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ABSTRACT

This document contains a collection of direct quotations from the nearly 50 participants at a roundtable on workplace literacy. It also includes an executive summary, a list of participants, a list of related publications, and a synopsis of a presentation made at a follow-up activity.) The participants included business people, literacy experts, educators, and policymakers. They discussed the problems of literacy that confront U.S. employers and employees. Their comments are organized under these topics: (1) the gap between the degree of literacy needed in the workplace and the actual skill level of workers; (2) the questions that arise when one considers possible solutions to the problem; (3) some progress being made; and (4) how the debate about workplace literacy can be sharpened. A synopsis of a presentation made at the National Literacy Summit by William Johnston of the Hudson Institute is also included. (CML)

A Quality Work Force

America's Key To The Next Century

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Synthesis of a
Roundtable on Work Force Literacy

Prepared by
Barbara J. Holmes
and
Joslyn Green

A Quality Work Force

America's Key To The Next Century

December 1988

A Meeting Co-sponsored by
the Education Commission of the States
and The Sears-Roebuck Foundation

Education Commission of the States
1860 Lincoln Street, Suite 300
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Foreword

"It is difficult to think of the single institution or place within society that ought to be leading the battle against illiteracy." That is a conclusion the Education Commission of the States reached last year when we surveyed literacy programs and activities across the nation. It is also a reason that we organized, with support from The Sears-Roebuck Foundation, a literacy roundtable. Given the scope of a large (and growing) problem and the fragmented nature of current efforts to solve it, we thought we could encourage a productive and frank discussion by convening people with a diversity of views on literacy. Our goal is to work toward a coherent formulation of the issues state policy makers must address if they are to win the battle against work force illiteracy and its root causes.

An illiterate work force is a problem in its own, but it is also a symptom. It is a symptom of the dysfunctions in public education that ECS and other groups are hoping to help correct through exploring the possibilities for restructuring schools so that education produces more and better learning. It is a symptom of the inability of public education, and of society, to draw "at-risk" youth into the mainstream so that their abilities are developed rather than wasted. It is a symptom, as is the limited participation of minorities in higher education, of our continuing inability to offer all students opportunities for education that are truly equal. In addressing these broader causes in other work we are doing at ECS, we are acting on our conviction that the issue of illiteracy in the work force does not arise in a vacuum and cannot be resolved without addressing major concomitants.

As concern for illiteracy has grown, so have our efforts to bring the issue to the attention of state policy makers. The roundtable meeting in spring 1988 took place in the context of an initiative begun several years earlier. With valuable continuing support from The Sears Roebuck Foundation, we have explored "solutions in progress" through a 50-state survey of literacy programs. We have sponsored discussion of literacy issues at state education policy seminars held in a number of states and produced a video describing the illiteracy problem in our society. We also hosted a National Literacy Summit in the summer of 1988.

The results of the roundtable point to the lessons we and others are learning as the battle against illiteracy continues. A great many people are deeply concerned about literacy. They agree strongly that the demand for literacy [illegible] with intensity. They [illegible] to help meet the demand. But [illegible] should [illegible] whether literacy reaches the level our people and our nation require. That [illegible] is the [illegible] question that now faces policymakers.

Frank Newman
President

Barbara J. Holmes
Director, Literacy Project

Meeting of the Minds

Executive Summary

In May 1988, nearly 50 people met in Chicago for a frank discussion of the problems of literacy that confront employers and employees in America. The occasion was a roundtable sponsored by ETS and The Sears-Roebuck Foundation. The participants in the roundtable, all deeply concerned about literacy, were also very well informed. They included business people, literacy experts, educators and policy makers who represented a wide range of personal and professional views on literacy.

Unquestionably, agreed the participants, workers and employers face a gap between what's needed and what's there," as one participant put it. At a time when work is making increasing intellectual demands on workers, the intellectual skills of workers are, in too many instances, declining. Participants offered evidence from their own experience of skills needed and skills lacking and heard their concerns echoed by their colleagues in businesses as diverse as the automobile and steel, insurance, telecommunications, the food industry, journalism, merchandising and manufacturing.

They agreed that closing the gaps is, as one person said, "very much a community project. It can't be just government." "It can't just be the academic community. It has to be the private sector and community groups and everyone in our society." Members of the roundtable also agreed that the demand for skills, already great, is growing as the economy evolves. The challenges of retraining people already in the current work force are in some ways different from the challenges of training the future work force. Meeting both sorts of challenges will require an immense expenditure of effort. Economic realities in the form of low unemployment and a shrinking labor pool are putting an end to the notion that some young people are "throwaway kids" who need not be educated.

But there were questions as well, some raised by the participants themselves and others follow[illegible] from participants' comments.

- What part should the adult basic education system play in improving work force literacy?
- Who is responsible for setting the standards of literacy?
- How does education reform relate to work force literacy?
- Should schools borrow expertise from business?
- Are the problems of schools being reproduced in the work force?
- Is the best way to reach people who have literacy problems through the work force?

As one participant said, "We need to find a way to transform a discussion that's been going on in bits and pieces into a discussion that can have more coherence, from the things that are happening on an individual basis, we need to sift out the critical policy issues."

Answers to some of the questions are beginning to take shape in various locations around the country, according to several participants who are organizing adult literacy programs. To the roundtable they brought news of progress in Alabama, Illinois, Massachusetts, Michigan, New York City and South Carolina.

But the gap remains and, by virtually all accounts, is widening. So far, the need for literacy in the work force is outrunning even the most venturesome, admirable efforts to meet that need. As one participant concluded, "We need to sharpen the debate, not in terms of intensity but in terms of specifics."

A Tremendous Shortfall

"There's a tremendous shortfall now in terms of employees' abilities to work on the job." That comment, made by a manager of instructional resources at a large corporation, was often echoed and amplified at the roundtable. Do the workers they now employ and the new workers they are hiring have adequate intellectual skills? The business people answered this question with a resounding "No." They reported some compelling evidence.

◆ "I have responsibility for staffing employment and careers for our occupational force, which is about 189,000 people throughout the country, doing any number of jobs, from manufacturing to sales Sixty percent of the applications for movement within the company are rejected because they are incomplete — 60% "

◆ "For 20 years, my company has had a minority training program primarily for black and Puerto Rican women For the past five years, we have been seeing a decrease in the level of preparedness of applicants Now we have to test before we can accept people, because preparedness is so very much lower than it was, we can no longer give applicants the opportunity to learn hands-on "

◆ "In our industry, the basic premise is that standards are going to continue to rise, for people coming into the organization and those already in it This has to be reflected in the caliber of students coming out of high schools We cannot afford to continue to have to screen 20 people to find one person who can pass our entry standards "

◆ "We could talk a lot about the more profound kinds of capabilities employees might need, about higher order skills, cognitive skills and deficiencies in those areas. But at a very fundamental level, we need to address basic reading, writing and arithmetic skills. I'm talking about skills at the 5th-grade level, the 6th- or 7th-grade level. We're finding in many of our locations across the country that high school graduates who are being interviewed for jobs can't pass basic tests in those areas.

"We didn't test in the past and, as a result, we took enormous numbers of people into our work force who, though quite capable of doing the jobs we had in the past, don't have these basic skills. But now, as you all know, the factories are changing. Now we would be very happy if, in fact, the people coming into the work force had just these solid, basic skills of reading, writing and arithmetic."

◆ "Most of our staff, say 65%, are professional workers who do single-product kinds of reports and a lot of research. We're having to retrain those individuals in basic kinds of skills. We hold reading, listening and speaking courses for current employees as well as for new employees."

***One participant suggested that "literacy" be broadly defined to mean "intellectual skills — not just the ability to read, but to deal with numbers, for example, or to think, to know how to get something off a computer screen and make a decision about it." Clearly, his colleagues were inclined to agree with that definition. Employees need certain kinds of knowledge, certainly. Most important, they need to know* how to learn.**

◆ "For entry-level employees, we need young people who can think, who know what the word logic means. Most companies, whether they be small or large, are having to upgrade their factories, which are often run by computers now. If young people don't have the logic to know why a computer works and how to apply it, they will not fit in our marketplace."

◆ "I think we need to talk about not only the ability to, say, add and subtract, multiply and divide, but also the ability to know when to do those things. As our industry evolves, we find that day-to-day, routine work is no longer there, or much less there than before. This means that people need to be more innovative, better able to react to non-routine circumstances. That's where the 'application' part, the problem-solving part, comes in.

"It seems to me that the current mode of public education is based on a 1940s model, which was basically a manufacturing model. And a manufacturing model, in turn, is based on repetition, on routine. So part of the problem may be that public education seems to be based on a system for delivering information rather than for discovering knowledge."

♦ "Probably the most important thing we've learned from a number of studies of how work is being restructured in a variety of industries is that the old distinctions between low-skill, middle-skill and high-skill jobs just don't hold any more. Now even the operators in the textile mills in the South, in modern plants where the work is being restructured, are being asked to evidence higher-order cognitive thinking. So the old distinction in schools between mass education, which is highly routinized, and elite education, which develops higher-order thinking, is one we can no longer afford.

"We've structured learning in ways that treat kids sort of like cognitive warehouses, we test kids to see whether they can bring a piece of information out of the warehouse in response to a stimulus. That approach does not help children figure out how to learn in situations they have never encountered before. When you confront something new, the important problem is not how to produce the right answer, but figuring out how to organize resources to create competence."

Some participants preferred even broader notions of the abilities needed in the work force. The personal qualities of workers — their attitudes, their values, their "personal capacity" — were also the subject of considerable discussion.

♦ "What we're having to look at is the need for personal development as well as literacy. Our people need to understand what being a corporate citizen means: what it means to work, what working requires in the way of personal discipline and the organization of home life and support systems. All of these things have to be taught. We used to have just an occasional class in reading. Now we teach behavioral skills. And we still are not having the success that we have had in the past."

♦ "We've hired about one out of 30 people in the work force at some time, some 120,000 people will come and go in our organization this year. I agree with what has been said about basic skills, but I'm concerned about an additional area — this thing called ethics or integrity.

"It is absolutely heartbreaking to see the relative ease with which impressionable young people who are dealing with money and merchandise fall into the trap of thinking that part of that money or merchandise somehow or other belongs to them. It's a huge work-related deficiency in our business."

♦ "When we did a survey of the Fortune 500 companies, 6,000 small businesses and 500 postsecondary institutions four years ago, we got back strong responses to what we've all been talking about today. We call it the 'invisible curriculum' of attitudes: striving to work well, learning how to learn, problem-solving, communicating well with others."

♦ "Restructuring work requires team capacity. Yet schools never, or very rarely, organize learning in team situations."

◆ "I'd like to introduce the idea of global competition. What about the work forces in countries that compete with, for example, the automobile industry? In education, certainly, those countries are doing a lot more than we are in the United States in terms of the length of the school year, the approach to education and basic values. You get to basic cultural differences here that really mean something in the long term. You get to ethics, to values, to the support structures that can work together — the school system, the family, government, business."

◆ "I think one critical aspect of what we might call 'personal capacity' would be flexibility in the work place. Now that the 1940s manufacturing model is outdated, we need to be able to change continuously. Perhaps the education system could address that in some way."

To this lengthy list of growing needs and needs unmet, employers added the wish that high school students graduate with the skills required to benefit from technical training.

◆ "We're seeing a particular shortage in the skilled trades offered by the technical institutes. We learned at a meeting with instructors from the technical institutes that they're seeing people coming out of high school without the skills to go into the more-skilled trade disciplines in technical schools and community colleges."

"First there seems to be an understanding that workers fall short on such fundamentals as reading, writing and math skills," said Frank Newman, president of ECS, in summary. "The second point is that the fundamentals are only the beginning, because the real issue is the capacity to use those skills, the capacity to think. Then there is another set of capacities, which we've called personal capacities — personal development, the work ethic, self-discipline and so on. There are some skills that, historically, we haven't thought about very much — team capacity, the capacity to continue learning in a sort of evolutionary process. And then there's an issue that has come out here with surprising strength, the issue

of ethics and integrity. It surfaces regularly, and it's always an interesting issue for schools. (Whenever you mention values in schools, the school board knows it's in for a fight.) Then, at the end, we've added the issue of technical skills."

As another member of the roundtable put it, "What we're really talking about is a tremendous expansion of what I originally thought of as literacy training."

Agreement

Very little is static in the situation described by the businesspeople at the roundtable. They see change for the worse in the skills of new employees. They see changing demands at hand and in store for long-term employees. They foresee continuing change in the very nature of their various enterprises and change in the international context of those enterprises. As a result, they agreed, what constitutes "literacy" in the work place is not the same now as it was, say, 20 years ago, or what it will be 20 years from now. "One of the things that makes the notion of work-place literacy more complicated than it looks on the surface is that there is no 'there' for us to reach," said one participant, making a point that attracted widespread support.

The changes that are very clear to business people are not ones that schools seem to have recognized so far.

♦ "Ours is an industry that operates at the forefront of technology. We've gone through a time when technological change came in steps to a time where change has become continual. Our employees, at all levels of the organization, have to develop a mindset that points them toward continual learning, throughout their entire careers. Continued learning is especially

important for technical employees and people in what we used to call clerical jobs — jobs that are becoming increasingly technical.

"We do a lot of testing and measurement in our industry (we're almost measurement-obsessed) and one of the things we measure most is employees. What we've found through these extensive measurements is that many of our people do not have the basic skills to master job-specific training in new technologies."

◆ "Competition, in this country and around the globe, has forced us to do things a lot differently. Although we're still some distance from fully automated plants, robotics and other things of that nature are certainly on the horizon. Right now, as an interim step, we're moving rapidly toward a much more participative work-force environment. We're now saying to employees, 'What if you don't have a supervisor? You're it. You're the one who has to run this place. Don't just sit there and follow orders, we're asking you to think.' For some of our people, that's challenging and exciting. For others, it's very scary."

◆ "One of the biggest problems we've confronted, at least in the short term, has been retraining our work force. Most automotive companies are not getting a lot of new entrants into their work forces. We've had a lot of displacement, and we've laid off a lot of people. Now we're calling people back. But they have to be retrained for different types of jobs."

◆ "Our education system is set up to create a static level of skill. The assumption has been that once high school graduates have reached a certain level of skill, which can be measured and tested, they're ready for life. Now, though, we're talking about a world in which that level is escalating."

◆ "I met recently with all the generals who run the personnel side of the Army. They make exactly this kind of argument. They used to want 8th-grade graduates. Now they need high school graduates. But, as they made very clear, they'll need more than that 10 years from now.

"We don't have a system that works on the assumption that schools must change continuously and that effort beyond school must be anticipated."

◆ "The schools are lagging seriously behind major changes in the economy. The economy is shifting, and the schools haven't managed to catch up."

According to roundtable participants, the problems of training new employees and retraining current employees are distinct in some ways, linked in others.

◆ "We've been reminded that 70% of the work force in the year 2000 is working today. I think we really need to face the fact that we're talking about needs and problems of the present work force as well as the needs and problems of the future work force. Reforming the education system to deal with the future work force is a horrendous task. It's obviously

not a task that business can take on alone, and there's no gainsaying the fact that we need to do something about schools. But I would suggest that to restructure and begin to train the current work force is an even more horrendous task. How do we break through to some systemic change in the work force that's already working? I suggest that might be the real problem we face."

♦ "We're looking at the literacy problem on at least two levels, the current work force and also the new employees coming into the work force. The levels are closely related, of course, to the extent that some problems with current employees are a function of employees who have come in with deficiencies."

"But don't be fooled for a minute," warned one participant. Though his company willingly accepts responsibility for retraining workers, the costs of training are passed along to consumers. Each time a company must cover old ground, teaching its employees skills they should have learned in school, the consumer pays twice.

♦ "The responsibility of retraining is really the company's responsibility. I don't believe — my company doesn't believe — that retraining is the responsibility of the education system. Though we've arranged retraining in cooperation with the education system, with excellent responses from community colleges all over the United States, we have, in fact, paid for the retraining.

"Because our business is becoming very, very, automated and computer-driven, our people have to have the ability to work in an electronically operated factory. But before we can retrain, we are having to teach a lot of our people logic first.

♦ "That takes us back to entry-level employees. If the people who come to us already have training in what we call basics, we can retrain them very easily. If not, then we have a double job. Don't be fooled for a moment. We pass the costs of training right on to the consumer. The consumer who is already paying taxes for education pays twice.

"Again, I don't think that retraining is the responsibility of the education system. But I do think it's the responsibility of the education system to give us young people who can think logically."

If businesses must both retrain and train workers, the scale of the effort will be immense.

♦ "We're putting together programs that train employees for this, that and the other thing and saying that we're going to train the whole work force. I'm sure that we're willing to do the right thing and provide training. But I think we have not even seen the magnitude of what we're talking about. I would suggest that corporations face a burden in terms of training dollars that's much bigger that we ever dreamed it would be."

♦ "I think companies are just beginning to realize what the iceberg looks like. I think we're going through some similar processes. First we deny it. The tremendous issues we see in the current work force can't be what we think they are because these are the workers who have done so well for us in the past. Then we say things like, 'Let's just go out and hire new people.' The next part is realizing that those new people won't be there, either because the people who are there don't have the skill, or because there just aren't as many people. We then say things like, 'Well, we'll just automate around people so we don't have to worry about it.' But we are still going to need people.

"In my company at least, the direct-labor work force in the factory is just the tip of the iceberg. It's just the beginning. A lot of workers, not just the factory workers, will need to be flexible, will need more and better skills. We'll have to invest in helping all workers learn new skills — basic skills and the skills needed for moving up — because, like all of you, we're looking at competition whose workers seem to be much more highly skilled than we are.

"Companies are going to find that offering opportunities to workers gives them a competitive advantage, I think. The companies that provide opportunities to learn, day care and those sorts of things will be the ones new workers will want to go to most."

Members of the roundtable shared the feeling that economic realities are making work-force literacy an issue that will be addressed, not simply one that should be addressed.

♦ "I've been wondering how much our discussion of the workers that need to be educated or re-educated is a function of the unemployment rate. If the unemployment rate is down to 3% and businesses still need more workers, you're looking at people that, before, you wouldn't even have had to let in your door."

♦ "We have been able to afford 'throwaway kids.' We have had children and young people who were able to live in society even if they were not educated. But with an unemployment rate as low as 3%. . . ."

♦ "When you have not only low unemployment but also a work force whose skills you're trying to upgrade that, for demographic reasons, is actually shrinking in size, you can't do the old game of just hiring in new people who match your requirements. You've got to redo something."

♦ "Now we're going to have to educate everybody. In the past, we have consciously not, in fact, educated everybody who has passed through the education system."

♦ "You can't have change unless there is some reason for change — some compelling reason, I should say — or a consequence for not changing. One of our simple consequences was going out of business, not having a company any more. That's compelling."

"As is true of many other things, when work-force literacy becomes a problem to the larger society, then people pay attention," pointed out a realist. Many roundtable members found themselves agreeing with the truth of that statement. Just as large social, economic and educational concerns intersect to make the issue of work-force literacy very urgent indeed, addressing the issue must be "very much a community project." Added the participant who made that observation, "It can't just be government. It can't just be the academic community. It has to be the private sector and community groups and everyone in our society." As one participant summed it up, "We're talking about an enormous task."

Questions

Solving a problem as widespread and as urgent as work-place illiteracy is, of course, no simple matter. Whenever the talk turned to possible solutions, as it often did during these roundtable discussions, many questions arose — difficult questions, questions that even a group as well-informed and concerned as this one had trouble answering to its members' own satisfaction.

The questions are well worth heeding, however. For they call attention to some very real issues. If good intentions sufficed, then workers in America would already be equipped with the skills they need. But if, as seems far likelier, some major issues must be resolved before progress is possible, then questions like these merit serious consideration

The question of who should do what to improve work-force literacy loomed large. Take the case of the adult education system, for example. There was lively debate over the merits of that system and the extent to which it should be used, modified, aligned, augmented.

What part should adult basic education play in improving work-force literacy?

◆ "We talk about the elementary/secondary public school system, we talk about a system of higher education. What we don't have in this country is a system for adult basic education, for continuing education. I think that one of the key things we have to do is develop that kind of system, if we want to do the kinds of things we're talking about at this table today.

"When Massachusetts wanted to develop an initiative, there were no models. Nobody could tell us what worked best generally because each company had looked only at its own particular work force, saying 'We have to get our workers from here to there, this is what we have to do, and this is how we'll do it.' But none of us has thought about overarching principles. We haven't been able to come up with a cost-effective system because we haven't really been learning from each other.

"I'm excited to hear companies saying, 'We see it as our obligation to deal with our workers.' But I think it's our obligation together to deal with workers in a context that enables the country's entire work force to prepare for the future."

◆ "I think that probably the most effective delivery system for 90% of the businesses seeking to develop basic skills programs — the best existing network — is the adult education system.

"In my state, we run adult education programs through public school districts. But ever since it began, the adult education system has been a sort of stepchild. It's basic skills, but it's not K–12 because it's not for children and adolescents, it's for adults, but it's not postsecondary.

"I think that to endorse or support the adult education delivery system would be one of the most valuable things this group could do."

◆ "When we started to put a program together for remedial or basic-skills training for our employees, the first place we looked was at adult basic education materials. We found them sadly lacking and way off target. Almost without exception, they focused on basic literacy, which was way below the level we were looking for.

"What we did then was to contract with a group of education specialists at a university. We gave the group full course materials for our technical training courses and asked them to develop a program that would give our people the skills they needed to comprehend these materials. We didn't say, 'We need our employees to read at the 10th-grade level.' We said, 'This is what we need employees to be able to learn.'"

◆ "But I wonder what would have happened if you had taken your request to the adult education people?"

◆ "When the specialists surveyed the materials, they couldn't find anything available off the shelf that would address our needs."

◆ "A question. Could you have had the same discussion with the adult basic ed people you went to the first time? Were they not qualified?"

◆ "It's not a question of qualifications. It's just that the programs they were currently delivering were not at the level we needed. There should be materials out there targeted at the proper level, there should be groups that are doing this type of work. But there just aren't."

◆ "I'm not an adult educator. But I've become a big adult education advocate. I do think these people have the interest, the capability. I don't think they have the resources."

♦ "The adult education system is also encumbered by regulation in the way it's funded. It's encumbered by the need to comply rather than the need to serve."

♦ "We can't look at adult education in and of itself. We have to have an integrated system if we're going to serve the business community. The adult education program in my state is very well funded. But it's dangerous to think that adult basic education teachers can best respond to all of the concerns in industry with regard to literacy."

♦ "I guess we would like to see states look at integrating the entire statewide provision of education services in general, at how to align them and tie them together. Adult basic education would certainly be an integral part, and its effectiveness could be maximized tremendously."

♦ "When I hear us talking about changing the entire system, I get discouraged. I guess what I'm saying is that focusing on the adult education delivery system as it relates specifically to remediation in the current work force is a doable thing."

Though the problems and promise of adult basic education received quite a bit of attention at the roundtable, questions about the role of adult education programs are actually tied to questions of the larger relationship of business to education. Lines of demarcation and responsibility are not clear. There is considerable confusion, even among the people who are eager to see improvements in workforce literacy.

Less debated at the roundtable was the idea that businesspeople should define for educators the requisites of literacy in a contemporary work force.

Who is responsible for setting standards of literacy?

♦ "Maybe you people are a lot clearer about the problems than I am. But I think that our information databases about the current labor force are really lousy. Educators really don't know much about what's going on out there. We have lots of anecdotes and lots of little pieces of information. But we don't have a systematic image of where the market failures are."

♦ "No matter who is sitting around during a meeting like this, the spotlight very quickly focuses on the education community. While I think that is a very useful sort of spotlight, I'd like to bring us back to a focus on the business community.

"For the last two years we've been asking the members of our organization questions like, 'What are the generic and specific work-related deficiencies you see in your workers' skills

and how does your company cope with these deficiencies?' The answer we usually hear is, 'We don't know,' or 'It depends.'

"So I think that we in the business community need to be better at defining the work requirements for entry-level workers and current workers. We need to be very sure that when we require an '11th-grade reading level' we know what the heck that means. (Some business people have told us that's the *New York Times*. Others say it's Dick and Jane, and some say it's *Faust*.) I would suggest that we in the business community can continue honest dialogue with our partners in the education community only when we can focus on what we really need and what the problems really are in the work place."

♦ "What I often hear from businesspeople is, 'Don't bring us anybody who can't read at the 11th-grade level.' But what I'm hearing at this table is, 'We have people working for us who read at the 5th-, 6th- and 7th-grade level and we somehow made do, we retain and use these people.'

"What I'd like to call for is much better direction and definition. We educators need to articulate our tests better, but we don't know what your entry tests look like. What do you actually test for? Who fails the test? What do they fail? We'd like to customize our instruction much more, but we're flying a little blind. I think we'd like a much closer relationship.

"We know that you want our people. We know that they're already working for you, and we know that they will continue to get jobs with you. But if we could target what we're teaching in a more appropriate way we would be much more effective."

♦ "It would be very helpful to have some sense from the work place of what levels of literacy are acceptable, not just in 1988 but in the future. Given all the things businesspeople know are inevitable and the things they hope are possible, what entry-level literacy would be acceptable in 1995, 1997 and the year 2000?

"Like other people here, I've thought of 'literacy' as a receding horizon, you can't get close to it because it moves further away all the time. If we could have some sense from the work place of where that horizon is likely to be in the short term and the not-so-short term, that would be very helpful. Give us some targets."

♦ "Maybe, as one of the participants was suggesting to me, we should shift the paradigm. Maybe, he said, educators should not be asking corporations, 'What do you need?' but rather 'What kind of company are you trying to be?'

"He used the analogy of an architect and a person who wants to build a house. The person who is not an architect can't necessarily supply dimensions or detailed information about textures or foundation materials. But by cutting pictures from magazines, talking about bay windows he's seen, and so forth, he can begin to convey to the architect some sense of what he wants. Then the architect comes up with designs — not just one, but several — that reflect what the person's house is trying to be.

"I thought that was a useful insight. If a business can explain to an educator what it is trying to be, in a sense larger than 'We're doing cookies today' (more like 'We're trying to compete in an international market where technology is changing and we want culturally diverse people to buy our cookies'), then the educators are less apt to focus on little clusters of skills."

♦ "I've seen a lot of sophistication about training in the corporate world, so I wonder whether the situation is really the same. Instead of businesses saying, 'Design me an education program,' maybe businesspeople and educators should decide what they need to do together."

◆ "What's wrong with a corporation deciding what literacy means for itself, outlining how the things that need to be done can be accomplished, and then having an exchange of people with the education system so that the two groups can learn from each other?"

◆ "I wanted to ask if this group believes that we are talking about a national core curriculum.

"I think that teachers, principals, superintendents and local school boards do not know that businesspeople want the skills and knowledge we've been talking about today. In the state I come from, school boards set the standards and the expectations, which means that workers who have come from different school districts can have not only different levels of achievement but also have studied different things.

"If we should have a national core curriculum, how do we get there?"

◆ "I happen not to believe that you can do anything out of Washington or our state capital, but a national core curriculum might be worth looking at."

◆ "I also don't think that we can come up with national standards. But maybe we can come up with national guidelines that give us some direction."

The notion of a core curriculum was touched on only briefly, and the possibility that schools might themselves be the source of dependable standards of literacy was only obliquely discussed. However incomplete the answers offered in a single day's session, though, the question of who sets standards for literacy and what those standards should be remains centrally important.

Also raised was this question.

How does education reform relate to work-force literacy?

◆ "One of the corporate people mentioned that she has seen a decline in reading and other basic skills over the past five years — a period in which, as we in education know, there have been some major reforms aimed at raising standards and requiring more of students. We can hope that the twain will finally meet."

◆ "I don't think the vision underlying the reform of elementary and secondary education right now is right, we're tightening the screws, yet, as all of us here have recognized, we really need fundamental restructuring. Educational reform of that sort was a first approximation, an important first step. Now we recognize that we need something different."

◆ "I think that the businesspeople have been right in saying they need employees with the basic skills or the functional skills and the higher-order skills. I think part of the reason that

the education community has not responded yet is that we've had to learn that we have a new purpose. For many years, education has had personal development programs. Educators have lauded nurturing and the interpersonal relationship between teachers and students. We have dealt with the citizenship aspect of education. What's being talked about today, and has begun to be discussed in education, is a new purpose for education: the idea that economic growth and education are tied together.

"Even five years ago, those of us who worked in elementary/secondary education thought that tying education to the economy was the job of the community colleges, the technical institutes, the state universities, the private colleges — not the job of the elementary and secondary schools. So we need to develop an awareness of that new purpose.

"The first reform movement was really about the improvement of instruction and about standards: the system would work if we patched it up a little bit. Teachers work a little harder, kids work a little longer, we raise standards a bit, and education gets better.

"Well, we've realized that isn't really what needs to happen. The second wave of reform has been about restructuring the system — organizing the system differently, looking at the parents' role in education, looking at the teachers' role, looking at shifting the power that used to lie with school boards and superintendents. We've had changes within the curriculum, moving from basic skills to higher-order skills. The appearance of ideas about 'learners at risk' has meant dealing both with how the system needs to change and also with what must be done for children within that system.

"To summarize — we educators don't know what the new attitudes should be; we don't know the new expectations of the business community, the government, the general citizenry. We haven't reallocated resources. We haven't addressed major problems of the family and other social problems that must be dealt with as we go about restructuring."

◆ "We've seen a rapid division in the last 20 years. In the 1940s, the school and the family and business were all very close together. Now that business America has moved away to deal with international competition and the support structure families used to offer has deteriorated, the school is in the middle.

"I'm not a great defender of school systems. But, in actuality, we're saying to schools, 'Take an inferior set of resources — students who have much lower concepts of self and lower human development skills. Use the same amount of capital. Use the same amount of human resources. And produce a totally new product.'"

◆ "Most of the problems we're talking about are due to the fact that whatever does exist is not getting delivered. I don't mean that to be interpreted as criticism of educators necessarily, because I don't think it's their fault, not totally and not even in large measure. It's society's fault.

"But the fact is — we're not delivering. If, in fact, whatever curriculum exists right now was being delivered and students who finish 12 years of education did, in fact, have the skills and knowledge they should have acquired in those 12 years, many of the problems we've been discussing would not exist. I don't mean delivery in the sense of technology, I think the social aspects of how education is delivered are crucial.

"Students graduate, yet when they come through the doors of my company, they still can't pass a 5th-grade math test. That may be more the exception than the rule. But it happens often enough at my company and other companies that we've got to wonder what's happening with delivery."

Should schools borrow expertise from business?

A number of roundtable members were interested in the possibility that, as one of them put it, "There's a lot for schools to learn from business." That possibility surfaces with fair regularity in discussions of school reform. Roundtable participants felt that it might have particular relevance to what one described as the "wrenching process" of restructuring.

- "When, two or three years ago, we began to discuss the need to restructure schools dramatically, we looked for models. Even though schools and industry don't reflect each other in all ways, I would hope that schools could learn something from business about the very wrenching process of restructuring."
- "We businesspeople are good at complaining about what's not happening. Maybe we could do more to be perceived as partners with the education system, not only by identifying the gap between our needs and what's coming out of the system but also by giving live-witness examples of what can be done. We have a lot of expertise; we could propose models and offer workable solutions."
- "As we continue to learn about what works for business, we might find ways of rethinking how to teach in schools, how to set up classrooms, and so forth. Passing along what the business community knows about things like teamwork, learning together and goal-setting could be a helpful contribution."
- "I've seen a lot of very sophisticated training know-how, educational know-how and needs assessment know-how in the corporate world."
- "What's wrong with having some cross-fertilization here?"

One participant suggested that cross-fertilization of a sort has already taken place, with results that have not been altogether good, when she pointed out that some problems of schools are being reproduced in the work force.

The same point can be inferred from other comments made at the roundtable. Employers want

employees to have numerous personal qualities as well as good academic training, for example, and that's the complex charge to which schools have been responding, according to the educator who described education and the economy as an additional new charge. Yet it can be argued, and often has been, that the complexity of the charge has overwhelmed schools and contributed to precisely the dropping off in basic skills that employers deplore.

Another difficult question raised at the roundtable was:

Are problems of the schools being reproduced in the work place?

♦ "I think that the problems we're having at the elementary/secondary level are perhaps being reproduced in the work place, in an investment sense and in a strategy sense.

"There really are cultural differences in investments in human capital, as we discovered when we sponsored a study that contrasted Japanese-owned firms in Japan, Japanese-owned firms in the United States and American-owned firms in the United States. That study uncovered profound differences in investments in training and approaches to human capital.

"Places like Ford, Aetna and some of the other companies represented here have some very sophisticated training programs. But an awful lot of the corporate training that we see in studies we're doing and a lot of adult literacy programs have all the problems of the elementary/secondary schools.

"Almost intuitively, we draw on our mutual experience with elementary/secondary schools for models. The result is that we reproduce in postsecondary traditional and non-traditional programs all the problems of the schools."

Other people at the roundtable took a different tack. They suggested that the work place, in fact, offers uniquely fine opportunities for improving literacy.

But mixed up in the discussion of those opportunities was the problematic question of whether, as one participant put it, "School-based literacy is not the same as work-based literacy." That leads back, once again, to the question of who should do what to improve the literacy of the work force. For if school-based literacy and work-based literacy are

indeed different, a strong case can be made that improving literacy is, strictly speaking, the proper job of employers.

Is the best way to reach people who have literacy problems through the work force?

♦ "We know from experience in our state that perhaps the best way to reach people who have reading problems is through the work force. Four years ago, when I first got involved in all this, I wouldn't have thought that was true. But we have found that as many as 40% of the people who walk in off the street to our 200 local literacy programs are people who have jobs."

♦ "It's been my experience that just teaching people the basics doesn't transfer to their work on the job. When workers say they can't do the reading or writing on the job, do they mean they can't read or write? Or are they really talking about on-the-job reading or writing?

"Contextual materials have kind of taken it on the chin. People worry that contextual materials limit workers to entry-level skills, keep them from being promoted, lock the gates. But a lot of teaching now tries to teach skills as they apply to a job. I guess the question is whether processing skills taught contextually for a specific job are really transferable occupational skills.

"In the work I'm doing now with school-to-work transitions for the feeder work population, I'm looking for ways to bridge that gap between school systems and industry systems. You can, for example, develop materials that show kids what statistic processing control is all about — have them do some simulations, teach them estimating and rounding off. Then when they get to the work place it doesn't look quite so strange.

"I worry that if we just give people more of the same, more of what they had in school, they'll get to the work place and still not know how to learn."

♦ "If we don't focus on work-place literacy carefully and consciously, there's real potential for the discussion of literacy to be misleading. Say you see a poster at work that says, 'How many of your fellow employees can't read this poster?' My fear is that there are Americans who might somehow get through that headline, then suddenly decide they are sufficiently literate."

♦ "A curriculum for career development exists, but we don't know where to put it in education. We educators need to find a way to talk to the third group that hasn't figured much in our discussion today — the worker, the student, the person we're trying to empower. We need to strengthen that individual a whole lot more."

♦ "We've taken the school-to-corporation view and, in a limited way, the family-to-school view. At what point do we take the family-to-business view?

"The vast majority of families out there are in the business world. How do we begin to give the employees sitting in our shops today the concept of lifelong learning? If we can give them this concept, they're going to pass it on to their children, and those children are in school. My question is how do we make a cultural change?"

♦ "We need to intervene with parents so that the problem begins to slow down and we eventually get a handle on the bigger problem of the future work force. Improving the literacy of people already in the work force is a critical piece of the puzzle, because the education and enhancement of the self-esteem of those people will have direct impact on their children."

Maybe, suggested some of the people around the table, the whole matter of work-force literacy is in one sense simpler than these major questions make it seem. Maybe the heart of the matter is not programs or curricula or divisions of responsibility but a concept — the concept of lifelong learning.

♦ "I think we're flirting with an idea. We dabble in it when we talk about culture, about family, about values. But then we back away. What I think we're talking about, in essence, is a change not in the school system but in our entire culture. We're talking about lifelong learning as a concept, and it's a concept that is totally foreign to 99% of the population."

♦ "I have responsibility for staffing, employment and careers for our occupational force, which is about 189,000 people throughout the country, doing any number of jobs from manufacturing to sales. If there is one thing I would ask us to do, it would be to get across to current and future workers the notion of lifelong learning. When a corporation offers an opportunity for an employee to change with technological change and the employee takes advantage of the offer, we have happy partners."

♦ "The skill that keeps emerging as the basic skill is reading. We talk about math skills, too, of course. Yet reading plays a part in them also, in that math requires logic and thinking and problem solving which reading can help develop. So many other things seem to be taken care of if you read well. Yet reading is at an all-time low in our culture.

"Somehow we've got to have people in our society and in our work force who have the capacity to continue reading, because that's the capacity to continue learning. If you are empowered to read, you will, in and of, yourself continue to learn. But if the ability and desire to read are not present, you are cut off from the knowledge you could attain on your own. You're cut off from the continuing quest."

Maybe, suggested other participants, the central question is one of will.

♦ "We're changing the way we think. We're in transition from a culture that is arranged quite hierarchically to one in which people are more self-managed. The new culture is one in which people work not simply for promotions and transfers as indicators of growth but rather to get maximum application of their strengths and maximum satisfaction from their accomplishments."

"We assume that growth is based on increased competence, but that isn't all that's required for growth. But if we expect people to grow in proportion to their increased competence alone, we'll probably be disappointed. You need competence plus ability to work well with others and the energy or will to move."

♦ "We have a fabulously luxurious higher education system in this nation which gives us all an opportunity to drop in and drop out to fulfill our educational wishes. But I don't think that we as a nation care particularly about developing the educational potential of our children in elementary and secondary education.

"Part of the irony of the situation is that we as a nation know more about how to educate people than perhaps any other nation in the world. We know when to introduce foreign languages, for example, we know to introduce them when children are very young. Do we actually do it? No.

"We seem somehow not to have the will as citizens to see those things happen."

News of Progress

"In convocations like this, we tend to spend a lot of time describing and defining a problem, but not an awful lot of time projecting solutions," said one member of the roundtable. "I get a little uneasy with that." "Let's don't keep on messing with the problem; let's do something about it," concurred another member.

***A number of people arrived at the roundtable with first-hand experience in doing something about it. They made no formal presentations. Some people spoke at length about particular literacy programs; others spoke only briefly, in reference to more general points. So the descriptions that follow are in no sense thorough, and there are programs of considerable merit in other places. The value of the descriptions lies, as it did for roundtable participants, in the cheering fact that there is* news of progress.**

In *Alabama*, according to one participant, providers of adult basic education and the textile industry are working together to retrain the workers displaced by industry shifts and plant closures. The focus is "not the employer; it's the displaced worker himself or herself." The purpose is to provide literacy services directly to the people who need them.

A state literacy effort in *Illinois* tries to match corporate demands with literacy providers through what one participant said becomes "a multi-faceted kind of delivery system. Each particular business that we link with an education provider develops, in tandem with the provider, a program that is appropriate for a particular work force. The corporation may be large, like Nabisco, or a much smaller, rural business with 200 people in a plant. And I think that flexibility is important."

Massachusetts has launched an interagency initiative that links the department of education, organized and unorganized labor, and the Job Training Partnership Act (JTPA) in the development of local partnerships. "We wanted to give a partnership consisting of an employer, an education provider and, where relevant, a union up to $50,000 in seed money to address the pre-training needs (adult basic education, English as a Second Language) of the work force," said a Massachusetts representative. "Each program had to be connected to a company, because our goal was to have programs continue after the state money was gone. We started by funding five programs. Now we have 15, and next year, because of incredible interest from employers across the state, we'll have 30."

The need to develop curricula that are appropriate to diverse work places has aroused interest in a "meta-curriculum," the participant said. "So, we have been bringing together the teachers, the coordinators, the employers and the supervisors, trying to develop a state network and build a system that interfaces between the needs of employers and the state's need for a work force that can participate fully at work and in community life."

The next step in Massachusetts is the establishment of "what we call a 'work force education assistance network,' which will include a statewide clearinghouse to keep people informed and regional assistance centers where companies can go for help."

In *Michigan*, the governor has called for an investment in human capital that simplifies regulatory procedures, "thus allowing citizens of that state to participate in continued learning throughout their lives unencumbered by unnecessary regulation," a roundtable member said.

Minnesota set up a task force on "Work Readiness: A New Promise in Minnesota Education." "Probably the best thing to come out of the task force" said the person who described its work, "was the understanding that all of education, rather than only vocational education, should be readiness for work. There were five recommendations — that we should update the mission of education, that the responsibility of education for work should be shared, that we should define and evaluate learner outcomes, that we should develop an integrated, experience-based pre-school curriculum, that we should improve the ability of educators and change the delivery of education. All these are things we've talked about at the roundtable as well."

"The education system in *New York City* is in crisis constantly," said the roundtable participant who described the city's literacy efforts. But, she added, "Don't always believe what you read in the newspaper, wonderful things actually do go on there."

"I think we're the first city in the nation to commit to having every 4-year-old in an educational program, and we have 70% of them there now. We've also placed major emphasis on older adolescents, in and out of school, and on adults who read below the 8th-grade level. Over the last four years, we have spent $40 million on an initiative for adults over 16 who are out of school and read below that level, and we have major initiatives within high schools for the students who will take six or seven years to graduate."

"Half of our 45,000 adult learners are employed. A quarter of them read below 4th-grade level; we know because we test and re-test. We have 13,000 people on an active wait-list,

by the way. I think everybody should realize that people are thirsting and hungering to get into programs."

South Carolina, like Massachusetts, has used JTPA money to start a literacy initiative, "a limited delivery system that tries to get many of the things we have all been talking about. The driving forces," said a roundtable member, "are employers and the economic development community. ('Partnership' is good language, but we wanted this to be an employer-dominated system.) We have a roundtable in each county made up of employers and staffed by 'work-force specialists' hired at the 16 technical colleges. We ask the businesspeople to play the role of advocate with their colleagues in business, with the political system and with the provider system. We also ask them to hold us accountable for how well we perform.

"The work-force specialists are brokers. They make the connections between employers and teams of providers. Curriculum design is in the hands of the providers — literacy councils, adult basic education, technical colleges — and the employers. The literacy councils teach skills at the zero to the 4th-grade levels, the adult education groups move into the area of 4th-grade to about 10th grade, and the technical colleges move in at the higher levels.

"From other things we've tried, we know that an innovation never takes place if there isn't some power and money driving it. In this case, we asked the governor to initiate the program and to appoint members of the roundtables, and we're asking the consumer — the employer — to be the force that moves the system. Though the providers have some money available, employers pay at least part of the costs. Because we're a small and poor state, we intentionally have a lot of small employers.

"We don't impose anything. We come to employers with a process and say, 'You're in control. You make the choices.'"

Sharpening the Debate

"It is not a new day in the education world: all these problems in the work place are the same ones I first asked a group to talk about in 1969," commented one member of the roundtable. "I think that's true," agreed another member, "and I think that those of us in the business community have caused part of the problem. We need to sharpen the debate, not in terms of intensity but in terms of specifics."

Two ideas for further action found support at the roundtable: getting down to the "nitty gritty" and engaging the larger public in the debate.

"I'm tired of hearing generalities about partnerships and collaboratives. I'm hearing that we need to get down to the nitty gritty of curriculum content and testing and so forth. If you could focus on quite discrete efforts to develop a curriculum jointly with the delivery system, you would get at the things people really want to hear about."

"You don't jump quickly from Point A to Point B; it's a slow process. You have to have some kind of long-range vision and, at the same time, some immediate successes so you can keep the process moving."

"One problem is that there are a lot of 'we's.' The result is confusion about what 'we' want and what can be delivered. Until the debate can be sharpened, we'll continue to flounder

around. On the other hand, I think that if you jump to 'solution wars,' you end debate. You get this side against that side.

"So, I think that the point is to sharpen our points of view and also to engage a larger public in the debate. One of the issues here is the issue of political will, of what it is we as a people really want to happen. It seems to me that what's needed is not blaming — not talk of higher education versus community colleges versus adult basic education — or more talk about 'what I need for my company' (as important as that is to somebody's company). Instead we need a basic debate about where we want to go."

- "We ought to think a lot about how the ideas advanced at this meeting can be made part of a public debate. As we extend the debate, who ought to be drawn in? How do the things we've learned get translated into policy and then back to the education system?"

- "We've got to begin envisioning a particular future state so that we can assess current resources, decide which resources are relevant to that future state, find out which resources are not currently available and develop them, and then begin to design a model for the educational institutions that fit that future state. I don't believe the model was made in Japan. I don't think we have yet had a glimpse of the model because we haven't dreamt enough about what we can and should be."

- "Let's get busy designing the future."

Finding Solutions

As a follow-up to the Roundtable on Work-Force Literacy, the Education Commission of the States and The Sears-Roebuck Foundation convened a National Literacy Summit in August of 1988. William Johnston of the Hudson Institute, co-author of Workforce 2000: Work and Workers for the 21st Century *reviewed what he called "the facts that frame" discussions of literacy. He cited the slow growth of the work force in recent years, the changing composition of the work force (which is increasingly made up of minorities and immigrants, too many lacking fundamental skills), and the rising level of knowledge required in an economy that is generating far more jobs for people with high skills than low skills.*

Issues Advanced

Two paradigms no longer work, said Johnston. The assumption that education is for young people no longer holds at a time when whole industries — nuclear power, for example — can rise and fall in a single generation. Nor is what Johnston termed "systematic under-investment in the bottom half of the work force" feasible in what has become a very tight labor market. That it is possible to structure work around low skills — to "create jobs for dummies and still prosper" — is an assumption that also no longer holds.

The solutions Johnston suggested would require new and different commitments from schools, businesses and workers. He suggested, for example, that schools get rid of the vocational track, which he termed an "artifact of the industrial model" in education and society. He recommended that all students be put on an academic track with the goal to set high universal standards and expect all students to meet them. He supported the idea of competition among schools, on the theory that this would drive the worst schools out of existence and make more money available for the best schools. He proposed strengthening the technology of education, citing the need for widely available, inexpensive software and suggesting that states could perhaps take the lead.

Education should move into the work place, Johnston said, into the higher levels as well as the low. Because the benefits of education in the work place accrue to employers and employees alike, both parties should be asked to contribute their time and money to the education process. Though employers might well take the lead in educating employees, there would likely be important roles for government as well, since the employers who can afford investments in training are not necessarily the ones who employ most workers.

The central issue, concluded Johnston, is the productivity of education. Recognizing that wealth in our society is built with human capital, the nation needs now to "ratchet up" education's productivity.

Strong testimony to the movement, from defining the problem of illiteracy to finding solutions for it, is the fact that other speakers at the summit made similar points. As Governor John Ashcroft of Missouri said in his morning remarks, "Frustration is seeing what needs to be done but not being able to do anything about it, fulfillment is seeing what needs to be done and doing at least *something* about it." Like Johnston and Ashcroft, the other speakers were disinclined to dwell on what remains frustrating about illiteracy in America and eager to discuss what "doing something about it" might mean.

In their remarks, 10 summit panelists made these points

The corporate sector

- Business people can help schools define the competencies needed in the work force, competencies that are broader than mere reading and writing.
- They can help schools install the technology needed to speed up learning
- They can help schools acquire the materials for teaching minority youngsters.
- They can help identify the stakeholders and hold them accountable.

Education

- They can change expectations about schooling — about the length of the school year, for example, they can explore the notion of access to education that is continual rather than limited to young people.
- They can use technology in ways that help more students learn more
- They can do a more thorough job of assessment so the public has a better idea of how well students are doing.

Summit participants were given a further stimulus to "do something about it" in the form of a two-page "Literacy Compact" that they were all urged to consider. The Compact poses "Literacy 2000 Challenges." Meeting those challenges would produce, in the language of the compact, a "clear, compelling statement of the problem," a "set of principles and lists of clear responsibilities" for educators and businesspeople and a "master plan" for integrated action.

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Related ECS Publications

"Adult Literacy" 12-minute videotape. No. AL-86-V1, 1986, $30 purchase/$15 rental.

Adult Literacy Fact Sheet. No. AL-86-F1, 1986, $1.50.

Building Partnerships for a Literate America. No. AL 87-1, 1988, $2.50

Points of Consensus on the Role of Education in Meeting Workforce Needs for the 21st Century Four Reports. No. AL-88-1, 1988, $1.50.

Selected Results of the Survey of Literacy Programs and Activities. Adult Education Directors No. AL-88-2, 1988, $2.00

Solutions in Progress. Executive Summary No. AL-87-2E, 1988, $2.00.

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