

Summer Honors Academy: A Descriptive Analysis and Suggestions for Advising Academically Talented Students

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A follow-up study of the Kansas Regents Honors Academy participants between 1987 and 1998 was conducted. The study examined characteristics of Honors Academy participants in several areas, including the number of attendees who enrolled in Regents universities, their majors, cumulative grade-point averages, degrees obtained, gender, and ethnicities. The results of this study support previous literature, indicating that Honors Academy attendees were more likely to be white females who pursued postsecondary education in the their home state and entered the fields of biological sciences, social sciences, business, engineering, English, and education. Suggestions for advising academically talented high school students are provided.

Introduction

Educators believe that academically talented students have a strong desire to learn, are self-motivated, and go through college with a minimum of trouble. Students with higher academic potential (honors students) often do not receive the academic advising they need because educators assume that these undergraduates know what they want to do, how to achieve their educational goals, and how to be self-reliant on campus.

Academic advisors can assist talented students in making appropriate adjustments and decisions by giving them support as they work their way through difficulties. Advisors need to encourage honors students to achieve at their maximum capacity and encourage them to test themselves intellectually and to respond to academic challenges.

Many states host summer honors programs, which can provide academically talented students much needed information about the college environment. These programs can provide students with an overview of the college experience as the students are introduced to others of equivalent academic potential, who share many interests, and who share many of the same academic and social concerns. Students attending these academies gain exposure to college-level classrooms and expectations, and experience attending a university away from home (Gerrity, Lawrence, & Sedlacek, 1993; Kerr &

Colangelo, 1988; Lucas, Hull, & Brontley, 1995).

In 1986, the Kansas legislature established the Kansas Regents Honors Academy. These universities include the University of Kansas, Kansas State University, Wichita State University, Emporia State University, Pittsburg State University, and Fort Hays State University. It is a system governed by nine Regents who are appointed by the Governor of Kansas. The academy was designed as a 4-week, residential, academic summer program for academically superior high school graduates. Enrollment was restricted to 150 of Kansas's brightest academic stars. All participants of the program were selected by a statewide committee on the basis of grade-point average (GPA), standardized achievement-test scores, school and extracurricular activities, work experiences, an original essay, and teacher recommendations. Selection of participants also reflects representation from all 40 Kansas senatorial districts. Each district was not allocated a set number of candidates, but the volunteer screening process generally resulted in students coming from all districts.

The Regents Honors Academy was designed to provide a planned, set curriculum to serve the needs of talented students much as an honors program on a college campus attempts to meet the needs of the best, brightest, and most highly motivated college students. The initial goals of the program were to reduce the number of high school dropouts, to attract more academically talented students to Kansas Regents institutions, to challenge participants' thinking and reasoning skills, to motivate students to stretch their minds and reach for new ideas, to provide the stimulus of associating with intellectual peers, and to promote the emotional and intellectual growth of students. Courses were to be taught by the best faculty of the host institution and developed around the strengths of that Regent university (McKnight, 1987).

Review of the Literature

History of Honors Programs

The history of honors programs parallels the history of higher education. Higher education started with the Socratic dialogue, followed by the

Oxford tutorial, the German seminar, and the Guild apprenticeship. Each served as a model for contemporary honors programs. Modern honors programs in the United States appear to have been initiated by Frank Aydelotte who established an innovative honors approach at Swarthmore College in 1922. He continued to provide the nation's most innovative and influential honors programs throughout the 1930s and 1940s based on the education he had received as a Rhodes scholar at Oxford, England (Moran, 1992). Honors programs provide an atmosphere in which extremely bright students work closely with professors and peers who stimulate them to develop their academic talents to the fullest. These programs provide a framework for a quality and enriched education that could be utilized within a university structure.

Characteristics of Honors Students

Studies conducted since 1975 have identified characteristics typically found of students attending honors programs across the United States. In 1984, Piland and Azbell found that the percentage of females (63.1%) participating in honors programs was greater than that of males (36.9%). They also found that 59% of the students were in the traditional 18-year-old age group and that White students made up 79% of the participants. These findings were supported by Lucas, Hull, and Brontley (1995), who also found that honors students were mostly White, relatively young females.

Gender differences have also been found in both educational plans and career aspirations among honors students, with males oriented toward science, technology, engineering, and physical sciences and females favoring social, biological, and health sciences (Benbow & Stanley, 1983, 1984; Hansen & Neujahr, 1976; Kerr & Colangelo, 1988). Honors students also typically come from advantaged backgrounds (Hansen & Neujahr, 1976) and usually enroll in public colleges, with the majority attending in-state schools (Arnold & Denny, 1985).

Several myths surround academically talented students and their levels of need regarding information about careers and colleges and their levels of social maturity. Bright entering freshmen have problems adjusting to college, being away from home, making friends, adjusting to personality and social problems, and handling intense academic competition (Gerrity, Lawrence, & Sedlacek, 1993). According to Robinson (1997), academically talented high school students are often ill prepared, both socially and academically, for college. This study cites poor study habits and time manage-

ment skills, unclear expectations upon entering college, and the lack of social maturity to deal with the college environment as some of the most important problems facing these students.

Statement of Purpose

This research was designed to provide a descriptive overview of a summer honors program, the personal characteristics of the attendees and their families, student postsecondary achievements, and to provide special considerations and suggestions for advising academically talented high school students. This paper describes a follow-up study that focused on high-achieving high school juniors and seniors who attended the Kansas Regents Honors Academy between 1987 and 1998. To provide a complete overview of the Honors Academy, we investigated how many attendees enrolled in Regents universities and we gathered information on individual majors, cumulative GPAs, scholarships received, college employment, leisure and community activities, parental education levels, gender and ethnicity, as well as the current profession of past program attendees. We also provide suggestions to secondary-school counselors on advisement of academically talented high school students.

Methods

Participants

The participants in this study ($N = 504$) were former members of the Regents Honors Academies held in Kansas between 1987 and 1998. The Kansas Board of Regents provided rosters of each of the Honors Academy classes for the 12 years of the Academy's existence. These rosters contained approximately 1,690 names. Ninety-seven percent of the attendees had recorded complete addresses on the roster and were mailed surveys requesting their participation. The response rate from this group totaled nearly 30% (Table 1). These participants varied in age from 18 to 29 years and consisted of 170 males and 334 females.

Instrument

A survey was developed and mailed to the former Honors Academy graduates. The instrument was designed to gather information in the following categories: a) background and identifying data, such as gender, age, current address, social security number, high school attended and its location, ethnicity, marital status, and family educational level and income; b) college data, which included institution attended, degrees obtained, majors, GPA, scholarships, and employment; and c) activities

Table 1 Participant response rate by year of academy attendance

Academy Date	Surveys Mailed	Total Responses	Response Percentage
1987	109	35	32.11
1988	138	36	26.09
1989	136	35	25.74
1990	139	48	34.53
1991	142	34	23.94
1992	124	43	34.68
1993	142	41	28.87
1994	149	43	28.86
1995	140	48	34.29
1996	146	52	35.62
1997	139	46	33.09
1998	142	43	30.28
Total	1,646	504	30.62

Table 2 Enrollment in Kansas Regents and non-Regents universities, $n = 444$

School Category	Response Frequency	Response Percentage
Regents universities	278	62.6
Regents and non-Regents universities	35	7.9
Non-Regents only	39	8.8
Total number receiving higher education in Kansas	352	79.3

defined as community service, leisure time, and hobbies. The participants were also invited to provide comments regarding experiences obtained from attending the Honors Academy.

Procedure

Once the names and addresses of the former Honors Academy members were compiled, a packet of information was mailed requesting participation. The mailing included a cover letter that explained the purpose of the survey and requested the students' participation, the survey instrument, and a self-addressed, stamped envelope for returning the survey.

Upon return of the completed questionnaires, a basic descriptive statistical analysis was performed and demographic information was coded through the use of basic statistical coding methods. The high schools represented by each of the participants were coded by the appropriate State of Kansas Unified School District numbers according to the 1998–99 *Kansas Educational Directory* (Kansas State Department of Education, 1999). Occupations of individuals who had entered the labor force were coded by the two-digit occupational codes found in the *Dictionary of Occupational Titles* (Labor Department, 1991). Individuals who were members of the armed forces were assigned slightly different codes to distinguish them from those in other

service-related occupations.

The survey requested participants to provide information concerning their civic and community activities, hobbies, and leisure-time pursuits. This information was grouped into broad categories spanning several major-interest areas. The civic and community activity involvement category included attendee participation in religious, student, occupational, charitable, youth, medical, political, environmental, and service organization affiliations. The hobbies and leisure time activities were classified as sports, reading and writing, art and music, movies, cooking, computers and games, friends and family, traveling, and gardening. Activities outside of these areas were grouped together into another category and labeled separately.

Results

Data from this survey were analyzed using various descriptive statistic techniques. A discussion of the results and analyses of this study are presented in tabulated and narrative summaries.

Table 2 indicates that of 444 responses, 62.6% represent students who attended Regents institutions and an additional 74 students who had attended both Regents and non-Regents schools or only a non-Regents institution, a total of 79.3% who attended college in Kansas. At the time the survey was taken, 70% (348) of the total participants ($N = 504$) resided

Table 3 Degrees obtained

Degrees Granted	<i>n</i>	Response Frequency	Response Percentage
Associate's	363	10	2.8
1st Bachelor's	272	240	88.2
2nd Bachelor's	231	34	14.7
Master's	188	30	16.0
Doctor of Philosophy	106	2	1.9
Juris Doctorate	106	10	9.4
Medical Doctor	71	9	12.7

Note. *n* = The number of participants eligible to have achieved the respective degree based on their ages at the time of data collection.

Table 4 First and second bachelor's degree majors, *n* = 274

Major	Degrees Granted (Frequency)	Degrees Granted (%)
Biological Sciences	42	15.3
Social Sciences	41	15.0
Business	36	13.1
Engineering	33	12.0
English	25	9.1
Education	22	8.0
Math and Computer Science	14	5.1
All Other Majors	61	22.3

Table 5 Participant enrollment by undergraduate major and gender (%), *N* = 504

Major	Gender	
	Female	Male
Biology	57.1	42.9
Social Science	53.7	46.3
Business	58.3	41.7
Engineering	36.4	63.6
English	72.0	28.0
Education	90.9	10.1
Math and Computer Science	62.3	35.7
Other	78.7	21.3

or worked in Kansas.

The number of females responding to the survey exceeded the number of males by almost 2:1. This proportion differed from the academy participant ratio, which was 41% males to 59% females. The ethnic breakdown of the sample was 459 White (91.1%), 5 Black (1%), 6 Hispanic (1.2%), 24 Asian (4.8%), and 6 of mixed race (1.2%).

In addition to the respondents characterized in Tables 3 and 4, some participants were pursuing advanced degrees at the time the survey was administered but had not yet received diplomas. Thirteen students were in medical school working toward a medical degree; 4 were in pharmacy programs; 10 were attending jurisprudence programs; 26 were enrolled in Ph.D. programs; and 32 students were

pursuing master's degrees.

At the baccalaureate level, biology was the most popular major among respondents. Students were also enrolled in the following majors, listed in order of preference: social science, business, engineering, English, education, and math/computer science. Of the 274 respondents who had obtained bachelor's degrees, 100 (36.5%) were males and 174 (63.5%) were females. The percentage of male and female respondents who had obtained bachelor's degrees in each major is depicted in Table 5.

The average college GPA of all respondents (*n* = 451) was 3.66. The means for those attending Regents schools, non-Regents schools, and out-of-state institutions were 3.61, 3.71, and 3.55, respectively. Students who were still in high school

at the time of data collection ($n = 45$) had a mean GPA of 3.94. Individuals who attended both a Regents and non-Regents institutions had a mean GPA of 3.78.

Of the respondents, 407 (92%) received scholarships to attend higher education institutions. Of those individuals, 64% received scholarships to attend Kansas Regents institutions. One hundred fifty (34%) of the respondents received grants to attend higher education institutions; of those individuals, 55% attended Regents universities. In addition, 46% of the respondents received loans to attend college. Other respondents received financial aid in the following forms: 22 participated in campus work-study programs; 11 received fellowships; and 8 served as research assistants.

Thirty-one (7%) of the academy attendees worked full-time during the pursuit of their undergraduate education. However, 339 (76%) held part-time jobs during college attendance. Of those, 256 worked on the college campuses, and 170 held jobs off campus. Of the individuals attending

Regents schools ($n = 254$), 163 (64.2%) worked on campus and 91 (35.8%) were employed off campus.

Participants in this study were asked to provide feedback on the three factors that most strongly influenced their choices of undergraduate institutions. Following are the factors participants were given to choose from and the number of responses each factor received: a) the availability of the desired major in the institution's curriculum (302), b) the amount of financial aid provided by the institution (225), c) faculty reputation (219), d) proximity to home (219), e) tuition (201), f) size of the institution in terms of student population (195), g) prestige of the institution (183), and h) involvement in the Honors Academy (92).

Responses to the survey question regarding parental education levels indicated that 69% of fathers and 57.1% of mothers of the respondents had attended college. Furthermore, the annual parental income level of slightly more than one half of the respondents was over \$50,000 per year. The percentages of those who had acquired at least one

Table 6 Parental educational and salary levels

Education Level	Response (Frequency)	Response (Percentage)
Father's Education, $n = 434$		
Bachelor's	130	30.0
Master's	88	20.3
Doctor of Philosophy	17	3.9
Juris Doctorate	10	2.3
Medical Doctor	18	4.1
Mother's Education, $n = 429$		
Bachelor's	147	34.3
Master's	91	21.2
Doctor of Philosophy	4	0.9
Juris Doctorate	2	0.5
Medical Doctor	1	0.2
Annual Parental Income Levels, $n = 428$		
Less than \$25,000	38	8.9
\$25,000–50,000	172	40.2
Over \$50,000	218	50.9

Table 7 Current occupations and salary ranges of honors academy respondents

Occupational Category	Response Frequency	Salary Range
Management, Military, and Administration Specialization	54	\$23,000–93,000
Engineering, Math, Computer, Physical, and Life Sciences	33	\$16,000–70,000
Medicine	29	\$25,000–50,000
Education	25	\$16,000–46,000
Sales and Clerical	14	\$13,000–52,000
Law	12	\$30,000–90,000
Art, Writing, and Entertainment	8	\$20,000–70,000

4-year degree and a breakdown of annual parental income levels are presented in Table 6.

Respondents held a variety of occupations at the time of the survey. Table 7 provides data on the most common jobs and salary ranges reported by respondents.

Participants of this study were also asked to provide information about their leisure-time activities and community involvement. The leisure-time activities mentioned most frequently were sports and exercise (316, 62.7%), reading and writing (252, 50%), and art and music (179, 35.5%). Other major interests mentioned by the respondents included computer activities, cooking, time with friends and family, gardening, and travel. The most frequently listed commitments in the community involved religious organizations (145, 28.8%) and student and alumni activities (132, 26.2%).

Discussion

The discussion and descriptive analysis of the survey data include responses received from the 504 respondents. The responses represented a return rate of over 30% and conclusions were based on those responses. A profile of the respondents of this study indicates that students who attended the Kansas Regents Honors Academy were likely to be White females who came from advantaged backgrounds, pursued postsecondary education in the their home state, received scholarships to attend college, worked part-time while pursuing their postsecondary degrees, and enjoyed sports and exercise as well as reading and writing in their leisure time. In addition, the Honors Academy respondents for this study had entered the fields of biological sciences, social sciences, business, engineering, education, and English.

One of the most important findings of this study was that 99.8% of the respondents who were of age to enroll in postsecondary education attended college. This percentage provides a strong argument for requiring specialized attention by high school academic counselors. In addition, the ratio of males to females who attended the Kansas Regents Honors Academy and the review of the literature on other summer honors academies indicate that a higher percentage of females are considered honor students.

The majority of the respondents chose management/administrative specialization; engineering; math; computer, physical, or life sciences; medicine; or education for their careers following their postsecondary education. These findings are very similar to those of Arnold and Denny (1985); however, 68% of those students attended in-state

colleges, and 79.3% of the Kansas Regents Honors Academy respondents attended in-state schools.

Gender differences were also found with regard to the majors chosen by the respondents. The greatest gender differences were found in the fields of engineering, education, social sciences, biological sciences, English, and business. Males received a higher percentage of baccalaureate degrees in engineering, social sciences, biological sciences, and business. Females received a higher percentage of baccalaureate degrees in education and English.

Participants in the study were asked to provide information about what they believed to be the most valuable assets gained from their academy experience. They were also asked to provide feedback about the perceived weaknesses of the Honors academy and to recommend changes to improve the program. The majority of the respondents said that the strongest aspect of the academy was its ability to provide participants with the college experience before the students enrolled in a university. The academy was also recognized as a source of intellectual stimulation, a challenging curriculum, and excellent instructors and support staff. A large number of the participants also stated that the academy provided them with a social network of intelligent friends who possessed many common interests.

As indicated by these responses, academically talented students who attended the Kansas Regents Honors Academy regard intellectually stimulating programs, where they are provided a schedule that is designed to meet their needs both academically and socially, as a positive influence on their lives. Several of these students still maintain close relationships with others they met while attending the Honors academy. Social awareness and interaction were listed as the most valuable assets gained from the academy experience; however, several participants said that the experience helped them build confidence in their abilities and taught them responsibility and discipline. Students also stated that time management skills learned at the academy were subsequently used every day.

The data obtained from this study strongly support much of the previous research conducted on honors programs over the past 25 years. Recognizing and understanding the characteristics and needs of this select group is of paramount importance to high school counselors who advise these students regarding their academic careers. Academic advisors must have the knowledge, skills, and training necessary to provide high school students with valuable information needed to reach their aspirations. However, advisors' training may not prepare

them to fully understand and meet the needs of academically talented students. As a result, the needs of this select group may be overlooked by both students and advisors. The findings presented here can serve to assist academic advisors in becoming more aware of the opportunities available to honors students and can serve to address potential concerns of these students with regard to the post-secondary experience.

The results of this descriptive study raise many questions about advising academically talented students. Likewise, these results also can aid academic counselors in their endeavors to provide efficacious advising to gifted individuals. This study, as well as previous research findings, indicates that honors students possess many abilities and interests in several disciplines. High school counselors who are aware of the research findings regarding honors programs will be more knowledgeable, prepared, and able to discuss the future ideas, goals, and academic opportunities available to these individuals. Likewise, academic advisors who are aware of scholarship and financial aid opportunities available to academically talented students, admission requirements and procedures of colleges and universities within their respective states, stress reduction techniques, and time management skills to aid honors students in dealing with the stringent demands of attending honors programs will ultimately be effective in assisting the academically talented youth of their high schools.

References

- Arnold, K. D., & Denny, T. (1985, April). *The lives of academic achievers*. Paper presented at the annual meeting of the American Educational Research Association, Chicago.
- Benbow, C. P., & Stanley, J. C. (1983). Sex differences in mathematical reasoning ability: More facts. *Science*, 222(4627), 1029–31.
- Benbow, C. P., & Stanley, J. C. (1984). Gender and the science major: A study of mathematically precocious youth. In M. W. Steinkamp & M. L. Maehr (Eds.), *Women in science* (pp. 165–96). Greenwich, CT: JAI Press.
- Gerrity, D. A., Lawrence, J. F., & Sedlacek, W. E. (1993). Honors and non-honors freshmen: Demographics, attitudes, interests, and behaviors. *National Association of College Admissions Directors and Counselors Journal*, 13(1), 43–52.
- Hansen, R. A., & Neujahr, J. (1976). Career development of high school students talented in science. *Science Education*, 60(4), 453–62.
- Kansas State Department of Education. *Kansas Educational Directory*. Topeka, KS: Author.
- Kerr, B. A., & Colangelo, N. (1988). The college plans of academically talented students. *Journal of Counseling and Development*, 67, 42–48.
- Labor Department, Employment and Training Administration, U.S. Employment Service. (1991). *Dictionary of occupational titles*, 4th Edition. Washington, DC: Author.
- Lucas, J. A., Hull E., & Brontley, F. (1995). *Follow-up study of students taking honors courses* (ERIC Document Reproduction Service No. JC 960 513). Washington, DC: U.S. Government Printing Office.
- McKnight, P. C. (1987, August). *Proposal regarding the establishment of the Regents Honors Program*. Report presented to Kansas Board of Regents, Topeka, KS.
- Moran, M. G. (1992). *Frank Aydelotte, Oxford University, and the thought movement in America* (ERIC Document Reproduction Service No. ED 344 230)
- Piland, W.E., & Azbell, J. (1984). The honors program student: A typical profile. *Community and Junior College Journal*, 54(7), 45–47.
- Robinson, N. M. (1997). The role of universities and colleges in educating gifted undergraduates. *Peabody Journal of Education*, 72(3 & 4), 217–36.

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