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## All Rivers Lead to the Sea: A Follow-up Study of Gifted Young Adults

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*Students who had entered the University of Washington's Early Entrance Program (EEP) between 1977 and 1986 were asked to participate in a follow-up study, along with two comparison groups who had taken part in previous research efforts: non-accelerated National Merit Scholarship finalists ("NATS"), and students who had qualified for the EEP but had proceeded to high school instead ("QUALS"). Return rates were 56% EEPers (n=61), 71% NATS (n=27), and 56% QUALS (n=36). Most respondents were satisfied with their decision to accelerate or not accelerate their secondary education. EEPers had entered graduate school in significantly greater numbers than had either the NATS or QUALS, although QUALS' educational aspirations are as high as EEPers'. In attitudes, interests, and values, group similarities far outweighed differences; where significant differences occurred, however, EEPers tended to resemble NATS more than QUALS. Limitations of the study and implications for school choice are discussed.*

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Although radical acceleration has long been a controversial issue in the education of gifted adolescents, a growing body of evidence strongly supports its enhancement of some students' academic performance (Daurio, 1969; Kulik & Kulik, 1984). Brody and Stanley (1991) reviewed the research on several groups of early entrants and reported positive overall effects of acceleration for the majority of accelerants. For example, accelerated students were more likely to be high achievers in college, to graduate, and to attend graduate school than were their regular age peers. They also found that the majority of students who participated in the Study for

Mathematically Precocious Youth (SMPY) and who entered Johns Hopkins University or another college/university at least one year early performed as well academically as regular age students, had higher educational aspirations, and had "greater perceived use of educational opportunities" (p. 112).

Given the preponderance of evidence favoring acceleration, why does the controversy persist? A careful reading of the literature suggests that it centers around students' social and emotional development (Cornell, Callahan, Bassin, & Ramsay, 1991). Although Brody and Stanley could find no evidence that "negative social or emotional problems...result from the accelerative experience" (1991, p. 112), many educators, parents, psychologists, and counselors fear that acceleration will deprive young people of the critical social experiences they will need to create healthy, well-functioning, and successful lives. Because high school is considered a normalizing experience on the road to responsible adulthood, students are urged to remain with their agemates regardless of differential ability, motivation, or special needs. Not all students heed this advice, however. Some accelerate their secondary education and enter college from one to several years early through special programs available at a number of colleges and universities (Robinson & Noble, 1992); others, who participate in the Early Entrance Program at the University of Washington (UW), elect to skip high school altogether.

Since 1977, the Early Entrance Program (EEP) has enabled highly capable adolescents in western Washington state to enroll in college before age 15, typically after the 7th or 8th grade. Each year up to 15 students are selected for the EEP on the basis of several criteria: scores on the Washington PreCollege Test (similar to the SAT) and the Stanford-Binet IV; a 20-minute essay; achievement test records; class grades; teacher recommendations; extensive interviews with students and their families; and students' own motivation and willingness to undertake a rigorous academic adventure. Once admitted to the program they attend the self-contained Transition School on the UW campus for one academic year, taking fast-paced courses in English, mathematics, history, and physics, and acquiring the skills, habits, attitudes, and knowledge they will need when they graduate the following autumn to full-time university status. The EEP is structured and organized to furnish students with a diverse peer group, an active academic

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and personal support system, and facilities which constitute a home base so that they can mature personally and socially at their own pace.

How do EEP students perform at the University? Records indicate that approximately 85% of the students enrolling in Transition School proceed to the University, where their undergraduate grade point averages tend to be much higher than those of regular-age students (3.5 to 3.6 vs. 3.0). Nearly 95% of these students graduate from the UW or another institution of higher education. Those who do not complete Transition School generally return to high school as 10th grade students. Previous research (Janos, Robinson, & Lunneborg, 1989; Robinson & Janos, 1986) has found EEP'ers to be as well adjusted as non-accelerated college students on a variety of measures (e.g., the Minnesota Multiphasic Personality Inventory, the California Psychological Inventory, the Tennessee Self-Concept Scale, and the Inventory of Parent and Peer Attachment), and resembling National Merit Scholarship finalists more closely than they do average college students. A qualitative investigation of students' perceptions of early college entrance (Noble & Drummond, 1992) found that EEPers were quite happy to forego the high school experience, believing that the EEP was one of the best educational decisions they had ever made. Not only did students report that they had built "intellectual muscles" that might not have developed in less challenging environments, but they had learned how to use them. Further, many found kindred spirits for the first time in their lives, and the experience of friends who "got their jokes" enhanced their socioemotional development in ways they believed that high school never could.

Not all students' achievement is exemplary; each year a small minority (5-10%) drop out of university coursework or do not perform well in their classes. A 1986 study of "under-achievers" (students with grade point averages below 3.0) suggested that family and adjustment issues underlie the problems experienced by low achieving males, while low-achieving females tended to put more of their energy into their social lives (Janos, Sanfilippo, & Robinson, 1986). The numbers were small, however, and the gender distinction may well have been spurious.

"Skipping high school" may have a beneficial effect on

most EEPers' personal and academic lives as undergraduates, but how will that decision affect them as adults? Because no previous investigation could answer this question, we began a longitudinal study to follow the educational and vocational attainment of three groups of highly capable young adults. We wished to understand how they were faring thus far in their personal and professional lives, how they would describe their attitudes, interests, and values, and how former Early Entrance students would assess their socioemotional characteristics relative to respondents in the other two groups. We also wished to see whether the presence of any gender differences could be detected within the Early Entrance group.

## METHODS

### Participants

Participants in this study were members of one of three groups: "EEPers" who entered the Early Entrance program between 1977 and 1986; "QUALS" who qualified for the program during the same time period but elected not to enter, or who left the Transition School before becoming full-time UW students; and former UW students ("NATS") who were National Merit Scholarship finalists and had participated as undergraduates in a previous study during 1982-1984 (Janos, Robinson, & Lunneborg, 1989).

### Instrument

An eight-page, 47-item Follow-Up Questionnaire was adapted from a 24-page, 105-item post-college questionnaire developed by Julian Stanley, Camilla Benbow, and their colleagues to follow the progress of students who had participated in SMPY at Johns Hopkins University. To maximize response rate and tailor the SMPY instrument to the EEP, a number of items were omitted (e.g. students' reasons for selecting their undergraduate schools, number of publications, sibling participation in similar programs, partner's interests and achievements). Others were modified so that the data were more relevant to this new inquiry. The revised questionnaire focused on students' undergraduate and graduate education (e.g., age of enrollment, number and kind of scholarships/fellowships received, major field of study, grade point average, satisfaction with their educational experience), as well as their activities and interests, employment, achievements, and attitudes toward acceleration. In addition, questions relating to their values, career and lifestyle expectations, marital status, and the educational attainment of their parents and partners were included.

### Procedure

A letter describing the study and requesting participation was mailed to 232 individuals (109 EEPers, 46 NATS, and 77 QUALS) in March 1991, along with the Follow-Up Questionnaire. Fifty-six percent of EEPers, 71% of NATS, and 56% of QUALS chose to participate (see TABLE 1). The response rate for each group was achieved by three subsequent mailings over a four-month period.

### Demographic Information

	EEP	NAT	QUAL
<i>Total N</i>	109	46	77
Females	51	23	32
Males	58	23	45
Females Responding	32 (52%)	18 (67%)	16 (44%)
Males Responding	29 (48%)	9 (33%)	20 (56%)
Responses Returned	61 (56%)	27 (59%)	36 (47%)
Responses Not Returned	42 (39%)	11 (24%)	29 (38%)
Respondents Not Located	6 (5%)	8 (17%)	12 (15%)
<i>Age:</i>			
Mean	22.6	28.7	23.1
S.D.	3.05	1.96	2.56
Range	16-29	26-32	18-28
<i>Marital Status:</i>			
Single	39 (64%)	12 (44%)	30 (83%)
Married	8 (13%)	12 (44%)	4 (11%)
Divorced	1 (2%)	—	—
Partner	11 (18%)	3 (12%)	2 (6%)
Missing Data	2 (3%)	—	—
<i>Children:</i>			
Have children	4 (7%)	4 (15%)	1 (3%)
Anticipate children	47 (77%)	18 (67%)	29 (80%)
Anticipate no children	10 (16%)	8 (30%)	5 (14%)
Missing/Don't Know	4 (7%)	1 (3%)	2 (6%)

TABLE 1

## RESULTS

### Undergraduate Education

	EEP	NAT	QUAL
<i>Age at college enrollment</i>	14.4	18.3	17.6
<i>Undergraduate Grade Point Average</i>			
Mean	3.52	3.55	3.46
SD	.26	.26	.36
<i>As an undergraduate, how many activities did you participate in?</i>			
Mean	2.38	2.30	3.15
SD	1.53	1.54	2.08
<i>Overall, how did you like your undergraduate experience?</i>			
Strong Liking	26 (43%)	12 (44%)	18 (50%)
Moderate Liking	22 (36%)	11 (41%)	11 (31%)
Neutral/Mixed	13 (21%)	2 (7%)	4 (11%)
Moderate Dislike	—	2 (7%)	1 (3%)
Strong Dislike	—	—	—
Missing	—	—	2 (6%)
<i>Which of the following best describes your feelings about your acceleration or non-acceleration?</i>			
I wish I had accelerated.	—	1 (3%)	1 (3%)
I wish I had accelerated more.	7 (11%)	4 (15%)	6 (17%)
I wish I had not accelerated as much.	11 (18%)	—	—
None, I am satisfied with what I did.	39 (64%)	18 (67%)	26 (73%)
Missing	4 (7%)	4 (15%)	3 (8%)

TABLE 2

### Undergraduate Education

As indicated by Table 2, the majority of respondents in each group were satisfied with their decision to accelerate or not accelerate their secondary education. Eleven EEPers (18%) said they wished they had not accelerated as much; however, nine of these students, most of whom cited social isolation and family stress as the basis of their feelings, had entered the EEP before the Transition School was implemented in 1981. The other two, who stated that they had been insufficiently prepared in science, had attended prior to the incorporation of physics in the Transition program.

### Employment

	EEP	NAT	QUAL
<i>What is your current employment?</i>			
Full-Time	25 (41%)	20 (74%)	13 (36%)
Part-Time	14 (23%)	4 (15%)	13 (36%)
Not employed for remuneration.	20 (33%)	3 (11%)	9 (25%)
Missing	2 (3%)	—	1 (3%)
<i>If employed, how do you think about your job?</i>			
Step in career advancement.	24 (39%)	20 (74%)	13 (36%)
Temporary position while preparing for career.	12 (20%)	—	12 (33%)
A way to make money; no career goals now.	3 (5%)	4 (15%)	1 (3%)
Missing	22 (36%)	3 (11%)	10 (28%)
<i>Which of these statements are most consistent with your future plans?</i>			
I see myself in a full-time career.	48 (79%)	18 (67%)	24 (67%)
I see myself in a part-time career.	7 (12%)	2 (7%)	4 (11%)
I see myself with no career.	—	—	2 (5%)
I see myself with a career until I marry or have children.	2 (3%)	3 (11%)	—
I see myself with a career except when my children are small.	2 (3%)	4 (15%)	5 (14%)
Missing	2 (3%)	—	1 (3%)

TABLE 3

### Employment

Of those respondents who were not currently employed full-time, 82% of EEPers, 75% of QUALS, and 33% of NATS said they were primarily students. The remainder were in the process of looking for work with the exception of one NAT whose family responsibilities precluded work outside the home, and two QUALS who were taking time off to rethink their career goals.

### Educational Attainment

As Table 4 indicates, 85% of EEPers, 96% of NATS, and 64% of QUALS had, by spring of 1991, completed their undergraduate educations, earning bachelor's degrees in Arts, Sciences, Fine Arts, or Music. When asked about their educational aspirations, 97% of EEPers and 80% of QUALS said they had earned or expect to earn graduate degrees. (Two EEPers and one QUAL, for example, were currently in joint MD-Ph.D. programs, and one EEPer and one QUAL were concurrently pursuing Ph.D. and law degrees.) The educational aspirations of the NATS who participated in this study appear to be lower than either of the other two groups; only 45% had already earned graduate degrees or expected to do so in the future.

### Educational Attainment

	EEP	NAT	QUAL
<i>TOTAL Degrees Earned</i>			
Stopped after High School	—	—	3 (8%)
Still undergraduates	9 (14%)	—	9 (25%)
AA	—	—	1 (3%)
BA	26 (43%)	13 (48%)	11 (31%)
BS	25 (41%)	13 (48%)	12 (33%)
Other Bachelor's	1 (2%)	1 (4%)	—
Master's	12 (20%)	3 (11%)	3 (8%)
Ph.D or equivalent	5 (8%)	1 (4%)	—
Law	3 (5%)	3 (11%)	—
Medicine	2 (3%)	1 (4%)	—
Veterinary	1 (2%)	—	—

TABLE 4

## To what degree has your total acceleration affected you overall in the following areas?

(Very favorable=5, Very unfavorable=1)

		EEP FEMALE (n=32)	EEP MALE (n=29)
Academic Progress	M	-4.20	4.48
	SD	.93	.70
Grades, Marks	M	3.07	3.27
	SD	.87	1.08
Interest in:			
Formal Education	M	3.74	3.89
	SD	1.00	.77
Learning	M	4.06	4.07
	SD	1.00	.81
Mathematics*	M	2.80	3.64
	SD	1.03	1.13
Science*	M	2.93	3.57
	SD	1.23	1.03
Doing Sports	M	3.10	2.96
	SD	.83	.92
Height of academic aspirations	M	3.61	3.70
	SD	1.05	.99
Acceptance of abilities	M	3.77	3.81
	SD	1.07	1.06
Ability to get along:			
with Age Mates	M	3.10	2.88
	SD	1.09	1.11
with Mental Peers	M	4.17	3.93
	SD	.83	.78
with Adults	M	4.03	4.00
	SD	.89	.78
Social Life*	M	3.83	3.25
	SD	.99	1.11
Emotional stability	M	3.50	3.15
	SD	1.11	.95
Self-acceptance	M	3.80	3.59
	SD	1.06	.89
Self-confidence	M	3.87	3.74
	SD	1.00	1.06
Self-awareness, identity	M	3.83	2.89
	SD	.97	.80
Drive, perseverance, ambition	M	3.60	3.69
	SD	1.00	.93

TABLE 5

### Effects of Acceleration

EEPers were asked to rate the overall effect of acceleration on several dimensions of their lives, using a five point Likert scale ranging from "very favorable (5)" to "very unfavorable (1)," with "3" designating "no effect." T-tests revealed statistically significant gender differences in only 3 of 18 comparisons. Males reported that acceleration had a more favorable effect upon their interest in mathematics and science than did females ( $t=2.96$ ,  $df=56$ ,  $p<.05$ ;  $t=2.14$ ,  $df=56$ ,  $p<.05$ , respectively). EEP women reported that acceleration had a more favorable effect upon their social lives than did the men ( $t=2.11$ ,  $df=56$ ,  $p<.05$ ).

Further analysis revealed the presence of a significant difference in one area only between EEPers who had not attended Transition School ( $n=22$ ) and those who had ( $n=39$ ). The former group believed that acceleration enhanced their emotional stability to a greater degree than did the latter ( $M_s=3.83$  and  $3.1$ , respectively,  $t=2.59$ ,  $df=55$ ,  $p<.05$ ).

### Attitudes and Interests

Students were asked to rate themselves on a variety of personal variables, including introversion, risk-taking, and political orientation, using a 7-point Likert scale. Table 6 presents group means for each item. A one-way analysis of variance (ANOVA) indicated the presence of significant group differences on three variables: uninhibited/restrained ( $F=4.02$ ,  $df=2$ ,  $p<.05$ ); cautious/willing to risk ( $F=3.70$ ,  $df=2$ ,  $p<.05$ ); and introverted/extroverted ( $F=5.35$ ,  $df=2$ ,  $p<.05$ ). T-tests revealed that EEPers described themselves as more restrained ( $t=-2.12$ ,  $df=91$ ,  $p<.05$ ), more cautious ( $t=-2.98$ ,  $df=91$ ,  $p<.05$ ), and more introverted ( $t=-2.59$ ,  $df=90$ ,  $p<.05$ ) than did the QUALS. No significant differences were observed between EEPers and NATS on any of these variables.

A series of t-tests revealed significant gender differences within the EEP group on two variables. EEP females described themselves as less inhibited than did the males ( $M_s=3.93$  and  $4.67$ , respectively;  $t=2.09$ ,  $df=55$ ,  $p<.05$ ) and more assertive ( $M_s=5.33$  and  $4.41$ ,  $t=-2.43$ ,  $df=55$ ,  $p<.05$ ).

### Attitudes and Interests: How would you rate yourself on each of the following scales?

		EEP	NAT	QUAL
Uninhibited(1)/	M	4.28	4.26	3.47
Restrained(7)	SD	1.36	1.56	1.40
Cautious(1)/	M	3.77	4.26	4.78
Willing to risk(7)	SD	1.40	1.43	1.69
Submissive(1)/	M	4.89	5.15	4.97
Assertive(7)	SD	1.50	.95	1.27
Conservative(1)/	M	4.77	4.59	4.44
Liberal(7)	SD	1.64	1.76	1.83
Imaginative(1)/	M	2.46	2.63	1.92
Unimaginative(7)	SD	1.32	1.60	.94
Emotionally stable(1)/	M	2.79	2.56	2.69
Emotionally unstable(7)	SD	1.55	1.19	1.22
Introverted(1)/	M	3.80	3.52	4.69
Extroverted(7)	SD	1.48	1.50	1.69

TABLE 6

### Beliefs and Attitudes

A one-way ANOVA revealed significant group differences on three variables: "I feel I am a person of worth" ( $F=3.22$ ,  $df=2$ ,  $p<.05$ ), "Good luck is less important than work for success" ( $F=4.31$ ,  $df=2$ ,  $p<.05$ ); and "Most times I think I am good" ( $F=4.35$ ,  $df=2$ ,  $p<.05$ ). T-tests revealed that two of these differences occurred between EEPers and QUALS, and one between QUALS and NATS. QUALS more strongly agreed with the statement "I feel I am a person of worth" ( $t=-2.56$ ,  $df=92$ ,  $p<.05$ ), and "Most times I think that I am good" ( $t=-3.13$ ,  $df=93$ ,  $p<.05$ ) than did EEPers, and felt that luck was more important to success than did the NATS ( $t=3.37$ ,  $df=61$ ,  $p<.05$ ).

A t-test found one significant gender difference within the EEP group, with EEP females describing themselves as more socially skilled than did the males ( $M_s=3.28$  and  $2.61$ , respectively;  $t=-3.06$ ,  $df=58$ ,  $p<.05$ ).

**Beliefs and Attitudes:  
How do you feel about each  
of the following statements?**

(Strongly Agree=4, Agree=3, Disagree=2, Strongly Disagree = 1)

		EEP	NAT	QUAL
I take a positive attitude toward myself.	M	3.15	3.30	3.41
	SD	.91	.72	.86
Good luck is less important than work for success.	M	3.10	3.41	2.64
	SD	.97	.57	1.20
I feel I am a person of worth, equal to others.	M	3.31	3.48	3.69
	SD	.98	.58	.47
I am able to do things as well as most people.	M	3.44	3.50	3.64
	SD	.86	.58	.54
Nothing stops me when I try to get ahead.	M	3.38	3.59	3.28
	SD	.87	.50	1.0
Planning makes a person happy since plans almost always work out.	M	3.36	3.41	3.33
	SD	.52	.84	1.04
People who try to change things in their life are happier than those who accept their condition	M	2.6	3.04	2.72
	SD	1.20	.98	1.27
On the whole I am satisfied with myself.	M	3.15	3.22	3.22
	SD	.89	.70	.76
What happens to me is my own doing.	M	3.00	3.12	3.00
	SD	1.00	.59	.99
Most times I think I am good.	M	2.58	2.96	3.14
	SD	.94	.96	.77
When I make plans I am almost certain I can make them work.	M	3.00	3.31	3.22
	SD	.83	.47	.59
I feel I have much to be proud of.	M	3.25	3.39	3.08
	SD	.91	.64	.97
I am as socially skilled as most people.	M	2.97	2.89	3.14
	SD	.88	.70	.80

TABLE 7

**How important is each of the following  
values in your life?**

(Very Important=5, Somewhat Important=3, Not At All Important=1)

		EEP	NAT	QUAL
Being successful in my line of work.	M	4.20	4.26	4.23
	SD	.85	.76	.65
Having meaningful work.	M	4.58	4.48	4.56
	SD	.62	.51	.74
Finding the right person to marry, a happy family life.	M	4.12	3.89	4.17
	SD	1.12	1.37	1.11
Having lots of money.	M	2.57	2.78	2.86
	SD	.93	.89	1.13
Having strong friendships.	M	4.32	4.19	4.58
	SD	.81	.88	.69
Being able to find steady work.	M	3.88	3.48	3.31
	SD	.98	1.12	.99
Being a leader in my community.	M	2.75	2.44	2.44
	SD	1.02	.97	1.05
Being able to give my children better opportunities than I have had.	M	2.70	2.52	2.79
	SD	1.18	1.19	1.29
Living close to parents and relatives.	M	2.60	2.93	2.67
	SD	1.04	1.07	1.10
Working to correct social and economic inequities.	M	3.35	3.26	3.31
	SD	1.10	1.06	1.19
Having leisure time to enjoy my interests.	M	4.22	4.30	4.19
	SD	.83	.78	.92
Having children.	M	3.45	3.00	3.25
	SD	1.36	1.54	1.36
Having a good education.	M	4.57	4.15	4.43
	SD	.74	.82	.70

TABLE 8

**Values**

A one-way ANOVA revealed significant group differences on only one item related to work ( $F=3.59$ ,  $df=2$ ,  $p<.05$ ). A t-test found that being able to find steady work ( $t=2.63$ ,  $df=93$ ,  $p<.05$ ) was more important to EEPers than to QUALs.

Significant differences were observed between EEP women and men on three items. Although both felt that having meaningful and steady work were important in their lives, EEP women felt both to be somewhat more important to them ( $M_s=4.75$  and  $4.39$ ,  $t=-2.24$ ,  $df=58$ ,  $p<.05$ ;  $M_s=4.19$  and  $3.5$ ,  $t=-2.82$ ,  $df=58$ ,  $p<.05$ , respectively). EEP women also felt it was somewhat more important to live close to parents and relatives than did the men ( $M_s=2.97$  and  $2.18$ ,  $t=-3.13$ ,  $df=58$ ,  $p<.05$ ).

**Discussion**

The literature examined by Brody and Stanley (1991) convinced them that "...as a group young entrants to college have been extremely successful academically and professionally and have not experienced significant social and emotional problems. There is no justification for assuming that academic difficulties or social and emotional adjustment problems are likely to accompany early entrance to college" (p. 113). The data from this study support that conclusion, and reinforce Janos et al.'s earlier finding that "in every comparison, the early entrants were virtually indistinguishable from comparably bright agemates who had elected to attend high school" (1989, p. 514).

As a whole, respondents from all groups appear to be doing well at this stage in their lives. Most have completed their undergraduate degrees or expect to do so shortly, and most have enjoyed the experience. Most are working, many in career-related jobs, while those who aren't are, for the most part, still attending graduate or undergraduate school. Most describe themselves as relatively happy, emotionally stable, and creative, with feelings of self-worth, self-esteem, and self-efficacy, and a sense of satisfaction with their lives. Most believe strongly in the value of education, want to be successful in work which has meaning for them, and have leisure time to explore their interests; the majority also wish to find life partners and enjoy strong friendships.

Looking back upon their earlier decisions, most EEPers were satisfied that they had elected to skip high school and enter the university early, as reflected in the comments of three respondents, two females and one male:

*Having finished my M.D. two years earlier than my peers despite having taken two years off was an advantage. Skipping high school forced me to deal with adults more than I would have otherwise, but I am happy with how things turned out. Acceleration also meant that I had to decide my career plans at an earlier age but I felt ready to do that.*

*EEP was responsible for putting me in an environment which was completely different and allowed me to begin to grow in my own and others' estimation. (Also responsible for my inability to use the English language incorrectly.)*

*Acceleration has given me tremendous opportunities to broaden my academic studies while not "losing much time." It was also responsible for my realization of my abilities -hence for much of my enthusiasm in pursuing academics.*

The majority of NATS and QUALS who chose not to accelerate (85% and 83%, respectively) were also satisfied with the decision they had made. One student, who had been accepted into the EEP during the eighth grade but decided to go to high school instead, wrote to tell us that

*Although I have occasionally regretted that decision, I am confident it was a good one. High school was a great thing for me. Academically I learned a moderate amount. I learned a lot about myself, my friends, and the world. Halfway through my junior year I felt like I had run out of reasons to be in high school. I didn't think my school had anything to offer me scholastically and I was eager to experience adulthood. I dropped out and took the GED test. My scores were very high. That was the end of my formal education (so far). Although my education is so limited, I am still a well educated person. I am very well read. I have consistently kept a journal since ninth grade. I am thoughtful, introspective, intelligent, and receptive. My experiences in the six years since high school have given me a broader range of information than many people. I have excellent math skills and good accounting knowledge. It is important to me that you know that although I don't fit the mold for a gifted student, I am a success.*

As indicated earlier in this report, a small group (18%) of EEPers wished they had accelerated less. All but two of these students had entered the program prior to the implementation of the Transition School, taking university courses and receiving advising by program staff but without systematic academic preparation for the challenge of the university, and without the benefit of a closely bonded peer group. The evaluations of these former EEPers reinforce the need to provide students with compatible peers and to tailor an early entrance program's academic content and advising to the needs of young students so they will not feel lost or overwhelmed as they leap from junior high school to college. Furthermore, students' individual interests need to be taken into account. As one former EEP student wrote, "One mistake I made was taking English and history courses my first full-time year which I did not enjoy and was not mature enough to appreciate; it was not until I started enrolling in scientific classes that I began to enjoy college."

Whether gifted students choose a course of radical educational acceleration or not, adult and peer support are crucial to their sense of psychosocial well-being. One QUAL, who voluntarily left the Transition School to return to high school and later graduated from the California Institute of Technology, wrote about the necessity for kindred spirits to connect with one another.

*There is a high enough percentage of people like me but only in a few special places do we congregate and express our true natures freely. The rest of the time we wear protective coloration which unfortunately works pretty well on each other as well. For any intelligent person, finding others to play with is of utmost importance. It makes our lives happier and stimulates our minds, voracious for semantic and emotional fulfillment.*

This same student described the critical importance of adults who can serve as role models in bright students' lives:

*I believe that role models are especially important for the gifted adolescent. Much of the time we feel the only thing we've got going for us is our intel-*

*ligence, when we'd much rather be popular and well-liked. If we can't be liked by our peers, then we need a "professional adult" to like us (and a parent won't do, not for a teenager!), to explain to us and remind us why our peers seem to shun us, and to listen to us and care when we need to talk.*

## Limitations

Several issues should be kept in mind when evaluating the results of this study. All data were derived from a self-report instrument and thus cannot be objectively verified. Although these data are generally quite positive, 39% of former EEPers did not participate in this study, a fact which makes it impossible to generalize these findings to all graduates of the Early Entrance Program. Likewise, the positive responses of the QUAL group may have been biased by the overrepresentation of respondents who voluntarily entered or returned to high school rather than participate in the Early Entrance Program. No significant differences were observed, however, between the responses of those who had been asked to leave and those who chose not to enter.

Several intriguing questions were raised by this study which the data do not permit us to answer at this time. For example, why do the educational aspirations of the NATS appear to be much lower than those of either the EEPers' or the QUALS'? Is there any way to more accurately predict which students could profit from early college entrance and which students find high school a more appropriate option? Family functioning may be as important to successful early entrance as are motivation and intellectual potential, but this is a difficult issue to assess. Although the data from this study shed no light on this issue, comments from a few respondents have convinced us to add a family survey to our admissions procedure to understand more fully the relationship between family dynamics and successful early entrance.

Finally, follow-up studies are very difficult to design and to execute. One problem with which we wrestled was creating an instrument that potential participants would be willing to complete. We elected to tailor the majority of the items to the Likert scale so that individuals could complete the instrument within 20 to 30 minutes, hoping in this way to maximize the response rate. While we were pleased that the response rate surpassed the 50% mark for all three groups, we wish that we had added more open-ended questions. Some respondents objected that some of the items were too simplistic; we agree, and will modify future instruments to obtain more descriptive information. In addition, we will attempt to interview a sizable proportion of respondents in future studies to enrich our understanding of the accelerative decision-making process and experience.

As had been the case at the earlier points of reference (Janos & Robinson, 1985; Janos, Robinson, & Lunneborg, 1989; Robinson & Janos, 1986), this study found more similarities than differences among these three groups of gifted young people. The two comparison groups who did attend high school (roughly equivalent to EEPers either in age [QUALS] or in college class [NATS]) appear to be no happier or psychologically healthier than those who chose, for whatever reason, to skip high school. The QUALS provide a particularly powerful comparison group because they had actually applied to the Early Entrance Program and been accepted before choosing to attend high school. That they now describe themselves as a

little more "happy-go-lucky" may, in fact, be as much a cause of their decision as a result. Radical acceleration requires hard work and extraordinary perseverance! But these data suggest that for those who choose that less travelled road, it can prove an extremely viable option.

And that, finally, is the moral of this story. Given the finding that all three groups were largely satisfied with their decision to accelerate or not accelerate their educations, what does this mean for the School Choice movement currently sweeping the United States? Specifically, should parents and schools encourage their mature and highly gifted students to remain within high school? We think not, for two reasons in particular.

First, our data indicate that accelerating one's secondary education is as healthy a decision for many highly capable students as remaining with age mates. Despite fears about psychosocial ramifications expressed by many well-meaning adults, the social and emotional development of most highly qualified students has been neither compromised nor harmed by acceleration. Indeed, as this and a previous study (Noble & Drummond, 1992) have shown, just the opposite has been true. Most students who chose to enter the EEP did so because they wanted more academic challenges and opportunities than were available in secondary schools, and because most had felt bored, lonely, and unhappy in regular classroom situations. For these students, radical acceleration was a welcome alternative to years of perceived isolation and frustration.

But radical acceleration is not an option that will work for all gifted students. Indeed, more students are turned down from the EEP than are accepted, and those who are accepted are admitted only after a rigorous and lengthy admissions process. Yet many gifted students could productively handle lesser degrees of acceleration if they were motivated and encouraged to do so.

Acceleration in whatever form can prevent bright young people from turning off to school before they have had a chance to experience the joys and possibilities of their intellectual potential.

Second, acceleration can be particularly beneficial for gifted young women because it allows them to by-pass a social milieu which is often destructive to female intellectuality

(see, for example, Callahan & Reis, 1989, and Noble, 1989). An early entrance program can empower adolescent women by encouraging them to develop and display their abilities in a supportive and nurturing environment. It can also give them the opportunity to complete their undergraduate and professional training and embark upon their careers before they begin to raise families. The fact that the educational aspirations of the NATS in our sample (two-thirds of whom were female) appeared to be lower than those of the EEPers may argue for the value of acceleration as a major ally for intellectually competent and motivated young women.

"...The hardest thing about being exceptionally talented is dealing with the emotional issues it presents," wrote a former EEPer. By providing an environment which advances the intellectual potential and psychosocial well-being of bright teenagers, early entrance to college may prove to be one of the most navigable academic rivers a student can run.

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