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**Rutgers University-Newark  
&  
NJ TRANSIT  
TDM Partnership**

**Final Memorandum**

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## **Introduction**

### **Study Purpose**

In March 2006, the Alan M. Voorhees Transportation Center at Rutgers, The State University of New Jersey (VTC) was asked by the Rutgers University-Newark administration to investigate with assistance from NJ TRANSIT (NJT), feasible Transportation Demand Management (TDM) and transit incentive policies that could be used to encourage more students, faculty and staff to commute to this downtown urban campus via means other than Single Occupancy Vehicle (SOV).

The Rutgers-Newark administration acknowledges that meeting the continuing student, faculty and staff demands for increased parking facilities on campus will be difficult to achieve due to issues that include limited capital resources. As such, exploring and promoting alternative transportation strategies for those seeking to access campus must be considered, as has been done at other universities throughout the nation who are facing similar congestion and limited parking supply dilemmas. It is critical to note that pursuing these alternative transportation options is valuable not only because their increased use will help address problems related to congestion on campus, but also because their utilization will help Rutgers achieve its goal of promoting environmentally sound policies that will benefit the entire University community, as well as the larger community of New Jersey, and beyond.

Rutgers-Newark and VTC also recognize that while achieving the goal of reduced SOV trips to campus may be difficult to realize, the campus location in downtown Newark offers commuters a host of transportation options, including commuter rail, light rail/subway and an extensive bus network. In addition, the University offers shuttle services to various area and campus locales and provides some assistance for those seeking to participate in TDM strategies, such as carpooling.

In the report that follows, an overview of the existing Rutgers-Newark area transportation landscape will be presented, as well as a profile of the targeted commuters whom the University seeks to encourage use of alternative, environmentally friendly forms of transportation among in their travels to/from campus. A review of commonly employed TDM and transit incentives will also be presented and several case studies of universities that have successfully created comprehensive alternative transportation options will be profiled. Findings obtained from Rutgers-Newark staff, faculty and student focus groups convened for this study will be highlighted and finally, a series of recommendations and an implementation matrix will be offered that seek to address the goal of reduced SOV trips to/from the Rutgers-Newark campus.

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## **Rutgers-Newark TDM: Background**

### **Existing Newark Area Transportation Options & NJT Discount Programs**

Rutgers-Newark campus, which encompasses 37 acres and over 30 buildings, resides in New Jersey's largest city. The campus has an undergraduate and graduate student population that exceeds 10,000. Approximately 1,300 of the student population reside on campus, with the remainder commuting to/from the Rutgers-Newark campus. The Rutgers-Newark faculty and staff population is approximately 2,000.

Those who seek to access the Rutgers-Newark campus via public transit have various options to pursue, which include NJT commuter rail, NJT bus, NJT Newark light rail & Newark City subway and PATH (*Note: PATH serves Newark, Harrison, Hoboken, Jersey City and New York*). The two transit stations that anchor and serve Newark are the Broad Street Station and Newark Penn Station. The former station serves trains that run on the Gladstone Branch, Morristown line and Montclair-Boonton line. The latter station is considered one of the state's major transportation terminals and serves trains that run on the Northeast Corridor line, North Jersey Coast line, Raritan Valley line and also serves Amtrak and the PATH. In addition, the Broad Street Station and Newark Penn Station also serve as terminals to the NJT bus network.

The Newark light rail system consists of two segments – the light rail and the Newark City subway. The light rail segment connects the Broad Street Station and Newark Penn Station and offers five stops. The Newark city subway segment offers service between Grove Street in Bloomfield and Newark Penn Station and offers eleven stops. Combined, the Newark light rail system lines offer passengers convenient access to a host of connections throughout the city and serve the Rutgers-Newark community specifically, with stops at Washington Street (*Newark City subway*) and serve the northern campus where the Rutgers-Newark Business School is under construction with stops at Washington Park and the Broad Street Station (*light rail segment*). On weekdays, the light rail segment operates every ten minutes during peak hours and every fifteen minutes during off-peak periods, with weekend service running every thirty minutes. The Newark subway segment operates every 3-4 minutes during peak hours and every ten minutes during off-peak periods, with weekend service running every 10-20 minutes. Both services operate from the early morning hours until midnight (*Note: The subway operates until 12:10 am*) and the fare is typically \$1.25, with a Downtown Fare of .60 cents also offered to certain destinations. The Newark light rail system utilizes a proof-of-payment fare collection policy that requires users to validate (*time stamp*) their ticket prior to boarding the vehicle and retain the ticket until leaving the station area. Tickets are not collected, but passengers must be prepared to display their ticket if requested by a NJT fare enforcement officer. If a given rider's ticket is not validated, he/she is subject to a fine up to \$100.

In an effort to promote increased use of public transportation, NJT has developed and offers a host of discount programs and transit-related incentives. Some of the programs/incentives most relevant to the Rutgers-Newark community are highlighted below. (*For a more detailed listing, refer to Appendix A*).

- **Student monthly pass** – Rutgers full-time undergraduate and graduate students are eligible for a 25 percent discount on a monthly rail, bus or light rail pass that enables them to travel an unlimited number of times within the zone range indicated on their pass. To receive the discount, students must enroll online with NJ TRANSIT's Quik-Tik program.

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The pass will then be mailed to the student and he/she can access and manage their account via Quik-Tik. Passes are non-transferable. Students must purchase the pass online by the 9<sup>th</sup> day of the previous month.

- Student Ride Free week – A program presented periodically during the academic year by NJT that offers students the opportunity to ride any NJT train, bus or light rail service for free for a designated one week period. Most recently, NJT offered the program in fall of 2006. Interested students must present their college identification card and a NJT coupon (*available online*) when boarding the NJT vehicle. In the past, students have been required to complete an online survey to receive the NJT coupon.
- Commuter monthly pass – Commuters may purchase a discounted monthly pass for rail or bus or light rail that enables them to travel an unlimited number of times within the zone range indicated on their pass during the calendar month on the ticket. Potential cost savings are approximately 30 percent off the cost of regular one-way fares. In addition, a specific benefit of purchasing a monthly bus or rail pass that could be most useful to Rutgers-Newark staff/faculty is that they are given the option of riding the Newark Light Rail at no additional cost, if their monthly bus or rail pass is worth \$45 or more.
- Commuter weekly pass – Commuters are eligible for a discounted weekly pass between designated stations that enables them to travel an unlimited number of times within the zone range indicated on their pass from Saturday through the following Friday for the week the ticket is issued. Potential cost savings are 15 percent off the cost of regular one-way fares.
- Business Pass – A program whereby employers offer employees a pre-tax benefit towards their public transit commute through payroll deductions. This is a mutually beneficial program because it allows employers to save on payroll costs and employees to save on taxes. Those who participate in this program have their passes shipped to their worksite, as employers purchase the tickets in advance.
- Ozone Pass – A program designed to combat ground-level ozone pollution in the State on days when ozone levels are expected to be their highest (*i.e. hot weather conditions, May through early September*). The program offers a specially discounted transit ticket to employees of businesses that are participants in the Air Quality Partnership of New Jersey (*Note: Rutgers-Newark is a member*). The ticket offers roundtrip transportation to/from the work site for \$2.50 on any NJT train, bus or light rail system on any day designated an “Air Quality Action day”. Ozone Pass tickets are sent to the participating employer who can then opt to charge employees the \$2.50 ticket cost or instead subsidize the cost of the pass.
- TransitChek – A similar program to Business Pass described above in terms of concept, but different with regard to administration. TransitChek operates as the largest tax benefit incentive program in the United States and it gives employers the opportunity to offer employees the ability to set aside a portion of their pre-tax salary to help pay for their commute. For example, federal law allows employees to set aside up to \$105/month before taxes are applied to use for mass transit and vanpool commuting. Again, this is a mutually beneficial program because it allows employers to save on payroll costs and employees to save on taxes. In terms of administration, participating employees typically receive vouchers that can be used to purchase mass transit passes and tickets for use on all

NY/NJ public transit providers, including private buses. Employees of companies enrolled in the *Premium* TransitChek program, such as Rutgers-Newark, are also given the option of using a QuickPay Card, which is a Visa debit card issued by the Bank of America, to pay for their commuter expenses. As opposed to the Business Pass program requirements detailed above, Rutgers-Newark does not have to purchase the transit tickets with the TransitChek program.

- Vanpool Sponsorship program – NJT offsets some of the costs of operating a vanpool for eligible parties and the Transportation Management Association (TMA) who serves Newark, Meadowlink, has a program entitled “AdVANtage”, which pays the costs of empty seats in newly formed vanpools for the first three months of operation. In addition, as detailed above, participants in vanpools are eligible for tax benefits.

### **Rutgers – Newark Campus Parking**

There are currently 11 University parking facilities and several private parking facilities in the nearby vicinity of the campus. Each lot facility is surrounded by a gated structure and parking attendants are frequently in place (*except during summer months and certain weekend and evening periods*) at the following facilities to accept/collect parking fees: Lot 510, Lot 508, Lot 506 and Lot 509. In addition, parking attendants also work at parking decks I and II. It should be noted that the University anticipates converting the existing Lot 506 to a mixed use facility to include parking, retail and housing to accommodate faculty/staff and students of the currently under construction Rutgers Business School, to be located at the address of 1 Washington Park.

In terms of issuance of parking permits for use of the University’s facilities by faculty/staff, Parking and Transportation Services grants each department on campus a designated allocation of parking spaces. (*Note: this allocation does not infer a guaranteed space in any particular facility for employees of a given department*). For every space requested above that allocated number, the department is given hangtags that designate the recipients must park at the more remote Essex Lot. Parking and Transportation Services has explained that overall, most departments work within the allocations given to them and some minor expansions of that allocated figure may be considered by the University if a given department has special needs, perhaps related to expansion. In total, less than twenty designated Essex Street permits are typically issued in any given year.

Rutgers-Newark utilizes a two-part parking permit system, which involves the recipient’s required use of a hangtag on the rearview mirror and a window sticker on the driver side rear door. Fee options that apply are as follows:

- Commuter Students – Several options are offered, none of which guarantee the recipient a parking space. The options are as follows:
  - Purchase the annual parking permit fee of \$25 for the first vehicle (\$15 for an additional vehicle) and then pay a \$3.21 daily parking fee (includes tax). The annual permit is valid from September 1<sup>st</sup> through August 31<sup>st</sup>.
  - Purchase a single semester permit. The cost of the fall or spring semester permit is \$179 (plus tax); summer permit \$131 (plus tax). Those who select this option do not pay a daily parking fee.

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- Purchase a combination fall and spring semester permit at the cost of \$333 (plus tax). Those who select this option do not pay a daily parking fee.
  - Residents – Resident students seeking reserved parking are permitted to purchase a permit for Deck I. However, these spaces are limited and the permits are sold on a first come, first serve basis. The cost of parking for this population ranges from a low of \$205 for residents seeking summer semester parking only to a high of \$745 for those seeking parking for the entire year (12-month period).
  - Faculty and Staff – These parking permit fees are based on salary and the minimum fee is .001 times the annual salary. A \$5 fee is charged for each additional vehicle that is registered. Purchasing a parking permit does not guarantee the recipient a parking space.

Parking-related issues at Rutgers-Newark campus facilities are a commonly expressed concern of both faculty/staff and students. In fact, at a 2004 Rutgers-Newark Student Services retreat convened at the request of the University President, the need to address parking problems was identified and ranked as the number one priority to be addressed by the administration. Specific parking-related suggestions and commentary shared by participants included a need for more spaces, increased operating hours of University decks and lots, installation of digital parking meters and painting of designated parking lines at meters. It was also noted that parking rates were too costly.

To examine the issue of parking fees/rates in the general Newark area, the research team reviewed parking fees at two other Newark area higher education institutions, as well as at several of the city's numerous private parking facilities. In terms of the former, students at Essex County College pay a low rate of \$25 per semester for a parking decal, while full-time students at NJIT pay \$125 per semester for a permit and part-time students pay \$65 for the permit. Thus, compared to the parking fees their peers are charged at other local area higher education institutions, Rutgers-Newark students are paying more to park at Rutgers' parking facilities. Information on faculty/staff parking rates at Essex County College and NJIT was not readily available, but it was determined that the rate charged at the latter is based on contractual negotiations and agreements between NJIT and union representatives.

With regard to private parking garage/lot rates, they vary, primarily dependent on their location within the city. Currently, there are a substantial number of private parking facilities available in Newark. For example, there are 27 private parking facilities located just within the Newark Downtown District zone alone<sup>1</sup>. Large parking corporations, such as Edison ParkFast, operate 10 parking facilities in the City and Central Parking Corporation owns approximately 24 parking facilities in Newark. As noted above, rates vary at these facilities, but it was determined in reviewing the rates at four of Edison ParkFast's locations within the Rutgers-Newark vicinity that daily rates (max to close) typically cost anywhere from \$11-\$14 dollars. Some parking facilities near Rutgers-Newark – for example, Macy's Garage and 180 Washington Street Garage – offer the student body half-price parking discounts compared to their typical daily rates of \$14-\$15. When considering parking fees/rates at private garages, it is also critical to note that while a

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<sup>1</sup> The Rutgers-Newark campus is incorporated in this Downtown District, which was established in 1998, as a special improvement district of the City's central business area.

“daily” fee may be \$11-\$15, a individual using such a facility for a shorter time of only one-two hours will likely pay close to the max established rate. For example, a Central Parking lot in the vicinity of Penn Station charges a max to closing rate of \$13; but those who opt to park for one hour pay \$7 and for two hours pay \$10, which is close to the max rate. Thus overall, it is strikingly evident that Rutgers-Newark students, as well as faculty/staff, benefit from substantially subsidized parking by the University, when compared to typical Newark City market parking rates.

### **Commuter Students & Faculty/Staff with RU Parking Permits: A Profile**

#### ***Commuter Students with Parking Permits***

As of February 2007, a total of 3,703 Rutgers-Newark students hold parking permits. 131 of these permits are held by students living on campus, 37 of these permits are held by participants in the University’s student carpooling program and 3,535 of these permits are held by students commuting to/from Rutgers-Newark from off campus locales.<sup>2</sup>

A subset of 1,921 commuter parking permit holders of the 3,535 total were considered for this profile to determine the distance between their reported home addresses and NJ Transit bus, rail, and light rail services<sup>3</sup>. Findings are as follows:

- 1,010 student parking permit holders reside within one half mile of either a NJ Transit bus stop or a NJ Transit rail or light rail station or both, representing 52.6% of permit holders.
- 886 students with parking permits reside within one half mile from a NJ Transit bus stop, representing approximately 46.1% of permit holders.
- 308 students reside within one half mile from a NJ Transit rail or light rail station, representing approximately 16% of permit holders.
- 221 student permit holders reside within one half mile of both a NJ Transit bus stop and a NJ Transit rail or light rail station, representing approximately 11.5% of permit holders.
- 911 student parking permit holders reside neither within one half mile of a NJ Transit bus stop or a NJ Transit rail or light rail station. This represents 47.4% of all student parking permit holders.

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<sup>2</sup> Note that ten of the 3,535 commuter students with parking permits list their home/legal address as being outside the state of New Jersey. The following states were represented by these students: California (1) Connecticut (2), Florida (1), Georgia (1), Massachusetts (3), Mississippi (1) and New Hampshire (1). Clearly these students are not commuting from these areas, but are instead living off-campus in adjacent communities.

<sup>3</sup> Note that a smaller subset of 1,921 commuter parking permit holders was examined for this profile as opposed to the 3,535 total due to complications with parts of the larger dataset.

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***Faculty/Staff with Parking Permits***

As of February 2007, a total of 1,122 Rutgers-Newark faculty and staff members hold parking permits. All of these permits are held by faculty or staff commuting from locations around the region. 90 of the permit holders list out of state legal addresses.<sup>4</sup>

Home residence data for the 1,102 faculty/staff parking permit holders residing in NJ or NY was considered for this profile to determine the distance between these reported home addresses and NJ Transit bus, rail, and light rail services<sup>5</sup>. The findings of that analysis are as follows:

- 652 faculty/staff parking permit holders reside within one half mile of either a NJ Transit bus stop or a NJ Transit rail or light rail station or both, representing 59.1% of permit holders from New Jersey or New York.
- 611 faculty and staff members with parking permits reside within one half mile from a NJ Transit bus stop, representing approximately 55.4% of permit holders from New Jersey or New York.
- 241 faculty and staff members reside within one half mile from a NJ Transit rail or light rail station, representing approximately 21.8% of permit holders from New Jersey or New York.
- 100 faculty/staff permit holders reside within one half mile of both a NJ Transit bus stop and a NJ Transit rail or light rail station, representing approximately 9.1% of permit holders from New Jersey or New York.
- 450 faculty/staff parking permit holders reside neither within one half mile of a NJ Transit bus stop or a NJ Transit rail or light rail station. This represents 40.8% of all faculty/staff parking permit holders from New Jersey or New York.

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<sup>4</sup> Note that 90 of the 1,122 faculty/staff permit holders list their home/legal address as being outside of the state of New Jersey. 12 of those addresses are located in eastern Pennsylvania, 70 addresses are in New York (*within the New York Metropolitan Area*), and 3 are in southeastern Connecticut, making it highly probable that these faculty/staff members do indeed commute to Rutgers-Newark from these locales. The other out-of-state residence locations reported breakdown as follows: Louisiana (1), Maryland (1), District of Columbia (1), Massachusetts (1) and New Hampshire (1). It is possible that these permit holders who report home residence addresses far from NJ are graduate students who qualify for a faculty/staff permit due to their role as teaching assistants and live on or near campus, but continue to report their out-of-state address.

<sup>5</sup> Note that for this analysis, only those reporting NJ and NY home addresses were examined. Thus, the twenty permit holders residing in Pennsylvania, Connecticut and other more distant states were not included.

## **Rutgers – Newark Shuttle Services**

The University currently operates through the Department of Public Safety several shuttle services which are free to Rutgers students, faculty and staff. General information on the shuttle services is as follows:

- Penn Station Route – 4:00 pm – midnight, Monday thru Friday. Travels between Penn Station and the Rutgers and NJIT campuses at 20 minute intervals.
  - Penn Station Midnight Express Service – Midnight – 4:00 am, 7 days per week. This new schedule extension of the Penn Station Route was implemented as a 12-week pilot initiative beginning on March 19, 2007 and serves the same geographic area detailed above. Ridership data gathered during the 12-week pilot period will be examined to determine if this extended service should become permanent.
- C.H.E.N. Route – 8:00 am – 10:00 pm, Monday thru Friday. This route travels between the campuses of Rutgers, UMDNJ, Essex County College and NJIT at 15 minute intervals and includes Broad Street Station as one of the designated stops.
- Broad St. Station/North Parking lots Route – 9:00 am – 5:00 pm, Monday thru Thursday. This route travels to parking facilities on Eagles Street in the northern section of campus, as well as to stops on the central campus, including the Center for Law and Justice at 10 minute intervals. Upon rider request, the shuttle will also travel to the Broad St. Station.
- Harrison/Kearny Route – 3:30 pm – midnight, Monday thru Friday. Travels between Rutgers and NJIT campuses and locations in Harrison and Kearny at 30 minute intervals.
- General public safety shuttle – The Security department has a vehicle to provide security transport to faculty, staff and students in need when the other shuttle services are not available.

In terms of future shuttle routes, the Department of Public Safety anticipates instituting a Washington Street/University Ave. route in 2008, in an effort to accommodate those seeking to access destinations on both the northern campus where the new business school is to be located, as well on the central campus. Expected service hours will be 8:00 am -11:00 pm, Monday through Friday. In addition to the Washington Street/University Ave route, the Department of Public Safety is also considering development of a campus shuttle route that would serve area retail centers/destinations, such as movie theaters.

Ridership data for both a two-week period in March 2005 and a two week period in February 2007 was examined by the research team for the three prime shuttle routes described above – Penn Station, C.H.E.N, and Kearny/Harrison. (*Note: The Broad Street Station/North Parking Lot Route ridership data was only available for the two-week period in 2007*). The following key findings were observed:

- Penn Station Route:
  - This shuttle route is run with one vehicle (15-person capacity).

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- The route includes the following three stops: one on the NJIT campus; one on the Rutgers-Newark campus, and a Penn Station stop. All stops are used at similar capacities.
  - Between the hours of 5:30 PM and 10:30 PM, the shuttle often operates near or at capacity. Depending on the day of the week, sometimes the peak period rush hours are busiest, while on other days the later hours are busiest. Based on the data examined, no discernable pattern within this variation was identified.
  - The shuttle logs reviewed indicate that often the driver of this route can only pick up passengers at either the Rutgers-Newark or NJIT campus (not both) during the peak times identified above, as the passenger loads from both campuses would greatly exceed vehicle capacity. When the driver pursues this altered course, the shuttle will travel from NJIT straight to Penn Station and then Rutgers straight to Penn Station.
  - When comparing 2005 to 2007 shuttle data for the two week periods, a noticeable increase in passengers on this route has occurred over the past two years. Additionally, the peak usage hours have broadened since 2005, as the peak hours at that time were only between approximately 8:30 PM and 9:30 PM. It should also be noted that the Penn Station route in 2005 appears to have begun providing service at 3:30 PM, as opposed to the current 4:00 PM route start time.
- C.H.E.N. Route:
    - This shuttle route is run with two vehicles (15-person capacity each).
    - The route includes the following six stops: one on Rutgers-Newark campus; one at Essex County College; one at UMDNJ; one at the CHEN building on NJIT; another at NJIT; and a Broad Street Station stop. None of the stops have any significant passenger traffic or demonstrated differences in traffic.
    - Passenger loads on this route typically run in the low single digits, regardless of time of day or day of week.
    - When comparing 2005 to 2007 shuttle data for the two week periods, a decrease in passenger traffic on this route since 2005 is discernable.
  - Broad St. Station/North Parking lots Route:
    - This shuttle route is run with one vehicle (15-person capacity).
    - The route typically includes the following stops on Rutgers-Newark campus: one at Eagles Parking Lot; one at the Physical Plant on University Ave.; one at Boyden Hall and one at the Center for Law and Justice on Washington St. The route will also stop at Broad St. Station, if requested by a rider. Stops seem to be used at similar capacities.
    - Passenger loads on this route are rarely above the low single digits (*Note: As reported above, shuttle data reviewed for this route included only the two week period in 2007; 2005 data was not available*).

- Harrison/Kearny Route:
  - This shuttle route is run with three vehicles (15-person capacity).
  - The route includes the following thirteen stops: Boyden Hall on University Ave. and Bleeker St. near Dana Library on the Rutgers-Newark campus; NJIT stop on Warren St.; and ten stops in Harrison and Kearny that include Harrison Ave., N. 3<sup>rd</sup> St., Frank Rodgers Blvd. and Cross, Woodland, Quincey, and Midland Streets.
  - The Boyden Hall and NJIT Warren St. stops are the two busiest route stops, as they are the generators for all the NJIT and Rutgers-Newark passengers bound for Harrison and Kearny destinations. The Harrison and Kearny stops all have consistently similar levels of usage, regardless of time of day or day of the week.
  - During the hours of 4:00 PM through 10:00 PM, this route runs close to or above capacity consistently.
  - Shuttles operating prior to 4:00 PM and after 10:00 PM often collect few, if any passengers at Boyden Hall on the Rutgers-Newark campus, but still continue to collect large passenger loads at the Warren St. stop on the NJIT campus.
  - Comparing 2005 data to 2007 data, there was no identifiable change in the usage of this route. It has consistently operated at or above capacity.

## Rutgers-Newark TDM: Strategy Development

### TDM programs

TDM initiatives are policies, services, strategies and/or programs designed to promote more sustainable and efficient use of transportation resources. One of the prime means to achieving that goal involves decreasing SOV travel. Rutgers-Newark currently advertises two main TDM strategies to those who commute to/from campus. The first is public transportation discounts and the second is carpooling. Information on both strategies is included on the University's Parking & Transportation Services website. With regard to public transit discount travel options, the site alerts students to the previously mentioned NJT full-time student 25 percent discounted rail, bus and light rail pass. The link to purchase the pass is included on the site. It is important to note that the Rutgers-Newark Parking & Transportation Services website does not currently alert staff or faculty to any specific NJT programs that could be beneficial to their commute, aside from providing a link to some general retail discounts offered to all transit users via the *Deals & Destinations* section of the NJT website.

With regard to carpooling, the Rutgers-Newark Parking & Transportation Services site offers comprehensive information on this travel option for students; however, the program is not targeted well to faculty or staff. That said, the carpooling link targeted to students on the Rutgers-Newark Parking & Transportation Services site reports on the benefits of carpooling (*e.g. cost savings, receive better parking conditions, benefit from reduced insurance rates, beneficial to the environment*) and explains how to purchase a student carpool permit from the University. In addition, to facilitate ride matching for interested carpoolers, Rutgers-Newark has joined an internet-based rideshare service called [alternetrides.com](http://alternetrides.com), which is currently used by approximately 100 other higher education institutions located throughout the United States.

For an annual fee paid by Rutgers-Newark (*the service is free to students*), [alternetrides.com](http://alternetrides.com) includes a Rutgers-Newark resource link on their site that allows Rutgers students interested in carpooling to the Newark campus to either search a directory listing of other Rutgers students seeking to carpool or they can instead opt to set up a personal profile detailing their trip needs. If the latter option is selected, the user will be prompted to enter information about their trip origin, destination, frequency of travel, and preferences related to personal habits such as smoking and car radio usage. Students can access the Rutgers-Newark page on [alternetrides.com](http://alternetrides.com) via a link from the Parking & Transportation Services site. Currently, there are about 15 Rutgers students listed on the site who are seeking ride matches, with that number fluctuating daily. The site also presents to users a “savings calculator” feature, which attempts to quantify the monetary savings one can expect from carpooling. In addition, the site also provides users with an opportunity to determine EPA pollution ratings for their vehicle and offers links to useful trip planning sites, such as [mapquest.com](http://mapquest.com). (*Note: Rutgers-New Brunswick is not a member of alternetrides.com*).

For faculty/staff interested in carpooling, information on ridesharing options can be found on the Rutgers University Human Resources website, via a link entitled “Online tools”. RideShare is described on the site as a carpool program facilitated by University Human Resources that is available to all faculty and staff on all University campuses. Basically, interested participants are

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able to register with RideShare via their NetID/password and can then search the RideShare database for potential carpool buddies, whom they contact via email to discuss carpool options. Following a discussion with a HR representative, it was explained that the University carpool program for faculty/staff currently only focuses on providing an opportunity for interested participants to search for fellow carpoolers and does not include any University-specific incentives or benefits, such as a special parking permit or preferred parking space.

Examples of other TDM strategies – aside from public transit discount incentives and student carpool programs – not currently utilized at Rutgers-Newark but available for consideration include:

- Faculty/Staff carpool and vanpool programs – These two strategies could be particularly beneficial for use by Rutgers-Newark staff, who often have similar work schedules. In terms of cost effectiveness, it is generally recommended that carpools be created when the minimum one way commute of participants is approximately ten miles, while vanpools should be pursued when the one way commute is at least 20 miles. As noted earlier, NJT has a program that can offset the costs of qualifying vanpools by \$175 per month.
- Increase of parking facility costs/fees – As detailed above, Rutgers-Newark has in place parking fees for both staff/faculty and for students. With regard to the latter group, the University could consider adding a new, more reasonably priced permit for those students agreeing to only use the permit occasionally (2-3 days per week) or instead, create a semester permit whose total cost would be pro-rated by the number of days per week the permit is actually used over the course of a given semester. These types of permits could provide motorists with incentives to use alternative modes of transportation to/from the campus.

In terms of parking fee increases, The Federal Transit Administration (FTA) notes in its 1992 TDM Status Report on Parking Pricing that in general, pricing strategies are best employed in locales where some amount of parking pricing is already in place. Thus, the Rutgers-Newark campus is prime to benefit from pursuit of this particular TDM strategy. Potential benefits associated with pricing strategies include potential decrease in employee Vehicle Miles Traveled (VMT); potential decrease in congestion; potential decrease in emissions; and potential decrease in the costs associated with building, leasing or maintaining employee parking facilities.

To achieve any of these above listed benefits, successful implementation of the designated pricing strategy is key. Elements often cited as invaluable to a successful implementation plan include the following: visible top management commitment to pursuing the given pricing strategy; awareness among employees of any pricing program changes; employer willingness to re-evaluate and adjust elements of the pricing strategy as needed; and presentation of the pricing increase as one component of a comprehensive TDM package. This last element, which involves making employees and students aware of travel options other than SOV and offering complementary strategies, such as guaranteed ride home, to support use of these alternative travel options, is especially critical if employees and students are to more readily accept parking facility fee increases.

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- Parking Cash Out – Rutgers-Newark can opt to offer employees the option to choose cash in lieu of non-taxable parking subsidies. Such action would likely motivate a percent of people to seek alternative transportation. It should be noted that these payments may be pro-rated, so that if a person drives 40 percent of the time, he/she would receive a 60% cash payment.
  - Employer Tax incentives – Such incentives are available at the federal level to help employers in their implementation of commute alternative subsidies or parking cash out. In addition, the state of New Jersey also offers employer tax incentives and challenge grants; however, pursuing these state incentives is typically cumbersome since they require substantial record keeping.
  - Parking Supply Reduction – Rutgers-Newark can consider initiating steps to reduce the current amount of available parking spaces on the Newark campus, which will encourage both students and staff to pursue alternative transportation.

A host of TDM support programs can also be pursued, some of which Rutgers-Newark already offers, such as shuttle services and ride matching for interested carpoolers. Other examples include the following:

- *Transportation Management Association partnership* – TMAs are non-profit organizations that collaborate with area employers, consumers and government to address local transportation problems and increase awareness of commute alternatives to driving. There are eight TMAs currently operating in New Jersey. Rutgers-Newark can partner with the TMA that serves Newark, Meadowlink, to assist with the implementation of many of the strategies noted above. For example, TMAs often offer guaranteed ride home programs and some, including Meadowlink, even provide an empty seat subsidy to qualifying vanpool programs as detailed earlier in this report.
- *Guaranteed Ride Home* – This type of program mentioned above provides a safety net for employees who use transit, carpool or vanpool by offering these employees a guaranteed ride home if they have an urgent personal or familial emergency occur during the course of their workday. The ride home can be arranged with a taxi, rental car company, employer vehicle, etc. As noted above, many TMAs can administer these programs.
- *Bicycle & Pedestrian Amenities* – Increased bicycle lockers on the Rutgers-Newark campus can encourage increased bicycle use. Bicycle-compatible roadways and bike paths could be created and/or maintained from the area train stations to the University. Additional sidewalks and bus shelters would also be beneficial, as they support pedestrian activities.
- *Marketing program* – Rutgers-Newark could develop and engage in a more extensive marketing program related to the promotion of alternative, environmentally friendly transportation options.

**TDM / Alternative Transportation Case Examples:**  
**University of Washington, Stanford University & Arizona State University**

Many universities and higher education institutions throughout the nation, in addition to the select few profiled below, are examining and/or implementing a host of TDM/alternative transportation strategies to address numerous concerns, which typically include the ever-

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increasing demand on existing parking and infrastructure systems, as well as a desire to promote more environmentally friendly campuses and communities.

In terms of the specific strategies employed, one of the most innovative involves the proliferation of “universal” transit passes made available to university faculty, staff and/or students. In addition to the University of Washington’s U-PASS program highlighted below, about 50 other colleges and universities in the United States are participating in this type of “Unlimited Access” program, whereby colleges and universities purchase at a significant discount unlimited use of local transit services for their study body and/or staff. In turn, universities then offer this transit service at significant savings to their employee and/or student body or sometimes even offer the service pass fare-free. Some higher education institutions, such as the University of Minnesota, have developed different pricing structures for their subsidized transit passes available to students and staff/faculty. Specifically, University of Minnesota students pay \$62 per semester for their U-PASS, while faculty/staff receive a similar pass, called Metropass, at a higher cost of \$62 per month. To help offset the cost of the substantially discounted student U-PASS, the University assesses a \$15 transportation fee on all students.

*University of Washington U-PASS: “The Universal Ticket to Campus Commuting”*

Widely considered one of the most successful examples of employer utilization of pricing strategies is the University of Washington’s, Seattle Campus U-PASS program, instituted in 1991. Since that time, this comprehensive and flexible transportation program has strived to meet its main goal of reducing the number of SOV trips to the University campus and it has achieved this goal, with more than three-quarters of the campus population now commuting using an alternative to driving alone – no small accomplishment, with a student body of approximately 40,000 and 30,000 staff/faculty. (*Note: each year more than 5,000 students opt to live in University housing*).

The basic design of the U-PASS program grants participants the option of utilizing unlimited access to area transit services (*fee of \$44 for students and \$61.80 for staff/faculty per quarter*), while offering other benefits such as heavily discounted carpool parking on campus, free vanpool parking on campus, subsidized vanpool fares, biking and walking programs, ride match services, free night shuttle services, discounted occasional parking, Flexcar services, area merchant discounts and a guaranteed ride home service for faculty and staff. In addition, the U-PASS is valid anytime and anywhere on the area’s transit systems (*Metro Transit, Community Transit, Sound Transit buses and the Sounder Commute train*). Thus, both professional and personal related travel needs can be met with participation in the U-PASS program. Interest among commuters in the program was generated by the above listed components/options, as well as by the decision to increase the cost of parking on campus by fifty percent with implementation of the U-PASS program.

One factor in the success of the U-PASS program involves its reliance on offering a TDM “package” approach to the University community, which grants them a host of travel choices and incentives, not solely limited to the program’s central feature of full fare coverage on area transit systems. Thus, TDM features such as the emergency ride home program for faculty/staff, the night ride shuttle system and the carpool and vanpool programs are actively promoted via means including a designated U-PASS website, U-PASS User’s Guide and a U-Commute quarterly newsletter.

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The emergency ride home program is designed to decrease the number of staff/faculty who purchase parking permits only for use “in case” of personal/family emergencies. The program operates by offering users reimbursement for 90 percent of the cost of a taxi ride to their desired destination. In terms of the vanpool program, U-PASS holders are encouraged to consider vanpooling if they live at least ten miles from the campus. Incentives include free vanpool parking as noted above and significant discounts on the cost of participating in a vanpool based on their status as U-PASS holders. The University Transportation office also helps to facilitate the formation of vanpools and even carpools by maintaining lists of those interested in the program and encouraging interested commuters to access an online service that also facilitates ride matching for residents of the region. It should be noted that the vans utilized are owned, maintained and insured by the area’s transit systems.

It is believed that another factor in the success of the U-PASS program, aside from its reliance on a TDM “package” approach, lies in the University’s management of student and employee parking. For as mentioned above, while vanpool participants receive free preferential parking on campus and carpool participants receive substantially discounted parking, SOV riders conversely are required to pay \$254.76 quarterly (\$1,019.44 annually) for a permit. Further, individuals seeking a reserved parking space can receive such a permit for a quarterly fee of \$509.52 (\$2,038.08 annually). Interestingly, even those commuters who opt to pay the annual SOV parking fee are given a complementary U-PASS, with the hope they will consider utilizing alternative transportation options on occasion.

It is critical to note that the U-PASS program has been generally well received by the University community, with 94 percent of U-PASS holders indicating satisfaction with the program in a 2004 University transportation survey. In addition, annual reports are prepared on the U-PASS program. In the 2005 U-PASS Annual Report, which is the most recent publication, some notable findings include the following:

- 86 percent of students and 54 percent of employees participated in the U-PASS program in 2005. These figures represent an overall 21 percent increase in participation since the program’s inception in 1991.
- The number of SOV parking permits issued since the program’s inception has been reduced by 41 percent.
- The 2005 U-PASS annual budget was \$13 million, with more than 90 percent of the cost attributed to service contracts with local public transportation providers. It is critical to note that user fees covered about half of program costs and parking fees covered another 41 percent.
- In 2005, 32 vanpools were in operation. In comparison, only 8 vanpools were in operation prior to the U-PASS program.
- The University marketing campaign to promote continued awareness for and interest in the U-PASS program focused in 2005 on providing more materials electronically, as requested by the University community. In addition, outreach efforts to new employees increased during 2005 and a UW Commuter Guru program was initiated to help improve the dissemination of transportation information across the University’s dispersed departments.

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Stanford University, California

Stanford University began more thoroughly exploring approaches to managing the student and staff/faculty populations commuting to their campus due to the requirement placed on their General Use Permit (GUP) by the Santa Clara Board of Supervisors, which mandates that no net new commute trips must occur over the life of the GUP. This condition effectively means that Stanford cannot exceed the 2001 measured number of vehicles commuting to/from the campus during peak periods.

Key elements of Stanford’s alternative transportation management program include the following:

- VTA Eco Pass and Caltrain GO Pass, which are pilot projects offering free use of either VTA and/or Caltrain bus and light rail by eligible Stanford employees anytime/anywhere. Most recently, off-campus graduate students were presented with the opportunity to purchase a Go Pass for a nominal fee of \$99.50.
- Marguerite shuttle, which is a free campus shuttle service, also open to the public, which connects with local transit, Caltrain and area retail and dining sites. In addition to daytime hours, the shuttle also operates in the evening.
- Commute Club, which is targeted to individuals (*students/staff/faculty*) who agree not to drive to work alone (*i.e. they do not purchase a parking permit*). Features of the club include: up to \$216/year in “Clean Air Cash” or carpool credit for not driving alone; reserved preferential parking for carpools and vanpools; guaranteed ride home service (*by taxi or rental car*); rideshare matching service; pretax payroll deduction transit passes and commuter checks; and eligibility for various marketing gifts, prizes and rewards. Commute Club is heavily marketed on campus and has operated several innovative and popular programs such as “Refer a friend” and a parking permit buy back promotion that offered participants \$50 and a refund for every full month remaining on their permit.
- Express Bus (Line U) to East Bay, which is a free express bus service.
- Car rental services via Enterprise Rent-a-Car, available to faculty/staff and students. If one joins the commute club, he/she is eligible for up to 12 free hourly car rentals per year.
- Parking management program, which includes features such as short term parking options; no issuance of freshman car permits; and parking permit fees. In terms of parking permit prices for those staff, faculty and students who seek to park on campus, fees range from \$216 to \$552 for an annual 12-month pass.
- Other elements of Stanford’s alternative management program include bike programs, charter bus services for group trips, flexible work options and a host of marketing and promotional events related to the program.

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### Arizona State University

Arizona State University is considered the largest single university campus in America. That said, the University has recognized in recent years the need to address increasing campus parking and transportation concerns. To accomplish this task, a Parking and Transit Task Force comprised of staff, faculty and student representatives was convened in 2005, to design a parking and transportation plan to meet the University's anticipated continued growth.

One of the tasks facilitated by the Task Force to assist in determining the most appropriate recommendations was to conduct a parking and transit survey of faculty, staff and students. With an overall response rate of 13 percent, respondents were asked a variety of questions regarding their travel habits. Specific participant findings included the following:

#### Student survey:

- 76 percent reported driving to/from campus as their primary means of travel
- 91 percent reported living off campus
- 40 percent reported residing over 10 miles away from campus
- 40 percent reported driving to campus five or more days per week
- 58 percent reported working off campus, with 88 percent of that group driving to/from work
- When asked which aspect of parking on campus of the three features listed below was most important to them, student participant responses were as follows:
  - Convenient parking (close to the center of campus): 49 percent
  - Availability of many parking spaces: 28 percent
  - Inexpensive parking: 24 percent

#### Staff/Employee survey:

- 82 percent reported driving to/from campus as their primary means of travel
- 50 percent reported residing over 10 miles away from campus
- 54 percent reported they do not move their car during the work day for either business or personal purposes. The remainder reported moving their car during the workday either one or more times per day.
- When asked which aspect of parking on campus of the three features listed below was most important to them, faculty/staff participant responses were as follows:
  - Convenient parking (close to the center of campus): 64 percent
  - Availability of many parking spaces: 14 percent
  - Inexpensive parking: 22 percent

Ultimately, the task force decided upon several key recommendations, as described below:

- Structure parking permits on a tiered pricing scale, with the most convenient parking spaces costing the highest rates. Low cost options are also to be made available. Key reasons for this recommendation lie in the finding that the University's existing parking rates were below market rate, as well as below the cost to maintain existing parking facilities or build new

facilities. As a result of this recommendation, annual parking rates for 2007-08 now range from \$180 - \$660.

- Direct some of the revenue from the sale of parking permits to improving existing parking areas in terms of security features and other general enhancements (*e.g. painting; way-finding improvements; lighting fixtures*); and
- Pursue a comprehensive TDM approach, which will include a reinvigorated carpool program that will offer ride matching via AlterNetRides (*Note: The same service currently utilized by Rutgers-Newark*); increased marketing for the existing University U-PASS program which offers students and staff free bus rides; reduced rates or free passes to ride METRO light rail; improved shuttle services in terms of hours of operation and institution of a new shuttle route; and increased park-n-ride facilities near area light rail stations.

### **Rutgers-Newark Focus Group Findings**

In an effort to more thoroughly understand Rutgers-Newark student, faculty and staff perspectives regarding commuting to/from campus and interest level in various TDM strategies, a total of four focus group sessions were convened. The sessions were held as follows:

- February 1, 2007 – Participants: Rutgers-Newark commuter students who hold parking permits
- March 29, 2007 – Participants: Rutgers-Newark faculty and staff members who hold parking permits

A total of ten students participated in the February session and 12 faculty and staff members participated in the March session. The agenda at each session focused primarily on participants' general travel experiences to/from the Rutgers-Newark campus, their familiarity with existing TDM and public transit options available in the greater Newark area and their views on which TDM and/or transit policies might serve as an incentive for them to travel less frequently to campus via SOV. Highlighted below are summary findings from both the student and faculty/staff sessions. (*Refer to Appendix B to review more detailed focus group findings*).

#### ***Student Sessions***

The most frequently cited transportation option used by participating students in their commute to/from Rutgers-Newark was driving alone, although several participants did report they either ride a train or bus to campus and one indicated he sometimes carpools. Most reported that their home residence is approximately 15-30 “driving minutes” from campus and participants added that they typically travel to campus four-five days per week and are frequently on campus on weekends and in the evening as well. The majority of the group also indicated they hold part-time employment positions, generally located close to their home residence, and all but one participant noted driving to/from their work site.

Motivation for driving alone to campus focused on factors including convenience and a lack of viable transit options to/from their residence. Other reasons cited included fear of transit schedule delays; reluctance to wait for trains/buses to arrive; and limited parking supply available at transit stations near their residence. Several students also noted they use their car as a “locker” while on campus, returning to their vehicle during the day so they do not have to carry

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all their books with them at one time. Motivation for using a travel mode other than driving alone focused on factors including cost savings and the free time afforded transit passengers while onboard to relax/read/study. One student emphasized that her main motivation in taking transit involved her interest and concern for the environment and her desire to help reduce air pollution and global warming. Overall, participants using transit indicated their transit option of choice was train travel. The student who indicated that he carpools to campus on occasion explained that carpooling was enjoyable for him because he received the benefits of car travel, while experiencing cost savings and reduced stress as compared to driving alone in congested conditions.

When asked the question “What are the things you want most from transportation?” and presented with a series of potential options/factors to consider, students most frequently cited timeliness/reliability, on-demand service and convenience as most important or important factors. Safety and online/one-stop trip planning were also ranked highly by participants as being most important or important. Other factors related to transportation cited by students as important included the following: seating availability; availability of Park & Ride facilities; Transit pricing and discount options; Cleanliness of transit vehicles (preference cited for elimination of cloth seats due to their “dirtiness”); and availability of maps/directions and information on available transit and TDM options. With regard to transit discount programs, several students reported having used the NJT *Ride Free* week pass and one student indicated she planned her week’s activities and travels to make best use of the free pass. Others indicated they were not aware of the program but would be interested in trying the free one week pass.

With regard to awareness for transportation options other than SOV travel, approximately half of participants noted they were familiar with the transit options near their home residence and half were familiar with at least some of the public transit options available in Newark. Notably, most students reported they were aware Newark had an extensive bus network but did not know any details about the services offered. Approximately half of participants reported they were also aware of at least some of the shuttle services operated on the Rutgers-Newark campus and some added they use or had previously used the shuttles. Positive comments related to the shuttle services included their evening operating hours and frequency of service and negative comments shared focused on reliability and timeliness of service and the drawback that the shuttle must navigate through congested streets, which adds to trip time. Those who were unaware of the shuttle service suggested that the services must be better publicized.

With regard to parking on campus, those who reported they park at a campus facility noted preference for parking in one of the two assigned student decks, as opposed to parking in the remote student parking lots. Commonly cited complaints related to parking on campus focused on limited space availability in the parking decks; frequent traffic congestion on campus streets; and difficulties navigating the area’s one-way streets. If the decks are full, most reported they continually circle the streets until they reopen. In terms of fee plans, most participants opted to pay the \$25 annual permit fee and the \$3.21 daily parking charge. When asked if they would consider utilizing another form of transportation to/from campus if parking fee permits were somewhat increased, students indicated they would not. However, students did respond negatively to a question asking if they would be amenable to paying double the current price of parking on campus if they were in return offered a guaranteed parking space in the parking deck.

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Participants were also asked what incentives, if any, would encourage them to consider utilizing an alternative to driving to campus alone. Students were presented with a series of potential alternatives and those that generated significant interest and discussion included creation of a NJT/RU universal transit pass and development of other transit discount programs; creation of a RU commute club/transportation resource center; preferred and less expensive parking for carpool/vanpool participants; online trip planning assistance; and guaranteed ride home service. With regard to the universal transit pass, students were generally amenable to being required to pay a subsidized amount for the pass as part of their student fees.

A concluding question was presented to participants that asked which transportation mode(s), aside from driving alone, do they find most attractive and would perhaps consider utilizing at least occasionally to travel to/from campus. Participants reported they would likely consider rail travel and carpooling/ridesharing and they would also consider using the shuttle services available on campus. Following a brief presentation by a NJT staff member, students also voiced interest in possibly using a Bus Rapid Transit service if it was developed on the Springfield and Bloomfield Avenue corridors, especially if that service offered less stops than traditional bus routes; offered distinct shelters for riders and had the ability to queue jump at certain intersections.

### ***Faculty/Staff Sessions***

As in the student focus group sessions, the most frequently cited transportation option used by participating faculty/staff in their commute to/from Rutgers-Newark was driving alone, although several participants did report riding a train to work and two indicated they carpool. Home residence locations of participants varied, with some living as close to Rutgers-Newark as five miles and others living more than 20 miles from the campus. Most reported traveling to campus four-six days per week and are often on campus in the evening hours and sometimes on weekends. Few reported telecommuting on a regular basis from home, but many do work some type of “flex-schedule”, as the start times reported varied from 8:00 am – 9:30 am, with many participants indicating they arrive earlier than their designated start time so they can secure parking in their preferred campus parking facility. (*Refer to Appendix B to review more detailed focus group findings*).

Motivation for driving alone to campus focused on factors including convenience, time savings, cost savings and a lack of viable transit options to/from their residence. Other reasons cited for not taking public transit included the lack of transit stops/stations within walking distance of their homes, limited parking at area park-n-ride stations, the high cost of transit and lack of seating availability on vehicles. Several participants also explained that the University does not offer any financial incentives to encourage faculty and staff to utilize public transportation, which further hinders interest in transit. Many also remarked that safety concerns are a main consideration in their decision to drive to/from campus, as they do not feel comfortable walking to transit stops or waiting once there for their ride, especially in off-peak or evening hours.

Motivation for using a travel mode other than driving alone focused on factors including cost savings and free time to read or relax while onboard either the bus or train. One participant explained that her main motivation in taking transit at least on occasion, involved her interest in the environment. Another commented that transit is an excellent travel choice when the weather

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is inclement and still another noted the health benefits of walking to/from transit stops. One participant added that there is no benefit to driving alone to campus because there is no guaranteed parking, even with purchase of a permit. The two participants who carpooled noted that the experience was very positive for them, as they benefit from cost savings compared to driving alone. Interestingly, the carpoolers were not aware Rutgers-Newark offers a rideshare/carpool program.

When asked the question “What are the things you want most from transportation?” and presented with a series of potential options/factors to consider, faculty/staff participants most frequently cited safety, convenience, cost benefits of a given travel mode and timeliness/reliability as the most important factors. It is valuable to note that faculty/staff responses differed somewhat from those shared by students, in that the former group discussed the importance of safety with regards to transportation much more intensely as compared to the latter group.

With regard to awareness for transportation options other than SOV travel, most indicated they had at least a general awareness of the transit options available in Newark, with those who take transit indicating much more familiarity with the specifics of these other travel modes. Unlike discourse in the student focus group sessions, much discussion at the faculty/staff sessions focused on observed problems with the Newark subway system that included issues such as lack of adequate signage at station areas; unsanitary station conditions; security concerns; problems with the required ticket validation process; and difficulty in determining the appropriate fare option to select. Again, approximately half of participants reported they were also aware of at least some of the shuttle services operated on the Rutgers-Newark campus, with a few participants reporting they previously used the shuttles. Comments shared related to shuttle services were primarily negative and included the following: poor advertising for the services on campus; no demarcation on vehicles identifying their route or schedule; poor customer service from drivers; and lack of adequate, designated shuttle stops. Others reported that the shuttle must navigate through congested streets, which adds significantly to trip time.

With regard to parking on campus, all participants who drive to/from campus use a Rutgers parking facility. Participants explained that since holders of parking permits are not guaranteed a parking space, they often travel to campus early to secure a space in their desired facility, which is typically Lot 510 CLJ. Other “popular” parking facilities cited included Hill Hall, Bradley Hall and the Management Education Center lot. Factors that influence where participants choose to park on campus focus on security and convenience. With regard to the former factor, participants explained they often prefer to park in Lot 510 or Bradley Hall, because these facilities are generally staffed with a parking attendant, which makes them feel safer. Several participants reported that in addition to Lot 510 having a parking attendant typically on duty, it is also considered desirable because its location offers a safe and direct route to many central buildings on campus via the New Street Plaza area. Other participants noted they feel comfortable parking at Lot 510 because it is close to the Provost Office and is used by many upper level administrators on campus; hence, a perception has developed that Lot 510 must be the most safe campus facility in which to park. The least desirable parking facilities on campus were cited as the Eagles Street and Essex Street lots. Participants explained that these facilities are located “way off campus” and are surrounded by a homeless shelter and little pedestrian traffic, which makes them feel unsafe to utilize.

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In terms of actual permit fee costs, some noted that the fees charged were generally fair while others complained they are overcharged because they are not offered guaranteed parking and in an environment where there is only one parking space available for every four permits issued, that fact poses a significant problem. When asked if they would consider utilizing another form of transportation to/from campus if parking fee permits were somewhat increased, participants indicated they would most likely not change their travel mode with a fee increase but would be annoyed if such an increase was not accompanied by an incentive package to encourage other forms of transportation. In addition, many participants reported willingness to pay increased parking permit fees if in return they were issued a guaranteed parking space.

Another topic related to parking on campus brought up by participants involved numerous complaints about the poor customer service they have experienced from the Parking & Transportation Services office. Specifically, participants cited examples of being ticketed on campus for violations they did not feel were appropriate and having great difficulty working with staff at the office to resolve parking-related issues/disputes. It was also noted that departments face tremendous difficulty in securing visitor parking permits, which reflects very poorly on the school and external relations overall.

Participants were also asked what incentives, if any, would encourage them to consider utilizing an alternative to driving to campus alone. Participants were presented with a series of potential alternatives and similar to their student counterparts, those incentive ideas that generated significant interest and discussion included creation of a NJT/RU universal transit pass and development of other transit discount programs; promotion of tax benefit programs for using alternative transportation; creation of a RU commute club/transportation resource center; preferred and less expensive parking for carpool/vanpool participants; and guaranteed ride home service. Faculty and staff seemed somewhat more interested than students in the Zipcar concept and in implementing improved pedestrian facilities in and around the campus area and expressed less interest in online trip planning incentives.

When asked if faculty/staff have any special needs related to commuting to/from Rutgers-Newark as compared to students, some participants reported that faculty/staff often have to travel during the course of the day from campus to campus, which is not general practice for most students and thus, does not impact them. Others noted that the poor parking situation on campus impacts students tremendously, as well as enrollment at Rutgers-Newark.

A concluding question was presented to participants asking for their views on a potential Bus Rapid Transit service NJT is considering for the Springfield and Bloomfield Avenue corridors. Feelings were mixed on the topic of a BRT system. Some participants noted that such a system might not be needed if NJT offered more frequent regular bus service in the area than it currently does. Others expressed concerns that a BRT system would present many of the same problems current bus service has, such as lack of available seating for passengers because of vehicle overcrowding and “platooning” of vehicles due to lack of communication among drivers. Some also remarked that for a BRT system to be successful, adequate park-n-ride facilities would be needed near BRT stops. Still others noted that it would be beneficial to ride a transit vehicle that had less stops than traditional bus routes and could queue jump at certain intersections.

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## Rutgers-Newark TDM: Recommendations

1. **Create and promote a Rutgers-Newark *Commute Club* for students, faculty and staff. The club will serve as a vital, one-stop transportation information resource center and PR/marketing engine, designed to generate awareness among students, faculty and staff for commute options to/from campus, in an effort to promote decreased SOV trips to campus.**
  - a. Locate the physical headquarters for the *Commute Club* in the Parking & Transportation Services office, housed in Blumenthal Hall. The program should also be given a smaller, “satellite” location/kiosk at the Robeson Campus Center so that a significant number of students have exposure to the club. A Parking & Transportation Services staff member with a broad understanding of the area’s transportation environment and options should supervise and direct the club’s work efforts, with significant support assistance provided from student employees and/or volunteers.
  - b. Develop a comprehensive, user-friendly website for the *Commute Club* that provides one-stop information and links to all alternative transportation options and programs available to Rutgers-Newark students, faculty and staff, including: NJT services (rail, bus, light rail); private area bus companies; Newark Subway system; discount public transit passes/programs offered by NJT, Rutgers-Newark and others; Rutgers carpool/ride match program; and Rutgers shuttle services. A *Commute Club* contact phone number and email address should be provided on the site so that interested parties can speak to an individual if they seek further information. The site should also prominently display any incentive programs or events the Club is currently offering, such as discounts for area retail shops, prizes, drawings, etc. An easily identifiable link to the site should be available on the Rutgers-Newark home page, as well as on the Rutgers-Newark Parking & Transportation Services site.
  - c. Types of services/programs to be offered or facilitated by the *Commute Club* may include, but are not limited, to the following:
    - i. Central, one-stop source (both in-person and online) for alternative commute information, detailed service area maps, and schedules to/from Rutgers-Newark campus. In addition, Rutgers-Newark can arrange with NJT for the University to serve as a ticket sales outlet for select NJT tickets and passes via the Commute Club;
    - ii. On-campus information sessions and targeted events that promote alternative transportation;
    - iii. Active carpooling recruitment initiatives that involve innovative techniques such as “Meet your Match” events held at locations including the student center and offering of ride share rewards (*e.g. discounts to area merchants or campus store*);
    - iv. *Commute Club* related email alerts with targeted subject headings and relevant news sent to students, faculty and staff;

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- v. *Commute Club* quarterly newsletter; and
  - vi. Facilitator of focus groups and/or surveys to assess how well transportation-related initiatives/programs are working on campus and to determine any recommendations for new or enhanced programs/services.

**2. Develop and implement a University-led comprehensive public awareness program to inform the Rutgers-Newark community of the transportation options available for traveling to, from and on campus.**

- a. Form an advisory committee to develop, support and guide the public awareness campaign comprised of the following partners: student, faculty and staff representatives; representatives from Rutgers-Newark administration; Parking and Transportation Services; Department of Public Safety; Student Affairs Office; Office of Campus & Community Relations; NJ TRANSIT; City of Newark; and the Newark area TMA, Meadowlink. It is critical that Rutgers administration demonstrate strong institutional support for this campaign if it is to be successfully embraced by the Rutgers-Newark community.
- b. Kick off the campaign by selecting a marketing slogan and poster logo for the initiative and utilize that design as the “face” of the public awareness effort. The focus of the campaign should be on encouraging the Rutgers-Newark population to consider trying a travel mode to campus other than SOV travel, at least one day per week. Benefits associated with pursuing such action, such as cost savings, improved convenience, etc. should be clearly described on all PR material created for this effort. In addition, PR efforts should highlight identified issues/problems related to SOV travel to/from Rutgers-Newark campus as discussed by focus group participants, such as traffic congestion, difficulty securing parking in a convenient facility, etc. Perhaps most importantly, all efforts to promote transportation modes aside from SOV travel must acknowledge and address the safety concerns faculty, staff and students expressed via focus groups regarding traveling on and around the Rutgers-Newark campus.
- c. Direct students, faculty and staff via the Rutgers-Newark website homepage to a one-stop resource for general transportation information and links (e.g. the *Commute Club* site).
- d. Develop a brief presentation in coordination with NJT designed to educate and promote to new University hires and students alternative transportation options available on/near the campus. The presentation should become an integral component of the orientation activities targeted to these groups and must include a walking tour of some of the area’s transit facilities (e.g. *Penn Station, Broad Street Station, bus stops, Newark Subway, Rutgers shuttle pick up points*).
- e. Design and widely distribute a new map with RU-Newark shuttle routes and parking facilities clearly marked and graphical representations of key campus sites noted. Copies of the map should be made available at numerous campus sites/buildings and poster-sized versions of the map should be prominently displayed on both the exteriors and interiors of school buildings. In addition, parking attendants should be directed to provide the map to any student they must

turn away from a given Rutgers parking facility due to that facility being at full capacity.

Further, as popular new retail locations begin to open in the campus area, such as Dunkin Donuts and/or Starbucks, Rutgers-Newark should consider partnering with these retailers to include their store location on the campus map in return for the retailer's help in subsidizing the production costs of creating/reproducing the map.

- f. Include handouts on alternative commute options and the *Commute Club* in mailings sent to incoming freshman, as well as to current students, faculty and staff.
  - g. Email current parking permit holders with information on the effort to and benefits of reducing the number of SOV trips to campus. Personal benefits associated with reducing SOV travel, such as cost savings, less vehicle wear & tear and reduced travel-related stress should be highlighted.
  - h. Regularly advertise alternative commute options in the student newspaper, *The Observer*, as well as in the Human Resources newsletter sent to faculty and staff.
  - i. Conduct an inventory of transportation-related signage located both on and near the campus to determine where new and/or improved signs should be included.
- 3. Develop a comprehensive campus action plan to address safety concerns as discussed by students, faculty and staff.**
- a. Convene one-two campus open house events, inviting all members of the Rutgers-Newark community to discuss and brainstorm strategies to address both perceived and real safety concerns on and near campus.
  - b. Relocate the Department of Public Safety headquarters to a new location in the northern Rutgers-Newark campus, near Orange Street and the new Business School, where it could provide the most positive impact for the University community in terms of addressing existing perceived safety concerns. (*Note: This recommendation stems from focus group discussions whereby participants expressed many safety concerns on the northern campus*).
  - c. Place parking attendants at all campus-operated parking facilities, as their presence greatly contributes to feelings of safety among faculty and staff.
  - d. Regularly confirm the operational status of blue light safety phones located on campus to ensure they are functioning properly.
  - e. Place additional blue light safety phones on campus in more prominent, easy to find locations.
  - f. Install CCTV cameras at designated locations on and around campus, as a means to enhance security.
  - g. Work with NJT to make the security camera feeds they employ at area transit facilities available to Rutgers police/security, as well as to other neighboring university police units.

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- h. Collaborate with the city of Newark to improve street lighting on roadways near the University, such as Raymond Blvd., Central Avenue and Market Street. Creating these “lit streets” between the University and area transit stations is also vital, as is enhancing lighting at NJT station entrances/exits.
  - i. Publicize the free security escort service available via the University, as well as the safety shuttle.
- 4. Develop a business partnership with NJT that is focused on pursuing services, strategies and programs specifically targeted to encourage Rutgers-Newark students, staff and faculty to use NJT services to travel to/from campus. Features of that partnership would include:**
- a. Communication & Education Elements**
    - i. NJT and Rutgers-Newark should create an effective outreach and education program via the Commute Club to encourage the Rutgers-Newark community to become more aware of and to utilize more regularly the vast public transportation network available in the Newark area.
    - ii. Appropriate NJT staff should be involved with Rutgers-Newark student and new employee orientations, as one critical means to generating awareness for NJT’s services.
    - iii. NJT and Rutgers-Newark should collaborate to develop a “*Get on and Go*” Newark transportation guide that should be made available online and in hard copy format.
    - iv. NJT and Rutgers-Newark should foster a formal and continuing dialogue designed to address public transit-related issues of concern to the Rutgers-Newark community, including topics such as the aesthetic appeal of NJT stations, stops and vehicles and improving communication related to the Newark subway fare system.
    - v. NJT and Rutgers-Newark should collaborate to develop a studio course led by a Rutgers faculty advisor that could focus on determining implementation strategies for one or more of the recommendations included in this report. The studio should target business and marketing students.
    - vi. Rutgers-Newark, with assistance from NJT, should actively promote via the *Commute Club* and other means including the Parking & Transportation Services website the discounted NJT weekly pass, commuter monthly pass, student monthly pass, Ozone Pass and NJT Ride Free week events. (*Note: The Parking & Transportation Services website does currently include some limited information on the student monthly discount pass*).
    - vii. Rutgers-Newark, with assistance from NJT, should actively promote the existing TransitChek tax benefit program, which can serve as an incentive

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for faculty and staff to consider utilizing public transit options to travel to/from campus. Those focus group participants who reported awareness for the initiative noted several misconceptions they had regarding the program. Thus, all targeted efforts to promote TransitChek must focus on clearly and concisely explaining how employees can benefit from the program and provide easy to follow enrollment steps. Meadowlink TMA could also serve as a resource and partner to Rutgers-Newark in terms of providing assistance to the University in “getting the word out” about TransitChek among the employee base.

**b. Fares, Ticketing & Pricing Element**

- i. Work with NJT to develop a service relationship whereby Rutgers-Newark develops and shares with NJT a plan discussing the types of University subsidized transit passes and discounts it would like to offer its students, faculty and/or staff. Then, the two entities can determine together a cost /value structure for implementation. For example, Rutgers-Newark can work with NJT to develop and sell via the Commute Club a “universal” type transit pass or a more targeted pass program that would offer a business school pass for use on the Newark light rail or a new monthly NJT pass that would extend to part-time students. Any passes/ticketing programs offered can be sold at Rutgers-Newark via a central location, such as the Commute Club.
- ii. Work with NJT to examine the feasibility of developing a pilot vanpool program at Rutgers-Newark that could be targeted to faculty, staff and/or students.

**c. Service Element**

- i. Work with NJT to determine the most appropriate frequency and span of NJT services that serve the Rutgers-Newark community.
- ii. Work with NJT to address concerns related to the Newark subway system that includes station area signage issues; station sanitation conditions; proof-of-payment system; and ticketing and validation issues.
- iii. Work with NJT to address the strong demand for service in the Harrison/Kearny area, as the Rutgers-Newark shuttle that serves that area typically operates at capacity. One strategy to consider involves Rutgers-Newark sharing some of the costs involved with NJT increasing service on their Harrison/Kearny bus line.
- iv. Investigate the expansion of bus routes that serve the Newark area which are at or exceed capacity, such as Route 21, that serves West Orange, Orange, East Orange and Newark (Penn Station).

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**5. Revitalize and expand the current Rutgers-Newark carpool program.**

- a. Focus attention on the benefits of carpooling to/from campus by promoting it via *Commute Club* events, Parking and Transportation Services, University Human Resources and via the Rutgers-Newark website. Efforts should note the potential social, as well as financial benefits, of pursuing carpooling.
- b. Target the carpool program more effectively to Rutgers-Newark staff and faculty, by means including more prominent advertising of the online RideShare feature offered via the University Human Resources website. Encourage Rutgers-Newark faculty and staff to also use Alternetrides.com as a ride match resource, as do Rutgers-Newark students.
  - i. Consider issuing faculty/staff carpoolers a hangtag that guarantees them a parking space in one of two “popular” campus parking facilities (e.g. Lot 510 and Lot 508) as an incentive.
  - ii. Consider offering faculty/staff carpoolers discounted parking permits.
- c. Revise the current Rutgers-Newark student carpool parking permit policy so that participants continue to have designated, preferred parking in University Deck I, but are offered additional incentives as follows:
  - i. Create a carpool “Try It Out” program which involves giving participants the opportunity to purchase a free carpool “coupon” for a brief trial period (*Note: the participants will still be required to pay the \$3.21 daily rate during the trial period*). The free carpool permit “coupon” granted to interested participants would be considered valid from the date of issuance for a period of 30 calendar days (i.e. one month). If however, at the conclusion of the one-month trial period the participants wish to purchase non-carpooling permits for themselves, they should be permitted to do so without consequence. If the individuals instead opt to continue carpooling following the one-month trial period, then the \$20 annual carpool permit fee should be collected at that time and a permit issued.
  - ii. The current program does not allow a parking option for those who do not seek to carpool for every trip they make to campus. To address this disincentive to carpooling, individual parking “tickets” should be created or Smart Card technology implemented that gives carpoolers an option of driving alone to campus one-two days per week with the ability to park in a campus facility.
- d. Coordinate with Meadowlink to advertise and enroll interested carpool participants in the New Jersey Department of Transportation’s “Carpooling Makes Sense” initiative, which was launched in May 2006. This program offers the type of financial incentive that will likely appeal to faculty, staff and students, as noted at focus group sessions. All NJ residents and workers are eligible for this program, which offers a \$100 gas card per new carpool of two or more commuters. Interested participants should be made aware that to qualify for the gas card, they must carpool at least 24 days in a two-month period.

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**6. Examine and make appropriate enhancements to the Rutgers-Newark shuttle services.**

- a. Ensure the overall University alternative transportation publicity campaign detailed in Recommendation 2 includes targeted efforts to increase awareness and use of the shuttle programs currently serving the Rutgers-Newark campus and surrounding environment. Particular attention should be given to generating awareness for the safety shuttle, as student and staff/faculty focus group participants noted safety was a concern while on campus, particularly during evening hours.
- b. Publicize the shuttle services by means including the following: place posters throughout the campus advertising the services in locations such as parking facilities and in both the interiors and exteriors of campus buildings; advertise the shuttle services in *The Observer* and via email announcements and *Commute Club* events; place signage directly on the shuttle vehicles, indicating that vehicle's destinations and schedule; and mark each vehicle with an identifying number/Route name.
- c. Designate specific stops for each shuttle route to avoid interested riders having to "wave down" shuttle drivers.
  - i. Each stop should have accompanying signage that includes pertinent information such as shuttle schedule. Use of a LED screen would be preferable, as it could offer information on vehicle estimated time of arrival. Use of Next Bus technology, as employed at Rutgers-New Brunswick, should also be considered for possible implementation.
  - ii. Place a blue light phone at each shuttle stop that offers a direct connection to the Department of Public Safety.
- d. Examine and revise existing shuttle schedules to promote efficiency and to better serve the needs of commuters as follows:
  - i. The Penn Station Route was most recently extended as a pilot initiative to include service from midnight to 4:00 am seven days per week (*Penn Station Midnight Express*), while continuing to offer its regular service hours of Monday-Friday beginning at 4:00 pm. A ridership review should be conducted to determine usage of this service hour extension. Further, Rutgers-Newark and NJIT should meet to better determine their service needs related to this route since riders currently taking this shuttle between 4:00 pm and midnight could instead be using the Newark Subway system, which is easily accessible from Penn Station and Rutgers-Newark.
  - ii. Ridership data examined for the C.H.E.N. Route readily demonstrates the route can accommodate demand with one vehicle, instead of the two it currently has at its disposal. Consideration should be given to redirecting use of the second shuttle designated for the C.H.E.N. Route to the Penn Station Route, as the latter's ridership data clearly demonstrates greater user demand.

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- iii. Since the Broad St. Station/North Parking lots Route serves faculty/staff parking facilities on Eagles Street, the benefits of extending the schedule to 6:00 pm should be considered.
  - e. Work with NJT to address the problem that the Rutgers-Newark Kearny/Harrison shuttle Route currently operates at capacity and cannot meet existing ridership demands. NJT currently operates bus service along a route almost identical to the Rutgers Kearny/Harrison shuttle Route. As such, Rutgers-Newark should discuss with NJT the feasibility of the latter offering more frequent service on their Harrison/Kearny route to meet demands.
  - f. Examine the feasibility of dedicating a distinct lane for shuttles on both University Avenue and Washington Street between Warren and Orange Streets, in an effort to reduce the need for the shuttles to navigate through heavy traffic congestion. Such action will promote the increased reliability and timeliness of the service's offered and will be of particular assistance when construction of the Rutgers Business School – located in the northern section of the campus as noted above – is complete.

## **7. Reexamine and adjust the existing Rutgers-Newark campus parking facility structure.**

- a. Consider implementing Smart Card technology as an overall better means to administer parking at Rutgers-Newark. Smart Cards resemble credit cards in size and design, but typically also include an internal microprocessor, that allows access to the individualized data stored on the card. Smart Cards have been used for years to facilitate access to on-street parking meters in locales including Philadelphia, PA, New Haven, CT and Princeton, NJ. However, the town of Princeton and other areas also use Smart Card technology with their municipal garages, as could Rutgers-Newark.
- b. Conduct outreach to other Newark area higher education institutions to initiate a dialogue on how these institutions can work together to develop more uniform parking rates for those seeking to access these higher education centers via motor vehicle.
- c. Consider pursuing a tiered pricing strategy at Rutgers-Newark which provides SOV drivers to/from campus with options as follows:

### Students:

- i. Make Parking Deck I a “premium” deck that offers guaranteed parking to those who opt to pay for a space in this facility. The daily parking fee for using this facility should be somewhat increased but kept below area market rates. Carpoolers should continue to be permitted to park at this deck in designated, preferred spaces at the current daily parking rate of \$3.21.
- ii. Increase the current daily rate structure at Parking Deck II, but the fee instituted should remain less costly than Parking Deck I, since users of this facility will not receive guaranteed parking.
- iii. Maintain the current daily rate at the student lots.

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- iv. Make the future deck to be located near the new Business school a “premium” facility that offers guaranteed parking to those who opt to pay for a space in this facility. The daily parking fee should be established at a rate comparable to the new rate to be determined for Parking Deck I. Carpoolers should be permitted to park at this facility in designated, preferred spaces at the current parking rate of \$3.21.

Faculty/Staff:

- v. Increase the permit fees for faculty and staff so they too are subject to a tiered pricing strategy. The fee structure can continue to be based on annual salary, but should be raised accordingly, dependent on which facility a given faculty/staff members opts to park. In return, faculty and staff should be given guaranteed parking. The most convenient, centrally located parking facilities should incur the highest permit fees. Faculty/staff members who carpool should be charged a lower permit fee compared to their peers who opt not to carpool and further, should be given designated, preferred parking at the facility of their choice.

The tiered parking approach will be most beneficial for Rutgers-Newark to implement because it offers students, faculty and staff parking options at different rates/fees and provides a means by which Rutgers-Newark can begin to raise the necessary funds to maintain existing parking facilities and construct the new facility near the Business School. Further, as the University begins to revitalize and expand its current TDM programs (*e.g. carpool*) and consider implementation of other incentive policies/programs designed to discourage use of SOV travel (*e.g. universal transit pass*), the tiered parking pricing structure can be reexamined and altered as needed.

It is critical to note that the tiered parking strategy should only be pursued following the imposition of a parking attendant at each facility, so that those who opt to pay the lowest parking rate are not placed in a position where they seem to be or in fact are sacrificing their personal safety by selecting to park in a less expensive, more remote parking facility.

- d. Advertise the revitalized carpooling program along with the new parking fee pricing structure so that students and faculty/staff understand they have feasible options to consider if they continue to seek to drive to/from campus but do not wish to pay the increased parking fees targeted to SOV drivers.
- e. Examine the feasibility of offering a discounted occasional parking “ticket” for students, faculty and/or staff members who do not purchase a hangtag or permit, as they only seek to drive to campus via SOV occasionally (*e.g. one-two times per week*). Perhaps a system could be designed whereby these individuals would be given the option of purchasing a pack of daily parking permit “tickets” that would allow them to park in a designated, preferred parking space in the campus facility of their choice. Issuance of “tickets” could be limited to a maximum of two per week per person and only those who opt not to purchase a hangtag/permit would be allowed to buy the “tickets” (*Note: Carpoolers who wish to drive alone*

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*occasionally to campus could also be presented with the option of purchasing these “tickets”, as detailed in Recommendation 5cii).*

It is valuable to note that if Rutgers-Newark opts to pursue Smart Card technology as described above, administering occasional parking would not require distribution of “tickets” or other more complex approaches; instead, the Smart Card issued to a particular individual who only seeks to drive to campus one-two days per week via SOV would include that data and thus, the person would only be granted access to a facility if their card is inserted at the lot entrance terminal and “reads” that the individual has not exceeded his/her one-two times per week maximum allotment for parking in a campus facility.

**8. Support the improvement of the overall level of customer service offered by Rutgers-Newark staff related to transportation.**

- a. Parking attendants should supply customers with the map detailing the area’s other parking facilities when the space they manage is at capacity and cannot accommodate additional vehicles. Maps should also be placed in easy to access containers outside of each facility so that drivers can pull to the side of the road and take a map when needed.
- b. Implement a policy which specifies that when a given parking facility is at capacity, for every vehicle that departs that facility, the parking attendant must permit a waiting vehicle to enter. *(Note: This recommendation is based on student focus group participant comments revealing they often wait in a queue outside of parking decks I or II watching cars exit the facility while no new cars are permitted to enter by the attendant. This action often results in long queues and traffic congestion outside the parking facilities, which then demands Rutgers police to become involved and require those waiting in the queue to move on, effectively losing their “place” in line).* It is critical to note that if Smart Card technology is implemented for the Rutgers-Newark parking system, then this problem will be eradicated.
- c. The Department of Public Safety should strive to offer superior customer service and assistance to those seeking information on the shuttle services and to those experiencing difficulties using the service.
- d. Implement customer service training for all shuttle drivers, vehicle dispatchers and Parking and Transportation Services employees who handle parking ticket violation questions and disputes.
- e. Evaluate the current visitor parking permit request and issuance process to determine a more “user-friendly” way for departments to access needed visitor permits.
- f. The Department of Public Safety and the Rutgers Parking & Transportation Services office should coordinate closely with the *Commute Club* to generate awareness for the various transportation options and programs available to students, faculty and staff.

**9. Improve pedestrian access and movement on the Rutgers-Newark campus and in the neighboring vicinity.**

- a. Work with Newark to implement traffic calming measures on area roadways, such as Broad Street, which is a difficult street for pedestrians to navigate due to its width and level of vehicular traffic.
- b. Work with Newark to improve the overall walking environment between campus and transit stations, by means such as improved lighting and installation of security cameras in designated locations.
- c. Examine crosswalk signals currently in use on campus, as they are confusing.

**10. Install lockers for student use at a central location on campus.**

**11. Offer and promote Zipcar service on the Rutgers-Newark campus.**

- a. The program is currently offered on the Rutgers-New Brunswick campus. As the world's largest car sharing provider, Zipcar presents users with the option of driving cars by the hour or day and includes gas, insurance and designated parking. Rutgers students, faculty and staff can join Zipcar for a fee of \$25 per year and can then opt to reserve a Zipcar vehicle online. This program is an example of a complementary strategy to offer members of the Rutgers-Newark community who are utilizing a means of travel other than SOV to/from campus and who may need use of a vehicle during the course of their day.

**12. Offer and promote a Guaranteed Ride Home service to members of the Rutgers-Newark community who opt to utilize a form of travel to/from campus other than SOV.**

- a. A Guaranteed Ride Home service is a critical complementary service to offer to the Rutgers Community so that those who opt to use transportation methods other than SOV travel are aware they have a "safety net" they can call upon if they need to get home to attend to a personal or family emergency that arises during the course of their day. Meadowlink can assist Rutgers in determining the most feasible means by which to offer a Guaranteed Ride Home service.

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## **Rutgers-Newark TDM: Framework for Implementation**

As presented above, the VTC team has determined a series of 12 detailed recommendations to help achieve the goal of reducing SOV trips to the Rutgers-Newark campus. Implementing these recommendations will require the participation and sustained commitment of various entities, both within and beyond the Rutgers-Newark community. Potential implementation partners include the Rutgers-Newark administration, Rutgers-Newark Parking & Transportation Services Office, Rutgers-Newark Department of Public Safety, Rutgers-Newark student body & government, Rutgers-Newark Student Affairs Office, Rutgers-Newark Human Resources Office, NJ TRANSIT, Meadowlink TMA, City of Newark, and other entities yet to be determined.

Table 1 on the following pages provides a framework for implementation by identifying which potential implementation partners could take a leadership and/or supporting role in advancing specific recommendations detailed in this report.

**Table 1: Implementation Matrix**

<b>Recommendation</b>	<b>RU Admin.</b>	<b>RU Parking &amp; Transportation</b>	<b>RU Dept. of Public Safety</b>	<b>RU Student body &amp; Gov't</b>	<b>RU Student Affairs Office</b>	<b>City of Newark</b>	<b>NJ TRANSIT</b>	<b>Other</b>
1. Create and promote a Rutgers-Newark <i>Commute Club</i> for students, faculty and staff	X	X	X	X	X	X	X	Meadowlink (TMA)  RU Office of Campus & Community Relations (RU-OCCR)
2. Develop and implement a University-led public awareness program to inform the Rutgers-Newark community of the transportation options available for traveling to, from and on campus.	X	X	X	X	X	X	X	Meadowlink (TMA)  RU-OCCR
3. Develop a comprehensive campus action plan to address safety concerns as discussed by students, faculty and staff.	X	X	X	X	X	X	X	Newark Police Dept.  RU-OCCR
4. Develop a business partnership with NJT focused on pursuing strategies and programs targeted to encourage the RU-Newark community to use NJT services to travel to/from campus.	X	X	X	X	X		X	Meadowlink (TMA)  RU-OCCR
5. Revitalize and expand the current Rutgers-Newark carpool program.	X	X		X	X			Meadowlink (TMA)  RU-Newark Human Resources

<b>Recommendation</b>	<b>RU Admin.</b>	<b>RU Parking &amp; Transportation</b>	<b>RU Dept. of Public Safety</b>	<b>RU Student body &amp; Gov't</b>	<b>RU Student Affairs Office</b>	<b>City of Newark</b>	<b>NJ TRANSIT</b>	<b>Other</b>
6. Examine and make appropriate enhancements to the Rutgers-Newark shuttle services.			X	X	X	X	X	
7. Reexamine and adjust the existing Rutgers-Newark parking structure.	X	X			X			Meadowlink (TMA)  Other Newark area higher education institutions
8. Support the improvement of the overall level of customer service offered by Rutgers-Newark staff related to transportation.	X	X	X	X				
9. Improve pedestrian access and movement on the RU-Newark campus and in the neighboring vicinity.	X	X	X			X	X	
10. Install lockers for student use at a central location on campus	X			X	X			
11. Offer and promote Zipcar service on the Rutgers-Newark campus.	X	X		X	X			
12. Offer and promote a Guaranteed Ride Home service to members of the Rutgers-Newark community who opt to utilize a form of travel to/from campus other than SOV.	X	X	X	X	X			Meadowlink (TMA)  RU-OCCR

**Figure 1**

**Trip Origin & Proximity to Public Transit for Students with RU Commuter Parking Permits**

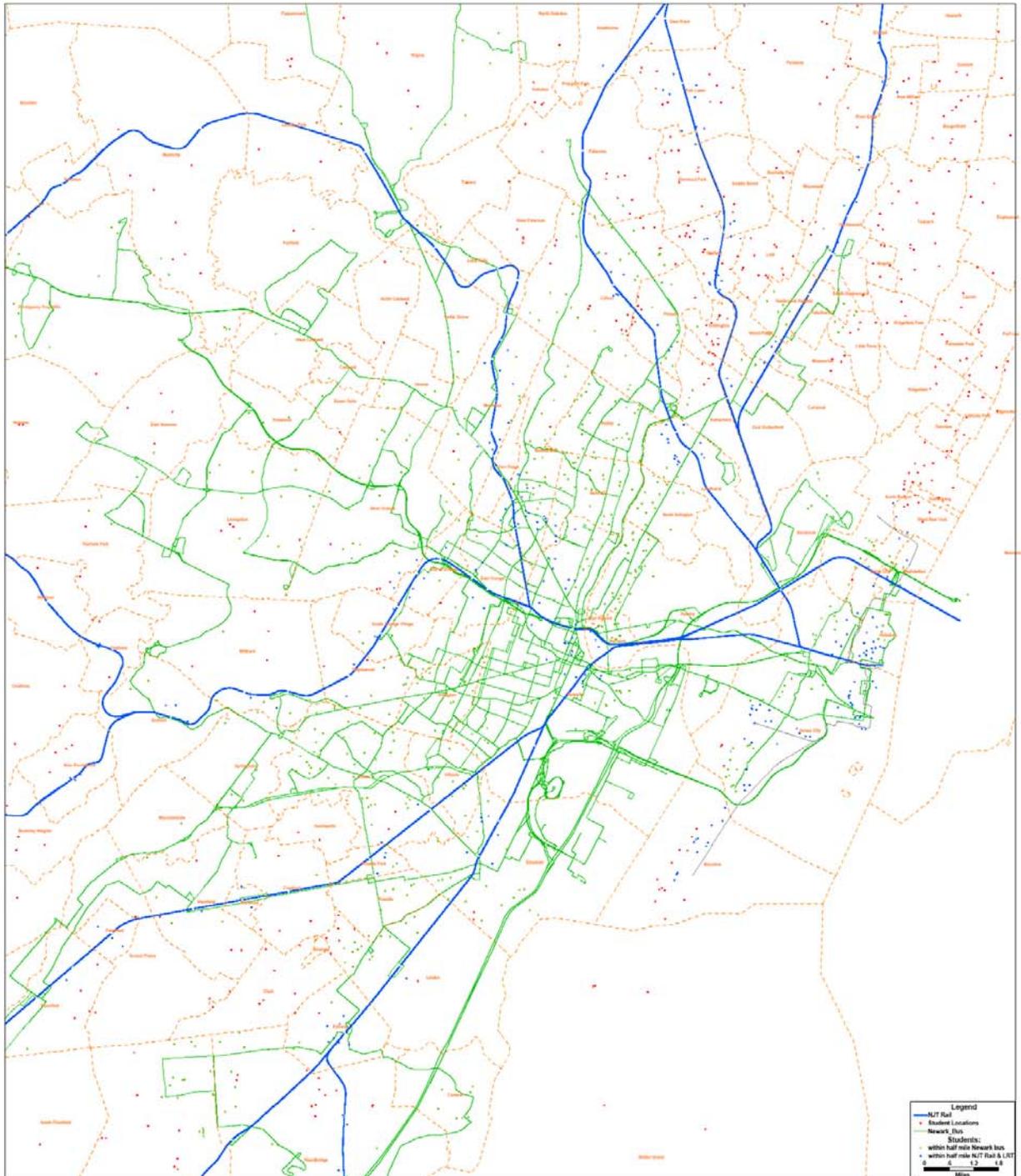
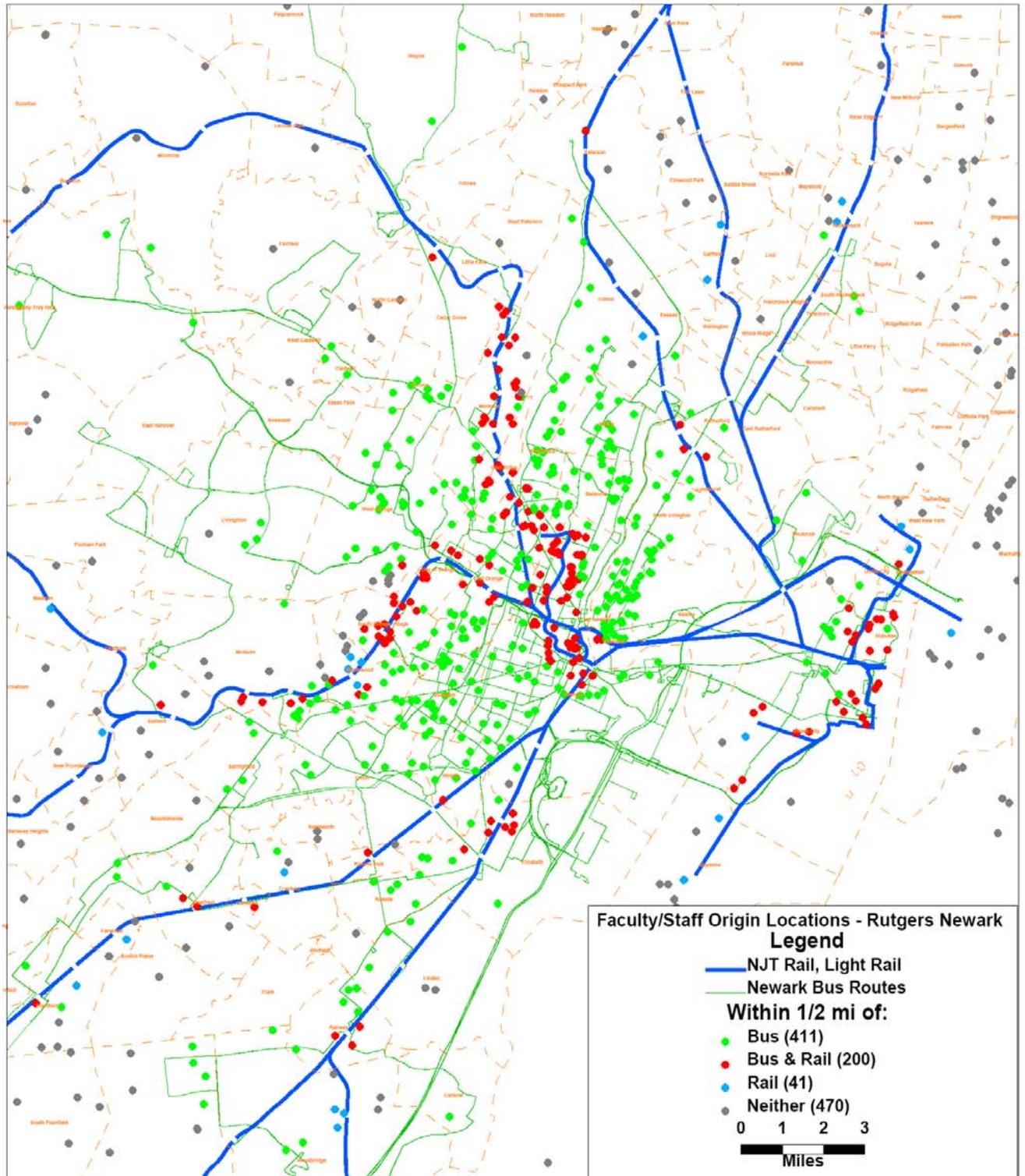


Figure 2

Trip Origin & Proximity to Public Transit for Faculty/Staff with RU Parking Permit



**APPENDIX A:**

**NJT Discount Options Matrix**  
**(Refer to report hard copy)**

**APPENDIX B:**  
**Focus Group Meeting Reports**

<b>MEETING DESCRIPTION:</b> Rutgers – Newark TDM Project Student Focus Groups	
<b>DATE:</b> February 1, 2007	<b>Location:</b> NJ Transit Headquarters Newark, New Jersey
<b>PREPARED BY:</b> Alan M. Voorhees Transportation Center Rutgers, The State University of New Jersey	

**NOTES:**

- These focus groups were conducted to inform an initiative undertaken by the Alan M. Voorhees Transportation Center (VTC), in partnership with Rutgers-Newark and NJ Transit (NJT), to reduce Single Occupancy Vehicle (SOV) trips to the Newark campus. Means to achieving that goal include investigating the use of various Transportation Demand Management (TDM) strategies, as well as transit incentive policies.
- Pippa Woods and Andrea Lubin of VTC facilitated the focus groups, with support from Brian Staples of VTC and Christopher Pye of Rutgers-Newark. Two sessions were convened on February 1<sup>st</sup>, with a total of 10 Rutgers-Newark commuter students who hold Rutgers parking permits participating. The majority of participants were full-time undergraduates (freshman-senior) with one participant indicating he was a recent Rutgers Law School graduate.

**DISCUSSION:**

Meeting participants were engaged in a discussion focused on their general travel experiences to/from Rutgers-Newark, their familiarity with existing TDM and public transit options in Newark and their views on which TDM and/or transit policies might encourage them to travel less frequently to campus via SOV.

Specific focus group questions/topics were presented as follows:

**General Travel Experiences**

**How frequently do you travel to the Rutgers-Newark campus?**

Students reported traveling to the campus an average of four-five times per week, usually over a period of four-five days. They also reported traveling to campus frequently for academic purposes at night and sometimes on weekends.

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**How far from the Rutgers-Newark campus do each of you live and what transportation options are available in your area of residence?**

Most participants reported living approximately 15-35 “driving” minutes from the Newark campus, but were unsure of the mileage distance between their homes and Rutgers-Newark. A few participants indicated they resided further than 35 “driving” minutes from the campus.

In terms of transportation options available in their area of residence, participants generally noted a mix that included private automobile, NJ Transit busses, NJ Transit commuter rail, and PATH trains. A few students mentioned they were aware of the existence of transit options in their area, but did not know what destinations they served or how to use them.

**How many of you work full or part-time, in addition to being students at Rutgers? For those of you who do work, how do you travel to/from work?**

The majority of participants reported holding part-time employment positions, mostly located close to their home residence, although one student did indicate she has an on-campus job. One participant reported holding a full-time job. In terms of travel to/from work, all but one participant indicated they drive alone to work, mainly due to convenience. The student with the full-time job reported traveling to work via public transit.

**How do you travel to/from Rutgers-Newark? Do you use that method of transport everyday?**

Of the ten participants, six reported driving alone to campus almost exclusively. The other four students indicated they typically either ride a train or bus to campus, with one noting he sometimes carpools.

**For those of you who reported that you drive alone to campus, please explain why you have opted to do so? What is your motivation?**

Common responses cited included the convenience of driving alone to/from campus and the lack of viable transit options to/from their residence. Students explained it was generally easier and faster for them to travel to/from campus via car. Several students also mentioned that they use their car as a “locker” while on campus, returning to their vehicle during the course of the day, as they do not want to carry all their books with them at any one time. One student noted that she is extremely concerned with being late for class and feels she has more “control” when driving, as opposed to taking the bus. For if she rides the bus and it is stuck in traffic congestion she has no options; however, if she is driving, she can seek an alternate route. Other students noted they do not take transit because they do not want to wait for the train/bus to arrive and further, are worried about transit schedule delays. Some added that the train station near their home had a limited parking supply and that it was too far to walk to the station. Another student remarked that she received a car from her parents specifically for commutation to work and school.

**For those of you who just reported using a mode of travel to/from Rutgers-Newark aside from driving alone, please explain why you have opted to do so? What was your motivation?**

Students explained that benefits of taking transit to/from campus included cost savings and free time to read/study while onboard either the bus or train. Others noted the more relaxed commute

transit offers its' passengers in terms of eliminating or reducing road rage type stresses. One student explained that her main motivation in taking transit as opposed to driving alone involved her interest in the environment and in reducing air pollution and the resultant global warming associated with motor vehicle travel.

Overall, participants indicated that their transit option of choice was train travel. Several noted that while their train ride may take slightly longer than does driving their car to/from campus, they prefer the free time given them during their transit trip compared to the minor time savings offered if they opted to drive. As one student explained, she is willing to take commuter rail, then transfer at Secaucus Junction and finally switch to Newark City Subway to reach campus because of the time she is granted to relax and read while onboard.

Another student indicated that he sometimes carools to campus and that the experience was very positive for him and his fellow carpoolers, especially since they enjoyed the benefits of car travel while experiencing cost savings and reduced stress related to driving alone in congested conditions. He added that the group whom he carooled with became friends and in some cases, study partners.

**What are the things you want most from transportation? What aspect of transportation is most important to you? What do you most depend on?**

Students were presented with a series of options to stimulate discussion and were asked how important (if at all) they considered each. Results are as follows:

<b>Options/Factors</b>	<b>Most Important</b>	<b>Important</b>	<b>Least Important</b>
On Demand	7	2	
Timeliness/Reliability	9		
Convenience	3	6	
Direct Service		6	3
Environmentally friendly	1	1	7
Smart Commute (online/one-stop trip planning)	3	6	
Safe	3	5	1

Other factors related to transportation cited by students as important included the following: Seating availability; availability of Park & Ride facilities; Transit pricing and discount options; Cleanliness of transit vehicles (preference cited for elimination of cloth seats due to their “dirtiness”); and availability of maps/directions and information on available transit and TDM options. With regard to transit discount programs, several students reported having used the NJT *Ride Free* week pass and one student indicated she planned her week’s activities and travels to make best use of the free pass. Others indicated they were not aware of the program but would be interested in trying the free one week pass.

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## **Other Transportation Options**

### **How familiar are you with the public transit options available near your place of residence?**

Approximately half of the participants noted they were very familiar with the transit options available near their homes. The remainder indicated they either had some or no familiarity with the available transit options. One indicated he was aware of the mode options (e.g. train, bus) but not of the schedules or geographic area serviced by each.

### **How familiar are you with Newark’s public transit options? Specifically, bus, train, light rail/subway service? How did you learn about these services?**

Approximately half of the participants indicated they were familiar with at least some of Newark’s public transit options, such as rail, subway/light rail and PATH. One student explained she became aware of the City’s services through her experiences traveling to UMDNJ in Newark for her part-time job. Another noted she became aware of the services by proactively seeking schedules and timetables from area stations.

Interestingly, most students noted they were aware that the City had an extensive bus network but did not know any details about the services offered via the bus.

### **How familiar are you with the various shuttle services operated on the Rutgers-Newark campus? How did you become aware of the services?**

Approximately half of the participants reported they were aware of at least some of the shuttle services operated on Rutgers-Newark campus and some indicated they currently use or have previously used the shuttles. One student specifically expressed satisfaction that the shuttle service is offered in the evenings, when she is most concerned with safety issues, and voiced approval that the service is generally available, accessible and offers timely rides. However, another student who had previously used the shuttle service complained about the reliability and timeliness of the service, indicating that she had once waited over an hour for the shuttle to arrive while being repeatedly told by dispatchers that the vehicle would arrive within ten minutes. Since that incident, she has not used any Rutgers shuttle service. Another complaint was that the shuttle must navigate through congested streets, which adds time to the trip.

The remainder of the group noted they did not know about the shuttles and suggested they should be better publicized. One student recommended that posters advertising the service be displayed in prominent central campus locations, such as Smith Hall, where she had once seen a poster advertising the safety shuttle service. Other suggestions offered to generate awareness for the shuttles were to advertise the service in the school newspaper, *The Observer*, and in classrooms, hallways and parking facilities. It was also suggested that signs should be placed on the shuttle vehicles themselves, indicating the vehicle’s destinations and schedule. Students who had experience with the shuttle also requested more courteous/friendly drivers and dispatchers.

### **For those of you who indicated earlier in our discussion that you drive alone to campus, do you park your vehicle at a Rutgers student parking facility?**

All participants who drive to campus use a Rutgers student parking facility when available. In terms of fee plans, most students opted to pay the \$25 annual permit fee and the \$3.21 daily parking fee. The other drivers reported they opted against paying a daily fee and instead either

paid for the yearly permit option (Spring & Summer semester, \$333) or for just one semester (\$179). Students generally acknowledged the fees charged for parking by the University were fair, although one student noted the recent 21 cent daily fee increase can be frustrating if one does not travel with change/coins.

With regard to driving on campus, students consistently cited congestion and difficulties navigating the area's one-way streets. They added they must often navigate through heavy pedestrian traffic and construction areas.

Students explained their preference for parking in one of the two assigned student decks, as opposed to the more remote student parking lots. They noted that lot locations are further from the campus center and are more isolated, which raises safety concerns. With regard to the parking decks, participants cited frustration that if the decks are full, they must continually circle the streets until they re-open or find parking on the street or in one of the lots. Generally, they opt to circle the block until the deck re-opens. Some students complained that the decks are sometimes closed when there are clearly parking spaces still available. Others noted that if they arrive on campus after 12:00pm, they expect to have difficulty securing parking in the campus decks. Despite these frustrations though, students reported they did not consider the parking situation on campus as a discouraging factor in attending Rutgers-Newark.

Further, when asked if they would consider utilizing another form of transportation to/from campus if parking fee permits were somewhat increased, students indicated they would not. However, students did respond negatively to a question posed by the project team asking how they would respond if the University opted to double the current price of parking on campus but in return offered students a guaranteed space in the parking deck. All students who drive indicated they would not be willing to pay double the current parking fees, mainly for financial reasons.

**What incentives, if any, would encourage you to consider using an alternative to driving to campus alone?**

Students were presented with a series of incentive ideas to stimulate discussion and were asked to ascertain their interest in each. Results are as follows:

Incentive	Interest
NJT or RU Universal transit pass	Yes, with some students noting that cost would be a factor in determining their usage. One student noted the pass should be honored by non-NJT providers as well.
Other transit discount programs	Yes and it was noted the discounts should be made available to part-time students as well.
RU Commute Club/Transportation Resource Center	Yes
Guaranteed Ride home service for those using alternative transportation	Yes
Parking permit for occasional driving to campus	Most participants expressed interest.

Incentive	Interest
Assistance in learning about transit options	Yes
Assistance in locating fellow commuters to participate in a carpool/vanpool (ride-matching)	Half of participants expressed interest.
Preferred parking for participants in a carpool/vanpool	Most agreed; one indicated such action was “not fair”.
Less expensive parking for participants in a carpool/vanpool	Yes
Zipcar service	Some were interested. Others expressed concerns related to user costs and liability.
Online trip planning assistance	Yes
Cash subsidy or other tax benefits for using alternative transportation	Yes
Improved bicycle/pedestrian facilities on/near campus	Not interested

**What transportation mode aside from driving alone do you find most attractive and would perhaps consider utilizing either regularly or occasionally to travel to/from campus?**

Participants reported they would consider rail travel and carpooling/ridesharing. They also indicated they would consider using the shuttle services available on campus.

Several participants reported they would not consider using bus service for reasons that included bus overcrowding; slow bus speed; perceived lack of cleanliness; frequency of bus stops; and the reality that buses must navigate through the same traffic congestion as do cars to reach their final destinations. However, when a NJT staff member discussed the possibility of a Bus Rapid Transit (BRT) system on the Springfield and Bloomfield Avenue corridors, some students expressed interest based on the premise that the BRT service would have less stops than traditional bus routes, offer separate shelters for riders and might be able to queue jump at certain intersections. One student remarked she would try BRT if the fare was reasonable and the weather good on the day she sought to travel.

**How helpful would it be to you if Rutgers-Newark developed a “Commute Club”, as was mentioned earlier in our discussion, which could be a part of the Rutgers Parking and Transportation Services Office? This “Club” would function as a resource for students, faculty and staff by offering a variety of travel related information and services to help facilitate trips to/from campus via transportation modes other than driving alone, as well as provide incentives for such action.**

Participants expressed significant enthusiasm for such a service and it was ascertained that offering this resource on campus would make students more likely to consider transit or ridesharing options instead of only driving alone to/from campus.

**Do you think students have any special needs related to traveling to/from the Rutgers/Newark campus which staff/faculty does not have?**

Participants indicated their travel needs to/from campus were not much different than staff/faculty needs. They did however note that students were generally more likely to be on campus during nights and weekends than faculty and staff.

**If the University and NJT offered a “universal” type transit pass program but students were required to pay a subsidized amount for the pass from their student fees, would you use the pass?**

Students generally indicated they would be fine with this approach, as long as the fee was reasonable.

**Could you share any final thoughts and/or suggestions as to how Rutgers-Newark and its partners can successfully work to achieve increased use of transportation modes other than driving alone to/from campus?**

Comments and suggestions shared included the following:

- If there were a free or discounted transit pass made available, people would change their tunes on transit because gas is so expensive.
- If you want students to consider transit and other travel options, recognize that safety is a concern for many of us, especially at night and in locations such as the northern section of campus.
- Make students more aware of existing transit and TDM services via means including a Commute Club, email announcements, campus website updates and campus posters.
- Review and adjust the evening class schedules so they correspond better with NJT train and Newark subway schedules.
- Parking attendants should distribute maps to drivers if their given facility is full, as it is difficult to locate the other parking facilities on campus (e.g. student lots).
- The trip planner feature on the NJT website is too rudimentary and should include more visuals, such as detailed service area maps.
- The current NJT student monthly discount pass should be made available to part-time students.
- The 21 bus route is often full and you cannot get on without waiting through several bus cycles.

**Concluding Thoughts**

Students were thanked for their open and eager participation and were informed the project team would be holding a similar focus group with faculty and staff in the upcoming weeks.

<b>MEETING DESCRIPTION:</b> Rutgers – Newark TDM Project Staff/Faculty Focus Groups	
<b>DATE:</b> March 29, 2007	<b>Location:</b> Rutgers-Newark Law and Justice Center Newark, New Jersey
<b>PREPARED BY:</b> Alan M. Voorhees Transportation Center Rutgers, The State University of New Jersey	

**NOTES:**

- These focus groups were conducted to inform an initiative undertaken by the Alan M. Voorhees Transportation Center (VTC), in partnership with Rutgers-Newark and NJ Transit (NJT), to reduce Single Occupancy Vehicle (SOV) trips to the Newark campus. Means to achieving that goal include investigating the use of various Transportation Demand Management (TDM) strategies, as well as transit incentive policies.
- Pippa Woods and Andrea Lubin of VTC facilitated the focus group sessions, with support from Martin Robins and Brian Staples of VTC. Two sessions were convened on March 29<sup>th</sup>, with a total of 12 Rutgers-Newark staff/faculty members who hold Rutgers parking permits participating. The majority of participants were full-time staff members, with two participants reporting they were faculty members and another participant indicating she was a teaching assistant and PhD candidate. In addition to their current role as staff members, a few participants also noted they were currently taking or had previously been enrolled in classes at Rutgers-Newark.

**DISCUSSION:**

Meeting participants were engaged in a discussion focused on their general travel experiences to/from Rutgers-Newark, their familiarity with existing TDM and public transit options in Newark and their views on which TDM and/or transit policies might encourage them to travel less frequently to campus via SOV.

Specific focus group questions/topics were presented as follows:

**General Travel Experiences**

**How frequently do you travel to the Rutgers-Newark campus?**

Participants reported traveling to the campus an average of four-six times per week. Many reported either traveling to campus or being on campus during evening hours and a few noted they travel to Rutgers-Newark on weekends.

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Some participants explained that due to their job responsibilities, they must travel to the Rutgers-New Brunswick campus from Rutgers-Newark during the course of their day, sometimes on a weekly basis.

**Do you ever telecommute or work a flex-hour schedule?**

Most participants indicated they only telecommute from home on occasion, if at all. The few participants who noted that they work with colleagues from Rutgers-New Brunswick indicated they sometimes hold teleconferences with their peers to avoid having to physically travel between campuses. In terms of flex hours, most reported beginning their work day between the hours of 8:00 am and 9:30 am, with the desire to avoid traffic congestion cited as the main decisive factor for their preferred start time. Others noted they often arrive to work earlier than their designated start time to ensure they secure a parking space in their desired lot location and because they do not want to remain on campus into the evening hours because of both perceived and real safety concerns.

**How far from the Rutgers-Newark campus do each of you live and what transportation options are available in your area of residence?**

Home residence locations of participants varied, with some residing as close to Rutgers-Newark as five miles and others indicating they must travel more than 20 miles to reach work. Some of the municipalities where participants reside include Edison, Somerset, Montclair, Bloomfield, Jersey City and one participant reported residing in New York City.

In terms of transportation options available in their area of residence, participants generally noted a mix that included private automobile, NJ Transit busses, NJ Transit commuter rail, and PATH trains. Some participants noted they were unaware of the public transportation options available near their residence.

**How do you travel to/from Rutgers-Newark? Do you use that method of transport everyday?**

Of the twelve participants, nine reported driving to campus almost exclusively and the other three participants indicated they typically ride a train to Newark and then either walk or take the subway to campus. Two participants reported carpooling to/from Rutgers-Newark. (*Note: One of the carpoolers commutes with an individual who works in the Newark area but is not a Rutgers employee and the other participant who reported carpooling commutes with a fellow Rutgers employee*).

**For those of you who reported that you drive alone to campus, please explain why you have opted to do so? What is your motivation?**

Common responses cited included the convenience of driving alone to/from campus, time savings, cost savings and the lack of viable transit options to/from their residence. In terms of other reasons why participants do not take public transit, the lack of transit stops/stations within walking distance of their homes was noted, as was limited parking at area park-n-ride stations, the high cost of transit and lack of seating availability on vehicles. Another participant opined that buses have too many stops, which adds significantly to travel time, while others remarked that transit schedules do not readily accommodate those who work irregular evening and

weekend hours. Several participants also explained that the University does not offer any financial incentives to encourage faculty and staff to utilize public transportation, which further hinders interest in transit.

Many also remarked that safety concerns are a main consideration in their decision to drive to/from campus, as they do not feel comfortable walking to transit stops or waiting once there for their ride, especially in off-peak or evening hours. As one participant explained, she had to wait approximately 30 minutes for the Newark subway one evening after 8:00 pm and she was extremely nervous and uneasy about waiting alone at the station at that time. Thus, when she takes the subway now from work, she always leaves work no later than 7:00 pm to avoid being alone at the station. Another noted that when she or her husband (*also a Rutgers-Newark employee*) must remain at work until dark, they call Campus Security to request an escort to their vehicle. Participants explained that while most of them have not experienced personal safety-related incidents on campus, they are acutely aware of safety issues from reading email announcements regarding crime activity on campus dispersed to the University community and from hearing about criminal activities from their colleagues, peers and students at Rutgers-Newark.

**For those of you who just reported using a mode of travel to/from Rutgers-Newark aside from driving alone, please explain why you have opted to do so? What was your motivation?**

Participants reported that the main benefits of taking transit to/from campus included cost savings and free time to read or relax while onboard either the bus or train. One participant explained that her main motivation in taking transit at least on occasion, as opposed to driving alone all the time, involved her interest in the environment. Another commented that transit is an excellent travel choice when the weather is inclement and still another noted the health benefits of walking to/from transit stops. One participant added that there is no benefit to driving alone to campus because there is no guaranteed parking, even with purchase of a permit.

One participant noted that because she relocated to NYC and sold her car, she has become a regular transit user to/from campus. However, she opined that she has not experienced any real benefits related to being a transit user because she must now adhere to a more “regular” work schedule and not stay late at work as she previously did when she drove to/from campus, because of safety concerns associated with working late and having to walk to and wait at transit stations. The other regular transit users confirmed the sentiment related to not working evening hours due to safety concerns associated with walking to area transit stations.

The two participants who carpoled noted that the experience was very positive for them, as they benefit from cost savings compared to driving alone. Another participant reported that she had tried carpooling for about one month and enjoyed the benefits associated with it, but had to cease carpooling when her fellow rider’s schedule changed. Interestingly, the carpoolers were not aware Rutgers-Newark offers a rideshare/carpool program.

**What are the things you want most from transportation? What aspect of transportation is most important to you? What do you most depend on?**

Participants in the afternoon session were presented with a series of options to stimulate discussion and were asked how important (if at all) they considered each. (*Note: While*

*participants in the morning session were not presented with this chart, a similar discussion was held with this group that focused on what factors were important to them in terms of transportation and input shared mimicked the results included below).*

Results are as follows:

<b>Options/Factors</b>	<b>Most Important</b>	<b>Important</b>	<b>Least Important</b>
On Demand	2	6	
Timeliness/Reliability	4	3	1
Convenience	6	2	
Direct Service	3	4	1
Environmentally friendly		3	5
Smart Commute (online/one-stop trip planning)			8
Safe	7	1	
Other: Cost benefits of travel mode	4	4	

Other factors related to transportation cited by participants as important included seating availability and crowdedness on a given vehicle and cleanliness and overall aesthetics of the vehicle. Participants also noted their dislike for three passenger seat vehicles and preference for double seats.

### **Other Transportation Options**

**How familiar are you with Newark’s public transit options? Specifically, bus, train, light rail/subway service? How did you learn about these services?**

Participants who drive to/from campus indicated they had a general awareness of the transit options available in Newark, although some were not aware if those services would meet their travel needs. Those who take public transit to/from campus regularly or on occasion expressed a more thorough understanding of Newark’s transit options.

Many comments related to Newark’s subway system were shared as follows:

- The required two-step ticketing and validation process is extremely difficult to understand and is not user friendly at all, especially for visitors to the University and Newark area who are unfamiliar with this complicated process. Specific comments related to this complaint included the inconvenient location of the validating machine in relation to the ticketing machine; finding that the validation machine is often out of order; inability to purchase and validate one’s ticket in a single step process; random, haphazard checking by station agents for ticket validation; and extremely costly violation fees for failure to validate.
- The subway stations are not cleaned adequately, as they are most often dirty and frequently emanate a foul odor.

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- Little signage is available at the station areas and what is present is written in a confusing manner.
  - It is difficult to determine if one needs to purchase the full \$1.25 fare to utilize the subway service or if one could instead purchase the .60 cent “downtown” fare. It was noted that failure to select the appropriate fare option has led to users being ticketed by station agents.
  - The failure to offer any discount for purchasing tickets in bulk and the short expiration date on tickets purchased serve as disincentives to using the service.

**How familiar are you with the various shuttle services operated on the Rutgers-Newark campus? How did you become aware of the services?**

Approximately half of the participants reported they were aware of at least some of the shuttle services operated on Rutgers-Newark campus, with only a few indicating they have used the shuttle service at some point. No participants were regular shuttle users. One of the former shuttle users explained that from his personal experience, the driver of the vehicle he was onboard appeared exhausted; there were no seatbelts on the van; and the vehicle breaks were questionable. He added that the commute time onboard was considerable, as the vehicle was stuck in traffic congestion for most of the route. He concluded by explaining he would rather “walk in four feet of snow” than take the shuttle service in the future. Other comments related to shuttle services focused on the following:

- There is little, if any, signage on campus alerting the University community to the existence of shuttle services or advertising that it is a free service. Further, any available signage does not include schedule or route information.
- The vehicles themselves do not include signage or markings alerting potential users to their route or schedule.
- The shuttle information available on the Rutgers website is not frequently updated.
- Shuttle drivers are often not focused on customer service nor do they seem to have any connection to the dispatch office, as they often have no response to questions such as “when is the next vehicle arriving?” and “What are the different shuttle routes available?”
- The recent addition of the Midnight Express Penn Station Route seems intriguing and valuable, especially for students, as they are most likely to seek transportation in the later evening hours; however, few are aware this service exists.

**For those of you who indicated earlier in our discussion that you drive alone to campus, do you park your vehicle at a Rutgers parking facility?**

All participants who drive to/from campus use a Rutgers parking facility and most indicated that they park at Lot 510 CLJ. Participants explained that since holders of parking permits are not guaranteed a parking space, they often travel to campus early to secure a space in their desired facility. One participant explained that without guaranteed parking, the permit given to faculty/staff really only serves as a “hunting permit”, entitling the permit holder with permission to search for a parking space, with no guarantee one will be found. It is interesting to note that most of those who drive to/from campus do not feel comfortable moving their vehicle during the day if they have a work or personal related errand to conduct, as they fear losing their parking space.

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Factors that influence where participants choose to park on campus focus on security and convenience. With regard to the former factor, participants explained that they prefer to park in Lot 510, because it is generally staffed with a parking attendant, which makes them feel safer. It was noted by one participant that she has personally witnessed three vehicle break-ins in Lot 510 when the attendant was not on duty and that her car was actually stolen from the Hill Campus lot. Participants complained that due to staffing reductions, Lot 510 is often without an attendant, especially during “off periods” such as Fridays and weekends. Another participant explained that the parking attendants are generally treated poorly by supervisors and their position does not offer health benefits or wages above the minimum. As such, they have no vested interest in promoting the safety of the facility they operate.

In terms of the most desirable parking facilities on campus for faculty and staff aside from Lot 510 CLJ, participants noted that both the Hill Hall and Bradley Hall facilities are popular, as is the Management Education Center lot. Participants explained that the Bradley Hall lot has an attendant, which is desirable and the MEC lot has police presence on its’ corner. Several participants reported that in addition to Lot 510 having a parking attendant typically on duty, it is also considered desirable because its location offers a safe and direct route to many central buildings on campus via the New Street Plaza area. Other participants noted they feel comfortable parking at Lot 510 because it is close to the Provost Office and is used by many upper level administrators on campus; hence, a perception has developed that Lot 510 must be the most safe campus facility in which to park. The least desirable parking facilities on campus were cited as the Eagles Street and Essex Street lots. Participants explained that these facilities are located “way off campus” and are surrounded by a homeless shelter and little pedestrian traffic, which makes them feel unsafe to utilize.

The topic of parking fees was also discussed. Several participants expressed displeasure that the permit fee structure for faculty/staff was premised on salary, while others felt the current fee structure system was fair. In terms of actual permit fee costs, some noted that the fees charged were generally fair while others complained they are overcharged because they are not offered guaranteed parking and in an environment where there is only one parking space available for every four permits issued, that fact poses a significant problem. Some added they would like to try working flex hours on occasion, but fear it is not a feasible option if they opt to start work after 8:30 am, as the preferred lots will be full.

When asked if they would consider utilizing another form of transportation to/from campus if parking fee permits were somewhat increased, participants indicated they would most likely not change their travel mode with a fee increase but would be annoyed if such an increase was not accompanied by an incentive package to encourage other forms of transportation. In addition, many participants reported willingness to pay increased parking permit fees if in return they were issued a guaranteed parking space.

Another topic related to parking on campus brought up by participants involved numerous complaints about the poor customer service they have experienced from the Parking & Transportation Services office. Specifically, participants cited examples of being ticketed on campus for violations they did not feel were appropriate and having great difficulty working with staff at the office to resolve parking-related issues/disputes. A specific problem noted was being ticketed for not having the appropriate vehicle hangtag, which can occur if a staff member has a personal/family emergency and needs to switch vehicles with another family member on a given

day and forgets to move the Rutgers tag to the “loaner” vehicle. One participant explained that she alerted the Parking Office that she had to switch vehicles with her spouse on a given day due to an emergency but had forgotten to take the hangtag from her registered vehicle. However, despite her efforts of alerting Parking & Transportation Services to her situation, she was ticketed regardless.

It was also noted that departments face tremendous difficulty in securing visitor parking permits, which reflects very poorly on the school and external relations overall. Another participant remarked that departments at Rutgers-New Brunswick do not have to pay for visitor parking, while those at Rutgers-Newark must pay for visitor spots.

**What incentives, if any, would encourage you to consider using an alternative to driving to campus alone?**

Participants in both sessions were presented with a series of incentive ideas to stimulate discussion and were asked to ascertain their interest in each. Results are as follows:

Incentive	Interest
NJ Transit or RU Universal transit pass	Yes
Other transit discount programs (e.g. Ozone Pass)	Yes and it was noted by several that information on these programs is difficult to locate.
RU Commute Club/Transportation Resource Center	Yes
Guaranteed Ride home service for those using alternative transportation	Yes
Parking permit for occasional driving to campus	Most participants expressed interest, with one noting that this type of parking permit should only be issued if a guaranteed parking system is in place.
Assistance in learning about transit options	Yes
Assistance in locating fellow commuters to participate in a carpool/vanpool (ride-matching)	Yes, especially if ride-matching is available online.
Preferred parking for participants in a carpool/vanpool	Yes
Less expensive parking for participants in a carpool/vanpool	Yes
Zipcar service	Yes, with some noting that Zipcar service could be especially beneficial to specific departments, such as the Admissions Office.
Online trip planning assistance	Some interest expressed.
Cash subsidy or other tax benefits for using alternative transportation (e.g. Transitchek)	Yes and it was noted that inaccurate information related to these programs is sometimes conveyed to interested users (e.g. <i>Transitchek is only available to union employees, which is incorrect</i> ).
Improved bicycle/pedestrian facilities on/near campus	Yes for pedestrian facilities, such as increasing lighting structures on campus, improving crosswalks at large area intersections, such as Broad Street, and improving the overall walking area between transit hubs and campus. Campus crosswalk signals are also confusing.

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**How helpful would it be to you if Rutgers-Newark developed a “Commute Club”, as was mentioned earlier in our discussion, which could be a part of the Rutgers Parking and Transportation Services Office? This “Club” would function as a resource for students, faculty and staff by offering a variety of travel related information and services to help facilitate trips to/from campus via transportation modes other than driving alone, as well as provide incentives for such action.**

Participants expressed support for such a service and most requested that the Commute Club disseminate information via email and a webpage. Some participants did complain however that they are currently overwhelmed with email, so requested that any emails sent by the Commute Club include a relevant subject line so it can be more readily distinguished from “junk” mail. Other participants noted that the Club should also post information on their services on bulletin boards around campus. Finally, one participant suggested that the user customized Rutgers web portal tool (*my.rutgers.edu*) could perhaps be utilized by the Commute Club and/or employees in a manner whereby employees create a profile that includes information such as their mode of travel to/from campus, routes traveled and preferred parking facility and Commute Club could then send targeted transportation-related announcements to participants based on the customized profile created by the user. Another participant responded that while a good idea, the Rutgers web portal was not really used by the Rutgers-Newark community.

**Do you think staff/faculty have any special needs related to traveling to/from the Rutgers/Newark campus which students do not have?**

Some participants reported that faculty/staff often have to travel during the course of the day from campus to campus, which is not general practice for most students and thus, does not impact them. Others noted that the poor parking situation on campus impacts students tremendously, as well as enrollment at Rutgers-Newark. One participant remarked that the Rutgers-Newark administration does not understand the needs and desires of the targeted student market. Having a car and ready access to that car is very important to the 18-21 year old market, which is why the Rutgers-Newark administration should work to invest more in safe parking facilities for the student body, if for no other reason than to attract more students to the University and increase enrollment.

**NJ Transit is currently investigating the possibility of developing a Bus Rapid Transit (BRT) system on the Springfield and Bloomfield Avenue corridors. What are your thoughts on such a system?**

Feelings were mixed on the topic of a BRT system. Some participants noted that such a system might not be needed if NJT offered more frequent regular bus service in the area than it currently does. Others expressed concerns that a BRT system would present many of the same problems current bus service has, such as lack of available seating for passengers because of vehicle overcrowding and “platooning” of vehicles due to lack of communication among drivers. Some also remarked that for a BRT system to be successful, adequate park-n-ride facilities would be needed near BRT stops. Still others noted that it would be beneficial to ride a transit vehicle that had less stops than traditional bus routes and could queue jump at certain intersections. Some participants added that NJT should explore BRT implementation along other key corridors, in addition to Springfield and Bloomfield Avenues.

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**Could you share any final thoughts and/or suggestions as to how Rutgers-Newark and its partners can successfully work to achieve increased use of transportation modes other than driving alone to/from campus?**

Comments and suggestions shared included the following:

- Recognize that safety is a prime concern for faculty and staff on campus and any programs designed to increase use of travel other than SOV must be cognizant of that fact.
- Work with Newark to develop a lit path from campus to the Market Street area that includes blue light phones and CCTV cameras. In addition, traffic calming is needed on Broad Street, as it is a difficult street for pedestrians to cross due to its width and vehicular traffic.
- A comprehensive Newark transportation guide should be created in poster size and made available online. Such a guide was available from NJT in years past.
- The current bus traffic pattern around Penn Station functions poorly, especially because of construction-related traffic from the city arena project. NJT should examine this issue for a short term solution such as creating separate roadway access for buses and also consider developing a longer term solution by means such as building a multi-level bus station in the area.
- NJT should examine its current routes as the majority of them seem to be focused on the NYC commute, which no longer represents the travel demands of all New Jerseyans. Instead, there are now many students and employees traveling to Rutgers-Newark from the Hudson County area but not enough transit service to meet their needs. Another participant noted the same holds true for the Somerset County area and Rocky Hill/Kingston locales.
- NJT should work with urban areas, such as Jersey City, to develop more reasonable park-n-ride options for residents near light rail and PATH stations.
- NJT should work to improve people’s negative and outdated perceptions associated with transit, especially as a means to encouraging the younger generation to try public transportation.
- The Rutgers-Newark shuttle system needs to be improved dramatically in terms of creating awareness for the services among the University community. To achieve this goal, the following was suggested:
  - Each shuttle route should have designated stops, so that pedestrians are not forced to “wave down” the shuttle, as is common practice now.
  - Each shuttle stop should have accompanying signage, such as a community bulletin board or LED screen, that includes pertinent information such as the shuttle schedule and vehicle estimated time of arrival (e.g. NextBus technology).
  - Each shuttle stop should have a blue light phone so that passengers can call the Department of Public Safety for information on the shuttle service and to report any delays and/or safety concerns the passenger may be experiencing at the designated stop area. It was stressed by several participants that the blue light phones currently on campus rarely function, nor are they placed in easy to locate, prominent locations on campus.
  - Shuttle service should operate more frequently.

- Shuttle vehicles should be marked with a number/Route name and the schedule should be posted on the vehicle.
- Shuttle maps should be more widely distributed on campus.

### **Concluding Thoughts**

Faculty and staff were thanked for their open and eager participation and were informed the project team would be presenting many of the comments and recommendations shared today in the final report.

**APPENDIX C:**  
**Select Resources**

*For further information on the University of Washington U-PASS program, refer to:*

General University information: <http://www.washington.edu/>

Transportation Information: <http://www.washington.edu/commuterservices/index.php>

2005 U-PASS Annual Report:

[http://www.washington.edu/upass/news\\_and\\_reports/upass\\_reports/annualreport2005.pdf](http://www.washington.edu/upass/news_and_reports/upass_reports/annualreport2005.pdf)

*For further information on Stanford University's transportation programs, refer to:*

General University information: <http://www.stanford.edu/>

Transportation Information: <http://transportation.stanford.edu/>

*For further information on Arizona State University's transportation programs, refer to:*

General University information: <http://www.asu.edu/>

Transportation Information: <http://www.asu.edu/dps/pts/>

Student, Faculty/Staff 2005 Transportation Survey Response Summary:

<http://www.asu.edu/dps/pts/surveyresults.htm>

*For further information on the University of Minnesota's transportation programs, refer to:*

General University information: <http://www1.umn.edu/twincities/index.php>

Transportation Information: <http://www1.umn.edu/pts/>