Employee availability is a key factor in any organization. No matter what kind of work an organization does, it needs people on the job to accomplish its goals. The Transportation Research Board’s TOPS Committee identified the issue of employee availability as being particularly important to the transit industry. Absenteeism and vacant positions have a severe impact on transit agencies’ budgets and their ability to provide reliable service.

With funding from the Transit Cooperative Research Program, FDOT, and Lynx, CUTR was commissioned to study the issue of maximizing good attendance within transit agencies. Much of the research focused on how to reduce absenteeism.

The research for this project explored ways that can help transit agencies compete more effectively for job applicants. It also looked at how transit agencies can do a better job of selecting applicants who are likely to have fewer absences and better attendance patterns. This research resulted in TCRP Synthesis Report #33 entitled “Practices in Assuring Employee Availability.”

**Historically, bus operators use sick leave at a rate three times greater than the average for all blue-collar workers.**

**Challenges**

Attendance at transit agencies has long been a concern. Historically, bus operators use sick leave at a rate three times greater than the average for all blue-collar workers. Transit managers believe that this problem is increasing.

**Transportation Scholarships Awarded**

The 2000 Georgia Brosch Memorial Transportation Scholarships were recently awarded to USF Engineering students Sachin Gangrade (l) and Alasdair Cain (r).
A variety of factors and forces contribute to problems with employee availability. An unemployment rate of less than 4 percent makes competition for new job applicants particularly fierce. Many job applicants might not like the working conditions offered to junior level bus operators (the worst schedules, routes, days off, etc.). Many other entry-level jobs offer equal or better pay; some even offer signing bonuses or bonus payments for staying with the company for six months and more attractive work schedules. Many transit managers report that they notice a new work ethic among younger employees, claiming they don’t have the same sense of loyalty to employers as the previous generation and that they place a higher value on leisure time.

All of this translates into employees who are less likely to work overtime and more likely to use sick leave and may leave the job once an opportunity comes along that pays better wages and offers more flexible hours. The increasing congestion on today’s highways also contributes to job stress for bus operators who have to deal with “road rage” and the stress of keeping tight schedules on crowded streets. Bus operators also note the change in society that has reduced the respect among passengers for the operators’ authority and responsibility.

Solutions
Against all these challenges, transit agencies throughout the nation have taken a variety of steps to promote better attendance. The agencies that have been more aggressive and successful have averaged 10 days of unscheduled leave per bus operator per year, compared to the average of 17 days of unscheduled leave in all of the agencies surveyed. The following are among the more successful techniques to improve employee availability.

Utilizing Customized Employee Selection Instruments. Those transit agencies that utilize specialized testing instruments to help identify the best possible job candidates have found greater success in hiring people who are less likely to be absent and have accidents. Some of the tests that have proved helpful include the Bus Operator Selection Survey (BOSS), the Seattle Metro Video Test, the Driver Risk Index Video Test, and the Reid Report tests.

 Appropriately Structured Financial Incentives. There is growing evidence that larger cash awards based on performance periods of less than a year are much more achievable, popular, and successful than programs that require perfect attendance for a full year. Transit agencies need to keep in mind that bus operators often believe that using sick time is “their right” (not a privilege), to be used whenever needed for personal

continued on page 11
Strategies for interchange areas developed

Land use changes can be rapid and intensive near interchange areas. A variety of problems can occur if interchange areas are allowed to develop without the necessary measures to manage access outcomes. Research has shown that signalized intersections too close to interchange ramps can cause heavy volumes of weaving traffic, complex traffic signal operations, and traffic backing up the ramps on to the main line. Curb cuts and median openings near the interchange ramps further compound these problems, leading to serious safety and operational problems.

To help address these issues, the Florida DOT asked CUTR to conduct a study of land development and access management strategies for interchange areas. The study addressed policies and procedures of FDOT and the Florida Department of Community Affairs as well as local government practices. The final report includes a model ordinance to assist local agencies in managing interchange area access. “The report clearly states the importance of interchanges and gives us a blueprint for working with local governments to preserve the safety and efficiency of interchange areas,” said Gary Sokolow, Access Management Planner for FDOT.

A major conclusion of the study is the need to promote the development of local access roads in interchange areas, as an alternative to driveway access. Many people who will exit from the freeway are unfamiliar with the area and want to use one or more of the services offered. Too many choices in close proximity create confusion, causing drivers to make erratic movements and increasing the potential for crashes. The solution is to create an uncluttered environment, with consolidated signage, median controls, and consolidated and clearly identifiable access points. Such measures reduce driver confusion and improve driver safety.

Development considerations

One issue is the concern among local policy makers that access controls could reduce or deter development. This is particularly true in rural or fringe communities seeking to increase their tax base at these highly valued locations. The study found, however, that effective planning and access management helps rather than hinders the development potential of interchange areas. Local access roads open up more land for development on the interior of interchange areas, thereby increasing their development potential and allowing more efficient use of land. In addition, preventing division of highway frontage near interchanges into small, irregular lots not only reduces access problems but preserves the larger parcels that are attractive for restaurant, service station, and hotel development.

The interchange at I-75 and Jones Loop Road near Punta Gorda is an example of how access roads can be used to direct development while preserving the transportation function of interchange areas. The area served by a local road includes a hotel, restaurant, and trucking facility, among other commercial uses. The local roads, interparcel access, and connectivity with side streets continue on page 6
CUTR welcomes new research faculty

Wendy Castleberry has joined CUTR as a Graphics and Communications Specialist specializing in publications/web design and public relations. She holds Bachelor’s degree in Communication from Mississippi State University in Starkville, Mississippi. Castleberry was previously employed as the Director of Special Events and Student Programs for the USF Alumni Association in Tampa.

Janet L. Davis has joined CUTR as a Senior Research Associate specializing in transportation planning and program development & evaluation. She holds a Bachelor’s degree in Psychology from Southern Illinois University in Carbondale, Illinois. Davis was previously employed as a Planner for Bay Area Commuter Services in Tampa.

Nevine Labib Georggi has joined CUTR as a Research Associate specializing in intelligent transportation systems and safety programming. She holds a Bachelor’s degree in Civil Engineering from Cairo University (Egypt) and a Master’s degree in Civil Engineering from USF. Georggi was previously Coordinator for CUTR’s Resource Information Center.

Brenda Thompson has joined CUTR as a Research Associate specializing in transportation economics, transit and system performance analysis. She holds a Bachelor’s degree in Interdisciplinary Social Science from University of West Florida in Pensacola, and a Master’s degree in Economics from USF. Thompson previously was a CUTR Graduate Research Assistant.

The $500 award is based on academic achievement, professional activities, and career goals. Gangrade will receive a Master's degree in Civil Engineering this summer and holds a Bachelor's degree in Civil Engineering from the Indian Institute of Technology in Madras. He is a Graduate Research Assistant in the College of Engineering currently involved in the development of nested logit models to forecast activity scheduling of individuals using the San Francisco Bay Area data set. Upon graduation, he plans to work as a transportation consultant in the public or private sector before pursuing his doctorate.

Cain also will receive a Master’s degree in Civil Engineering this summer. He holds a Bachelor’s degree in Civil Engineering from the University of Glasgow in Scotland and is a Graduate Research Assistant at CUTR currently involved in the analysis of one of FHWA’s variable pricing pilot projects and the use of mobile phones while driving. Upon graduation, he plans to pursue a career in the environmental and social impacts of transportation and perhaps teach.

We would like to express our sincere appreciation to the following recent donors to the Georgia Brosch Memorial Transportation Scholarship. Their generosity made it possible for two scholarships to be awarded in April 2000.

Ahmed E. Aburahmah  Snehamay Khasnabis
Bill & Patricia Ball  Hoyt Lowder
John H. Beck  Elizabeth Manning
Patrick L. Beyer  Ed Mierzejewski
George Billman  Gerry Miller
(in memory of Genevieve Billman)  Yolanda Moore
Jim Bishop  Mike Pietrzyk
Dan & Jodi Boyle  Steven & Louisa Reich
Robert Burleson  Stuart & Bevan Rogel
Harry A. Campbell  SRF Associates
Rick Day  Thomas J. Tighe
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Mary Figg  Charles E. Wallace
Florida Transit Association  Keith F. West
Nevine Labib Georggi  Kristine Williams
Sara Hendricks  (in memory of James Williams)
Gwen & Hank Hollis  Jack Wilson
David C. G. Kerr

SCHOLARSHIP—cont’d from page 1
Transit Development Plan completed for Volusia County Transit

When you think of Volusia County, Daytona Beach probably first comes to mind. After all, it is the home of the Daytona 500 and Bike Week, and its beaches attract visitors from around the world. But did you know that Pierson, a community in northwest Volusia County, is the “Fern Capital of the World?” Its residents do, because the majority of them work in the fields harvesting the cash crop of this small community. So do many of the residents of the surrounding communities in this area. With very few other employment opportunities, working in the fern farms to help support the agricultural-based economy of this region is the only way that many of the residents can support their families.

Jobs are few because there are no grocery stores or malls or shopping centers in Pierson—only three schools, a small municipal airport, and a City Hall. There is a convenience store near the center of town, but little else. Residents must travel more than 20 miles south along U.S. 17 to DeLand, the county seat of Volusia, to shop for food, see a doctor or dentist, or visit a social service agency. Unfortunately, many of the residents in this part of Volusia are poor—annual household incomes here rarely get above poverty level. Very few families have working automobiles, so many have to rely on rides from relatives and friends to make the trek to DeLand.

This should change soon for Pierson’s residents, as well as for those of the surrounding communities of DeLeon Springs, Barberville, and Seville. Once final approval has been received from the Volusia County Council, VOTRAN, Volusia County’s transit system, will begin providing fixed-route transit service along U.S. 17 between DeLand and these communities. Because of the general lack of transportation alternatives and the fact that many of the residents in this region came to the U.S. from Mexico where they were accustomed to relying on transit for their mobility needs, it is believed that the new route will be an extremely successful endeavor.

This new route in Northwest Volusia is just one of the recommendations made by CUTR in a transit development plan (TDP) prepared for Volusia County and VOTRAN. The project, completed in February 2000, also involved a comprehensive operations analysis of VOTRAN’s fixed-route service. This is the second TDP that CUTR has prepared for VOTRAN—the first was completed in 1996 and continues to be an important planning tool for the system’s management and staff.

According to Ken Fischer, VOTRAN’s General Manager, “VOTRAN depends on the Transit Development Plan to set direction and priorities for public transportation in Volusia County. CUTR’s work on our TDP was very valuable in our discussions with our County Council Members on the best way to balance the need for public transportation services with the limited financial resources.”

In all, more than 50 recommendations were developed for VOTRAN’s TDP, along with an implementation time frame for and estimated costs associated with the improvements. The recommendations included improvements for both VOTRAN’s fixed-route and demand-response transit services. CUTR utilized information from a host of sources, including an on-board customer survey, a ride check, a survey of VOTRAN operators, interviews with key local officials, user and non-user workshops, and a bus stop inventory that CUTR developed for VOTRAN, to identify the system’s needs and formulate the final TDP recommendations.

continued next page
Recommendations ranged from specific service improvements (improved frequencies on specific routes, later evening service, additional bus shelters, bus racks on buses), to capital improvements (vehicle replacement program, additional vanpool vehicles, upgraded farebox system), to direction for VOTRAN’s involvement in the County’s transportation planning process and other local planning issues, among other suggestions.

To date, several recommendations have been implemented. For example, with a growing Hispanic population in the county, it was recommended that VOTRAN seek to make bilingual transit information such as route maps and schedules available to its customers. VOTRAN has begun this process, and Spanish-language schedules are now available throughout the system’s Westside service area (spanning from DeLand south to Deltona and DeBary).

In addition, the Comprehensive Operations Analysis, which takes an in-depth look at the current operations of a transit system and is more diagnostic in nature than the more forward-thinking TDP process, resulted in a number of changes being recommended for 19 of VOTRAN’s 25 total routes. Route modifications that were suggested included the elimination of duplicate service from a number of routes, particularly the beach routes in the system’s Northeast service area (spanning from Ponce Inlet north to Ormond-by-the-Sea, and including Daytona Beach), the elimination of unproductive route segments, and the modification of transit service in the Westside and Southeast (New Smyrna Beach and surrounding communities) service areas to deviated fixed-route service.

CUTR also assisted VOTRAN with preparations for a public hearing on the proposed route modifications. The public hearing, which was held in March before the Volusia County Council, provided persons affected by the proposed route changes the opportunity to voice their concerns. VOTRAN is now in the process of reworking the modifications to particular routes in order to minimize the impact of the system changes on its customers. It is anticipated that actual implementation of any service changes will occur in the fall, pending final approval by the County Council.

For more information about this project, contact CUTR Senior Research Associate Joel R. Rey, rey@cutr.eng.usf.edu, (813) 974-9837.

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For more information or a copy of the final report, contact Kristine M. Williams, AICP, at krwillia.cutr.eng.usf.edu, (813) 974-9807.

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All maximize the accessibility of businesses, while channeling turning movements off the arterial and away from interchange ramps.

Although the need for improved access management is clear, the separation of state and local jurisdiction has made it difficult to accomplish. No single technique or governmental entity can achieve the desired results. Effective interchange area management requires a combination of techniques involving land use planning, zoning, subdivision regulation, signage, access management, and intergovernmental coordination. Each serves a separate function in the process, and incorporating several strategies ensures the intended outcome.

**Conclusions**

From a policy perspective, the study recommends that FDOT look beyond capacity analysis when considering a new interchange or modifying an existing one, and place greater emphasis on access management measures. Signalized intersections should be separated from interchange ramps by at least ¼ mile and preferably ½ mile, and access connections should not be allowed within 660 feet of a ramp and preferably 750 feet, as indicated in the literature.

Local agencies should support these outcomes through their land development process, both in terms of local regulations and through interchange area plans and development review. FDOT could assist local governments by locating possible access connections, reviewing design of access systems, and providing training in access management and interchange preservation. In addition, FDOT should secure written agreements with local governments to implement access management measures as a condition of interchange approval as part of the interchange justification process. FDOT should also strongly consider acquiring additional access rights in the vicinity of interchange ramps to help accomplish the desired access spacing.
Motorcycle riding requires more physical skills, coordination, and balance than driving a car. The effect of alcohol on a motorcyclist's coordination, judgment, and reaction time significantly increases the risk of crash involvement and injury severity. Moreover, motorcyclists who drink alcohol are more likely to speed, less likely to wear helmets, and more often involved in single vehicle crashes. Because of this, the misuse of alcohol has serious consequences for motorcyclists.

Motorcyclists have the highest intoxication rates among all road users. According to the National Highway Traffic Safety Administration (NHTSA), approximately 32 percent of all fatally injured motorcyclists in 1998 had blood alcohol concentration (BAC) levels greater than or equal to 0.10 g/dl. As is the case nationally, the proportion of alcohol-impaired motorcyclists killed in fatal crashes in Florida is substantial. In 1998, more than one-third of all motorcyclists (34%) killed in motor vehicle crashes were legally intoxicated.

Although much progress has been made in reducing alcohol-related crash fatalities involving motor vehicles, the same success has not been demonstrated with motorcyclists. Because the problem associated with motorcycling and alcohol is significant in Florida, CUTR conducted a comprehensive analysis of motorcycle-alcohol crashes from 1993 to 1997 to understand how and why these crashes occur and identified several countermeasures that may help to reduce alcohol-related motorcycle fatalities and injuries in Florida.

Study background
The study examined human-related and physical aspects of alcohol-related motorcycle crashes over the five-year period to help establish an “identity” to this crash type.

“It is through better understanding of how and where alcohol-related crashes occur that we (FDOT) are able to develop countermeasures to assist in reducing injuries and fatalities associated with these crashes,” said Eugene Hall, Traffic Safety Specialist, State Safety Office, and the FDOT project manager.

A total of 3,012 motorcycle crashes involving alcohol occurred during the study period. More than half of all alcohol-related motorcycle crashes happened between the hours of 9:00 p.m. and 3:00 a.m., with the peak hour falling between midnight and 1:00 a.m. Two-thirds of these crashes took place on weekends, and the highest percentage of fatal crashes occurred on Saturdays. March has the highest proportion of alcohol-related motorcycle crashes.

Crash factors
The descriptive crash analysis also identified several rider characteristics associated with alcohol-related motorcycle crashes. The overwhelming majority of riders involved in motorcycle-alcohol crashes are male (98%). Male riders ages 21 to 25 years exhibit the highest percentage of alcohol-related crash involvement. Further, passengers ages 21 to 25 years have the highest proportion of fatalities in alcohol-related motorcycle crashes. Almost 10 percent of passenger deaths and injuries involve children ages 15 and under.

This study found that more than one-third of all riders involved in alcohol-related crashes were not endorsed to operate a motorcycle. Among riders over 21, those in the 21 to 25 year age group exhibited the highest frequencies of non-endorsement. Almost one-half of the 143 riders under 21 involved in alcohol-related crashes were not properly licensed to operate a motorcycle (43%).

A total of 15 percent of riders and passengers killed in alcohol-related motorcycle crashes were not wearing helmets. In alcohol-related injury crashes, passengers were more likely to not wear helmets than riders (42% and 22%, respectively).

Sixty percent of all alcohol-related motorcycle crashes involve a collision with an object. In most cases, these crashes involve colliding with a vehicle in transport (50%) or with an other fixed object (30%). One-fourth of all fatal alcohol-related motorcycle crashes involve motorcyclists running off the road, overturning, or falling from the bike rather than striking another object.
Almost two-thirds of all single-vehicle crashes reportedly were due to careless riding and 10 percent were directly attributed to alcohol. In multiple-vehicle crashes, most riders were not cited for any improper driving action. When cited, however, most riders failed to yield the right-of-way (18%) or drove carelessly (13%). Alcohol was cited as a contributing factor even less in multi-vehicle crashes, 5 percent for both riders and motor vehicle drivers.

When speed was cited as a factor in the crash, alcohol-related motorcycle crashes had consistently higher estimated speeds than those not involving alcohol and motorcyclists were two times as likely to be speeding as riders in non-alcohol crashes.

### Countermeasures

CUTR also surveyed states about alcohol programs targeting motorcyclists to gather information on potential countermeasures. Almost all states surveyed have motorcycle safety programs funded mostly by motorcycle license and endorsement fees, student fees, state budgets allocations, and grants. Most programs sponsor rider education and training courses, promotional activities, public information and education campaigns, drug and alcohol education, licensing requirements, and research.

The majority of states do not require motorcyclists to complete a rider education course prior to licensing. However, some require training for younger riders ages 21 and under. Most states offer incentives to complete rider education courses such as waiving the written and skills test required to obtain a motorcycle license.

All of the states incorporate alcohol education into the rider education course. Only 5 out of 37 states have separate motorcycle-alcohol education programs.

### Recommendations

Major study recommendations include increasing efforts to get more motorcyclists properly licensed, greater exposure of messages to motorcyclists about the dangers of drinking and riding, and more focused statewide public education and information campaigns. In addition, better data collection is needed so that course participation can be linked to crash statistics and motorcycle safety programs can be evaluated to ensure program effectiveness.

Successful efforts to reach motorcyclists involve collaborative partnerships with local and community groups, motorcycle clubs and dealerships, non-profit and for-profit organizations, law enforcement, and public health agencies.

Some of the countermeasures identified in the study include:

- Create a public information & education campaign targeted specifically to motorcycle riders that delivers messages about impaired riding.
- Increase law enforcement training to detect impaired motorcyclists.
- Increase enforcement of motorcycle licensing and endorsement laws.
- Utilize motorcycle clubs, dealers, and organizations to distribute materials and promote rider education.
- Reach motorcyclists at the point of consumption (bars, motorcycle rallies, major events).
- Enroll bars and restaurants in responsible vendor programs.
- Recruit rider education instructors and motorcycle club members for a volunteer speaker’s bureau to talk to businesses, schools, and other community groups about motorcycle safety issues.
- Develop partnerships with local businesses, community groups, motorcyclists groups, and corporations to share the costs of these programs and increase the reach of safety materials.

For more information, contact CUTR Senior Research Associate Patricia A. Turner at turner@cutr.eng.usf.edu, (813) 974-3276.
Since 1989, CUTR has conducted the annual Performance Evaluation Study for the Florida DOT. This study’s primary objective is to assist FDOT in applying a performance evaluation system, developed jointly by CUTR and FDOT, to meet statutory requirements (FS 341.041 and FS 341.071).

The major components of the study allow the performance of Florida’s transit systems to be tracked using information from the National Transit Database (NTD), which contains standardized data submitted annually to the Federal Transit Administration (FTA) by transit agencies in the U.S. that receive federal funding. These major components include separate historical trend analyses for fixed-route and demand-response transit modes, and separate peer review analyses for the two modes.

Initially, only data for regular fixed-route services were included in the study. However, because of requirements of the Americans with Disabilities act (ADA), emphasis on the demand-response mode (i.e., usually door-to-door service) has increased; this mode is now included in the evaluation. General performance indicators are taken directly from NTD information and are used to derive measures of effectiveness and efficiency that are used throughout the study.

Ike Ubaka, Manager of Transit Systems Planning at FDOT, stated, “By providing accurate and reliable information on the performance of Florida’s transit systems, the trend and peer reports have become indispensable references for effective transit planning and management at both the state and local levels.”

The trend analysis compares each individual transit system in Florida against itself from fiscal year 1984 to the most recent fiscal year for which validated data are available. In addition, a trend is established for the state as a whole.

1998 data
CUTR recently completed the Performance Evaluation Study for the 1998 fiscal year and will soon begin collecting data for 1999. (The time lag in data availability is due to a comprehensive validation process which ensures that the most accurate data are included in the NTD.) Results of the most recent fixed-route trend analysis (FY 1984-FY 1998) show that ridership on the state's public transit systems has increased 39 percent since FY 1984. In FY 1998, ridership increased nearly 3 percent over the previous fiscal year, from approximately 171 million passenger trips to 176 million trips. Also, since FY 1984, the amount of service provided (service miles) by Florida's fixed-route bus and rail systems has increased 63 percent, to approximately 92.7 million miles in FY 1998. Between FY 1997 and FY 1998, service miles increased two percent (ridership grew 3% during this time).

One useful measure of cost efficiency is operating cost per service mile. Florida statewide total operating cost per service mile for all fixed-route modes (bus, rail, and automated guideway) has increased 58 percent since FY 1984 to $4.86 per mile in FY 1998. Interestingly, how-
ever, this rate of increase is actually slightly less than the rate of inflation during this time.

The two peer review analyses (for fixed-route and demand-response services) compare NTD data for transit systems with similar characteristics from within and outside Florida. Out-of-state fixed-route peer systems are selected from a 12-state region in the southern U.S., except for Miami-Dade Transit's peers which, due to the size of the system, must be selected from larger transit agencies across the U.S. Also, because of the unique nature of demand-response services, peers are chosen from among systems nationwide. The transit systems are categorized by the number of vehicles operated in maximum service, and data are presented for all the systems for each performance indicator and measure. The purpose of the peer reviews is not to rank the systems; instead, the reviews are used as only one tool in performance evaluation.

Peer reviews are very useful in that they raise questions and identify areas that may need further review and analysis. However, interpretation of the results is often difficult since peer reviews (and the NTD data used in conducting them) do not necessarily provide information regarding which aspects of performance are within control of the agency and which are not. Specific operating, management, and local policy characteristics strongly affect transit system performance and are difficult to measure in a peer review. Again, in looking at the measure of operating cost per service (revenue) mile, in FY 1998, 13 of the 20 fixed-route systems included in the study had transit systems are complying with the mandate to publish performance measures annually in their local newspaper (FS 341.071).

Yet another piece of the study involves training Florida transit system staff on NTD data collection and reporting methodologies. These training courses are typically held on a bi-annual basis and help introduce NTD information to new staff as well as provide a refresher for veteran NTD reporters. The training courses allow transit agency staff to share and discuss data collection and reporting issues with their peers at other agencies in the state and provide an opportunity for the participants become better acquainted with one another. The importance to FDOT (as well as to FTA and the individual agencies) of thorough, accurate, and timely collection and reporting of NTD data is emphasized.

Several new items have been included in the annual Performance Evaluation Study: a Transit Handbook, which will be a guide for the general public about public transit in Florida; the trend and peer review analyses on a searchable CD-ROM; and trend data for download from the Internet. They are scheduled to be available by late Summer 2000.

For further information, contact CUTR Research Associate Victoria Perk, perk@cutr.eng.usf.edu, (813) 974-3275. ❖
reasons. That being the case, it seems unlikely that a bus operator would trade having 12 days off (worth approximately $1,500) to gain a small bonus of approximately $120 (one day’s pay) earned by having perfect attendance for a year. The Santa Clara County Transportation Authority reduced unscheduled absence from 12.5 to 8.9 percent after offering $250 for each rolling quarter of perfect attendance, saving the agency approximately $2 million dollars a year.

**Offering Greater Flexibility in the Use of Time Off.** Many agencies allow their bus operators to swap days off with other operators who have similar work shifts, and a number of agencies allow their bus operators to take some of their annual leave in daily rather than weekly increments.

**Better Monitoring of the Use of Sick Leave.** Many transit agencies that were surveyed admitted that they do a poor job of tracking absenteeism and counseling employees. WMATA has established two positions known as “Absence Managers” to deal only with employees who are missing work. This effort to consistently communicate the organization’s interest in attendance has resulted in an unscheduled absence rate of less than 4 percent.

**Better Communications with Bus Operators.** CUTR took part in six focus groups with bus operators who were asked why they thought absenteeism was high among their ranks. Among the issues cited were tight schedules that create stress, inadequate break facilities to take care of basic human needs, “toxic passengers” and the fear of assault, lack of support from supervisors, lack of communication with the agency, and equipment that doesn’t function properly, resulting in passenger complaints.

A number of transit agencies have taken steps to try to personalize the work environment and be more responsive to the concerns of bus operators. San Diego Transit employs a “Group Supervisor” program whereby all operations supervisors are assigned approximately 25 bus operators with whom they are required to communicate at least each quarter. Lynx has established a mentor program for new bus operators in which experienced operators guide, tutor, and advise new operators during the first weeks of their careers to help make their adjustment to the “Lynx-like” way of doing things as natural as possible. This program helped reduce turnover among new operators from 50 to 8 percent. The Southwest Ohio Regional Transit Authority (Metro) in Cincinnati established an arduous process of Total Quality Management throughout their organization that resulted in greater involvement of all employees, including bus operators, who became involved in dozens of task forces to bring improvements to virtually every element of their working environment. This greater dedication to the concerns of the employees helped reduce total absenteeism from 10.5 to 8.9 percent.

**Modifying Agency Procedures to Attract and Hire New Bus Operators.** The extremely tight labor market has made it necessary for transit agencies to change their traditional ways of recruiting and hiring bus operators. Recruiting for bus operators is done on a far more frequent basis. One agency has decided to forego job interviews and rely on the predictive abilities of employee selection instruments to determine whom they will hire. This saves precious time normally required to arrange their own staff and the candidates for interviews.

Transit agencies are reviewing their competitiveness with respect to pay and benefits. If necessary, they are modified, but if the pay and benefits are competitive, transit agencies are being more aggressive in touting these factors to new candidates. Some transit agencies are using their best operators to help them recruit at job fairs or malls, and many are working harder at attracting candidates from among minority and immigrant communities.

TCRP Report #33 provides significant evidence that transit agencies have found ways to help achieve reasonable employee availability. Although the methods to do this require work, resources, and possibly organizational change, they are well worth implementing to ensure better service to the public, better bottom line budgets, and better ongoing relationships between employees and managers.

For further information, contact CUTR Deputy Director for Transit Joel Volinski at volinski@cutr.eng.usf.edu, (813) 974-9847.
CUTR researcher Beverly Ward was recently named the new coordinator of USF’s Graduate Interdisciplinary Transportation Program (GITP). Ward has been with CUTR since 1991, and, in addition to her research in the area of ethnography and transportation studies and minority mobility, she has worked closely with USF students in coordinating the International Road Federation’s fellows at USF and mentoring national and international students.

CUTR recently hosted an informal reception for students, faculty, friends, and USF staff. The reception was used to introduce Ward and to provide an opportunity for faculty, students, and future program participants to meet.

The GITP was developed by CUTR in association with USF’s Civil and Environmental Engineering Department, Economics Department, and the Public Administration Program in response to a need for increased training in transportation issues, with an interdisciplinary approach. Students accepted in the Master’s degree program enroll in a set of core courses that emphasize urban transportation issues.

The program also is offered as a six-course certificate program. Students of all backgrounds who are interested in a transportation career or professionals who currently are employed in the transportation field are welcome. There are no prerequisites.

For more information, contact Beverly Ward at ward@cutr.eng.usf.edu, (813) 974-9773.