public providers.

Given this consensus, the most plausible explanation for the continuation of the welfare state in any particular country was political: welfare states persisted where the immediate political costs to political incumbents and their parties of dismantling them were higher than the benefits that would accrue to them for reducing the burden of the state on the economy. (Pierson, 1995, 1996) By making welfare benefits universal—conditional on citizenship, rather than occupational history or (with regard to services like day care) need—the Nordic countries built on and re-enforced broad coalitions; and the breadth of these political alliances, and the common interests they generated, accounted in the consensus view for the particular robustness of the *folkhem* variant of the welfare state. The continuing requirement for rapid restructuring of the economy from the 1970s on, combined with the shift towards service-based solidarity, and the accompanying requirement of customizing and bundling services should have increased the inefficiencies associated with the welfare state, pressing on inherently flawed organizations tasks more demanding than the ones at which they already failing, and raising the costs of new failures. Through the mid-1990s this seemed to be precisely what was happening. Hence the recrudescence of the Nordic welfare states and economies, as reflected in the closely followed international rankings of competitiveness, suggests that actors in the real world have found ways do things not contemplated in our theories.

In retrospect the answer to the concerns about tax burden and the concomitant dulling of incentive turned out to be fairly straightforward, at least as seen from the perspective of the Nordic welfare states. Citizens put a high value on education, healthcare, and daycare services that they and their families can really use; they are willing to pay high taxes to support them. The availability of these services makes it easier to enter the labor market (and of course to change jobs, since benefits are not tied to particular employers); they certainly do not eliminate the incentive to work. Active labor market policies combine income supports for the unemployed with training possibilities (and requirements for making use of them) that likewise encourage (re)-entry in the labor market. The availability of effective capacitating services, and the heightened expectation of employability to which it leads makes it reasonable, furthermore, for wage earners to forgo traditional, seniority-related job guarantees. This increases the security of individual employees while also increasing the flexibility of the labor market and the economy as a whole—the “flexicurity” associated with Danish labor market model. Taken together this characteristically Nordic bundle of welfare state policies clearly creates (or is consistent with) incentives to work, as reflected in the high labor force participation rates of both genders, across all stages of life, reported by Sapir and many other studies. This same bundle of policies also incentivizes family formation, as reflected in the high fertility rates of the Nordic countries (which are among the highest in the OECD, having declined much less than in other wealthy countries since 1970). (OECD, 2010).

There has been, in contrast, much less discussion of the way in which the problem of organizing flexible but accountable public services is being addressed. Evidence of reorientation is hard to come by here, in part because (as we will see in the case of Finnish special education) systemic change often emerges as the unplanned result of piecemeal modifications; in part because even when change is deliberate and systematic,

reform programs are formulated in the argots of the particular sectors from which they emerge and to which they are addressed, without regard to and beyond the ken of the general discussion of the possibilities of policy and organization; and in part because of hesitations to discuss changes involving the redefinition of equality.

But even peering through these veils a fundamental innovation in the organization of public administration is clearly visible. This innovation in a sense officializes the topsy-turvy world of street level bureaucracy, but in a way that makes it accountable and capable of learning from its own diverse experience. Instead of trying to limit front-line discretion as the consensus view indicated, public-sector actors in many settings openly authorize it, actually increasing the autonomy accorded front-line workers: the case worker for, example, is tasked not with determining which clients are eligible for which programs, but devising, in consultation with the client and a team of expert service providers, a plan that brings the relevant resources to bear on the client's problems. As a condition of this autonomy, however, the front-line worker (or, increasingly, the multi-professional, front-line team) must provide a detailed report on the client's progress under the plan, and evaluate progress by agreed metrics. The plan and monitoring reports are in turn reviewed by a group of the front-line workers' (or team's) peers in the light of the experience in comparable situations. (Noonan et. al., 2009)

It is peer review of this kind that creates a mechanism for accountability. The front-line worker is accountable when, in the judgment of her peers, she can justify her actions as in the best interest of the client, given the overarching purposes of the public organization providing the service, and given the range of results obtainable in similar cases. If doing this has required deviation from the rules, then the rules need to be re-examined in the light of the higher purposes they are intended to serve. This dynamic or forward looking accountability contrasts with conventional forms, in which agents are accountable to principles precisely to the extent that they comply with the rules established by the latter.

This peer review also creates a mechanism for institutional learning. It allows local error to be identified and corrected, dead ends in policy development to be detected and promising successes to be generalized or subjected to more intense scrutiny to verify initial results. Put another way, peer review as part of dynamic accountability affords the case worker and his team an opportunity to improve their decision making, while allowing the institution as a whole to reconsider current rules and routines in light of their successes and failures. Think of this as learning by monitoring. Because such organizations share with philosophical pragmatism the assumption that routines and even guiding assumptions will be in need of correction, and put that philosophy into practice by developing routines for regularly exploring the advisability of doing so, they are called pragmatist or experimentalist.

Special education in Finnish schools closely has many elements of this form of experimentalist institution. The special education teachers are the front-line workers. They, in consultation with other relevant experts, make and periodically update individual education plans for each student with whom they work. Peer review is conducted by the SWG in each school. It aims to ensure that the plan is at least as effective as the best of current experience suggests it can be, and to strategize about remedial measures if it is not.

The Finnish special education system does not, however, have well developed mechanisms for generalizing and exploring the organizational implications of the successes and failures of individual schools, although there are many informal means for doing so, particularly at the municipal level. One important consequence is that decision-making practices vary, sometimes widely, from municipality to municipality, typically for

reasons unrelated to attempts to adjust to differences in local needs. Pupils in similar circumstances may therefore get be offered quite different special-education services; in some cases, intervention may come too late to be effective. In view of these problems, recent legislation requires further formalization of frameworks for decision making and review. We take up the question of how this might be done without eliminating the flexibility of the SWGs in Part 4.

There are, very broadly speaking, at least two paths leading to the formation of experimentalist organizations providing individualized services. The first might be called the direct or natural path because it starts with and develops the professional tradition informing clinical social work, education and health care as this tradition emerged “naturally” in Europe and the US in the early 20th century. It takes professionals as the independent flexible problem solvers they are trained to be and enhances their capacity to address a widening range of (more and more individual problems) by decentralizing authority within the large-scale organizations that typically employ them to regional and local levels, increasing the training and support available to individual practitioners, encouraging them to work in interdisciplinary teams, and introducing elements of peer review and dynamic accountability. Cumulatively these changes conflict with and ultimately transform traditional professional identity, and especially the understanding of professional accountability, which is highly deferential to individual autonomy, only intervening in cases of gross, manifestly “unprofessional” misconduct. So the direct path is direct and natural only in the sense that it involves no abrupt and highly visible break with traditional and apparently “natural” forms of association, but not in sense of leaving these entities unperturbed, in some imaginary original state.

As the preceding discussion suggests, and as we will see in more detail in a moment, this is the path taken in the Finnish school system, particularly in special education. It is also the path taken in Danish labor market policy—especially continuing education at the heart of activation and flexicurity. (Cohen and Sabel, 2010) Given its association with these salient cases we will also refer to this path as the Nordic way. But keep in mind that in many cases Nordic societies started down this path to reform only to lose their way, not least because they were too dependent on or perhaps deferential to the existing corps of professionals. For example, in the case of Danish schools, which we will consider in some detail, efforts to regenerate teaching focused on encouragement of new and more intense forms of cooperation among teachers, rather than on peer review and other elements of dynamic accountability—with unsatisfactory results. Conversely, there are many examples of the gradual transformation of professions in an experimentalist direction outside of Scandinavia—in the health care sectors of the US and Great Britain, for example. So there are no uniquely Nordic prerequisites to this path to development.

The second or roundabout route is via the reconstruction of broken public bureaucracies and it is characteristic of the US. Large, highly formalized bureaucracies emerged there in public administration starting the 1960s, largely in response to the fear of front-line discretion mentioned above: The Left feared street-level bureaucrats, such as police officers on the beat, would be unsympathetic to the poor and persons of color. The Right feared that social welfare workers might be unduly generous to claimants. Both could agree on the need for rules to restrict discretion, with the results noted. After years of crisis public institutions as diverse as schools and child welfare agencies came, independently upon the solution of enlarging the autonomy of front-line workers, but obligate them to explain their use of discretion, with peer evaluation of their results. As the enlargement of autonomy is often perceived as a (re-) professionalization of front-line service occupations, this “top-down,” deliberate reform generates a “bottom-up,” cultural complement, just as the Nordic path introduces elements of “top-down,” deliberate review into traditional

“bottom-up” professional culture.⁸ There are, moreover, strong affinities between this path to experimentalist institutions and the Toyota production system developed in Japan—particularly the idea of using the detection and correction of local problems as an indication of systemic problems and how to address them. As the Toyota system has now diffused to countries around the world (Womack, 2010), there is nothing peculiarly American about the roundabout, US path, just as there is nothing uniquely Nordic in the Nordic way.

To judge by experience so far, neither path is superior. Their advantages and disadvantages mirror each other. Thus the advantage of the natural path is precisely that it is natural. Existing professions and institutions grow almost effortlessly it seems into new roles and responsibilities. Change is organic, incremental, and all but invisible. Deep assumptions can change, or at least relax their grip on practice, without contentious, potentially paralyzing debate about first principles. A system capable of collaborative learning and cooperative provision of specialized services emerges, but few of the actors have a sense that they are acting in a system—and still less of design principles that (have come to) shape their interactions.

But this same natural, almost invisible process of change can become an obstacle to continuing development when several existing professional practices need to be reconsidered and revised jointly to reach emergent problems. In that case the informality of learning and self-revision that made adjustment seems automatic, and the corresponding inattention to the design of the system as a whole can be a barrier to more deliberate and analytic reconsideration of strategy and organization. Indeed the very effort to organize such systematic discussion can seem, given the continuing emphasis on the primacy of individual self direction and responsibility, as an assault on professional dignity and autonomy. Such strains are apparent in the halting efforts of school reform in Denmark, and they are coming to light in current discussion for the need for more systematization in the interests of more reliable and effective customization of services in Finnish special education as well.

The strengths and weakness of the roundabout path are the reverse of these. Change is hard, nearly impossible it seems, to initiate. It takes a crisis, often decades of crisis, to force serious reconsideration of broken bureaucracies. But once change is seen as necessary, the only means by which it is possible involves identification and remediation of successive constraints—a continuing process of collective enquiry into the operation of the institution or system in relation to its goals. This process too is incremental; but it is, unlike the natural development of professional competence, not tacit or nearly so. On the contrary, it relies on the ability of teams at all levels in the organization to make explicit the limitations of their current activities and ways to redirect both their efforts and those of the institution. Introduction of methods of this type, diffusing rapidly in the New York City school and other US school systems could, we will see, could help address some of the problems emerging along the Nordic path to customized service provision in Finland.

3. The formation and functioning of the Finnish special education system

⁸ For historical reasons “professional” remains the omnibus term for a decision maker authorized to exercise independent judgment—rather than following a rule or executing a command—in addressing technically and morally complex problems.

The origins of the current system of Finnish schools and special education can be traced to the comprehensive school reform movement in the 1960s. Rapid urbanization and industrial change in postwar Finland had exposed the inadequacies of a school system developed for an agrarian economy. Early experiments with expanding and reforming education began at the municipal level. In 1968 the Finnish Parliament passed the School System Act that called for replacing the existing, two-track system—a narrow one leading to the university and professions, a much broader and diversified one to vocational training and trades—with a guarantee of free public (and eventually compulsory) education in comprehensive schools for nine-years, including six-years of primary school and three years of lower-secondary school.

Passage of the 1968 Act was the culmination of close to two decades of political struggle.⁹ The agreement was supported by the Left as a means to achieve greater social and economic equality, by the Agrarian Party as a way to maintain the vitality of sparsely populated rural regions in the north, and by the Right as a contribution to the creation of human capital that would drive economic growth (Ahonen, 2003). This overlapping consensus extended to insuring the overall development and well being of the child through local provision of a range of social services. For example, the government's commitment to insuring access to education for even those in the poorest and most remote regions included provision to school children of free hot meals, health care, transportation, learning materials, and social and psychological support.

Comprehensive reform was achieved between 1972 (in the North) and 1976 (in the capital district) with the national government exercising tight control over the process. Municipal education committees were created and asked to propose models for the reorganization of local schools to meet the new mandates. The provincial education departments of the 11 State Provincial Offices developed regional implementation plans. Both municipal and state-level plans were completed under the oversight and supervision of the National Board of General Education (NGBE) and subject to the final approval of the NGBE and the provincial offices. This meant that while the actual changes were rolled out province by province, the schedule was set by Parliament and all local initiatives were subject to close central review

Curriculum planning was also highly centralized. The NGBE oversaw the development of a new national comprehensive curriculum that fixed detailed teaching and learning objectives for all subjects and specified the number of class hours devoted to each subject and activity. It approved the contents of corresponding textbooks. An inspectorate assisted with and monitored school compliance with the core curriculum. Although political and administrative oversight of the reforms was thus formally top down, classroom teachers as well as university representatives participated, via reform committees, in defining the contents of the new national curriculum, and in otherwise planning and guiding the implementation of the changes. This consultation process demonstrated official respect for the teachers' professional knowledge and experience, and thereby helped ensure their acceptance of the reforms.

The commitment to comprehensive schooling, and thus to heterogeneous schools and classes, created a need for differentiated teaching. The comprehensive school curriculum mandated that all students be given an equal opportunity to achieve the same learning outcomes, regardless of their background, personal characteristics or abilities and learning styles. It provided two mechanisms for addressing this diversity. The

⁹ The reform was initiated by parties of the Left in the late 1950s, but delayed by opposition from both the Right-wing and Agrarian parties, which controlled the Ministry of Education through the early 1960s. The eventual passage of reform legislation required the strong support and leadership of a Social Democratic Ministry of Education. The Conservative party only agreed to support the reform in return for a guarantee that private schools would be permitted, and that tracking would continue in the comprehensive schools.

first was ability grouping within certain subjects. Upper-grade students (grades 6-9) were initially grouped by ability in math, Swedish, and foreign languages. This tracking was effectively abolished by the early 1980s, when the Ministry of Education required that students could be placed in groups based on their learning qualifications, but only if these groupings were neither permanent nor affected a student's chance to pursue a secondary education—access to which was also then on the way to becoming a universal entitlement. An Act of Parliament confirmed the Ministry's administrative directive. Hence even disabled students were to be included in compulsory schooling and were expected to graduate with the ability to continue their education.

The end of tracking meant that the heterogeneity of students in the comprehensive schools had to be addressed by the second mechanism: customized pedagogy directed to the needs of students with learning problems. A new category of special-education teachers were rigorously selected from the pool of fully qualified and experienced instructors, and provided with additional training oriented toward helping individuals or small groups of students with learning difficulties and other special needs. Teaching for this population divided between special needs education, for pupils with severe learning impediments, and part-time special needs education, for pupils with lesser learning difficulties, specific learning disorders (such as various forms of dyslexia) or problems in adjusting to school work.

Part-time special needs education exploded as the comprehensive school reform was rolled out. In 1968 there were only 4682 students (less than 1 percent of those enrolled in comprehensive schools or comparable settings) in Finland receiving part-time special education for reading and writing difficulties; by 1979, that number had increased ten-fold to 46150 (Kivirauma 1989, 120).

One cause of this increase was the additional funding provided for full-time special education students. Until recently, individual schools or their municipalities received 50 percent more funding for providing an hour of 'full-time' special education than an hour of standard instruction. While extra funds were not allocated directly for students in part-time special education, the supplementary payments for "full-time" special education in effect subsidized the salaries of the part-time special education instruction too. These premiums created a strong financial incentive to identify and diagnose learning difficulties; over time the experience thus induced improved teachers' understanding of common learning difficulties, and the increased capacity for pattern recognition allowed more effective identification and response to problems. Because it was seen as key to the success of the comprehensive school, and because of the favorable funding incentives, special education has become a core element in the comprehensive schools in Finland, allowing a growing proportion of children to stay in the normal classroom and to gain a basic education even if they encounter periodic learning difficulties. According to the 2004 national core curriculum:

Remedial teaching is a form of differentiation characterized by individualized tasks, individualized use of time, and guidance and counseling. Remedial teaching is to be commenced as soon as learning difficulties are observed, so that the pupil does not lag behind in his or her studies. . . Remedial teaching is to be provided as often and as broadly as is appropriate from the standpoint of the pupil's academic success.

To be sure, the introduction of special or remedial education in this broad sense, and especially the formation of a corps of part-time or remedial special education teachers, itself depended directly on the major transformation of teacher education that accompanied Finnish comprehensive school reform and the

commitment to accommodate diversity. Teachers and administrators recognized that investments in education and training would be critical to the transition to the new system. As early as the late 1960s, summer classes were offered to examine the pedagogies, social implications, and challenges of teaching in comprehensive schools, along with courses on instruction in challenging subjects such as math and foreign languages. Teacher training expanded quickly in the 1960s and 1970s, initially in seminars and at teachers' colleges all over Finland. By 1972, all teachers were required to spend five days annually in in-service teacher training (two days were mandated by the Parliament and three as part of their collective bargaining contract). A network of "national level" instructors managed the training. In addition, each province had its own pedagogic instructors, and many of the schools had mentors to assist teachers in adapting to the new school culture.

The education of new teachers was enhanced as well. A Ministry of Education commission recommended that all teachers receive a minimum of three years of training and a bachelor's degree, and that the quality and quantity of training opportunities be increased. The commission also called for initial screening of applicants' qualifications, the elimination of all seniority-, grade-, and subject-based status and pay differentials, comparable training for classroom and subject teachers, and the expansion of teacher education to include general studies, subject studies, pedagogical studies, and practicums in training schools attached to university departments of teacher education. The teacher was to be seen as an advisor and learning guide rather than as a deliverer of education or lecturer.

A key component of the recommendations was enacted in a 1971 law requiring all teacher education be provided at the university level. Eight universities launched new teacher education institutes, and four others affiliated with training institutions. While the universities retained their traditional autonomy, the Ministry of Education was given oversight authority for teacher training. In the late 1970s the Master of Science (requiring four or five years of university education) became the prerequisite for teaching. As a result of these changes, all new teachers are introduced to the most current scientific knowledge in their discipline, and current views on effective teaching and learning, at the start of their careers; in this same period they are trained to conduct research themselves on effective methods, and they learn to teach by practicing under close supervision. The training of special education teachers was enhanced accordingly, and typically requires an additional year of schooling following the master's degree. These reforms improved both the quality and the status of teacher education and educational research in Finland. More fundamentally, as a result of the reforms Finnish teachers today view themselves as part of a wider community of professional educators and researchers, and within that community special education teachers are seen as a particularly important link between pedagogy in the schools and research activities outside them.¹⁰

¹⁰ See also S. Moberg ., J. Hautamaki, J. Kivirauma, U. Lahtinen, H. Savolainen & S. Vehmas (2009). *Erityispedagogiikan perusteet*, WSOY; E. Aho, Pitkänen, K. and Sahlberg, P. (2006). *Policy Development and Reform Principles of Basic and secondary education in Finland since 1968*, World Bank; S. Ahonen (2003). "Yhteinen koulu – tasa-arvoa vai tasapäisyyttä? Koulutuksellinen tasa-arvo Suomessa Snellmanista tähän päivään", *Vastapaino*; Statistics Finland, *Official Statistics of Finland, Education 2010, Special Education 2009*, released in Helsinki June 11, 2010.

Governance Reform: From a Culture of Control to a Culture of Trust

The governance of Finland's schools was transformed in the 1980s and 1990s through the incremental delegation of the authority for curriculum development and evaluation of learning outcomes to local schools and municipalities. In the 1960s and 1970s, the parliament determined the structure and pace of the reform process. Ministers—principally the minister of education—set standards for class sizes and teacher qualifications. The NBGE oversaw the critical aspects of school organization: It controlled the curriculum, choice of textbooks, establishment of new schools, and budget allocations to schools. Provincial officials in turn reviewed, and confirmed, all local (municipal) teacher hiring decisions. In short, the comprehensive schools were centrally mandated and hierarchically managed.

The local role in curricular decisions was expanded with the introduction of a new core curriculum in 1985. The NBGE recognized the need to take into account the variation in schools' local circumstances, including distinctive religious and cultural traditions. (Schools for Swedish-speaking students, for example, coexist alongside Finnish schools, with virtually no interaction). The reform gave local municipalities and schools the authority to plan their own goals, curricula, and activities with respect to local circumstances or interests, and allocated 10 percent of total school hours to pursuit of these subjects. The 1985 curriculum also gave teachers and schools control over selection of teaching methods and the evaluation of learning outcomes. This reflected growing recognition by the NBGE that one of the pitfalls of defining educational contents and teaching methods at the national level was overburdening the study programs:

The amount of knowledge included in the syllabuses of the different school subjects is almost unlimited. It is neither possible nor politically expedient to define the amount of knowledge, either in the national syllabuses or even in the syllabus of the municipality. This is why the selection of contents by a teacher or by the collaborative planning of teachers indispensable the implementation of the syllabus. The final interpretation of the goals always takes place in the school and the connection between the curriculum and the teaching work is realized through teachers.

A comprehensive government review of the education system initiated by the Ministry of Education the late 1980s foreshadowed major changes in education policy, and reflected wider discussions in Finland of the need to modernize public management. The final report proposed, among other things, administrative consolidation, the loosening of centralized management-- with more decisions made at municipal and school levels--reform of the funding system, transfer of vocational and technical institutions to the local level, and systematic evaluation of educational outcomes. Debate over these recommendations was interrupted by the economic downturn of the early 1990s, the most severe in Finland's modern history. The economic crisis accelerated the restructuring of the education. In 1991, the two education boards, general and vocational, were merged into a single Finnish National Board of Education (FNBE) and in the subsequent years, much of the central administrative machinery of these boards was dismantled, including their inspectorates. As a result, while the two former national boards had 560 staff members between them, the FNBE now has only 260. Likewise, the net expenditures of the National Board today are half the former level, in real terms. (p.101, Aho et. al., 2006)

The next national core curriculum, issued in 1994, further expanded the authority of teachers and schools in curriculum development and eliminated most of the remaining mechanisms of centralized control over the operation of the schools. The document set general goals for educational content but gave the schools

responsibility for interpreting them; it recognized the need for flexibility in the curriculum to respond to both societal changes and local learning outcomes, and it stressed the importance of teachers' contributions in curriculum development: "Research results show that the personal participation of teachers in designing the curriculum is a precondition for real change in the internal life of a school. Teachers feel that curricula designed by others are extraneous and they are not committed to implementing them."

Prior to 1994, the national core curriculum provided by the FNBE included both specific targets and the main contents of education for different levels and fields; since that time, the national core curricula have concentrated mainly on target *results* of learning and skills. One measure of the changed role of central directives was the length of the directives of the core curriculum given by the FNBE. The 1994 core curriculum was only 113 pages, compared to 332 pages in 1985 and 691 in 1970.

The evaluation of learning outcomes was decentralized as well. The 1994 curriculum stressed the relationship between local evaluation and curriculum planning: "The self-evaluation of schools is part of the conscious development of the curriculum. It is a necessary means of creating a productive school that is conscious of its objectives." Self-evaluation thus became part of each school's curriculum development. This coincided with the dismantling of the inspection system, and the elimination of all forms of central control of teachers' work. The FNBE performs a limited external evaluation of schools based on the use of a sample of 5-10 percent of all students, and the results are used to assess the extent of social and regional equity across the country.

The FNBE is now part of the Ministry of Education and remains responsible for the development of education in Finland. In this role it has the authority to propose changes in education law such as those recently considered by parliament. It also defines content standards through its control over the national core curriculum. FNBE also evaluates learning outcomes (in collaboration with the Educational Evaluation Council, <http://www.edev.fi/portal>) and provides funding for in-service training of teachers and school personnel like principals, psychologists, SWGs.

Finland never developed national standardized tests for evaluation of the comprehensive schools or their students, and does not publish statistics that would allow ranking of either individual schools or students. The FNBE conducts national evaluations of student performance (using random samples) in order to assess national progress and to help individual schools improve. It publishes national reports to assist policymakers, and provides confidential feedback to each of the schools in the sample. But school-by-school results are never published. In addition, municipalities often assess their own progress in providing high-quality education by commissioning studies of students' cognitive competences, teachers' work satisfaction, parents' opinions, and the climate of the school community. Teachers similarly use regular diagnostic, formative tests to evaluate student progress; but once again, the scores are never made public. In short, assessments are frequent, and are aimed at identifying and addressing problems quickly. But there is no testing that could affect the future of a student or a school.

Schools and teachers in Finland today have substantial autonomy in the contents and provision of education. Parliament provides an overall framework in the (periodically amended) Basic Education Act and Decree; the Ministry of Education establishes national objectives and sets the distribution of lesson hours across subjects; and the FNBE elaborates, in consultation with the stakeholders, a core curriculum that sets common guidelines for teaching arrangements, educational goals, general content and methods, and assessment

criteria.¹¹ Municipalities (through their education planning and coordination groups) and schools are free (within broad limits) to revise the curriculum to reflect local concerns, establish new schools, hire teachers, and allocate school funds according to their priorities. This leaves teachers free to choose their own teaching methods, select the textbooks and learning tools, and create their own assessments based on the common learning goals.

This transformation of the governance of Finland's comprehensive schools in the 1980s and 1990s has been described, in the conventional categories of workplace relations and organizational sociology, as a shift from a culture of control to a culture of trust. According to Aho, et. al. (2006):

“. . . the Ministry of Education and the National Board of Education believe that teachers together with principals, parents, and their communities know how to provide the best possible education for their children and youth.”

More exactly, the new relation amounts to a trade of autonomy in return for rich and continuing reporting on results: The delegation of authority for teaching and assessment to the local level demonstrates trust in the professional expertise and capabilities of the teachers; the teachers in turn assume the responsibility for improving methods of teaching and assessment of outcomes, as well as for enhancing the overall school and educational environment. In the same vein the FNBE characterizes school governance as ‘steering by information’ in contrast with ‘steering by norms,’ which prevailed in the 1960s and 1970s, with the proviso that in the Finnish context, ‘steering by information’ includes not just the provision of data on various aspects of school performance but an active search for underlying problems and tools to better address learning difficulties.

But there are indications that the capacity of the center—embodied in the FNBE and related institutions—to learn from local experience has not kept pace with the explosion of initiative. In 2007 a rapporteur appointed by the Ministry of Education to review the role of the FNBE called emphatically for “monitoring results and carrying out evaluations of education” to “have a more significant role than previously in the steering of education as well as in anticipating educational needs. In addition to its role in syllabus planning and developing teaching and professional staff, the FNBE, he concluded, should be a “service provider in monitoring the results of education, utilization of research findings and anticipating future education needs.” (http://www.minedu.fi/OPM/Julkaisut/2007/Opetushallituksen.html?lang=f&extra_locale=en) Efforts to go beyond the self-evaluations and sample monitoring already in place have been frustrated by institutional rivalry (for, example, between the FNBE and the Council for Evaluation) and by concerns that monitoring could lead to high-stakes evaluations of schools and other actors of the kind that Finland has so far rejected. We will see however that reforms arising in response to questionable variations among municipalities in the decision-making process by which special-education services are provided are likely to result in increased pressure for diagnostic monitoring of school outcomes. So at the very least the current division of labor between the center and the local units is unstable and contested.

The Organization of Special Education Services

¹¹ Generally the FHBE avoids “minimum objectives” because they produce low outcomes; instead they “set objectives high” – but then leave the teaching methods to the teachers. (von Zastrow, 2008)

While remedial special education was created in Finland in tandem with the shift to comprehensive schools in the 1970s, it has exploded since the early 1990s. Special education teachers and assistants were initially recruited to help teachers in classrooms work with pupils with widely varied learning styles and abilities. The subsequent expansion and institutionalization of the Finnish special education system—which today includes the special education teachers and assistants, school-wide SWGs, and networks of teachers, researchers, and professional designers of diagnostic tools and remedial teaching materials for special education—reflects the commitment to providing all students the opportunity to finish compulsory education alongside their peers, and in accordance with their abilities. It also reflects the growing understanding of the wide range of physical, social, and psychological factors that can affect a student’s ability to learn.

The comprehensive schools, in partnership with local social service professionals, have assumed responsibility for tailoring teaching and other learning-related services to individual students’ needs. In the words of the FNBE:

General education support for all pupils includes guidance and counseling, social welfare services, cooperation between home and school, the use of the learning plan, and remedial teaching. [It] is provided equally to all pupils, but schools must be prepared to focus support flexibly to address the special needs of individuals. . . Each pupil of compulsory school age has the right to receive remedial instruction and special needs education, where necessary. Special needs education is provided primarily through inclusion into [sic] mainstream education.¹²

While some 5 percent of students received special education in 1970, by 2010 approximately 30 percent of all Finnish comprehensive school students receive at least some special education; a majority (22 percent) receives part-time assistance for minor learning difficulties, while the remaining 8 percent receive full-time special education in segregated classrooms. At the same time, the incidence of grade repetition, once relatively common, has been practically eliminated.

A core principle of the Finnish special education system is early identification of learning difficulties and immediate provision of sufficient support to meet the school’s learning objectives while allowing the student to remain in class with his/her peers. The 2004 national core curriculum states that “early recognition of learning difficulties and early commencement of support measures are vital if the negative impacts of learning difficulties on the pupil’s development are to be averted.” (p. 22) According to the website of the FNBE:

Pupils are given various forms of help, the nature of which is determined according to the special need. A key factor is *early recognition of learning difficulties and problems*. Support should be provided immediately if educational or social welfare professionals, or the pupil’s parents, identify risks in the pupil’s development and ability to learn.

This focus on early identification of difficulties starts well before a child enters school. A network of child health clinics located across the country (ideally in every community) provides regular, free assessments of the physical, mental, and social development of newborns and pre-school children. Multi-professional teams including a public-health nurse, medical doctor, speech therapist, and a psychologist, if needed, make the evaluations. The goals are very early identification of developmental risks and, more generally, of problems

¹² www.oph.fi/english/education/special_education-support 5/31/10

affecting families with small children, and provision of appropriate help. National guidelines specify the timetable for child well-being checks, including at least nine visits during a child's first year and one visit per year in the following five years. Key components of this program are an extensive health exam, including an assessment of family well being, at 4 months of age, and equivalently extensive exams at 18 months and 4 years.

This schedule highlights a principle underlying pre-school care and special education: reliable identification of problems cannot be based on a single screening. Instead these systems are built around a process of continuous monitoring and adjustment through regular assessments drawing on multiple sources of information and different perspectives, including those of parents as well as teachers and other specialists. In the words of a developmental psychologist, the identification of learning problems is:

a flexible, longitudinal, and continuous process that includes eliciting and attending to parents' concerns, maintaining a developmental history, making accurate and informed observations, identifying the presence of risk and protective factors, and documenting the process and findings.

Finnish researchers have demonstrated that comprehensive screening for developmental risks at age 4 significantly predicts academic and attitudinal-behavioral skills at school entry age, while no single developmental area was significantly related to the first grade skills. Moreover, four-year old children at the highest risk of severe and persistent developmental problems had multiple, co-occurring difficulties (attention-behavioral, motor-perceptual, and language), suggesting that co-morbidity is a serious risk factor in early childhood development (Valtonen al. 2004, 2009). They have also provided evidence that early anticipation and intervention into common learning difficulties such as dyslexia helps insure that children start school with comparable math and reading skills.

The Finnish system pays special attention to the transition from preschool to 1st grade. An initial conference in the spring, prior to the start of 1st grade classes, includes the child and parents, a preschool teacher, and the teacher in the new school. It focuses on pooling information about the child, including her portfolio and screening records (in speech, social and motor skills, etc.) For a child's first school year, one parent often works shorter hours (6 hours per day) to be available to both the child and the school during the transition. The schooldays are shortened for the first couple of weeks of the fall to provide a "soft start" and afternoon clubs are commonly organized for 1st and 2nd graders.

The Student Welfare Group and the Individual Learning Plan: Monitoring and Learning

The student welfare group (SWG) is a multi-professional group responsible for insuring the physical and psychological well being of students, for overseeing their progress, and for the overall environment for learning in the school. It is striking, and characteristic of the Nordic way, that there has been, until the school reform enacted in 2010, no legal mandate establishing or requiring the SWG or prescribing the membership and functioning of the group. The SWGs evolved out of the informal collaborations of teachers and other professionals in school and the municipalities. Their membership and activities differ from school to school,

and over time, and while a substantial majority of schools have an active SWG, there are still some that do not. Nevertheless the SWG has become a distinguishing feature of the Finnish comprehensive schools.

In most schools the SWG includes the principal or head teacher, who chairs the group, along with the full or part-time school psychologist, the school nurse, and the special education teacher—and depending upon the issue being discussed it might also include the classroom teacher, a social worker, and a student advisor. Other professionals, such as the school doctor, also participate when needed. The SWG typically meets once or twice a month, but in large urban schools meetings might be weekly. The meetings are used to integrate information about the school and students from different sources, to discuss school-wide challenges, and make plans. Typically the SWG reviews every class in the school, and often the situation of each student, at least once a year.

Much of the SWG's attention is focused on the students who receive part-time, special needs services. When a student first has difficulties in the classroom, the teacher initiates supportive measures such as informal tutoring, either individually or in a group, and notifies the student's parents. Each teacher has a reserve of at least one lesson hour each week for these activities. If this is insufficient, the classroom teacher consults with the special education teacher, who has the relevant expertise. These conversations often lead to additional observation (perhaps including further informal, quick interventions by the special education teacher), tests, and evaluation to better understand the source of the problem. If these steps are still insufficient and the student is at risk of falling behind, the teachers and parents meet to discuss the option of formally pursuing special education for the student. If the parents approve, the case is referred to the SWG, which can decide to make a formal diagnosis of the learning problems and on that basis provide a customized program of intervention—until very recently an individual education plan or HOJK—to the student in the regular classroom or in a specialized setting.¹³ The HOJK has been a mandatory part of the process of referring a student to a full-time special education classroom.¹⁴ The HOJK must include these elements¹⁵:

- a description of the pupil's learning abilities and strengths, special needs related to learning and the needs to develop teaching and learning environments as required by these;
- long- and short-term objectives for instruction and learning;
- the numbers of weekly lessons per year included in the pupil's study plan;
- a list of those subjects where the pupil's studies differ from syllabi for regular instruction (adapted or modified to be less demanding);

¹³ If a student has difficulty studying in a general instruction setting, or general instruction is not appropriate for his or her development, special education is provided partially or entirely in a small special-needs education group of no more than 10 students. In these cases the syllabus as a whole or in individual subjects is customized to the individual student's needs. Students are removed from general classroom settings only when they have multiple learning disabilities a serious handicap, an illness, or an emotional disorder. The transfer requires an official decision by the local school board, and is based on a statement by a psychological, medical, or social welfare professional, with mandatory consultation with the parents or guardians. Parents or guardians who do not consent to the transfer can appeal the decision to the Provincial State office. Any decision to transfer a student to special needs education must contemplate the return of the student to general instruction.

¹⁴ As we will see below, this sequence has been clarified by the most recent legislation, which requires a period of intensive support, defined in an individual instruction plan, before a referral to full-time special education can be considered. Under the new legislation a HOJK is prepared only after a formal diagnosis by the SWG confirms that intensified support is insufficient and still more comprehensive regime is required.

¹⁵ <http://www.european-agency.org/country-information/finland/national-overview/special-needs-education-within-the-education-system>, July 1, 2010

- the objectives and core contents of those subjects where the pupil follows an individual syllabus;
- principles for monitoring and assessment of the pupil's progress;
- interpreting and assistant services, other teaching and pupil welfare services, communication methods and special aids and teaching materials required for participation in education;
- a description of the provision of instruction for the pupil in conjunction with other education and/or in a special education group;
- people participating in organization of the pupil's teaching and support services and their areas of responsibility;
- monitoring of the implementation of support services.

The SWG is also responsible for monitoring the student's progress under the HOJK (and the individual learning or instruction plan that will now precede it). In some schools (for example, in the well-to-do municipality of Espoo, in the Helsinki Metropolitan Area), the SWG collectively reviews each student's situation every year and revises the HOJK accordingly. In other schools, the SWG insures that all necessary resources are available and supports the special education teacher, who acts as a case worker or team leader in diagnosing the problems, suggesting treatments, and adjusting the plan as experience suggests. In some cases, the SWG also calls on external resources for consultation and advice, including local psychiatric hospitals, family welfare services, and so forth. The plan is reviewed and signed by the pupil, the teacher, and their parents each time it is revised to insure that the students gain insight into their own learning styles and take responsibility for their learning.

Developing Diagnostic Tools and Learning Materials for Special Education

The commitment in Finland to early diagnosis and intervention in learning problems has stimulated a nationwide network of university-based researchers, continuing education providers, and developers of specialized screening, diagnostic, and remedial teaching tools. University researchers, funded by the Ministry of Education, the FNBE, and other public agencies, work with classroom teachers and local clinics to co-develop and provide diagnostic tools (tools for recognizing, labeling, and defining learning problems), as well as continuing education and training for special education teachers in the background and use of the tools. In addition, municipalities, civic and professional organizations (such as the Finnish Union of Speech Therapists and the Finnish Association for Intellectual and Developmental Disabilities), and small specialist firms provide special education materials as well as training and consultation. Publishers and software producers also provide texts, tools, and other instruments for use by schools and municipalities. This ongoing development and improvement of diagnostic and remedial teaching tools is central to the success of Finnish special education.

The Niilo Mäki Institute (NMI) at the University of Jyväskylä and the Center for Learning Research (CLR) at the University of Turku are the two leading university institutes in the area of special education research in

Finland. Both are funded by national educational institutions, collaborate with the municipal government and schools, and provide special education consulting, education and training and contribute to scholarship in the field. Both have also contributed to development of diagnostic tools and remedial materials.

The NMI (named after the neuropsychologist and pioneer of special education who became the first professor of special education at the University of Jyväskylä in 1948) specializes in the study of neuro-cognitive disturbances that give rise to learning disabilities and ways to diagnose and treat them. It focuses on disabilities such as dyslexia (reading), dysgrafia (writing), dysphasia (linguistic functions), dyscalculia (arithmetic), dysgnosia (visuo-spatial orientation), as well as attention deficits and motor control. Recent research is directed to the overlapping occurrence of apparently different learning disabilities: co-morbidity. NMI oversees a child research clinic jointly with the City of Jyväskylä's family counseling unit and provides assessment, consultation, and remediation for children and their parents in conjunction with local schools. In addition, it offers about 50 courses annually to special education teachers across Finland, and it sells diagnostic tests, learning materials, and literature for special education teachers and psychologists.

The CLR is a joint research effort of the Faculty of Education and the Department of Psychology at the University of Turku. CLR focuses on meta-cognition, students' self images, and motivation and concept formation. CLR researchers study learning difficulties as a part of a child's cognitive and motivational development; and are particularly interested in the relationship between behavioral and learning problems. The Center has developed diagnostic test materials for reading, writing, and mathematics, as well as for motivation, self-regulation, and social skills. It also provides graduate and in-service training, educational technology services, and clinical services for learning difficulties, as well as producing publications and applications in the field of learning research. The Center collaborates extensively with the City of Turku and its schools.

The differing intellectual orientations of NMI and CLR are reflected in the tools they have produced. NMI has developed a series of popular computer-based learning games including Ekapeli and First Play, as well as an internet-based learning environment/platform, LukiMat. These free learning programs are for pre-school children to developing reading and math skills. Other NMI tools are designed to evaluate the development of reading skills, to screen reading and writing difficulties, and to diagnose specific learning difficulties in math. The most visible tool developed by CLR is the KivaKoulu (Nice School) intervention program for the prevention and reduction of bullying at school, which has been implemented in thousands of schools in Finland. Researchers at CLR have also developed a set of diagnostic tests for evaluation of the cognitive skills and motivation of preschool and first-grade children, and the ALLU comprehensive school reading test used throughout Finland to evaluate primary school reading capacities and facilitate diagnosis of problems.

Additional tools and tests are supplied by four small firms founded special education teachers or university researchers, by professional associations such as the Finnish Union of Speech Therapists and the Finnish Psychological Association, and by civic associations such as the Finnish Reading Association and the Finnish Association for Intellectual and Developmental Disabilities.

Together these different contributors, ranging from university researchers to engaged citizens, with their ongoing experimentation, collaboration, and informal conversations, are as critical to the success of the customization of special education system as the SWGs.

Finland's Present Compared with its Past: Some Quasi-Experimental Evidence that the System Works

As we stressed at the outset, the single most compelling piece of evidence that the success of the Finnish school system in international comparison is due to the role of individualized pedagogy, and especially (part-time) special education in the comprehensive schools, is the striking performance of the bottom quintile of the school population in the PISA exams: This group does so much better against its peer quintile in other countries than the higher scoring Finnish quintiles do against theirs that its achievement accounts for much of Finland's overall high standing. And it is of course the lowest quintile that benefits most from the provision of part-time special education services.

Still, we would like a more direct confirmation that it is the comprehensive school and special education that account for the superior performance of the bottom quintile. After all, it might be, for example, that in a highly egalitarian society such as Finland good students are traditionally under a moral obligation to tutor struggling ones, or that traditional forms of group study have this effect—as they have been found to do among Asian-American students of college-level math. (Treisman, 1992) In that case the superior performance of the bottom group would owe more to traditional practices of solidarity than to institutional innovations in schooling in recent decades.

The methodologically pristine way to ascertain the importance of comprehensive schools and special education to the Finnish outcome would be establish a sample that mirrors the relevant features of an entry-level school cohort, and then randomly assign part of the sample—the control group—to a school setting with no part-time special education, and the rest—the treatment group—to a school setting providing such services in the “typical” form, duration and frequency. The differences in outcome, measured periodically, would then reflect only the influence of the “treatment”—here, customized pedagogy directed especially to students with learning problems. But a society, such as Finland, egalitarian enough to have created an education system painstakingly attentive to uncovering individual learning difficulties and helping pupils overcome them would reject such random-assignment experimentation with the lives and life chances of young children as callously amoral.

In recent research Moberg and Savolainen (2006) have carefully designed an historical comparison that captures many of the advantages of a random assignment experiment, while avoiding possible moral objections. As a control group they used a random sample of 9th grade pupils from four schools in the city of Jyväskylä in 1966—before the introduction of comprehensive schools and the wide diffusion of part-time special education. Moberg had created the sample for his master's thesis on reading comprehension and the speed of retrieval of written information. As a treatment group Moberg and Savolainen assembled a random sample of 9th-grade Jyväskylä students in 2005 from the same schools and same catchment areas. Pupils with learning disabilities severe enough to qualify for full-time or segregated special education, and non-native speakers of Finnish were excluded from the earlier study, and so from the later one as well—about 2 percent of the pupils in both cases. The shift under the new school regime to customized pedagogy for students with less severe learning problems was conspicuous. Whereas 2 percent of the pupils in the 1966 sample received part-time special education services, 29 percent of the pupils in the 2005 group did.

To measure the contribution of the new school regime to pupils' reading proficiency Moberg and Savolainen simply administered the 1966 tests for information retrieval and comprehension to the 2005 treatment group, in effect transporting them back in time for purposes of comparison with their untreated peers. The improvement in performance is striking. The average or mean score of the treatment group was sharply higher on both tests (by some 50 percent in comprehension and 30 percent in information retrieval).

Expressed as effect sizes—roughly, the difference between the means of two groups adjusted for the variation within them—the changes are large (1.18 and 1, respectively) and statistically highly significant ($p < .001$) (p. 486). The variance within the treatment group was smaller than in the control—performance had become more homogeneous.

If anything, these aggregate results understate the extent and character of the improvement in reading. For one thing, current test instruments make it possible to distinguish and evaluate various, cognitively demanding tasks that are grouped together—if they are measured at all—under the heading of “comprehension” in the earlier instrument. The extent to which the treatment group’s gains in comprehension are concentrated in cognitively exacting tasks will thus escape the comparison. For another, and more prosaically, the use of the 1960s test protocol, with its then-current themes and question formats, is unlikely to engage the interest of 9th graders in 2005 as much as material and formats familiar from their daily lives. To the extent that outmoded materials fail to interest teen-age test takers, attention may flag and performance degrade, giving a downward bias to the outcome.

But such subtleties aside, for present purposes, and as Moberg and Savolainen themselves emphasize, the crucial finding regards the distribution of these overall improvements in reading. It is the poorer performing students in the treatment group—the lower deciles in the 2005 sample—who improve the most relative to the 1966 control-group baseline. Figure 1 displays the difference in performance of each decile, expressed in terms of the distance above the 1966 mean (set at zero) obtained in 2005.

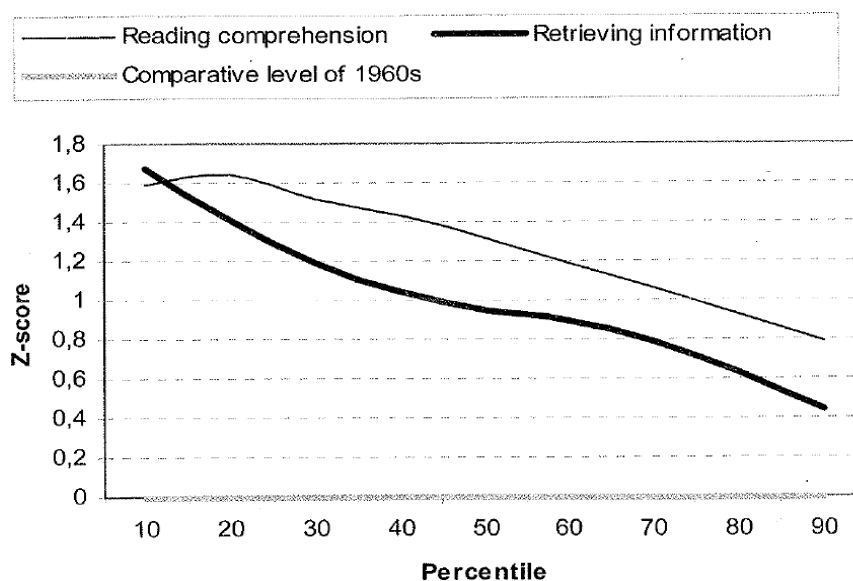


Fig. 1. The change in reading comprehension and speed of retrieving information from 1960s to 2005 across performance percentiles

Another way to capture the improvement in the poorer performers is to translate the reading scores of the control and treatment groups into school grades (with 4 the lowest and 10 the highest) by applying the marking key used in 1966. Expressed this way, 13 percent of the pupils got grades of 4 or 5 in 1966, while only 0.2 percent of the pupils 2005 scored in these categories.

These results—outperformance by low-deciles, reduction in variance, and under-population of the low-performance categories—reproduce the defining features of Finland’s showing on the PISA tests. Thus

Moberg and Savolainen demonstrate that Finland's relation to its own recent past is like its current relation to lower-performing school systems in other countries. What has changed in Finland—the treatment that explains the improvement in performance—is the introduction of comprehensive schools that mitigate learning disorders through part-time special needs education.

Finland and Denmark Compared: More Evidence that Customized Pedagogy Helps Weak Students

A complementary way to increase our understanding of Finland's customized classroom practices, and ways to reach experimentalist institutions on the Nordic path, is to compare the Finnish school system with a very similar school system and country that tried to introduce individualized pedagogy in comprehensive schools by a different strategy of professional development and transformation.

If the comparator lacks an equivalent of the Finnish special education regime, and has poor school outcomes, we have reason to believe that the difference in performance is due to the difference in classroom practices, and ultimately to the alternative strategy of professional development from which that difference results. This kind of comparison lacks the rigor of near-random assignment experiments of the Jyväskylä before and after type. Very similar schools and countries differ in subtle and hard to observe ways—for example, the pre-school experience of children, or the continuing influence of family behavior on learning—that might conceivably influence school outcomes at least as much differences in classroom practice. Still, subject to this methodological qualification, the interplay of similarities and differences in the experience of two wayfarers proceeding exploring different byways on the Nordic path, with clearly different results, is instructive.

Denmark is an obvious candidate for such a comparison. We saw earlier that the Nordic countries, and Denmark in particular, are equally committed to egalitarian values (with service-based welfare states and universal, not occupation-specific entitlements), at least as committed to funding high-quality public education, and have (by US standards) equally homogeneous populations. Yet they have inferior school outcomes. In the PISA 2006 tests Finland was 1st in science, 2nd in reading and 2nd in math; Denmark ranked 24th, 19th, and 15th respectively.

Closer scrutiny reveals the similarities to be even more extensive and striking. The other Nordic countries, and particularly Denmark, share with Finland a view of early childhood as a time of creative play and fantasy, and for this and other reasons make child-initiated activities, rather than structured learning, the focus of pre-school and kindergarten, and delay the start of primary public education until the age of 6 or 7. Consistent with this, schooling in all the Nordic countries tends to be child-centric: the pupil is seen as naturally curious and enquiring, and the teacher's role is importantly to encourage and support these dispositions. Moreover, all the Nordic countries use the “class teacher” system in primary school, in which a single teacher, responsible for most daily lessons, follows a class continuously for two or three years (from 1st to 2nd or 3rd grade at a minimum, sometimes for the all six grades). This allows teachers to adjust instruction to the needs of individual students during the crucial early years. All the Nordic countries have comprehensive schools, as in Finland, and none stream pupils in compulsory education; so the same children can typically attend school together as a class for 9 years.

Finally, all the Nordic countries, and Denmark in particular, long recognized that the formation of comprehensive schools without tracking would require differentiated pedagogy, over and beyond the individualized attention inherent in the idea of child-centric education, to account for differences in learning styles and levels of engagement. An early and influential statement of this need in Denmark was the “Guide

to Instruction for Public Schools (*Undervisningsvejledning for Folkeskole*), or the Blue Report (*Den Blå Betænkning*) produced by a high-level commission convened by the Education Ministry in 1958. The Guide marshaled themes in the Nordic and international discussion of the day to call for teaching to the needs of each student, making learning to learn the goal of education, looking for methods of evaluation beyond traditional tests, and linking school learning to social experience. In this spirit the reform law of 1975 moved Denmark towards the comprehensive school (tracking was still permitted) and obligated the school, working with pupils and parents, to develop the abilities of the individual child, while preparing each for active participation in democracy. The precise “forms and methods” of instruction for each pupil were to be determined in collaboration between the teacher and her pupil.¹⁶

The reform of 1993 abolished tracking in comprehensive schools, mandated more interdisciplinary team projects in class,¹⁷ and reaffirmed the earlier requirement that the general goals of schooling, and methods of teaching be adjusted to the needs and capacities of individual students,¹⁸ in consultation with their teachers.¹⁹ Teachers are expected to continuously evaluate student progress and regularly inform students and parents of the results.²⁰ The school head is to ensure that teachers’ working conditions allow them to meet *their* responsibilities.²¹ Together these provisions create the framework for a school in which teachers are jointly responsible for consulting with, monitoring the progress of, and meeting the curricular needs of individual students, and where the school administration—and ultimately the communal authorities to which *it* reports—is obligated to ensure this happens. Development towards the legal commitment to individualized pedagogy within the comprehensive school culminates in Denmark in the school reform law of 2006, requiring teachers to prepare an *elevplan* for each student: an annual, written evaluation of progress, and a corresponding program for individual improvement, to be discussed with the student and her parents. If deep cultural respect for individual development and learning, and the legal mandate for the individualization of pedagogy determined outcomes, Danish schools would perform as well as Finnish ones.

But there are important differences between the two systems. Most strikingly, Finnish schools pay systematic attention to the problems of the most vulnerable students, while Danish schools do not: There is no equivalent in Denmark to the highly organized Finnish regime of part-time special education, and close monitoring of its operation. Put another way, the Danish system offers all students ample opportunities to flourish, but does not provide targeted supported to those who need assistance in making use of the possibilities offered.

A recent comparison of classroom pedagogy in the two countries brings these systematic differences clearly to light. The study focused on the conditions under which Danish and Finnish students, aged 7 to 13, experienced “flow”: the state of purposeful absorption in a task demanding full concentration, but not frustratingly difficult. We might think of it simply as the pleasure of learning or mastery.²² In Finland

¹⁶ § 16, number 4:

¹⁷ § 5, 13, 6.

¹⁸ § 18, number 1.

¹⁹ § 18, number 4.

²⁰ § 13, number 2.

²¹ § 18.

²² On the concept of flow see Csikszentmihalyi, 1991. Flow can be interpreted as the experience of learning in what Vygotsky called the “zone of proximal development”: engagement with demanding tasks that stretch existing skills to new limits, without overwhelming the learner (Vygotsky, 1978).

students experienced flow as they pursued individual tasks as part of class assignments, consulting when necessary with the teacher. Students from all economic and social backgrounds had this experience in equal measure: there was no discernable group of outsiders. In Denmark, in contrast, students experienced flow while working on the 90-minute, self-directed project modules that are basic organizational unit of pedagogy. For the last hour of these modules there is typically little or no teacher supervision. During that time the poorer students, frustrated by problems they cannot solve, withdraw from the work and congregate to gossip or make mischief. The poorer students are typically those from weaker social and economic backgrounds. So the group in Denmark that does not have the enabling experience of flow, and is visibly headed for a poor school outcome, is precisely the group that benefits from (part-time) special needs education in Finland—and consequently participates fully in classroom learning. Given such findings it is not surprise that, for example, 7 percent of Finnish 15-year olds scored in the lowest PISA reading category in 2003 (the second lowest percent, after South Korea, at 6), while 17.2 percent of Danish 15-year olds scored in the bottom category. (Hattie 2003)

Thus, despite many similarities Finland and Denmark have plainly chosen different ways of restructuring teaching and the teaching profession, with markedly different effects on school outcomes. Where do they part ways?

Recall that in anticipation of the comprehensive school reform the Finns fully integrated teacher training into standard university programs, so that after 5 years of study teachers are fully qualified university graduates in the subjects they teach; and special education teachers are trained for an additional year. Systematic classroom apprenticeship—and with it experience of actually teaching diverse students—was also introduced at the same time as intensified engagement with subject-matter. (Sahlberg, 2010) Teaching became much more demanding and selective (in 2008 only one applicant in 10 was admitted to the master of teaching program at the University of Helsinki) even as it became collaborative in new ways, as exemplified in the cooperation between special and general education teachers, and peer review by the SWG. The regime or “treatment” that produces the improvement in school outcomes is an amalgam or fusion of the two; and because the two changes occurred together in Finland, near-natural experiments, such as the Jyväskylä comparison, cannot distinguish the respective contributions of the each.²³

²³ It is proving difficult to specify the individual attributes that predict success as a teacher, quite apart from any consideration of the possible contribution of collaboration to individual success. Thus it is possible to identify consistently superior teachers by their on-the-job performance—those capable of helping a class achieve above-average gains one year are likely to do so the next. But there is, surprisingly, little direct connection between high qualifications, such as a degree from a prestigious teachers college or high test scores, and superior teaching. See Robert Gordon, Thomas J. Kane and Douglas O. Staiger, 2006. Still, a rich anecdotal literature suggests subject mastery is an important, perhaps indispensable component of good teaching. (Liping Ma, *Knowing and Teaching Elementary Mathematics*, 1999). Finnish experience suggests that certain types of collaboration may catalyze individual attributes, so that systematically successful teaching depends on (various?) combinations of both.

The Danish regime includes neither. Instead of the Finnish ensemble of reforms, or some equivalent, the Danes tried to transform the practice of teaching almost exclusively from the bottom-up, relying on the initiative of thoughtful, engaged, experienced teachers. The vehicle of these efforts from at least the 1970s until the present (though less energetically in the last decade), was the pilot project—the long-standing term of art in Danish school reform is *udviklingsarbejd* or development work.²⁴ In these publicly financed projects, groups of motivated teachers undertake to demonstrate to themselves, and eventually to their colleagues and the larger educational community, how the new, or anticipated demands on teaching could actually be met. The animating assumption is that some groups of teachers, or a scattering of schools were (almost) already doing the things required by the law, and the emergent consensus it represented.²⁵ Under this assumption the chief task of implementation is to identify and facilitate the success of exemplary projects, and then publicize good outcomes, and the process leading to them. The examples will “inspire”—so another term of art—and inspiration prompts diffusion through emulation. The emphasis has been on those aspects of education, such as differentiated teaching, closest to the notion of child-centric development, and the intimate, spontaneous relations between students and teachers at the core of this general understanding of pedagogy, rather than on the monitoring of and reporting on student performance that figured more and prominently in the successive reform laws.

The largest of these initiatives, and in its emphasis on local initiative also the most typical, was the “7-point” program approved by the *Folketinget* in 1987 (Hvid Jørgensen 1992). The program ran for 4 years, and spent (the then enormous sum of) 100 million DKK annually, on 8,000 projects grouped under headings such as “new forms of collaboration,” “the all-purpose school,” and “the expanded function of the classroom teacher” (ibid, pp. 46, 24, 80, 106)—all with no discernible influence on the reform law of 1993, which it had been intended to shape. In the follow-on, school-development project the Ministry of Education selected twelve schools, from a pool of over one hundred, to pioneer implementation of the new law, and with negligible results.

The failure of this bottom-up strategy, and the absence of any alternative, meant that the Danes neither systematically improved the skills of beginning teachers, nor fostered new forms of classroom collaboration by creating a corps of especially selected and trained special education teachers. Today Danish teachers (along with nurses and social workers) prepare, as they long have, at special 4-year “professional” institutions (*professionshøjskoler*) detached from academia (and undersubscribed, even though the admissions qualifications are easily met). Those who choose to specialize in special education register for additional courses, except for those concentrating on infants, who must complete a year-long university program.

²⁴ “ (Krogh-Jespersen, 2005)

²⁵ As Kaj Spelling, for many years the chairman of the Folkeskolens Forsøgsråd put it

”Essential renewal of the school is much more likely to thrive and develop if it starts with the every-day life school and goes from there to the authorities, than if ideas are fostered centrally and then an attempt is made to implement them in the school.” cited in Hvid Jørgensen (1992), p. 103.

Special education as a discipline has developed haphazardly, in response primarily to local perceptions of need, which vary greatly. There is no institution in the Danish schools that, like the SWG, facilitates coordination between general and special teachers and fosters professional development by peer review. As a result, a recent study (Egelund and Tetler, 2009) finds that rates of referral of students to special education vary greatly among municipalities, with low rates typical of settings where the actors have informally managed to cobble together resources for prompt and continuing intervention. It is telling that the “culture of collaboration” in these more successful settings approximates the relation between special and general education in Finnish schools:

Teacher cooperation in self-organizing teams is a feature of the work culture in schools where formal special-education referrals are infrequent. It seems to be especially significant that there are in these schools teachers with expertise in teaching social skills and literacy, together with knowledge of the general principles of special education. These teachers can function as consultants for their colleagues. (Egelund, 2009)

But these cases are the exceptions. The rule, manifest in the study on flow, is inattention to the weaker students, who are left to their own devices, at least until their problems become severe enough to warrant referral and transfer to the special education system.

Now well aware of these problems, Denmark is trying to complement the bottom-up approach to reform with a more systematic perspective that identifies and addresses problems within schools, and within the school system as a whole. A first step, in 1999, was the creation of an evaluation institute—*Danmark's Evalueringsinstitut*—to report in some depth on the ways schools were implementing (and in the event often failing to put into practice) the key elements of the new comprehensive school and differentiated pedagogy. The school reform law of 2006, besides mandating *elevplaner*, created a council for evaluation and quality development in public schools—the *Rådet for Evaluering og Kvalitetsudvikling af Folkeskolen* in 2006. As its name suggests it is responsible for regularly monitoring and reporting on the quality of teaching and school organization, and may well be, at last, the beginning of an effective interplay between innovation from the bottom up and the top down in Danish school organization, and the creation of an “evaluation culture”, with experimentalist elements, recommended by an OECD study team in 2004 (OECD 2004) in which teachers and schools learn from what students are learning how to improve the ways they teach.

The Danes' travails with school reform resolves some ambiguities in the interpretation of Finnish success, and points to pitfalls in Finland's current efforts to improve its system. Compared with the US, understood (very partially, we will soon see) as aiming to reform schools exclusively by frequent, high-stakes tests of student mastery of centrally defined curricula, Finland and Denmark look remarkably similar. Both emphasize teacher and school autonomy in curricular matters, and collaboration among teachers in responding to individual need. Both accordingly de-emphasize high-stakes tests, school rankings and generally incentive systems that encourage single-minded pursuit of official, centrally-set goals at the expense of attention to the contextual needs of schools, classes, and individual pupils at the heart of the child-centric view of education. Building on just this contrast, several recent and thoughtful studies explain

Finnish school success as the result of intense, informal collaboration among highly qualified and respected teachers supported in their efforts by a society:²⁶ the construction, in one current vocabulary, of a “community of practice” whose members almost unintentionally exchange informative, novel experiences, in the manner of computer technicians trading stories about difficult cases at the office water cooler.²⁷ The more formal, experimentalist elements of experimentalist review and revision of routine—the careful training of special-education teachers, the ongoing peer review of their practices in the SWG, the co-development of diagnostic instruments by teachers and university researchers—almost disappear from view.²⁸ The comparison of Finland with Denmark corrects this distortion. It shows that while the child-centric view is conducive to co-operative learning and respect for the learners’ initiative, it does not automatically lead to forms of monitoring and review that allow for the customization of teaching in support of weak students.

But Danish experience may have lessons as well for school reform in Finland. Despite all the differences between the two countries, the idea that Finnish success is based on informality reflects an important element

²⁶ See Andrew Hargreaves, Gábor Halász and Beatriz Pont , “School Leadership for Systemic Improvement in Finland:” A case study report for the OECD activity Improving School leadership, December 2007:

“Finland”s high performance seems more attributable to a conceptualisation, commitment to and widespread culture of learning in school and society more widely. Learning, and especially literacy, begin early, if somewhat informally in the home and in preschool within a society where learning and teaching are highly valued and where play as well as talk are emphasized.” (p.14); “At the heart of the human relationships that comprise Finland”s educational system and society is a strong and positive culture of trust, cooperation and responsibility. From the classroom to the Ministry of Education, this trinity of terms was reiterated to our visiting team many times as the key factor that explained performance, problem solving, improvement and accountability.” (p.16) For a related but more nuanced view see Pasi Sahlberg, Finnish Lessons: What can the World Learn from Educational Change in Finland, 2010 For a similar understanding of the US-Finland comparison, but viewed from the US, see the exchanges between Diane Ravitch and Deborah Meier, in Education Week. See for example, Diane Ravitch, What Finland’s Example Proves, Education Week, May 6, 2008. “ Finland is the answer. No, I don’t mean that we should or can copy Finland, but that we can learn from the remarkable synthesis that Finland has achieved. Their schools meet all or most of your pedagogical criteria—they “focus on a playful and wonder-filled childhood,” and they prize teacher autonomy and school autonomy. Yet they do so within the context of a specific and carefully wrought national core curriculum. What is essential for children in urban areas is also essential for children in the remote rural areas. Teachers are free to be creative and passionate because they are clear about what their job is. Their autonomy is freedom to teach, not curricular anarchy.” http://blogs.edweek.org/edweek/Bridging-Differences/2008/05/what_finlands_example_proves.html?qs=finland On continuing education from the same general perspective see Darling-Hammond, L., Wei, R. C, Richardson, N., Andree, A., & Orphanos, S. (2009). Professional learning in the learning profession: A status report on professional development in the U.S. and abroad. Washington, DC: National Staff Development Council, which explicitly considers Denmark and Finland as members of the same (non-US) family of school systems.

<http://64.78.60.166/news/NSDCstudy2009.pdf>

²⁷ Etienne Wenger, Communities of Practice: Learning, Meaning and Identity (1999)

²⁸ “We have many, many good practices but we are not describing it and its theoretical basis and we just do it, in Finland. Unlike the USA, we just do, we don’t make publications.” Hargreaves et al. p. 15
<http://www.oecd.org/dataoecd/43/17/39928629.pdf>

in the self-understanding of teachers and school leaders—a self-reliant, yet collegial pride that we encountered often in the course of discussions informing this essay. This professionalism is the continuing legacy of the Nordic way. But shifting focus, as we do next, from the Finnish successes in international comparison to the challenges the Finland faces when its schools are examined in the light of country’s own standards and ambitions²⁹ it is clear that defects of administration—a lack of systematicity or an excess of (the wrong kind of) informality—are hampering learning and improvement, and sometimes lead to outcomes that flaunt egalitarian values. How can these defects be corrected without jeopardizing the various forms of autonomy on which current success depends? The defects of Danish school reform, especially in contrast with Finnish achievements, strongly suggest that exclusive reliance on bottom-up initiative and the wholly informal regeneration of the teaching profession are unlikely to succeed.

4. Current Challenges to Finnish Special Education, the Call for more Systematization, and How Lessons Learned the Roundabout Way Can Help Achieve It

Some Hidden Costs of Informality in Administration

The Finnish system of special education, and the school system generally, is not, by any measure, in crisis, but it is under strain. One sign of that strain is the growth in special education: the number of students enrolled or “transferred” to full-time special education increased more than 60 percent—from under 5 percent to about 8.5 percent of the school population—between 2000 to 2009, while the number in part-time special education increased about 15 percent, from 20 percent to 23 percent of the school population. (Statistics Finland, Special Education, 2009, Helsinki 11.6.2010) In part the increases results from the very

²⁹ These questions would be moot, of course, if Finland, by some lucky historical accident, just happens to get the mixture of bottom-up and top-down elements in these kinds of policies right, or—more wonderfully still—if Finland, once it does happen upon a policy that works, feels its way forward to the necessary adjustments and improvements, informally, without public deliberation and dispute. No such luck. We noted above that recent efforts to develop customized and continuing vocational training for various groups excluded from, or at risk of exclusion from the labor market—a domain in which Denmark excels—were so far unpromising, even though the kinds of services required are closely related to ones the Finns very effectively provide children and youngsters in school. And as for the idea that, in Finland, a government program, once a success, is always a success, there is the cautionary case of industrial policy: A complex ensemble of policies that significantly encouraged capacity building and improved competitiveness in the forest products and telecommunications industries through the 1980s, but were then reconfigured in the 1990s—at precisely the time school governance was usefully decentralized—in ways that arguably encouraged industry concentration and discouraged continuing innovation. No, as Finns well know (or, in the case of industrial policy, have come to appreciate anew) even successful policies and institutions have to be reconsidered, and if necessary changed with changing circumstance, if they are to remain successful. (Sabel and Saxenian, 2009)

success of the system. Better tests make more risks evident earlier; the good results obtained by Finnish special education create a demand for expansion of services to mitigate those risks. In part the growth reflects developments that are just as plainly external to school and special education system: social changes—the disruption of traditional household structures, the entry of new ethnic groups into Finnish society, the strains associated with decreased job security—are reflected in the behavior of school children, and the resulting behavioral and learning problems further augment the demands for the kinds of diagnosis and treatment that the special education system provides.

But efforts to estimate the balance, even roughly, between these two contributing sets of factors, and assess the coming needs of the system accordingly are frustrated by a third and especially troubling circumstance: significant variation in the administration of special education programs among municipalities. In the Helsinki Metropolitan Area alone, for example, the percentage of students transferred into full-time special education ranged from 12 percent in Espoo to 9 percent in Vantaa and 8 percent in Helsinki itself. The figure in Tampere, an inland city to the South, is 5.5 percent. There is similar municipal variation in the rates of participation in part-time special education.

This variation strongly suggests that different criteria—and more generally different diagnostic and decision making processes—are being used to make judgments about the provision of special education services in different locales. This divergence in practice violates the new egalitarian norm of providing like situations will be treated alike; and it makes it impossible to say what level, and in what form and sequence special education services should be provided: Should all Finnish children have access to the high level of services in Espoo? To the lower level in Tampere?

The Ministry of Education, in 2006, established a steering group on special education to examine these questions, and, working in close collaboration with the FNBE, to propose a framework for legislative reform. The steering group found that “the grounds for...transferring pupils to [full-time] special-needs education are different” from municipality to municipality within Finland. Most disturbingly, it found that “some municipalities do not take sufficient or any supportive action—e.g. remedial teaching, part-time special-needs education and student welfare service—to help pupils with [part-time] special-needs educational needs before they take the decision on [full-time] special-needs education.”³⁰ If the provision of remedial, short-term special education has been a cornerstone of Finnish educational success and social equality, these differences in the implementation of the system are a threat to both. In the blunt language of the steering group report, “These factors jeopardize the realization of equality.”³¹

³⁰ Pihkala, Jussi, Special Needs Education Strategy, Ministry of Education, n.d.; see also http://www.minedu.fi/OPM/Julkaisut/2007/Erityisopetuksen_strategia.html?lang=fi&extra_locale=en, Aug. 1, 2010

³¹ Strategy report 8.3 [google translation] “The findings of studies and statistics show that the local curriculum and administrative practices are very disparate in different municipalities. In practice, this means that special education students are admitted, or transferred according to different criteria. In some municipalities, special assistance, such as support for schooling, osaaikainen special education and student welfare services before keys decision would seem to be inadequate or are not available at all. In addition the role of the student welfare group is sometimes limited. Thus special students in the different municipalities differ greatly in the amount of aid received. The preparation of IEP and GMOs does not meet legal requirements. These factors jeopardize the realization of equality”

The steering group proposed responding to this variation in practice by affirming the basic principles of Finnish education—early identification of problems, gradual and graduated exploration of remedies, in normal class settings to the extent possible—and establishing general administrative procedures for realizing them. To facilitate early identification of risks, special education services can be provided in the year before the start of compulsory education. To ensure that intervention is gradual and graduated, the steering group introduces the idea of a period of “intensified support”: This is to be the initial, exploratory phase of the diagnosis and treatment of learning and behavioral problems. It must “always” precede the decision to provide special education services. The intensified support services are themselves to be provided according to a “learning plan” specifying their aim, content and duration; and this learning plan is to be prepared on the basis of a pedagogic assessment by the child’s teachers (supplemented by medical and psychological expertise when necessary). Decisions to proceed to special educational services will be regarded as administrative acts (not medical judgments, as under current law), and must include a review of the intensified support provided, and must also detail the resources required (special needs teachers or assistants, individualized syllabi, and so on). Children receiving full-time special education services will, as now, follow a regime set out in an individual education plan (a HOJK), prepared by a multi-professional team in collaboration with the pupil and her parents or guardians.

The steering group emphasized that these changes would require closer collaboration between classroom and special education teachers within the school, as well as increased attention to differentiated teaching methods in university teacher training programs and intensified research into learning problems and methods of treating them. The earlier intervention and more careful scrutiny and planning would as well require closer integration of the school administration and the social welfare administration of the municipalities, and at the least improved methods of information transfer.

The core elements of the steering group proposal were enacted into law in 2010. But how are these changes to be implemented? Here the guidance provided by the steering group itself, and recent legislation prepared on the basis of its recommendations, runs out. The FNBE and the Ministry of Education asked municipalities to submit draft plans outlining the administrative adjustments they intend to make in order to meet the obligations that the legislation will eventually impose on them. A university institute with the relevant expertise in special education, the Centre for Educational Assessment at the University of Helsinki, was contracted to comment on these drafts as a way of orienting reform efforts and in effect mentoring the officials who will be responsible for effecting the changes.

But even assuming that agreement on the general features of reform design are accurately translated into new administrative structures, this high-level planning and review leaves unanswered—indeed unasked—a series of crucial questions regarding ground-level organization: How will classroom and subject teachers cooperate with special education teachers in the new, more tightly integrated system? How will the SWG cope with the demands of ensuring provision—and effective monitoring of the provision—of “intensified support” and the individualized learning plans it will require? Within the SWG, what will be its role in supervising the “pedagogic”—not medical—assessment of the need for full-time special education services? What will be the role of the school psychologist, until now largely occupied with assessment of special education needs, when that responsibility is shifted to the teachers? Might she, for example, use her combination of training in sophisticated research methods and knowledge of practical therapies to conduct research on the effectiveness of treatments, in collaboration with university researchers? Among SWGs, how will experience be pooled and evaluated? Given the goal of reducing variation in administration, how will initiative and

innovation be encouraged while uniformity with respect to some essentials of decision-making process (intensified support must always precede provision of special education)? What will be the role of FNBE (and the Council of Evaluation, with which it now has a strained relation) in advancing such reforms? And on and on. Uncertainty and even anxiety about the resolution of such questions was a recurrent theme in our discussions with special education teachers about the prospects of their work.

This uncertainty is compounded by political undertones in the interpretation of and response to the variation in administrative practice. While there is a deep consensus in Finland today concerning society's obligation to respond to the needs of individual children, there is politically inflected disagreement regarding the role of integration in mainstream classes in serving this goal. For the progressive left, broadly speaking, inclusion is a value in itself (the opposite of exclusion and stigmatization) and an aid, if not a precondition to learning insofar as it encourages support from a student's immediate cohort. Hence inclusion is always the preferred solution. For the conservative right, inclusion is certainly a value and a benefit, but not so great as to (almost always) trump all other considerations—for example the costs to struggling children and their classmates of being included in settings where they routinely fail, and in doing so disrupt the learning of others. Hence the right distinguished respect for individual need from integration and is willing to contemplate solutions to special education problems (say for children with combinations of behavioral problems and language difficulties) that the left regards as a form of segregation. Discussion of variations in administrative practice in assigning treatment regimes inevitably become entwined with these differences in principle, with each side concerned that “clarification” of acceptable practice will allow the other to entrench its values in law. Thus the initial draft of the reform legislation presented by the Ministry of Education provided that integration was always to be the “preferred” solution to special education problems, while the parliamentary committee on education, under the leadership of the right, struck this phrase. In the quietly and decorously conflictual way of a consensus-seeking society, discussion of the administrative reform of the special education system is politically fraught.

Very broadly speaking two, contrary outcomes are in view. If there is no innovation in the ground-level or front-line institutions, and in the mechanisms for generalizing their successes and failures, the result, at best, will be paper compliance with the new requirements, with all the frustration with the waste of effort—and the offense to legitimate professional pride—that goes along with the production of report after report for the sole purpose of satisfying reporting requirements. The preparation of learning plans and monitoring of progress under them will be paper-work chores and distractions from—certainly not contributions to—the real work of helping students learn (an incessant complaint in Danish schools, where reporting obligations have increased, but have not so far meshed with useful classroom practices). It is easy to find Finnish teachers who fear that reform will produce more paperwork and less real, high quality pedagogical work.

This outcome would likely lead to an increase in political conflict. Each side would respond to stalemate in the schools by pressing for (or resisting) more detailed rules to govern behavior: The left might try to impose more detailed and demanding requirements for excluding students from mainstream classes; the right might consider expedited processes for removing difficult students from mainstream classes. Differences in principle, a leitmotif in current discussion, would become the focus of debate because, in the absence of innovative experience, the only basis for judgment would be recourse to principle.

The alternative is for the Finnish school system to advance further along the Nordic path to experimentalist institutions, improving the individualization of services by creating new forms of peer review and information pooling that facilitate rapid generalization of promising responses to the new requirements while

correcting the administrative flaws that undercut the performance and legitimacy of the special education system. This outcome would have the additional advantage of reducing political conflict about the aims of special education, and schools generally. The left and right in Finland agree that society is obligated to do what is best for each child. Disagreement arises about the default rule to apply in the abstract, when it is not known (or knowable) what needs a particular child has. The more reliably and precisely the school system can diagnose individual problems—determine which students are likely to benefit from inclusion, and which not—the reason there is for either side to argue what to do in “principle” when the appropriate treatment is unknown.³²

The municipality of Vantaa, seen as a bellwether in school reform in Finland, and fully exposed to the pressures straining special-education, has taken important steps in the direction of this second and more promising outcome. First, it has grouped schools in the municipality into “territorial” units—sub-districts—and created second-level SWGs for each. The aim is to provide a setting for the peer review of the decision-making practices of the school-level SWGs (just as these create a forum for the peer review of classroom-level decision making). The municipal school authorities have established working groups to prepare to adjust to the requirements of the new law, including representatives of both school and regional SWGs, and these groups will presumably serve as fora for the joint review of current school reform efforts. Second, as part of an overall reform of municipal administration, it has introduced the “balanced scorecard” used in US corporate decision making to school administration. The scorecard “balances” outcome measures—the percent of each class cohort graduating on time—and process measures—percent of each cohort receiving, for example, appropriate guidance—so that, taken together, the measures present not just a picture of institutional performance, but an explanation (or important clues for an explanation) for why it performed as it did, and how to do better. The list of indicators is, accordingly, open-ended so that measures found to reflect the causes of problems can be included as needed. A clear goal of the introduction of the balanced scorecard into the Vantaa school system was to permit early identification of breakdowns in crucial processes—the failure of an SWG to complete routine planning tasks, delays in introducing multi-professional teams in the appropriate settings—that will almost surely limit performance. Third, Vantaa reconfigured school finance to encourage schools to undertake innovative projects. None of these changes directly address the ground-level problems posed by the recent reforms. They are experimentalist precisely in the sense that they create conditions—and obligations—for the ground-level actors to do so, and to generalize successes while limiting the costs of failure through dynamic accountability.

The more the Finnish school advances in this direction, the more its experience converges with that of the parts of the US system approaching experimentalist institutions on the roundabout path, and the more the two may gain from exchange: Just as the comparison with Danish developments reveals some dangers of informality entwined with the traditional idea of professionalism at the start of the Nordic path, so consideration of the US reveals new possibilities for formalizing improvement in the individualization of services, and institutional learning generally, arising from deliberate efforts to transcend bureaucracy. By way of conclusion, therefore, we look briefly at one such US practice—school enquiry teams—that is both relevant to the problems now facing Finnish special education (and very likely other domains of service

³² A century-long dispute in US child welfare between advocates of “rescuing” children from broken, dangerous families as soon as possible and advocates of “preserving” the natural family (or parts of it) at almost has largely come to an end in states that have adopted systems of individualized service provision that credibly work in the best interests of each child in their care. See Kathleen G. Noonan, Charles F. Sabel, and William H. Simon (2009)

provision) and exemplary of the kinds of incremental reforms that can transform traditional organizations into the providers of customized services required in the new, service-based welfare state.³³

Lessons from the Roundabout Path?

The current US school reform emerged from the long stalemate, and ultimately the mutual transformation of top-down and bottom-up efforts to fix a public school system that was patently failing students vulnerable social and economic backgrounds since at least the late 1970s. The top-down efforts focused on overcoming the limits of bureaucracies by making them more like markets. Ideally standard would be set at the national level; high-stakes tests would create incentives to motivate students, teachers and school administrators to perform as expected. If reorganization fell short, families could choose to place their children in (easily established) private schools with the help of public subsidies in the form of vouchers. These efforts, and their legacy, define the image of the US as it is perceived in recent juxtaposition of US and Finnish experienced discussed above. The bottom-up efforts at reform aimed to overcome the limits of bureaucracies by turning them into communities—ideally, in the form of small, child-centric schools managed not by administrators but by the collegium of teachers. Some leading proponents of this view see in Finnish success a vindication of their aspirations.

The clash of these two movements produced in the last 15 years a novel synthesis, first in states like Texas, Kentucky, and North Carolina, and then nationally in the No Child Left Behind Act of 2001. At its core is an experimentalist exchange: “Lower”-level units—state departments of education, school districts within states, schools within school districts and teachers within schools—are accorded autonomy in choosing how to pursue general goals, but in return must provide rich information on the choices they make, and agree to assessment of their results, ideally by jointly agreed metrics periodically revised in the light of experience. Implementation, of course, varies greatly. In some places, the incentive system was so compelling that autonomy amounted to nothing but the “freedom” to do what the system of rewards and punishments dictated. In others, standards were set so low that the mere continuation of old routines could be presented as a success. But in still others the “higher” level units—the state department of education, the school district, the school principal—realized that however motivated by incentives, the “lower”-level actors, in isolation, could not meet the demands made on them; their own role, accordingly, was to provide the diagnostic tools and peer review for a that would help those with (more) direct knowledge of problems to solve them. In states such as Florida and large cities such as New York and Denver these changes became self-reinforcing: the provision of tools and support facilitated problem solving, generating demand for more refined instruments and improved methods of cooperation. The US Department of Education is encouraging diffusion of innovations of these kinds through its Race to the Top programs; proposals to re-authorize No Child Left Behind aim to correct the deficiencies (especially the distortionary effects of the some incentive systems built into or encouraged by the original law).

³³ Though we have not done a comprehensive survey, casual empiricism suggests that the developments in schooling—individuation of service, and systematization of individuated services—are common to other domains of social service provision in Finland. In child protective services, and services to families in stress generally, for example, “it seems that the current “spirit” in child welfare—expressed, for example, in the new 2007 Child Welfare Act (417/2007)—is geared towards more systematic, documented and regulated work processes and methods, as well as coordinated structures and guidelines. (Heino 2008) This might also be the future direction in family work.” Hannele Forsberg and Teppo Kro, *Social Work and Child Welfare Politics: Through Nordic Lenses*, 2010

An example of the new instruments especially relevant to Finnish schools, with their emphasis on part-time special needs education, is the school enquiry team introduced into the New York City schools as a pilot program in 2006-2007, and diffusing at a vertiginous rate since: in 2008 14 percent of all teachers in the city's school system participated in enquiry teams, while in 2010 the rate of teacher participation reached 55 percent.³⁴ The number of teams increased from 1,918 to 7,657 in the same two-year period. The enquiry teams are characteristic of the new type of institution in that they aim to help a well-defined group of weak students address a particular learning problem, while at the same time helping teachers acquire the skills to define and treat such problems collaboratively, and modifying administration to generalize both particular results and the problem-solving activities on which it depends—in the current lingo, to drive system change. The overall goal is to achieve “big changes” by having each team stay tightly focused on difficult but manageable problem affecting 15 to 30 pupils: that is “by staying small.”³⁵

Each team is headed by the school principal, who recruits at least two additional staff members, one an expert in the subject area of interest, the other a specialist in data analysis. To build collaborative relations from the start, and improve chances of the subsequent diffusion of results, principals are encouraged as well to recruit skilled classroom teachers, ideally with wide influence in the school as well.

The team proceeds in three steps. First, it identifies “target population students” and a specific learning problem. To do this the team begins by defining a school-wide “focus group”—a set of students whose learning the school commits to accelerating on the basis of analysis of student performance data. For example, a team will often focus on the bottom third of the students, as measured by standard math or reading tests. Within this group the team then selects a “target population”—the sub-set of 15-30 students with whom it will develop specific improvement initiatives. Again the choice is informed by data analysis: If the general focus is on weak reading, the team uses more and more refined instruments to examine the group's skills and sub-skills, until it finds a limited and interconnected set of foundational or “lever” sub-skills (being able to recast the verbal presentation of a problem into mathematical formalisms, incorporating “outside” knowledge into the understanding of a text, learning to extend a paragraph thought into a three-paragraph essay), which challenge the group. The target population is chosen from the students who struggle with the sub-skill and are regularly in attendance. Teams then establish short-and long-term goal for the target group, with progress typically to be assessed by the same instruments that allowed identification of the lever-skill problem.

Once the target students, problems, and goals are set, the inquiry team's second step is to design and implement a pedagogic strategy to achieve the intended outcomes. The starting point here is analysis of the current “conditions of learning” for the target population—the conditions under which the target group is not learning to master the sub-skill.³⁶ This amounts to a root-cause analysis of the (instructional) source of the

³⁴ The following draws directly on the superb research of Michael Bishop, George Cisneros, Max Eckstein, Paul B. Simon, and Jane Wilson, “Inquiry Team Paper, April 22, 2010.

³⁵ New York City Department of Education, Office of Accountability, Children First Intensive: Inquiry Team Handbook, [hereinafter “Inquiry Team Handbook”] 5 (July 2008).

³⁶ Inquiry Team Handbook, 35.

learning problem. When the effective cause of the mis-education is thought to be understood, the team designs an alternative instructional strategy, pursues it with the target population, assesses the results, and revises the strategy as necessary. This phase of the team's work is thus an ongoing process of refinement and improvement.

The last step is to make the improvements achieved as widely available as possible within the school. Again the starting point is root-cause analysis: in this case, of the school-wide systems (for example: defects in the curriculum, lesson design, or teaching practice) that gave rise to the ineffective instructional strategy. And as in the second step, once the probable cause of the problem is found, the team designs an alternative, evaluates its performance in practice and revises as needed.

The constitution and activity of the enquiry team deliberately efface common distinctions in school reform that the Finnish system, partly by design and partly historically accidental discovery have gone a long ways to overcome. The teams serve both weaker students and all learners. Their immediate aim is to help particular groups of students overcome well-defined learning problems so that they can proceed with their studies in normal class settings. But to the extent that the teams identify neglected lever skills, and gaps or mis-orientations in the curriculum, they improve instruction for all students. The teams approach reform both from the bottom up—focusing on culture of teaching and the practices embedded in it—and from the top down—focusing on changes in administrative structures and rules. The teams by nature embody a new culture of collaboration: Teachers cooperate with other teachers, with administrators (the principal) and with staff experts (the data specialist, who may also be a teacher). The collaboration requires continuing joint evaluation of the common effort; and the eventual results will be subject to further peer review. Teaching and inquiry into the aims and conditions of effective teaching come to seem intrinsically linked. In short, the profession of teaching—what the teacher should do, what she owes to and should expect from her peers, what counts as failure and success—are re-figured. At the same time, the teams owe their very existence to new, top-down rules of reform—starting with the convening power of the principal—and aim to translate the findings of their culture of collaboration into improved routines for teaching (better “conditions of learning”), and beyond that into better routines for producing curricula and strategies of instruction that shape those conditions of learning. As (investigative) routines for improving routines at many levels of the school system, the enquiry teams are deeply experimentalist.

It is far too soon to say what effect the inquiry teams, and similar innovations, will have on New York schools and US education generally, although, given the explosive diffusion of the new institution it is fair to say that in New York, at least, there is no going back to the traditional forms of classroom teaching and school hierarchy. A whole generation of teachers would find the old ways unintelligible if not objectionable.

But the more relevant (thought not necessarily more directly answerable) question here regards the relevance of this kind of innovation for Finnish schools. It is clear that the Finnish system has found its ways to realize, at least in part, many of the deep goals of the inquiry teams: Finnish teachers, and particularly special education teachers, are taught from the first that instruction must be connected to research into learning, and vice versa. The continuous development and refinement of assessment instruments is one

expression of this connection. They are committed to the view that special needs teaching can be reconciled with—can indeed be integral to—normal classroom teaching: the prevalence of part-time special needs education is a conspicuous and, we have seen, effective expression of that commitment. They take collaboration—for example between subject or classroom teachers and special-education teachers—for granted, and engage in peer review in the SWG and other settings as a matter of course.

Yet there is no clear way to develop these practices in ways that respond to the strains emerging in the system. The reform proposals reaffirm commitments, but in doing so reveal a gap between current, largely informal reform capabilities and the requirements for change. Vantaa has taken a first step in the direction of the more deliberate and systematic review of practice that is apparently required. There has no doubt been more movement in that direction than is easily observable except to immediate participants.³⁷ Could it be that the more formal institutions of experimentalist self-correction that have emerged on the roundabout path to reform could find a way (buried perhaps in things they have already, but informally learned) past the current impasse?

That is the question posed as much by the successes as by the shortcomings and strains of the Finnish fusion of comprehensive and special education. The answer to it could speed the provision of—or perhaps show the limits to—individualized enabling services in the new welfare state.

³⁷ The self-evaluations of schools required by law since 1994 and administered by the FNBE are a good place to start looking for such developments. The FNBE suggests that schools evaluate themselves with the help of (combinations of) instruments developed by the European Foundation for Quality Management (EFQM), the Common Quality Assurance Framework (CQAF) model, and The Common Quality Assurance Framework (CQAF). The first focuses attention on careful analysis of (breakdowns) in organizational routines, the second and third, developed to encourage standardization and the diffusion of good practices in the domain of vocational training, emphasizes information pooling and the exchange of experience. Each municipality chooses whether to use any of these tools or to meet the obligation of self evaluation by some other means. Among those that have followed the suggestion of the FNBE some have well have introduced elements of systematic self-assessment and improvement that lay the foundations for further, experimentalist reforms. See http://www.oph.fi/english/sources_of_information/projects/quality_in_vet_schools/about_self_evaluation/models_of_self_evaluation.

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