A MODEL SUMMER PROGRAM FOR HANDICAPPED COLLEGE STUDENTS

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During the summer of 1988, the Goddard Space Flight Center was the site of a new NASA project called "A Model Summer Program for Handicapped College Students." Directed by Gallaudet University, the project's aim was to identify eight severely physically disabled college students — four from Gallaudet University and four from local historically black colleges and universities (HBCUs) — majoring in technical fields and to assign them technical projects related to aerospace which they would complete under the guidance of mentors who were full time employees of Goddard.

Gallaudet University is unique. It was founded in 1864 by an Act of Congress under President Abraham Lincoln and became the only liberal arts college in the world for the deaf. Located in northeast Washington, D.C., Gallaudet is just a twenty minute drive from Goddard. Virtually all its undergraduates are deaf or hard of hearing. A large percentage have additional disabilities including visual and mobility impairments. While at Gallaudet, deaf students are not handicapped, for virtually all the staff and faculty use sign language. Also commonplace to make collegiate life more accessible are TDDs (Telecommunication Devices for the Deaf), flashing lights (to complement bells and sirens), and captioned movies and television. Gallaudet is the only university in the world to have a deaf president.

Even as Galluadet provides a non-handicapping environment, so too can the workplace create an environment for disabled people that is enabling, comfortable, and accommodating. Towards this end, the model summer program at Goddard was established.

The greatest challenge of the project was locating students who met the project's four criteria for participation. This task tended to be difficult because offices offering services to handicapped students are not well established at the majority of HBCU's contacted. Students were required to:

1. be enrolled at Gallaudet or an HBCU;
2. be making progress toward a BA/BS degree in a technical or scientific field;
3. have a respectable grade point average; and
4. have a severe disability.

The pool for eligible applicants is exceedingly small. Few severely disabled minority young people are enrolled at four-year colleges. Furthermore, persons with disabilities do not traditionally select majors in scientific and engineering fields. The reasons for this situation are many:

1. While growing up, frequently the focus by the family and social services was on coping with the child's disability. Little thought was given to preparing the child for a career.

2. In many high schools, disabled students were waived from the science requirement due to inaccessibility to the lab, and real or imaginary dangers perceived by parents, teachers, and administrators.

3. There were few role models in the scientific or technical fields for the disabled student.

These combined factors severely limit the number of candidates for the program. We expect that the pool of candidates will grow as students are encouraged to explore the possibility of a future in a technical or scientific field while they are still in elementary school. Furthermore, the laws now require that all students receive an equal access to education.

Other factors complicate the placement of students in the work environment. Many disabled students have had little, if any, prior work experience and are reluctant to seek a work experience: issues of transportation, communication or accessibility often may seem overwhelming.

On the other hand, many organizations hesitate to consider severely disabled candidates because the organizations themselves feel uncomfortable and do not understand the abilities of these people who are different from the typical applicant.

Thus, with these issues in mind, Goddard Space Flight Center and Gallaudet University designed a model ten week program which provided:

1. support, resources, and training to supervisors and co-workers through workshops and individual assistance;

2. accessible housing at Gallaudet and accessible transportation for the students;

3. a mentor from Goddard for each student;

4. bi-weekly sign language classes for all interested Goddard employees;

5. an actual technical project for each student to work on;

6. on-site seminars on various technical topics for all participating students;

7. sign language interpreters for all training seminars;

8. a full-time coordinator who arranged the seminars, taught the sign language classes, handled the logistical issues, and met with the students as a group each week to evaluate and examine their experiences.

Was the program a success? Although we were unable to fill all four slots designated for the HBCU students because of the aforementioned reasons, seven students participated: five were from Gallaudet,

one was from the University of the District of Columbia, and one was from Bowie State College in Bowie, Maryland. Five of the seven had GPAs of 3.0 or higher. All were severely handicapped and majored in math and/or computer science.

The participants were almost unanimous in stating they received much more than they had expected. They were especially surprised at how challenging the tasks were for which they were responsible. Most did not expect to be treated so professionally: One participant stated "For the first time I was able to work on projects with other professionals...I learned so much!"

Almost all the participants responding listed improvement in their technical skills and an increase in self confidence as their primary growth areas. Other areas of growth listed included improvements in human relationship skills and the ability to handle responsibility. One participant summed it up best: "I felt positive about myself...I learned so much that my brain almost exploded." Another student said "I felt so good and proud to work for NASA."

As for the supervisors' reactions to the students:

* Six of the seven supervisors involved in the project want to be included in the coming year's project.

* Five of the seven participating students would "definitely" be hired if a position became available.

Other positive outcomes of the program:

* Three of the seven students are still working at NASA, one as a stay-in-school, and the other two are enrolled in Goddard's co-op program.

* Twenty-three employees studied sign language so that they are able to communicate more effectively with their summer co-worker and other permanent deaf employees.

* One of the participants made a presentation about her NASA experience to a group of about 200 Gallaudet freshmen who were considering a major in the Computer Science, Physics, Engineering, or Math fields. At that presentation the freshmen were also given information about the various ways they might be considered for employment at a NASA facility.

* Three Gallaudet participants made presentations about their experiences at a meeting of 50 Co-op interns.

* The success of this project and examples of student participants' accomplishments have been used by Gallaudet faculty in advising other Gallaudet students about career opportunities and skill requirements.

* A group of 15 deaf high school students participating in a Young Scholars Program at Gallaudet toured Goddard Space Flight Center and visited the deaf college students at their worksites.

Summing up the first year's program, the project was a threefold success:

* Disabled students received important technical work experience.

* Goddard was sensitized and exposed to the abilities of physically-challenged persons and became more aware of a new pool of talent.

* Younger students, high school and entering freshmen or sophomores, were encouraged by older students' positive experiences related to the technical opportunities offered by NASA.

According to almost all participants, the model program was a success. It will be repeated during the summer of 1989 at Goddard.