ABSTRACT
The University of Maryland has recently begun a partnership with Byte Back, a computer skills training program for unemployed and underemployed persons in the Washington, D.C. area. Thus far, the University has provided short-term positions to two interns from the program. This paper describes the partnership and explores the challenges faced to date, including administrative, managerial, and performance issues.

Keywords
Digital divide, computer skills retraining, partnership, internship program.

1. INTRODUCTION
The University of Maryland, Office of Information Technology (OIT), and Byte Back, a 501(c)3, non-profit organization that provides computer training for unemployed and underemployed District of Columbia area adults and youth in order to increase their skill sets and marketability, began a partnership in 1999.

2. MORE ABOUT BYTE BACK
There are three basic tracks to the Byte Back program.

2.1 Track 1
The first track is regular computer training classes that meet for 90 minutes once a week (plus 90 minutes of lab time). These classes focus on the Microsoft Office suite of products and will prepare students for jobs that require computer skills but are not necessarily in the computer industry.

2.2 Track 2
The Internship Program, Track II, provides for fast-track, advanced training to prepare selected individuals for careers in the computer industry. These are often individuals who were taking the regular Byte Back classes and who demonstrated significant interest and ability. Unlike the regular Byte Back program, which prepares people for non-computer industry jobs that require computer skills, the internship program prepares its participants for a career in the computer industry.

2.3 Track 3
The third track is a pilot Youth Program. After school sessions focus on computer skills and the computer as a medium of communication. The students work with digital cameras and develop PowerPoint presentations and design web pages using HTML.

3. BEGINNINGS
The partnership began when two members of the Byte Back senior management, Barbara Altman (Vice President in charge of Programs) and Janet Lathan (Director of Education), arranged to meet with Don Riley (Chief Information Officer at the University of Maryland). Don Riley was favorably impressed and recommended that his senior staff meet with Byte Back to investigate partnership opportunities. During that meeting, Jennifer Fajman (Executive Director, Academic and Distributed Services) determined to bring her staff on board with Byte Back. Both the Byte Back staff and the OIT participants agreed that a “best fit” for the partnership was to focus on the Byte Back internship program.

An internal meeting of interested OIT management staff was convened to discuss issues, concerns, and possible partnering. A project manager was assigned to facilitate the communication process and coordinate further meetings. The next step was for interested OIT staff to visit the Byte Back organization in the northwest section of the District of Columbia and meet the
interns, see the operations, and further solidify the discussions.
The partnership actually became a reality during that follow-up meeting at the Byte Back office.

4. PARTNERSHIP
Byte Back personnel and OIT staff conducted a brainstorming session while at Byte Back. Some of the possible partnering ideas developed during that session included the following:

- Byte Back interns participating in an externship at the University of Maryland.
- The University of Maryland making OIT-sponsored vacant training slots available to the volunteer Byte Back training staff.
- Byte Back staff taking advantage of the information technology training facilities availability during the weekend (when classes are normally not in session at the University) to provide a resource to train the trainers.
- OIT staff volunteering as trainers at Byte Back.
- A field trip by Byte Back interns to the University of Maryland to visit the various information technology units in OIT.

The internship/externship partnership gelled when Byte Back identified an intern, a 1999 graduate of the program, for an externship. The individual came in to be interviewed. He was not a perfect fit for the needs of OIT, but he was enthusiastic during the interview process. Because of that enthusiasm, we did what we could do to find a place to put him, and a project was found that matched his Microsoft Access skills. The next extern interviewed with the User Services Staff and was offered a position working at the Help Desk.

5. ADMINISTRATIVE ISSUES
As with the first time through any effort, we faced administrative problems before we were actually able to place the Byte Back interns in their positions. These challenges were particularly severe when the first intern came on board but were not completely trouble-free for the second.

Byte Back and OIT agreed to share the payroll costs for the 3-month externship, Byte Back would pay $750 and the University of Maryland would pay $500 per month. So, if you pay an individual $500 for four 40-hour weeks, how do you break that up? The administrative staff did not want to use an hourly wage less than the minimum, although the externs would be paid from two sources. At first, the administrative staff had the contract written so that the individual would work 10-hours per month and receive $50 per hour. The contract was then rewritten, because it was the wrong kind of contract, and the new version stated that the individual would receive $500 per month for 25 hours biweekly. Even though the pay was the same, $500 per month, the extern perceived this as a significant change. He saw a pay rate of $50 per hour (for 10 hours) first, then a pay rate of $10 per hour (for 50 hours). He was still upset three months later.

Other issues that needed to be addressed were the following:

- How to characterize the position.
- Additional paperwork required to place the individual onto the payroll (resumes, statements of understanding, Byte Back paperwork).
- The need for documentation (no Social Security card).

Each of these issues delayed the starting date of the externship. It took approximately 30 days for the externship to begin, although the individual was ready to start, and wanted to start, the day we had the interview.

Some of these factors might have been minimized if the externs had not been hired as full University employees. However, Ms. Fajman believed that it was essential for the externs to have a sense of belonging at the University, and that hiring them as full employees, with all the attendant privileges, was vital to that goal. The externs were also included in the “Who’s New to OIT” section of the OIT web site and were given the same orientation that other new employees in their respective departments receive.

6. MANAGEMENT ISSUES
Management issues became a concern early on. We really had not specifically addressed management or lines of authority. During the first extern’s beginning week, he failed to come to work one day because he overslept and figured it would not be worthwhile coming in. Nor did he call to alert his supervisor to that fact. In the second extern’s case, she was not working a 40-hour week due to daycare pickups and drop-offs.

In both cases, members of the Byte Back staff were contacted and possible courses of action were discussed. We were concerned that we might not have any recourse if the employees didn’t work 40 hours, since their signed contracts with us specified 25 hours of work every two weeks. As mentioned above, this was a legal fiction; since they were also being paid by Byte Back, there was a clear understanding that they were expected to work 40 hours every week. This actually became less of an issue since both situations resolved satisfactorily. Both externs wanted to work at the University and were willing to work with us on the hours and attendance issues. Byte Back encouraged the University to treat the externs the same way any other employee would be treated in the same situation, which allowed us to make appropriate management decisions. If anything, the Byte Back staff was concerned we were treating the externs too generously – the Byte Back management wants the externship to prepare its interns for real-world jobs and wanted to make sure we didn’t grant them any privileges we wouldn’t have granted to other employees.

7. JOB KNOWLEDGE AND PERFORMANCE
Our staff is mainly comprised of highly educated, professional staff and University students, and there have been some mental adjustments needed in working with Byte Back externs. For example, the work at the Help Desk requires a tremendous amount of reading and writing – not areas of strength for our Byte Back extern. While some of our other employees don’t enjoy writing up problem reports for referral to level 2 technical support, we’ve never previously had an employee who had genuine difficulty with this vital part of our operation.

Another challenge is the need in our environment for employees to have a broad understanding of computer-related topics. Many
of our employees have been using computers for more than half their lives, which not only gives them a tremendous amount of knowledge about specific areas of computing, but also means they have an excellent understanding of the underlying principles. The Byte Back externs are in a rather different position, having had perhaps two years of computer experience before we met them. While they have knowledge of the specific areas they’ve received training in, their background lacks the kind of breadth most of our employees have. One area where we see this problem is when our Help Desk extern is confronted with questions she’s never encountered before; she has considerable difficulty seeing the parallels between the new problem and things she already knows.

Training has also been a major difficulty at the Help Desk, since we found that our Byte Back extern required considerably more training than other new employees do. She took at least three times as long to get through our standard training process than most new hires and required much more intensive attention from the training staff. Additionally, while on the job she requires substantially more assistance from other employees than average, and it takes her about twice as long to solve customers’ problems. One of the things this experience has reminded us of is how special our student employees really are!

8. LESSONS LEARNED
In retrospect, there are a number of things we would do differently with our next Byte Back extern.
• We need to fit future externs into available positions and work instead of finding projects into which to fit the externs.
• We need to develop a standard for administrative paperwork to cover future externs.
• We need to streamline the start work process for the extern. In both cases they had finished the Byte Back program and were looking for an externship to build upon what they had learned.
• Byte Back needs to be involved in the 3-month externship and visit the externs while they are working. There was some shifting of assignments at Byte Back during this time so the first visit was not made until the end of the first externship.
• Lower line managers need to be briefed on Byte Back and our unit’s objectives in this partnership. No management delineation had been made for either extern and the direct supervisors had not participated in any of the Byte Back/OIT discussions.

9. SUCCESSES OF THE PARTNERSHIP
The success of the partnership will ultimately be judged by the success of the externs in finding appropriate employment after leaving the program. We don’t know yet if the first extern has been successful in his job search, and the next intern will be finishing the externship in August 2000. Additional information will be available on this topic at the conference.

10. FUTURE DIRECTIONS
We are hoping to host our first Byte Back intern field trip to the University in the near future. We also intend to continue the externship program and are developing grant requests to fund future externs.