# The Transition to College for Students with Visual Impairments : Executive Summary

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## Executive Summary

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**Introduction**

Students who are visually impaired as well as those who are sighted share similar concerns when attending college for the first time. They must register for class, find their way around a strange campus, meet new people (and hopefully, make a few new friends), survive dormitory life and cafeteria food, and adequately prepare to pass their courses. Students who are visually impaired share all these concerns and a few more which are unique to their particular situation. How will they arrange to complete reading assignments (find and hire readers, locate adaptive equipment for their needs, find enough time to complete all those assignments)? How will they find their way around campus when everyone else is just as lost as they are that first week? How will they deal with these and other issues that someone else (teachers, parents) may have been doing for them all of their lives? What support systems will they have when they leave home (maybe for the first time)?

In order to encourage more students with visual impairments to enroll in college and to remain in those programs until graduation, research is needed which identifies skills, knowledge, and steps necessary for students with visual impairments to enter college and to complete the required course work and training. This study was designed to identify previous research and literature about the transition to college. Data were collected by telephone from 102 students with visual impairments who are currently enrolled in college and who have "survived" their freshmen year. These students offered their insights and thoughts about succeeding in the college environment. General domains in the questionnaire included demographics, educational history, computers, specialized and adaptive equipment, resources, college preparation, problems adjusting to college, work history, and orientation and mobility (O&M) skills.

Additional data were gathered from 66 college administrators about the programs available at their schools for students with visual impairments. Administrators were asked about services provided by their colleges, institutional expectations, requirements for admission, and effects of the newly legislated Americans with Disabilities Act. Administrators were also encouraged to send materials describing their support programs for students with disabilities.

This executive summary provides a brief overview of the research process, literature review, and research results. Interested readers should refer to the complete technical report authored by McBroom, Sikka, and Jones (1993) for more detailed information and explanations.

**Results**

**Student Demographics**

There were about the same number of males and females in the survey (54% female and 46% male), however, there was a much greater concentration of white respondents (86%) than nonwhite (14%). The average age of the respondents at the time of the interview was 25 years with a range from 19 to 50 years. Vision loss tended to occur at birth (60% of the respondents) or at a very early age. The majority of students (74%) were healthy and had no additional major health problems.

The students averaged a 3.2 grade point average in high school and in college (4 represented an "A"). Twenty-two percent classified themselves as sophomores or second year junior college students, 33% as juniors, and 45% as seniors. The leading college majors were education, psychology, social work, business, English, communication, sociology, health, and engineering.

**Reading Methods Used by Students**

In order to keep up with reading assignments, students used taped textbooks (75%); taped class materials (64%); readers (59%); CCTV, Visualtek, or other enlarging devices (38%); braille class materials (17%); large print textbooks (17%); Nemeth coded braille materials (16%); and braille textbooks (8%). Other methods were used by 24% of the students (e.g., computers, color overlays, raised line drawings, and optical character recognition devices). Computers were used on a regular basis for college classwork by 73% of the students.

**Student Work History**

The majority of students had participated in the work force in some way by the time they were in college. During high school, 88% of the students performed household chores, 55% performed volunteer work, 45% worked for pay during after school hours, and 64% held summer jobs. Twenty-nine percent of the students returned to college after first working awhile and 56% worked for pay while attending college.

**Student Extracurricular Activities**

Fifty-four percent participated in social groups or organizations, 44% in scholastic or academic organizations, 34% in religious activities, 27% in career or job-related organizations, 17% in political groups, 15% in athletic groups, and 12% in sororities or fraternities. One-third of the students did not engage in any type of extracurricular activity while in college.

**Use of Services and Equipment as Reported by Students**

The student respondents were asked a series of questions about whether or not they used services or equipment provided by colleges. A majority of the students used alternative testing arrangements (86%), computers (69%), special preregistration for classes (60%), and college health services (55%). Following these services in decreasing use were tutors (49%), college counseling services (46%), campus O&M instruction (35%), tape recorders or notetakers (34% each), transportation (30%), and college preparatory programs or typewriters (22% each). Services used by twenty percent or fewer students were job placement services (20%), calculators (17%), special housing arrangements (11%), and electronic notetakers (6%).

**Help Received from Others**

When making any type of major change in their lives, people often turn to others for assistance, support, or advice. The students' families were the most helpful (average = 3.4 with a range from one to four). Sighted friends were also helpful in the transition (average = 2.9), but friends with visual impairments were not as helpful (average = 2.0). College representatives which included people in the office of disabled student services averaged 2.7 in "helpfulness." Less helpful were O&M instructors (average = 2.3), vocational rehabilitation counselors (2.3), rehabilitation professionals including counselors or teachers (2.1), and high school teachers or counselors (1.8).

**College Preparation by Students**

Students were asked how important a series of items were in their college preparation. Items ranked as "very important" included preregistering for classes (76%), followed by communicating with teachers (69%), ordering textbooks early (63%), applying for financial aid (61%), learning how to manage money or locating transportation (60% each), making housing arrangements (58%), receiving campus O&M instruction (55%), deciding on a college to attend (54%), and communicating with the office of disabled student services (50%). Less than fifty percent of the students ranked the following items as "very important:" (a) finding and scheduling readers or visiting college during orientation (45% each), (b) working with vocational rehabilitation services (44%), (c) meeting or talking with a roommate (30%), (d) attending college preparatory programs (29%), and (e) deciding on a major area of study (27%).

**Problems Experienced by Students While Attending College**

Students were presented a list of 25 problems and asked if they had experienced any of them while in college. Time management or access to diagrams and charts were the two problems experienced by the greatest percentage of students (54% each). These were followed in descending order by accessing books and written materials (53%), having enough money or difficult classes or assignments (49% each), and transportation (44%). The next group of problems were only separated by one percentage point each: finding ways around campus (39%), participating in recreational or athletic activities (38%), taking exams with time limits (37%), accessing computers (36%), obtaining special services for their disability (35%), and dealing with teachers and professors (34%). The problems experienced by less than a third of the students were social pressures (31%), receiving financial aid (30%), loneliness or finding and scheduling readers (28% each), making good grades or writing papers (27%), making friends (24%), being accepted (23%), getting along with a roommate or registering for classes (22% each), locating suitable housing (21%), living independently (19%), and managing money (12%).

**Reading Medium Correlated with Problem Areas**

The researchers believed that there might be a relationship between the method of reading and certain problems experienced by students while attending college. Chi-square test statistics showed that students who used readers also had more problems than expected accessing books and written materials, accessing diagrams and charts, and finding and scheduling readers. Both braille textbook readers and Nemeth braille readers had more difficulties than expected accessing books and written materials. Nemeth braille readers also had more problems than expected accessing diagrams and charts. Students who used large print textbooks had no unexpected problems accessing any classroom materials identified in the survey, while students using enlargement devices had fewer problems than expected accessing diagrams and charts. Students who used taped textbooks had more problems than expected accessing books and written materials and accessing diagrams and charts.

**College Grades Correlated with Problem Areas**

College grade point average was correlated with problem areas. "B" and "C" students had more difficulty than expected with difficult classes or assignments and with making good grades ("A" students had fewer problems than expected for both areas). "A" and "B" students had fewer problems than expected in taking time limited exams, however, "C" students had more problems than expected.

**Response to Open-ended Questions**

Students were given the chance to answer two open-ended questions: (a) "What do you know now about college that you wish you had known when you were a freshman?" and (b) "What advice would you give a high school student with a visual impairment who wanted to go to college?" Their responses could be summarized into a few general categories. Many students provided a lot of encouragement to anyone contemplating attending college. They offered practical advice for choosing a college and narrowing one's options. Students with visual impairments were encouraged to be assertive, to advocate for themselves, and to become independent and responsible. Students should work closely with teachers, disabled student services, and other agencies to obtain needed equipment and support, including computers, transportation, O&M, and money. Students must learn good study habits and time management and organization skills, as well as test-taking skills. Students were encouraged to cultivate friendships through informal social interactions and organizational activities because the college experience includes life outside the classroom.

**Services Provided by Colleges, Now and in the Future**

The 66 administrators who responded were asked about 26 services which might be offered by their schools. The only service offered by all colleges was alternative testing arrangements, such as extended time or readers. The other services offered by a large percentage of the colleges were readers (97%); tutors (97%); adaptive course work, such as extended time (96%); adapted computer equipment (94%); and adaptive equipment (89%).

Eighty-three percent of the colleges provided cassette recorders and notetakers to their students with visual impairments; 82%, O&M assistance; 81%, recorded textbooks; 79%, special preregistration; 77%, extra counseling services; 76%, in-service training for professors and staff members; 71%, special orientation; and 70%, club, organization, or support groups. A majority of the colleges provided special housing arrangements (68%), typewriters (67%), diagnostic testing for academic placement purposes (60%), specialized resource rooms (57%), calculators (56%), and peer or assistant counselors (54%). Forty-two percent of the colleges provided transportation to their students with visual impairments, 41% offered large print books; 33%, braille books; 26%, college preparatory programs; and 21%, electronic notetakers.

**Summary**

**What Do Students with Visual Impairments Need to Know to Attend College?**

First, students with visual impairments need a good academic background to prepare them for the rigors of college. If students have not mastered the skills and information taught at the high school level, they will be handicapped upon entering college; this handicap has little to do with the visual impairment. Making good grades in high school is one of the best preparations that any student can make to prepare for college.

Students with visual impairments must have built up a repertoire of skills to allow them to compete at the college level. They must have good study skills, notetaking skills, and test-taking skills. This will require the student to locate the correct adaptive equipment and to become proficient in using that equipment. More and more, students will have to become familiar, and even proficient, on computers.

Students with visual impairments must be able to keep up with reading assignments. They may have to arrange for taped, large print, or brailled materials. In order to obtain class materials in an alternative reading medium, students will have to work closely with teachers to acquire reading assignments in advance. They may choose to use readers or they may invest in adaptive equipment which allows them to read the materials for themselves. Regardless of the method used, students with visual impairments must be able to read the class assignments.

If a student with a visual impairment needs assistance, it is his or her responsibility to make the initial request. Students must become comfortable discussing their needs in relationship to their visual impairment with teachers, administrators, other students, and personnel from disabled student services. Armed with knowledge about their legal rights, students will be able to overcome resistance to obtaining necessary accommodations.

Students with visual impairments must learn how to do things for themselves. This is a part of growing up. Readers may have to be located, hired, trained, or fired. The student should be able to make arrangements for their own readers. Textbooks may have to be ordered in advance. The student should learn where to order books and then take on this task for him or herself. Students will have to travel from dormitories (or from other types of housing), to classes, to the cafeteria, and back again. The student should learn those routes and alternative methods to compensate for late rides, inclement weather, or rescheduled classes. These are only a few examples of the need for students to establish their independence and to develop responsibility for themselves.

It requires money to attend college. Students with visual impairments have sources of money available through vocational rehabilitation which are not available to sighted students. Financial aid application requirements are often rigid, so students must be prepared to meet other's schedules and requirements in order to receive funds. Other sources of money include family resources and self-payment. Whatever the source of funds, students will have to learn how to manage their money because the amounts received are, somehow, never enough.

Many respondents in this study worked for a period of time before enrolling in college. Even those who did not work for pay, often participated in volunteer activities. Many of the students stressed the importance of joining an organization or interest group in order to network, gain information, and develop supports.

The biggest problems encountered by students in this study were managing their time; accessing diagrams, charts, books, and written materials; having enough money; and overcoming difficult classes or assignments. The next most frequently mentioned problems were finding and utilizing transportation, finding a way around campus, participating in recreational or athletic activities, taking exams with time limits, accessing computers, obtaining special services, and dealing with teachers. Coping with social pressures was the next leading problem, followed by receiving financial aid, loneliness, finding and scheduling readers, making good grades, writing papers, making friends, being accepted, getting along with a roommate, registering for classes, locating suitable housing, living independently, and managing money.

If future students could closely examine this list of common problems, see which ones might apply to them, and take remedial steps to overcome those problems before they occur, they might be better prepared for college. Regardless of the circumstances, potential students can take comfort from one student who advised that the first year of college is the hardest; it does get better!

**What are the Specific Steps that Students with Visual Impairments Need to Take in Order to Successfully Attend College?**

Students with visual impairments thinking about college should begin early to make their plans. They must satisfy the requirements of the college, scholarship granting agencies, and vocational rehabilitation. This process does take time to complete.

Students should fully research their options. They must know what they want to accomplish and then set out to meet their goals. Some of the students in the study delayed their college education in order to work for awhile. Students planning to attend college should know that these students were doing quite well at their studies when they did return to college.

The extensive technical report (McBroom, Sikka, & Jones, 1993) lists a detailed set of activities which should be accomplished by a certain time in order to attend college following high school graduation. A much shortened version is presented here. A potential college student should adapt the list to his or her particular circumstances.

The junior high student with a visual impairment can begin exploring their career options, as well as concentrating on their studies.

Ninth grade students can continue to explore their career options and include vocational activities in the annual IEP. The guidance counselor can help by listing preparatory classes needed for college and working with the student to determine if this plan of study can be met. Standardized achievement tests should be ordered in an accessible format for the student. The student can make initial contact with the vocational rehabilitation counselor. Participation in extracurricular activities, clubs, and organizations is important for college preparation. If the student has not done so already, he or she can obtain a public library card, apply for membership in the Library for the Blind, and register with Recordings for the Blind.

In the tenth grade, the student may continue to explore his or her career options and again, include vocational activities in the annual IEP. Meetings with the vocational rehabilitation counselor will continue. The student will complete standardized achievement tests, review results with the guidance counselor, and arrange for necessary tutoring. At this point, the tenth grade student should begin researching possible colleges. Participation in extracurricular activities, clubs, and organizations should continue. The student may consider taking a job or becoming a volunteer. It may become necessary for the student to enroll in a summer enrichment program to learn braille, computer skills, O&M, study skills, etc. The student should obtain a Social Security card, an identification card, and, if necessary, a reduced fare card from local transportation systems.

Exploration of career options and inclusion of vocational activities in the annual IEP should continue in the eleventh grade. The student will also continue to meet with the vocational rehabilitation counselor; participate in extracurricular activities, clubs, and organizations; and work or volunteer. The student should continue to research possible colleges by reviewing their catalogs. The student can begin to reduce the list of possible colleges. College expenses should be discussed with parents and the student can register for scholarships and financial assistance. The student should begin to visit college campuses and obtain college application forms and information about application procedures, time frames, and financial aid. The student may once again, enroll in summer enrichment programs to gain needed skills. The student should also register to take standardized college admission tests in an accessible format.

The high school senior has a lot to accomplish during the year. Career options may become more definite and the annual IEP should reflect this. Meetings with the vocational rehabilitation counselor should include discussions about college options, community support services, vocational rehabilitation services, and state and national organizations. Participation in extracurricular activities, clubs, organizations, jobs, and volunteer work will continue. The list of colleges will be further reduced. All applications should be completed and mailed by their deadlines. The student should complete standardized admission tests and send scores to selected colleges. During this time, the student should register for scholarships, complete all health and immunization requirements, and continue to meet all deadlines. The student will want to complete all initial college visits and then revisit the top college choices to inquire about financial aid, scholarships, and services for students with disabilities. Once acceptances arrive, the student can select a college to attend, pay deposits (including housing), and complete all necessary paperwork. The student may choose to discuss his or her needs with the college's office of disabled student services. Throughout the year, the student must continue to maintain good grades.

**Do Skills, Knowledge, and Steps Differ from the Perspective of Students Versus Program Administrators?**

In one way, the goals of the students and administrators do not differ. Both groups want students to obtain a college education. However, the emphasis is sometimes different because of separate priorities. The student only has to be concerned about completing his or her own college requirements, while the college administrator has hundreds or thousands of students with whom to deal.

Students with visual impairments will have to begin their college search early to find a college that best meets their academic requirements and their need for adaptations and services. Students should understand that they are just one among many individuals who make requests for special services. Some accommodations simply take time to accomplish, so students should allow for that delay.

If students with visual impairments need assistance, it is their responsibility and obligation to ask for help. It is not the college administrator's responsibility to seek out students, however, they should make the services as easy to access as possible. College students may have developed a rigid set of requirements for adaptive equipment. College administrators are not required to provide any particular piece of equipment, but they must work with the student to make sure that an acceptable adaptation is provided. Students should be prepared to offer suggestions and solutions and not just problems. Sometimes the administration is amenable, but they simply do not know what is expected or what is available.

Students with visual impairments should not expect and should never ask for adaptations or services that place them at an advantage over other students. Administrators should allow only those adaptations that place the student in the same competitive setting as all other students. All students will not pass their courses or graduate from college, and neither will all students with visual impairments.

Administrators in this study tended to agree that the Americans with Disabilities Act will result in increased awareness of disability issues among their faculty, staff, and students. Those schools that made a sincere commitment to Section 504 of the Rehabilitation Act of 1973 will have less difficulty complying with ADA. ADA will probably result in more students with disabilities attending college, including those with visual impairments.

From a list of services provided by colleges, students in this study were asked which ones they used. Administrators were also asked to mark those services that were used by students at their schools. The listing of services for students and administrators was not entirely compatible, therefore, any comparison between the two sets of responses will be tentative.

The top group of services as reported by students were alternate test arrangements, computers, special preregistration for classes, college health services, tutors, college counseling services, readers, and adapted reading formats. All of these services were reported by a high percentage of administrators as services offered by their colleges and used by their students (except for college health services, which was not included on the administrators' list). Administrators of college programs might want to continue strengthening these services, based on their use by students with visual impairments.

In summary, students with visual impairments can successfully attend college with their sighted peers if supporting services are available. Based on interviews with students and administrators, this summary has briefly described the types of skills and information that students with visual impairments need to know to attend college, the specific steps that should be taken to achieve this goal, and some of the differences in the perceptions of students and administrators.

**References**

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