

# What Is the System in Systemic Reform?

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Systemic reform seeks much more challenging instruction for all students. The key question for reformers has been how to get there, and for most the answer has been much more coherent and ambitious instructional policy. State and federal policy is not the only way to pursue improved instruction—The Coalition for Essential Schools, Accelerated Schools, and the New Standards Project all do so largely outside the framework of policy—but systemic reformers have viewed government as their chief vehicle. The leading examples of changed state and national policy include the California and Vermont reforms, Goals 2000, the NSF State Systemic Reform Initiative, and the Kentucky reforms.

Systemic reform focuses in two arenas: creating new policy instruments that seem necessary to enact systemic reform, and reducing the inherited tangles of regulation, bureaucracy, proliferating policy, and incoherent governance that would impede reform (Smith & O'Day).<sup>1</sup> The new policy instruments are commonly thought to include:

- New content standards or instructional frameworks
- Assessments that focus students' and teachers' work on intellectually authentic tasks, and that are "aligned" with new content standards
- More ambitious curricula that are consistent with new standards and assessments
- Changes in teacher education that would improve enactment of the new standards.

Despite this focus on policy, systemic reform aims to change teaching, for without that most students' learning would not improve. Reformers know that, but assume that the policy instruments listed above would, as they often say, "drive" instruction. But that remains a conjecture, for there is little evidence of direct and powerful relations between policy and practice.<sup>2</sup> In what follows I report on what researchers have been learning about that relationship in the context of systemic reform.<sup>3</sup>

## Policy Guidance for Instruction

Systemic reformers seek much more coherent and powerful state guidance for instruction, but power and authority have been extraordinarily dispersed in the U.S., especially in matters of instruction.<sup>4</sup> Proposals for high standards and coherent instructional guidance could only be realized as they filtered through this unusually fragmented political structure. Has the new instructional guidance created more coherence in an incoherent system?

Systemic reform has had significant effects, but it does not yet seem to have made guidance for instruction more coherent. Reformers made impressive progress at the federal level between the mid-1980s and 1994, beginning with

the Governors' remarkable meeting with President Bush at Charlottesville in 1989, and their agreement on the National Education Goals. The National Education Goals Panel was formed shortly thereafter, and after several years of legislative disagreement, Congress passed Goals 2000 in 1994. Title I—formerly Chapter I—was reauthorized a few months later, and it too pushed toward systemic reform by requiring state Title I programs to set high instructional goals for students, to devise or adopt intellectually ambitious content and performance standards, and to create local programs that would push all students to high standards and hold schools accountable for the results. Because Title I is a seven billion dollar annual formula-grant program that operates in all states and more than 90% of all local districts, reformers expected that state and local desire for Title I funds would lead them in the direction of Goals 2000.<sup>5</sup>

These two statutes represented remarkable changes in federal education policy, and they may mark the beginning of a fundamental shift in the federal role in schooling. But national politics changed dramatically in November of 1994. As a result, NESIC (Title II of Goals) is gone, and is it not clear whether Goals will survive at all. Title I also is slated for major budget cuts. This picture is reminiscent of most past federal efforts at school reform, in which rapidly changing political priorities crippled new initiatives before they had fairly begun.

The fate of the movement for systemic reform also will depend on what happens in the states, and so far that has been a very mixed story. In certain respects the reforms made significant progress in many states between the mid-1980s and 1994, as guidance for instruction moved in the direction of reform. California produced a series of ambitious new instructional frameworks in the core academic subjects between 1985 and 1992, and made large changes in the content and format of the state assessment program. Vermont has made similarly impressive changes in professional involvement, assessment, and other guidance for instruction. Kentucky drastically overhauled its entire school system in response to a court order, installing new systems of assessment, accountability, and professional development. Other states have moved in the same rough direction—South Carolina, Arizona, New York, Connecticut, and Delaware among them—though with varying strategies and at different speeds.

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Differences among states are as noteworthy as the similarities. Michigan, which for most of its history had a very decentralized school system, moved toward more central guidance, but in a much more piecemeal fashion than California, Kentucky, or Vermont, and with few signs of the guiding vision of reform that could be found in those three states. Michigan revised its guidance for reading quite dramatically in the mid-1980s and a few years later revised the state reading tests, almost as an afterthought. Revisions in mathematics and science guidance and assessments followed several years later, but at roughly the same time the legislature initiated a core curriculum measure that required local districts to devise their own approaches to core subjects. Shortly thereafter and for different reasons the governor and legislature overhauled the state school finance system, which reduced local property taxes and increased the state's role in school finance.<sup>6</sup> South Carolina, by contrast, moved quickly from a well-established and highly centralized 1980s state program that pressed schools to teach facts and skills, and rewarded them for test-score gains, to an early 1990s program that focused on intellectually much more ambitious instruction within a more decentralized state structure. But the new system of frameworks and assessments is still quite incomplete, and the state did not dismantle its previous system of rewards for performance on statewide standardized tests.<sup>7</sup> California took an aggressive approach to developing new state guidance in the late 1980s, placing most emphasis on the systematic development of new instructional frameworks. The state also sustained the clearest vision of intellectually ambitious instruction for the longest time—between 1985 and 1994. But it changed strategy and tactics several times. For instance, in mathematics it initially published a brief new framework in 1985 that offered innovative but broad guidance, and placed most of its bets on changing textbooks through the state adoption system. When that produced only modest changes state leaders promoted alternative curriculum materials (replacement units) that might ultimately supplant texts, and gave more emphasis to a revised state testing program, arguing that once the assessments were changed and the results published, low scores on more ambitious tests would "drive" school professionals to improve.

As these examples suggest, state guidance for instruction varies considerably. It varies within many states partly because state governments often have sent mixed or conflicting messages about instruction in the space of a few years. It varies among states because they differ in the comprehensiveness, speed, approach, and depth of their reforms, and because they have rather different histories—systemic reform was not being grafted onto the same tree in each state. It also varies because the 1994 elections changed political control in many governorships, state legislatures, and state school boards, in consequence of which more than a dozen states have begun what they announce as major deregulation efforts—including efforts to repeal or dramatically cut back state education codes and to disestablish state education departments. Some have attacked systemic reform and argued for a greater emphasis on "basics." If successful, these efforts would partly or entirely dismantle the systemic reforms that states had been constructing. They certainly have increased conflict in state guidance for instruction. Hence, while systemic reform

brought a broad drift toward intellectually more ambitious instruction at the state level for about a decade, thus far it has not brought more coherence to state guidance for instruction.

The local response to systemic reform reinforces that conclusion. The guidance for instruction that many local central offices offer to schools has begun to shift in the direction of reform, but that shift has so far not been accompanied by greater local coherence in guidance for instruction. One reason is that districts' responses differ quite significantly, one from another within states. For instance, a few Michigan localities moved aggressively in the direction of reform, largely because local education leaders saw the state's proposals as a way to advance their own long-held ideas about instruction. Several other districts ignored the reforms, but many others moved cautiously and irregularly in new directions.

Change also was fragmentary within districts, partly because many central offices sent mixed signals. Even in districts with quite progressive central leaders who pressed for reform, other central office staffers argued for or persisted in a more traditional approach. Central office administrators often interpreted new state policies in different ways within districts because central subunits have quite different missions and make use of higher level policies accordingly.<sup>8</sup> That story was repeated with local variations in relatively small and homogenous districts and in relatively large and heterogeneous districts. The varied local responses to systemic reform also owe a good deal to differences among schools' responses to district-level guidance for instruction. Principals' response varied significantly within districts: some embraced the reforms and used them as an opportunity to try to change instruction while others maintained their attachment to traditional classroom methods, and still others adopted a neutral stance. Though scholars habitually write as though school districts are unitary and internally homogenous organizations, they are not.<sup>9</sup>

As a result of these developments, variability in guidance for instruction has increased in consequence of efforts to reduce it. There has been a broad movement toward intellectually more ambitious instruction, but there also has been great variability within that movement, as well as many contrary and simply different movements. Reforms that seek more coherence in instructional policy have helped to create more variety and less coherence. These are of course only initial responses; if states and localities continue to press for systemic reform for many years more, and if the new ideas sink in more deeply, greater coherence may ensue. But recent state attacks on systemic reform may mean that the new ideas will not have much more time to sink in.

One reason for increased variability in state and local guidance for instruction is that the growth of state instructional policy has not constrained local instructional policy making. State guidance added messages, but so did local agencies. Nothing was subtracted. The states have used a diverse array of policy instruments—new instructional standards or frameworks, new curriculum guidance, revised testing programs, and even revamped professional education—but local educational authorities acted as though they had undiminished authority to make instructional policy. Some rewrote local standards or frameworks,

revised professional education, and changed testing programs, while others continued as before. Local school policymaking generally is more active now than it was in the 1970s. Growing state action has increased the sources of active guidance for instruction rather than shrinking local guidance in deference to states.<sup>10</sup>

Another reason for increased variability in state and local guidance for instruction is that the growing activity occurred in a terrifically fragmented organization. The U.S. school "system" is in some critical respects a nonsystem, a congeries of more than 100,000 schools situated in 15,000 independent local governments, governed by fifty state governments and hundreds of intermediate and special district governments in between, as well as by several federal agencies and influenced by countless private organizations.<sup>11</sup> As the reform ideas became popular and played through this fragmented structure they were picked up by an astonishing variety of organizations—all concerned with schools but each concerned in its own way. The sprawl of organizations helped to amplify differences in what educators made of the messages that flowed around them.<sup>12</sup>

Still another reason for more varied guidance for instruction is that reform proposals point in several directions at once. Reformers want more powerful central guidance for instruction but they also want more autonomy for local schools. Added power for schools could be consistent with more potent central influence if both were balanced by large subtractions from local, state, and federal governance and policy. But in practice politicians find it much easier to add than to subtract, for agencies scheduled for elimination either do something useful, have influential advocates, or both. Hence several states that tried to increase local autonomy also maintained or increased central authority. For example, South Carolina recently sought to strengthen state guidance for instruction by introducing new frameworks but it did not reduce state regulation, and much older guidance remained on the books; there was little streamlining.<sup>13</sup> At the same time the state legislature tried to decentralize state government and increase individual schools' influence and involvement in a scheme to bypass district central offices, channel some state funds directly to schools, and to involve representatives of various interest groups in local decision-making. If that initiative succeeds, administrative and political activity in public education will increase and governance overall will become much more busy and overgrown. Conflicting reform ambitions and the addiction to adding without subtracting mean that efforts to simplify also complicate, and that efforts to decentralize also centralize.<sup>14</sup>

A last reason for increased variability in guidance for instruction has been the reform agenda itself. Many reformers who want more demanding standards differ about what such standards are, how they might be developed, and how they might be used.<sup>15</sup> Even in mathematics, where the National Council of Teachers of Mathematics (NCTM) standards are commonly believed to mark unprecedented agreement about the purposes and methods of better education, practitioners and policymakers hold many different ideas about what the standards mean and what they might suggest for practice. The NCTM standards are phrased generally, and necessarily leave consid-

erable ambiguity about the sort of action. That is no oversight, for the sorts of ambitious and complex instruction that NCTM wants to encourage could not be closely specified without being transformed into something much less ambitious and complex. But one result is to encourage the sorts of differences mentioned just above.

Systemic reform has begun to change American education, nudging guidance for instruction in the direction of more ambitious goals, higher standards, new assessments, and more substantial curriculum. But American education has begun to change systemic reform, as existing organizations turn proposals for more focused and coherent guidance into a gathering babel of reform ideas and practices. That should be no surprise, for American government was designed to frustrate exactly the sort of coordinated action within and among governments that systemic reformers seek. But the consequences are troubling. The expansion of policy in a fragmented and diffuse system has spawned more agencies and increased political and administrative traffic without greatly increasing the capacity for instruction.<sup>16</sup> The carefully designed barriers within American government have kept public education agencies weak even as they grew in the wake of expanding policy.<sup>17</sup>

### Teaching and Reform

Though government has been the chief agent in systemic reform, it is far from the only agent. Advocates of systemic reform propose to radically change instruction, and for that they must rely on teachers and administrators. But these agents of change are the very professionals whose work reformers find so inadequate. Teachers are the problem that policy must solve, in the sense that their modest knowledge and skills are one important reason why most instruction has been relatively didactic and unambitious. But teachers also are the agents on whom policy must rely to solve that problem, for unless they learn much more about the subjects they teach, and devise new approaches to instruction, most students' learning will not change.

One plausible criterion for the success of systemic reform in changing practice is teachers' awareness of new policy directions, and by that measure the new state policies are doing well. For example, in California in 1994, 44% of elementary teachers reported that they "had read much or all of the 1992 mathematics framework," which is a remarkable result for only two years.<sup>18</sup> Another criterion is practitioners' attitudes toward the reforms, and in the same 1994 survey 51.6% of teachers reported that they were "positive" or "strongly positive" about the state's new standards and assessments for mathematics. Still another criterion for success is practitioners' discourse, for if the new ideas seep into teachers' and administrators' conversations there may be some basis for understanding and thus further change. By that criterion as well the reforms have made significant progress. For instance, 54% of California elementary school teachers were able to quite accurately distinguish between leading reform ideas and other conceptions of mathematics instruction.<sup>19</sup> Many teachers in Michigan also have made significant changes in their ideas about reading.<sup>20</sup>

A more stringent criterion of success is incorporation into practice, but many teachers report that they are using new ideas and practices. In reading, for example, many

have traded basal reading texts for what they refer to as "real" books and stories. Some of the new texts no longer entail ability grouping, and the once-ubiquitous reading groups have disappeared from many classrooms. One also finds improved texts and other materials in mathematics. In California more than 90% of elementary teachers report that they use at least one set of the mathematics curriculum materials that are associated with the reforms.<sup>21</sup> Even when the most popular and easiest to use materials are excluded, 65% still used at least one set of reform-oriented materials.<sup>22</sup> These are impressive results when viewed in light of earlier reports on the adoption of traditional instruction in U.S. classrooms.<sup>23</sup>

Yet these reports must be qualified in several respects. For one thing, there are large differences of opinion about the significance of change in teaching. Many teachers, looking back to their past practice, say the changes are dramatic, but when one considers things in light of new goals for instruction the changes in teaching seem very modest. For another, the changes have been quite disparate. While many teachers use new ideas and practices they use them in remarkably different ways. For instance, many report that they have adopted a "whole language" approach to reading, but some take this to mean that reading is best learned by dealing with real literature and entire texts rather than studying component facts and skills in isolation, while others employ bits of literature and allow children only superficial acquaintance with texts. Though there has been a broad drift toward more thoughtful instruction and the use of more demanding and interesting materials, there has been considerable variability in teachers' interpretation of the new policies.

There are especially striking differences among subjects. Teachers do use more manipulative materials in math, and the new textbooks have somewhat more material on "problem solving." Teachers also are more likely to ask students to explain their reasoning rather than simply to report their answers. But changes in math instruction are not as extensive as in reading and language arts, for teachers are much more literate than numerate, and thus are able to make greater sense of the reading reforms and to use innovative materials much more extensively.<sup>24</sup> State and national reformers say that the mathematics reforms are far ahead because the national mathematics frameworks are so impressive, but the math reforms also are far behind because the human and social resources for improving mathematics instruction are so much thinner than those for reading in most schools and districts.

One reason for the variability in teachers' response to the reforms is that teachers work in the system of schooling that I described earlier, and learned about the reforms in part from messages that filtered through that fragmented system.<sup>25</sup> Teachers in the same school systems and schools often heard different messages from different administrators and specialists.<sup>26</sup> Teachers' learning about policy also is shaped by the social circumstances in which they work, and compared with France, Japan, or other developed nations ours is a remarkably diverse society with extraordinarily unequal schools. Teachers in disadvantaged schools often saw state reforms as a complication in their struggles with the problems of an extraordinarily diverse and needy student body, and worried about how they could help students to do well on much more ambitious

state assessments, while teachers in more privileged schools a few miles away saw the same state policies as a minor element in their efforts to satisfy parents' elevated expectations.

Another reason for variability in teachers' response to the reforms is that they bring different experience, knowledge, and sense of efficacy to their encounters with policy, so that even teachers who worked in the same school, and had access to the very same messages about reform from local central offices and principals, responded very differently.<sup>27</sup> Teachers' opportunities to learn also varied a good deal, even within schools. Because government is relatively weak and the private sector is relatively strong in the U.S., many teachers learned more from unofficial sources outside school systems than from official sources—i.e., they read about new ideas in professional magazines, heard about them in university courses and professional meetings, and tried them out in workshops that they attend for their own reasons.<sup>28</sup>

Classroom instruction has begun to change as teachers respond to systemic reform and new materials became available, but systemic reform has begun to change as ambitious new guidance for instruction filters through the fragmented nonsystem of school governance to teachers, who apprehend and interpret that guidance in light of their varied knowledge, beliefs, and practices. The new guidance has influenced instruction, but most teachers have had great latitude to assign different meanings to new policies and to respond idiosyncratically.<sup>29</sup> American teachers have moved toward systemic reform, but in a distinctively disjointed and individualistic fashion.

### Practice

One view of this result is that the governments on which reformers have relied to change instruction are relatively weak. That is true, but if we chalk up the modest success of systemic reform only to relatively weak government it would be fair to conclude that more systemic reform and stronger government would solve the problem. State and federal reformers who assumed that policy could "drive" instruction might draw such conclusions. But it is no less reasonable to ask whether instructional practice could be driven by the policy package of systemic reform.

If we consider systemic reform from the perspective of practice, it implies deep changes in at least three areas of instruction: knowledge of academic subjects, and teaching and learning; professional values and commitments; and the social resources of practice. But these are among the weakest elements in instruction in the United States. Consider teachers' knowledge. Teachers approached the reforms with little knowledge of the sorts of instruction that reformers desired, for their professional education did not prepare them to deal in a polished way with intellectually challenging content, and most learned to teach in a rather traditional and didactic manner. Many have responded with energy and interest to the reforms, and changed their practice, but they had few of the professional resources required to monitor their own activity, notice inappropriate work, and take corrective action. To do such work teachers would have needed a much greater grasp of the disciplinary knowledge that the reforms assume, and much more fluency in using such knowledge.

Teachers would need more than improved skill and knowledge. They could hardly boost students' achievement if they thought them incapable of learning much, yet many believe that most students are incapable of advanced work, especially in mathematics and science. Many teachers of disadvantaged students believe that their charges have quite limited academic capacities.<sup>30</sup> Increasing professionals' ability to respond constructively to systemic reform thus would depend on changes both in their beliefs and their conceptions of acceptable professional practice. Without technical capacity all the professional values in the world would be useless, but without those norms all the professional knowledge and skill in the world would be impotent.

Such values and conceptions of practice are not easy to acquire. One reason is that most teachers' own schooling was quite inadequate, and they have little or no experience with the sort of learning that the reforms assume, and lacking experience themselves makes it difficult to imagine it for others. Teachers also lack evidence from professional experience that such beliefs are warranted: they have seen few instances in which ordinary students perform at high levels, and many in which they do not. Absent convincing evidence of the sorts of performance that the reforms envision, it is reasonable for teachers to doubt its possibility.

New professional values and commitments also are difficult to acquire in isolation, for professional values and knowledge interact. To help students achieve at high levels teachers would not only have to believe that students could do it but they also would have to know what many different sorts of good performance looked like, how they were different than weak or mediocre performance, and how to produce the first and avoid the second. That would require extensive repertoires of instructional actions that could be taken in pursuit of particular academic goals, criteria of good performance, and the belief that they and students should do their very best. Professional values, commitments, and knowledge are regulatory agents of practice. They comprise the internal standards that enable professionals to know what good and poor performance are, the knowledge that enables teachers to work skillfully with students in pursuit of such standards, and the beliefs and commitments that drive teachers to work energetically and well, and to correct themselves when they do not. These internal regulatory systems are the chief means by which professionals discriminate good, bad, and mediocre work and hold themselves accountable.<sup>31</sup>

No less significant, American public education contains few social and professional structures that would help teachers to learn such knowledge and values. Few schools focus explicitly on learning, or make teaching a matter of public attention in efforts to improve learning, or connect their work to larger visions of quality education. Lacking experience of that sort, few teachers see it as their responsibility to seek out or devise such opportunities for themselves. And lacking opportunities to learn, consult, argue, and revise, initial values and knowledge remain as unexamined potent influences on instruction.

Professional values and commitments do not subsist in a social vacuum. Teachers cannot be expected to dramatically improve instruction in the absence of the social resources that support it. One is students who will collaborate in and families that will support improved

schooling, but as things now stand many teachers do not have those resources. Instead many have indifferent students and families, or terrific conflict over the ends and means of schooling. A second social resource of instruction is students who are decently prepared to attend school and engage in academic work, yet many are ill-fed and clothed, barely literate, get little or no help with schoolwork from parents, and face daunting social and family problems. Even with the most committed and capable teachers, such students would face immense problems in performing at high levels.

A third social resource of instruction is social and economic incentives for demanding academic work.<sup>32</sup> For the social agencies that consume the schools' products—i.e., higher education institutions that admit high school graduates and business firms that hire them—send important signals about what knowledge matters and how demanding school work is valued. If these agencies do not value such work, why should teachers or students push themselves to do it? As it happens, universities, businesses, and the communications media in the United States send mixed but generally weak signals about the importance of high academic performance.<sup>33</sup> The lack of interest in academic performance from most employers, colleges, and universities deters students from thinking that grades, effort, or behavior count for jobs, and that deters teachers from thinking that their judgments about students could make a difference.<sup>34</sup>

I have argued both that three elements of practice—teachers' knowledge of academic subjects, teaching, and learning; their professional values and commitments; and the social resources of practice—are crucial to the progress of systemic reform, and that they are distinctively weak in U.S. education. Hence, reformers have relatively little to build on. With respect to teachers' knowledge, many reformers accepted that teachers needed to learn more, and many state reforms dealt in some way with professional development for teachers. Compared to past reform efforts, that was notable progress.<sup>35</sup> But only a few states—notably Vermont and Kentucky—gave professional development anything approaching a significant place in their reform package, and even in those states, analysts argue that both would need much more work on teacher education than was contemplated.<sup>36</sup> Other states have given a much higher priority to creating new standards and devising new assessments than to enabling teachers to learn what the new standards and assessments proposed. One reason seems to be that spending money on teacher education is politically unattractive, and another is that the state agencies concerned with public K-12 schools often have nothing to do with agencies concerned with teacher education; as a result few states have tried to revise teacher education requirements in light of systemic reform. There also seems to have been a pervasive assumption that if standards and assessments were created the knowledge used in classrooms would somehow change. The underlying notions—that what states taught would be learned by teachers, and that tests would drive instruction—closely resemble the didactic ideas underlying the old pedagogy, but they also make sense in state politics, in which there are many more incentives for legislation than for follow-through and implementation. The low priority placed on professional learning had explosive results in California,

when new state assessments that called for much more demanding performance for students were administered long before most teachers had opportunities to learn what the new tests would have them teach. Students did poorly, and that contributed to Governor Wilson's effort to scuttle the entire scheme for new assessment.

Even if states had faced the problem of professional education head-on, they would have had a daunting task. Research suggests that few suitable providers exist, and there do not seem to be many professionals who have the required knowledge and could become providers, if there were strong demand for better professional education. Few states seem to have any strategy for human resource development, save perhaps the identification of areas like reading or mathematics for making grants to local districts. Only a few states have any capability for doing more than making grants, and most local districts are little different. They offer an array of after-school, weekend, and summer professional development programs and opportunities that reflect no particular strategy for human resource development, and pursue no particular priorities.<sup>37</sup>

Many reformers also accept the need for new standards of professional conduct, and many efforts at systemic reform reflect an effort to deal with the problem of inadequate standards. But nearly all of these have been schemes to hold teachers "accountable" to public authorities for their students' test scores. These schemes display little recognition of the central regulatory role that professional values, knowledge and commitments play in professionals' work, focusing instead on compliance with external standards. State and federal systemic reform efforts substitute administered systems of rewards and penalties for the creation of new professional values and commitments, assigning the regulation of professional behavior to state agencies rather than to professionals. While there is no evidence yet on the effects of these accountability schemes, there are several reasons to doubt that they will help to build new professional values and commitments. One is that prior experience with such accountability suggests that most teachers complied mechanically, teaching to tests rather than broadening and deepening their knowledge and skills.<sup>38</sup> A second is that systemic reform envisions profound changes in teachers' professionalism, including steep elevation of professional knowledge and skill, extraordinary complication in teachers' roles, and radically new and demanding conceptions of professional conduct. The chief agencies of such change could only be revolutions in teachers' knowledge and professional values, and it seems unlikely that such changes could be "driven" by non-professional systems of external rewards and punishments, administered by agencies of the state.

There have been some signs of new commitments developing within the education professions, though they are mixed. It is promising that many professional organizations have followed NCTM and produced new content standards, but it is troubling that few are well suited to instructional use. It is very promising that the National Board for Professional Teaching Standards (NBPTS) has begun to create a new system of standards and examinations for teaching, but it seems likely to be broadly influential only if NBPTS and other agencies are able to use the exams as a significant agent for teacher education. Many state reform efforts have depended heavily on state profes-

sional associations, for these associations promoted changes in curriculum, standards, and professional values. The leading example is in writing, where more than a decade of professional work on writing process seems to have played an important role in advancing more thoughtful conceptions of literacy and learning, and new approaches to teaching. The changes were professionally inspired and executed, and they were carried out in ways that enabled classroom practitioners to learn, change practice, and cultivate capacities that would enable them to respond to new standards. But there are no other examples or professional initiatives that are comparable to writing.

Systemic reform has had similar difficulties dealing with the social resources of instruction. Only Kentucky seems to have made an effort to augment more demanding state standards with more adequate state efforts to support children from families at risk from poverty. No states tried to strengthen the incentives for school performance that emanate from business firms and universities. And, despite America's long history of bitter conflict over efforts to reform schools, systemic reformers did not seriously try either to mobilize broad popular support or to frame their program in ways that might avoid the most crippling attacks. Like the curriculum reforms of the late 1950s and early 1960s, the movement for systemic reform has been composed mostly of education professionals and members of political elites, and has no popular roots.

## Conclusion

Coherence in policy is not the same thing as coherence in practice. Systemic reform seems to assume that instruction is a homogenous and unified system that can be driven by a small set of policy instruments—i.e., standards and assessments. But I have argued that instruction includes several related "systems"—teachers' knowledge, their professional values and commitments, and the social resources of practice. One difficulty for systemic reform has been that these elements of instructional practice are distinctively weak in the United States, and a second has been that the instruments of policy that governments deployed since 1985 were not well designed to repair these weaknesses in practice. A third has been that the three elements of instruction seem to be weakly interdependent. Hence, making change in teachers' knowledge and skill, for example, would not necessarily lead to change in teachers' values and professional commitments—recall that American universities are full of deeply educated disciplinary specialists who give little or no attention to instruction. There seem to be few consistent connections between academic knowledge and professional values and commitments. Similarly, academic knowledge is not necessarily linked to any particular approach to practice. Teachers' conceptions of knowledge appear to have no logical or practical tie to whether they respect and investigate students' thinking, orient lessons to authentic problems, and the like. The apparent logic of systemic reform is that instruction is a homogenous and unified system that can be driven by a small set of policy instruments, but these considerations suggest that changing one element of practice may not produce significant change in other elements.

Hence I offer three answers to the query in my title. One is that the system one sees depends partly on the vantage from which one looks. If one looks from the perspective of

policy one can see a system of the instruments available to guide instruction. But another is that if one looks from the perspective of instruction, one sees that it comprises a set of weakly linked domains, unlikely to be easily "driven" in a constructive direction by the more popular state policy instruments. Finally, if one looked from both perspectives, one could see that the system in systemic reform was not well matched with the nature of instruction. Systemic reform rests on much careful analyses of what is wrong with learning in America, but on little comparable analysis of how instructional practice is constituted, or how it might be changed.

## Notes

<sup>1</sup>Jennifer O'Day and Marshall Smith, "Systemic Reform and Educational Opportunity," chap. 8 in *Designing Coherent Policy*, ed. Susan Fuhrman (San Francisco: Jossey-Bass, 1993).

<sup>2</sup>Daniel K. Cohen, "Policy and Organization: The Impact of State and Federal Educational Policy On School Governance," *Harvard Educational Review* 52, no. 4 (1982), 474-499; See also: Daniel K. Cohen and James P. Spillane, "Policy and Practice: The Relations Between Governance and Instruction," *Review of Research in Education*, vol. 18 (Washington, DC: American Educational Research Association, 1992), 3-49; Susan Fuhrman, William Clune, and Richard Elmore, "Research on Educational Reform: Lessons on the Implementation of Policy," *Teachers College Record* 90, no. 2 (1988): 237-257; Susan Fuhrman and Richard Elmore, "Understanding Local Control in the Wake of State Educational Reform," *Educational Evaluation and Policy Analysis* 12, no. 1 (1990): 82-96; James P. Spillane, "School Districts Matter: Local Educational Authorities and State Instructional Policy," *Educational Policy*, (in press).

<sup>3</sup>This section draws on my essay "Systemic Reform: Politics, Practice, and Performance," to be published in *Holding Schools Accountable: Performance-Based Reform in Education*, ed. Helen Ladd (Washington, D.C.: Brookings, in press).

<sup>4</sup>The basis for my report in this section is a continuing study of how intellectually ambitious state instructional policies develop and are enacted by state and local educators and teachers. The research has been conducted in more than a dozen districts in three states—Michigan, California, and South Carolina. The districts range from large to small and from highly urban to semirural. They include several cities—one very large and several others of medium size—and two fairly conventional suburbs. All of the districts include schools in which there are an appreciable number of disadvantaged children, and more than half are heavily enrolled by such children. The research team has observed and interviewed in second and fifth grades, and in most cases we followed teachers' work for three to five years.

I am indebted to my colleagues in that study, including Deborah Lowenberg Ball, Carol Barnes, Jennifer Borman, James Bowker, Daniel Chazan, Pamela Geist, S. G. Grant, Ruth Heaton, Nancy Jennings, Nancy Knapp, Susan Luks, Steve Mattson, Penelope Peterson, Sue Poppink, Richard Prawat, Jeremy Price, Ralph Putnam, Janine Remillard, Peggy Rittenhouse, Angela Shogreen-Downer, James Spillane, Sarah Theule-Lubienski, Karl Wheatley, and Suzanne Wilson. The study has been supported in part by Michigan State University, and by grants to Michigan State University and The University of Michigan from the Pew Charitable Trust (Grant No. 91-04343-000), The Carnegie Corporation of New York (Grant No. B 5638), the National Science Foundation (Grant No. ESI-9153834) and the Consortium for Policy Research in Education (CPRE), which is funded by a grant from the U.S. Department of Education, Office of Educational Research and Improvement (Grant No. OERI-G-008690011). I am indebted to the granting agencies for their assistance, but the ideas expressed here are mine, and are not necessarily shared by the grantors or my colleagues in the research.

<sup>5</sup>See Education Funding Research Council, *Title I Update XVI*, no. 2 (August 1995): B-319-20.

<sup>6</sup>David K. Cohen, James P. Spillane, S. G. Grant, and Nancy Jennings, "Reading Policy: Reading Reform in Michigan," chap. 7 (mss. in preparation).

<sup>7</sup>This report is based on several unpublished papers: Nancy Jennings, James Spillane, and Jennifer Borman, "Basic Skills to Ambitious

Use of One District's Efforts at Structural and Instructional Reform" (paper presented at AERA Annual Meeting, New Orleans, April 1994); Nancy Jennings and James Spillane, "State Reform and Local Capacity: Encouraging Ambitious Instruction for All Through Local Decision-Making" (paper presented at the AERA Annual Meeting, San Francisco, April 1995).

<sup>8</sup>See James P. Spillane, "Interactive Policy-Making: State Instructional Policy and the Role of the School District." (Ph.D. dissertation, Michigan State University, 1993).

<sup>9</sup>James P. Spillane, "Educational Reform and the Non-Monolithic Character of the School District," manuscript.

<sup>10</sup>Cohen, *Policy and Governance*; see also: Cohen and Spillane, *Policy and Practice*; Fuhrman, Clune, and Elmore, *Research on Educational Reform*; Fuhrman and Elmore, *Understanding Local Control*; Spillane, *Educational Reform*.

<sup>11</sup>For a general account of the development of this organization see Cohen, *Policy and Governance*; and Cohen and Spillane, *Policy and Practice*.

<sup>12</sup>W. Richard Scott and John W. Meyer, "The Organization of Societal Sectors," in John W. Meyer and W. Richard Scott, *Organizational Environments: Ritual and Rationality* (Sage, Beverly Hills, 1983): 129-153. See also John Schulle, Andrew Porter, Robert Floden, Don Freeman, L. Knappen, Terry Kuhs, and William Schmidt, "Teachers as Policybrokers in the content of Elementary School Mathematics," in *Handbook of Teaching and Policy*, eds. Lee Shulman and Gary Sykes (New York: Longman, 1983), 370-391.

<sup>13</sup>See O'Day and Smith, *System Reform*.

<sup>14</sup>One can find parallel instances in almost all state reform efforts. Late in 1993 the Michigan legislature passed a large package of reform legislation. In certain respects it expanded state influence in curriculum and sought to clarify lines of responsibility over matters of curriculum and instruction. But Public Acts 335 & 339 (1993) also reflected a deep tension between efforts to simplify instructional governance by establishing stronger state-level leadership over curriculum and instructional matters, and efforts to preserve local control on these matters; see Charles Thompson, James P. Spillane, and David K. Cohen, "The State Policy System Affecting Science and Mathematics Education in Michigan" (East Lansing: Michigan State University College of Education, 1994). On the one hand the legislation encourages or mandates state agencies to take a more active role in educational decision making, but on the other it encourages or mandates local districts to take a more active role in educational decision making.

<sup>15</sup>The differences are quite sharp. Compare, for example, these views. On one side are William Clune ("The Best Path To Systemic Educational Policy: Standard/Centralized or Differentiated/Decentralized," *Educational Evaluation and Policy Analysis* 15, no. 3, 233-254), and Linda Darling-Hammond ("Beyond Bureaucracy: Restructuring Schools For High Performance", forthcoming in *Incentives and Systemic Reform*, ed. Susan Fuhrman; Jossey-Bass, San Francisco, 1996). Both Clune and Darling-Hammond favor some sort of decentralized reform process. But Marshall Smith and Jennifer O'Day, *Systemic Reform*, advocate a much more structured and "systemic" process of change that would have significant uniformities, at least within states.

<sup>16</sup>See Meyer and Scott, *Organization of Societal Sectors*.

<sup>17</sup>Cohen, *Policy and Governance*; and Spillane, *School Districts Matter*.

<sup>18</sup>These data arise from a survey of California elementary school teachers that is sponsored by NSF (Grant No. ESI-9153834), and jointly carried out by Joan Talbert at Stanford University, Deborah L. Ball, Penelope Peterson and Suzanne Wilson at Michigan State University, and myself at The University of Michigan. The data analysis reported here has been done by Heather Hill, at The University of Michigan. The percentages are based on an unweighted sample, and may change slightly when sampling weights are applied.

<sup>19</sup>The criterion here was that teachers had to get two or fewer incorrect answers on a thirteen-item list of quite diverse ideas about mathematics teaching.

<sup>20</sup>These conclusions are based on studies of more than sixty teachers in a dozen districts in three states. For detailed studies of a few of these teachers see: Nancy Jennings, *Interpreting Policy In Real Classrooms* (New York: Teachers College Press, forthcoming); James P. Spillane, "Constructing An Ambitious Pedagogy in Fifth Grade: The Mathematics and Literacy Divide" (paper presented at the AERA Annual Meeting, San Francisco, April 1995); Scott G. Grant, *The Variation in Teachers' Responses to Reading, Writing, and Mathematics Reforms* (Ph.D. dissertation, Michigan State University, 1994).

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<sup>21</sup>The full list of curriculum materials was: Elementary Mathematician, Family Math, AIMS, Math Their Way, Math in Stride, Logo Geometry, Beyond Activities (e.g., Polyhedrville), Mathematics Replacement Unit Projects (including Math by All Means, Math Excursions 2, Seeing Fractions, Used Numbers, and My Travels with Gulliver), Arithmetic Teacher, and Mathematics Teacher.

<sup>22</sup>Math Their Way and AIMS were the excluded items in this case.

<sup>23</sup>For example, see Wayne W. Welch, "Twenty Years of Science Curriculum Development: A Look Back," *Review of Research in Education*, vol. 7 (Washington, DC: American Educational Research Association, 1979), 282-306.

<sup>24</sup>See Jeremy Price, Deborah L. Ball, and Susan Luks, "Marshaling Resources for Reform: District Administrators and the Case of Mathematics," (research report 95-2, East Lansing: Michigan State University, National Center for Research on Teacher Learning, 1995); Deborah L. Ball and David K. Cohen "What Does the Educational System Bring to Learning a New Pedagogy of Reading or Mathematics?" paper presented at the Annual Meeting of AERA, April 1994, New Orleans; and Spillane, *Constructing An Ambitious Pedagogy*.

<sup>25</sup>See Spillane, *Interactive Policy-Making*.

<sup>26</sup>Grant, *Variation in Teachers' Responses*.

<sup>27</sup>Cohen, Spillane, Grant, and Jennings, *Reading Policy*, chap. 6.

<sup>28</sup>See Grant, *Variation in Teachers' Responses*.

<sup>29</sup>Schwille et al., *Teachers as Policybrokers*.

<sup>30</sup>See U.S. Department of Education, *Prospects: The Congressionally Mandated Study of Educational Growth and Opportunity. The Interim Report*. (Washington, D.C.: Author, 1993): 192-194.

<sup>31</sup>Jere Brophy, "Research Linking Teacher Behavior to Student Achievement," *Educational Psychologist* 23, no 3 (1988), 235-286.

<sup>32</sup>See, generally, Cohen and Spillane, *Policy and Practice*.

<sup>33</sup>J. Bishop, *Incentives for Learning: Why American High School Students Compare So Poorly to Their Counterparts Overseas* (Ithaca, N.Y.: Cornell University, Center for Advanced Human Resource Studies, 1989); J. Bishop, *Information Externalities and the Social Payoff to Academic Achievement* (Ithaca, N.Y.: Cornell University, Center for Advanced Human Resource Studies, 1987).

<sup>34</sup>Rosenbaum, J., and Kariya, T. "Self-Selection in Japanese Junior High Schools: A Longitudinal Study of Student's Educational Plans," *Sociology of Education* 60, July (1987), 168-180.

<sup>35</sup>Peter Dow, *Schoolhouse Politics* (Cambridge: Harvard University Press, 1993).

<sup>36</sup>Margaret Goertz, Robert Floden, and Jennifer O'Day, *Studies of Education Reform: Systemic Reform* (Philadelphia: Consortium for Policy Research in Education, 1995), 109-148; Susan Fuhrman and Diane Massell, *Issues and Strategies in Systemic Reform* (Philadelphia: Consortium for Policy Research in Education, 1995), 11-20.

<sup>37</sup>See Judith Warren-Little "District Policy Choices and Teachers' Professional Development Opportunities," *Educational Evaluation and Policy Analysis* 11, no. 2 (1989): 165-179.

<sup>38</sup>Linda Darling-Hammond "Performance-Based Assessment and Educational Equity," *Harvard Educational Review* 64, no. 1 (1994): 5-30.

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