NOTE: This is a working document available for comment. The mentorship program is currently being offered again at North Dakota State University online Spring Semester 2013 and results will be added to this document. This document is being created in cooperation with the American Public Transportation Association Higher Education Subcommittee. Please send comments and suggestions to jill.hough@ndsu.edu
Higher Education Mentorship Program for Public Transportation

Transit professionals know there is no substitute for on-the-job experience, but a mentoring program can give students an inside look at potential careers.

A mentorship program could attract the next generation of transportation professionals to specific segments of the industry and launch their quest for life-long learning while they are still in school. This document outlines

- reasons to develop a mentorship scholastic program,
- the purpose of such a program,
- the goals of the program,
- matching mentors and mentees,
- mentor and mentee’s roles and responsibilities,
- mentor/mentee assignments, and
- an evaluation process.

The report contains information from the mentorship program at North Dakota State University’s (NDSU) Transportation and Logistics (TL) 786 Public Transportation class Spring Semester 2011 and 2012.

Why Develop a Mentorship / Scholastic Program?
A mentorship program can help students see theory in practice, or better understand “textbook” examples by discussing the topics with an industry expert working in the field. Also, mentorship programs may help students establish a life-long pattern of learning. Students learn to talk with mentors, making it easier to seek out mentor/mentee relationships early. In a formalized program, students learn to be mentees and better understand how to become mentors. Students who participate in a mentorship program learn valuable interpersonal communication skills through discussions with their mentors. These discussions also give them a greater understanding of professional
issues and other topics. As a result, students gain the confidence required to initiate interactions with other professionals.

Case for Mentoring
Some organizations may use mentoring programs to train and to retain employees why not begin the mentoring process for college students while they are still in school and identifying a career field? To begin the process the Orange County Transit Authority (OCTA) in Orange County, California’s mentorship model was reviewed to help develop the academic mentorship program.

Purpose of the Program
The mentorship program connects students with industry experts so that the students can learn about the practicalities of theories taught in class. The students may not enter the public transportation workforce per se, but the greater understanding of the field, the opportunity to connect theory to practice, and the development of a life-long learning process gained through the mentorship program will benefit them in their chosen profession, e.g., consultant, department of transportation employee, etc., regardless of what profession they enter.

Goals of the program
The goals of the mentorship program are straightforward.

1. Educate students so they can understand theory and practice
2. Create a greater awareness of the industry
3. Develop a process for life-long learning
4. Teach students the importance of “giving back”

Duration
Mentorship programs can vary in length. NDSU is on the semester system, which lasts 16 weeks. The TL786 8-week class mentorship program was launched midway through NDSU’s 16-week semester, allowing students to learn some basics about public transportation before conversing with their mentors. The eight weeks was appropriate
for students to get to know their mentor without burdening the mentors. This period also allowed the mentor and mentee to build a relationship that could continue beyond the course if both agreed to do so. Some of the students from the 2011 and 2012 classes report that they continue to stay in contact with their mentors. This program sets students up for life-long mentoring both as a mentee and as a future mentor. Ideally, through the program, individuals learn the value of having a mentor and being a mentor.

**Recruiting Mentors**

It is paramount to attract mentors who sincerely want to work with students and appreciate the educational process. Mentors also need to understand their time commitment to the student will be about an hour or more per week, depending upon additional questions from the mentee. Fortunately, I was able to recruit experts from the field who were dedicated to the education of the next generation of professionals. To begin recruiting mentors, select potential mentors based on their knowledge of the field and their desire to share that knowledge.¹

**Matching Mentor and Mentee**

Pairing students and mentors is easy when class size is small, but it can become more challenging as class size increases. In 2011, with four students, and in 2012, with eleven students, mentors were matched primarily based upon student interest and geographic location.² In the initial weeks of class, students reported their areas of interest, e.g., rail, paratransit, etc., and then matches were established. A questionnaire would be a useful tool to gain a better understanding of student interest areas. After the initial match, provide an email introduction between the student and the mentor and ask them to share their bios with one another. Disseminating mentor bios may work to match mentors and mentees by allowing students to select their mentors, but this can be difficult with large classes because everyone may gravitate toward a particular

---

¹ A goal is to develop a national mentor database of individuals willing to serve as mentors for students enrolled in a public transportation class.
² TL786 was in-person and online so there were students from Spain, Massachusetts, Pennsylvania, South Dakota, and Washington, DC participating in the class along with the students in Fargo, North Dakota.
mentor. After introducing students and mentors via email, they were asked to exchange biographies before the first assignment so they would be more familiar with one another to facilitate communication. If the class is larger than 25 students the matching is more complicated, but can still be done by hand. The mentors of 2011 continued as mentors for the 2012 class.

**Mentor and Mentee’s Roles and Responsibilities**

For this mentorship program, conversing and completing assignments was the primary responsibility. Other roles and responsibilities deemed appropriate may be added. The list of roles and responsibilities in this section was adapted from the OCTA’s manual on mentorship.

The mentor serves as role model and resource and is asked to:

1. Create a focused development plan with the mentee and work toward achieving the stated goals
2. Be available and maintain consistent contact
3. Give objective feedback
4. Guide the mentee toward solutions
5. Listen actively to understand/talk through situations and ask clarifying questions
6. Provide mentees with information about opportunities/careers to explore
7. Facilitate professional networking and contacts as appropriate
8. Be respectful of mentee’s trust and maintain confidentiality
9. Exhibit tact, diplomacy, and sensitivity to working with others of different age groups, culture, and background

A mentee is proactive with his or her own professional/personal development and seeks the guidance of a mentor. Mentees are asked to:

1. Initiate/maintain regular contact with mentor
2. Clearly communicate needs, interests, problems, and goals
3. Learn about specific jobs and career paths
4. Create a focused development plan with mentor and work toward achieving the stated goals (provided by instructor)

---

3 A computer program to match mentors and mentees is being investigated at this time for incorporation into the program.
5. Build internal/external networks to support professional and personal goals
6. Listen to mentor’s suggestions, evaluate and take appropriate action
7. Appreciate mutual respect, trust and openness with mentor (including confidentiality)
8. Communicate with instructor on mentoring schedules/status.

**Accountability**

Completed assignments provided the accountability for mentees. The mentees had to write papers explaining their dialogue with their mentor and each paper was graded. Further, on the due date of each assignment, the class would spend time discussing their mentors’ responses. This discussion enriched the program because sharing mentors’ differing backgrounds and experiences allowed students to learn what other mentors shared with their mentee. If class time does not allow the opportunity for students to share verbally about their interaction with their mentor, a class blog or discussion board may be alternative methods for students to share their experiences.

**Assignments**

Each student was required to complete phone or in-person discussions with their mentor. The students were given lists of questions about particular topics and it was also suggested the student write additional questions for the discussion. Topic areas included a basic interview to learn more about the mentor’s career path; performance measures; fares; levels of services; economic development; labor relations; and leadership. Two industry experts helped with the development of the questions - David Lee, general manager of CT Transit, and Paul Larrousse, director of the National Transit Institute. The topics can be re-ordered, modified, or reduced depending upon the class curriculum. The topic areas match well with the National Transit Curriculum currently under development.

**Assignment 1 – Interview Questions for Mentor**

1. What career path did you choose and why?
2. What are some difficulties that you have encountered and how did you handle them?
3. What mistakes have you made and what advice would you give to someone just starting out?
4. If not transit what other transportation field would you have entered?
5. When interviewing a candidate, what are your expectations? When you look at a vita, what are you looking for? What are the top priorities?
6. Did you have a mentor? If so, who? What information did they pass on to you?
7. What skill sets are important for someone entering the job market in transit?
8. What educational preparation should I have for a career in transit?
9. What did they not teach you in school that I should know?
10. How do practitioners in transit keep up with new developments, technologies, etc.?

Assignment 2 – Understand Performance Measures Cost Effectiveness
1. What is cost effectiveness?
2. What is the difference between efficiency and effectiveness?
3. How do you measure and monitor cost effectiveness?
4. What are some policy considerations that affect cost-effectiveness from one transit system to another?

Assignment 3 – Understanding Cost Efficiency
1. What is cost efficiency?
2. How do you measure and monitor cost efficiency?
3. What are some of the major cost efficiency metrics that you rely on?
4. What local conditions and circumstances affect cost efficiency?
5. How do transit systems balance the need to be efficient (i.e., to be good stewards of public funding) with the mission to be effective (i.e., to serve mobility needs in the community)?

Assignment 4 – Policy Issues: Fares
1. Fares – How do you set fares so as to maximize ridership?
2. How do you set fares that will maximize revenues but not discourage ridership?
3. How do you set fares to carry out the social mission of transit?
4. Alternative or additional section – how do you integrate sophisticated new fare alternatives and fare collection technologies into your system, and how to you gain public acceptance for them?

Assignment 5 – Policy Issues: Levels of Service
1. If you have a budget deficit at the transit agency and need to cut transit service, how do you go about determining which services to cut?
2. What processes do you have to use to actually implement service cuts?
3. What criteria do you use in deciding whether to add new service? What service planning policies govern the addition of service on existing routes (e.g., load standards, on-time performance, etc.)?
4. How do transit agencies provide public input to the service planning process?

Assignment 6 – Economic Development and Transit
1. Can transit be used as a catalyst for economic development?
2. If so, how can it be used as an economic catalyst and how do you measure it?
3. How is transit used as an instrument for managing regional land use?
4. How do federal policies for major capital projects incorporate transit oriented development?

Assignment 7 – Labor and Labor Relations
1. Describe a typical day and week at an agency (consultants too)
2. How do you deal with union negotiations?
3. We are seeing calls for major changes in public sector unions and bargaining. How does this work in public transportation? (I am getting at the Section 5333 [13(c)] issue and the fact that a lot of transit service is already privately operated.)
4. How do union work rules in the transit industry impact cost-efficiency?
5. What are some advantages for management in dealing with a unionized workforce?
6. What workforce development challenges does the transit industry face in coming years?

Assignment 8 – Leadership
1. How do you inspire people to do a better job? Excel? Do their best?
2. How do you determine what level of independence or responsibility to give employees?
3. How do you inspire yourself to lead on a day in and day out basis?
4. How does your organization set goals and objectives? How are managers made accountable for performance?
5. How does a transit organization articulate its mission/vision? How do you make every employee feel he/she contributes to that mission (especially when many employees perform specialized, technical functions)?
6. How do you establish an organizational culture that embraces such values as ethical behavior, social justice, and diversity?
The assignments for the pilot mentor/mentee 2012 pilot were similar in nature to those outlined above. The only difference was that a couple of the topics, e.g., efficiency and effectiveness, were combined rather than in separate assignments.

**Evaluation Questions**
Mentors and mentees completed an evaluation of the mentorship program at the end of the semester. Each evaluation contained the following six open-ended questions.

1. Was the timeframe for the academic related mentor/mentee process too long, too short or just right? Please explain.

2. Please share 1, 2 or 3 things you liked MOST about the academic-related mentor/mentee process.

3. What would you like to see included in the academic mentor/mentee process?

4. What do you think should be eliminated from the academic mentor/mentee process?

5. Please share your insight(s) on the required assignments for the mentor/mentee process, e.g. was the process too structured? Were there too many structured questions? Should the topics and questions be modified? What would you like to see done differently regarding the assignments? Would you have liked to come up with your own questions for your mentor?

6. Do you have suggestions that would help enhance the experience of the academic mentor/mentee process?

The evaluations revealed the timeframe was “just right.” In terms of what students and mentors liked best, the students liked to learn from industry leaders and the mentors reported that they also learned from the students. They both liked that the process was structured, which allowed them to focus on questions rather than “wander around” and it allowed the conversations to be a dialogue rather than just an “interview.”

What would students and mentors like to see included in the academic mentor/mentee process? One student indicated they would like to see another question or assignment about the mentor’s actual work in the industry and different experiences in challenging
situations. Students were encouraged to ask additional questions, so this could have been addressed if the student chose to do so.

Students overwhelmingly indicated that nothing be eliminated because it would reduce their learning experiences. Mentors also did not want to see anything eliminated. If anything, mentors wanted the students to engage more and share more of their ideas. One student did indicate they felt busy professionals should not be contacted so many times. However, the professionals serving as mentors knew about the time commitment and agreed to participate in the process.

With regard to insight(s) on the mentor/mentee process, most students as well as mentors liked having the process structured. Some students noted that they wanted to ask additional questions. As noted earlier, students were encouraged to augment the assigned questions with their own when the assignments were administered.

**Cost**
The only cost involved in this process is time. During the pilot process, mentors donated their time but were asked to meet the students at the end of the process at a dinner event. Mentees completed assignments and, of course, paid the tuition for the class. They also most likely used their phone or Internet service to contact their mentor.

**Lessons Learned**
Implementing the mentorship program was widely successful. Possible changes to consider include reducing the number of questions required for each assignment or ask the students to select three questions and then have them identify three additional questions. Encouraging the students to take more ownership in the process could be beneficial and help them learn how to develop relevant questions.

**For Further Consideration…A What If Scenario**
The two mentorship pilots at NDSU were successful. An issue that never arose is a situation where a mentee and a mentor do not get along well. Hopefully, professionalism would compel the two to complete the program, but if not, perhaps
mentor and mentee may decide it is best to end the discussions in which case I would need to find another mentor. It is important that a bad experience does not turn a mentee (or a mentor for that matter) off from seeking mentor/mentee opportunities in the future.

Conclusions
The mentorship program piloted at NDSU was judged to be successful based upon mentee and mentor feedback. The program could be replicated at nearly any school with an instructor willing to take the time to implement the program, even in other fields or other industries with different sets of questions specific to that industry. The benefits can be high for students who will learn more about the industry and learn to connect with mentors, for mentors who will learn to connect with students, and for instructors to who will watch the growth in the students.

Are there opportunities for you to use mentors to improve learning in your classroom or workplace? Do you have suggestions for enhancing the academic mentor/mentee process?