Ernest L. Boyer

Higher education has inescapable responsibilities to the nation's schools. They must become active partners in making children "ready for school," and focus on the problems of primary education and on the needs of its teachers as much as on the educational challenges at the secondary level. They also should help *improve the accountability* of our school systems, and think more carefully about how to evaluate the outcome of collegiate education. Colleges and schools must join in asking what children should learn and be able to do after sixteen years of formal education, and, above all, they must work together to create a better world for children.

## How Do We Talk About Higher Education's Relationship to the Schools?

What is higher education's responsibility to the nation's schools? How can the nation's colleges and universities contribute most effectively to the renewal of precollegiate education? Perhaps the best place to begin is January 20, 1990, when President George Bush announced six ambitious education goals soon to become the "reform agenda" for the nation. Every goal the President announced was provocative and consequential, but I found the first goal most authentic and compelling. As the number one objective, the President declared that by the year 2000 every child in America will come to school "ready to learn."

This is an audacious, hugely optimistic proposition, but dreams can be fulfilled only if they've been defined. If "school readiness," in fact, becomes a top priority for the nation, I'm convinced that all the goals will, in large measure, be fulfilled.

The harsh truth is that, in America today, nearly one out of every four children under six is officially "poor." They are undernourished, disadvantaged, struggling. If we continue to neglect poor children, both the quality of education and the future of the nation will be imperiled.

We know, for example, that brain cells develop before birth, and yet one-fifth of all pregnant women in this country receive belated prenatal care-or none at all. We know that malnourished babies are two to three times as likely to be blind, deaf, or intellectually deficient, and yet nearly half a million children are undernourished. We know that children who suffer from iron deficiency may develop poor coordination skills, and yet one tenth of all the nation's 8

babies have deficiencies during their first two years of life. Winston Churchill said a community has no greater commitment than putting milk into babies. If all children are to come to school "ready to learn," we must nourish every child, since good health and good education are inextricably connected.

Beyond a healthy start, school readiness calls for good preschool education to help every disadvantaged child overcome not just poor nutrition but also learning deprivation. It is a national disgrace that a quarter century after the federal Head Start program was authorized by Congress to help three- and four-year-olds get special help, less than half the eligible are being served.

If we want all children to come to school ready to learn, this surely means full funding of Head Start, which President Clinton's administration has pledged to do. I recognize that not every Head Start program is successful, but the evidence is overwhelming that early intervention is highly beneficial, especially for disadvantaged children. And if some programs are not working very well, let's fix them, not close them down and deny access to those who need it most.

In addition to a healthy start and quality preschool, school readiness requires that we help all children become empowered in the use of words. Lewis Thomas wrote that childhood is for language. It's in the first years of life that children are verbally empowered. This is the time when the symbol system exponentially expands. It's absolutely ludicrous to expect a child to be "ready to learn" if he or she grows up in an environment that is linguistically impoverished.

A recent report from Cambridge, England, says that children by the eighteenth month are able to decode sounds and have the phoneme structure well established. We also know that, when children are born, the middle ear bones – the hammer, the anvil, and the stirrup – are the only bones that are fully formed. Babies are, in fact, auditorily monitoring voices and other sounds *in utero*, so they begin to hear long before they speak. The miraculous capacity of children to learn languages begins before birth and is well established during the first months and years of life. If children grow up in an environment where they do not have their questions answered and where they are not immersed in language, they will be unlikely to compensate for the deficiency later on.

Good language means successful learning. We should encourage parents to turn off the TV, listen to their children, tell them stories, and read to them at least thirty minutes every day. We also need day care centers that are "language rich," and community libraries that have story hours.

But what does all of this have to do with higher education? I'm suggesting that higher education's first responsibility is to understand that "ready to learn" is the nation's most essential education goal. For all children, this means good nutrition, quality preschool, and good parenting. It also means that those in higher education must become active partners in the process. Last year, for example, at Texas Woman's University, I visited a residence hall that had been converted into apartments for single mothers and their children. While the mothers worked and attended classes at the college, the youngsters were cared for in a day care center run by college students. And the Nursing School at the university had a medical clinic for mothers and babies at a nearby housing project.

In a recent Carnegie Foundation report called *Ready to Learn*, we suggest that both two- and four-year colleges take the lead in training preschool teachers. It's a disgrace that we are trusting our youngest children to those who are often poorly educated and who are paid far too little. We know that children need continuity of care, but the turnover rate in many of these centers is sometimes 40 percent

each year. Preschool teaching is an undervalued profession that must be given status and recognition in the culture, and some colleges are already developing a response to this critical need.

Dutchess Community College in New York grants an associate degree in early childhood education. About half of those who graduate teach at child care centers, and the rest transfer to four-year programs. Miami-Dade Community College has a 62-credit child-care degree program, and the college also has established a "satellite" public school on its campus to help preschools make the transition to elementary education. The Bank Street College of Graduate Education in New York offers graduate programs in early childhood education, with an infancy program and a day care program. Bank Street also has a Child Family Center, which serves children six months to four years of age and is a demonstration site for teacher training in infant care.

Simply stated, higher education has an obligation, not only to be aware of the essentials of the early years, but to direct its resources and educational efforts toward more research on early childhood education and toward the preparation of those who will be teaching preschoolers. In our *Ready to Learn* report we say that every community should organize a Ready-to-Learn Council to coordinate services to preschoolers, and a college or university is an ideal institution to help form such a council.

If we wish to have quality schools, we must understand that education begins before formal schooling, before birth itself.

But there's another side to the equation. While children must be well prepared for school, it's also true that schools must be ready for the children. Several years ago, I proposed that we reorganize the first years of formal education into a single unit called the Basic School. The Basic School would combine kindergarten to grade four. It would give top priority to language, and every student from the very first would be reading, writing, engaging in conversation, listening to stories, in what the foreign language people like to call the "saturation method."

Class size is crucial. In the Basic School there would be no class with more than fifteen students. Frankly, I find it ludicrous to hear school critics say class size doesn't matter, especially in the early years when children urgently need one-on-one attention. I've never taught kindergarten or first grade, but I have grandchildren and find taking them to McDonald's a complicated task – keeping track of all the orders, mustard on the floor, tracking down gloves and boots. And none of this relates to mastering the ABCs or cramming for the SATs. When we were preparing our report *Ready to Learn*, we surveyed seven thousand kindergarten teachers from coast to coast, and we asked them about their kindergarten class size. Teachers reported twenty-seven students per class, and in one state the average class size is over forty.

I've spent forty years in higher education. College education is consequential, and I love to teach undergraduates. But I'm convinced that the early years of formal education are the most important. And if this country would give as much status to the first grade teacher as we give to full professors, that one act alone would revitalize the nation's schools. School-college partnerships should, I believe, focus on primary education, which I'm convinced will be a priority of the 1990s. Too often the focus is on the social pathologies of high school students, but the weaknesses we see there are due to a failure to keep addressing the problems children have in the early years.

We need to create more "Summer Institutes" for elementary school teachers. We need college student volunteers to serve as mentors to these teachers, and to

serve in after-school and Saturday reading and recreation programs to keep young students engaged in learning instead of drifting. Martin Luther King, Jr., said that everyone can be great because everyone can serve, and creating a public love of children and a commitment to serve them is the most urgent challenge this nation must confront. Higher education can, I'm convinced, help lead the way.

Of course, the upper grades are crucial, too. When we prepared our report *High School* in 1983, as I went from urban school to urban school, I became convinced that we had not just a school problem but a youth problem. I was struck by the climate of anonymity in many schools and distressed that students seemed disconnected and unrelated to the larger world. I became convinced that many students dropped out because no one noticed that they had in fact dropped in. I would try to reduce the size of every large high school to perhaps no more than four or five hundred students.

The two conditions that overwhelm the public schools most are a climate of anonymity and a sense of irrelevance. If we could make educational programs more relevant and reduce students' sense of anonymity, we would re-engage the young people who do not feel that they belong.

This brings us then to a third responsibility of higher education. Beyond looking at the preschool conditions of children and helping communities strengthen children's readiness to learn, and beyond giving strength to the teachers, those in higher education must help improve the *accountability* in our school system.

In his 1993 State of the Union message, the President declared that by the year 2000 all students would be tested at the fourth-, eighth-, and twelfth- grade levels in all the basic subjects to see if they are academically proficient. There is danger in this goal, and many academics argue that it should be opposed. Educators should not resist such evaluation. School accountability will, I believe, be the central issue of the 1990s, and if educators do not help shape the process of assessment, others surely will do it for us. There is a great concern about where this testing objective may take us, and unless we have leadership from higher education, we may continue to ask our students to recall isolated facts, to fill in the bubbles, to put check marks on the paper, and in the process, end up measuring what matters least.

Howard Gardner, psychologist at Harvard, reminds us that children have not only verbal intelligence but also intuitive, social, spacial, and aesthetic intelligences. And yet the tests we use today at both the school and college level often screen out the intelligences of children that are most consequential in their real lives. James Agee has written that with every child who is born, under no matter what circumstances, the potential of the human race is born again, but too often schools declare children failures before discovering who they are or what they might become.

Many years ago my wife, Kay, and I were told by school officials that one of our children was a "special student," because of his performance on a single test and because, as another teacher put it, "he's a dreamer." Craig did dream, of course. He dreamed about the stars and about places far away. He dreamed about how he could go out and play. But we were absolutely convinced that he was gifted and that somehow his talents just didn't match the routine of the classroom or of the system. Let the record show that for ten years this so-called "special student" has lived successfully in a Mayan village. He knows the language, he understands the culture, he runs Mayan schools, he builds bridges across wide chasms, he has a beautiful Mayan family. And he has survived living in conditions that would have totally defeated the psychometricians who concluded years ago he couldn't learn. Recently, I reflected on why the testers were so wrong, and it suddenly occurred to me that the answer was quite simple. The problem was that they didn't have the right instruments to measure his potential. They didn't have a test on how to survive in a Mayan village. They didn't have a test on how to build a bridge. They didn't have an examination on how to understand the beauty of another culture. The problem was not with the child, but with the test instrument that dealt crudely and with rough judgment about the potential of a life.

I support a carefully crafted program of national assessment, but I also am convinced that we have a very long way to go to devise the appropriate instruments. Once again, higher education has a special role to play. As a national strategy, I propose a three-year moratorium on national assessment. During that period, university scholars should join with master teachers in the schools-in a kind of peacetime Manhattan Project-to design for the twenty-first century a new assessment process that promotes learning rather than restricts it.

In a companion move, colleges and universities must think more carefully about how to evaluate the outcome of collegiate education which would, of course, give guidance to the schools.

This leads to a fourth responsibility for higher education. The push for better testing inevitably will bring us back to the central issue of what we teach. Colleges and universities have a responsibility to develop with the schools a curriculum with more integration and coherence.

Today almost all colleges have a requirement in general education. But all too often this so-called "distribution requirement" is a grab bag of isolated courses. Students complete their required credits, but what they fail to gain is a more coherent view of knowledge and a more integrated, more authentic view of life. And what's even more disturbing is the way colleges impose the old Carnegie units on the schools, requiring students to complete credits in history and mathematics and science and English without asking what's behind the label.

The Carnegie Foundation created the Carnegie unit eighty years ago. High school students were applying to college from places colleges didn't know existed, much less what kind of program they offered. The Carnegie unit was meant to set standards, and it worked in its own way, but it fails now because it focuses on seat time rather than substance. It is time to bury the old Carnegie unit.

The truth is that the old academic boxes do not fit the new intellectual questions. Some of the most exciting work going on in the academy today is in the "hyphenated disciplines" – in bio- engineering and psycho-linguistics and the like – in what Michael Polanyi calls the "overlapping academic neighborhoods." Anthropologist Clifford Geertz, at the Institute for Advanced Study, in his fascinating book called *Blurred Genres*, says that "these shifts in the disciplines represent a fundamental reconfiguration of knowledge. Something is happening," Geertz says, "to the way we think about the way we think."

During the next century, we will see a fundamental reshaping of the typology of knowledge as profound as that which occurred in the nineteenth century when philosophy was submerged by science. And wouldn't it be tragic if a *nineteenth*century curriculum design were imposed on schools at the very time scholars were redefining the structure of knowledge for the *twenty-first* century?

Frank Press, retiring president of the National Academy of Sciences, has said that scientists are in some respects like artists, and he illustrated his point by stating that the magnificent double helix which broke the genetic code was not only rational, but beautiful as well. This brought to mind watching the launchings at Cape Kennedy when in the final seconds of the countdown, the cameras would zoom in on the faces of the scientists and engineers. As the rocket lifted successfully into orbit, the scientists didn't say, "Well, our formulas worked again." They said, almost in unison, "Beautiful!" They chose an *aesthetic* term to describe a *technological* achievement. It suggests that the scientific quest is not only a response to intellectual curiosity, but a response to a deeper need for aesthetic relationships. When physicist Victor Weisskopf was asked, "What gives you hope in troubled times?" he replied, "Mozart and quantum mechanics." Yet, in the academic world, too often the scientist and the artist live in separate spheres.

Collaboration between colleges and the schools should recurringly ask: What do we want our children to learn and be able to do after sixteen years of formal education? Wouldn't it be exciting, as we move toward the next century, if we would start to rethink the nature of the new knowledge that relates not to the last century but to the coming century? How can we organize knowledge in a way that seems to make it relevant and powerful for students in the days ahead? Wouldn't it be exciting if both kindergarten teachers and college professors could view knowledge using understandable categories that would have integration and would spiral upward in common discourse? Wouldn't it be exciting not only to build connections *across* the disciplines but to build them vertically as well, from preschool through college?

Over fifty years ago, Mark Van Doren wrote: "The connectedness of things is what the educator contemplates to the limit of his capacity." Van Doren concluded by saying that the student who can begin early in life to see things as connected has begun the life of learning. And this, it seems to me, is what school and college collaboration is all about – *connections*.

This bring me to a final observation. To achieve school excellence in the coming decade, we simply must give more dignity and more status to the teacher. Today, we hear endlessly about how the schools have failed, and surely education must improve. But the longer it goes, the more I am convinced that it's not the school that's failed, it's the partnership that's failed. And I'm beginning to suspect that the family is a more imperiled institution than the school. I might go further and suggest that perhaps the schools are working better than any other institution in our society, except perhaps higher education.

The reason that schools are imperiled is that they're confronting the pathologies of the disintegrating institutions surrounding them. Institutions that historically have supported the family and the school and children are less reliable today. I think the health care system is in greater distress than public education, surely in terms of equity if not excellence. I think the savings and loan industry is more troubled than the schools. I think the judicial system and the penal system are near collapse. And I don't say this to be flippant, but I'm not sure what SAT score to give to Congress. I'm really saying that it seems odd that we have made the schools the preoccupation of our frustrations, when I believe the schools are in fact struggling to try to hold us together and prevent a cultural breakdown.

Several years ago at The Carnegie Foundation we surveyed twenty-two thousand teachers and 87 percent reported that lack of parental support is a problem at their school. Eighty-nine percent say that "abused" or "neglected" children is a problem. And 67 percent report "poor health" among their students. One teacher put it this way: "I'm sick and tired," she said, "of seeing my bright-eyed first grade kids fade into the shadows of apathy and become deeply troubled by age ten."

We also surveyed five thousand fifth- and eighth-graders, and 36 percent said they go home in the afternoon to an empty house. Sixty percent said they wish they could spend more time with their parents. Thirty percent said their family never sits down together to eat a meal. Another two-thirds said they wished they had more things to do.

My wife recently heard a conversation between two of our granddaughters – one lives in Princeton, the other was visiting from Belize. The Mayan granddaughter was asking her Princeton cousin what she planned to do this summer. The answer was, "Just hang out." To which the Mayan granddaughter said, "You plan to what?" "Just hang out." "Is that work?" "No, it's hanging out." "What is hanging out?" It was a fascinating exchange. We live in a culture where young people are disconnected from the larger world, and today's teachers are engaged daily with this youth culture. They are being asked to do what families and communities and churches have not been able to accomplish. If they fail anywhere along the line we condemn them for not meeting our high-minded expectations, yet I'm convinced that most school critics could not survive one week in the classrooms they condemn. Excellence in education means excellence in teaching, and higher education has an absolutely critical role to play in reestablishing the centrality of teaching in our society.

During a visit to Trinity University in San Antonio, I was introduced to a group of future teachers, among the brightest and the best. As it turned out, the University had offered a full tuition scholarship to all San Antonio high school students in the top 10 percent of their graduating class if they agreed to teach for at least three years in the city's public schools. The students I met were fellows in this program.

Every college and university should have a future teachers' program, beginning the recruitment while students are still in junior high and focusing especially on minority students. In addition, higher education must train teachers who are well educated and well taught in classrooms where there is active, not passive, learning, where students learn to cooperate rather than compete. In-service education is also a key responsibility of higher education.

In 1980, Bart Giamatti, then president of Yale, asked me to visit the Yale-New Haven Institute. This program, which serves city schools, is controlled by New Haven teachers, who each year select the participants, shape the schedule, and decide the curriculum to be studied. The participants are empowered to direct and control the Institute, and the Board of Directors is comprised of teachers. The university, on the other hand, offers distinguished, tenured professors every summer and names each professor a "Yale Fellow," and as an ultimate status symbol, gives each teacher a parking sticker.

I'm suggesting that every college and university should enrich the lives of teachers in surrounding schools by making them partners in the process.

Finally, higher education should give to teachers special rewards of recognition, helping to create in this country a climate, as in Japan, in which "teacher" is a title of great honor. Higher education must honor its own teachers. It's impossible to give dignity and status to school teachers if we do not have a reward system in higher education that honors outstanding faculty.

Several years ago, the State University of New York at Fredonia asked all incoming freshmen to name the most outstanding teacher they had had from kindergarten to grade twelve. The college president then sent a letter to each of those teachers thanking them for their contribution to education. If every college and university sent such thank you's, literally millions of teachers would, each year, be recognized and renewed. As a further step, I'd like to see outstanding teachers speak occasionally at the conventions of higher education, reminding academics that they are in fact partners in the process.

And while speaking of teacher recognition, I also respectfully suggest that President Clinton invite the Teachers of the Year to a dinner in the East Room of the White House. After all, we have state dinners for visiting heads of state from nations overseas, why not pay honor to the heroes from the nation's classrooms here at home?

Education is a seamless web, and colleges and universities have a responsibility to give priority to early education, improve the evaluation of all students, create a curriculum with coherence, recognize the centrality of teaching, and reaffirm the essentialness of public education.

After ten years of school reform, the nation still is very much at risk. We are dividing ourselves between the rich and the poor, the advantaged and the disadvantaged. I am not suggesting that we take public education off the hook. I'm suggesting that the nation's public schools are struggling under inordinately difficult conditions, and those of us in higher education have both an educational and moral obligation to support the schools and most especially the teachers, who are struggling every single day to educate effectively a new generation. We simply must reaffirm the essentialness of public education and avoid being divided by ideological debates that would undermine the common school for the common good.

Marian Wright Edelman sent me a copy of a prayer, and with a little editing of my own, it seems a good way to conclude.

Dear Lord we pray for children

who spend all their allowances before Tuesday,

who throw tantrums in the grocery store,

who pick at their food,

who squirm in church and temple,

and who scream into the phone.

And we also pray for children

whose nightmares come in the light of day,

who rarely see a doctor,

who never see a dentist,

who aren't spoiled by anybody,

and who go to bed hungry,

and cry themselves to sleep.

We pray for children

who like to be tickled,

who sneak Popsicles before dinner,

and who can never find their shoes.

And we also pray for children

who can't run down the street in a new pair of sneakers,

who never get dessert,

who don't have any rooms to clean up,

and whose pictures aren't on anybody's dresser.

We pray for children who want to be carried

and we pray for those who must be carried.

We pray for those we never give up on

and also for those who never get a second chance.

We pray for those we smother with love,

and we pray especially for those who will grab the hand of anybody kind enough to hold it.

This sort of prayer must motivate our work. And if I had one message to convey, I would say that school and college educators should urgently work together not only to define excellence in education, but, above all, to create a better world for children.

NOTE: These remarks are based on a presentation to a meeting of the K-16 Initiative of the American Association for Higher Education, held in Washington, D.C., on June 29, 1993.

## Declaration of Metropolitan Universities

## A number of presidents of metropolitan universities have signed the following declaration.

We, the leaders of metropolitan universities and colleges, embracing the historical values and principles which define all universities and colleges, and which make our institutions major intellectual resources for their metropolitan regions,

- reaffirm that the creation, interpretation, dissemination, and application of knowledge are the fundamental functions of our universities;
- assert and accept a broadened responsibility to bring these functions to bear on the needs of our metropolitan regions;
- commit our institutions to be responsive to the needs of our metropolitan areas by seeking new ways of using our human and physical resources to provide leadership in addressing metropolitan problems, through teaching, research, and professional service.

Our teaching must:

- educate individuals to be informed and effective citizens, as well as capable practitioners of professions and occupations;
- be adapted to the particular needs of metropolitan students, including minorities and other underserved groups, adults of all ages, and the place-bound;
- combine research-based knowledge with practical application and experience, using the best current technology and pedagogical techniques.

Our research must:

 seek and exploit opportunities for linking basic investigation with practical application, and for creating synergistic interdisciplinary and multidisciplinary scholarly partnerships for attacking complex metropolitan problems, while meeting the highest scholarly standards of the academic community.

Our professional service must include:

- development of creative partnerships with public and private enterprises that ensure that the intellectual resources of our institutions are fully engaged with such enterprises in mutually beneficial ways;
- close working relationships with the elementary and secondary schools of our metropolitan regions, aimed at maximizing the effectiveness of the entire metropolitan education system, from preschool through post-doctoral levels;
- the fullest possible contributions to the cultural life and general quality of life of our metropolitan regions.