

THE WHITE HOUSE

WASHINGTON

September 23, 1986

Dear Mrs. Balian:

Thank you for sending me a copy of "Illiteracy in America: Extent, Causes, and Suggested Solutions," the special report of the National Advisory Council on Adult Education.

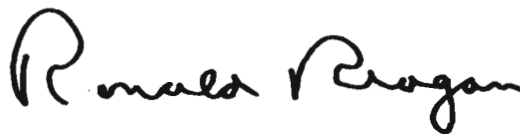
I congratulate the members and staff of the Council on this valuable work and commend all those who donated their time and talents to produce this comprehensive study of illiteracy in America.

In particular, I deeply appreciate the Council's investigation of the causes of illiteracy. Of necessity, such an investigation must give primary attention to our schools because they are, along with parents, the most important institutions for advancing literacy.

Your Council has contributed immeasurably to the well-being of our Nation in providing essential information for developing policy at the state and local levels that will move us as a people toward full literacy.

With best wishes,

Sincerely,

A handwritten signature in cursive script that reads "Ronald Reagan". The signature is written in dark ink and is centered below the word "Sincerely,".

The Honorable Lily R. Balian
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Extent, Causes, and Suggested Solutions

The National Advisory Council on Adult Education

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Illiteracy in America: Extent, Causes, and Suggested Solutions

**The National Advisory Council on
Adult Education
Literacy Committee**

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FOREWORD

This report is an outgrowth of the frustration of the NACAE when, as enthusiastic new appointees, we were unable to find the information we needed to carry out our legal mandate. Told repeatedly by educators that federal funds to combat adult illiteracy were insufficient, we tried to determine what amount would be sufficient—how bad the problem is and what success this country is having in combating it. We were amazed to find that no one really knows. What we did find was a lack of data to substantiate any claim of need, no plans to gather the data, and a confusing range of estimates of the number of illiterates.

As we performed our duties—visiting adult education centers, attending meetings related to illiteracy, and hearing the authorities who addressed us—always seeking the extent of the problem and the extent of our failure to solve the problem, we were impressed with the dedication of adult educators who were committed to helping people with a wide range of reading needs. But while we could understand why some adult students had not graduated from high school, we could not understand how those who were obviously able to learn and were now doing so, had not benefited more from our system of compulsory education. Much of what we learned convinced us that many wasted years could be prevented.

So our Council, as then constituted (nine of our fifteen members being educators—three holding doctorates in education), appointed a committee to take a critical look at the *status quo*. This Literacy Committee was asked to prepare a report to:

- determine the reasons for the widely varying estimates of illiteracy in America,
- discuss why the agency charged with transmitting literacy, the public school system, has not accomplished this task to the satisfaction of many citizens,
- recommend improvements, especially for the educational system, to reduce and ultimately—to the extent possible—eradicate illiteracy.

We began our work, unaware that other reports were being prepared. Naturally, as one after another of these documents was published, we wondered whether ours was still necessary. But, after assessing the contribution each made, we concluded that our report differed from the others in that it:

- takes a broad approach—treating the recent educational problems from a historical perspective, and in relation to the overall functioning of the educational system,
- explains the causes of achievement decline in order to show the barriers to reform,
- stresses the importance of pre-school and elementary education, where illiteracy problems begin,
- emphasizes illiteracy,
- gives explanations for the recommendations made.

While we have tried to be thorough, there are areas that we could really only touch upon—areas which deserve serious, in-depth study, such as how committed this nation really is to literacy over and above economic considerations; and the superficial treatment of complex issues, e.g., the relationship between teachers' salaries and quality education, and between youthful delinquent behavior and the completion of high school. There are other areas we did attempt to discuss that also need more serious attention such as the lack of emphasis upon and lay control of curriculum, the lack of effective evaluation of our educational process, and the lack of knowledge about or implementation of what we know will work.

Of course, there are some issues in our report that other reports have considered and which are beginning to be addressed. In those instances we feel reinforcement can be helpful, for as we point out in our conclusion, the resistance to change is great and the national attention span can be short. Further, the educational pendulum is forever swinging. The public outcry for educational reform has forced the classroom door open only a crack. The real test is what happens in the classroom when the door is closed. And that largely remains to be seen.

Patricia H. Smith, *Chairperson*
Literacy Committee
National Advisory Council on
Adult Education

ACKNOWLEDGMENTS

As with any effort of this kind, there are many people to be thanked. First, there are those who contributed directly to the writing of the report itself: editors—Ted Hope of St. Louis, Missouri; Cher Paul and Tricia Herban of Columbus, Ohio; the treatment of how reading is taught, i.e., phonics vs. look-say methods—Michael Brunner, Washington, D.C.; the summary of the College Entrance Examination Board's assessment of test-score decline—Dr. Karen Scheid, the State of Ohio Department of Education; and the typists—Joan Morrison and Barbara Hicks, Columbus, Ohio.

Second, as this report relies heavily on a review of literature, recognition must be given to those authors, critics, and educators who obviously felt passionately about education, and who so eloquently described the points we were striving to share. A work that should be singled out, as it is cited often, is Diane Ravitch's *The Troubled Crusade*.

Third, while this report is critical of much of what has happened in recent years in public education, we would be remiss if we did not acknowledge that there are many dedicated educators who resisted the latest

innovation craze, who continued to offer challenging courses and motivate the young to learn, and who welcome reform.

A special thanks goes to Adult Basic Education (ABE) State Directors—especially those from Arizona, California, Ohio, Maryland, and Virginia—and to those local ABE directors and teachers who are so dedicated to reducing illiteracy and who have been so very helpful to Council members during our visitations and in fulfilling our requests.

Gratitude is expressed to our former and current executive directors, Rick Ventura and Lynn Ross Wood, respectively; to staff members Helen Banks and Karen M. Shepard; and to the other NACAE members for their patience and support.

Finally, Dan Brennan, while sometimes a worthy adversary, was a respected colleague and a good man—absolutely outraged that illiteracy exists in this country. We were all saddened by his death before publication of this report, and agreed to dedicate it to his memory.

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EXECUTIVE SUMMARY

This is a report about the prevention of adult illiteracy. It discusses the reasons why estimates of the number of illiterates vary so much, and reveals why it is so difficult to substantiate any of the estimates.

Who are the adult illiterates? They are high school dropouts and high school graduates, immigrants, and illegal aliens. This report focuses on those who have come through our public education system. Since schools are the entity charged with transmitting literacy, they offer the best hope of remedy.

American public education today is viewed, in this report, from the perspective that shaped it: yesterday's educational theories and philosophies. Such an approach, together with a discussion of the effects of social change, shows the forces that have influenced our educational system, and thereby explains why current problems exist and why there are barriers to the solutions of these problems. What were these forces? The increased acceptance of progressive educational philosophy by unionized educators resulted in substantial changes in curriculum and resistance to accountability for student achievement. The unprecedented intrusion of the courts and the federal government into local schools resulted in a loss of local control. The concurrent social upheaval resulted in a loss of adult authority. All converged to disrupt the traditional educational checks and balances and changed our educational system. While recognizing that many things influence the level of literacy attained by our citizens, this report concludes that educators themselves are largely responsible for many of the problems. Finally, the report offers recommendations for improving achievement and reducing illiteracy, and gives the reasons for these recommendations.

The scope of this report is broader than that of most of the other recently published ones, because a more thorough explanation is needed of how our educational system functions. Only then can we understand why many of the reforms that are currently being called for are indeed necessary, but will also be difficult to achieve.

The National Advisory Council on Adult Education (NACAE) decided to compile this information for several reasons. The NACAE was unable to determine the extent of adult illiteracy in this country and therefore could not determine how many people were not being served by the present system. There simply were insufficient data on which to base considered recommendations to the President and to Congress. Further, there seemed to be no plans to gather the necessary data. At the same time there was intensified public clamor about literacy problems and Council members were constantly admonished to recommend increased funding to remediate adult illiterates.

They were also told that the number of illiterates was growing. Consequently, the Council began to question why taxpayers should fund the expansion of a system to accommodate an increasing number of adult illiterates when these same taxpayers were already supporting free public compulsory education. Moreover on visitations to adult education centers, members encountered students who were obviously capable of learning but who had been passed through the system without becoming literate. In addition, our members learned that approximately one million young Americans drop out of school annually—obviously potential candidates for an already over-crowded and apparently under-funded system of adult education. Becoming increasingly concerned with prevention as well as remediation of adult illiteracy, the Council appointed a committee to prepare a report that would:

- determine the reasons for the widely varying estimates of illiteracy in America,
- identify the reasons why the agency charged with transmitting literacy, the public school system, has not accomplished this task to the satisfaction of many citizens, recommend improvements, especially for the educational system, to reduce and ultimately eradicate — to the extent possible — illiteracy.

While the committee's work was underway, other reports were being published. After reviewing these reports, committee members felt increasingly justified and reinforced in their decision to question the *status quo*. At the same time, they were concerned that the Council's work might be redundant, and that the public might have become satiated with recommendations for reform. Neither fear seems to be realized, and while obviously some topics in the Council's study are covered in other documents, this report contributes to the current reform movement in that it:

- puts the recent achievement decline into historic perspective,
- discusses the causes of educational problems as well as the barriers to their solutions,
- takes a broad approach, treating some facets of the educational system not discussed in other reports; e.g., the role of school boards,
- considers all levels of education,
- gives explanations for its recommendations,
- focuses on adult illiteracy as a consequence of a failure of our educational system and suggests that the kinds and extent of illiteracy be clarified in order to effect solutions.

The Extent of the Problem

There is much confusion about the extent of illiteracy in the United States because definitions of literacy vary greatly, resulting in conflicting estimates of the extent of the problem. Adding to the confusion is the fact that grade-level completion and census statistics are not reliable indicators of literacy attainment. Nor is literacy a static concept. The impact of changing and differing literacy needs on illiteracy estimates is well-recognized, as is the relatively new concept of "functional" illiteracy. The relationship between literacy and the economy is discussed in light of business and industrial needs for and concern over the lack of a literate workforce. Other factors impacting estimates of illiteracy that are discussed are: the needs of the military, the escalation of credentials, the increasing numbers of refugees and immigrants, the importance of cultural literacy, the lack of reliable data, and the possibility of inflation of estimates. The truth of the matter is that we really do not know which, if any, of the estimates of the number of illiterates is accurate. We should know. It is important that we clarify the problem in order to solve it effectively. We must, for example, stop confusing the inability to read with the inability to function successfully in society. The designation of different levels of illiteracy is suggested to identify the problem with greater precision and to offer better solutions.

The Causes of the Problem

Because Americans charge the public school system with creating and maintaining a literate citizenry, this committee examined the evolution of that system. From the earliest days of public schooling, different groups have held different expectations of education. But as the public school system developed a virtual monopoly on the delivery of educational services, the lack of commonly held expectations and the limited choice of educational facility combined to spawn a host of questions about American public schools: Should education be offered for its own sake or as training for a career? Should attention be directed toward developing the whole child or concentrate on the development of cognitive skills? Should methodology include experiential learning or focus solely on rote learning? Should students be grouped by ability or heterogeneously? Should children be bused or served by neighborhood schools? Should the focus be on insuring equality or insisting on excellence? There are more. One of the longest-standing conflicts, but one that is confined mostly to the profession, is the degree to which phonics should be emphasized in reading instruction.

The historic dilemmas and conflicts have been exacerbated in recent years by social changes: an increasingly materialistic and permissive society; the turmoil resulting from the civil rights struggle; the phenomenal and not-yet comprehended impact of television; the changing perception of childhood; and the widespread use of mind- and mood-altering substances.

In addition, several agencies in American society redefined their roles in relation to public education during the last 25 years. Federal regulations concerning vocational and technical education, handicapped students, adult basic skills programs, desegregation,

educational media, disadvantaged students, and bilingual education increased from 92 in 1965 to nearly 1000 in 1977. Federal projects, programs, and pilot studies were instituted. Court decisions on education rose from 112 in 1956, to 729 in 1966, to more than 1200 in 1970. Statutes and court rulings undercut administrative authority. Decisions that had once been made in the principal's office were made at the judge's bench. Special interest groups instigated much of this increased governmental attention to redress perceived unresponsiveness and red tape, and because federal governmental agencies could be more easily influenced than local boards of education. Special-interest groups learned the process of bypassing school boards, both local and state.

But perhaps the greatest single cause for the recent revolution in education was the evolution of progressive education. The first wave of progressive education reflected a larger humanitarian effort to help Americans adjust to the new urban-industrial society which emerged in the latter part of the 19th century. But the "life adjustment" phase of progressive education which followed World War II was marked by an increased emphasis on non-academic education. Even though the moves away from traditional education were strongly criticized through the years, critics were ignored, and the ascendancy of progressive education continued. The most recent manifestation of this philosophy occurred in the 1960s when social concerns brought another wave of educational responses: team teaching, student contracts, "hands on" learning, a "relevant" curriculum, teachers as facilitators, student rights, anecdotal reporting. Curriculum changes included "new math," social studies instead of history, and the replacement to a large extent of classic literature and finished compositions with contemporary works and group discussion. Also, curriculum choice was greatly expanded. In some schools the only core requirements for graduation were physical education, health, American history, and government.

Organizational changes included open classrooms, individualized instruction, free schools, semester and mini courses, and the discontinuation of ability grouping. Behavioral standards were relaxed and homework minimized. At the same time grade inflation and social promotion resulted in a general lack of discipline and respect for learning.

The lowering of standards hid problems. Eventually though, by the 1970s, when remedial English courses had become necessary for half the entering freshman class of some colleges, unprepared college freshmen and illiterate high school graduates were becoming obvious. Less obvious were students and adults who lacked self-discipline, respect for society, positive attitudes and values, a sense of personal accomplishment, and the skills to achieve in the competitive world beyond the school room. All were results—victims—of a system that, in trying to be all things to all people, failed considerably with many who had the potential to achieve much more.

For before students can practice effective thinking that is so necessary in a democracy, they need command of the essential tools. They must be able to read with comprehension; they must be able to put complex ideas into intelligible prose; they must have some command of mathematical thinking; and

finally, they must have a store of reliable information to draw upon. They are much more likely to acquire these essential tools if they have a positive attitude toward learning. This attitude can be fostered, as it once was, through teaching moral and character education and the work ethic. Such instruction has been abandoned even though polls show that parents favor it, and what little research there is in this area shows that it helps to prevent discipline problems.

What has happened to the system? How could a country so committed to providing education to all its citizens be failing to do so? Where are the controls?

The main control used to be the parents who supported the schools through parent-teacher organizations and local school boards. However, for a variety of reasons, parents are no longer involved with the schools as they once were. Moreover, the consolidation of schools resulted in larger school districts with one-eighth the number of lay school board members elected by the parents nationally.

The education establishment became more powerful, for even the most committed board members were rarely a match for professional administrators and unionized teachers. Teacher unions became skilled advocates for their constituents, putting teachers in a direct adversarial relationship with school boards, and dissipating the authority of school administrators. Yet at the same time that professional educators and unions were gaining power, academic achievement was declining.

Can we hold the schools responsible for that decline? Given the fact that professional educators determined programs, that teachers retained control over what was taught and how, and that the schools instigated the educational changes that proved to be so detrimental, the answer is yes. Even though this period saw substantial social upheaval, research and historical precedent show that school-controlled efforts can succeed despite such deterrents. A review of public school achievement, including SAT and other test scores, supports this position.

Undoubtedly, much of what happened was motivated by the desire to help low-achieving students. While we certainly need to do all that we can, within reason, to assist low-ability students, we need also to accept the fact that equal opportunity does not guarantee equal results. We must once again challenge students of every ability level through consistent expectations and improved standards.

In the words of James Lynch and Bertrand Evans:

. . . certain prevalent but nonsensical equations . . . should be abolished: namely, that what is great is difficult; that what is difficult is uninteresting; that what is uninteresting is unteachable. Neither editors nor teachers should be afraid of giving students "what is good for them." If students knew what was good for them, they would need neither teachers nor textbooks. The vapid theories that advocate teaching the "whole child," removing all difficulties from his path, and being permissive at every turn cannot be allowed to put in jeopardy the literacy of a whole nation.*

*Bertrand Evans and James Lynch, *High School English Textbooks* (Berkeley, California: University of California, 1963).

Suggested Solutions to the Problem

Curriculum and Instruction

1. Improve the teaching of reading.
2. More strictly evaluate educational materials, and re-examine the selection process. Materials should be sufficiently challenging to students.
3. Upgrade curricula.
4. While continuing the emphasis on basic skills, the curricula must include the teaching of higher-order skills.
5. Examine use of student time—of time required for assignments in light of what is learned as well as the structure of the school day, (i.e., time on task).
6. The time and expense required for individualized instruction — a growing trend — should be carefully analyzed in order to determine whether this method is an effective use of instructional time and the educational dollar.
7. Evaluate the results of pre-school education to determine whether the gains are sustainable and how the programs should be funded.
8. The kindergarten year should have increased academic content.
9. Meaningful homework should be consistently assigned beginning in the early years of school. It should be systematically collected, and checked, and should determine to some extent — however small — what a student's grade in any given course will be.
10. The value of work, good study habits, a positive attitude, an appreciation of learning, self-discipline, and ethical behavior should be incorporated into the curricula, especially in the early years of school.
11. Re-establish the school's authority to demand and maintain discipline.
12. Require pre-kindergarten screening procedures to identify special strengths and needs, especially deterrents to reading ability, and provide assistance when necessary. Children who enter school with advanced skills should not be allowed to stagnate while others catch up.
13. Comprehensive testing programs should be instituted to monitor student achievement, especially in relation to student potential. Remediation or intervention, particularly in the early years, must be available for those who need it.
14. Tests that include accurate identification of under-achievers should be administered, and the results effectively utilized.
15. Students should not move through the grades without mastering the necessary skills. The mastery learning programs currently in use should be carefully evaluated since there is not a consensus concerning their effectiveness in providing basic skills instruction.
16. Parents should have candid and thorough reports of their children's academic progress — reports which are based not only on how students are achieving according to the demands of the curriculum, but how they are achieving in comparison to their peers. Otherwise, parents will not have a realistic assessment of their children's progress.
17. Re-establish credibility in the measurement of academic progress.

18. Encourage and honor young scholars and artists as much as we do young athletes; give scholarships to top ACT and SAT scorers.
19. State departments of education should compile a list of all competitions, scholarships, grants, and contests and disseminate it to local school districts.
20. Our nation would be better served were greater effort given to meeting the needs of gifted and academically talented students.

The Teaching Profession

21. State boards of education should accept the responsibility for upgrading standards for teacher certification and accreditation. They should be aware of how teachers are trained to teach reading and review the results of this training.
22. Greater flexibility is needed to allow graduates with demonstrated knowledge in their fields, but without the required hours in education courses, to teach other than basic skills.
23. Separate certification should be established for middle-school teachers to include required training in the problems of early adolescence.
24. Improve the screening of teacher candidates.
25. In-service programs should be structured around the needs of individual districts. Training in the teaching of higher-order skills is one area of need.
26. Compensation should be based on the teacher's ability to teach, as well as on years of schooling. Other incentives for retaining teachers should be instituted. Automatic salary increases should be abolished.
27. The issue of tenure should be more thoroughly discussed. Perhaps it would not be necessary if due process were incorporated into the dismissal procedure and both teachers and administrators were given clearly articulated, performance-related criteria against which they would be evaluated.
28. Decisions determining the appropriate subjects for, as well as the timing and duration of, negotiations between teacher unions and local boards should be open to the public. The total percentage of salary increase—including fringe benefits and increments—should be published as well as top salaries, instead of only beginning salaries. The cost of negotiating, itself, should be closely monitored.
29. The negotiation process must be shortened to make it less disruptive.
30. The effect of teacher unions on education should be thoroughly studied and reported.

Local Administration

31. Administrators and principals need better training and in-service programs, especially in the areas of evaluating personnel and developing in-service programs for staff.
32. Principals should establish themselves as educational leaders and give more attention to the curriculum.
33. Administrators' pay should be based on merit.
34. Apprenticeship programs and in-service training should be provided to school board members.
35. School board associations should help their members understand how to govern their districts effectively, and require accountability to the voters for student achievement.

36. The impact of the federal role in education on local school governance should be thoughtfully reviewed.
37. More effort should be made to identify and remove barriers to the reforms that would make the public school system more responsive and accountable.
38. Local school boards need more authority to govern their districts effectively.
39. School boards should represent parents more forcefully in decisions affecting student performance, including amount of homework, difficulty of materials, report card format, length of the school day, and requirements for graduation.
40. School boards should publicize clearly articulated policies and short- and long-range goals. They should base their evaluations of superintendents on how well their policies are implemented and their goals are achieved.
41. The policies and goals of the district school board should be reflected in the curriculum.
42. State legislatures should review and simplify their education codes.

Research

43. Evaluate the process of commissioning educational research and determine whether or not the federal government should be involved.
44. Valid research is needed in many areas, such as what motivates children to learn, how children learn, and the impact of drug use on the ability to learn.
45. The relationship between the economy and the literacy level of the populace must be clarified. Will increased literacy improve the economy? Would more people be productively employed if job requirements were not inflated, requiring degrees and levels of literacy unnecessary to the tasks?
46. Broader dissemination of good, workable ideas is needed; the National Diffusion Network could be expanded.
47. Funding should be provided for the dissemination of research findings to classroom teachers, administrators, and school board members.
48. School leaders should study the research on the "effective school" movement and emulate its successes.

The System and Structure of Education

49. National standards should be determined for certain skill levels — especially reading, writing, and math. Regardless of what tests are used, each school should report the degree to which students are meeting those national standards so that parents and teachers will be able to put student achievement into perspective. Since it is the only instrument currently readily available nationwide, perhaps all graduating seniors should take the GED test in order to provide national assessment data.
50. State standards for evaluating schools and school districts should be reviewed and, if necessary, improved.
51. Pilot projects should be implemented that allow children to begin school when they are deemed ready, regardless of chronological age, in

order to determine whether students learn more under such circumstances, and whether later social problems are decreased by such a system.

52. More public discussion about the purpose and performance of the public schools is needed. Parents must have a larger role in the decision-making process, especially in reaching a consensus about what should be taught. This could be accomplished through a parent council in each school.
53. Competition in the educational marketplace, by use of vouchers and tuition tax credits that would be fair to those of all income levels should be objectively and unemotionally evaluated. If found to improve schooling, they should be encouraged.
54. The reasons for and results of student drop-outs need more comprehensive study, and more attention. Allowing students to enter adult basic education classes at younger ages may be one solution.
55. Alternatives to compulsory education, such as apprenticeships, should be examined.
56. Drop-outs should be allowed to return to finish school at any time, free of charge. Everyone should be entitled to complete the equivalent of 13 years of free schooling (kindergarten through 12th grade).
57. The determination of future work-force needs and the skills that will be required for employment, necessitate closer cooperation between business and education.
58. Employers' emphasis on the diploma for entry into the job market should be accompanied by equal emphasis on the academic skills necessary for successful employment.
59. There should be more communication between business and education. Teachers should incorporate understanding of the needs of the work force into their lessons.

National Attitudes Toward Education

60. In order for schools to become accountable for student achievement, several factors must be identified: what changes are needed, who should make them, any barriers to making the changes and the removal of such barriers.
61. The public needs to become more aware of and involved in the educational system, and to make its opinions known to elected representatives.
62. The President and the Secretary of Education should continue to focus national attention on the status of education in America.
63. Lawmakers, educators, and others must resist the temptation to apply quick fixes and must not succumb to excessive pressure from special interest groups; instead, short- and long-range planning to improve education for all is needed.
64. A presidential task force should be appointed to study the expenditure of federal education funds and school tax dollars to determine: (a) why many consider educational funding insufficient, even though funding has increased while

enrollment has declined; (b) what areas are underfunded or overfunded; and (c) whether any savings can be realized.

65. Decision-makers within the commercial television industry must weigh carefully the short- and long-range ramifications of programming on the values and behavior of young people. They especially need to distinguish clearly between the portrayal of adult and youthful behavior and depict more young people who work hard and excel. A national study of the effects of television on youth should be conducted.

Illiteracy

66. It is respectfully recommended that the President or the Congress appoint a national task force to determine how reading is being taught, how reading should be taught, and how reading teachers are trained.
67. The discussion of how to teach reading should be expanded beyond the domain of educators to include the public.
68. National definitions of the various levels of literacy must be established and better data-gathering procedures instituted. More accurate estimates would enable legislators to better determine: (a) how many of those eligible for adult basic education would refuse and how many would benefit from training; and (b) considering the return on the investment, whether we are spending enough on local, state, and national levels to combat adult illiteracy.
69. The military's research on illiteracy should be studied and relevant findings incorporated into current public education programs.
70. Attention should be given to illiterate adults on welfare. The possibility of requiring them to take advantage of educational opportunities in order to remove themselves from the welfare rolls should be considered.
71. Consideration could be given to shortening prison sentences somewhat for illiterate inmates who successfully complete reading programs.

Conclusion

Solutions to recent educational problems are possible, but we must understand that there will be opposition to real reform. Given the strength of the educational bureaucracy and the shortness of the national attention span, we may well be not only a nation at risk, but a nation at a loss about how to minimize the risk. Perhaps we do not lack the means, but rather the will to do what we should. We must continue our newly found vigilance. We must institute measures of accountability that include a record of student progress and an analysis of cost effectiveness. We must scrutinize our entire educational delivery system and focus on *learner outcomes* in order to determine what increases or decreases achievement. We must also identify the barriers to educational progress and remove them.

INTRODUCTION

The National Advisory Council on Adult Education (NACAE), a presidentially appointed body established by Congress in 1970, is charged with developing recommendations on adult basic education for the President, the Congress, and the Department of Education. This Council, therefore, is very interested in knowing the extent of adult illiteracy, the cause of this problem, and what can be done to prevent it.

Despite the lack of supporting data, and although estimates on the number of illiterate adults in this country vary significantly and reflect both the definition chosen as well as the perspective of those defining the term, general agreement exists that there is a substantial number of adults who are unable to read, write, or compute at the level needed to function in today's society. This figure stands to be increased by approximately one million young Americans who drop out of school annually, by the thousands who graduate from secondary schools but are still illiterate, and by the many immigrants who, regardless of their literacy in their native languages, are not literate in English.

This Council has heard repeatedly that the majority of the unemployed and the incarcerated are illiterate, as are a substantial percentage of those who receive social assistance. Other measures of the impact of illiteracy on society are personal: parents who cannot read to their children, drivers who cannot read street signs, patients who cannot read medical instructions, shoppers who cannot read grocery store prices, and voters who cannot read the names on ballots.

Given the Council's charge and the growing concern about illiteracy in this country, the Council appointed a committee to study the varying estimates of illiteracy, to examine the role our educational system plays in illiteracy, and to develop recommendations to reduce or prevent illiteracy in the future. The focus of this report, then, is preventive in nature rather than remedial, for significant, if not sufficient, efforts are being made to address existing illiteracy. The Council applauds the programs to remediate adult illiterates and strongly encourages their continued support, while at the same time hoping that one day such programs will no longer be necessary.

Since adult illiteracy results to a large extent from a failure in the educational process, this report will focus on the institution established to foster a literate citizenry, the public school system. As it is virtually impossible to isolate a discussion of the attainment of literacy from an assessment of the overall functioning of the educational system, a broad approach has been taken in order to examine the system's many facets.

In addition to explaining why there is confusion about the extent of adult illiteracy in this country, this report attempts to: clarify problems that exist within the educational process; establish a definite causal relationship between the problems outlined and adult illiteracy; complement and reinforce many of the recommendations made in previously published reports, and focus the current reform efforts more clearly on the acquisition of literacy.

THE EXTENT OF THE PROBLEM

Conflicting Definitions Create Conflicting Estimates

Adult Illiteracy

Who is illiterate? How many illiterate adults are in America? Is the number growing? In his paper prepared for the 1978 National Right to Read Conference, Thomas Sticht says:

It seems clear, to me, that the way in which we conceptualize the nature of literacy, and its relationship to the basic skills and to knowledge content areas, will determine the types of research programs we pursue to contribute to the solution of literacy problems. For this reason we need to have as clear a conceptualization of literacy as we can, one which will reflect the inherent nature of literacy as a human capacity for acquiring and using knowledge.²³⁹

We must have a clear concept of literacy, then, in order to solve the literacy problem. We must also clearly define illiteracy in order to estimate accurately the extent of the problem so that it can be addressed effectively. Yet, as Carmen St. John Hunter and David Harman remind us,

There is still no uniformly accepted definition of the rudimentary characteristics of adult illiteracy . . . [and] . . . external standards for quantifying literacy or classifying persons in relation to it do not exist.¹³³

Definitions

The range of definitions is obvious from the following examples:

- The 1981 UNESCO report defines a literate person as one who can both read and write a short, simple statement about his or her everyday life.
- The United Nations declares a person literate who can read and understand a simple, common paragraph.²⁴
- The National Health Survey defines literacy as reading ability comparable to that of the average school child entering the 4th grade.⁹¹
- The Census Bureau uses the number of years of schooling completed as the criterion for determining literacy. In the 1950s, it determined that anyone with less than a 5th-grade education was illiterate. In the 1960s, the Census Bureau set completion of the 6th grade as a determinant of literacy.
- The U.S. Department of Education currently defines literacy in terms of the completion of eight years of formal schooling but does not elaborate

or qualify the quality of schooling or achievement test results.¹⁴⁰

Estimates

Based on the first two definitions, estimates of illiteracy in this country range from 2.4 to 5 percent.²⁴ According to the National Health Survey definition, the third definition, five percent of youth 12- to 17-years old are illiterate.⁹¹ If, as four of these definitions say, the highest grade completed relates to literacy, then there should be a reduction in the number of illiterates, as Americans are completing more years of school than ever before. Only 6.7 percent of all 14- to 17-year-olds were enrolled in school in 1889-90, but 95.7 percent were enrolled by 1980. By 1970 only 5.4 percent of persons 25 years and older had less than five years of schooling, and that percentage decreased to 3.3 in 1960.²⁴⁰ Between 1970 and 1980, the percentage of those over 25 with less than eight years of schooling decreased from 28.3 to 18.4 percent.²⁶² However, Hunter and Harman point out the fallacies of relating literacy to grade completion.

The available school-leaving statistics do not necessarily correlate with individuals' abilities to function or even to read. Indeed, they may reflect little more than increased age requirements for school attendance.¹³³

I. Kirsch and J. Guthrie's 1977-78 study concluded that reading scores of 8th graders in Chicago ranged from an average grade level of 4.4 in the lowest school to a median level of 10.5 in the best school.⁹¹ A two-year study recently completed in Kentucky by Sharon Darling shows that of the adult students registering for adult basic education, the median grade completed in school was 8.6, but the median reading level at the time of the study was 2.0.⁵⁴

Other studies agree that grade-level achievement does not necessarily indicate reading level. A 1979 report of the National Commission on Libraries and Information Science estimates that one out of every five high school seniors is unable to carry out everyday reading tasks.¹⁴⁷ A 1980 report by the Commission of Humanities, sponsored by the Rockefeller Foundation and chaired by Richard Lyman, President Emeritus of Stanford University, states that the rate of illiteracy of high school seniors has been estimated at between 10 and 20 percent.¹⁴⁹ However, Donald Fisher, in a National Institute of Education commissioned study, "Functional Literacy and the Schools," concludes that less than one percent of graduates are functionally illiterate, and that the illiteracy rate among 12- to 17-year-olds has remained

at approximately five percent over the years,⁹¹ even though the rate of school attendance has increased enormously.

Confusion also results from the varying levels of reading mastery used as standards by the general public. Some relate to the inability of students to pass minimum competency tests, whereas others relate to students who have learned to read and write but who have not attained higher order comprehension skills and cannot write complex sentences.

Functional Illiteracy

"Functional illiteracy" is a relatively new concept that has compounded the confusion by introducing the dimension of *function*. Further, "functional illiteracy" has attracted the same multiplicity of definitions that plagues efforts to define mere "illiteracy," resulting in the same inability to plot growth or shrinkage in the population. Writing in the *Harvard Educational Review*, Kenneth Levine scrutinizes the concept of functional literacy from which "functional illiteracy" obviously derives:

Adult basic education has been profoundly influenced since World War II by the concept of functional literacy. Behind its superficial appeal, however, lies a tangle of flawed assumptions and ambiguities.

For more than two decades, worldwide efforts at eradicating adult illiteracy have been deeply influenced by and increasingly extended under the rubric of functional literacy. . . . The term is now used to justify everything and anything connected with basic skills education for adults.

The heart of the case to be mounted against current notions of functional literacy is that they obscure the identification of appropriate targets, goals, and standards of achievement in the education of adults by promising, though failing to produce, a quantitatively precise, unitary standard of "survival" literacy. Further, these varying conceptions of functional literacy encourage the idea that relatively low levels of individual achievement—low in relation to the demands of typical literacy-mediated activities—will directly result in a set of universally desired outcomes, such as employment, personal and economic growth, job advancement, and social integration.¹⁵⁷

The notion of a level of literacy above the mere capacity to read a simple message, but less than full fluency, apparently originated in the dissatisfaction of some World War II commanders with the inability of their troops to interpret written instructions. Consequently, an attempt was made to describe the dimensions of the "literacy problem" in objective, quantifiable terms related to functional "life skills" rather than to school-oriented content.¹³³

According to Hunter and Harman,

A new direction originated in 1970 from the Conference on Strategies for Generating a Nationwide Adult Right-to-Read Effort. The challenge was "to foster, through every means, the ability to read, write, and compute with functional competence needed for meeting the requirements of

adult living." (Report of the North Carolina Conference, 1970)¹³³

Using this definition, the Division of Adult Education of the U.S. Office of Education sponsored a study to identify the competencies needed by adult Americans. This study provided another measurement of functional literacy

. . . the widely known Adult Performance Level (APL) study, conducted for the United States Office of Education, and which is now serving as the basis for functional literacy assessment in some states, conceived of literacy as "composed of an application of communication (reading, writing, speaking, listening), computation, problem solving, and interpersonal relations skills to knowledge of occupations, consumer economics, community resources, government and law, and health"! . . . In this case literacy is not restricted to the traditional skills of reading and writing, but is extended to include oral language skills and even interpersonal skills!²³⁹

The APL defined some sixty-five requirements for adult living and measured adult success by income, job status, and education. The study established three levels:

- Level 1 — adults who are functionally incompetent;
- Level 2 — adults who function but are not proficient; and
- Level 3 — adults who are competent.

Not surprisingly, the APL study also gave us new statistics: 19 percent of Americans are functionally illiterate (Level 1), and 33.9 percent function only at a level of minimal competency (Level 2).⁶

The International Reading Association (IRA) and others take strong exception to the findings of this project, citing critics who question the validity of the study because the test items were based on economic and educational success, and that by using those criteria,

. . . a significant portion of the population will always fall into the ranges of functionally incompetent or marginally competent. More specifically, the "functional illiterates" were pre-selected on the basis of income, education and occupation. This questionable procedure raises serious doubts about the popular conclusion which has been drawn from the report.¹⁵

The IRA argues that if there were as many functional illiterates in this country as this study claims, every one of the 47 million adults who had not completed high school at that time, plus an additional 13 million people with high school or college diplomas would not be capable of functioning in society.

Because the APL findings have so changed the concept of illiteracy, we believe it necessary to point out that the APL study has been criticized for:

- its underlying logic;
- the idea that it measures success instead of, or as well as survival;
- the quality and validity of the APL test items.

A report of the National Institute of Education, *APL Revisited: Its Uses and Adaption in States*, says that, "The much publicized finding that 20 percent of American adults are 'functionally incompetent' on the basis of the design, conduct and reporting of the APL study is altogether untenable."⁶ In addition, the authors point out that the USOE deemed the APL study an approved project in "Educational Programs That Work" even though, unlike every other project so approved, the study did not constitute an educational program. The authors contend that the U.S. Department of Education made the APL implementation a national priority long before the study's final report was completed and that:

... this priority gave Federal sanction not only to the general notion of organizing adult education so as to meet the life and occupational needs of adults with low levels of formal schooling, but to one particular manifestation of this general notion, namely, the APL approach.⁶

(For a more complete review of the APL study, the reader is referred to the works of Ronald Cervero and William Griffith listed in the bibliography.)

In 1970 the Division of Adult Education of the U.S. Department of Education adopted as its definition of adult literacy: "... the ability to read, write and compute with the functional competence needed for meeting the requirements of adult living." A committee of experts for UNESCO also developed a definition for functional literacy:

An individual must be able to engage in all those activities in which literacy is required for effective functioning of his group and community and also to enable him to continue to use reading, writing and calculation for his own and the country's development.¹⁰⁵

Thus, at least, the reasons for the varying estimates became clearer: two different *types* of illiteracy—*basic* and *functional*—are being discussed, with many people using the terms interchangeably. In addition, there is a lack of clarity about what constitutes either of the two types, with many different things complicating estimates.

Illiteracy and the Economy

Business and Industrial Needs

One of the sharpest spurs to the increased interest in illiteracy, which adds to the complexity of its definition, is the effect illiteracy is perceived to have on economic productivity and unemployment. Much of the clamor about illiteracy follows employers' angry disclosures that their employees do not have the basic literacy skills necessary to do their jobs. The New York-based Center for Public Resources (CPR) found that three-quarters of 184 corporations responding to a 1981 survey said that employee errors in reading, writing, and math had forced their companies to establish basic skills programs. In establishing a program to aid employees who had inadequate English skills, Aetna Life and Casualty Company of Hartford, Connecticut, found they needed courses at eight levels to meet the diverse needs of their workers. A CPR vice president who authored their study estimates that the nationwide price tag for such efforts exceeds \$10 billion.

Unemployment and Productivity Concerns

While illiteracy has an impact, it must be kept in mind that various other factors contribute to low productivity and unemployment, as examples: plant efficiency, labor/management agreements, and employee morale. Unemployment is seasonal and regional. It is affected by the amount of available capital per worker and the number of people entering the labor force. The labor force grew by 7.4 million people (11.9 percent) in the 1950s, by 13 million (18.8 percent) in the 1960s, and by 22 million (33.6 percent) in the 1970s. The 19 million new jobs created in the 1970s were not sufficient to employ everyone.³⁸ In fact, the United States has always had a surplus of workers except during wartime.⁷⁶

Legislation also affects unemployment. Many feel that the law mandating a minimum wage is most detrimental to those with the least education; one expert estimates that youth unemployment would have been 3.8 percent lower in recent years without it.⁴⁷

Obviously, by itself literacy does not automatically lead to a better life or an improved national economy. Hunter and Harman warn us that these expectations have seriously affected attitudes toward literacy and toward clearly articulated literacy goals. They take exception to:

- The assertion that economic development, increased gross national product, and modernization automatically follow or are contingent upon literacy.
- The parallel claim that *anyone* who becomes literate is automatically better off economically, is better able to find employment, and becomes a better citizen.
- The claim, even after narrow economic goals were decried as too utilitarian and limiting, that literacy might somehow bring about national development in the broadest sense of the term.

They say that

These oversimplified assumptions about literacy have given rise to a long series of unsuccessful literacy campaigns. Promoters of literacy so zealously state some of these claims that they raised hopes that have never been fulfilled. Any challenge was heard as denial of the value of literacy.¹³³

The Credentialing Factor

Another factor that directly concerns the unemployed and affects our perceptions about illiteracy is

employer demand for higher levels of education and more credentials than are necessary to do a job. In 1977, sociologist Randall Collins pointed out

... that in the nineteenth century those at the bottom of the American social and economic heap were led to believe that if they were literate more opportunities would be available to them. As the number of those with educational credentials increased, however, so did the basic requirements for the same level of jobs.¹³³

Peter Drucker substantiates this observation, noting that in this century educational credentials for many jobs have escalated without any real change in job requirements—where applicants once needed a high school diploma, they now need a college degree.⁶²

Still we read that more schooling and more degrees correspond with higher lifetime income. Roger Freeman tries to debunk the implied causality by saying that, most likely, “both the length of schooling and the level of income reflect the intelligence, persistence, and personal drive of the individual.”¹⁰⁰ He also points out that the ratio between earnings of high school and college graduates has narrowed from 1:1.50 in 1967 to 1:1.35 in 1978. He hypothesizes that this narrowing could result from the decline in knowledge and occupational skills of college graduates, reflecting lowered admission and graduation standards, or from the fact that the supply of college graduates has increased faster than college-level job openings have.¹⁰⁰

Kenneth Edwards tells us that

... between 1970 and 1976, the proportion of American workers with four or more years of college education increased by more than 60 percent in clerical, sales, service and blue-collar occupations—areas that have traditionally employed very few college graduates . . . Only one in every nineteen jobs requires a baccalaureate degree, but the remaining eighteen jobs will need technical training, work experience, or training in a particular skill or a group of skills.⁷⁶

Furthermore, the Department of Labor estimates that 75 percent of the unemployed lack the basic skills necessary to be trained for high-tech jobs. While unemployment hit a post-depression high of 10.7 percent, jobs in computer, business machine, and data processing firms have gone begging.²⁵¹ The real challenge is to provide the level of literacy needed to function properly, without over-qualifying, over-credentialing, and over-training employees.

The Change to a Technological/ Information Society

The perception is that we have not produced literate people for an industrial society, and that as a con-

sequence we will not be able to produce the even more literate people needed for a technological/information society.

Jeanne Chall points out that one of the main reasons for the confusion over the extent of adult illiteracy in the United States is the vastly changing nature of the adult student. “Some still seek help with basic literacy. But this group is shrinking in comparison with those whose literacy needs go beyond the beginning.”⁴⁵

Roger Thompson reminds us that literacy is not a static concept. A frontiersman who could write his name was considered literate, but the emerging computer age will require “higher-order” skills, critical thinking, and problem solving. He maintains that the schools are “losing ground in the struggle to keep education abreast of the times.”²⁵¹

Economist Anthony Carnevale states that although the current emphasis on high-tech is somewhat overdone—as high-tech production will, at best, employ 10 percent of the American workforce in the foreseeable future. What is needed to fully realize the potential of the new technologies, he thinks, is a greater degree of technical literacy in the population as a whole.³⁸

In *Megatrends*, John Naisbitt notes that we have moved into the information society. Farmers, who required little schooling and constituted more than one-third of the work-force at the turn of the century, now make up only 3 percent of the workforce. Information occupations have increased from 17 to 60 percent since 1950; by 1967, 46 percent of the Gross National Product (GNP) was accounted for by the information sector, including more than 53 percent of the income earned. Naisbitt also says:

In this literacy-intensive society, when we need basic reading and writing skills more than ever before, our education system is turning out an increasingly inferior product.¹⁷⁷

Drucker agrees and observes that, in the last hundred years, we have enjoyed a fantastic increase in productivity, but that it was brought on by higher capital investment, better machines and tools, and most of all, by better management. Drucker further maintains that because highly unionized blue-collar jobs required practically no skills, the public schools have not been pressured to perform in recent years as they were 75 years ago, when education was the only way out of poverty and the only chance for success.⁶³

Drucker predicts that our educational system will improve in response to renewed pressure when the public perceives that future productivity, which determines the level of real income, will depend on the skills employees bring to the new information occupations.⁶³

Other Compounding Factors

The Impact of the Military

Literacy skills are extremely important in the military because military personnel engage in far more reading tasks than do their civilian counterparts.

Sticht found that military personnel read two hours a day—almost twice as much as civilian workers.⁶⁵

Approximately 250,000 individuals (selected from a much larger group of applicants), enter the Armed

Forces each year. The *range* of literacy levels among enlistees is roughly representative of that among high school graduates, but the enlistees' *average* literacy level is slightly lower—8.6 for enlistees, compared to a national average of 9.6. Approximately 40 percent read below the 9th-grade level; 6 percent read below a 7th-grade level. There are reports of multi-million dollar losses in equipment due to their operator's failure to either read or comprehend technical instructions. In 1980, over 210,000 military personnel enrolled in 59 million instructional hours of reading-oriented basic skills courses at a cost in excess of \$70 million.

The Army introduced the first massive paper-and-pencil intelligence-testing program in the United States in 1918. Its results gave the first indication of a literacy problem: 30 percent of 1.7 million men could not read the test form well enough to understand it. Yet in 1980, a period of documented achievement decline, a comparison of the scores earned by young men on the Armed Forces Qualification Test (AFQT) with those earned by men serving during World War II showed that 40 percent of the 1980 group and 36 percent of the World War II group were in the two highest categories. There was no appreciable difference between the proportions of 1980 and World War II populations that scored in the lowest categories. The median AFQT percentile score for the 1980 group was 54; it was 50 for the World War II group.⁸

In recent years, several things have increased the military's concern about literacy. With the move to an all-volunteer force, the quality of personnel entering the service was greatly reduced: the percentage of Army recruits in the lowest ability category, Category IV, increased from 10 in 1975 to 31 in 1981 (and the situation might have been worse, had it not been for the unavailability of civilian jobs.) Furthermore, not only will the number of people in the 17-19-year-old age bracket, the primary access pool of the military, decline significantly over the next 10 years, but if recent trends continue the quality of that pool—high school graduates—will continue to decline as well.⁶⁵

One last factor in the military's position on literacy was the General Accounting Office's (GAO) 1977 review of military literacy training programs. It found that they took a general approach to instruction, that is, one in which the participant would be taught to read the newspaper as well as the job manual. The GAO recommended to Congress that the content of the military's literacy training programs be made job-relevant or functional, which implicitly strengthened the concept of functional illiteracy.

The Impact of Refugees and Immigrants

Another element complicating any attempt to quantify the extent of illiteracy (whatever the definition) in America is the number of illegal aliens in the country. The Immigration and Naturalization Service estimated that at least 850,000 illegals entered the country in the late 1970s; other estimates range from 2

million to 20 million.¹³³ Among these people are undoubtedly some who are literate in their native language but not in English, others who are literate in both, and still others who are illiterate in both. There is no way of knowing how many fall into which category.

Cultural Literacy

As E. D. Hirsch, Jr., Richard Anderson, and others have concluded, literacy in any meaningful sense requires a "cultural" literacy—having the necessary background information to read general materials with understanding. It is not a matter of vocabulary or phonics or word recognition, but rather of the background knowledge that journalists and other writers tacitly assume the reader to have. Hirsch describes adult literacy as being less a system of skills than of information; it is what enables people to communicate without providing all the information to explain every reference. The problem is that the illiterate adult is not aware of what literate people are expected to know, and no one ever announces what that body of information is. Hirsch says:

We all know that our continuing failure to achieve a high level of national literacy insures a continuing lack of subtlety in the communications that we can transmit widely in speeches, books and newspapers by means of the national language. Even a training manual, for instance, can be much more effective and functional if it can assume a readership that is culturally literate.¹²⁹

Lack of Data

Probably the single greatest complicating factor in trying to determine the extent of illiteracy is the lack of effort made to collect valid data on the number of either basic or functional illiterates. Consequently, there is a dearth of statistics on which to base estimates. For example, Hunter and Harman tell us:

The most widely available statistics come from the census, but the census-taker must rely on what people say about their educational attainment. Those who state that they have completed sixth grade are classified as literate. In the person-to-person sampling, individual census-takers may—or may not—ask those who have not completed sixth grade whether they can "read and write a simple message in any language." In both cases, however, the definitions are left to the census-taker and the respondent.¹³³

The Inflation of Estimates

Although we have not found such motivation, Hunter and Harman include the possibility that some people may inflate the percentages of illiterates because they have a vested interest in drawing attention to the problem.

Summary

Conflicting perceptions of the nature of illiteracy; varying needs for literacy, which lead to conflicting definitions; and a lack of valid data mean that it is not possible to confirm the accuracy of any estimate of the number of illiterate adults in America. Before we can actually estimate the percentage of the populace that is illiterate, we need to agree on a definition of illiteracy. Perhaps we need to identify levels or types of illiterates. Especially, we must stop combining *basic* illiterates and functional illiterates in estimates and using these terms interchangeably.*

We must also develop some national system of monitoring literacy levels to determine whether progress is being made. It is in our best interest for everyone to know what is happening, but it is essential for those in charge of educational and funding decisions to know what needs exist and whether efforts to meet those needs are successful.

*The following groups of determining characteristics might be used to categorize types (and levels) of illiteracy.

- Refugees and immigrants who are not literate in English.
- High school graduates who are literate in some areas but not in others, and who can perform some skills but not others. This category could include those whose jobs in heavy industry are being phased out and who are now unable to make the transition to more technological work, and those termed "functionally" illiterate by the Adult Performance Level (APL) study.
- Adults who can read and write to some extent, but not well enough to find employment or to receive their General Educational Development (GED) Certificate of High School Equivalence. Also, high school graduates whose skills are deficient. (An adult could be defined as anyone over the age of 15 and not in school.)
- Adults who cannot read or write.
- Adolescents who are barely literate and may be dropping out of school.
- Students who are underachieving because they have not acquired complex reasoning and computing skills.
- Elementary school students who are not learning to read and write.