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ABSTRACT

Concerns regarding education for the gifted and talented and excellence in education are addressed in this first volume of a 1982 public hearing. Issues considered in the hearing include: the impact of technological advancements on education; the struggle between the conflicting educational goals of excellence and equity; the need to support advanced training in education and other fields; the importance of research funds to develop quality programs for gifted education; the funding of demonstration programs for exemplary gifted education efforts; the need for teachers who are inspirational for gifted individuals; areas of the regular curriculum that need to be considered in meeting the needs of bright youngsters; reasons for declining tests scores; the need to revise current conceptions of talent and talent development at the conceptual level and at the policy level; the need to link special status of able students to excellent performance rather than to a high score on a screening test; a definition of giftedness that includes specific talents, creativity, leadership, and physical ability; and a proposal that a national effort be undertaken to replace current measures of general academic promise with more refined, specific diagnostic instruments. (SW)

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## NATIONAL COMMISSION ON EXCELLENCE IN EDUCATION

### Education for the Gifted and Talented

Cambridge, Massachusetts

October 15, 1982

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NATIONAL INSTITUTE OF EDUCATION  
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1                   Public Hearing before the National Commission  
 2                   on Excellence in Education on EDUCATION FOR THE  
 3                   GIFTED AND TALENTED, held in the Gutman Library  
 4                   Conference Area, Harvard University, Cambridge,  
 5                   Massachusetts, on Friday, October 15, 1982, commencing  
 6                   at 8:30 o'clock a.m..

7  
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 9                   SITTING:       Commissioner WILLIAM O. BAKER, Presiding;  
 10   Commissioner DAVID P. GARDNER, Chairman;  
 11   Commissioner CHARLES A. FOSTER, Jr.;  
 12   Commissioner RICHARD L. WALLACE;  
 13   Commissioner MARGARET S. MARSTON;  
 14   Commissioner ANNE CAMPBELL;  
 15   Commissioner GERALD HOLTON.

16  
 17                   Welcoming Remarks from Hosts

18                   Mr. DEREK C. BOK (President, Harvard University):  
 19                   Good morning. It is wonderful that you are all here.  
 20                   We are very happy to welcome the Commission and all  
 21                   of you who have come today.  
 22                   Certainly, you have chosen an enormously  
 23                   timely subject. Even as a layman, I know that, just  
 24                   as the 1970s were called the decade of access and



1 egalitarianism, the 1980s seem to be the decade of  
2 quality and excellence.

3 I hope we can all take those words mostly  
4 as artifacts of the media and not take them too  
5 seriously, because they certainly are not, in any  
6 sense, mutually exclusive. I think, ten years ago,  
7 a conference at a major university on the subject of  
8 the education of the specially gifted would have been  
9 severely criticized as elitist or perhaps even worse,  
10 and that, of course, would have been very wrong  
11 because these catchwords for each of the decades are  
12 really not only both important, but very strongly  
13 complimentary. Certainly, that has never been more  
14 true than it is at the present time.

15 We know, from looking at demographic  
16 trends, that the number of people entering the work  
17 force every year is getting progressively smaller.  
18 There will be over 20 per cent fewer high school  
19 graduates ten years from now than there were just a  
20 few years ago, at a time when the needs for well-  
21 educated, talented, well-trained people in society  
22 are presumably growing all the time. That means, to  
23 me, at least, a heightened need for access and  
24 opportunity, not only for their own sake, not only

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for social justice; but because we need to mobilize every bit of talent that we have in the country to meet our common demands for making a progressive society work better. And, having mobilized that talent, we need to know how to educate it, how to nurture it, how to develop it as best we can because we will not have any talent in our society that we can afford to waste.

So, in that spirit, this is an enormously important subject. We are delighted to have even this small part in helping the Commission in its important work. We salute what you are doing, we wish you well, we hope that anything we can do to move your work along to a successful conclusion we will be able to carry out. So, welcome to you all, and I wish you the most productive day and a most illuminating and informative final conclusion to your efforts.

Commissioner MARSTON. Mr. Bok, may I ask you a question, please? Here I am.

President BOK. Oh, sure.

Commissioner MARSTON. Excuse me; I didn't mean to startle you.

President BOK. No, not at all. I just didn't



1 expect a question. (Laughter.) I was hoping that my  
2 role was purely ceremonial. (Renewed laughter.)

3 Commissioner MARSTON: I hope that you will  
4 not feel that I am being terribly personal, but it  
5 has been brought to our attention that your mother-  
6 in-law and father-in-law have received a Nobel Prize,  
7 and we at the Commission thought perhaps because you  
8 know them very well, you might be able to share what  
9 kinds of educational backgrounds they had and if they  
10 were identified very early as a gifted student, and  
11 if they were tracked. Is this too early to ask such  
12 a question?

13 President BOK: No, not at all, not at all.  
14 You are very perceptive to have noted what happened  
15 to my family. You know that many families have  
16 married for money. I looked at my family very  
17 candidly and decided that it was important to marry  
18 for brains, (laughter) as I did.

19 But, as I look at my father-in-law and my  
20 mother-in-law, I think it is probably true that my  
21 father-in-law was identified somewhat early, but  
22 Sweden is such an egalitarian society that I doubt  
23 whether he received particularly special privileges.  
24 On the other hand, he had an opportunity to have a

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good education. He started out as a lawyer and then changed his mind and went into economics. And I suppose, in a sense, at that time, the educational opportunities were somewhat limited. He was fortunate enough to come from a middle-class family that could move easily into that, the educational opportunities that did exist, and take full advantage of them.

I think the case of my mother-in-law is very much more interesting because she was not in that situation. She was the daughter of someone who was very influenced by Rousseau and moved the family out in the country and was really rather opposed to having any books in the house. So, she was only able to read books surreptitiously and then found, at the age of fourteen, that the only schooling opportunities available were restricted to men.

So, she worked as a cashier, instead of going to high school, and then she saved her money so that she would be able to go away to a school that she read about in the newspaper.

And, finally, she got enough money saved and was admitted to the school; but then she noticed that there had to be a paper that her parents had to sign. So, with great trepidation, she brought the





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paper to her father who, as I said, had these rather strong anti-institutional beliefs. He tore the paper up. she burst into tears and, at that point, I don't think one could say that she had been specially tracked as someone specially talented, because, indeed, every possible obstacle had been thrown in her way.

Maybe that is a very heartening thing. Maybe it shows that very great talent cannot be kept down very easily because, in one way or another, -- largely through the accident of a bicycle trip that brought her husband of 58 years to their house -- she did manage to escape this environment, get some reasonable education, and then pulled herself up by her own merits in a society at that time not too hospitable to women, to eventually become a United Nations official, an ambassador, a cabinet secretary, and an author.

I don't, for one moment, believe that we can rely on that tale to disregard the importance of educating the specially talented, <sup>but</sup> it is nice to know that, even if you have a society that slips up in that regard, some people are going to force their way through and realize whatever talents they have.

Excuse me for being so personal, but,



1 since you asked, I thought I would do my best to tell  
2 you.

3 Commissioner MARSTON. No; thank you very much.

4 Ms. PATRICIA ALBJERG GRAHAM (Dean, Harvard  
5 Graduate School of Education). I think, after Mr.  
6 Bok's very important remarks at the beginning and his  
7 cautionary tale to those of us who are responsible  
8 for institutions of education, I think we need to  
9 take into account both the success of Gunnar Myrdahl  
10 and Alva Myrdahl, in institutions and not in institu-  
11 tions.

12 We here at the School of Education accept  
13 the responsibility to try and help educate people  
14 under whatever circumstances, and we welcome you  
15 today.

16 It is a wonderful opportunity for us here  
17 at the School of Education, for our students and for  
18 our faculty, to have the opportunity to participate  
19 in this hearing. I am delighted, also, that a number  
20 of our alumnae are here to take advantage of your  
21 coming to town. So, we thank you very much.

22 It is a particular pleasure for me, too,  
23 to have this group come to town, because many of them  
24 are former colleagues of mine when I worked in the

1 government. So, on behalf of those of us here at the  
2 School of Education, we welcome you and encourage you  
3 to go on with today's activities. Thank you.

4 Commissioner BAKER: Thank you, Dean Graham  
5 and President Bok.

6 I am Bill Baker, representing the National  
7 Commission on Excellence in Education, whose Chairman  
8 is David Gardner, and whose fellow Commissioners are  
9 Mr. Foster, Mr. Wallace, Ms. Marston, Commissioner  
10 Campbell, who are sitting with us here, and we are  
11 privileged indeed to sponsor this conference on the  
12 role of the gifted and talented in excellence in  
13 education. I am delighted that Mr. Bok was willing  
14 to illustrate, so modestly and amiably, the feelings  
15 that we have for this environ, and for the auspicious  
16 qualities of it in pursuing matters of excellence.

17 I am tempted to go on to assure you that  
18 Mr. Bok's generic plan for the Bok family has worked  
19 in many forms. For instance, those of us who were  
20 privileged to participate in the graduation of a  
21 daughter a couple of years ago can affirm very strongly  
22 that his intention for the student of intelligence has  
23 succeeded.

24 We, in other ways, as well, are grateful

1 to be here in this historic region noted for the  
2 pursuit of excellence and the matters of the mind  
3 and, again, there are many illustrations associated  
4 with this University.

5 The attraction of the attention of the  
6 Nobel Committee seems to be endemic in that celebrating  
7 200 years of excellence in the Medical School, Mr.  
8 Bok and his colleagues generated a couple of Nobel  
9 Prizes in physiology and medicine on the spot. My  
10 colleague, Mr. Bergstrom, was once a student of his.

11 So, we are fortunate to be guests of this  
12 University and able to recall also Dean Graham's  
13 distinguished work for the nation in other times in  
14 your role in Washington and elsewhere.

15 With respect to the conduct of the hearings,  
16 we are grateful for all sorts of help from Mr. Roberts  
17 and the staff of the Department's Regional Office,  
18 and the staff of the State Educational agencies here.  
19 We were much helped by Mr. Crowley with a variety of  
20 very warm hosts and hostesses, and yesterday, several  
21 of the Commissioners were able to participate in two  
22 site visits, including those to the Buckingham-Browne  
23 & Nichols School, with Mr. Guinness, the Headmaster,  
24 and the Brookline High School, where Mr. McCarthy is



1 the Headmaster. And we have been favored by fortune  
2 in being able to meet with many of our associates in  
3 the State Boards of Higher Education who were having  
4 a major conference here as well.

5 Through the hearing agenda, we hope to  
6 bring out, thanks to the skilled conferees who have  
7 agreed to join us, the elements of the education of  
8 the gifted and talented in which the Commission can  
9 be active, and we shall have those witnesses and those  
10 introductions to our discussion this morning, when  
11 each of the experts will have about twelve minutes  
12 for a statement at this podium and, in that time,  
13 will be able to make just a very quick summary of  
14 what they are able to say, and their complete state-  
15 ments will be included in the written record of the  
16 hearing.

17 We shall then, after the group of  
18 presentations, have some general discussion and, from  
19 about 12:00 o'clock to 1:00, we shall adjourn for  
20 lunch, and the hospitality of the region again has  
21 provided a nearby cafeteria across the street at  
22 Longfellow Hall for luncheon for the audience.

23 In the afternoon, we will announce the  
24 schedule of public witnesses who will testify during

1 the afternoon, and we shall hear, also, from some  
2 individuals.

3 Those of you who are interested in  
4 presenting testimony should fill out a registration  
5 card at the entrance table during the morning break,  
6 which will be, perhaps, at about 10:30.

7 And, as we said, we are fortunate to be  
8 guests of the University and having the chance to  
9 explore this empire and the primary theme of excellence  
10 instilled into our mission by Secretary Bell, and  
11 carried forward as the principal goal of this effort  
12 by Dr. Gardner and his associates.

13 It is through these specially talented  
14 and gifted graduates of our schools and colleges that  
15 we carry forward the intellectual and professional  
16 genius of our nation and that we can claim excellence  
17 and aspire to greatness in our affairs. And I say  
18 that with strong feeling as a consumer in the enter-  
19 prise in which I have spent a lifetime, which is, of  
20 course, entirely dependent on these graduates, and  
21 we are hoping to reflect in this hearing something  
22 about what happens to people who are educated and who  
23 have development of special gifts and talents.

24 We must, however, be mindful of Milton's

1 lines in Paradise Lost, which said, "Consider first,  
2 that great or bright infers not excellence." This  
3 does tell us again that excellence means merit,  
4 goodness, virtue, and superiority, that which is  
5 raised, elevated and surpasses. It is not the  
6 ordinary dimension of "brightness" alone or  
7 "greatness" alone, of mind or body. It is rather  
8 for the individuals, those whom we are considering  
9 specially today, to have a sustained height of skills  
10 and being, sustained and often initiated by their  
11 education.

12 So, what can we expect to say today that  
13 is new or notable about this, which is one of the  
14 missions of all history? Education with all of its  
15 needs and meanings has not lacked discussion or  
16 definitions. It is full of one-liners, like Mark  
17 Fischer's, who said that education is "the process  
18 of driving a set of prejudices down your throat," or  
19 Trader Horn, who was a bit more philosophic in saying,  
20 "that education teaches you to walk alone". In fact,  
21 we do believe, however, that this nation and this  
22 government, this Federal Government, can do new things  
23 with and for the role of education in recognition and  
24 cultivation of those gifted and talented for whom



1 excellence in living and doing is a reality as well  
2 as a goal.

3 The reason for this bold presumption is  
4 largely in the historic circumstances of the 20th  
5 Century condition, which President Bok has already  
6 touched on with such eloquence. This condition is  
7 often named the Computer Age, the Information and  
8 Communication Age, the Knowledge Age, and it is a  
9 particular joining of our civilization with science  
10 and engineering. These conditions, including such  
11 derivatives as national security concerns with such  
12 eloquence as nuclear weapons, have led us to the  
13 Space Age, in which, as you remember, those of us who  
14 were tasked to try to meet that challenge, chose  
15 education and major evolutions during the '50s and '60s,  
16 as particular goals. These derivatives, which have  
17 now resulted in some of the superb ventures of human  
18 outreach, have given new and unprecedented emphasis to  
19 mentality, whether in the exploration of space, whether  
20 in the exploration of the cell, or whatever else.

21 And these heroes of science and technology,  
22 even of space navigation and biological and ecological  
23 endeavors like the Green Revolution, they all depend  
24 on learning, a new condition for heroism, in many

1 respects.

2 They need all the other basic virtues,  
3 of course; the students we are talking about do --  
4 the virtues of diligence, strength, stability,  
5 commitment, and energy, but knowledge is the essence  
6 of their actions, and this is knowledge that is  
7 organized, accumulated, and refined, worthy, by an  
8 historical exercise of scholarship, and it adds up,  
9 of course, to what all of you here are committed to,  
10 and that is education.

11 And, in addition to that, our livelihood,  
12 our national strength, our gross national product  
13 are coming from the service industries. The use of  
14 knowledge and the handling of information, in forms  
15 that are quite new and unfamiliar to many. And so, we  
16 as consumers, as citizens, and as the ones who depend  
17 on these new functions of mentality, are aware of the  
18 pervasion of it into both ordinary and extraordinary  
19 affairs.

20 Leading this new role of knowledge and  
21 learning have been the science and technology of  
22 electromagnetic and accoustic and optical waves, and  
23 I shall be provincial for a moment, in a field that  
24 one knows better than others. It is not the suggestion

1 that this is the only thing, but it is an important  
2 one.

3 And it has been found in the century of  
4 the invention of the telephone here in Boston, not  
5 far from this site, by Dr. Bell, and in the somewhat  
6 longer period of the telegraph, it has been found in  
7 that historic time, and found, as a matter of fact,  
8 mostly since the mid-Century, that the output of  
9 thought, the human expression in voice and vision,  
10 can be approximated (in volume and speed even enhanced)  
11 by electrical analog waves and digital pulses. And  
12 these nature has let us put into the machines of this  
13 century. For such communication and computer systems  
14 as arise from these waves of anticipation are truly  
15 the wheels for knowledge transport, and the engines  
16 of organizing societies; nations, economies, and  
17 resources. \*

18 And so, on the one hand, the creation of  
19 this era, in which one has seen in the work with  
20 Brattain, Bardeen and Shockley on the transistor;  
21 Townes and Schawlow on the laser; Stibitz on the  
22 electrical digital computer; and Shannon, who is now  
23 here in Cambridge, on the information theoretic base;  
24 all those being samples in our own laboratories, those

1 all have required themselves, as new creations, new  
2 levels of excellence in generations of students and  
3 research and development exponents. Those are but  
4 examples of the challenges we are talking about which say  
5 that we had better find the brighter people, we had  
6 better educate them, and we had better challenge and  
7 cultivate them. Indeed, these are levels of excellence.  
8 They have generated, in technological and scientific  
9 ways, a milieu for the meaning of knowledge, the possi-  
10 bilities of learning, which enhances all of the history  
11 of this before, and is a track on which we shall work  
12 today and which our tutors in this study will tell us of.  
13 We shall hear about the challenges that the gifted and  
14 talented need and, in fact, want.

15 Just to conclude with an emphasis on what these  
16 new forces mean, as you know, it is pretty well estab-  
17 lished that the basic dimensions of human action from  
18 the mind, not necessarily of thought, but of virtually  
19 all human action, those dimensions are about 40 bits a  
20 second in reading, and writing, and calculating, and  
21 reasoning, in speaking, and in hearing. And that is  
22 being related to dimensions in machines, which are  
23 dramatically different. In them, a single chip, which  
24 is hand-held, can easily do a million bits a second.

1 larger assemblies of circuits range all the way up to  
2 the gigabit per second processes of megacomputers and  
3 to the horizon which we are pursuing eagerly of the  
4 pico second or million million processes per second of  
5 the machines to come. So we have at least a million,  
6 and on one frontier a million million, rise in how the  
7 doings of the mind can be aided and augmented. This  
8 might be thought of in comparison to rocket propulsion  
9 where that multiplying factor for the physical movement  
10 of people is only about a thousand times.

11 We may need no more reminders of this  
12 impact, and we know that the role of video in arcades  
13 or CAD/CAM in industry are evermore daily imbedded  
14 in our culture. But these things all do impel us to  
15 ponder more deeply how we are relating this vast  
16 change in learning and in knowledge to excellence.  
17 How do we connect it to the best minds of the gifted  
18 and talented students and spirits of youth? All have  
19 about the same number of neurons, and one of our  
20 speakers will tell us about that element, which is,  
21 after all, the physiological space. They all have  
22 about the same number of neurons and synapses, but  
23 their management of logic, and memory, and of the  
24 reaches far beyond these crude analogs, in the mind

1 can rise far beyond the ordinary.

2 So, we shall today and in the consequences  
3 of this hearing, and the further work of our National  
4 Commission, look at the ever restless interplay of  
5 education and exceptional minds in these broadened  
6 terms. And the already forms that we have suggested  
7 of learning this will be looked at, and yet we have  
8 to maintain humility in realizing that we still do  
9 not understand a single primary process in the signal  
10 handling systems of living things including us. Our  
11 science and engineering of machines and their software  
12 is crude compared to the information system of the  
13 living cell.

14 These issues set a particular tone for  
15 these hearings, and it is that excellence in learning  
16 must come also to mean excellence in doing. And  
17 those possibilities excite us and animate us in all  
18 forms. One's own experience with about ten thousand  
19 of such gifted and talented graduates who have joined  
20 our enterprise in recent times, convinces one deeply  
21 that we are yet on the very bare beginning of how to  
22 appreciate these components in our society.

23 So we take this meeting to mean the very  
24 opposite of Oscar Wilde's statement that "Nothing that

1 is worth knowing can be taught." We take rather the  
2 principle of the contemporary essayist Joseph Addison  
3 who said that, "Education is leading human souls to  
4 what is best . . . it gives at once grace and  
5 government to genius . . ."

6 And, in that perspective of approaching  
7 genius, we are honored to have this first session  
8 begun by James Gallagher, Director of the Frank  
9 Porter Graham Child Development Center of the  
10 University of North Carolina at Chapel Hill.

11 Perspectives on the Gifted and Talented from Research  
12 and Practice

13  
14 DR. JAMES J. GALLAGHER. Thank you, Dr. Baker.

15 If I might be allowed a personal comment  
16 that would not be charged against my twelve minutes,  
17 all right; I will hurry it along. I would like to  
18 add my congratulations to President Bok for the  
19 achievements of members of his family, but also for  
20 his distinguished leadership of this host university  
21 which we have here; and just as a side comment, to  
22 say that I was in Sweden last summer and was impressed  
23 by the quality of what I saw there and, also, the very  
24 homogeneous nature of that small society, and also

1 impressed by how different the situation is, the  
2 educational situation in Sweden, than in this very  
3 diverse, multi-cultural society.

4 My name is Jim Gallagher. I am a Kenan  
5 Professor of Education and Director of the Frank  
6 Porter Graham Child Development Center at the  
7 University of North Carolina at Chapel Hill. I have  
8 been involved in and intrigued by the problems  
9 surrounding gifted children in the public educational  
10 system for the past 25 years, in Illinois, and  
11 Washington, D. C., and for the last 12 years in  
12 North Carolina. I am delighted to have a chance to  
13 present some thoughts to this Commission.

14 One of the advantages of being around for  
15 so long is to perceive the ups and downs, the ebbs  
16 and flows of interest in this topic over time, and  
17 my intent today would be to present some specific  
18 actions that I believe should be taken to bring both  
19 short-range and long-range benefits to this somewhat  
20 beleaguered field in education.

21 There is no doubt, I think, that we as a  
22 society have strongly ambivalent feelings about our  
23 gifted and talented youth. A strong love-hate  
24 relationship seems to exist. We are proud of our



1 scholars who have achieved fine work; we are also  
2 deeply concerned about egalitarianism, and we waver  
3 in our attitudes about how thoroughly we should  
4 provide special programs for our best students. So,  
5 we are struggling with a tug-of-war between two  
6 legitimate educational goals, excellence on one hand,  
7 and equity on the other.

8 We have recently seen the 25th anniversary  
9 of the Sputnik scare that represented one of the  
10 major definable points of great public interest in  
11 the education of our most gifted and talented students.  
12 Twenty-five years ago, Sputnik caused a massive and  
13 somewhat hurried reevaluation of our secondary school  
14 programs, mainly in the area of science and mathematics,  
15 to determine why we were behind the Soviets. This  
16 analysis later spread to all of the content areas  
17 and even down to the elementary school level. It  
18 resulted in dramatic changes and improvement in the  
19 curriculum which benefitted, to a large measure,  
20 gifted and talented students.

21 In 1965, with the combination of  
22 desegregation and the problems of Vietnam, the entire  
23 initiative seemed to be abandoned. We went through  
24 nine years of a latency period/ little or nothing was  
in which

1 done specifically in this area.

2 We are now seeing a revival of interest.  
3 Many people believe we are once again having a crisis  
4 of confidence in our ability to deal with our problems --  
5 the economy, pollution, world hunger and unrest.  
6 When we lose our confidence, paradoxically, we become  
7 interested in the gifted.

8 Coincident with the 25th anniversary of  
9 Sputnik, we are now ready to start on a parallel kind  
10 of adventure. We are worried about the quality of  
11 our teaching of science and mathematics in our schools  
12 and the lack of instructors to handle these capable  
13 students. Once again, voices of alarm are heard  
14 throughout the country.

15 The specific need, I think, for special  
16 programming is illustrated in recent data that we  
17 got from our own State of North Carolina. The State  
18 of North Carolina requires annual testing of all  
19 students at third, sixth, and ninth grades. And the  
20 sixth grade data showed clearly that 15 per cent of  
21 the students in the State of North Carolina fell  
22 below the fourth grade level in reading and  
23 fundamental achievement. Fifteen per cent also  
24 scored above the eighth and ninth grade levels while

1 they were in the sixth grade, in achievement.

2 Now, to ask the teacher to provide the  
3 necessary help for those children in deep educational  
4 trouble, to the average student, and then to give  
5 stimulation to those very advanced students, is to  
6 ask what never was and never will be, and that is the  
7 reason why we need to have some kind of special  
8 programming for these youngsters.

9 Our task during this period of enthusiasm  
10 is to create a permanent infrastructure -- a capability  
11 for program improvement that will last beyond the  
12 current enthusiasm -- that will survive the downturn  
13 of interest when the public's attention is carried on  
14 to other things.

15 I was for three years in the Federal  
16 Government, and I learned a couple of things -- one,  
17 that it is important to plan for long-range goals,  
18 and the second is that we don't do it very well, not  
19 at the State level and not at the Federal level. We  
20 are surrounded by the evidences of the unintended  
21 consequences of public action which nevertheless  
22 accumulate to unfortunate results. One specific  
23 example I have is a chart in the testimony, a special  
24 analysis of the expenditure of research in the United



1 States made by the Office of Management and Budget.  
2 \$28 billion is spent on research and development in  
3 the United States, in the year 1980, \$28 billion.  
4 \$12.4 billion goes to defense, another \$9 billion  
5 goes to space and energy, and then one travels down  
6 the list -- health, agriculture, transportation --  
7 and, finally, to come at the bottom of the list to  
8 \$.2 billion on education, as Dean Graham, I am sure,  
9 is very well aware.

10 I suppose one question we could pose to  
11 ourselves is, "Who sat down and decided that that  
12 was the proper allocation of research and development  
13 expenditures in our society?" The answer, of course,  
14 is "No one," not the Congress, not the person in the  
15 Oval Office, no one individual. Everyone pursuing  
16 their own objectives and their own goals added up to  
17 that result and, if we wish to change that unintended  
18 result, then we had better plan to deliberately do so.  
19 It is the opportunity that this Commission has to  
20 provide this kind of sensible planning that makes us  
21 excited about these hearings.

22 One of the many ironies in these situations  
23 is that we are already well aware of what is needed  
24 to provide the kind of catalytic support that would

energize the school systems for these youngsters. We know how to do it in industry, we know how to do it in agriculture, we know how to do it even in education, because we have done it in education; it was for the education of handicapped children. Twenty-five years ago, the education of handicapped children was in deep trouble and mired in incompetency and inefficiency. The careful expenditures of money on the topics that I am going to mention to you has made that a respectable field of education and one that we can be proud of, and the question is, how does one do that? I have five or six suggestions.

The first is the development of leadership personnel. Here we need to support advanced training for people, not only in education, but in the content fields of science, and mathematics, and art, and history, so that these people, specialists in these content fields, become intrigued and interested in gifted education.

During the last year and a half, we have been involved with the National Planning Effort on the Education of Gifted and Talented Students. One of the things we did was survey the needs of teachers, local program directors, state directors of programs,

1 and we asked them what they needed. The predominant  
2 need listed above all the others from the 1200 persons  
3 questioned was the need for continuous in-service  
4 training for the teachers on the job, to strengthen  
5 the capabilities of those teachers on the firing line  
6 who are working with these youngsters. This means  
7 not a two-hour meeting with a cold cup of instant  
8 coffee after school once a month, but continuous  
9 weekly in-service training with the teacher given  
10 release time to carry on this training.

11 Research and development. There is  
12 probably no greater need than research in the develop-  
13 ment of quality programs to encourage careful research  
14 on various aspects of gifted education. There is a  
15 growing trend to earmark those limited research funds  
16 to be used for specific purposes, and the gifted have  
17 not been a part of that earmarking. It would be  
18 important as part of a total program to encourage  
19 more curriculum innovation, more specific studies on  
20 intellectual processes, and the like, as part of this  
21 effort to strengthen and improve programs.

22 Demonstration programs. The expenditure  
23 of small funds of money to make visible innovative  
24 and exemplary programs in all parts of the United

1 States puts a spotlight on successful and practical  
2 educational programs for gifted students. These  
3 demonstration programs can, in addition, be centers  
4 of training and technical assistance and represent a  
5 tangible reminder of the importance of these programs.

6 One fine example of such a demonstration  
7 project is the North Carolina School for Science and  
8 Mathematics, a residential school for gifted and  
9 talented students of high school age, paid for by  
10 public funds. It is a commitment to excellence on the  
11 part of the State of North Carolina in teaching and  
12 is a teacher training center, in addition to being an  
13 innovative school.

14 I have some material on this very  
15 interesting adventure that I brought with me and I  
16 will be delighted to share it with the members of the  
17 panel, if they are interested.

18 Finally, in the area of leadership at  
19 the State Department of Education level, the placement  
20 of a person or a team of persons that are strongly  
21 committed to gifted education in that unit. We have  
22 known from the bureaucratic standpoint for a long time  
23 that the presence of a committed person in the bureau-  
24 cracy on this topic yields very positive actions that



1 can be taken.

2 We have named a number of different  
3 strategies here: leadership training, research and  
4 development. We are talking about organizational  
5 changes, changing the infrastructure of education.  
6 I would remind you that there are 2.1 million  
7 elementary and secondary school teachers in this  
8 country. If you walk down the street and pass 100  
9 people, one of them, by the law of averages, is an  
10 elementary or secondary school teacher. This is the  
11 most massive enterprise that we have in our society.  
12 To expect to reform it and to expect to reform every  
13 one of those 2.1 million teachers is a vain expectation.

14 What we can do, however, is change the  
15 organizational structure to make it more efficient  
16 and to allow for the creative abilities of those  
17 teachers to come forth in more effective ways, and  
18 that is what I am suggesting today.

19 We have named a number of different  
20 strategies -- leadership training, in-service training  
21 programs for 50 states, 40 research projects, a  
22 couple of demonstration projects in each state, and I  
23 have costed this out. What massive amount of money  
24 would this add up to? It adds up to \$40 million. Now,

1 my experience in Washington is that \$40 million doesn't  
2 even show up in the budget of the United States. It  
3 is merely an asterisk, because nothing lower than  
4 \$50 million is even worth writing down.

5 So, for the cost of \$40 million, we can  
6 provide leadership training, in-service training,  
7 research and development activities, and demonstra-  
8 tions and, for that very small amount of catalytic  
9 money, we can do a great deal to improve the educa-  
10 tional system for gifted and talented students.

11 I urge the Commission to seriously  
12 consider recommending to the Secretary of Education  
13 some of these kinds of concepts and ideas. Thank you  
14 very much. (Applause.)

15 Commissioner BAKER. Thank you, Professor  
16 Gallagher, for so expertly showing us the social and  
17 societal context in which we may move.

18 Dr. Kinsbourne is now willing to illustrate  
19 the other element, the role of the individual, the  
20 qualities of the human being. Dr. Kinsbourne is the  
21 Director of the Department of Behavioral Neurology,  
22 at the Eunice Kennedy Shriver Center in Waltham.

23 Dr. MARCEL KINSBOURNE. Members of the  
24 Commission, ladies and gentlemen:

1           The brain determines the intellectual  
2 potential. Experience determines the extent to which  
3 it can be realized. The diversity -- can you hear me  
4 at the back? (Cries of "No!")

5           Dr. KINSBOURNE. Well, why could you hear him?  
6 (Laughter.)

7           If everybody had optimal opportunity to  
8 achieve, there would still be tremendous diversity  
9 in accomplishment. Given the fact that experience  
10 as such differs greatly, there is even more diversity  
11 in accomplishment.

12           The important point is that there is no  
13 kind of experience which can push up the potential  
14 set by the biological limitations of the brain, but  
15 there are many kinds of experiences that can pull it  
16 down.

17           It follows from this that, within any  
18 human group, any ethnic or socio-economic sample,  
19 there will be people of high intellectual potential,  
20 but none of them will realize their potential unless  
21 they are also afforded the opportunity to do so.

22           Can we tell from the human brain how well  
23 it functions or will function? As your Chairman  
24 pointed out, there are quite a few neurons in that

1 brain. Some brains are bigger than others, perhaps  
2 because they are full of neurons or sometimes because  
3 they are full of water. However, it is important to  
4 realize that the size of the brain is no indication  
5 of how well it works. This becomes immediately  
6 obvious as we consider that the male brain is some  
7 20 per cent larger than the female brain, and yet  
8 men know in their hearts that women are smarter.

9 Nor indeed is it the number of synapses,  
10 although they are imperfectly named. In fact, you  
11 may not have noticed, but the number of synapses  
12 reaches a peak at age 18 months, and it decreases,  
13 year by year. For all I know, the faster we lose  
14 them, the better we do. I am not asserting this; it  
15 is one of three possibilities of what goes on.

16 So it is not, in fact, the hardware. It  
17 is the pattern of usage of that hardware, which is  
18 limiting; and I will return to this.

19 Now, what factors, early factors can  
20 effect the evolution of brain maturation and its  
21 ultimate excellence? There are organic factors,  
22 there are exponential factors. Certainly, early  
23 brain damage, certainly, the consequences of severe  
24 malnutrition early on can cause so many neurons to be

1 lost that ultimate function is limited. But I would  
2 like to emphasize that that degree of malnutrition  
3 that degree of deprivation, is rare in this country,  
4 and it is not permissible to write off the children  
5 of the underprivileged as probably having been  
6 damaged with regard to their potential; that is not  
7 the case.

8 The brain is greedy for nutrition. It  
9 sucks it from the body. It is the last part of the  
10 body to suffer from even severe malnutrition.

11 But how about malnutrition of the mind?  
12 How about deprivation of experience? Let me illus-  
13 trate for you how this works and how it does not work.

14 Let us suppose a child is put into a  
15 plaster cast at age, say, three months, for maybe  
16 six to nine months, with a condition such as disloca-  
17 tion of the hips, which is sometimes done. During  
18 this period of time, that child cannot move. When  
19 the cast is removed, he does not function at a three-  
20 month age of maturity; he is at the one-year level.  
21 The brain control centers have matured, regardless  
22 of whether the activity has occurred. The same is  
23 the case for mental development. No type of  
24 intellectual starvation can limit the elaboration of

1 circuitry in the brain, and it is not the case at that  
2 critical period, beyond which time what has not been  
3 learned cannot be learned.

4 There are critical periods for certain ducks,  
5 but there are not critical periods for people. So  
6 it is not the case that something lost early cannot  
7 be recovered. If early intervention has not occurred,  
8 let's have late intervention. There is no time at  
9 which we cannot intervene.

10 However, that is not to assert that early  
11 starvation of the mind does not have ill effects. It  
12 has very serious obvious ones; but they are not of  
13 the intellect, but of the emotions. They are attitudes,  
14 motivations. They are the adoption of maladaptive  
15 styles, of tensions and manipulations and magical  
16 thinking, instead of effective effort.

17 And if those gifted who are, in fact, in  
18 deprived circumstances, to be enabled to realize  
19 their potential, that is where the effort has to  
20 go. It is not so much the inculcation of informa-  
21 tion. Information is available. It is there and  
22 you will find it out. It is in the modeling of a  
23 reflective style driven by intellectual curiosity.  
24 And, to anticipate my later point, those teachers who

1 can model that style are the appropriate teachers for  
2 the gifted.

3 So, then, the opportunities that are  
4 provided early on should be sufficient to sustain  
5 intellectual life. Enrichment is a delusion.  
6 Enrichment cannot raise the potential of the brain.  
7 It is the extent to which a person is willing to pay  
8 attention to matters intellectual that determines  
9 what he or she achieves.

10 Let me define mental life in relation to  
11 the reaction of the intellect into learning, under-  
12 standing, and discovery. How are they limited by  
13 brain?

14 Learning, not at all. It is possible for  
15 people who are severely retarded to know an awful lot.  
16 The Board had an idiot, Savan, who, with an I. Q. of  
17 minus something, knows all the ministers of Bulgaria,  
18 with legitimate liaisons and combinations. If one  
19 pays enough selective attention to anything, one will  
20 know it, whatever the level of one's function.

21 Is there any limit in the brain to how  
22 much can be known? There is none. And I will  
23 illustrate this with the interesting example of  
24 bilingualism.

1           People have wondered, if there is a  
2           language area and there is, for the first language,  
3           where does the second language sit? And where does  
4           the third language sit? And those people who are  
5           members of the Commission who know four to eight to  
6           twelve languages, how can they keep them within their  
7           heads?

8                   Time after time, it has been found that  
9           this is a vain pursuit. The same neurons that do the  
10          first language do the second, do the third, do the  
11          fourth, do the fifth. The same equipment can be used  
12          for endlessly diverse purposes.

13                   So, for knowledge, there is space; for  
14          understanding, not so much. That is a matter of  
15          brain maturation and quite an extension of it. At  
16          what level of complexity can matters be understood,  
17          for discovery of information. To what extent can a  
18          person go beyond the information given and make his  
19          own inferences as to what must be the case which had  
20          not previously been known to be the case.

21                   That is something you cannot expect, you  
22          cannot tell it is going to happen. - If it happens,  
23          you will be pleased, but you cannot teach it. But  
24          you can model the excitement of using that gift, if



1 you have it.

2 Now, with regard to diversity, I have so  
3 far spoken about universals of the brain. But how  
4 about diverse styles? I have mentioned ineffective  
5 styles versus effective styles; but how about different  
6 styles, equally effective, for different purposes.  
7 It is the case, and we know this from previous studies,  
8 that there is no one intellect, but there are many  
9 intellects. You have heard speak of left tennis beds,  
10 right tennis beds, and styles, analytic,  
11 synthetic. Of course, there are those but there are  
12 many more. Just because there are two halves of the  
13 brain doesn't mean there are two halves to the  
14 intellect.

15 There are many, many forms of intelligence.  
16 Different parts of the brain do different things.  
17 They operate differently in different people.

18 Then, sometimes, there is a cyclical  
19 relationship, sometimes related to one thing, some-  
20 times to another. This is appropriate for a  
21 diversified, complex society.

22 So, the brain teaches us what we want to  
23 know, that each of us has in our heads strength,  
24 which we flaunt, weaknesses; which we cautiously

1 conceal. Should we teach the strength or the  
2 weakness? Obviously, we should capitalize on the  
3 strength and teach survival skills in the area of  
4 weakness, so that the person can get by the real  
5 barriers, not the artificial barriers that rectify  
6 an overburdened school system, but real barriers so  
7 that we may move effectively in society and then  
8 exercise their skills they actually have because those  
9 are needed.

10 Now, I have indicated my opinion that what  
11 the gifted require is not so much extra time to learn  
12 extra schooling. If they have role models that impel  
13 them to be driven by their own curiosity, they will  
14 put in the extra time way beyond what any school  
15 teacher could endure. The important thing is to  
16 present to them the example of something with a  
17 genuine disinterested love of knowledge.

18 Competitiveness? Not by any means should  
19 competitiveness with other children be the spur  
20 because, then, all you can ever do is a little bit  
21 better than the next person, and how good is that?  
22 You have to compete with yourself, and that never  
23 ends.

24 So, with regard to the gifted person, and



1 by this, I mean the really gifted person, -- not the  
2 top 5 per cent, not even the top 1 per cent, but the  
3 really gifted person we are talking about -- you don't  
4 need teachers with special skills and training and  
5 curricula. You need teachers who are inspirational.

6 And there is one more thing that you need.  
7 To be gifted is to be exceptional. To be exceptional  
8 is a potential misfortune. To be gifted is to be  
9 different. It is maladaptive. You are weird. What  
10 interests them does not interest you. You try very  
11 hard to pretend to be ordinary. You put on your dark  
12 intellectual glasses. You pretend to be dumb. But  
13 you cannot get away with it because they realize that  
14 you are cheating, that you are really smart.

15 To be gifted means that you are going to  
16 have a much harder time in life.

17 About 500 years ago, a Chinaman, with  
18 whom I am otherwise not acquainted, wrote the following  
19 thought. "Families, when a child is born, hope that  
20 he will be intelligent. I, through intelligence,  
21 having ruined my own life, can only hope that my son  
22 will be stupid and ignorant; whereupon he will  
23 conclude a tranquil existence by becoming a cabinet  
24 minister." (Laughter.)

1           Let me appeal to you not to envy the  
2           gifted, but to sympathize with them. And let me urge  
3           the Commission to consider that they not only leave  
4           opportunity, but also support. Thank you. (Applause.)

5           Commission BAKER. Thank you, Dr. Kinsbourne,  
6           for this insightful and elegant assessment of what we  
7           can expect from the individual. And that, along with  
8           what we face in the societal context that Dr.  
9           Gallagher has told us of, leads us to begin to talk  
10          about the ways these two can come together and how  
11          can the individual possessed of the qualities you  
12          note begin to relate to the societal structure that  
13          Dr. Gallagher has so adeptly characterized.

14          On this, Dr. Joseph Renzulli, the  
15          Associate Director of the Bureau of Education Research  
16          at the University of Connecticut, has agreed to speak  
17          to us. Dr. Renzulli.

18          Dr. JOSEPH RENZULLI. Thank you very much. I  
19          am pleased to have this opportunity to address the  
20          Commission and am delighted with the remarks of both  
21          Dr. Kinsbourne and Dr. Gallagher. I think they  
22          have pointed out some extremely crucial issues.

23                 I would like to spend -- I am sorry. I  
24          see a signal from the back that they -- is this better?

1 I gave a talk one time and a person put  
2 their hand up at the back and said they couldn't hear  
3 me. And someone said, "Well, I am in the front, I  
4 can hear, and I will be glad to exchange seats with  
5 you." So -- (laughter).

6 I would like to really restrict my  
7 remarks to two specific areas, one being the areas  
8 of regular curriculum that I think need to be  
9 considered in meeting the needs of bright youngsters  
10 and, secondly, some of the kinds of program designs  
11 that we need to pursue in order to make modifications  
12 in the education of more able youth.

13 I think one of the great tragedies of the  
14 egalitarian era of the '60s is that, in some ways,  
15 we reduced the amounts of rigor that were ordinarily  
16 representative of American education and the result  
17 of this has been a decline in SAT scores, all the  
18 stories that you folks know.

19 A report released recently by the  
20 Education Products Information Exchange, which is a  
21 non-profit consumer educational research organization  
22 in New York, I think highlights dramatically some of  
23 these kinds of declining scores and the reasons for  
24 them.

1 I would like to quote to you from a brief  
2 report on a study of textbook content. "Sixty per  
3 cent of the fourth graders in non-disadvantaged  
4 schools were able to score over 80 per cent on tests  
5 of the content of their math texts before they had  
6 used the textbooks for the school year. Similar  
7 findings were reported on tests of textbook content  
8 with students in fourth and tenth grade science and  
9 tenth grade social studies."

10 I think that this kind of research high-  
11 lights the fact that there is in the so-called  
12 regular curriculum a tremendous amount of lack of  
13 challenge. When that many young people know the  
14 subject matter of their prescribed courses before  
15 they ever set foot in the classroom, I think we  
16 realize that a great deal of the time of our highly  
17 able youth is being wasted.

18 A more recent report from Phi Delta Kappa  
19 magazine, by Michael Crist, and I quote, "Meanwhile,  
20 with regard to the content and materials, a sample  
21 of U. S. textbook publishers agreed that their text-  
22 books had dropped two grade levels in difficulty over  
23 the last ten to fifteen years.

24 "According to the Los Angeles Times, when

1 California tried to reserve two slots on the statewide  
2 adoption list for textbooks that would challenge the  
3 top one-third students, no publisher had a book to  
4 present. They could only suggest reissuing text books  
5 from the late sixties, which are now unacceptable  
6 because of inaccurate portrayals of women or minori-  
7 ties, or writing new texts, which would involve at  
8 least three to five years in development."

9 I think that, once again, this highlights the  
10 problems that brighter youngsters face with regard  
11 to regular curricula.

12 I think that the other point that I would like  
13 to make and that a great deal of our work at the  
14 University of Connecticut has been focused upon is  
15 giving greater attention to a broader conception of  
16 giftedness. I was delighted to hear Dr. Kinsbourne  
17 say that the top one percent are not necessarily the  
18 gifted and talented.

19 So I would like to report to you very briefly  
20 this morning on some research that has been going on  
21 at the University of Connecticut that has been entered  
22 into the record in the materials that have been sub-  
23 mitted to the Commission. Four years ago, with the  
24 cooperation of officials of the Connecticut State



1 Department of Education, we were given permission to  
2 expand our conception of giftedness and the number  
3 of youngsters served in programs for the gifted and  
4 talented from the existing traditional top 5 per cent,  
5 as measured by achievement, intelligence, and aptitude  
6 tests, to a somewhat broader conception that included  
7 the top 15 to 25 per cent in any given school district.  
8 These youngsters were provided any and all of the  
9 services ordinarily available in gifted programs on  
10 a fully equitable basis -- that is to say, that the  
11 top 5 per cent did not go around with arm bands on  
12 their sleeves and the next 15 per cent were faded.  
13 They were indistinguishable as far as the amounts of  
14 services that were provided.

15 Through a variety of research studies,  
16 looking at both cognitive and affected growth of  
17 these youngsters, we found that there were no major  
18 differences in the quality of work that was produced  
19 over a given period of time.

20 I think that this helps to illustrate  
21 that there is a larger supply of gifted and talented  
22 students out there than we ordinarily seem to be able  
23 to serve through existing guidelines and procedures.  
24 I am amazed at the people who walk in with a statistic

1 that says, "We have 1.6 million gifted youngsters"  
2 or "The top 2 or 3 or 5 per cent of the population is  
3 gifted." I believe that a lot larger percentage of  
4 the population is capable of gifted behavior.

5 Finally, one of the things that I would  
6 like to say is that these youngsters exist at all  
7 levels of society, and I think we have had, in a  
8 sense, programs that serve gifted youngsters in our  
9 society, mainly youngsters who have gone to the  
10 better schools and had better educational opportunities.

11 I do believe, though, and as Dr. Kinsbourne  
12 pointed out that these youngsters exist in all groups,  
13 and I think that we need to create the kinds of  
14 vehicles whereby highly-able and highly-potential  
15 and highly-capable youngsters in whatever school  
16 district they happen to be a student in, whether it  
17 be a very prestigious and well-endowed public or  
18 private school, or whether it be in a small rural or  
19 inner city school, that we create in these kinds of  
20 schools the opportunities for highly-able youngsters  
21 to have a competitive edge with children who happen,  
22 by good fortune and social economic status, to have  
23 been enrolled in schools which are more prestigious.

24 I would like to just simply reinforce

1 things that Dr. Gallagher said about the kinds of  
2 support that the field of gifted and talented needs.  
3 We have limped along for many, many years on very  
4 small and almost non-existent support, when you look  
5 at it in comparison with other areas of education,  
6 let alone what is spent in other areas that Dr.  
7 Gallagher mentioned. I feel that the monies available,  
8 especially for research and development, have almost  
9 been non-existent in this field, and I think that we  
10 need to have a much more extensive amount of support,  
11 if we are going to be able to provide a better  
12 education for these youngsters.

13 Thank you very much. (Applause.)

14 Commissioner BAKER. Thank you, Dr. Renzulli,  
15 for this skillful abstract of the work that you have  
16 contributed yourself so much to, and that gives us  
17 a further approach to the matter of joining the  
18 individual with the societal resources for development.

19 In that same vein, we now have the  
20 pleasure of hearing from Dr. David Feldman, Associate  
21 Professor at the Eliot-Pearson Department of Child  
22 Study, Tufts University.

23 Dr. DAVID FELDMAN. Thank you, Mr. Chairman.  
24 My colleagues have ably discussed the organizational,

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the biological, and the curricula aspects of issues pertaining to gifted and talented children. My own remarks will focus on conceptual reorganization. It is my feeling that, if this noble and well-intentioned exercise is to have any realizable impact, it is going to require major conceptual rethinking of this field as well as the more practical aspects that my colleagues have focused on.

I would like to begin my remarks, Mr. Chairman, with a quote from John Gardner's book, "Excellence", published now more than 20 years ago. It reads: "An excellent plumber is infinitely more admirable than an incompetent philosopher.

The society which scorns excellence in plumbing because plumbing is a humble activity and tolerates shoddiness in philosophy because it is an exalted activity will have neither good plumbing nor good philosophy. Neither its pipes nor its theories will hold water.

There are three observations I wish to make about the current state of affairs in the field of gifted/talented education which are inspired by John Gardner's words. These three points will lead in turn to three suggestions for revising current



1       conceptions of talent and talent development. Finally,  
2       I will offer three recommendations for the future.  
3       The overall purpose of my remarks is to suggest that  
4       the time has come for an overhaul of how we respond  
5       to extraordinary capability in our children; this  
6       should be done at the practical level, at the  
7       conceptual level and at the policy level as well.

8               Giftedness in America, at least insofar  
9       as the notion has manifested itself in public  
10       education, is almost synonymous with general academic  
11       promise. To be labeled gifted has meant, with few  
12       exceptions, to have scored better than about 98% of  
13       one's peers on a standardized IQ test. The price of  
14       admission for the vast majority of programs was and  
15       is set by this standard. Sometimes the tendency to  
16       use IQ goes to ridiculous extremes. A year or so ago  
17       there was a summer dance program in a town not far  
18       from Boston where even the most promising young dancer  
19       had to fulfill the criterion set for admission: 130  
20       IQ or above. So my first observation is that gifted-  
21       ness in the American public education system means  
22       high IQ. High IQ, in turn, is an indicator of general  
23       academic talent, the capability to do well in standard  
24       school situations. It is almost as if we had decided

1 that giftedness was to be defined as strength in  
2 philosophy and all our children are ranked in terms  
3 of how promising they are in philosophy, even though  
4 we actually need (or even want) very few philosophers.

5 The fact that giftedness tends to be  
6 defined in terms of academic talent leads to my  
7 second observation: that for a person to be labeled  
8 gifted in America is to be given a promissory note  
9 about his or her future. It is a prediction that a  
10 given child will grow up and do something significant  
11 or worthwhile. At the time the label is conferred,  
12 however, the child has done nothing significant except  
13 to do well on the test itself. Although it would be  
14 encouraging if the promissory note indeed predicted  
15 accurately who would and who would not make positive  
16 contributions to society, it is clear from the famous  
17 Terman study in California and from others that IQ  
18 is only a crude predictor of future success. And it  
19 predicts success not at all in many fields like art  
20 and leadership.

21 If one were to ask the question based on  
22 IQ: "What does a gifted child do when he or she  
23 grows up?" the answer would have to be similar to  
24 where a six hundred pound gorilla sleeps: Anything he

1 wants to. Giftedness in American tends to mean a  
2 child can aspire to do anything once the IQ threshold  
3 has been exceeded, but IQ itself tells very little  
4 about what that choice might be. And it tells us even  
5 less about how to help make a choice into real  
6 performance.

7 My third point is that a consequence of  
8 the tendency to sort out the populace into gifted and  
9 not gifted groups has been to create pernicious  
10 status divisions among our children. John Gardner  
11 argued in Excellence that status differences are a  
12 natural consequence of different levels of performance.  
13 It is therefore not status per se that is the problem;  
14 it is arbitrary status that is objectionable and that  
15 we rightly call "elitist." For Gardner, the critical  
16 point is that status should be earned through sustained  
17 excellent performance. It is not at all surprising  
18 that people resent the label "gifted" being conferred  
19 on the basis of performing well once on a test.

20 I should stress at this point that my  
21 remarks are not to be construed as critical of the  
22 need for programs for students who are academically  
23 talented and who would profit from greater challenge  
24 in the classroom. I am simply arguing that exclusive

1 emphasis on this form of talent development is  
2 problematic on three counts: One, it tends to limit  
3 talent to general academic potential; Two, general  
4 academic promise is only modestly predictive of real  
5 world excellence; and Three, giftedness as IQ tends  
6 to confer status prior to one's having genuinely  
7 earned it.

8 It may be that if we were forced to choose  
9 a single criterion for giftedness, IQ would not be a  
10 bad choice. From my studies of child prodigies,  
11 however, persistence would probably work just as well.  
12 But there is nothing whatsoever (other than perhaps  
13 inertia) to make us use a single predictor. As  
14 things stand, the emphasis on general academic talent  
15 in selection for programs for gifted students insti-  
16 tutionalizes and helps ensure that only those students  
17 who demonstrate such capability are officially  
18 encouraged to develop their full potential. Fortunately,  
19 the effort is not always successful.

20 Suppose we were to consider general  
21 academic talent as one among a variety of potentially  
22 valuable gifts. In principle, this is what the most  
23 recent federal regulations on identifying giftedness  
24 have proposed. In addition to academic promise,



1 there are references to specific talents, creativity,  
2 leadership and physical ability. As a practical matter,  
3 however, this expanded definition of giftedness is  
4 more promise than practice. In practice, criteria  
5 other than IQ are usually considered only when IQ  
6 data are ambiguous or marginal. In other words,  
7 high test performance is necessary, but if a student  
8 scores slightly below the IQ cut-off for admission to  
9 a program, performance on another criterion may be  
10 considered. This leaves us substantially where we  
11 started.

12 In a small study I did in Minnesota  
13 several years ago, I showed that criteria for  
14 admission to gifted programs are almost always  
15 ambiguous and arbitrary. The study showed that almost  
16 every child in a typical classroom might be selected  
17 for a hypothetical special program, based only on  
18 criteria that are now commonly used in school  
19 systems around the country. In other words, there is  
20 as much evidence to suggest that 98% of the population  
21 is "gifted" according to one or more of the usual  
22 selection criteria as there is evidence to suggest  
23 2% are gifted. In this kind of situation, it seems  
24 advisable to suspend judgment about the nature and



1 extent of giftedness in our population until clearer  
2 notions of just what is meant are forthcoming.

3 My first alternative suggestion, then, is  
4 that we begin to think of giftedness on a more specific  
5 basis. General academic potential is certainly  
6 valuable and should be encouraged, but it would be  
7 unwise to bet the future of the country on identifying  
8 and supporting only those who pass muster on an IQ  
9 test. Indeed the so-called creativity test movement  
10 was begun in the 1950's because IQ had proven to be  
11 inadequate in predicting innovative thinking or  
12 leadership during the Second World War. Unfortunately,  
13 we are still virtually no better off today than in  
14 1950 in identifying and encouraging specific talent.  
15 Serious conceptual work on the nature of specific  
16 giftedness is, I believe, requisite to changes in  
17 policy and practice, and this work has not been done.  
18 I would suggest, however, that in numerous fields  
19 in the society talent is in fact identified, developed  
20 and rewarded in very sophisticated ways. In high  
21 technology, professional sports, the media, surgery,  
22 and pilot training it is unlikely that individuals  
23 who are not gifted achieve top positions, or, at  
24 least, we had better hope not. We may have been

1 looking in the wrong place for information about how  
2 to identify and develop talent.

3 A related point is that giftedness could  
4 well be conceived as performance at an impressive  
5 level in a given field rather than as a general  
6 prediction about broad gauged academic achievement.  
7 Lewis Terman in 1920 believed that high IQ was a  
8 prerequisite to distinguished achievement in virtually  
9 any field, but this has turned out not to be true.  
10 The best predictor of future achievement is present  
11 achievement. And the more specific the achievement  
12 the better. If one wants to predict who will be a  
13 ballet dancer, a physicist, a mechanic, or a teacher,  
14 the best evidence is performance in these domains or  
15 in domains closely related to them. Although few  
16 young children have selected the domain they will  
17 ultimately pursue as adults, certain distinctive  
18 patterns of child behavior may be related to certain  
19 adult domains. This has certainly been the case in  
20 my studies of child prodigies.

21 It makes sense, then, to think about  
22 identification of gifted children by observing their  
23 performance within the specific domains in which  
24 children are working or in domains where the connection

1 to adult performance is clearly demonstrated. The  
2 considered reflections of master practitioners in a  
3 field are most likely to unearth the key variable.  
4 I am suggesting that our way of looking at giftedness  
5 would be improved if performance within a specific  
6 domain were emphasized. The word "genius", after  
7 all, originally referred to a person's unique,  
8 special qualities or gifts as they were manifested  
9 in actual performance. We would do well to recapture  
10 some of that meaning in our current view of giftedness.

11 It should be clear that the two alternative  
12 changes in our view of giftedness I have just pro-  
13 posed would help reduce the elitism inherent in  
14 current policy and practice. If giftedness were  
15 seen as the use of one or a combination of several  
16 talents, it would help prevent the simple dichotomy  
17 created by general academic promise or the lack of  
18 it. One could reveal promise in a specific realm  
19 without, or in addition to, showing general academic  
20 capability. And if actual performance within a  
21 specific field were taken as a primary criterion for  
22 being labeled gifted, then status would be conferred  
23 as a function of demonstrated excellence, an inherently  
24 less arbitrary way of doing things. It is also

1 likely that prediction of future excellence would be  
2 more accurate since early promise within a field  
3 (such as poetry or sports or politics) is most likely  
4 to be related to later achievement. This way of  
5 looking at giftedness is nonelitist in the sense that  
6 individuals have to earn their status and continue to  
7 do so by actual achievement. It is my impression  
8 that few people resent genuine excellence and the  
9 rewards that it brings.

10 To summarize, then, my three suggestions  
11 for reorienting our thinking about giftedness are  
12 (1) that we conceive of talent as taking many specific  
13 forms; (2) that the designation gifted be bestowed  
14 only based upon actual achievement within valued  
15 domains of activity; and finally (3) that status be  
16 directly tied to achievement; in other words, the  
17 development of human potential be seen as a fundamentally  
18 nonelitist endeavor.

19 It is one thing to redirect our conceptual  
20 framework about giftedness. It is another thing to  
21 draw from this orientation reasonable implications  
22 for fostering excellence through education. In my  
23 remaining remarks I will propose for discussion some  
24 changes in education that might follow from what I

1 will label a developmental view of giftedness. The  
2 central feature of this view is that talent develop-  
3 ment is a complex function of how well coordinated  
4 the resources are in the child's environment.

5 It seems to me that it is important to  
6 distinguish between two broad goals of public educa-  
7 tion: basic skills, and what I will call optional  
8 skills. Traditionally, giftedness in public education  
9 refers to being very good at the former, while I am  
10 proposing that giftedness in the future be much more  
11 identified with the latter. By optional skills I  
12 refer to the many possible worthwhile pursuits that  
13 our society offers and/or encourages. These tend to  
14 be found-- if they are found at all--scattered through  
15 the school curriculum and the school day in the form  
16 of electives. More often, they are pursued outside  
17 of school. I believe that the basic skills function  
18 of public education might profitably be condensed  
19 into half the normal school day, while the remainder  
20 of the day could be spent in pursuit of optional  
21 skills.

22 The schools themselves may well be  
23 inadequate for offering the variety and quality of  
24 optional skills necessary to engage the energies of

1 all students. But if the two functions, basic skills  
2 and optional skills, were distinguished, it is  
3 perfectly feasible to think of the school as one  
4 among several institutions offering opportunities  
5 for talent development. Business, industry, agricul-  
6 ture, technology, government, the arts, media,  
7 medical facilities, sports teams, universities,  
8 research institutes, unions, etc. might become more  
9 formally involved in the educational process.  
10 Apprenticeships, mentorships, internships, assitant-  
11 ships, and part-time jobs would have the dual  
12 advantage of putting youngsters in direct contact  
13 with those who work in fields in which excellence  
14 may be manifested and at the same time put them in  
15 greater touch with the adult generation as well, a  
16 not insignificant fringe benefit of such an approach.

17 My second recommendation is that serious  
18 consideration be given to a national effort to  
19 replace current measures of general academic promise  
20 with more refined, specific diagnostic instruments  
21 consistent with the view of talent and excellence  
22 reflected in this testimony. Although such tests  
23 have had and will continue to have utility for  
24 clinical and broad diagnostic purposes, they stand in



1 the way of reorientating our thinking about excellence.  
2 It will take a major research and development effort  
3 to produce alternative measures that are as practical  
4 and easy to use as the existing ones. Until such an  
5 effort is begun it will be extremely difficult, if  
6 not impossible, to change current practice and  
7 therefore transcend existing assumptions about  
8 potential for excellence and how to develop it.

9 My final recommendation is that a major  
10 effort be made to better understand the delicate  
11 coordination of the forces, family, peers, siblings,  
12 teachers, mentors, technologies, historical conditions,  
13 that bring about extraordinary achievement. I have  
14 called this coordination co-incidence. Good work  
15 has been begun by colleagues like Jeanne Bamberger,  
16 Benjamin Bloom<sup>m</sup>, and Mihaly Csikzentmikalyi, Howard  
17 Gardner, Howard Gruber and, if I may be so immodest  
18 to say so, in my own research with child prodigies.  
19 But with a matter as complex as this one, it is  
20 surely an understatement to say that it will take some  
21 of the best efforts of, yes, some of our most gifted  
22 researchers, to begin to shed some light on it. The  
23 existence of a group such as the National Commission  
24 on Excellence in Education is the sort of force that

1 may help catalyze the research and development effort.

2 To return, in conclusion, to John  
3 Gardner's statement for a moment, we would do well  
4 to direct our efforts toward valuing excellence in as  
5 many forms and in as many fields as our imaginations  
6 and resources will allow. Both our plumbers and our  
7 philosophers deserve respect for putting forth their  
8 best efforts and rewarded when these efforts lead to  
9 excellent performance. Our job is to learn how to  
10 help those who would be excellent plumbers do so,  
11 and encourage those who would be mediocre philosophers  
12 to direct their energies elsewhere. Then both our  
13 drains and our ideas will withstand the pressures  
14 that are sure to strain them in the years to come.  
15 Thank you. (Applause.)

16 Commissioner BAKER. Thank you, Professor  
17 Feldman, for your keen analysis and stimulus about  
18 what to do with these matters.

19 I thank the speakers, also, for their  
20 observance of time. They have achieved an elegant  
21 balance, indeed, between what is said and what is  
22 known.

23 We shall proceed with the discussion  
24 presently, but I would like to take a moment to speak

1 on behalf of the Commission about the ways we have  
2 been able to get into the matters which you have just  
3 heard being discussed with such skill this morning,  
4 and that is through staff support from Washington of  
5 extraordinary merit.

6 We are, after all, making reports to the  
7 American people, to our national community, which is  
8 so warmly represented here this morning and, therefore,  
9 welcome a chance to point out that our Executive  
10 Director, Dr. Milton Goldberg, his associates on this  
11 particular occasion, Ms. Mollie McAdams, Peter Gerber,  
12 Mrs. Tynan, Mr. Tomlinson, and Clifford Edelman, have  
13 simply been the key resources for us to find the  
14 insights and knowledge which we are so appreciating  
15 now:

16 Similarly, we want to report, as an  
17 independent commission of the Secretary of the  
18 Government, about the very high help we have had  
19 from the Department of Education, in many forms, and  
20 I would hope that Mr. Wayne Roberts, who is the  
21 regional representative of Secretary Bell in this  
22 area, might be with us and willing to comment on the  
23 activities related to these studies in this region.  
24 Is Mr. Roberts here?

1 (No response.)

2 Commissioner BAKER. If not, I know that he  
3 would have said the things that would have helped us  
4 in this respect.

5 I am also happy to note that Professor  
6 Gerald Holton, Commissioner Holton of the National  
7 Commission, has joined us. He is also one of our  
8 hosts as Professor of Physics at Harvard.

9 We now take pleasure in moving to the  
10 discussion in which the Commissioners will work with  
11 the speakers, and they are invited to cross-connect  
12 and cross-talk in any way they wish. The hope would  
13 be, however, that the sound will be respected and  
14 will penetrate to the far reaches of the chamber.  
15 This matter of getting to the far reaches of the  
16 chamber has been dealt with in various ways, as Dr.  
17 Renzulli reminded us.

18 At one time, George Kaufman, was observing  
19 the inauguration of one of his plays, including an  
20 actor who was a bit unable to do the things that the  
21 playwright had expected and, after the first act or  
22 so, Kaufman sent a note from the rear of the theatre  
23 to the actor, saying, "I am here in the rear of the  
24 theatre. Wish you were here." (Laughter.)

1 I invite any member to perhaps to begin  
2 our discussion.

3 Commissioner MARSTON: I have two questions  
4 that I would like to ask. The first question I would  
5 like to ask is to Dr. Kinsbourne, if I may, please.  
6 Dr. Kinsbourne, would you be so kind as to elaborate  
7 on your statement that a type of teacher is needed to  
8 teach the gifted?

9 Dr. KINSBOURNE: The point that I was briefly  
10 alluding to is that, in order to give a really  
11 talented person -- and I insist on the really talented  
12 beyond those percents that have been mentioned -- the  
13 drive to put in the effort, the severe effort,  
14 aptitude to realize the potential, genius being 90  
15 per cent perspiration, as you know, that person has  
16 to see it being done by someone else whom he respects,  
17 and see it done well and effectively, and take fire.

18 Now, what I want to emphasize is that  
19 being gifted, being talented, as a state is nothing.  
20 Actually, acting it out, as someone said, is immensely  
21 fatiguing, and occupies time exclusive of all sorts  
22 of fun. The poet Yeats complained bitterly about  
23 the fact that trying to do what is difficult has  
24 pretty much rotted his bones. He couldn't do another

1 damn thing because he was so focused on doing that  
2 which was difficult, which he did successfully, as  
3 you know.

4 So, the point that I want to make is  
5 that the very gifted individual, once he has that  
6 impetus, will go to his mind, will go to the books,  
7 will go to the library, will, in fact, work, even on  
8 matters totally unconnected with what that excellent  
9 teacher taught him. It doesn't matter what the field  
10 is in which the teacher is. It is the example of a  
11 good mind functioning that is important.

12 Nor does it have to be every teacher;  
13 one may be enough to show how it can be done. And,  
14 when I was teaching at Oxford, I saw this time and  
15 again, a person coming with a tremendous mind, but  
16 not knowing what to do with it, and finding one  
17 teacher, not always the same one, to lock into and  
18 suddenly take wing.

19 So, what is important, then, is to find  
20 a person who is inspirational and, also, one who is  
21 in a sufficient individual relationship to be a  
22 proper role model, not addressing a class of five  
23 hundred.

24 And, again, I point you towards the Oxford

1 tutorial system, and that is the merit of it, that,  
2 one hour a week, you get to sit with what ought to  
3 be and occasionally is a person with an excellent  
4 mind.

5 Now, this is just an example. There are  
6 other ways of doing it, but some individual contact  
7 with somebody terrific is what I was recommending,  
8 and the rest is routine.

9 Commissioner MARSTON. Thank you very much.  
10 Dr. Renzulli, you spoke accurately, I am afraid, about  
11 the status of our textbooks in this country. I  
12 wondered if you could perhaps enlighten us on some  
13 possible solutions to the improvement of textbooks.

14 Dr. RENZULLI. I am not sure if I can enlighten  
15 you on some solutions to improvement of textbooks,  
16 except that I think we need to have a re-analysis of  
17 existing textbooks, with the best minds in any given  
18 field brought to bear upon those.

19 I do believe, however, that we need to  
20 make some modifications for highly-able youth in the  
21 ways in which we use textbooks. In the programming  
22 model that we have developed and used in Connecticut,  
23 among other places, we have introduced a procedure  
24 which we call curriculum compacting. Curriculum

1 compacting is a procedure whereby we don't necessarily  
2 speed up the curriculum in an accelerated fashion  
3 simply by covering the same material at a faster rate,  
4 although some of that is involved. But curriculum  
5 compacting implies that we eliminate, through some  
6 systematic and very easy-to-use procedures, those kinds  
7 of materials that a youngster already knows and need  
8 not spend time on.

9 Curriculum compacting is part of an  
10 overall programming model which then, first of all,  
11 relieves the boredom of dull, repetitious and unneces-  
12 sary involvement, but secondly, and I think more  
13 importantly, and dealing with the third stage, the  
14 discovery stage that Dr. Kinsbourne referred to, it  
15 opens the door and buys the time for a wide variety of  
16 different types of enrichment experiences for the types  
17 of involvement with, perhaps, a highly-trained or  
18 specialized teacher or person of like-minded interest  
19 or ability from the community who might serve as a  
20 mentor or guide to a particular youngster.

21 Commissioner MARSTON. If the States of  
22 California and Texas were the ones that adopted such  
23 a particular philosophy, then we would have them,  
24 perhaps, across the country.





1 Dr. RENZULLI. Could be. We are trying to  
2 sell it as hard as we can.

3 Commissioner CAMPBELL. May I ask Dr.  
4 Gallagher a couple of things. First of all, you  
5 suggested a change in the infrastructure, and I  
6 would be interested in that. Secondly, how are the  
7 students chosen for the North Carolina School for  
8 Science and Mathematics?

9 Dr. GALLAGHER. All right.

10 Commissioner BAKER. Is the microphone working  
11 all right there?

12 (Cries of "No!")

13 Dr. GALLAGHER. Well, the change in the infra-  
14 structure, she asked, what can you do to change the  
15 structure in a way that can be more effective for  
16 gifted education? I would think that one of the  
17 things -- I would echo what Dave Feldman said, and  
18 that is the need for specific research and develop-  
19 ment funds to develop better instrumentation, better  
20 identification tools. If you were trying to repair  
21 something in your house, you have two choices. You  
22 either go to your toolbox and use the tools that you  
23 have got, or you go out and buy some new ones.

24 What Dave Feldman is suggesting and I am

1 suggesting is that we need to go out and buy some  
2 new ones. Failure to do that means that the schools  
3 will use the tools that are in the toolbox now; they  
4 haven't got any choice.

5 In the State of North Carolina, in terms  
6 of the regular program for gifted education in the  
7 elementary schools, they use a four-dimensional kind  
8 of thing. They use the IQ test, but they also use  
9 teacher ratings. They also use that sustained  
10 excellence that Dave Feldman was talking about,  
11 evidence of sustained excellence, as part of the  
12 entry ticket to get into the program in the first  
13 place.

14 But the tools are not there, and we all  
15 recognize that. It takes money to develop these  
16 tools and the money just hasn't been available.

17 In terms of the North Carolina School of  
18 Science and Mathematics, again, we ask for recommen-  
19 dations from the school systems. A student or a  
20 parent can recommend their own child. When they do  
21 that, they take aptitude tests in science and mathe-  
22 matics, standard aptitude tests. They get recommenda-  
23 tions from their school. They write an essay of  
24 their own as to why they want to do this, which

1 sometimes has quite an effect upon the staff that is  
2 reviewing these, and they get as much other information  
3 from the school system on their past record as they  
4 can.

5 They then try to balance these out with  
6 obvious needs in geography, sex, race, that sort of  
7 thing, in order to get a balance.

8 What they end up with is an extraordinary  
9 crew of youngsters who have the kind of thing that  
10 Marcel Kinsbourne was talking about. In other words,  
11 these are model teachers; they do research; they  
12 don't just teach. And so they stimulate the youngsters  
13 in a way that you have to kick them out of the  
14 laboratory in the evening in order to close down the  
15 offices.

16 So the purpose of the school is worth  
17 some attention because it is not just to educate three  
18 or four hundred bright youngsters. It is to demon-  
19 strate what excellence can do and to demonstrate to  
20 the other school systems in the state to provide a  
21 training base for the training of teachers to work  
22 with gifted and talented students throughout the state  
23 and to provide a kind of a lighthouse for new tech-  
24 niques and new procedures that can be used and picked

1 up by the rest of the school system.

2 So it is not just an isolated program  
3 designed to help a small number of children. It is  
4 designed to have a major impact on the entire school  
5 system in the State of North Carolina.

6 Commissioner HOLTON. First, I would like to  
7 apologize; I came late from a plane from another  
8 conference.

9 Second, what I heard here immediately  
10 triggers a number of resonances. One learns from  
11 historically great minds and doers that they need  
12 many of the things that you have been talking about,  
13 fellowship, freedom, elbow room to do the things that  
14 they want in a surrounding which tolerates it, at  
15 least, the kind of support from parents, textbooks  
16 that are properly written, and all the rest.

17 But what I think I had better ask about  
18 here, instead of following my own personal interests,  
19 to point out that we are national, we are national.  
20 We do want to make recommendations that are useful  
21 at the local level, at the state level, but, also,  
22 at the federal level. And, from the material I read  
23 and what I have heard, it isn't quite clear to me --  
24 and, therefore, I would like to be enlightened -- to

1 what degree the solutions that you see, each in your  
2 own way, in fact, may involve a Federal presence, as  
3 against a local or a state presence.

4 For example, if I can readily think, the  
5 teacher training must be at a level that may be beyond  
6 the capabilities merely of the locality or the states,  
7 or subsidy of texts which they don't sell in the  
8 20 thousands or 50 thousands a year because they are  
9 no longer being taken seriously by most publishers,  
10 or money for experimentation and research, which has  
11 just been mentioned a few minutes ago, but I didn't  
12 see that in the literature; or Federal fellowships for  
13 the gifted, or perhaps for their surroundings, to make  
14 it possible, perhaps, to handle the gifted, when they  
15 do turn up.

16 There are a variety of ideas. I don't  
17 just ask you to do it off the top of your head. The  
18 record stays open for a month, I understand, so your  
19 specific recommendations would be very helpful in  
20 that area.

21 Dr. GALLAGHER. I did try to provide that in  
22 my statement, Professor Holton, but I think you came  
23 after I gave it.

24 Let me review them for you, because I do

1 believe that that is the important question here.  
2 And that is, what can the Federal Government do?  
3 And I think the answer is that it can be catalytic  
4 in nature, and that catalytic provides small amounts  
5 of funds for very crucial kinds of things.

6 Research and development. That is clearly  
7 a Federal role. That is true in all fields of  
8 education, as well as health and other dimensions.  
9 The Federal Government has always taken the role of  
10 being the leader in research and development activities --  
11 the reason for that being that the states do not  
12 invest in that. They invest primarily in service  
13 kinds of activities at the state and local level.

14 A second is leadership training. Many  
15 states are resistant to doing advanced training of  
16 persons or post-doctoral kinds of work on the grounds  
17 that they may, in fact, see greener fields somewhere  
18 else. They may get educated in North Carolina and go  
19 to California, get educated in Colorado and go to  
20 Florida, and all that money was wasted that the state  
21 spent on that person, from the standpoint of the  
22 State Legislature.

23 So advanced graduate training money can  
24 come from the Federal level.

1                    Demonstration money. That can be given  
2                    to the states, but it provides for states with those  
3                    extra kinds of funds that they don't have easily  
4                    available within their own Department of Public  
5                    Construction, but can provide a kind of lighthouse or  
6                    example of excellence that otherwise would not be  
7                    there.

8                    The particular area of dissemination,  
9                    of actually providing some vehicles by which good  
10                    practices get delivered from one place to another.  
11                    One of the problems we have always had in education  
12                    is, how do you deliver a great program from Portland,  
13                    Oregon, to Tampa, Florida, or from Lubbock, Texas, to  
14                    Vermont, and we do have better knowledge now, on how  
15                    that is done, and that is kind of a technical  
16                    assistance program that, in fact, could be provided  
17                    and will not be done unless it is done from the  
18                    Federal level because it cuts across communities, it  
19                    cuts across states.

20                    I think supporting these kinds of things  
21                    at a minimal financial level can provide a catalytic  
22                    effort that can energize a lot of the resources at  
23                    the local and the state levels, and unless the Federal  
24                    Government does it, it isn't going to be done.



1 Dr. KINSBOURNE: I think Dr. Gallagher's  
2 remarks can be summarized in terms of a simple  
3 distinction. Fostering the development of an  
4 individual, gifted child is the province of the state  
5 within which he or she lives. Developing informa-  
6 tion about how the human mind and human brain  
7 achieve sophistication of the type that can be  
8 generalized across the nation is a Federal responsi-  
9 bility.

10 Chairman GARDNER. I should appreciate very  
11 much reconciliation of two of the testimonies here  
12 this morning, to the extent that you are disposed to  
13 do so.

14 Professor Gallagher has suggested that  
15 there is a pressing need for both more support, an  
16 enhanced infrastructure, and a greater attention to  
17 be paid on all levels of government in their  
18 appropriate spheres of responsibility to this problem.

19 Now, Professor Feldman has suggested that  
20 what we really need, not excluding the former, is a  
21 reconceptualization of the idea of who constitutes  
22 gifted intelligent young people.

23 How are we, on the one hand, to encourage  
24 a greater measure of support and, on the other hand,

1 represent that we need, in fact, to reconceptualize  
2 the basis of the effort?

3 Dr. FELDMAN. Very carefully.

4 Chairman GARDNER. Now, this Commission is  
5 expected to offer some recommendations in this  
6 respect, and I think we need to discover a means of  
7 effectively doing so in ways that do not assume that  
8 your testimonies are mutually exclusive, and I would  
9 appreciate your helping us with that.

10 Dr. GALLAGHER. Well, I would say that they  
11 are not mutually exclusive. I welcome the opportunity  
12 to try and demonstrate how.

13 We must, in fact, get better tools; we  
14 must, in fact, get better methods; we must do better  
15 jobs at developing more effective curriculum in this  
16 area. That doesn't mean to say that we abandon  
17 efforts we have already done. It means we must be  
18 about the business of trying to improve on those.

19 And Dr. Feldman is suggesting, in my view,  
20 some of the vehicles by which you can, in fact, improve  
21 them. But in terms of one of the things that he said,  
22 for example, that you pick on the basis of sustained  
23 excellence instead of just IQ tests, or that you  
24 include the leadership and creativity and arts and

1 humanities as part of your definition, in our national  
2 survey of the programs, we find that forty states,  
3 in fact, include those definitions in their definition  
4 of gifted children in their states right now. They  
5 say that it is not only those who have academic  
6 ability and intellectual performance, but those who  
7 are excellent in leadership and creativity and the  
8 arts and humanities.

9 Now, stating that in the abstract and the  
10 definition is one thing. Operationalizing it in the  
11 schools is quite something else again. And what we  
12 don't have is the tools and the procedures and the  
13 methods by which we can translate an objective into  
14 an operational fact. To do that, we need these kinds  
15 of catalytic funds that will allow us to build the  
16 instruments and develop the new curriculum that has  
17 been suggested here, and that is where the Federal  
18 Government comes in.

19 Dr. RENZULLI. May I comment on that very  
20 briefly, because I am in agreement with my colleagues  
21 on a lot of this, but in some small amount of dis-  
22 agreement in other areas. We don't need more measures.  
23 We already have ways of finding out who are our best  
24 and most efficient learners and who are our most

1 creative youngsters.

2 I think that the reconceptualization that  
3 Dr. Feldman talks about is an accurate portrayal, but  
4 what we need to do is to develop programming models  
5 that allow youngsters to have an opportunity to  
6 perform. I think that the great failure of the gifted  
7 child movement in this nation has been our treating  
8 giftedness like a physical characteristic or a  
9 disease, like red hair or blue eyes or a dark  
10 complexion, and we have gone about it in this fashion.

11 If I can measure you as one measures a  
12 physical gram or degree or characteristic, then I  
13 will serve you. And I think what we need to do is to  
14 give -- again, we can easily, -- there is no teacher  
15 that has taught for more than a month a group of  
16 children that doesn't know who are his or her most  
17 able youngsters and, with the existing kinds of tests  
18 that we have in intelligence, aptitude, achievement,  
19 creativity, and things like that, we can pick out  
20 those youngsters who seem to have the greatest  
21 potential for higher levels of performance. But,  
22 beyond that initial, first level kind of screen, I  
23 think that, after that, we must look at their  
24 performance. By their deeds, ye shall know them, by

1 the kinds of things that they do. I see another  
2 effort into the measurement and instrument area as  
3 simply coming up with another pre-selection criteria.  
4 We need to give people an opportunity to perform and  
5 make determinations based on that.

6 Dr. FELDMAN. If your purpose, Mr. Gardner,  
7 was to raise a little controversy, I guess you have  
8 probably succeeded. I do disagree with my colleague,  
9 Joe Renzulli, about this particular issue, but, in  
10 fact, I think it is more of a semantic than a  
11 substantive disagreement.

12 What we think about when we are thinking  
13 about measurement is what we already know and, based  
14 upon what we already know, I would actually probably  
15 agree with what he says.

16 But what I think is imaginable is a  
17 conception of measurement, if you will, or assessment  
18 which is so linked and so much part of the curriculum  
19 and program effort that, in fact, to an outside  
20 observer, one would not be able to distinguish one  
21 from the other.

22 The purpose, really, would be to widen  
23 the horizons of those who are watching the children,  
24 and I think, with all due respect to the good work

1 that Joe and his colleagues have done, an expansion  
2 of what is in the minds of those who are looking will  
3 lead to a detection of more kinds of things out there,  
4 and it is really towards that kind of end that I  
5 think the effort is aimed.

6 Dr. GALLAGHER. Could I just make one final  
7 comment on that. I have to disagree on one small  
8 point with Joe Renzulli, and that is that the teachers  
9 know who the bright students are in their class. And  
10 the evidence is very clear on this, and that is, yes,  
11 most of them, they do know, particularly if they  
12 perform. The problem is if you have a great deal of  
13 talent and you don't perform; then, do they know?  
14 And the answer is, "No, they don't."

15 And so, there is an additional research  
16 problem here about youngsters who seem to have  
17 abilities that are latent or that they have not had  
18 the opportunity to develop.

19 Now, when one talks about instrumentation,  
20 you don't have to talk about a paper and pencil test  
21 that you have to write or fill out. You can talk  
22 about a teaching situation, a vestibule type of  
23 situation in which you try out the youngsters under  
24 various circumstances. That is an instrument, too.

1                   And so, what you have to do is broaden  
2 your conceptualization of what you mean by "instrument".  
3 But, of course, the opportunity to do it is one of  
4 the better ways of trying to judge, but we have lots  
5 of inner city kids. The best way of judging a clarinet  
6 player is to say, "Pick up a clarinet and play some-  
7 thing," but that works only if you have been playing on t  
8 clarinet for awhile. If you have never had the chance  
9 to play a clarinet, then that doesn't work very well.

10                   And so, you have got to develop the kind  
11 of opportunities for youngsters that really haven't  
12 had a shot at developing their abilities, as well as  
13 picking up those youngsters that, through a combination  
14 of good opportunity and family background, have, in  
15 fact, found it.

16                   Dr. RENZULLI. Mr. Chairman, may I say a few  
17 words in defense of Joe Renzulli. I came here today  
18 with the specific objective of not to sell any  
19 particular approach or programming model and, as both  
20 Dave and Jim know, we, in fact, use an instrument  
21 which is not a structured instrument in this level of  
22 identification. We call it an Action Information  
23 Message wherein it basically is a reflection of the  
24 observations/youngsters in a particular performance  
of





1 situation.

2 But, as long as I cannot avoid my own  
3 work, let me just spend a moment or two to say that,  
4 in an overall, comprehensive, systematic programming  
5 model, you naturally provide these opportunities for  
6 youngsters to engage in different levels of activity  
7 that then become the insights into which youngsters  
8 might go on to <sup>more</sup> advanced kinds of enrichment.

9 In the programming model which I have  
10 developed, entitled the Enrichment Triad Model, --  
11 again; I did not come here today to sell a particular  
12 approach -- we have purposefully built in two types  
13 of enrichment, one of which is designed to expose  
14 youngsters to a wider variety of experiences that  
15 they ordinarily would not become involved in or  
16 exposed to in the regular school curriculum, which I  
17 think all of us can agree is a very limiting kind of  
18 experience.

19 The second type of general enrichment  
20 that we provide to a wider band of youngsters --  
21 again, Types I and II are general levels of intro-  
22 ductory enrichment -- is designed to give youngsters  
23 experience in creative thinking skills, in critical  
24 thinking skills, in research skills; and things that

1 are related to broader use of knowledge, reference  
2 material, visual, oral, and written communication  
3 activities. It is from these, let us call them,  
4 tryouts, that we start to see certain kinds of highly-  
5 intensive interests and abilities emerging and it is  
6 through this process that we advance youngsters to  
7 our highest level of enrichment, what we call  
8 individual and small group investigations of real  
9 problems.

10 And that is a very brief overview of  
11 a model I provided you some information about in the  
12 packet.

13 Dr. KENSBOURNE. It is clearly possible to  
14 conceive of far more appropriate measures of talent  
15 than we have at the moment. I would agree that more  
16 of the same is of no use. We have lots of instruments.

17 I would like to state something very  
18 briefly with respect to the level of the brain. What  
19 is involved in solving a problem? Obviously, you  
20 cannot give the obvious solution because, if the  
21 obvious solution were correct, it would not be a  
22 problem. Therefore, it might be the one next obvious,  
23 or the one a bit less obvious than that, or the one  
24 even rather improbable. But, if you are a genius, you

1 may give a solution which is, in fact, impossible, but  
2 happens to be correct.

3 How can the human brain do that? The  
4 necessary condition for making an improbable response  
5 is to be able to inhibit making the probable one.  
6 That is the mental work. It is not doing the thing  
7 that is wrong that permits you effortlessly to do  
8 what is right.

9 Now, inhibition is the fabric of mental  
10 life. It shapes mental life. It is the ability to  
11 restrain the over-learned response, the biologically  
12 pre-programmed response, which is usually right, but  
13 this time not; preserve it for usual use, but do not  
14 use it this time.

15 Now, at the level of the brain, there are  
16 inhibitory processes which make that possible. When  
17 I was speaking about numbers of neurons and synapses,  
18 it is enough to say that we couldn't potentially  
19 measure the level of the brain, how this is done.  
20 This is not a sufficient data base.

21 Now, at some point, ideally, one would be  
22 able to listen in to the inhibitory processes as they  
23 occur. Obviously, we cannot do this today, but, for  
24 instance, one can envisage how, with methods now

1 developed of radioactive tracking of metabolic  
2 processes in the brain. One could look, for example,  
3 at activation of certain parts of the brain in  
4 response to a certain cognitive challenge, to see how  
5 intense it is and how focal it is, how selective it  
6 is to the right part of the brain; and that gets us  
7 closer to the kind of measure that we might develop  
8 with future research, with lots of future research,  
9 federally-funded, ultimately to get a better look at  
10 this.

11 So I think that this compliments and does  
12 not disagree with anything that has been said.

13 Commissioner BAKER. Thank you. Our panelists  
14 are leading us right to the frontier that we would  
15 have dreamed and hoped would happen, because we  
16 believe that they are saying, as Dr. Kinsbourne has  
17 just pointed out so excitingly, that there may be  
18 ways of ascertaining talent which are less environ-  
19 mentally dependent, which are less caught in the  
20 present machinery than anything yet seen.

21 We would be anxious to hear any further  
22 comments that Professor Feldman might have in respect  
23 to whether he thinks the revolving door model of  
24 Dr. Ranzulli on the one hand and the question of what

1 are the intrinsic resources of the mind on the other  
2 can be brought into cooperation in these new criteria  
3 that he is thinking about. How near is one to doing  
4 something about this?

5 Dr. FELDMAN. Revolving door criteria and the  
6 capacities of the brain? It is a little much, I  
7 think, for me to comment on.

8 This is not really a direct response to  
9 your question, Mr. Baker, but I think that there is  
10 a high level of agreement across the four people who  
11 have come here today, who probably disagree on most  
12 things most of the time under other conditions, that  
13 we are probably close to doing some worthwhile things  
14 and a long way away from doing everything that we  
15 would like to do.

16 I think that it is clear that the common  
17 thread is to broaden, to diversify, to look for more  
18 variety in the forms that giftedness takes, on the  
19 one hand, and the variety and forms of response that  
20 society and education make, and I think that is the  
21 main point that Joe Renzulli makes, or the other.

22 Programmatically, there is no question  
23 that his work is the most advanced that we have on a  
24 large scale basis and so, by its very nature, it

1 becomes a focal point. I think we should encourage  
2 many such efforts.

3 Commissioner HOLTON. Let me ask you to reject  
4 my question, if it is either too foolish or too  
5 difficult; but there is this persistent myth that a  
6 little social Darwinism, or perhaps a lot of it, is  
7 very good for the gifted, because that will be the  
8 filter through which real talent will assert itself.  
9 And, it is a real question, in looking back on the  
10 historic evidence, whether one can discern a yes or  
11 no to this sort of question. One looks at the  
12 Kepplers, who somehow persisted, despite superhuman  
13 obstacles and, as Keppler put it in his own horoscope,  
14 "I prefer by my nature to look for stones rather than  
15 bread."

16 When one looks at the Hungarians that  
17 made such a contribution to the sciences, who all  
18 were rejected in their own country and came through  
19 because they found each other and a subject in which  
20 they could assert their individuality, one wonders  
21 what, in a more pampered surrounding, they might have  
22 been like.

23 But all that cannot quite right because  
24 we only see the successes, and not the failures and,

1 as a physicist, I like to have ratios, rather than  
2 absolute measures.

3 Can you give me some kind of a hint to  
4 what degree adversity really is helpful or, on the  
5 whole, more harmful to the yield of the gifted to  
6 society?

7 Dr. KINSBOURNE. It has been said, I forget by  
8 whom, that there is a reason why the French have so  
9 many good novelists and poets, whereas the English  
10 have rather fewer great novelists and poets. The  
11 reason is that being a novelist poet is  
12 respected in France, and not in England.  
13 So, to make it through in England, it is like sword  
14 steel tempered in fire. That is an expression of the  
15 myth to which you allude, which may or may not be  
16 correct.

17 Presumably, rigor is essential to  
18 sharpen a good into a great accomplishment; but the  
19 rigor should be at that point. In other words, if  
20 you don't let them even be good, you are going to  
21 have those great and glorious Miltons who never were  
22 born and we don't know that they ever existed.

23 But the rigor should occur at the level  
24 of being good already, and that should be not

1 satisfactory, just to be good.

2 Now, for something more specific, Dr.  
3 Feldman:

4 Dr. FELDMAN. Just two comments. One is that  
5 it may well be true that adversity does, in some  
6 instances, lead to excellence or outstanding achieve-  
7 ment, but I guess that I don't think anyone would  
8 disagree with the observation that the world is  
9 sufficiently treacherous and it is likely that there  
10 would be sufficient adversity, in spite of if not  
11 because of anything we might choose to do. So, I  
12 don't think that is really our business. I think  
13 that that part of it will probably take care of  
14 itself.

15 Our job is to try to provide positive  
16 conditions under which talent can be developed and  
17 expressed.

18 The second point, and this comes from  
19 the work with prodigies, is that the conditions that  
20 enter into the development of extraordinary achieve-  
21 ment are so complex and so numerous that, to single  
22 out any one of them, including this one which, I  
23 would intuitively agree, is probably important, fails  
24 to consider the variety of influences.



2 Furthermore, as in all of nature, the  
3 variety is so great, where just the thing for a  
4 certain person at a certain critical point in his or  
5 her career may be that kind of adverse situation, at  
6 the wrong time, in the wrong place, under the wrong  
7 conditions, it could be a disaster. And I guess,  
8 again, I think there is wide agreement that those are  
9 things we should know more about.

10 Dr. GALLAGHER. Let me just say that there  
11 has been what has been called a cannonball theory,  
12 namely, once the sperm and the egg meet, that there  
13 is nothing that anybody can do to stop the development  
14 and emergence of the talent. I don't think the  
15 evidence is in favor of that particular position.

16 There are a lot of people, even in the  
17 worst plague that one can design, there are people who  
18 come through it and who emerge unscathed, although  
19 that is not a good argument for plagues.

20 But what we really want to do is to create  
21 that kind of an environment.

22 And, even in a repressive society one  
23 can still get the combination of forces that Dr. (K  
24 Kinsbourne and Dr. Feldman have talked about that  
can bring forth individuals who can still benefit

1 their own individual circumstance, and that probably  
2 is what has happened in those circumstances you  
3 describe.

4 Commissioner HOLTON. Just to be on the  
5 record, I was not hoping for a plague, but I was  
6 hoping for a cure as to how much it might be worth  
7 to find immunization and, evidently, you agree that  
8 it would be all to the good to have as much immuniza-  
9 tion as possible.

10 Commissioner BAKER. Thank you, sir, and thanks  
11 to the panel for the admirable discussion which we  
12 appreciate very keenly.

13 We shall now adjourn for a break.

14 (Short recess.)

15 Education Programming for the Gifted

16  
17 Commissioner BAKER. Let's resume this session  
18 which has led us so carefully into the area which the  
19 academician wishes us to understand and thus,  
20 following the pattern so well set earlier, we move  
21 now to the section on Education Programming for the  
22 Gifted, which involves facing up to what can be done  
23 from the principles which were discussed earlier. We  
24 begin this section with a report from one of the most

1 productive and effective studies and sponsorships of  
2 the progress of the academically talented youth. Dr.  
3 William Durden is Director of the Center for the  
4 Advancement of Academically Talented Youth at the  
5 Johns Hopkins University.

6 We must remind ourselves again that we  
7 don't want to lose words and that, therefore, they  
8 must be delivered very, very explicitly into these  
9 microphones.

10 DR. WILLIAM DURDEN. No discussion of programs  
11 for gifted and talented should proceed without an  
12 opportunity to hear from those students who have  
13 benefited from such initiatives. Their comments,  
14 ringing with the honesty of educational discovery and  
15 maturation give a special clarity and focus to our  
16 deliberations.

17 In my own profession, I frequently have  
18 the opportunity to receive directly from students  
19 their thoughts, reflections, and aspirations about  
20 programs designed to develop exceptional talent.  
21 Permit me to share with you what has already been  
22 shared with me:

23 From a 13-year-old girl who participated  
24 in the 1982 Johns Hopkins Summer Residential Program

1 in Carlisle, Pennsylvania where approximately 700  
2 highly-talented junior high school students from 30  
3 states, the District of Columbia, Australia, and  
4 Puerto Rico came together to pursue a rigorous  
5 academic and extra-curricular program:

6 I've grown here. Here, in this place I  
7 have grown bigger and better and brighter.  
8 Whereas before I sometimes felt lost and  
9 befuddled, now I feel calmer and more familiar.  
10 Whereas before I felt out of place, now I  
11 feel at home. Here I have seen myself in a  
12 different, brighter light. Here I have  
13 realized many new things; seen possibilities  
14 unfold and the realization of dreams. And now,  
15 it's part of me. An unshakeable new part of  
16 me, and I'm glad to say that not even leaving  
17 can shake it.

18 One night not so long ago, I was at Math  
19 Study Hall with some friends. Suddenly I  
20 found that I was not surrounded by grownups;  
21 that my math teacher had skipped 4 grades and  
22 was going to be a college senior at 17; that  
23 her friend had gone to college at 12 and now  
24 at 16 was doing graduate work at Cal Tech;

1 that Rodney, my math T.A., was 16, and Sarah  
2 and Sandra were both 15, when I had thought  
3 all of these people were in their early 20s!  
4 And for a long time I would just look at one  
5 of them and say, "Oh, my God, they're real  
6 people!"

7 I couldn't understand later why I kept  
8 repeating that phrase, so I went and talked it  
9 out with myself outside. It seems I felt that  
10 grown-ups were somehow a different kind of  
11 people -- they had their own thoughts and  
12 feelings . . . they were older and more distant.  
13 Now, my thoughts had been turned completely  
14 upside down; the people I thought grown-up  
15 were only a few years older than myself.

16 For a long time I puzzled this out and  
17 finally came to this conclusion -- that age  
18 is relative -- it's w. . . ke of it, no  
19 more, no less; it really is a matter. And  
20 discovering these people's ages didn't make  
21 them someone else, or less of the person w. . . m  
22 I had known.

23 And the incredible thing was that, when I  
24 came back in from outside to try and explain

1 what I had learned, I was understood, and I  
2 found that all these people, my teachers and  
3 my classmates, had gone through similar  
4 realizations that had opened new doors.

5 When we were walking back to the dorms  
6 and I was further explaining what I felt about  
7 age, Chi-Bin asked, "How old are you?" "I'm  
8 me," I answered. "I've never been able to pin  
9 myself down to an age. I'm me, I'm growing,  
10 I'm learning. I want to learn!" "There's a  
11 time for that." Chi-Bin replied "It's called  
12 adolescence!"

13 And from a young student in an Atlanta  
14 Public High School for the Performing Arts  
15 recently cited by the Rockefeller Brothers  
16 Fund for excellence in art education:

17 In this school you're active in every-  
18 thing. The teachers want something out of you.  
19 Mr. Densmore (the principal), I think he's a  
20 good teacher, but he gets on some students all  
21 the time. Still, I like him. I like that  
22 kind of discipline. He helps us get it  
23 straight. I never had a teacher like that  
24 before. He works us to death. This school is



1 very different from the regular high school  
2 . . . I'm really a jazz musician. I like to  
3 think of myself as a professional now. If I  
4 had not been here, I would have been totally  
5 jazz. They forced me to the classical. I  
6 like that now. It feels good.

7 I want to be the best. This school is  
8 giving me the edge. Jazz and classical . . .  
9 two different languages, two different inter-  
10 pretations. I need to know them both. Mr.  
11 Densmore is helping me . . . And you know, I've  
12 also learned from Mr. Densmore how to treat  
13 people, how to act. Playing is just not  
14 enough to make it. You have to learn how to  
15 talk with everyone. There are techniques to  
16 learn here, too. You got to do more than  
17 what is expected of you. Look at Mr. Densmore.  
18 This school is more than anyone expects . . .  
19 You have to get sophistication, to learn how  
20 to deal with people to get what you want.  
21 You know, Mr. Densmore, he knows how to deal  
22 with people. I respect him for that. I know  
23 he stays busy. Every minute his phone is  
24 ringing. Man, he's movin'. I'm proud to be



1 here. You know, here there is something  
2 demanded of us, the whole faculty, Mr. Densmore,  
3 the other kids, they all believe we are going  
4 to succeed or, at least, come close. We are  
5 different. Yeah, I'm damn proud to be here.

6 And finally, from a 12 year old student  
7 reacting to a Saturday program especially designed  
8 for the academically gifted, we hear,

9 After a quick breakfast last Saturday, I  
10 took off with my mother in the family's station  
11 wagon and learned more in two hours than I had  
12 all week at school. Never was a learning  
13 experience so rewarding, yet so intense.

14 These comments, though few in number, are  
15 representative of the reactions students have to  
16 participation in substantive programs, public, private,  
17 in-school and out-of-school, for the gifted and  
18 talented. And when we listen closely to what students  
19 are saying, a natural agenda is given to our delibera-  
20 tions. The students appreciate their education because  
21 of several key factors:

22 High standards are demanded of them.  
23 Their thought is being disciplined. They are finally  
24 "getting it straight" according to one young student.

1                   It is perhaps significant to consider the  
2 words of T. S. Eliot here in the essay, Tradition and  
3 Individual Talent. "Tradition is a matter of much  
4 wider significance. It cannot be inherited, and, if  
5 you want it, you must obtain it by great labor.

6                   And yet, this discipline and hard work is  
7 comfortably associated for these students with  
8 humor and good will. Broken is the stereotype  
9 that the mind and its regulation is a lifeless,  
10 passionateless activity. They are surrounded  
11 by mentors who believe in them and without  
12 arrogance give them the confidence needed for  
13 success and self-discovery

14                   For the mentors, the communication of  
15 their subjects is a passion, an absolutely consuming  
16 passion. They usually are blissfully exhausted.  
17 They often are outrageous.

18                   In another context, Franklin Thomas,  
19 President of the Ford Foundation, provides a more  
20 personal description of the above two points.  
21 Speaking of his own upbringing in Bedford-Stuyvesant,  
22 he says:

23                   "I grew up in a family that just assumed  
24 that one, you were smart and capable; two,

1 that you were going to work hard and, three,  
2 the combination of these two meant that anything  
3 was possible."

4 A third comment. The "lock-step" of the  
5 kindergarten-college program is not applied to these  
6 students as they proceed according to their own  
7 aptitudes and rate of learning. Commonsense would  
8 tell us -- and we are very proud, of course, of common-  
9 sense in our American society; but commonsense would  
10 tell us that one of the few generalizations in  
11 education that is universally agreed upon is that  
12 people learn at different rates and possess differing  
13 attitudes. It seems strange, then, that education  
14 systems supposedly dedicated to providing the best  
15 education for all students are so structured that  
16 they block those differences.

17 There is often reference to American  
18 tradition in education, the tradition of the "lock-  
19 step". And, of course, as we know from a little  
20 research, American tradition in education is anything  
21 but the "lock-step". It is proceeding according to  
22 your own aptitudes and rate.

23 And, finally, there is a sense here,  
24 conveyed by the students, that there is a limitation

1 to the abilities and the perfectability of schools  
2 as institutions in providing for our students to  
3 include the gifted students. Now, this could be  
4 quite a provocative idea.

5 But it is a fundamental idea which I  
6 think, and I believe these students would also testify,  
7 must be considered.

8 The school cannot do it all. That does  
9 not diminish its role whatsoever. There are outside  
10 organizations, there are universities, there is a  
11 compelling need, again, in this case, to break the  
12 "lock-step" and to break the institutional myopia.

13 There is, of course, research which points  
14 to the need for more expanded elements in education.  
15 Personal witness is perhaps the most compelling. This  
16 student, for example, decided at a very early age  
17 that Greek, that Homer, should not be read at 8:00  
18 o'clock in the morning. She went to her mother and,  
19 with a little urging, she was situated at home to  
20 read Homer. She had an independent examination. She  
21 could indulge in her activities of having coffee, at  
22 an early age, at home, and having group study and,  
23 of course, through this program, was not in any way  
24 diminished in her intellectual growth.

1                   What these gifted and talented students  
2 are eloquently telling us about the virtues of their  
3 education must not remain applicable to them alone.  
4 To permit this to happen would be scandalous. High  
5 standards for each individual, significant and  
6 inspiring mentors, and the ability of each student to  
7 proceed according to his or her own aptitude and need  
8 represent critical factors in any child's education.  
9 In discussing today means for achieving excellence  
10 inherent in selected programs for the gifted and  
11 talented child, we must remember that we are also  
12 commenting upon the means to realize the aspirations  
13 of all our nation's youth. There is without doubt  
14 an overriding urgency to our deliberations. Thank  
15 you. (Applause.)

16                   Commissioner BAKER: Thank you, Dr. Durden.

17                   We now have this substantive base to  
18 proceed with further reports about how the education  
19 plans go for this population.

20                   And it is a privilege to introduce  
21 Professor Connie Steele, the Chairperson of the  
22 Department of Home and Family Life and Professor of  
23 Child Development at the College of Home Economics,  
24 Texas Tech University.

1           Professor CONNIE STEELE. Thank you. Up until  
2 now, you might think that young children were non-  
3 existent, and that clues to the identification of  
4 young children as gifted did not occur. That doesn't  
5 mean to say that those of us in the Department of  
6 Home and Family Life at Texas Tech think that the  
7 efforts that have been made at Johns Hopkins are not  
8 ones which we want our children to achieve. As a matter  
9 of fact, I will tell you at the close of my remarks,  
10 about an eight year old whose father has already called  
11 to see what were the possibilities for his entry.

12           Well, what I wanted to ask you about is,  
13 what do you see in the young child that would  
14 indicate to you that the results that are being shown  
15 at Johns Hopkins can occur? For example, what about  
16 the child who surprised his parents by showing ability  
17 to read substantially before the age of three? What  
18 about the two year old who can find her way from home  
19 to grocery store, which is two blocks away, and  
20 back again? And what about the four year old who  
21 can explain to you the life cycle and the growing  
22 cycle of short-fiber cotton? I live in Lubbock,  
23 Texas.

24           I am describing real children that act

1 in ways that are clues, if one is an astute observer  
2 of child behavior.

3 We are asking three questions at Texas  
4 Tech University in our Child Development Research  
5 Center. We are saying, first, why encourage at all  
6 recognition of these young children as having talent?

7 But, let's suppose I can justify that  
8 and suggest that it is warranted to look at children  
9 as having very specific talent; can we identify that  
10 young child so that we know that, later on, those  
11 efforts will not be lost, the statements that were  
12 made by our first panel, looking at the question of  
13 why do we spend dollars at the state and local level  
14 and then find out later that it has been of no value  
15 in that area?

16 And, finally, does a pre-school program  
17 aid in the development of a pre-school child's  
18 precocity?

19 The Texas Tech program is based upon on  
20 one fundamental premise, and that is that parents  
21 nurture the first indications of giftedness. And  
22 unless they let us know at other levels, that child may  
23 not be one of those that we specify as gifted because  
24 we won't observe, later on, their precocity.

1                   One of the things that I discuss quite  
2 often is the need for our having a research program  
3 there. You know, Home and Family Life is traditionally  
4 just normal development. So, if we talk about  
5 development that is out here in the Bell Curve,  
6 looking at the top one or two or fifteen or twenty  
7 per cent, whatever you look at, the question is,  
8 shouldn't we organize ourselves just for normal  
9 development.

10                   But I feel very strongly that the  
11 reaction that we have made to parents who called,  
12 desperate, has meant something to the lives, not only  
13 of those children, but in our public schools, who  
14 began as our parent-affiliates and went to our public  
15 schools to say, "We must have programs beyond the  
16 present level of the Research Center and our kinder-  
17 garten through twelve children," and it has happened.  
18 I think what happens to young children who are gifted  
19 and their teachers attend to them, happens to other  
20 children who are in the vicinity of their program.

21                   The telephone calls that I mentioned from  
22 parents are not those that are prideful. There is a  
23 certain amount of pride in saying, "My child can do  
24 this, can go to the grocery store, or is reading



1 before three," but that is not usually the clue to  
2 the giftedness of that young child. In fact, if a  
3 parent is boastful or brags about it, I question  
4 whether or not they really understand what a gifted  
5 child, in my view, is.

6 I want to share with you for just a  
7 moment my own experience, because I think it will  
8 tell you why I am in the research and study of gifted  
9 children.

10 I had my child -- in fact, I lived in  
11 Woburn, Massachusetts, and it is great to get back  
12 to the area at this time.

13 My child was two and a half, and she was  
14 drying dishes at the sink, and she said, "Oh, Mom, I  
15 want to show you something." She brought me a  
16 Reader's Digest and said, "Look at what it says on the  
17 front of the Reader's Digest."

18 And I said, "Sherry, did you dad read you  
19 that?"

20 "Oh, no, Mom; that is what it says."

21 And I became afraid, and I had every  
22 reason to do so.

23 Later, I lived in a state in the Midwest  
24 where, at kindergarten, my child went to the area,

1 excited by the first day at school. The teacher said  
2 to the younger children gathered around the table for  
3 reading, "What book shall we read?"

4 And Sherry quickly said, "Well, let's read  
5 the one that says 'The Fish That Got Away'."

6 And the teacher said, "Oh, Sherry, you  
7 have that book at home. How wonderful."

8 And she said, "No; that is what it says."

9 The teacher said, "Oh, I see, Sherry.  
10 Why don't you read it to us?"

11 And she did.

12 And I got a call, an hour and a half  
13 after my daughter had matriculated in kindergarten  
14 to say, "Mrs. Steele, you need to come to pick up  
15 Sherry. I will not have her in my class."

16 We need to think in terms, when dealing  
17 with our gifted children, of what their needs are.  
18 So, on the first day of school, my child was already  
19 thrown out.

20 Parents are asking very strongly, "What  
21 will happen when my child enters school to prevent  
22 encounters of this kind? Will the school be able to  
23 handle this reading on the fourth-grade level, dealing  
24 with alternative answers to questions, being insatiably

1 curious?" And then, on the other hand, the parents  
2 ask, "What if I don't continue to provide my child  
3 with this help? Will my child become a dropout," as  
4 Phil Donahue so poignantly interviewed gifted parents  
5 whose children committed suicide in their teens.

6 These are not questions that are being  
7 asked by Junior High or Senior High parents. These  
8 are questions being asked by parents of two-year-olds,  
9 and three-year-olds.

10 Jacob Getzels of the University of Chicago  
11 made the comment, "The things that happen to a kid  
12 after he learns a language, say between three and six,  
13 are much more important than what may happen to him  
14 in any other three years of his life."

15 And Paul Torrance, looking at creativity  
16 among Japanese children he tested, said, "I had been  
17 almost totally unprepared for what I saw in the 15  
18 pre-schools that I visited in Japan. The physical  
19 skills, musical performance, art products, dramatic  
20 enactments, and skills of group cooperation were  
21 beyond anything I had seen before and beyond what I  
22 thought was developmentally possible."

23 What happens in these pre-school years  
24 demands our focus. Can children continue within the

1 public schools the kinds of behavior that they are  
2 ready and do exemplify in the early years?

3 A number of studies have shown, and it  
4 has been reported to the Commission, that gifted  
5 children, on the average, do not succeed within the  
6 present academic system on their own. They have to  
7 have help, and they deserve it.

8 Now, what kind of help can we give these  
9 pre-school parents?

10 First and foremost of all, the influence  
11 of the family and the home environment is, without a  
12 doubt, the single most important quality in the  
13 young child's life, and Dr. Durden alluded to that  
14 as well, even for his precocious late adolescent  
15 students. Therefore, the parent's education early.  
16 I said to Pete Gerber that I thought probably not  
17 until you begin preconception and, if not then, in  
18 utero, and he said that he thought that was a bit far  
19 out, and I almost promised not to mention it, but I  
20 thought I would.

21 Special problems attempting to deal with  
22 the young child and identify that young child, at  
23 Texas Tech, but, also, at the University of Washington  
24 in Seattle, the late Halbert Robinson, Wendy Roedell,

1 and Nancy Jackson, are attempting to develop special  
2 identification measures.

3 The Roeper School in Bloomfield Hills,  
4 the Retrieval and Acceleration School under Dr. Merle  
5 Karnes at the University of Illinois, the Astor  
6 Program in New York, and others, are attempting to  
7 identify very early what happens.

8 Now, what are we using to identify these  
9 youngsters? We are using IQ scores. We are also  
10 using observation skills by parents the keeping of an  
11 inventory. By the way, baby books. Dr. Betty Wagner,  
12 who is in infant development at Texas Tech, and I did  
13 a study on thirty families in the Lubbock community,  
14 ten Anglo, ten Black and Chicano, and we found that  
15 the best predictor of parent excellence, including  
16 environment in the home, was the baby book.

17 Anecdotal records by nursery teachers  
18 being able to tell what is happening that is unusual  
19 in the child's behavior.

20 Yesterday, just before I left, I  
21 substituted in a class, Courtship and Marriage.  
22 Somebody asked whether I was on time, and I said, "No,  
23 late."

24 And we had a child in front of the class.

1 and we demonstrated, by question and answer from the  
2 child's point of view, and of course the child from  
3 the gifted program answered very unusual answers. And  
4 some of the students said, "That isn't what I expected  
5 that child to say."

6 And I said, "Yes, I know."

7 Humorous events, parents remembering  
8 things where they indicate that what happened was odd  
9 or, as they tell about it, "funny".

10 Checklist methods -- what do we usually  
11 expect of the child and what is the child doing.  
12 Developmental milestones are noted according to age  
13 levels to determine where the responses and behaviors  
14 are being demonstrated.

15 There are six measures that are used to  
16 bring children finally into our program. Three are  
17 measures of the child -- the Stanford-Binet, the  
18 KRISP, the Kansas Reflection-Impulsivity Scale for  
19 pre-schoolers, and the pre-school Embedded Figures  
20 Test, because we think this tells something more about  
21 the child's mental structure than just the Stanford-  
22 Binet.

23 Two parent measures, one from Charlotte  
24 Malone, who worked with young children at the Rhodes

1 School and, before that, at La Jolla, a behavioral  
2 identifying characteristics, and a checklist from  
3 Laurie McCann at Arizona State, and, finally, a  
4 rating behavior that Dr. Joseph Renzulli very  
5 generously allowed us to adapt for working with  
6 parents from two to five.

7 The results of our bringing these children  
8 into our program, I just wanted to mention to you,  
9 come in looking at the parent who called to find  
10 out, can his child get into Johns Hopkins later?  
11 When we first brought him into the program, his  
12 IQ was -- and I will say "only," for it is really  
13 not gifted -- 128. He was reading from a fourth  
14 grade level book when I examined him and, at the  
15 present time he has been, through our public school  
16 system and strenuous effort on the part of his  
17 parents, matriculated, this fall, in the fifth grade.

18 He is now working at the science level at  
19 12.6 and his lowest scor is at 7.4 in language. He  
20 is eight years old and no, you are right; the IQ  
21 did not register this extreme skill. His social  
22 abilities were very poor when he first came to our  
23 program. Right now, the fifth graders accept him as  
24 one of them. He is a good performer. When I talked

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1 did not register this extreme skill. His social  
2 abilities were very poor when he first came to our  
3 program. Right now, the fifth graders accept him as  
4 one of them. He is a good performer. When I talked



1 level. We pay attention to the coordination of  
2 families, schools, and teachers, that we provide  
3 catalytic funds at the early levels and role models  
4 that can be carried out by both our parents and our  
5 teachers. Thank you. (Applause.)

6 Commissioner BAKER. Thank you, Professor  
7 Steele, for this stirring account of the gifted and  
8 talented.

9 And moving further in this context, we  
10 welcome now a discussion by Dr. Isa Zimmerman,  
11 Assistant Superintendent for Instruction of the  
12 Lexington Public Schools.

13 Dr. ISA ZIMMERMAN. This is a story about a  
14 rather small high school amid hundreds of thousands,  
15 a dot out of the universe, but a comprehensive dot.  
16 Comprehensive high schools, by definition, have been  
17 designed to be all things to all people. They look  
18 the same; they don't always succeed. But, by being  
19 all things to all people, it also means that we can  
20 provide education for the gifted and talented.

21 When we think about high school programs  
22 for those children, those youngsters, we think  
23 principally of two kinds of giftedness -- talent in  
24 a performing area, music, art, drama, athletics,

1 practical arts, writing, and speaking -- and giftedness  
2 in intellectual terms, academic kind of talent, the  
3 heavy brain power.

4 For many years, in both small and large  
5 high schools, it has been possible to provide outlets  
6 for students talented in the first area. Communities  
7 appreciate, to a greater or lesser degree, depending  
8 upon their nature, student performance.

9 The ideal kind of gifted and talented  
10 program has, in the minds of many people, the following  
11 characteristics. Children are grouped by ability.  
12 Part of the school day is given over to special  
13 instruction. Talented students are allowed time to  
14 share their talents with students at other schools  
15 in the area and even throughout the state or the  
16 nation. Young people should be advanced according  
17 to their talents, rather than their age. And,  
18 finally, these young people should have special  
19 teachers, uniquely trained and highly paid.

20 Now, if this all sounds familiar to you,  
21 it is because it defines the athletic programs in  
22 most high schools, and perhaps, also, the drama, the  
23 music. In my particular high school, it applies also  
24 to the Art Club and the Physics Club and the Math Team.

1           Even if the school is too small, which I  
2 find one of the major concerns in providing for the  
3 gifted and talented, to offer some of the activities  
4 I have just mentioned, the model for extra-curricular  
5 programs, athletic and otherwise, is available and  
6 known. Anyone making a suggestion to start up such  
7 a program at any school in the country does not have  
8 to educate the community about feasibility, only about  
9 validity for that particular school district. It is  
10 in the area of superior mental ability that you run  
11 into trouble, not the area of superior motor ability.  
12 In the latter, we find ethical, educational and  
13 psychological difficulties in offering the program  
14 that I described above.

15           Still, if any school environment deals  
16 with it differently, it seems to me that the compre-  
17 hensive public high school, to show my prejudice, can  
18 do it best, precisely because of its mission.

19           The constraints found in many elementary  
20 gifted and talented programs, which has classes that  
21 are self-contained and, therefore, those programs  
22 must be pull-out programs that play havoc with  
23 teachers' patience and their accountability, are not  
24 a problem at the secondary level. Students select

1 their own courses, and levels, and as long as the  
2 school does provide an appropriate high and challenging  
3 level for gifted and talented students, they are not  
4 required to miss any instruction, nor to annoy the  
5 institution by their special demands.

6 At Hamilton-Wenham, which is the school  
7 that I have just come from, we have honors level  
8 courses which we describe in the course catalog as,  
9 "An accelerated program which may favorably prepare  
10 a student for admission to some schools listed in  
11 Baron's Profile of American Colleges as most competi-  
12 tive or highly-competitive. The program in some  
13 disciplines may enable a student to apply for advanced  
14 placement in college."

15 In Lexington, where I am now working, we  
16 have what we call AP courses for these very same  
17 students.

18 With such an arrangement, the issue of  
19 identification becomes less of a problem. One doesn't  
20 have to, or one can, if one wants, use an IQ score as  
21 a measure to determine whether a student can be in  
22 such courses, but, more often than not, students and  
23 parents are aware of the demanding nature of the  
24 high-level courses and students select themselves

1 into these courses. When parents insist on over-  
2 riding the school or teacher recommendation, it has  
3 been the policy of all the schools with which I have  
4 been connected to allow the override, since we all  
5 know quite well that the student will find his or her  
6 own level in the course.

7 It is also important to note that, in  
8 honor schools like Hamilton-Wenham and Lexington, we  
9 do not track, and I believe that that is a State Law  
10 in Massachusetts. So it means that a highly-talented  
11 student in mathematics does not have to perform at  
12 the same level or even in the same class in a foreign  
13 language; so that he or she may take French at a  
14 lower level, or vice versa.

15 Again in this situation, a small school  
16 may be more constrained than a larger school by the  
17 nature of its schedule, but the theory is there. A  
18 student need not be tracked by either his or her  
19 lowest or highest subject abilities. Students select  
20 themselves or parents select them on the basis of  
21 past performance and teacher recommendations. Those  
22 are the two primary forms that we use.

23 Two populations that we were particularly  
24 interested in at Hamilton-Wenham were the learning

1 disabled gifted, and what we did with them was that we  
2 always placed them in the highest level possible and  
3 then provided them with appropriate back-up in the  
4 resource room. And then, we were also interested in  
5 the unmotivated gifted, and what we gave them, in  
6 addition to their courses, was a lot of counseling  
7 we felt was badly needed.

8 Because, at Hamilton-Wenham, the community  
9 did not want to specifically commit itself to supporting  
10 a gifted and talented program, -- and this I have  
11 found to be the major obstacle to our success with  
12 such a program -- we never categorized any of our  
13 special opportunities as anything but that. We,  
14 ourselves, knew that we were offering advanced and  
15 challenging material in our honors courses, but we  
16 did not want to wave a red flag by calling them  
17 "gifted and talented". Even calling them honors  
18 courses occasionally initiated some battles.

19 Because of this school of interest in  
20 gifted and talented programs, we had a task force of  
21 teachers and administrators which examined the issue,  
22 and even did a small study to see how well we might  
23 or were identifying in serving students in the gifted  
24 and talented range.

1                   The school psychologists and counselors  
2 administered the individual intelligence tests to  
3 17 juniors and sophomores in a sample of 23 who were  
4 invited to participate. The range was the typical  
5 range between 133 and 152 IQ, with a mean of around  
6 142. Among these students were some who were high in  
7 rank in class, but not high on group IQ tests or  
8 aptitude tests, and vice versa. Several additional  
9 tests were given in order to discriminate among these  
10 competent students for learning and thinking styles,  
11 creativity, and reasoning. What we learned, we felt,  
12 is that there are enough measures, if a person will  
13 always use multiple measures, extant to determine on  
14 an individual basis what kind of unique programs could  
15 be devised for students in a high school who are in  
16 the gifted and talented range, if one wanted to tailor  
17 programs specifically for these youngsters.

18                   Several other opportunities that are  
19 already available in comprehensive high schools that  
20 I would like to mention are things like directed study  
21 or independent study, mentoring with an individual  
22 teacher. We have several teachers who are able to  
23 provide such mentoring in physics, in writing, in  
24 history and art, and in music, and then, most recently,

1 in the last year, in computers. These are strong  
2 teachers, very knowledgeable, immersed in their  
3 subjects, who encourage youngsters to spend all of  
4 their free time with them during and after school  
5 and, sometimes, even on weekends -- "inspirational,"  
6 in the words of Dr. Kinsbourne.

7 As with students, it is important to allow  
8 teachers choice. There is nothing worse than a  
9 teacher, especially at the high school level, who is  
10 afraid of bright students, or who feels that he or  
11 she is teaching beyond his capabilities. At a  
12 comprehensive high school, the probability is that  
13 there will be a small, at least, group of talented  
14 staff who will be eager to work with honors level  
15 youngsters. Many of these teachers develop special  
16 materials -- in our case, in critical thinking,  
17 special projects in science and social studies. They  
18 encourage students to write, we allow them to be  
19 published, and we took them to conferences and to  
20 meetings of professionals in their field.

21 A group of our teachers wrote a Common-  
22 wealth in-service grant to get some training so that  
23 they could learn more strategies to enhance their  
24 teaching of gifted and talented students, and found,



1 as have teachers who have been working with 766  
2 youngsters, that the techniques were applicable  
3 across-the-board for all students.

4 Our school district allowed the high  
5 school principal to join forces with other schools in  
6 the geographic area to organize a conference on the  
7 gifted and talented as a way of underlining the  
8 importance of the issue, even though they did not  
9 allow us to make it a goal for the school district,  
10 and allowed a large number of teachers to attend and  
11 encouraged parents to attend as well.

12 After that dramatic start-up, teachers  
13 have been allowed and sponsored in their attendance  
14 at other conferences in taking courses based on their  
15 interest in gifted and talented education. Programs  
16 for professional development of staff are, of course,  
17 essential on all levels of education, but certainly  
18 for gifted and talented teachers.

19 Publicity about that conference, our  
20 constant discussion and communication with parents  
21 about their own children, and our writing about any  
22 special programs that we ran in our newsletter  
23 constituted our community relations program. Our  
24 relations with parents were good enough that, when

1 our physics teacher, working with the Chairman of  
2 the Physics Department at Boston University, set up  
3 a special summer program for juniors from all over the  
4 United States, to enable these juniors who had already  
5 taken physics to have an opportunity to work with  
6 research scientists in the Boston area, -- they called  
7 this the Research Internship Program and it was funded,  
8 in the beginning, by NSF and, later on, most recently,  
9 by Boston University -- parents in the Hamilton-Wenham  
10 area were more than willing to come forward and act  
11 as hosts and chaperones.

12 This program grew out of a desire on the  
13 part of the Hamilton-Wenham establishment to provide  
14 for special high school talent, but there are many  
15 other such programs all over the country.

16 Other alternatives allowed included  
17 permitting gifted and talented students to take  
18 courses at the college level, -- we are lucky to have  
19 Gordon College nearby, which makes it very easy; they  
20 are a very good neighbor -- or to accept specialized  
21 instruction, such as music lessons, during regular  
22 school time. And, if one is lucky enough to get an  
23 artist in residence, you are still further ahead; we  
24 were lucky enough to do that.

1 Many schools also allow seniors who have  
2 demonstrated above-average ability to do an intern-  
3 ship in the last segment of their school year. We  
4 have had an internship for the senior class, since  
5 1976, and we have allowed students to go on to early  
6 graduation for full-time college attendance.

7 One element of the gifted and talented  
8 education which is often overlooked, something which  
9 is needed, again, in the high school setting, is  
10 counseling. Many people feel that gifted and talented  
11 children can take care of themselves. Many can. But,  
12 for those who have felt separate and different for  
13 too long, counseling is essential.

14 Career counseling is also important for  
15 them because, without it, many of these students  
16 would have selected a traditional future.

17 A few of these students participating in  
18 this course of study thought in terms of multiple  
19 sequential careers. The girls in this course of  
20 study said that they were indeed going to work in a  
21 profession, but for only a short period of time;  
22 they would become homemakers after that, albeit  
23 admirably educated homemakers.

24 One last interesting result of our school

1 study, we indicated on the transcript of our 17  
2 students that they had been identified and participated  
3 in the study. My Guidance Department told me after-  
4 wards that the Admission Offices of the colleges to  
5 which they had applied let it be know that they had  
6 been influenced by this fact.

7 I have tried, in this brief overview of  
8 my experience in my schools, comprehensive public  
9 high schools, to touch upon, student identification,  
10 teacher preparation, programs, community relations,  
11 outside resources, and support services. We as a  
12 society provide so much for our handicapped youngsters.  
13 Most teachers are trained to provide appropriate  
14 services for the middle-range student. We should at  
15 least provide appropriate education for our truly  
16 gifted and talented, since they are the ones who will  
17 lead us in the future. We cannot afford unruly,  
18 undisciplined, under-challenged, inhumane leaders.  
19 Thank you. (Applause.)

20 Commissioner BAKER. Thank you, Dr. Zimmerman,  
21 for leading us eloquently into further understanding  
22 of what happens to the gifted and talented in the  
23 present educational practice. So, we have seen, now,  
24 the primary school, the secondary school examples, and

1 we move to have the report of Professor Alexinia  
2 Baldwin, Professor of Curriculum and Instruction,  
3 the Department of Program Development and Evaluation  
4 of the School of Education at SUNY, Albany. Dr.  
5 Baldwin.

6 Dr. ALEXINIA BALDWIN. Thank you, Commissioner  
7 Baker. I come as the last person on this particular  
8 panel, following the august body of the first panel,  
9 agreeing with everything that they have said because,  
10 first, we have worked together on many occasions and  
11 have sorted out many of the concepts that were  
12 discussed, but I think that I would be less than true  
13 to myself, if I didn't bring to this Commission  
14 another point of view about another population, and I  
15 would like to provoke some thought into that particular  
16 area.

17 I have selected today a title that might  
18 be provocative in its conception, and I hope it is,  
19 "The Gifted Minority Within a Minority," and I would  
20 like to ask this question:

21 Is there need for affirmative action in  
22 the area of education of the gifted?

23 This is a provocative question, as I have  
24 said; but, in a country which boasts of great natural

1 natural resources, semantic interpretations of the  
2 use of "equal" and "same" in our Constitution has  
3 often caused its greatest natural resource to go  
4 unheeded and underdeveloped. This natural resource  
5 lies in the exceptional potential of its gifted  
6 citizens.

7 And I must say here that one of the  
8 reasons I joined Dr. Joseph Renzulli's first class  
9 was because I had the occasion to teach a group of  
10 children who were not considered for the regular  
11 program for the gifted, and I was convinced that my  
12 conceptions of their abilities were accurate.

13 The most recent census data that was  
14 available to me before I came to this meeting was on  
15 children from ages 5 to 14. The data indicated that  
16 the non-white population of the U.S.A. is approximately  
17 8.5 million or 28 per cent of the population. Using  
18 this as a point of reference we must ask the question  
19 nationwide, "Do our programs for the gifted reflect  
20 this proportion of the population in this age category?"  
21 This question must also be asked in local communities.  
22 Do the programs for the gifted reflect equivalent  
23 community percentages and ethnic groupings?

24 A large segment of this exceptional-potential

1 pool can be found among persons of socially disadvan-  
2 tagged backgrounds and/or minority ethnic groups.

3 Hence, the loss to our nation will be even greater if  
4 we neglect to identify and program adequately for the  
5 emergence and/or the enhancement of this population.

6 Of course, we are concerned about  
7 legislative regulations as well as funding, and I  
8 think that Dr. Gallagher has emphasized the importance  
9 of having some Federal funds, so I won't go into  
10 those details at this point. But there has been an  
11 amazing lack of empirical research on the processes  
12 involved in locating and providing for the gifted  
13 child from disadvantaging circumstances. This is  
14 understandable in light of the paucity of empirical  
15 research in the area of education of the gifted in  
16 general, so you can see that, in this area that I am  
17 emphasizing, we need even more research. In order  
18 to set the wheels in motion to address this problem,  
19 there are many concerns to be considered. The main  
20 concern which affects subsequent operational  
21 activities such as research, such as identification  
22 and programming of our children in this group, is  
23 ATTITUDE.

24 Attitude is important in that it

1 establishes a philosophy or mind-set for approaching  
2 the problem. A start toward this goal would be the  
3 acceptance of the assumption that giftedness exists  
4 in all human groupings and that this giftedness does  
5 not manifest itself in a manner which can be genetically  
6 ascribed to that grouping. Culture and environment  
7 do, however, play important parts in developing a  
8 penchant for certain activities and skills, but  
9 specific groups of behaviors cannot become a  
10 generalization which describes the innate capacities  
11 of this particular group. To do so would be erroneous  
12 in that the experiential groups within the black  
13 ethnic social structure, for example, are quite  
14 diverse and the physical and mental structures are  
15 just as varied. This is evidenced in the fact that,  
16 throughout the history of minorities in America, the  
17 exceptional accomplishments of scientists, historians,  
18 businessmen and women, and educators have been  
19 chronicled, and bear witness to the array of potential  
20 which exists in these populations.

21 Now, other attitudes that are endemic to  
22 the area of education of the gifted create an even  
23 greater problem for those persons who are from  
24 culturally different backgrounds and are economically



1 deprived. Statements such as, if he is gifted, then  
2 he or she really needs little help and, regardless of  
3 the circumstances in life, true giftedness will  
4 emerge. To be sure, many persons from low socio-  
5 economic backgrounds have contributed many creative  
6 ideas which we as a nation and world have taken for  
7 granted. Can we afford to overlook those potentially  
8 gifted children who might have been considered  
9 impudent and unacceptable for inclusion in programs  
10 for the gifted? Marva Collins of Chicago did not  
11 consider her program one for the gifted, but she has  
12 shown that a positive self-concept and high expectations  
13 can be a winning combination among children who suffer  
14 the problems of cultural diversity.

15 Many ideas were given to the world by  
16 men and women who would have been unable to pass the  
17 standardized IQ tests and these few represent the  
18 small per cent that used their gifts constructively.  
19 There are many others who used their abilities in  
20 rebelliousness, in destructive behaviors, or just  
21 simply dropped out.

22 A study by Douglas in 1970 should give  
23 us pause for thought in the 1980s. Douglas reported  
24 that, of the projected 7.5 million dropouts at that

1 time, approximately 10 per cent or roughly 750,000  
2 would have an IQ score within the top 25 per cent of  
3 the population. Given that such a large percentage  
4 of our dropout population is classified as minority,  
5 the potential waste of abilities is staggering.

6 I could go on with many more things, but  
7 for fear that the timer will sound on me, I will  
8 address some propositions that I have, and those that  
9 know me know that I could talk on and on about this  
10 area.

11 First, we have already established the  
12 fact that IQ tests really don't do what they are  
13 purported to do, and this is especially true with  
14 children in the population that I am discussing.

15 We know that there have been studies by  
16 the infamous or famous Jensen and others, and these  
17 studies have served as a catalyst for certain mind-  
18 sets regarding the innate abilities of various ethnic  
19 groups. However, Stephen Jay Gould's Mismeasure of  
20 Man, the September 1979 issue of Psychology Today,  
21 the Harvard Education Review's presentation of the  
22 arguments pro and con on the Jensen papers are  
23 typical publications that are serving the purpose of  
24 exposing the fatal flaws in our thoughts on the

1 sanctity of the IQ test.

2 I would like to offer two propositions  
3 regarding identification of the gifted minority  
4 within a minority.

5 Proposition 1, and a prologue for that  
6 proposition, identification of gifted children has  
7 been difficult due to a lack, in large measure, of  
8 adequate attention to non-academic or performance  
9 indices of giftedness. Biographies of undisputedly  
10 gifted minorities, extensive literature reviews and  
11 experiential data have led to the assumption that  
12 observation or knowledge of the above-average quality  
13 of certain behaviors can lead to a more accurate  
14 identification of gifted children from disadvantaging  
15 backgrounds.

16 More specifically, I propose that:

- 17 1. observable behaviors are indicators  
18 of the type and quality of the mental processes an  
19 individual possesses;
- 20 2. that recognition of these behaviors  
21 can be taught.

22 While further longitudinal data is being  
23 collected to verify this proposition, an article  
24 titled, "Test Can Under-Predict: A Case Study (Phi

1 Delta Kappa, November, 1979) indicates that this  
2 process has great merit. A performance assessment  
3 scale which is presently being developed holds  
4 promise for assisting the identification process.

5 Proposition 2. Identification techniques  
6 for selecting gifted children for placement into  
7 programs have moved from the use of single identifica-  
8 tion instruments to the use of multiple identification  
9 instruments. Nevertheless, too often, the purpose  
10 of the identification techniques has remained the  
11 same. The assumptions have been that exceptional  
12 ability in any area of human endeavor provides a  
13 clue to the possible existence of underdeveloped  
14 ability in other areas of endeavor and that giftedness  
15 can be exhibited in many ways, each having the same  
16 status in rank of importance.

17 Several multi-dimensional techniques are  
18 being used throughout the school districts of this  
19 country and, of course, my paper gives you some  
20 information on some of those instruments, and I won't  
21 list them at this particular time, but a current  
22 research project designed to clarify areas which best  
23 identify children of the inner city is being conducted  
24 in New York City, and that information I had hoped

1 would be available before I came to this meeting; it  
2 will be available soon.

3 Now, going on to programming, which was  
4 really what I was supposed to do, I will give two or  
5 three propositions quickly.

6 The emphasis should be on the high-  
7 quality of curriculum design and instructional  
8 strategies, and I must emphasize here that we don't  
9 mean that we have a special piece of curriculum  
10 material that we would bring to the children from the  
11 disadvantaged areas. The same curriculum, but  
12 different teaching strategies, should be used, where  
13 we would emphasize the strengths and work on  
14 developing the weaknesses of that area.

15 So I propose that a classic premise in  
16 education, that we take a child where he is and help  
17 him to go as far as he is capable of going, is  
18 relevant for your recommendations for planning. The  
19 lock-step approach to this development, of course,  
20 cannot be used.

21 Proposition 2 would be that we make a  
22 learning environment one that would take care of the  
23 needs of the child so far as the open-ended activities,  
24 and the teacher who has had some kind of training that

1 would get them prepared for teaching these children.

2 No. 3 is that there be mentors that would  
3 be selected to work with these children, as has been  
4 mentioned before.

5 And last, but not least, I propose that  
6 serious consideration should be given to programming  
7 which starts as early as kindergarten and includes  
8 the family and community. A cooperative family  
9 community plan which not only allows for an emergence  
10 of talent, but also provides a stimulating environ-  
11 ment for those who don't possess outstanding talents  
12 would be highly acceptable in a community.

13 Let me close with just this quote, and I  
14 want to qualify my statement by saying, we will not  
15 find all programs or all plans or all children who  
16 come able to make high scores on the IQ tests. We  
17 will find many children who are involved in the  
18 programs, but there are so many that are left out.  
19 And I would like to end by saying:

20 "It is important to note that there is  
21 no magical formula that will fit all children  
22 of this grouping. The secret lies in the  
23 awareness of causal factors, the perception of  
24 behaviors, indicative of giftedness, and

1 systematic planning that capitalizes on the  
2 strengths while, at the same time, plans for  
3 vertical progression for weaknesses. This  
4 planning does not revolve around remedial work  
5 for deficits, but around supplying environ-  
6 mental stimulation that will unlock the poten-  
7 tial ability of the child. The content vehicle  
8 for unlocking this potential should wisely  
9 reflect the traditions and familiarity of the  
10 culture and environment. A caveat at this  
11 point would be that inclusion of familiar  
12 reference points in content does not mean the  
13 exclusion of unfamiliar reference points  
14 because herein lies the danger of closing or  
15 limiting the trajectories for growth."

16 Thank you very much. (Applause.)

17 If I may add, on your paper that I have  
18 given you would be a chart which lists the possible  
19 causal factors and procedures for assisting in that  
20 area. Thank you.

21 Commissioner BAKER. Thank you, Professor  
22 Baldwin, for these very creative proposals.

23 We now ask whether there are comments  
24 or queries from the Commission. Commissioner Foster.

1           Commissioner FOSTER. I have a question for  
2 Dr. Durden. This is not a long question, provided  
3 that you have the answer in your paper that you are  
4 submitting to us, which we have not seen yet. Could  
5 you tell us how you select the students to go to your  
6 summer school in Pennsylvania for Johns Hopkins for  
7 the gifted and talented.

8           Dr. DURDEN. All right. Again, I did not want  
9 to go into any great detail about any one specific  
10 program, but it is not in the paper. And it is not  
11 just a program in Carlisle, Pennsylvania; there are a  
12 number of sites.

13           It is a two-step screening device. Again,  
14 I will say this. The program at Hopkins, which is  
15 not an early entrance college program, but it is  
16 restricted; there is very much a sense of limitation  
17 about what we can do and those types of students we  
18 are trying to help. It is specific academic talent,  
19 verbal, mathematic, and reasoning ability.

20           The first screening device, for seventh  
21 graders, would be in-grade achievement tests --  
22 California's, Iowa's; 97 percentile or above,  
23 mathematical reasoning ability, verbal, or composite  
24 scores.



1           The second element, and this is somewhat  
2 controversial an issue. The second element is the  
3 SAT examination, all parts, in seventh grade.

4           Commissioner FOSTER. It is competitive, then,  
5 for entry?

6           Dr. DURDEN. It is competitive. One aspect  
7 of our program -- and now, it is quite diverse, quite  
8 large; but, for entrance into the programs which we  
9 ourselves run, yes, there are cut-off scores, but we  
10 try to encourage other programs with varying cut-off  
11 scores and varying requirements.

12           Commissioner FOSTER. I have one more, if I  
13 may. Professor Steele, I think you stimulated a  
14 little curiosity. Would you tell us a little more  
15 about your daughter, where she is today?

16           Professor STEELE. I don't know whether I  
17 wanted you to ask or not; even that is a little  
18 frightening. My daughter, now, is living in Barrow,  
19 Alaska, has been there since she was employed by  
20 VISTA after graduating with honors from Middlebury  
21 College in German literature. She gave her address  
22 to the University of Mainz in German, insisted that  
23 she not do it in English.

24           She got her address to the University of

1 Mainz by traveling up and down the Rhine River and  
2 collecting the myths about Barbaroza from the priests  
3 in Germany.

4 After graduation from college, she said,  
5 "What do I do with German?"

6 We said, "We don't know."

7 And she then went to VISTA and worked with  
8 the Mayor of the North Slope around Barrow, Alaska,  
9 and found that the United States Government was not  
10 honoring any of the requests that she sent in for  
11 protection of the Nupia Tribe from invasion by  
12 businessmen and the U.S. Government of Prudeau Bay.

13 Then she went to work at \$25,000 for the  
14 Mayor, when he found out that she was so much on their  
15 side, fell in love with Abel Oc Pic of the Nupia  
16 Tribe, an Eskimo of the Nupia Tribe, married him,  
17 two and a half years ago, now teaches after she  
18 commuted to Fairbanks to receive her Master's Degree  
19 in Secondary Education.

20 Future, I don't know. She is thirty years  
21 old. She skipped the first course in calculus,  
22 saying that it was of no value to her, and speaks  
23 five languages.

24 Commissioner FOSTER. Thank you very much. Is

1 that in your paper?

2 Professor STEELE. No, sir.

3 Commissioner FOSTER. Thank you.

4 Commissioner HOLTON. Well, what we have heard,  
5 or much of what we have heard makes one feel confident  
6 that large groups of gifted children will be discovered  
7 and might make a good career in this great country.  
8 But I feel very uneasy, particularly about the  
9 challenge brought to us in the last presentation,  
10 the relatively less easily identifiable gifted, which  
11 this nation may need just as much as all those whom  
12 doting parents will be able to further, if there is a  
13 need.

14 There are, it seems to me, two barriers  
15 to reaching to that part of the pool of potentially  
16 gifted. One is the obvious discrimination, an-  
17 other societal barrier external to the family and  
18 home, and the other, which I want the panel to tell  
19 me something about, is clearly within the family and  
20 home.

21 And that came to me in a rather striking  
22 way when I tried to run a national program for physics  
23 in the schools, many years ago, triggered by the NSF,  
24 and I wanted to see who were our tryout students, and

1 there were some 20,000; I wanted to keep my eye on  
2 the most gifted.

3 And they were only identified by numbers.  
4 And one of the very top persons, during the year, did  
5 very well, of course, but suddenly came down toward  
6 the bottom. And I wanted very badly to find out what  
7 went wrong, and I discovered that this child, in an  
8 unusually deprived home, simply was told by the parent,  
9 by the father, that he had better not show up the old  
10 man and get back to sense, not have academic aspira-  
11 tions, but make a living the regular way.

12 I say this, and I don't want to be  
13 misunderstood, because it is true in the history of  
14 science that we find cases like this. Fermi, Enrico  
15 Fermi was saved from becoming an employee in the  
16 railway system of Italy, which his father was and  
17 was very comfortable with, by an office mate of his  
18 father who discovered the genius in this child and  
19 fed him mathematics books. The external ladder was  
20 very important in the case of many of these scientists  
21 that I know; outside the family, in other words,  
22 whether deprived or not, as we would traditionally  
23 say.

24 So here is, then, my problem, what to do?

1           What to do, if we take seriously this challenge and  
2           look for the very talented that this nation so badly  
3           needs, when the barriers are not only outside, but  
4           even, also, within the family situation? What does  
5           one do?

6                         We cannot kidnap them and then take them  
7           to Texas, and then on to Lexington, and then on to  
8           Johns Hopkins.

9                         Dr. BURDEN. No, no; Harvard is fine.

10                        Commissioner HOLTON. Therefore, what I would  
11           really say is that what we need is very specific and  
12           challenging projects to be proposed to us, within  
13           the next month, during which the record is open,  
14           going beyond anything I have yet read. Would you care  
15           to comment on my unease?

16                        Dr. BALDWIN. Well, I tried to propose that  
17           the family be included in planning for the future,  
18           and I think you will find so many different feelings  
19           about culture. In fact, I just talked with Mary  
20           Hunter Wolfe, and she was sharing with me some things  
21           that she had found, that people really thought that  
22           being gifted was something that you did within the  
23           family, not necessarily outside as we have been  
24           defining it here.

1                   So I think it is important for us to  
2 include the family in the planning, and perhaps there  
3 might be -- we are in the prehistoric era, in a sense  
4 of seeing just what we should be doing, but perhaps  
5 we should explore ideas where families as well as  
6 children are included in whatever planning we do for  
7 them.

8                   Dr. ZIMMERMAN. May I add a comment as well?  
9 I see this also as a function for the school. What  
10 I have found, working with the people that I have  
11 had an opportunity to work with is that, when a  
12 teacher or a school administrator discovers tremendous  
13 talent in a student and finds that there are some  
14 barriers in the home, I find that those teachers,  
15 particularly if they are the kind that we have been  
16 talking about, the inspirational kind, will advocate  
17 for the student with a parent. And I have known of  
18 cases where, because a teacher went to the home and  
19 spent hours with the family, the child, the youngster,  
20 was able to participate in something that originally  
21 the parents said, "No, we don't want you to."

22                   So, I see that as an outreach role for  
23 the school. It cannot be mandated, I don't think,  
24 but it certainly can be encouraged on the part of

1 individuals who really care about youngsters at that  
2 ability level.

3 Chairman GARDNER. Mine is a question in the  
4 form of an observation, which could require more time  
5 than we have to respond; and I hope, as you reflect  
6 upon it, you might share your views on this.

7 A theme running throughout all of the  
8 presentations, late morning, has been the one of  
9 attitude -- the attitude on the part of the kinder-  
10 garten teacher who was uncomfortable with keeping  
11 your daughter in school; attitudes of a kind to which  
12 Professor Baldwin made reference; attitudes on the  
13 part of the parent who was unsympathetic to the  
14 approach that was just referenced, and so forth;  
15 attitudes on the part of the young people at the  
16 Johns Hopkins School who, for the first time, feel  
17 comfortable in that environment, which suggests that  
18 they were uncomfortable previously.

19 What is there that causes these attitudes  
20 to be reflected in so diverse and so frequent a  
21 circumstance?

22 The reference that Professor Zimmerman  
23 made to the grouping of children by ability, special  
24 programs that are made available during the school

1 day for those children, the interaction those children  
2 have with students similarly situated at other  
3 schools, after school opportunities, and so forth,  
4 which describes the athletic programs offered by  
5 schools and, I might add, universities and colleges,  
6 as well. These seem to be quite acceptable, not only  
7 acceptable attitudinally, but acceptable financially.  
8 And it is a permanent part of our infrastructure, if  
9 I may put it that way, as one of our morning speakers  
10 suggested.

11 Now, why is that acceptable? And yet,  
12 efforts to gain a comparable recognition, albeit in  
13 a different context, for those who are gifted in  
14 other ways? Why do we confront this resistance?  
15 What is there that gives life to it in our society,  
16 and what recommendations might this Commission make  
17 that would have some bearing on the attitude of  
18 people in respect to this issue in its various  
19 dimensions?

20 We hardly can answer that question before  
21 lunch, but I wanted to get it on the record, and  
22 anyone here who would be willing to take the time and  
23 the thought and the effort to share their views with  
24 this Commission, those would be both received and



1 most welcomed.

2 Commissioner BAKER. I think that Chairman  
3 Gardner has brought full circle the concerns we  
4 encountered at the beginning this morning that Dr.  
5 Gallagher spoke so forcefully about, that our society,  
6 our nation, is not really prepared to recognize the  
7 values and the needs here.

8 This panel joins the one earlier this  
9 morning in giving us deep insights and very welcome  
10 wisdom into how we can pursue this further. We  
11 thank them sincerely, and we shall now be adjourning  
12 for lunch, but shall reconvene promptly again, at  
13 1:15.

14 (Noon Recess.)  
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