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Thakuriah, P., Tilahun, N., Soot, S., Vassilakis, W., Cottrill, C., and Blaise, E.T. (2011) Case studies of job access and reverse commute program: 2009-2010. Technical Report. United States Department of Transportation, Federal Transit Administration, Chicago, IL.

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Deposited on: 03 April 2013

Employment Transportation for Low-Wage Workers

A Report on the
Federal Transit Administration's
JOB ACCESS AND REVERSE COMMUTE PROGRAM

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October 20, 2011

Final Report
FTA Grant Numbers: IL-26-5001-00 and IL-37-X007-00

UNIVERSITY OF ILLINOIS AT CHICAGO

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ABSTRACT

This report presents perceptual, mobility and employment outcomes self-reported by 573 users of 26 transportation services funded by the Job Access and Reverse Commute (JARC) program. The respondents were predominantly low income with 42 percent reporting 2008 personal incomes less than \$10,000 and two-thirds of the respondents earning \$20,000 or less for the same year. Nearly half the respondents have no household vehicles. Nearly three in five respondents reported that their travel has become reliable and convenient after using the services. Workers using the services have benefitted from overall reductions in the cost of commuting to work.

Close to 94 percent rated the service as being important or very important in keeping their jobs. Respondents also self-reported that the services allowed them to access a job with better pay or better working conditions, and to improve their skills. Both median hourly wages and median weekly earnings are reported to have increased since using the service for those workers who use the service to commute to work and were employed in the one-month period prior to starting use of the service. Alternative reasons may exist for these wage changes, including overall changes in the economic conditions of the locations where the services operate, as well as changes in the personal conditions of the workers that are unrelated to the JARC program in the period between starting use of the service and the time of the survey, such as graduation from job-training or school, residential relocation and so on.

Because of the lack of a probability sample of services, the results cannot be generalized to the entire JARC program. Detailed case studies of the 26 services yield insights into the types of benefits that are being provided overall in these cases and the planning and programmatic environment within which they operate.

EXECUTIVE SUMMARY

The Job Access and Reverse Commute (JARC) program was instituted by the Transportation Equity Act for the 21st Century (TEA-21). The purpose of the program is to assist low-income transportation-disadvantaged individuals to seek and maintain employment, as well as to reach job training and child-care services. JARC was initially a competitive program, but became a formula program with the passage of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) in 2005. SAFETEA-LU also introduced the requirement that JARC-funded services be derived from a locally developed, Coordinated Human Services Transportation Plan (CHSTP), with the participation of representatives from transportation, human services, workforce development and related public, private and non-profit organizations.

This report presents our findings regarding the outcomes experienced by a sample of JARC service users under the SAFETEA-LU JARC program. The research group administered a series of surveys to users of 26 JARC-funded transportation services (fixed route bus service and demand responsive services) in 23 states. The surveys were designed to assess the sociodemographics of service users as well as their self-reported employment and mobility outcomes. The survey effort yielded a total of 573 usable responses.

Our main findings regarding the users surveyed while using these 26 services are as follows:

Socio-demographics of users:

- [1] About 42 percent of respondents reported 2008 personal incomes less than \$10,000. On aggregate two-thirds of the respondents have personal incomes of \$20,000 or less for the same year.
- [2] Respondents have low educational attainment with about half the respondents reporting educational levels at the high school graduate/GED level or less. One in five has not completed high school.
- [3] About a third of the respondents self-reported receiving some form of public assistance (e.g., Temporary Assistance for Needy Families) since 2006.
- [4] Overall, nearly half of all the respondents have no household vehicles; close to 47 percent of those currently using the service for work purposes reported not having a vehicle in the household.

Perceptual outcomes:

- [5] When respondents who use the service to work were asked how important the service was in keeping their jobs, 93.5% rated it as important or very important.
- [6] Among the respondents surveyed on their way to or from work, 34% reported that they would not be able to get to their destination if the service were not available. When all trip

purposes are considered, those who reported they would be unable to reach their destination without the service is 36%.

- [7] Respondents self-reported that the services allowed them to access a job with better pay or better conditions, and to improve their skills.
- [8] Nearly three in five respondents (57.5%) report that their travel has become reliable and convenient, while just over a third responded that their transportation was more affordable with the JARC service.

Mobility outcomes:

- [9] Respondents reported using the JARC service for a variety of trip purposes, including work, school, job training, medical appointments and shopping trips. The place of work is the most frequently identified non-home place of trip origin or destination (in 71.6% of the cases), with the most frequent trip origin or destination being the respondent's home.
- [10] About 25% of individuals who reported being unemployed at the time of the survey reported using the services to access job training; about 8% of unemployed individuals reported that their current trip involved job seeking, and 21% traveled to school.
- [11] Of the 573 respondents, the total number reporting they are currently engaged in some type of work activity, including volunteer work, is 442 (77%). About 74% of the respondents who reported working use the service to access their employment location.
- [12] Nearly half (47%) of all respondents reported being employed in the one-month period prior to starting use of the service. About 62% of previously employed users who use the service to access work reported that they either drove alone or shared a ride to commute to work prior to using the JARC service. Another 21% used public transit services. Almost 10% reported using more than one mode depending on availability.
- [13] Workers appear to have benefitted from overall reductions in the cost of commuting to work, although a great deal of site-to-site variability exists in the estimates of travel cost reduction. Overall, the median reduction in generalized travel cost (a composite indicator combining the monetized value of travel times incurred while traveling and the out-of-pocket expenses on transit fares or on fuel, maintenance, insurance and other expenses related to private vehicle travel) is estimated to be approximately \$3.15 per trip.

Labor market outcomes:

- [14] Both median hourly wages and median weekly earnings are estimated to have increased for respondents working in both the before and after periods since starting to use the service, although, as in the case of travel costs, a great deal of variability exists over different sites. Additionally, alternative explanations may exist for why there were wage changes.
 - a. Overall, for those who were employed in both the before and after periods, over half (55.6%) had increased their earnings after using the service, 30.2% remained at their earlier wage levels, while 14.2% had lower weekly earnings. Predominantly, increased

earnings were achieved through an increase in wages, or through a combined wage and hours increase.

- b. The aggregate median weekly earnings in the one-month prior to using the service was \$400 and is estimated to have gone up to \$462 at the time of the survey.
- c. Hourly wages at the primary job also increased for such respondents from a median of \$10.12 to \$11.60. These trends hold for both urban and rural, fixed-route and demand-responsive service users.
- d. Median hours worked increased for the demand-responsive services in both urban and rural areas, while for fixed-route service users, the median values of weekly hours worked have remained the same.
- e. Other factors possibly played a role in the earnings changes. Hence, the overall attribution of these earnings changes to the program should be suitably qualified.
 - i. Overall, the economy entered a period of recession, with unemployment levels of over 16% at least in one of the locations.
 - ii. We also queried respondents on “significant life events” that they experienced since they started to use the service. For example, about 9% among those working prior to using the service reported completing a job-training program or having graduated from school between when they started using the service and the time of the survey, which may have led to an increase in earnings. About 14% moved to a different home location, whereas 15% reported getting a promotion at work. However, close to 60% of such workers indicated that they did not incur significant changes in their personal situation since using the service.
 - iii. Workers who were unemployed prior to using the services are more likely to report completing a job-training program or having graduated from school between the time they started using the service and the time of the survey (17.7% among non-workers in the previous period vs. 9% among those already working). About 22% of workers who were unemployed prior to using the service reported moving to a new home location between the time they started to use the service and the time of the survey.

The report is intended to provide an exploratory overview of the perceptual, mobility and labor market outcomes of transportation-based JARC programs, based on self-reported survey-based information in the 26 services. Alternative explanations may exist for these outcomes, although the report attempts to document these alternative explanations to the extent possible. Attempts were also made to record the extent and type of non-response bias that may have occurred as a part of the survey effort. Additionally, the research team undertook strategies to address coverage error and measurement error.

In order to evaluate mobility and employment outcomes, the research design utilized a strategy of comparing outcomes experienced by users after they started to use the service, compared to their mobility and employment conditions before service use. This effectively led to the

implementation of a before and after study, based on respondents' recall of their prior mobility and employment situation (or specifically, their situation in the month prior to starting use of the service). It may be noted that traditional randomized designs are not possible to use in such a study.

Because of the lack of a complete sampling frame of JARC services, we were unable to select a probability sample from the universe of JARC-funded services that were operational at the time of the survey, although we adopted a sampling strategy that helped to identify 26 services with a wide mix of service, location and funding criteria. Because of the lack of a probability sample, the results cannot be generalized to the entire JARC program.

PART I: TECHNICAL REPORT

Chapter 1 Introduction

Access to affordable and reliable transportation is a critical component in the ability to secure and maintain employment. Unfortunately, for low-income workers, single parents, and others with transportation disadvantages, monetary and time costs often make this a daunting task. A myriad of factors, including job-housing imbalances, dispersed employment opportunities, and increasing unemployment rates, make provision of transportation for work purposes a key factor in providing support for ongoing and sustainable employment opportunities. The Job Access and Reverse Commute (JARC) program is designed to facilitate the mobility of transportation-disadvantaged individuals seeking to maintain employment and reach job training and child care services. While at its core the program is intended to provide a means of accessing these services, the formal process by which JARC projects are developed and offered has also served to increase collaboration and communication between various related entities, including service providers, local decision-makers and the general public. The JARC program funds a variety of services that are suited to the job access needs of local areas, including transportation (Fixed-Route bus, FR, and Demand-Response, DR) services, auto loan programs, travel training, mobility management and others.

This report is intended to identify the socio-demographic characteristics of JARC service users of transportation-based JARC programs, based on survey-based information, from 26 services in 23 states. The report also provides an exploratory overview of the perceptual, mobility and employment outcomes experienced by these users. Because of the lack of a complete sampling frame of JARC services, we were unable to select a probability sample from the universe of services that were operational at the time of the survey. Because of these reasons, the results cannot be generalized to the entire JARC program. However, the results allow us to make several observations regarding user socio-demographics and the outcomes experienced by the users of these 26 services. The case studies on the 26 services also summarize the planning process from which services resulted.

1.1 Background on the JARC Program

The Job Access and Reverse Commute (JARC) program began in 1999 under the Transportation Equity Act for the 21st Century (TEA-21). Guaranteed funding levels in 1999 of \$50 million were scheduled to reach \$150 million by 2003. The program was designed to, “[provide] competitive grants to local governments and non-profit organizations to develop transportation services to connect welfare recipients and low-income persons to employment and support services” (Federal Highway Administration, 1998).

By 2001, the program functioned as an earmark process, with recipients identified by Congress for funding from each year’s appropriation. The 2005 Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) made JARC a formula program. Allocations are now based on the number of eligible low-income individuals and welfare recipients living in each state. Funds are provided to states for areas with populations less than 200,000 and directly to urbanized areas with populations at or above 200,000.” (http://web1.ctaa.org/webmodules/webarticles/articlefiles/A_Guide_to_JARC.pdf) For rural and small urban areas, the state governor may determine which state agency will receive JARC dollars. That agency then uses a competitive selection process to determine the allocation of funding to local projects. In urban areas, a designated recipient, which may be a public transit

provider, Metropolitan Planning Organization (MPO), or other public agency, leads the competitive selection process.

JARC funds may be used for a variety of purposes, including the following:

- Late-night and weekend service.
- Guaranteed ride home service.
- Shuttle service.
- Expanding fixed-route public transit routes.
- Ridesharing and carpooling.
- Transit-related aspects of bicycling.
- Local car loan programs for shared rides.
- Promoting and administering voucher programs.
- Acquiring Geographic Information System tools.
- Implementing Intelligent Transportation Systems.
- Subsidizing the costs of reverse commute routes.
- Supporting new mobility management and coordination programs. (FTA, 2007).

Federal/local match ratios depend upon the type of project undertaken, as reflected below:

- Capital projects: 80/20 Federal/local match.
- Operating projects: 50/50 Federal/local match.
- Planning projects: 80/20 Federal/local match.

Local matching funds may come from other non-DOT Federal funds.

Under SAFETEA-LU, a requirement was introduced that JARC-funded programs be derived from a locally developed, Coordinated Human Services Transportation Plan (CHSTP) developed through a process including representatives of public, private, and non-profit transportation and human services providers and public participation. According to the FTA, “These plans identify the transportation needs of individuals with disabilities, older adults, and people with low incomes, provide strategies for meeting these needs, and prioritize transportation services for funding and implementation.”

(http://www.fta.dot.gov/funding/grants/grants_financing_8193.html)

1.2 Report Overview

As mentioned previously, the objective of this report is to present the results of a survey effort to understand the perceptual, mobility and employment outcomes experienced by users of sampled JARC services. To meet this objective, the research group designed a series of surveys to assess JARC service users’ sociodemographics and to determine the types of employment and mobility outcomes they experienced. Surveys were administered by means of site visits by the research team.

The effort also involved gathering information through surveys of lead and partner organizations involved in the CHSTP. However, the analysis of the CHSTP data is outside the scope of this report. We will describe the overall coordination process as taking place in each site we visited in Part 3 of the report, “Site Visit Reports”.

Chapter 2 describes the method used to sample services for the survey effort and also an overview of survey development methodology. Technical details of the sampling method are given in Technical Appendix 2A. Background and details relating to the survey development and administration effort is given in Technical Appendix 2B. This appendix also presents the survey instruments used in the study.

Survey results are presented in Chapter 3, including user socio-demographics, and users' reported transportation, labor market, training, and program satisfaction outcomes. In Chapter 4, we present a summary and discussion of the results.

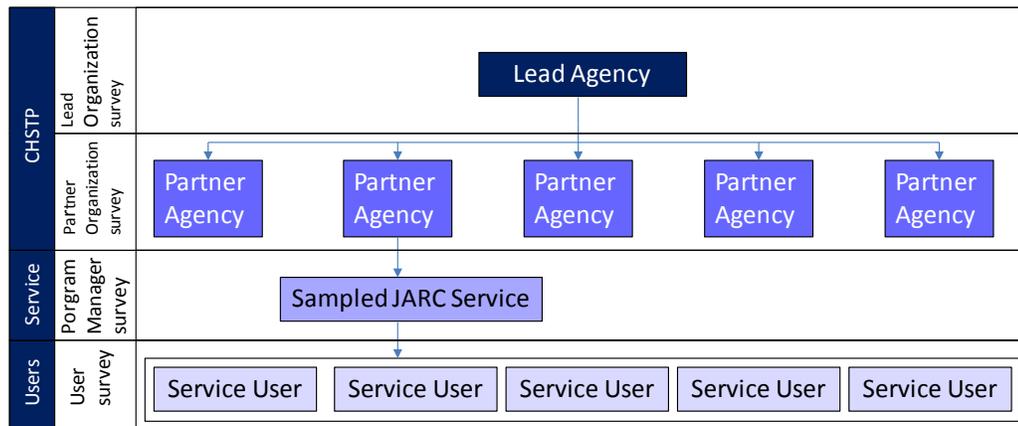
Chapter 2 Survey, Sampling and Data Collection

Since 2007, SAFETEA-LU has required that the JARC (and New Freedom) services be derived from a locally developed Coordinated Human Services Transportation Plan (CHSTP). These plans should identify the transportation needs of low-income populations, seniors, and persons with disabilities.

By bringing together different groups involved in transportation, workforce development, labor and human services sectors, the CHSTP process creates opportunities to avoid duplication of service, enhance coverage, and identify priorities. It also provides the framework used for local evaluation and a process for the selection of prioritization of projects for funding by the JARC program.

The plan is an outcome of local collaboration between regional organizations (such as Metropolitan Planning Organizations, Council of Governments, Departments of Transportation) that serve as lead agencies in the development of the plan, and local organizations and agencies that serve as their partners by contributing input in developing the plan and prioritizing projects. Partners may be governmental entities, private and non-profit organizations, as well as interested citizens. JARC services, which are ultimately availed of by service users, are operated and managed by grantees who are also likely to be partner organizations in the CHSTP. Our survey effort targeted all four levels in this overall structure (shown in Figure 2-1).

Figure 2-1: Levels in survey effort



Four different surveys were developed and data gathered from:

- 1) Regional agencies (MPOs, COGs, DOTs, etc.) serving as lead agencies for the CHSTP;
- 2) Partner agencies that provide input to the CHSTP;
- 3) Program managers of operating services – these organizations may also be partners in the CHSTP;
- 4) Service users.

At the CHSTP level, lead and partner agencies are asked questions about the development of the plan. At the Service level, program managers are asked about the services that they are operating. Finally users of these services are asked about their experience, reasons for use and changes in employment, training and other employment-related activities since starting to use the service.

2.1 Survey Site Selection

An initial attempt to select services was done by using FTA's Transportation Electronic Award Management (TEAM-Web) system. The system provides access to applications from lead agencies detailing the type of services they plan to fund through the JARC program. In our initial attempts to draw up a sampling frame, we tried to generate a list of services from the TEAM-Web system application, from which we could randomly select a sample of services to survey.

However, this approach to compiling the sampling frame posed several challenges. Because of the structure of TEAM-web, it would have required a significant amount of effort and time to go through each lead organization application and list (the potentially large number of) JARC projects in the applicant's documents. Further, we found that being listed in an application did not guarantee that services were actually funded, or, if funded, were operational at the time of the survey effort (due to inability to raise match or because the necessary paperwork were completed). In several cases, after identifying a service in an application document, calls to the regional agencies indicated that a service was either not operational or still in the planning stages.

A second approach to compiling a sampling frame of JARC services consisted of working with an inventory of organizations involved in the CHSTP process (called the CHSTP Census). The research group had previously generated this inventory or "census" of all lead and partner agencies involved in the CHSTP across the US (resulting in the identification of 759 lead agencies and 16,432 public, private and non-profit organizations involved in the CHSTP process nationally). As a part of the survey by means of which the census was generated, we queried the name of the lead organization, whether a CHSTP has been developed by that organization, when a CHSTP plan was first developed and the number of times the plan had been updated at the time of the survey. We also obtained the number and names of the partner organizations (but not the type of function in which the partner organizations were involved). Given that there are 759 lead agencies that could potentially apply to FTA for JARC funds, the task of creating a list of programs in application documents and checking them through phone calls was not trivial. After an intense effort in this direction, we had to scale down our efforts.

Ideally we would have liked to have had a master list of currently operational projects, from which we could sample randomly or in a stratified sampling framework where the balance of funding for urban and rural, as well as fixed- route and demand-responsive services was considered. The list which we started to develop by searching through TEAM-Web would have been incomplete and would not have allowed for such sampling to be adopted. The same was true with respect to the list partially developed by calling the lead agencies in the CHSTP Census.

The idea was therefore abandoned both because the scope did not allow it within the resources available, and because the uncertainty about the operational status of the services put in doubt the usefulness of the list. To overcome this problem, the research team adopted a method that allowed the sampling to be stratified by area size, service type and FTA region, but which, with limited effort could overcome the absence of a list of all services.

The approach that was eventually adopted to address these problems was to select a combination of FTA regions, area sizes (whether large urban, small urban or rural) and service types (whether demand responsive or fixed route) employing a modified Latin Hypercube Sampling (LHS) design (Ye, 1998). Technical details of the approach are given in Appendix 2A. The area size mix (how many large urban, small urban or rural areas are to be retained in the

final sample) and the service type mix (how many fixed route and demand responsive services are to be selected) were determined based on FTA grant levels to such areas and services.

The combination of the levels of these factors was randomly generated. A combination, for example, can call for Region 5, large urban, demand responsive service. Once this combination is known, we proceed to select a state within Region 5 using JARC funding levels as probability weights. Within the state (say Minnesota), we contact lead agencies in all areas meeting the size-type (in this example, “large urban”) to ask about JARC-funded services operating at that time that fit the service designation sampled (in our example, demand responsive). This way, instead of a master list of all services nationwide, the sampling requires only the subset of services within the selected area. In cases where more than one service existed that met the criteria (for example, if there are several JARC-funded demand responsive services operating in large urban areas in Minnesota), random sampling is used to select the final service for the Region 5, large urban, demand responsive service combination, where users, program managers, partner organizations and lead organizations were surveyed.

In cases where no such service could be found, we go back to the state selection step and randomly sample a different state within the FTA region and continue the process. While this process does not result in a probability sample, it allows us to more systematically go about sampling a location, with the area size and service type mix based on grant levels, while also considerably easing the problem of not having a master list of services.

The final sample encompasses all ten FTA regions. A total of 26 services were surveyed in 23 states. The combination included 17 large urban areas, 4 small urban areas, and 5 rural areas. This breakdown corresponds approximately to the 60, 20 and 20 percent split in 2009 apportionment of JARC funds among urbanized areas with greater than 200,000 population, urbanized areas with 50,000 to 199,000 population and nonurbanized areas (FTA, 2009). The apportionment split and area-type mix in the sample is shown in Table 2-1.

Table 2-1: 2009 JARC apportionment and study area-type mix

Urbanized Area/State	Apportionment	Percent of Apportionment	Area Type	Number of Services	Percent of Services
200,000 or more Population	\$109,861,905	60	Large-Urban (LU)	17	65.38
50,000-199,999 Population	36,620,635	20	Small-Urban (SU)	4	15.38
Nonurbanized	36,620,635	20	Rural (RU)	5	19.23
National Total	\$183,103,175	100	Sample Total	26	100.00

A total of 18 fixed route and 8 demand responsive services were surveyed. The final list of surveyed states and service type is provided in Table 2-2.

Table 2-2: Final survey states (by 2-digit codes) and service type

	Large Urban		Small Urban		Rural	
	FR	DR	FR	DR	FR	DR
Region 1	RI				ME	
Region 2	NJ, NY					
Region 3		VA	PA			
Region 4	FL, TN					
Region 5	IL (2)	MN	IN		OH	
Region 6		TX	TX			
Region 7	MO					IA
Region 8	CO, UT					ND, UT
Region 9	CA		AZ			
Region 10	OR	AK, WA				

FR: Fixed Route Service, DR: Demand Responsive Service

2.2 Questionnaire Development and Survey Administration

We developed four survey instruments for the study. The first is an instrument to survey users of the services. The objective of this survey was to understand the overall characteristics of the users and the types of transportation (or mobility) and labor market outcomes that may have been affected by the JARC service. The user survey instrument is given in Appendix 2C.1. The second survey instrument was to be completed by representatives of lead organizations. This instrument consisted of survey items to understand the extent to which the CHSTP process served to address transportation and job-related needs of low-wage workers and its strengths and weaknesses from the perspective of lead organizations. The lead organization survey instrument is given in Appendix 2C.2.

The third instrument (given in Appendix 2C.3) is for representatives of CHSTP partner organizations and to assess the extent to which partner organizations perceive the CHSTP process as addressing the needs of users and the overall process from the perspective of partner organizations. The fourth survey instrument is for managers of the JARC-funded service. This instrument (given in Appendix 2C.4) focuses on the characteristics of the JARC-funded services, the nature of the operation, cost and matching fund sources, the financial partners of the JARC service, challenges in raising matching funds, and the overall characteristics of users as determined by them.

We gave significant consideration to alternative evaluation designs, but for reasons that are given in greater detail in Appendix 2B, it became evident that for the purposes of the study, a recall after design, in which transportation and labor market conditions of users are based on retrospective, self-reported recall, would be a feasible evaluation design. Because of site-specific preferences and constraints, the method of user survey administration varied slightly in different locations, as will be discussed in greater detail in Sections 2.2.2 and in Appendix Section 2A.2. In the vast majority of sites, surveys were administered in intercept mode aboard transit vehicles by members of the research. In a limited number of cases, surveys were distributed on-board by vehicle operators. In order to ensure that refusals, non-response and potential selection biases associated with surveying only those riders traveling longer distances were avoided or item non-responses that might arise with such situations were minimized, especially for individuals who had to leave the transit vehicle before they could complete the

survey, respondents were given the option to fill out and return the completed survey on-board or to return the completed survey instrument by mail.

2.2.1 Determination of Survey Items and Questionnaire Development

Development of the four surveys occurred over several months and after an extensive review of the literature, informal discussions with program managers, and discussions with outside organizations such as the Community Transportation Association of America (CTAA). Each survey was technically reviewed by an independent, professional survey review committee (the Questionnaire Review Committee (QRC) of the Survey Research Lab in the University of Illinois at Chicago), which consists of faculty, academic researchers, and professionals involved in survey research. The QRC assisted with the overall structure of each survey instrument for readability, logical ordering of questions, mutual exclusivity of answer choices, easier comprehension of skip patterns, modification of questions that could be potentially leading, as well as ensuring that survey wording conformed to the reading skills of the target population. In addition, surveys were reviewed by UIC's Institutional Review Board, which made a final determination that the rights of human subjects were adequately protected.

The surveys were pretested in three different sites prior to actual administration and revised several times to ensure, especially with the user surveys, that we could capture the effects that we wanted. In almost all locations, a Spanish language version of the user survey was available.

The user survey has 55 items divided into four general sections focusing on (i) attributes of the current trip being made by using the JARC service (for example, fare, travel time, type of destination, frequency of use, length of time for which service has been used) and those of baseline trips (trips for the same purpose or activity, prior to using the service); (ii) characteristics of current employment, training or schooling and those prior to using the service; (iii) attitudes and perceptions about the service; and (iv) sociodemographic questions.

The user survey was designed so that transportation, employment and training outcomes could be compared before and after starting to use the service. Respondents were asked to provide answers by recalling their travel and employment-related factors during the month prior to starting to use the JARC service. For example, respondents were asked about their mode of transportation to travel to work in the month before starting to use the JARC service, their travel-time during that period, as well as their earnings, hours worked and other employment-related factors, so that those factors prior to starting to use the JARC service could be compared to the transportation and labor market variables that users experienced by using the JARC service. We also asked respondents to identify different categories of "significant life events" (such as completion of training, schooling, promotion at work, residential relocation and other factors) so that we have an understanding of alternative explanations that may have led to the before and after differences.

The program manager survey consisted of 33 survey items. The instrument consisted of four groups of questions: (i) information about the program manager organization, level of JARC funding and characteristics of the service, including type of service, hours, days and area of operation; (ii) financial information, including sources and levels of matching funds, distribution of operating and capital costs associated with the service, and farebox recovery and fare per ride; (iii) usage and ridership information including ridership levels, user demographics (such as age, gender, disabilities), methods to monitor program effectiveness and marketing and

outreach efforts; and (iv) program managers' experience with the program including perceived level of difficulty with raising match funds, and perceived usefulness of the CHSTP process and the JARC program. We received completed responses from 15 program managers, with a response rate of 57.7 percent.

The lead organization survey consisted of 18 survey items. The instrument consisted of five groups of questions: (i) identification and type of lead organization; (ii) information about the CHSTP including when the plan was first developed, number of times it was updated and the names and types of organizations that served as partners; (iii) communication methods and number of times the group met as a whole during a year; (iv) perceived levels of participation by partners as a whole and regarding specific activities such as assessment of needs and gaps in service and regarding the prioritization of projects; and (v) perceived level of usefulness of the CHSTP process. Although we surveyed 26 services, we covered a total of 23 unique locations, with 23 unique lead organizations. A total of 15 organizations responded, leading to a response rate of 65.2 percent.

The partner organization survey consisted of 22 survey items. The instrument consisted of eight groups of questions: (i) identification and type of lead organizations; (ii) strength and duration of participation (for example, whether the partner organization was involved all throughout or in specific phases); (iii) methods of communication with others in the CHSTP process; (iv) perceived level of participation by other organizations and the strength of other organizations influence; (v) perceived level of consensus among partners and lead organization; (vi) perceived importance of the CHSTP; (vii) type of contributing activities by partner organization (financial, provision of meeting space, marketing of resulting transportation services to clients, data collection and others); and (viii) perceived impact of the CHSTP process on the partner organization's practices. We received a total of 56 partner organization surveys from 14 service areas. However, since we do not have complete information on how many partner organizations are involved with the CHSTP processes in our sites, we are unable to calculate a response rate.

2.2.2 Survey Administration, Data Collection Effort and Response Rates

The method of user data collection varied based on the location and service. Survey administration posed unique challenges, due to the variability among service types, ridership patterns and the level of cooperation we received from service management. In general, most surveys were distributed in intercept mode on-board transit vehicles by a member of the research team, during the period that the service was funded by JARC (for example, if 24 hours of a service was funded by JARC, we attempted to ride and distribute instruments throughout those 24 hours; on the other hand, if a service was funded by JARC during, say, 7 PM to 2 AM, we distributed surveys only during that period). In addition, there is also the issue of spatial coverage – in some cases of JARC funding for route extension, survey instruments were only distributed in the part of a route was funded by JARC, and not the entire route. Survey distributors rode on-board the vehicle on several trips at each of these locations. This is especially true of fixed route services. However, in some demand responsive or rural locations, where ridership is low at any given time, the service operating agency was asked, in addition, to distribute the surveys through its drivers. In one case, surveys were mailed by the agency when a user list was available but ridership occurred at different times of day or in limited numbers at a time, whereas in another case, surveys were mailed out directly to users. In some of the locations where members of the research team surveyed, extra surveys were also left with the bus/van drivers to continue to distribute the questionnaires. These methods were flexibly adopted to ensure that the surveys reached as many riders as possible.

Each questionnaire was accompanied by a pre-paid mail-back envelope for easy mailing if the respondent is not able to complete the survey on-board. Overall, the four administration modes were the following:

- [1] Distributed by survey administrator, collected on-board or mailed back (10 services)
- [2] Partially distributed by our study team and partially by service operating agency (14 services)
- [3] Surveys mailed out to agency to be distributed to users (1 service)
- [4] Surveys mailed out directly to respondents (1 service)

While the method of administration was designed to ensure that the largest number of surveys could be gathered from users of services, it also presented challenges in calculating response rates. In general, response rates were easily calculated in the cases where the research team performed the survey administration entirely since refusal information was reliably recorded. It was also properly calculated for the site where the user surveys were mailed out directly to respondents. However, for the locations where surveys were partially distributed by the agency, the number of refusals was not collected. For each of these sites, however, a count of how many surveys were taken and how many were returned is recorded.

Table 2-3 presents the two types of response rates. The first is calculated for the services where refusal information is collected. It is the ratio between surveys returned and the sum of refusals and surveys distributed on board. The second is the ratio between total completed surveys and surveys taken/sent to the site. This ratio does not include refusals. Calculated this way, the aggregate response rates for the sites where refusal were collected was 36.2%. For the remaining sites, 63.9% of surveys taken to the sites were returned.

Table 2-3: User survey response rates by service

	Site ID	Area size	Service type	Surveys taken to site	Distributed onboard	Distributed by agency	Refusals	Returns	Response rate 1	Response rate 2
Sites where surveys were entirely distributed by research team or mailed to respondents	1	SU	FR	45	45	0	4	22	44.9%	
	2	LU	FR	50	50	0	3	14	26.4%	
	3	LU	FR	50	50	0	3	14	26.4%	
	4	RU	DR	50	48	0	1	15	30.6%	
	5	SU	FR	25	25	0	3	7	25.0%	
	6	LU	FR	50	50	0	4	14	25.9%	
	7	LU	FR	70	43	0	15	43	74.1%	
	8	SU	FR	35	35	0	4	15	38.5%	
	9	LU	FR	50	47	0	2	22	44.9%	
	10	RU	DR	24	24	0	1	8	32.0%	
	11	LU	DR	50	0	0	43	7	14.0%	
Sites where surveys were either partially or fully distributed by the service operator	12	LU	DR	60	15	45		46		76.7%
	13	LU	FR	50	20	30		37		74.0%
	14*	LU	FR					28		
	15*	LU	FR					13		
	16	RU	FR	50	25	25		32		64.0%
	17	LU	DR	40	6	34		8		20.0%
	18	RU	DR	20	0	20		4		20.0%
	19	LU	FR	50	0	50		33		66.0%
	20	RU	FR	36	26	10		8		22.2%
	21	LU	FR	45	40	5		29		64.4%
	22	LU	FR	40	12	0		6		15.0%
	23	SU	FR	60	50	10		42		70.0%
	24	LU	DR	60	20	40		48		80.0%
	25	LU	FR	52	32	20		21		40.4%
	26	LU	DR	50	0	50		37		74.0%
Aggregate Response Rate 1				499	417		83	181	36.2%	
Aggregate Response Rate 2				613	246	339		392		63.9%

Aggregate response rate 1 = Completed/(Refusals +Distributed)

Aggregate response rate 2 = Completed/Surveys taken to site

*Reliable numbers were not available for these sites

Chapter 3 Results

Though JARC services share similar goals in their focus on jobs and the income profile of their target population, at the service level, there are significant differences owing to the demographic and economic profiles of the places in which services are operational, as well as due to the development history of a specific service. Aside from the urban/rural and Demand Response/ Fixed Route (DR/FR) dichotomy, several differences are present between the services surveyed in regards to unemployment levels, labor demands, population demographics including poverty levels, demographics served by the service, the types of destinations served by the services, as well as the respondents' profiles based on the sample collected.

This chapter presents details of the services and the overall economic, social and planning conditions within which the services operate. Further, we summarize the data on the basis of sociodemographic and economic indicators and on key transportation and labor market outcomes of interest.

Some of the aforementioned differences can be seen in the range of economic and demographic profiles for the places surveyed given in Table 3-1. The data collection for this study coincided with the 2007 economic recession experienced in the US. The recession impacted the survey locations differentially as can be seen by the levels of unemployment experienced. During the 14 month period from November 2008 to December 2009, unemployment levels ranged from a minimum 3.5% to a high of 16.7% with substantial variation in the places surveyed. For one of the locations for example, the lowest unemployment level over the 14 months period was higher than the highest unemployment levels in many of the other sites. Our survey activity also consisted of another location where the highest unemployment level during the same period was lower than the lowest unemployment levels in several other sites.

Table 3-1: Range of labor, economic and demographic variables at survey sites

Variable	Minimum	Maximum
Minimum 14 month unemployemt levels ¹	3.5%	10.7%
Maximum 14month unemployemt levels ¹	6.3%	16.7%
Home mortgage delinquency rate ²	1.5%	22.6%
Auto loan delinquency rate ²	0.0%	1.8%
Median household income ³	\$ 25,753	\$ 72,137
Percent of households with food stamp benefits in past 12 months ³	5.6%	28.2%
Percent of Households with incomes < 10K ³	2.8%	23.1%
Percent of the families living in poverty during the past 12 months ³	5.0%	36.0%

¹ Data from Bureau of Labor Statistics for period from 11/2008 - 12/2009

² Data from TransUnion Q1, 2010

³ American Community Survey 2006-2008

Mortgage delinquency rates ranged from a low of 1.5% to a high of 22.6%, while auto delinquency rates had a narrower range of 0-1.8% for the places surveyed. Median household income for the smallest area that the American Community Survey (ACS) reports data (which could be county or a city) ranged from \$25,753 to a high of \$72,137, while the proportion of households in poverty ranged from 5% to 36%.

As noted earlier, there are also differences in the services, aside from the differences relating to the type of service (FR or DR) or the nature of operations (new service or modifications to existing service such route or service hour extensions and so on). For example, some of the services surveyed were DR or mostly express bus services that catered exclusively to persons going to work, and served, in some cases, a single employment destination. Others were more general in the destinations served and open to all riders. This is especially true with FR services. Some programs catered to recent immigrants, whose language, training and employment needs were different from the general population of the service location. At least one service in this sample catered to persons with disabilities commuting to work, while another predominantly served senior workers. Some of the services only took riders to work, while others also accessed training and daycare programs. The fare structure of the various services ranged from free to amounts that varied depending on whether a rider was paying through a monthly or annual pass versus cash and some that are structured by the rider's age.

Despite the substantial differences in service characteristics and the economic situation of the sites, services are well targeted to a subpopulation that is relatively less well off, and one which reflects the goals of the JARC program. While respondent profiles are covered in greater detail in the next section, the data suggests that the user pool is relatively low income (two thirds with personal incomes less than \$20,000), and working age (75% under 55 years).

While underlying differences make aggregating the results difficult, limited sample sizes in several locations, either due to the limited nature of operations, low ridership levels or refusals, also complicate generalizations at the service level. As such, in the analysis below, we report results by groupings of users. These groupings depend on the variable of interest. For example, one group of workers may be those who were unemployed prior to using the service, whereas another group may be those who were employed both prior to, and after using the service. In most cases, we will use urban/rural classifications, as well distinctions based on FR and DR services. Where the data allows, we will use data from specific services for discussion. More specific service-level data on demographics can be found in the site reports in Part 3 of the report.

3.1 Respondent Profiles

About 40% of the respondents are 35 years old or younger, and approximately three quarters are under the age of 55 years. In addition, 42 percent of respondents reported 2008 personal incomes less than \$10,000. On aggregate two-thirds of the respondents have personal incomes of \$20,000 or less for the same year. Respondents also have lower educational attainment with about half the respondents reporting educational levels at the high school graduate/GED level or less. One in five has also not completed high school. Nearly half the respondents have no household vehicles and about a third self-reported receiving some form of public assistance (e.g., TANF) since 2006.

Many of the respondents are currently employed for pay or report their trip as being related to some type of work activity (77.1% of N=573). A substantial number of workers access their place of employment using the JARC service (74.3% of N=573). At least 16.6% use it to access a school or job training facility. Nearly 70% of respondents are from multi-person households, and in 37% of cases, at least one person in the household is 16 years of age or younger. Respondent characteristics from the twenty six sites are given in Table 3-2.

Table 3-2: Characteristics of respondents

Characteristics	Categories	Respondents	Percentage
Gender	Male	291	55.0%
	Female	238	45.0%
Age	18-25	88	17.7%
	26-35	107	21.6%
	36-55	171	34.5%
	56-65	55	11.1%
	Over 65	75	15.1%
Personal Income	<\$10K	187	41.7%
	\$10-19.9K	111	24.8%
	\$20-29.9K	64	14.3%
	\$30-49.9K	56	12.5%
	\$50-69.7K	13	2.9%
	≥\$70K	17	3.8%
Education	5th Grade or below	21	4.0%
	6th - 8th Grade	42	8.0%
	Some Highschool	50	9.5%
	Highschool grad/GED	156	29.6%
	Some College	160	30.4%
	Completed College	98	18.6%
Household size	1	158	31.0%
	2	119	23.3%
	3 - 5	190	37.3%
	6 - 11	43	8.4%
	Mean household size	2.8	
Children under 16	None	300	62.9%
	One or more	177	37.1%
Household workers	0	65	13.3%
	1 - 2	228	46.8%
	More than 2	194	39.8%
Household Vehicles	None	237	46.7%
	One or more	271	53.3%

3.2 Trip Purposes

Respondents reported using the JARC service for trips to a range of destinations including to home, work, school, medical centers, and for shopping. Table 3-3 shows the places that respondents reported as being part of their particular trip either as an origin or a destination on the day of the survey (with multiple selections allowed at either end). Predominantly, respondents indicated that their trip included their home either as an origin or destination

(89.6%). The place of work is the second most frequently identified place either as origin or destination (71.6%). Other activities such as shopping, school and medical locations were also identified as parts of the trip to a lesser, but still considerable degree. In many cases, persons who reported 'Other' also chose another location as an origin or destination. Those who reported only 'Other' as an origin were 2.3% of all respondents, and those that reported only 'Other' as a destination were 3.8% of the respondents.

Table 3-3: Reported trip ends (either as origin or destination) by respondents

Trip Origin or Destinations Includes	Rural		Urban		Overall
	Demand Response	Fixed Route	Demand Response	Fixed Route	
Home	88.0%	100.0%	92.5%	87.4%	89.6%
Work	85.2%	69.2%	73.3%	70.1%	71.6%
Job seeking	0.0%	2.6%	3.4%	5.4%	4.4%
School	3.7%	12.8%	5.5%	13.5%	10.9%
Medical	11.1%	12.8%	17.1%	9.6%	11.8%
Social	3.7%	5.1%	3.4%	9.0%	7.1%
Shop	11.1%	20.5%	8.2%	14.1%	13.1%
Other	37.0%	5.1%	14.4%	10.1%	10.6%

3.3 Employment Status

A combination of questions was used to identify respondents' employment status. Respondents are asked if their current trip originated from or is destined to work, if they currently work for pay, and whether they use the service to access any of their jobs.

Of the 573 respondents, a total 442 (77%) indicated that they were currently working. This number includes those who said that they are currently employed and working for pay, those who indicated their current trip's origin or destination as work, or reported using to service to access at least one of their current jobs. Of these, 426 report that they currently use the service to access work either on the day of the survey or on other days. This subset includes persons who identified that they are working for pay (N=352), those that said they are not working for pay but indicated work as an origin or destination (N=59), and those who did not provide information on whether they were working for pay but identified work as either an origin or destination (N=15).

Among all respondents, whether the respondent *works for pay* both in the now period and the period prior to them starting to use the JARC service is known for 409 respondents. Of these, 80 (19.6%) were not employed in both the period before they started to use the service and after they started service use. An additional 29 (7.1%) were employed before starting to use the service, but are no longer employed. Sixty seven individuals (16.4%) who were not working in the before period reported working at the time of the survey (the after period). A total of 233 individuals (59.0%) were employed in both the before and after periods. These figures are summarized in Table 3-4.

Table 3-4: Respondents employment status and service-use for employment and job-training purposes

Employed now	Employed before	Using service for work	Using service for training	Total respondents
Yes	Yes	224	26	233
No	No	6	24	80
Yes	No	65	17	67
No	Yes	8	12	29
Respondents (N)		289	79	409

3.4 Transportation Outcomes

We consider two major transportation outcomes: (i) generalized costs of transportation which is a composite indicator combining travel times incurred while traveling and out-of-pocket costs (in Section 3.4.1); and (ii) transportation mode shifts (Section 3.4.2).

3.4.1 Generalized Costs of Transportation

In this section, we analyze generalized costs of transportation for work trips and trips to employment training programs. Generalized transportation costs include in-vehicle travel-time, out of vehicle travel-time (access time, waiting time etc) as well as out-of-pocket expenses (fares for transit users and vehicle maintenance, insurance, fuel, etc. for private-vehicle users) Respondents provided both their before service use (in the month prior to starting use of the service) and after service use travel-times to work. They also provided their wages. These values are used as a basis for calculating the value of time. The analysis below considers the following three classes of service users:

- [1] The first group is employed in both the month prior to starting use of the service (or the before-service period) as well as at the time of the survey (the current period). In many cases, these are people who have made a transportation mode switch (e.g. from shared rides in private vehicles to the JARC transit service), and for whom generalized costs of transportation have changed markedly. For this group transportation costs before the service is compared to their current costs.
- [2] The second group was unemployed in the before period and is currently working. For this group, a summary of whether they could reach their destination if the JARC service were unavailable is summarized. In addition, their current travel costs are compared to what persons working in both the before and after period report currently.
- [3] The third group consists of individuals who are currently unemployed. For this group, the extent to which JARC programs are used for job seeking or to access training centers and the generalized costs of these trips is reported.

In the analysis below, we do not make a distinction between out-of-vehicle travel-time and in-vehicle travel-time. Rather, a combined average of 60% of the wage rate for value-of-time is used on the reported combined travel-time to work to calculate transportation costs (Zamparini and Reggiani, 2007). Out-of-pocket cost calculations use a cost of \$0.55/mile for vehicle trips, assuming average 45mph speeds. For shared rides, out-of-pocket costs are divided by the number of riders. For transit fares, we assume the same fare in the before period as is currently being paid. Out-of-pocket transportation costs for non-motorized transport are assumed to be zero. For taxi services, a value of \$2.12/mile is used. Finally, for those reporting using multiple

modes on different days, an average cost is calculated by using the most costly and least costly modes at the travel-time they reported.

3.4.1.1 Persons working in both the before and after period

Summaries of transportation costs for the before and after period are based on 145 respondents who have reported both wages and travel-times for the before and after periods. Two observations that were at or above 2.5 times the standard deviation from the mean generalized cost were removed as outliers, as the costs they reported were unreasonably high. Table 3-5 shows the median transportation costs reported and the differences in the before and after periods. Results are given for the four groups of area and service combinations (urban-fixed route, rural-fixed route, urban-demand response and rural-demand response) that were surveyed.

Overall, the use of the JARC service appears to have led to markedly lower out-of-pocket costs while increasing travel times for those employed in both the before and after periods. Aggregate differences in before and after costs show that the median change in out of pocket costs is a savings of \$3.44. The median travel time cost has increased by \$0.03. The median reduction in generalized travel cost is \$3.15 per trip. Median out of pocket reductions are especially large for fixed route services in both urban and rural areas. There is no change in the median out of pocket cost for in urban demand response services, and a savings of \$0.53 is realized for rural demand response services.

Among the urban respondents using fixed route services, the median out-of-pocket costs has gone down by \$4.47, while the median travel-time costs have increased only by only \$0.08 per trip. The median savings in generalized cost of travel is \$3.75 in this group. In contrast to fixed route services, the median change in travel time costs for urban demand responsive service users is -\$0.25, indicating a travel time savings for at least half of the demand response service users. Generalized costs have also declined for this group but the median decrease of \$1.24 is not as large as that of urban fixed route services. The median savings in out of pocket costs for urban demand response service users is zero.

Rural fixed route service users have seen large median declines in out of pocket costs and generalized costs without a change in the median travel time cost. The median generalized cost reduction in this group is \$3.84. Among all services, only rural demand response services show an overall increase in the generalized cost. The median generalized travel cost is higher by \$0.27. Median travel time costs have increased and out of pocket costs have decreased. The changes in generalized travel costs are also shown in Figure 3-1.

Table 3-5: Median generalized travel cost for persons working both in the before and after periods and reporting wages and travel-times (N = 145)

		Urban		Rural		Aggregate
		Fixed Route	Demand Response	Fixed Route	Demand Response	
TT (\$/trip)	Before service	\$4.19	\$1.83	\$2.05	\$0.91	\$3.38
OPC (\$/trip)		\$6.19	\$1.10	\$4.77	\$2.58	\$4.64
Gen. Cost		\$9.50	\$4.38	\$7.41	\$3.33	\$7.84
TT (\$/trip)	Now	\$4.50	\$1.15	\$2.17	\$1.72	\$3.50
OPC (\$/trip)		\$1.11	\$0.00	\$0.63	\$1.16	\$0.89
Gen. Cost		\$5.70	\$1.98	\$2.81	\$3.25	\$4.27
TT (\$/trip)	Median of paired difference (now-before)*	\$0.08	-\$0.25	\$0.00	\$0.30	\$0.03
OPC (\$/trip)		-\$4.47	\$0.00	-\$3.95	-\$0.53	-\$3.44
Gen. Cost		-\$3.75	-\$1.24	-\$3.84	\$0.27	-\$3.15
Responses		103	16	14	12	145

TT is travel-time, OPC is out-of-pocket cost

*Positive values indicate that costs have increases of 50% or more

The site-to-site differences may be better understood by examining Figure 3-2. The figure shows the changes in transportation costs in six of the locations surveyed where responses on previous mode, before and after wages (for value of time calculations) and travel-times were available for at least 8 respondents. These sites in total have 89 respondents for whom generalized travel costs in the before and after periods could be calculated. The figure illustrates differences in the previous mode of the riders, their income levels and changes in travel costs. The sample from Service B, for example, predominantly includes persons who have switched from cars. Service D includes a number of different previous modes, including respondents who previously used transit, and are now able to reduce their transport costs through the JARC service.

3.4.1.2 Persons working in the current period, but unemployed prior to using the service

Among those not employed in the before period, but currently using the service to access work, 33.9% (N = 59) indicated that they did not previously work because of transportation problems. In addition, over half (55.3%, N = 38) of those currently working for pay but unemployed prior to using the service and whose trip on the day of survey was either to or from work reported that they would not be able to make this trip if the JARC service were unavailable. Among those that reported an alternative was available to them, the median generalized travel cost for the alternative was \$8.22, though these value could only be calculated for a small subset of the respondents (N=8).

Current generalized travel costs for this group are given in Table 3-6. A comparison of tables 3-5 and 3-6 shows that the median generalized per trip travel cost for urban-fixed route service riders, where we have a larger number of responses, appear to be relatively smaller for these users (working in the current period, previously unemployed) as compared to users working in both the before and after periods (\$2.77 and \$5.70 respectively). The larger difference between these two groups is in travel time costs (median costs of \$1.87 for the new workers versus \$4.50

for those working in both periods). The difference in the median out-of-pocket costs was relatively modest (\$0.89 and \$1.11 respectively).

Table 3-6: Median generalized travel cost for persons working in the current period but unemployed prior to starting service use (N=133)

		Urban		Rural	
		Fixed Route	Demand Response	Fixed Route	Demand Response
TT (\$/trip)	Now	\$1.87	\$2.18	\$2.25	\$0.74
OPC (\$/trip)		\$0.89	\$0.00	\$0.97	\$0.58
Gen. Cost		\$2.77	\$2.18	\$2.88	\$1.32
Responses		19	5	5	4

TT is travel-time, OPC is out-of-pocket cost

3.4.1.3 Persons not working in the current period

This group comprises 32.2% of respondents for whom current employment status is known (N = 175 of 543). Of these, 25% report using the service to access job training facilities. Eight percent reported their current trip as involving job seeking, and 21% as involving school. The median out-of-pocket cost for these two uses was \$0.96.

Figure 3-1: Generalized per trip costs of travel to work before and after starting to use the JARC service by previous mode (N=145)

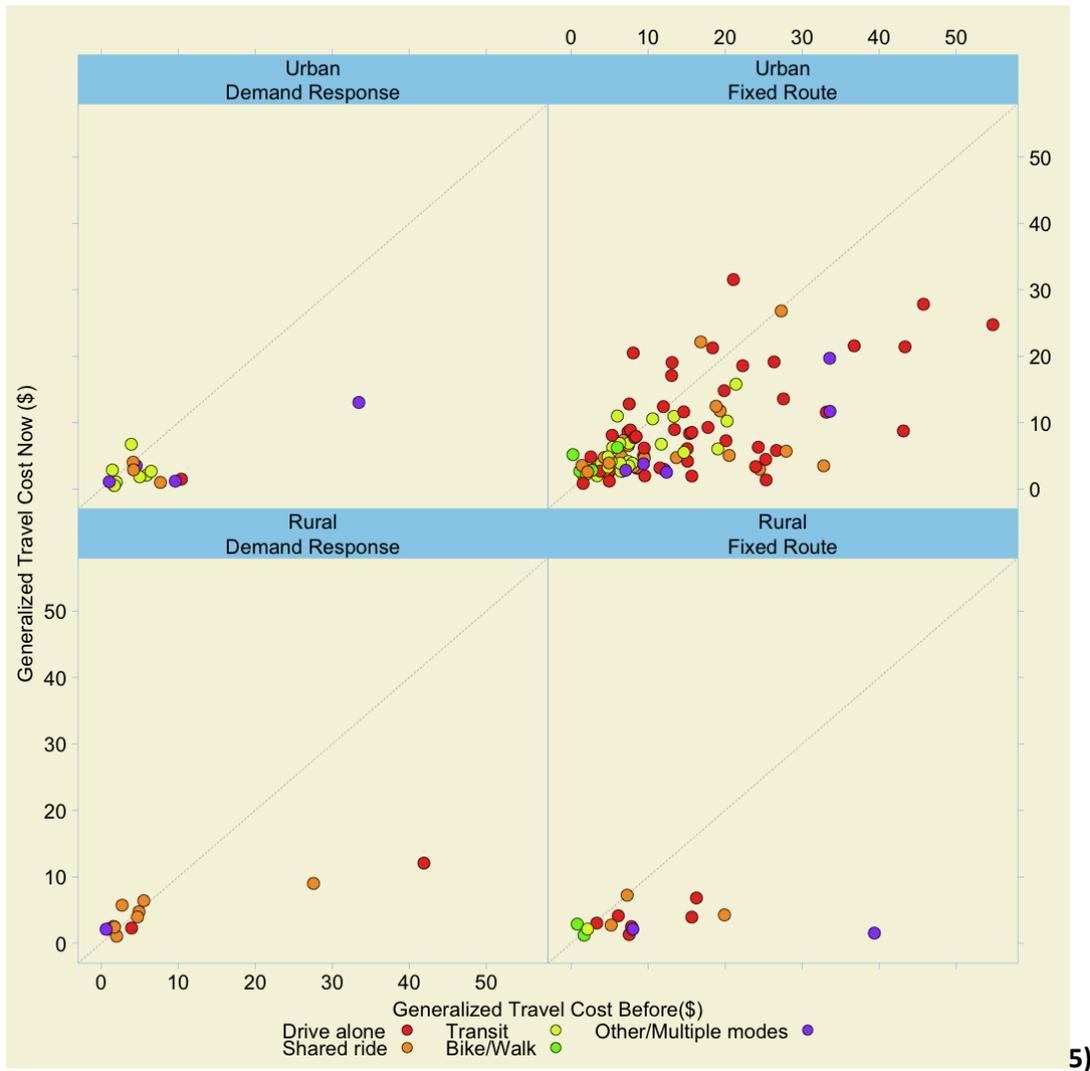
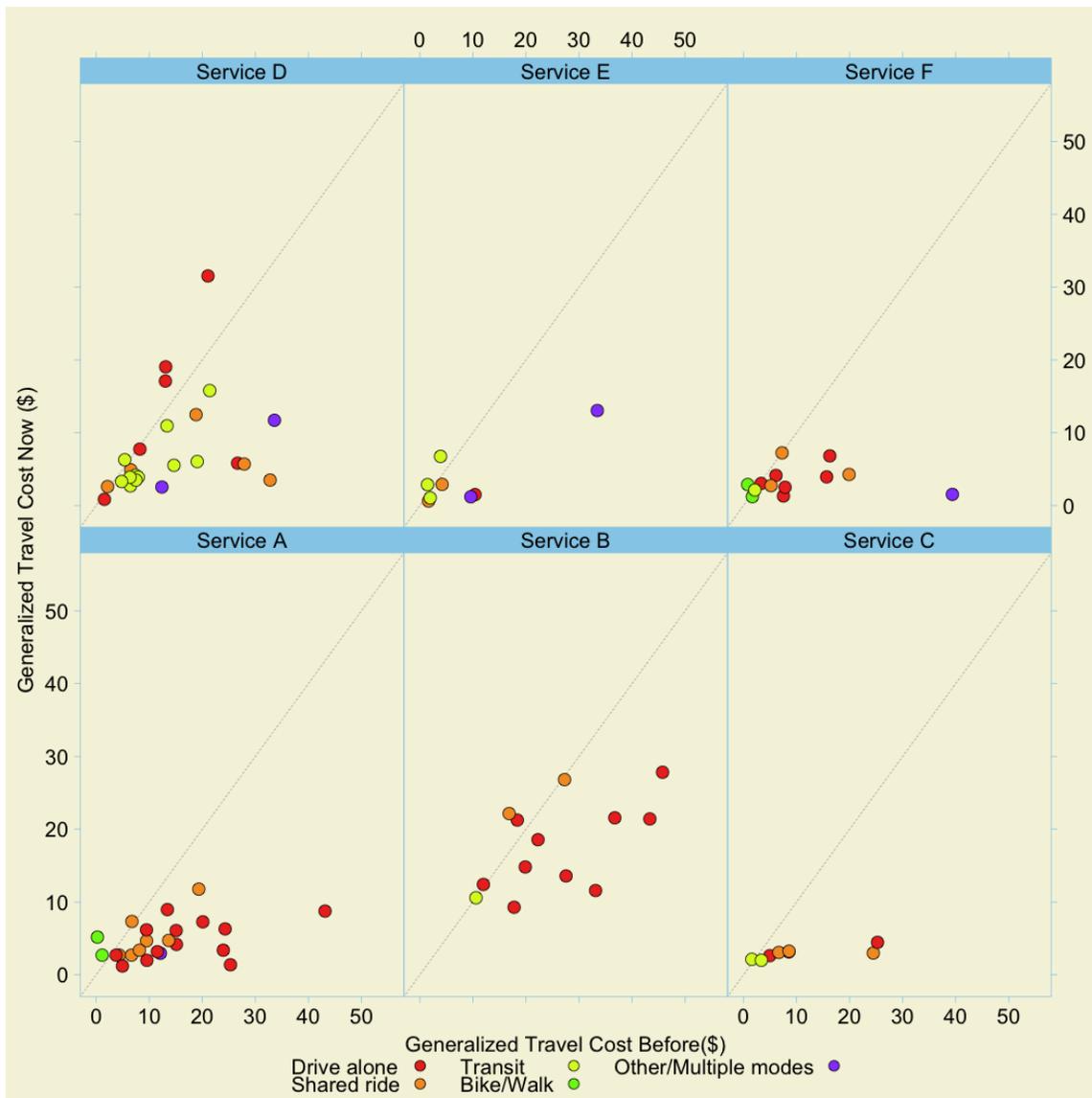


Figure 3-2: Changes in generalized transportation costs in six sites where at least eight before and after generalized costs could be calculated (N = 89)



3.4.2 Mode Shifts

Much of the reductions in travel cost for workers employed in the before and after periods are achieved through a modal shift that has considerably lowered out-of-pocket costs. About 62% of the users reported either driving alone or car pooling to work prior to using the JARC service. Another 21% used transit services. Almost 10% reported using more than one mode depending on availability. Modal shifts are summarized in Table 3-7.

An important result is that among respondents who currently use the service to access work and also indicated work as a trip origin or destination of their current trip purpose, 34% (N=367) responded they would not be able to get to their destination if the service were not available. When all respondents and all trip purposes are considered, those who reported an inability to make the current trip without the service is 36% (N=526).

Table 3-7: Prior mode of transportation for current trip type and for work trip

Previous mode	For current trip regardless of trip type	To work for those using service to access work, and employed prior to starting to use service
Drive alone	27.4%	37.1%
Shared ride	19.6%	24.6%
Bus/Train	21.0%	21.4%
Bicycle	1.9%	0.4%
Cab or Taxi	2.2%	1.3%
Paratransit	0.5%	0.9%
Walked	6.5%	2.7%
Other	10.8%	1.8%
Different modes	10.2%	9.8%
Responses	372	224

Overall, 46.6% of those currently using the JARC service for work purposes reported not having a vehicle in the household. Nationally, 8.8% of households are without an available vehicle. Among our study sites, the state-level percentage ranges from high values in the more densely populated states in the east (11.5% in New Jersey and 11.3% in Pennsylvania) to lower levels in the western states, (4.2% in Utah, 6.1% in Texas and 6.3% in Arizona).

Among those that are currently using the service for work, 307 of 422 had indicated their employment status in both the before and after periods. Of these 24% were unemployed in the before period. These users were more likely to report no vehicles in their household than those who have been working prior to using the service. Table 3-8 summarizes these results. 71.4% respondents who did not work in the before period indicated that they have no household vehicles, while only 36% of who worked prior to using the service reported having no household vehicles. It is important to point out, though, that there is a geographic concentration in those reporting unemployment and no vehicles, as nearly 46% in this category come from 3 of the 26 services surveyed.

Table 3-8: Household vehicle ownership for users of JARC service by employment status in the before period*

Employed Before	Number of household vehicles		Responses
	none	one or more	
No	71.4%	28.6%	70
Yes	35.9%	64.1%	220

3.5 Labor Market Outcomes

Labor market outcomes are reported below for two sets of respondents. The first group was employed in both the before and after periods, and the second group was only employed in the after period. Additionally, we distinguish between “gross” labor market outcomes, which are simple differences between the time the user started to use the service and the time of the survey, and “net” outcomes which attempt to account for various alternatives of why there might be a difference between the start time of using the service and the time of the survey.

3.5.1 Gross Labor Market Outcomes

We consider gross labor market outcomes for two groups of JARC service users:

- [1] Persons who were working prior to using the JARC service and also currently working;
- [2] Persons who are currently working but reported being unemployed prior to using the service.

3.5.1.1 Persons working in both the before and after period

Both median hourly wages and median weekly earnings have increased for respondents working in both the before and after periods since starting to use the service. The aggregate median weekly earnings before using the service was \$400 and had gone up to \$462 at the time of the survey. Hourly wages at the primary job have also increased from \$10.12 to \$11.60. These trends are true for both urban and rural, fixed-route and demand-responsive service users. Median hours worked have increased for the demand-responsive services in both urban and rural areas, while for fixed-route service users, the median values of weekly hours worked have remained the same. Table 3-9 summarizes these values. Figures 3-3 and 3-4 show plots of before and after earnings separated by area size and service type and for select service areas respectively.

Overall, for those who were employed in both the before and after periods, over half (55.6%) had increased their earnings, 30.2% had remained at their earlier wages, and 14.2% had lower weekly earnings. Predominantly, increased earnings were achieved through an increase in wages, or through a combined wage and hours increase. Nearly half (48.8%) of the sample had higher hourly wages than before they started to use the service. Only about 10% had an hourly wage decrease, and about 42% earned the same wage at their primary job as compared to before.

For most of the respondents (60.5%), hours worked had remained similar in the before and after periods. However, 27.2% increased their hours worked, and reduced weekly hours were recorded for 12.8% of those who worked in both the before and after periods. In addition,

35.6% of those that have increased their weekly earnings and currently use the service to work indicated that the service helped them access a better paying job. Table 3-10 summarizes how earnings have changed for the respondents.

Table 3-9: Median wages, hour worked and weekly earnings for persons working in both the before and after periods reported by service area and service type (N=162)

		Urban		Rural		Aggregate
		Fixed Route	Demand Response	Fixed Route	Demand Response	
Hourly wage	Before service	\$11.00	\$7.25	\$11.00	\$11.03	\$10.12
Hours worked		40.0	25.0	40.0	38.0	40.0
Weekly earnings		\$440.00	\$172.05	\$410.19	\$421.40	\$400.00
Hourly wage	After service	\$12.00	\$8.25	\$11.50	\$12.25	\$11.60
Hours worked		40.0	31.0	40.0	39.5	40.0
Weekly earnings		\$503.20	\$243.75	\$465.00	\$484.48	\$462.00
Hourly wage	Median of paired difference (now-before)	\$0.00	\$0.33	\$0.00	\$0.00	\$0.00
Hours worked		0.0	2.0	0.0	0.0	0.0
Weekly earnings		\$20.00	\$35.00	\$0.00	\$1.52	\$17.94
Responses		116	18	14	14	162

Table 3-10: Sources of change in weekly earnings for persons working in both the before and after periods, reported by service area and service type (N=162)

		Working hours per week		
		Increased	Same	Decreased
Wages	Increased	14.8%	27.2%	6.2%
	Same	6.8%	30.2%	4.9%
	Decreased	5.6%	3.1%	1.2%

3.5.1.2 Persons working in the current period, but unemployed prior to starting to use JARC service

There were a total of 74 persons who currently use the JARC service for work purposes but were unemployed in the period prior to starting to use the service. Weekly earning could be calculated for 41 of these persons who provided both wages and hours worked information. Median earnings and hours worked for persons who did not work in the before period are given in Table 3-11. The largest numbers of respondents were in the urban-fixed route category. Comparing the current hourly wages and weekly earnings for this category with those that were previously employed (see Table 3-9), hourly wages are lower for those who were not employed in the before period.

Table 3-11: Median earnings and hours worked for persons who did not work prior to using the JARC service (N = 41)

		Urban		Rural		Aggregate
		Fixed Route	Demand Response	Fixed Route	Demand Response	
After service	Hourly wage	\$9.68	\$7.25	\$8.50	\$12.03	\$9.50
	Hours worked	40.0	27.5	40.0	39.0	40.0
	Weekly earnings	\$405.00	\$199.38	\$340.00	\$514.95	\$380.00
Responses		26	6	5	4	41

Figure 3-3: Earnings before and after service use for persons working both prior to service use and after service use

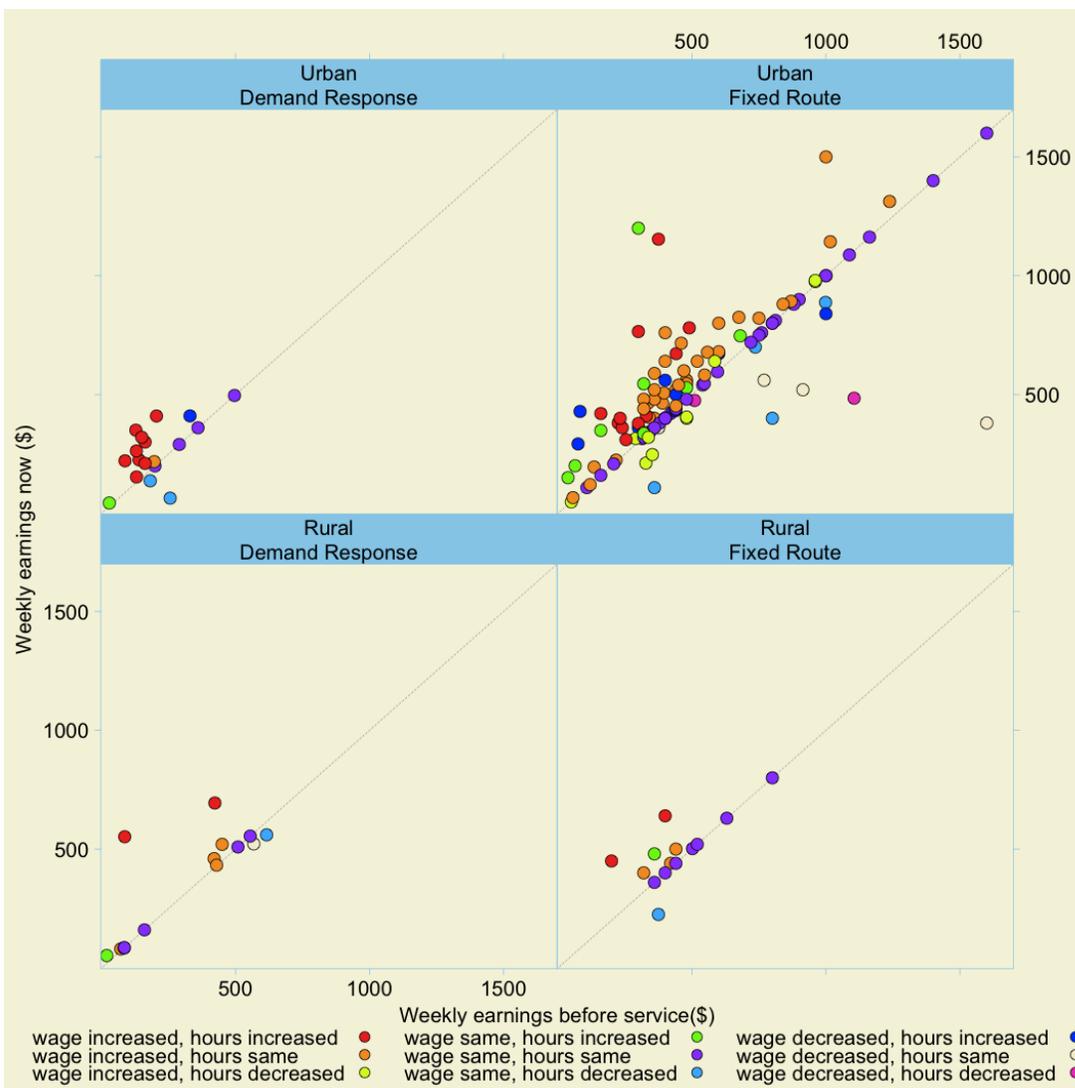
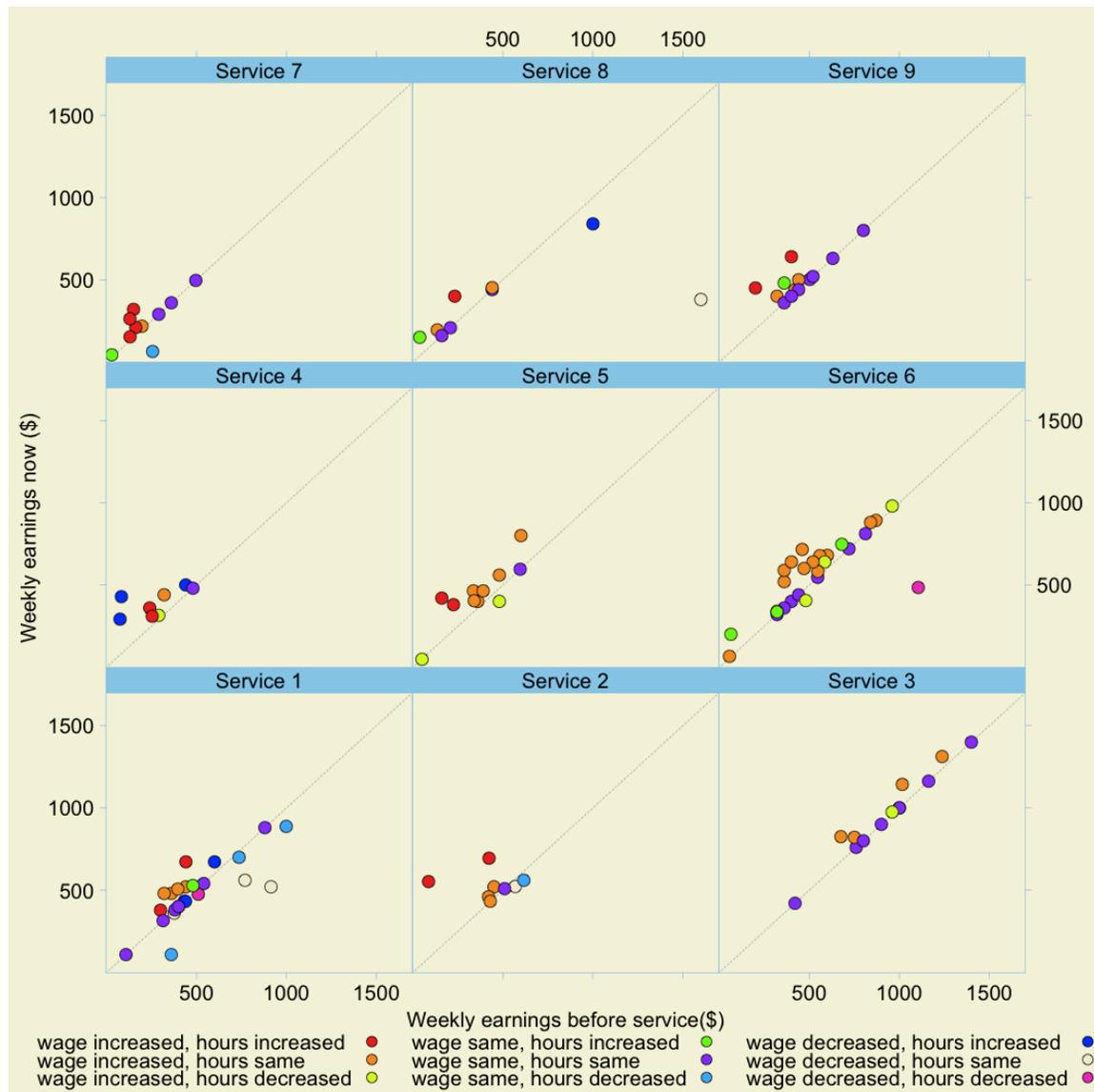


Figure 3-4: Earnings before and after starting to use service for persons working both in the before and after periods by site (only sites with eight or more valid responses shown N=123)



3.5.2 Net Labor Market Outcomes

In using the recall-based research design adopted here, care needs to be taken so that alternative explanations for changes in labor-market outcomes are understood to the degree possible. For example, respondents' earnings may have increased between the time they started to use the service and the time of the survey because riders completed a job training program. Or, their labor market outcomes were negatively affected because the overall economic

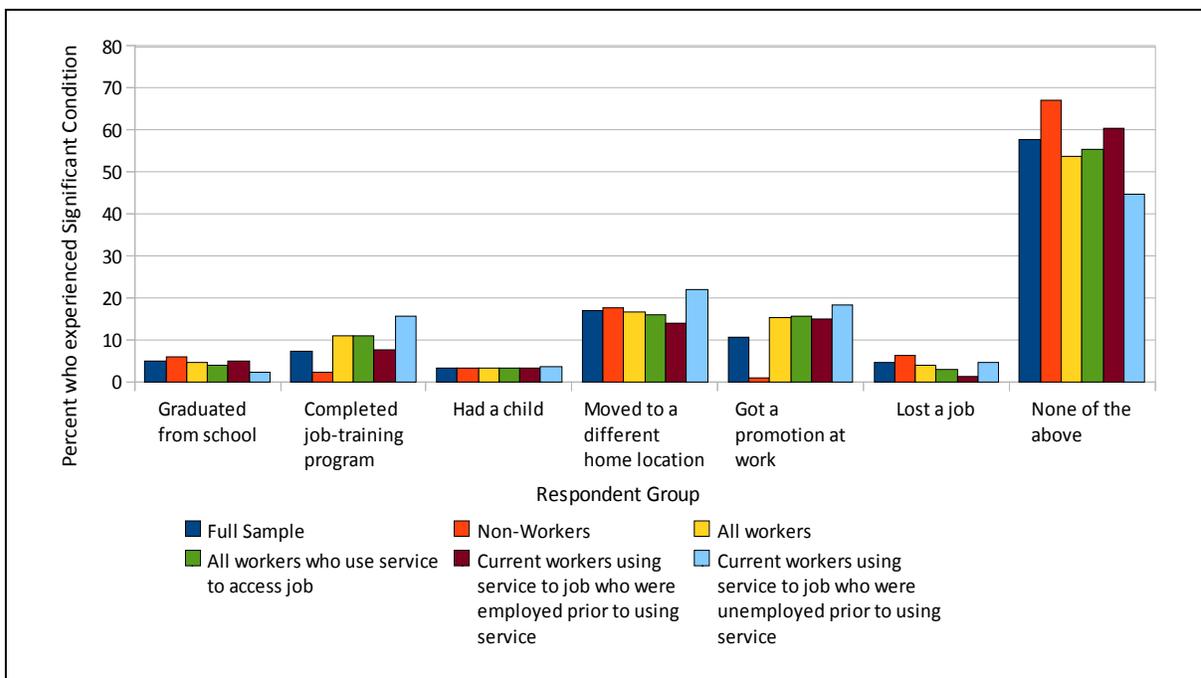
conditions changed, leading to lower possibilities of job availability. In this section, we attempt to understand such alternative explanations that may have resulted in observed differences between the before and after period.

3.5.2.1 Alternative Explanations and Net Labor Market Outcomes

The US officially slipped into recession by the 4th quarter of 2007. As noted in Table III-1, the maximum unemployment rate in the 14 months prior to our survey effort ranged from 6.3% to 16.7% (in our study areas, not among our respondents). At least during the previous recession (in 2001), there was a reportedly much greater dip in unemployment among “short-tenured”, typically low-skilled workers, compared to “long-tenured” workers (Redfield, 2005), indicating that low-wage jobs may have been strongly affected by the recession during the survey period. This overall economic effect may account for some of the differences we see between outcomes in the “before” period, which we have constructed based on users’ recall, and the “after” period.

Additionally, users may have undergone certain events in their lives which may otherwise explain differences between before and after employment rated outcomes. We queried respondents, based on recall, to report significant life event changes relating to their schooling, job-training, residential location, family conditions and other factors that occurred between the two time periods (the time they started to use the service and the time of the survey). Figure 3-5 shows the distribution of reported “significant life events” between the two time periods.

Figure 3-5: Significant events experienced by respondents between service use start time and time of survey



3.5.2.2 Net Labor Market Outcomes for Workers

Close to 58% of the full sample did not experience any significant events within the time window under consideration. Current non-workers using the services were more likely than workers to

report experiencing the following: graduating from school, completing job training, having a child, moving to a different home location, and job-related factors such as getting a promotion at work or losing a job. Among workers who use JARC services to commute to work, those who reported being unemployed prior to using the services are more likely to report completing a job-training program or having graduated from school between the time they started using the service and the time of the survey (17.7% among non-workers in the previous period vs. 9% among those already working).

The wage outcomes for those whose life events included having attended a job training program or graduating from school is given in Table 3-12 separated by whether they were employed in the period prior to starting to using the service. Among those employed in the before period, wages for those with no training were higher both in the before and after period. For this group, the median change in weekly earnings was \$13.50, while those who completed training had a median weekly change of \$11.65. The difference in aggregate median weekly earning after training reduced by \$16. It is possible that those who took training were different in their experience to account for the before and after differences. However these differences are not captured by age or education levels of the respondents. For those who were unemployed in the before period, the median wage with and without training was close, but sample sizes are limiting for further analysis.

Table 3-12: Before and after earnings by work status before starting to use service and graduation/job training completion status

		Median weekly earning	Completed Training/graduated			
			Yes	N	No	N
Worked before	Yes*	Before	\$ 325.00	16	\$ 421.58	140
		Current	\$ 400.00	16	\$ 480.00	140
		Median change (paired)	\$ 11.65	16	\$ 13.50	140
	No	Current	\$ 380.00	5	\$ 360.00	29

*Only those with before and after wages are included

3.6 Job Training Users

Of the 573 respondents, 16.6% responded that they use the JARC service to access a school or job training program. Training users include individuals who were unemployed before starting to use the JARC service, those that have lost jobs and then started to use service, as well as those that are currently employed and attend training. About half (48.4%) of the training/school users are also using the service to access their jobs. About 15% of the training users started to use the JARC service after stopping work. An additional 31.3% were unemployed previous to starting to use the JARC service.

The types of school/training facilities that are being accessed by these users range from K-12 facilities to universities, as well as to vocational training programs. In a few cases, respondents indicated using the service to more than one training destination. Among those who selected "other training" as the destination, English language training, job training, and work were sited

often when descriptions were provided. The breakdown of the destinations being used by respondents is given in Table 3-13.

Table 3-13: School/Training destinations of users of JARC service

Facility type	Percent of training users (N=95)
K-12 School	11.6%
Community College	22.1%
College or University	25.6%
Vocational or Youth Training	7.4%
Dislocated Worker Training	3.2%
Other Training	35.8%

Of those currently using the service for training, 28.4% reported using the service to access the same training destination before the JARC service was available. Amongst those that provided a previous mode to access training services (N=35), 31% drove alone, and 14.2% used shared rides, 14.3% used other transit. In addition, 20% reported walking and another 17.1% used multiple modes.

3.7 Perceptual Outcomes

We consider two types of changes in perceptions related to the program: those about users' labor market outcomes and those relating to their transportation and mobility experience.

3.7.1 Labor market related perceptual outcomes

Respondents were asked whether the JARC service has helped them access a job with better pay or better conditions, or whether it made it possible to improve their skills. Table 3-14 summarizes the results. Fifty nine respondents also wrote in that the JARC service helped them achieve listing different outcomes including independence, getting home earlier, shorter travel, being able to continue to work, working in a different shift, and moving to full time employment among others.

Table 3-14: Respondent opinions about their skills and labor market outcomes due to the JARC service

What has this service enabled you to do compared to what you had before starting to use this service?	Percent saying yes
Helped me access a job with better pay	18.1%
Helped me access a job with better conditions	8.6%
Allowed me to improve schooling or job training skills	10.6%
Other	9.3%
Responses	548

3.7.2 Transportation related perceptual outcomes

Respondents were also asked about the extent to which the service improved the reliability and affordability of their transportation. Nearly three in five respondents (57.5%) report that their travel has become more reliable and convenient, while just over a third responded that their

transportation was more affordable with the JARC service. Table 3-15 gives a summary of these results.

Table 3-15: Respondent opinions about their transportation improvements due to the JARC service

What has this service enabled you to do compared to what you had before starting to use this service?	Percent saying yes
Made my travel more reliable and convenient	57.5%
Made my travel more affordable	33.8%
Responses	548

3.7.3 Overall Service Ratings

The services were rated very favorably by respondents regarding helping them retain jobs as well on overall importance. When respondents who use the service to work were asked how important the service was in keeping their jobs, 93.5% rated it as important or very important. Additional questions on the overall importance of the service to the riders had 96% indicating the service was important or very important. Table 3-16 summarizes these results.

Table 3-16: Service ratings on helping to retain job(s) and overall importance

	How important is service in keeping your job?	How important is service to you?
Very important	82.1%	86.4%
Important	11.2%	10.0%
Slightly important	3.5%	2.9%
Not at all important	3.2%	0.7%
Responses	340	550

Chapter 4 Summary of Findings and Conclusions

This report presents our findings regarding mobility and employment outcomes experienced by JARC service users of 26 services. A series of surveys that were designed to assess the sociodemographics of JARC service users and to determine the types of employment and mobility outcomes experienced, were administered to users at these locations. The surveys were designed to assess the sociodemographics of service users as well as their self-reported employment and mobility outcomes. The survey effort yielded a total of 573 usable responses.

The services we studied are targeting the appropriate population of users. About 42 percent of respondents report 2008 personal incomes less than \$10,000. On aggregate two-thirds of the respondents have personal incomes of \$20,000 or less for the same year. Respondents also have low educational attainment with about half the respondents reporting educational levels at the high school graduate/GED level or less. One in five has also not completed high school. About a third of the respondents self-reported receiving some form of public assistance (e.g., Temporary Assistance for Needy Families) since 2006. Overall, nearly half the respondents have no household vehicles. Close to 47 percent of those currently using the service for work purposes reported not having a vehicle in the household.

Respondents self-reported that the services allowed them to access a job with better pay or better conditions, and to improve their skills. Nearly three in five respondents reported that their travel has become reliable and convenient, while just over a third responded that their transportation was more affordable with the JARC service. When respondents who use the service to work were asked how important the service was in keeping their jobs, 93.5% rated it as important or very important. Among the respondents surveyed while using the service on their way to or from work, 34% reported that they would not be able to get to their destination if the service was not available. When all trip purposes are considered, about 36% reported that they would be unable to reach their destination without the service.

Survey respondents reported using the JARC service for a variety of trip purposes, including work, school, job training, medical appointments and shopping trips. The place of work is the most frequently identified non-home place of trip origin or destination (in 71.6% of the cases), with the most frequent trip origin or destination being the respondent's home. About 25% of individuals who reported being unemployed at the time of the survey reported using the services to access job training, while about 8% of individuals who reported being unemployed at the time of the survey reported their current trip as involving job seeking, and 21% use the service to travel to school.

About 74% of respondents reported working and also using the service to access their employment location. Close to 47% of all respondents reported being employed in the one-month period prior to starting use of the service. About 62% of these previously employed users who currently use the service to access work reported that they either drove alone or shared a ride to commute to work prior to using the JARC service. Another 21% used public transit services. Almost 10% reported using more than one mode depending on availability.

Workers have benefitted from overall reductions in the cost of commuting to work. Responses from workers who were employed prior to starting use of the service indicated that using the service led to lower out-of-pocket costs while slightly increasing their commuting time. The median change in out-of-pocket cost (including fares for transit users and expenses on fuel, maintenance, insurance and other expenses for private-vehicle users) is a savings of \$3.44 per

trip. Overall, the median reduction in generalized travel cost (a composite indicator combining travel times incurred while traveling and out-of-pocket costs) is \$3.15 per trip.

The services appear to have made a difference in the labor market outcomes of riders. Both median hourly wages and median weekly earnings are estimated to have increased for respondents working in both the before and after periods since starting to use the service, although, as in the case of travel costs, a great deal of variability exists over different sites and alternative explanations may exist for wage changes, leading to difficulties in attribution. The aggregate median weekly earnings in the one-month prior to using the service was \$400 and is estimated to have gone up to \$462 at the time of the survey. Hourly wages at the primary job also increased for such respondents from a median of \$10.12 to \$11.60. These trends hold for both urban and rural, fixed-route and demand-responsive service users. Median hours worked increased for the demand-responsive services in both urban and rural areas, while for fixed – route service users, the median values of weekly hours worked have remained the same.

Overall, for those who were employed in both the before and after periods, over half (55.6%) had increased their earnings after using the service, 30.2% remained at their earlier wage levels, while 14.2% had lower weekly earning. Predominantly, increased earnings were achieved through an increase in wages, or through a combined wage and hours increase.

Wage changes may be explained by factors that are external to the JARC program. For example, the economy entered a period of recession, with unemployment levels of over 16% at least in one of the locations. Some workers also experienced changes in their personal lives, which may explain changes in their wage levels between the time they started to use the service and the time when they were surveyed. For example, about 9% among those working prior to using the service reported completing a job-training program or having graduated from school between when they started using the service and the time of the survey, which may have led to an increase in earnings. About 14% moved to a different home location, whereas 15% reported getting a promotion at work. Close to 60% of these workers reported not experiencing any significant life event during the before and after period.

The study has several limitations. First, the report presents mobility and labor market outcomes of transportation-based JARC programs, based on self-reported survey-based information in the 26 services. Because of a variety of reasons, traditional randomized evaluation designs were not feasible to use. We implement an evaluation design that measures the differences between users' mobility and employment conditions before and after using the service, by utilizing a recall after design in which transportation and labor market conditions of users are based on retrospective, self-reported recall. Attribution of mobility and labor market benefits to the JARC program may be affected by alternative explanations that may exist for the differences in before and after outcomes, although we have attempted to understand such alternative explanations to the extent that is possible with the survey-based approach.

The survey effort presented unique challenges due to the educational levels of the target population, the need to use intercept surveying as the primary survey administration method in most cases and the overall characteristics of service operation and use (for example, riding the bus and surveying only after specific times or along specific segments of a route that are funded by the JARC program, facing little or no riders (respondents) in some cases and overcrowding in other cases). We attempted to record the extent and type of non-response bias and also undertook strategies to address coverage error and measurement error. However, reliable numbers on refusals were not available in some locations. Additionally, the method of survey administration varied in some locations.

Because of the lack of a complete sampling frame of JARC services, we were unable to select a probability sample from the universe of JARC-funded services that were operational at the time of the survey, although we adopted a sampling strategy that helped to identify 26 services with a wide mix of service, location and funding criteria. Because of the lack of a probability sample, the results presented in this report cannot be generalized to the entire JARC program.

PART 2: TECHNICAL APPENDICES

Technical Appendix 2A Sampling

2A.1 Introduction to the Sampling Problem

Chapter 2 explains our initial attempts to generate a list of services from which to sample sites for survey administration. Here we detail the alternative strategy adopted to circumvent the problem of not having a master list of operating JARC services. The project initially aimed to survey 22 JARC sites in the ten FTA regions. In an effort to provide a well rounded (complete??) sample, we ultimately found it necessary to select several additional study sites.

The alternative sampling strategy adopted aims to cover the mix of FTA regions, area sizes, and services that are being funded under JARC while also taking into consideration the amount of money that is allocated to different areas. With ten regions, three area sizes (large-urban, small-urban, and rural), and two service types (fixed route and demand responsive), there are 60 possible region-size-service pairings that one can draw from. Since we are unable to survey all 60 combinations, we sampled 22 using a modified Latin Hypercube Sampling (LHS) to “cover” the surface of the different combinations of region, size and service.

The sampling proceeds in three stages. In the first stage a decision is made on how many times each region will be represented in the final sample, what the mix of large-urban, small-urban, and rural areas will be, and how many fixed route and demand responsive services will be included in the final sample. The decision of region, size and service composition is made independently of the other. The selection was made as follows:

- [1] To cover all the FTA regions, each FTA region is represented twice and two additional regions are sampled from the ten regions based probabilities derived from the funding levels for 22 sampling locations in total. The two additional sites were selected to be regions 2 and 5.
- [2] In FY 2008, 59.5% of JARC funds distributed by the FTA went to large-urban areas while 16.6% and 23.9% went to small-urban and rural areas respectively. Based on these proportions, the mix of 22 areas that would be sampled was selected to be 13 large-urban, 4 small-urban, and 5 rural areas.
- [3] The mix of fixed route and demand responsive services is selected to be 12 and 10 respectively. Currently there is no record of how funds are allocated between the different types of JARC services nationally. The 12/10 split was selected so that the research can adequately review both services while reflecting our estimate that there are likely more fixed-route services than demand-responsive services being funded by JARC.

In the second stage, we generate twenty two combinations of region, size and service as described below:

- [1] Three vectors of 1:22 are each used to represent regions, size and service respectively. In the regions vector, three elements represent regions 2 and 5 each and the remaining regions are represented by two elements (numbers) in the vector (based on the region mix from stage 1). In this case (1:10,11:20,21,22) represent regions (1:10,1:10,2,5).
- [2] The remaining two additional vectors of 1:22 are also assigned to the area-size and service respectively. The size vector has 1-13 representing large urban, 14-17

representing small-urban and 18-22 representing rural areas. The service vector has 1-12 representing fixed route, and 13-22 representing demand responsive services.

- [3] Each of the last two column vectors are permuted and a matrix of 22X3 is generated where each row represents the region, size, service combination where a JARC service will be sought and surveyed.

The next step is to replace each of the numbers with the regions, size and service they represent. Each combination of (region, size, service) has a different probability of selection that is influenced by the funding level for the region, size and service as reflected by the proportions selected in stage 1.

Once the sample is generated, a restriction we have tried to enforce is to sample no more than 1 size and 1 program per region. Since there are 12 fixed routes and 13 large-urban areas to be allocated to 10 regions, this restriction could not be met entirely. In cases where size or service repetitions occurred within a region, exchanges were made with another region to ensure we cover as many sizes and programs within a region. For instance if two regions X and Y each received (X, LU, DR), (X, LU, FR) and (Y, SU, DR), (Y, SU, FR), one large-urban from region X and one small-urban from region Y would be randomly selected and their sizes exchanged. The site selection based on the Latin-Hypercube Sampling is as shown in Table 2A-1.

Table 2A-1: Initial Sample – Location and Service Combinations

	Large Urban		Small Urban		Rural	
	FR	DR	FR	DR	FR	DR
Region 1		X			X	
Region 2	X	X	X			
Region 3	X			X		
Region 4		X	X			
Region 5	X	X			X	
Region 6		X			X	
Region 7	X					X
Region 8	X					X
Region 9	X			X		
Region 10	X	X				

In the third sampling stage, states are sampled within each region according to probability weights derived from their funding levels. The state sampling proceeds by selecting one state for each region first for a total of 10 states in the first round. The probability that a state is sampled is based on its relative JARC funding in the region. Once a state is selected, its probability of being selected a second time is reduced by cutting its funding level in half. The process is repeated for the regions where a third survey location is sought. This way if a state receives considerable funding relative to other states in its region, it still has a chance of being selected again. Within each region, the selected states are assigned to the region, size, service tuple generated in the second stage. Finally, we check to see if the state-size combination that has been generated has received an FTA grant. Some states for example only show rural grants

but may be paired with a large-urban area in their region. In such cases the state sampling is done once more to find a replacement. The next step is to search for funded and operating services that fit the size and service-type combination through phone calls to lead agencies.

Table 2A-2: Final Survey Site Combination of Region, State, Area Size and Service Type

Site	FTA Region	State	Size	Service
1	1	ME	RU	FR
2		RI	LU	DR
3	2	NJ	LU	FR
4		NY	LU	FR
5	3	PA	SU	DR
6		VA	LU	FR
7	4	FL	SU	FR
8		TN	LU	DR
9	5	IL	LU	FR
10		IL	LU	FR
11		OH	RU	FR
12		MN	LU	DR
13		IN	SU	FR
14	6	TX	LU	DR
15		TX	SU	FR
16	7	MO	LU	FR
17		IA	RU	DR
18	8	CO	LU	FR
19		ND	RU	DR
20		UT	RU	DR
21		UT	LU	FR
22	9	AZ	SU	DR
23		CA	LU	FR
24	10	AK	LU	DR
25		OR	LU	FR
26		WA	LU	DR

Though the Latin Hypercube design alleviated the major challenge of not having a master list, matching the area size and service prescription in a given state proved difficult in a number of cases. If the program sought is not found in a state, another state is sampled after omitting the first state from the region. This proved to be very challenging. In one case, for example, searches were done in three different states until a matching program was found. Some particular combinations were very difficult to find. For example, demand responsive services in small urban areas could not be located in the prescribed areas by the LHS, and had to be replaced by large urban areas.

2A.2 Sampling Results

The final set of services from where data was collected is shown in Table 2A-3. While we tried to maintain the original combination shown in Table 2A-4, the availability of services of that combination required some changes to be made. The final service combination was composed of 65% large urban, 15% small urban and 19% rural areas, slightly different from the approximately 59%, 17%, 24% combination we sought. In addition to the original twenty two sites that were sampled, the final list includes a site (Indiana) where data was collected before this new sampling method was adopted. In IL, two different routes were surveyed under the same size and service prescription. In addition, two services were also sought and surveyed in the State of Utah to achieve some geographic balance.

Significant effort was expended to find demand responsive and fixed route service within each region; however this was only partially successful. Each region has at least one large urban area surveyed within it. Seven regions each have either a small-urban or rural area or both. In total users of 26 services were surveyed in 23 states. The final list includes seventeen large urban areas, four small urban areas, and five rural areas. Users of eighteen fixed route and eight demand responsive services were surveyed. The region-size and region-service combination of the final sample is as shown in Table 2A-4 and Table 2A-5.

Table 2A-3: Final Sample of Region, State, Area Size and Service Type

	Fixed Route	Demand responsive	Total
Large Urban	12	5	17
Small Urban	4	0	4
Rural	2	3	5

Table 2A-4: Region-Size Mix in the Final Sample

	Regions									
	1	2	3	4	5	6	7	8	9	10
Large urban	1	2	1	2	3	1	1	2	1	3
Small urban	0	0	1	0	1	1	0	0	1	0
Rural	1	0	0	0	1	0	1	2	0	0

Table 2A-5: FTA Region-Service Mix in the Final Sample

	Regions									
	1	2	3	4	5	6	7	8	9	10
Fixed Route	2	2	1	2	4	1	1	2	2	1
Demand Responsive	0	0	1	0	1	1	1	2	0	2

Technical Appendix 2B User Survey Design and Administration

2B.1 User Survey Design

Our study design called for surveying users of JARC-funded Fixed Route (FR) and Demand Response (DR) services. The objective of this survey was to understand the overall characteristics of the users and the types of transportation (or mobility) and labor market outcomes that may have been affected by the JARC service. By means of 55 survey items, the questionnaire asked about the sociodemographics of the riders and their travel and employment experiences. The questionnaire also asked respondents about several economic, travel, employment and activity-related factors, “before-using-the-service” and “after-using-the-service”.

In this appendix, we describe the major factors that we took into consideration in developing and administering the user survey.

2B.1.1 Study Design

In the ideal case, the study should have identified control groups of low-income users of transit services not funded by the JARC program, so that changes that randomly sampled control group users underwent after using such non-JARC services with respect to transportation and labor market outcomes could be compared to changes experienced by randomly sampled JARC service users. We determined that identifying similar services so that non-users (the “control” group) could be surveyed would not only be cost-prohibitive and administratively unfeasible for the following reasons:

First, controls were difficult to identify in some cases due to the uniqueness of the services. As noted previously, some JARC services were route extensions and deviations or service hour extensions, which had no comparable non-JARC funded service, at least within any reasonable time-frame of the study.

Second, there were virtually no other transit services available in some cases, and all potential users were already program participants, leaving no one else to be used as control. For example, virtually all the low-income workers in the case of some rural areas were already service users. Some services were very specifically focused on transporting workers to job-training and education; these services predominantly consisted of younger users, rendering them to be a unique group of individuals.

Third, the characteristics of the control groups were site-specific due to some cases because not all services were typical low-wage workers but consisted of users who were using transit for reasons of potentially temporary economic hardship. One reason for this trend may have been the timing of the study (late 2008 to early 2010), which coincided with the economic recession. We found that there were some JARC services where users could not be categorized as traditional low-wage workers, but were higher-skilled individuals who may have been using the JARC transit services, typically express bus service, as a result of recent job loss and consequent employment in lower-wage jobs, or because their private vehicles were repossessed or because of costs associated with operating a private vehicle, as a result of hardships due to the overall economic conditions.

Additionally, the vast majority of service users are FR users, for whom there is no systematic point of contact in transit agencies or social services agencies with rosters of users. This precluded us from surveying randomly sampled users by mail or from distributing survey instruments in some other way.

Due to these difficulties in establishing a control group, the study followed a “before” and “after” design, based on the subjects’ recall of their travel and employment conditions before they started to use the service and after. Also, given these realities, we followed an intercept survey approach, as is typically followed by transit agencies (Schaller, 2005). The above factors also led us to consider different ways to minimize measurement errors. Issues relating to survey administration are given in greater detail in Section 2B.2.

2B.1.2 Major Considerations in Survey Design

We noted earlier that the development of the surveys occurred over several months and after a review of the literature, informal discussions with program managers, and discussions with outside organizations such as the Community Transportation Association of America (CTAA). We sought the technical assistance of the Questionnaire Review Committee of the Survey Research Lab, UIC, which is an independent, professional survey review committee which consists of faculty, academic researchers, and professionals involved in survey research and survey design. In addition, surveys were reviewed by UIC’s Institutional Review Board. User surveys were pretested with users of three different services prior to administration and revised several times to ensure that we could capture the effects that we wanted.

The attributes of the target group, the nature of the study design and the complexity of the services surveyed necessitated the following actions towards the goal of reducing measurement errors:

- [1] Attributes of the Target Group: While intercept surveys onboard transit vehicles pose survey administration challenges under any circumstances, the measurement of the characteristics and behavioral experience among members of the low-income populations offers particular difficulties with respect to reducing various sources of response error (Methiowitz, et. al, 2001). Measurement errors were minimized to the extent possible by ensuring that the survey instrument was understandable by the target group. This consideration was addressed by using short and “colloquially-worded” questions. The Flesch-Kincaid Grade level of the JARC transit survey is 8.38 indicating that the text is understandable by an average student in the 8th grade. The QRC assisted with the overall structure of each survey instrument for easy readability, logical ordering of question order, mutual exclusivity of answer choices, easier comprehension of skip patterns, modification of questions that could be potentially leading, as well as ensuring that survey wording conformed to the reading skills of people with different educational levels.
- [2] Difficulties relating to the recall-after design: The reliability and validity of retrospective self-reported behaviors based on recall have been studied by numerous authors. For instance, it has been noted that some types of questions or variables are much less vulnerable to recollective loss or distortion than others (Finney, 1981), including personal and factual information more than subjective, attitudinal or less personally relevant factual information, and information which are congruent with one’s own values and perceptions more than information that produces cognitive or value conflict or incongruency. It is possible that responses to some survey questions including that

asking respondents to report whether they received welfare assistance may be subject to recall bias either because as noted elsewhere (Luks, et al., 2003), respondents may be subject to the fallibility of memory and possibly to social pressures to minimize being on welfare.

Further, researchers have also noted that data collection by retrospective self-reports based on recall requires that data be collected within a short period of time after the intervention in order to avoid recall decay, which in our case would be soon after the starting date at which the employment transportation services that were sampled became operational. In order to reduce the possibility of overall recollective loss, we attempted to select, to the extent possible, services that had not been operational for longer than two years. To minimize confusion regarding what constituted the “before” period, questions clearly indicated that we are interested in the recall of transportation and labor market circumstances in the month before the respondent started use of the service. To direct the attention of respondents to the fact that a particular question may be querying their activities in the before period, the words “before” and “a month before” were underlined in the survey instrument.

Overall, surveys should be timely enough so that respondents will be able to recall what happened during the period of interest and give accurate responses to survey questions. The method of survey administration, intercept surveying, have many advantages including the ability to reach the right population, the ability to survey during the immediate experience of the service and therefore to obtain better information (including accuracy, reliability and detail) from respondents (Schaller, 2005).

- [3] Factors relating to service uniqueness and complexity: As noted earlier, the survey instrument also reflected the fact that the nature of the 26 services were very different. There were only a handful of services that were newly funded JARC services from one location to another. Many services were in fact existing services that were funded by JARC to extend hours of operation (for example, to extend service hours from an end time of 7 PM to 2 AM), from weekday-only service to weekend service, route deviation whereby the bus deviates from a fixed route to inside neighborhoods and employment locations along the route, route extension beyond a previous terminal point and other operational considerations.

The varying nature of the services and the potential for measurement error necessitated the customization of the survey instrument for each service. Four strategies were used to maximize the respondent’s identification of the JARC-specific service. These four approaches will be illustrated with the case of the Chicago Transit Authority (CTA) bus route 65, which operates from the Navy Pier area near Lake Michigan in the City of Chicago, which is an area with a large number of entertainment and retail facilities, to a bus terminal at Grand Ave and Nordina Ave, which is located in a low income area in the west side of Chicago. CTA bus route 65 has been operational up to 7 PM for a long time, serving 80 bus stops along the way. With the JARC funds, service hours were extended from 7 PM to 10 PM going from Navy Pier to the west side terminal and from 7 PM to 9:05 PM from the west side to Navy Pier. In order to address concerns of measurement errors, first, CTA Route 65 users were surveyed only after 7 PM. Second, the instrument

used to survey Route 65 users clearly identified the specific aspect of the route that involved JARC, i.e., the service after 7 PM only, in the first page of the instrument (Please answer these questions about CTA Route 65, after 7 PM, where the name and aspect of the service was highlighted in yellow and written in red letters). Third, in order to remind respondents of the aspects of the service we were interested in, specific wording to that effect were inserted throughout the survey (for example, “How often do you use CTA Route 65 after 7 PM to get to your primary job?”). Finally, to the extent possible, site-specific landmarks and Points of Interest were used in each site, when asking respondent for geographical identifiers (for example, “What intersection is this job located at _____ and _____ OR near what place is this located (for example, the Navy Pier)?”). The instrument used in the case of each service was modified to address these considerations.

2B.2 Survey Administration

The final four-page survey was administered to users in the 26 sampled services. In general, most surveys were distributed in intercept mode on-board transit vehicles by a member of the research team. Coverage errors were minimized to the extent possible by ensuring that the surveys were administered at the appropriate times (for example, if the transit service being surveyed is a night-owl service of a 24-hour bus service, the surveys were administered during the night, after regular service ended for the day) and in the appropriate locations (for example, in the cases of route extensions and route deviation).

Survey distributors rode on-board the vehicle on several trips at each of these locations. This was especially the case with fixed route services. However, in some demand responsive or rural locations, where ridership is low at any given time, the service operating agency was asked to distribute the surveys through its drivers. Still in other cases, surveys were mailed with the help of the agency when user lists were present but ridership occurred at different times of day or in limited numbers at a time. In some of the locations where members of the research team surveyed, extra surveys were also left with the bus/van drivers to continue to distribute the questionnaires. These methods were flexibly adopted to ensure that the surveys reached as many riders as possible.

The short length of the survey instrument attempted to minimize refusals, item non-response and potential selection biases associated with surveying only those riders traveling longer distances and with not giving sufficient time for completion by those individuals who had to leave the transit vehicle after a short ride, before they could complete the survey. Additionally, we gave riders an option to complete the questionnaire on-board or to mail back the completed survey.

The four modes of survey administration modes are:

- [1] Distributed by survey administrator, collected on-board or mailed back (10 services)
- [2] Partially distributed by our study team and partially by service program manager agency (14 services)
- [3] Surveys mailed out to program manager agency which in turn distributed to users (1 service)
- [4] Surveys mailed out directly to respondents (1 service)

When research team members personally administered surveys on-board, we kept records on refusals to take a survey, which, together with the non-returns of surveys which riders took with them to complete off-board, enabled us to complete response rates. We made an attempt to record the characteristics of persons who refused, but this strategy was not successful as there were too many activities on board demanding the attention of the administrator, especially during periods of crowding on board the vehicle. In the end, we only kept only overall refusal rates for all cases. Refusals were not recorded for the cases where surveys were administered by the vehicle operator or by program manager, a strategy that was necessary to ensure the minimization of coverage error.

The survey yielded a total of 573 usable responses. In cases where we had refusal data, response rates were calculated as the ratio between surveys returned and the sum of refusals and surveys distributed on board. However, for the locations where surveys were partially distributed by the agency, the number of refusals was not collected. For each of these sites, however, a count of how many surveys were administered and how many were returned is recorded. The response rate for such services is the ratio between total completed surveys and surveys taken/sent to the site, and does not include refusals. Table 2-3 reports the details on the two types of response rates.

TECHNICAL APPENDIX 2C – SURVEY INSTRUMENTS

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2C.1 User Survey

We need your help! We are conducting a survey about this bus service that you are riding, as a part of a national study. Completing this questionnaire is optional; but your answers will help improve transportation services. If you have any questions about your rights as a research subject, you may call the Office for the Protection of Research Subjects at the University of Illinois at Chicago toll-free at **1-866-789-6215**. Your answers are completely confidential and cannot be traced back to you. Your responses will be grouped together with a national sample. Completing this questionnaire will take about 15 minutes.

Please answer these questions about **RTS Bus Route 24**

1. How did you pay for this bus ride?

- Paid cash for this ride only
- Used a pass
- Other (please specify) _____

2. How much was the pass or ticket you indicated in Question 1?

- The cash fare was \$ _____ or
- I used a pass- it cost \$ _____
It is good for _____ days

3. To pay today's fare, did your employer or the government/social service agency provide you with cash, tokens, or a pre-paid pass?

- No
- Yes (Check all that apply)
 - Employer
 - Government/social service agency

4. How much time does this one-way ride usually take you?

_____ Hour(s) _____ Minute(s)

5. How many times a week do you ride this bus, one-way? (Travel to a place and then back counts as 2 rides.)

_____ # of rides per week

6. About how long have you been using the **RTS Route #24 bus service?**

_____ Year(s) _____ Month(s)

7. You are coming from: (Check all that apply)

- Work
- School/college/job training
- Home
- Job-seeking / an interview
- Shopping
- Medical/counseling appointment
- Social visit
- Other (Please specify) _____

8. Where are you going after getting off this bus? (Check all that apply)

- Work
- School/College/Job Training
- Home
- Job-seeking/Interview
- Shopping
- Medical/Counseling Appointment
- Social Visit
- Other (Please specify) _____

9. What is your *main activity*, other than coming from home or going home, for which you are riding this bus service today (use choices in Questions 7 and 8)?

Questions 10 through 17 ask about the main activity you mentioned in Question 9.

10. How often do you use the **RTS Route #24 bus service to travel to or from the *main activity* you indicated in Question 9?**

_____ Times per week

11. Where did you do the *main activity* in Question 9 before this bus service was available? (Check only one below)

- Traveled to the same location for this activity
- Traveled to a different location for this activity
- Did not travel to the *main activity* → **SKIP TO QUESTION #15**

12. How many times did you typically travel to the *main activity* before this bus service was available?

_____ Times per week



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13. What type of transportation did you use most often to travel to your **main activity** (either at the same location or different location), **before** the **RTS Route #24** bus service was available?

- Car: Drove alone
- Shared car (either as driver or passenger) (with how many people? _____)
- Bus or Train
- Bicycle
- Cab or Taxi
- Paratransit
- Walked
- Other _____

14. How much time did it take to travel to the **main activity** in Question 9 **before** this bus service was available?

_____ Hour(s) _____ Minute(s)

15. If this bus service were not available now, how would you travel to the main activity?

- Would not be able to go to the activity. → **SKIP TO QUESTION #17**
- Car: Drove alone
- Shared car (either as driver or passenger) (with how many people? _____)
- Bus or Train
- Bicycle
- Cab or Taxi
- Paratransit
- Walked
- Other _____

16. Using the transportation method you listed in Question 15, how much time would it take you to get to the **main activity**?

_____ Hour(s) _____ Minute(s)

17. Do you take or are you taking this bus to a school or a job-training program?

- No → **SKIP TO QUESTION #18**
- Yes → How many times per week? (for example, travel to and from the location is 2 rides) _____ Times per week

(a) What type of school or program? (Check all that apply)

- K-12 School
- Community College
- College or University
- Vocational or Youth Training
- Dislocated Worker Training
- Other (please specify) _____

(b) Did you attend the same school or program before this service was available?

- Yes
- No → **SKIP TO QUESTION #18**

(c) **Before** this service was available, how much time did it typically take you to get to this school or job-training program from home?

_____ Hour(s) _____ Minute(s)

(d) What type of transportation did you typically use to travel to school/job-training **before** this service was available? (Please write in answer)

18. Are you currently working for pay?

- No → **SKIP TO QUESTION #29**
- Yes

Please answer Questions 19-28 if you are currently working for pay.

19. How many jobs do you currently have?

_____ jobs

20. How many hours per week do you work at your primary job and typically for how many weeks per year?

_____ Hours per week for _____ Weeks per Year

21. How many dollars per hour do you make at your primary job?

\$_____ Dollar per hour

22. How often do you use the **RTS Route #24** bus service to get to your primary job?

_____ Times per week

23. What intersection is this job located at?

_____ and _____

OR near what place is it located (for example, the Marketplace Mall)?

Please go to Question 28 if you only have one job. Otherwise please continue.

24. How many hours per week do you work at your second job and typically for how many weeks per year?

_____ Hours per week for _____ Weeks per year



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25. How many dollars per hour do you make at your second job?

\$ _____ Dollars per hour

26. How often do you use the **RTS Route #24** bus service to get to your second job?

_____ Times per week

27. What intersection is your second job located at?

_____ and _____

OR near what place is it located (for example, Qualcomm Stadium)?

28. How important is this bus service in **keeping your job(s)**? (Check one)

- Very important
- Important
- Slightly Important
- Not important

29. Were you working for pay in the month before you started using **RTS Route #24** bus service?

- No
- Yes → **SKIP TO QUESTION #31**

30. What was the reason you were not working? (Check all that apply and then skip to Question 38)

- I was still in school
- I was a homemaker
- I was sick or unable to work
- I could not find work
- I did not have transportation
- Other (Please specify) _____

31. How many jobs were you working in the month before you started to use this bus service?

- 1 job
- 2 jobs at the same time
- More than 2 jobs at the same time

32. How much did you typically earn per hour at your job(s) in the month before starting to use this bus service?

\$ _____ Dollars per hour

33. How many hours per week did you typically work in the month before starting to use this bus service?

_____ Hours per week

34. In the year before using this service, how many weeks did you work?

_____ Weeks per Year

35. In the month before you started to use this bus, was at least one of your jobs in a different location than your current jobs?

- No
- Yes, a different location near the corner of:

_____ and _____

OR near what place (for example, Marketplace Mall)?

36. How did you typically travel to your job location(s) before you started using this bus service?

- Car: drove alone
- Shared ride (either as driver or passenger) (with how many people? _____)
- Bus or Train
- Bicycle
- Cab or Taxi
- Van / Paratransit
- Walked
- Other _____

37. Before using **RTS Route #24** bus service, what is the total amount of time you spent traveling to and from all of your jobs?

_____ Hour(s) _____ Minute(s) per day

38. Now that you use this bus service, what is the total amount of time you spend traveling to and from all of your jobs?

_____ Hour(s) _____ Minute(s) per day

Importance of this bus – Questions 39-41

39. How did you learn about this bus service?

(Check all that apply)

- Friend/Relative/Caretaker
- Employment agency
- Advertising
- Employer
- Social worker/ Case-worker
- Health care worker
- Transit agency
- Other (Please specify) _____

40. How important, if at all, is the **RTS Route #24** to you?

- Very important
- Important
- Slightly Important
- Not at all important

Please continue



National Transportation Survey

41. In your opinion, what has **RTS Route #24** bus service enabled you to do, compared to what you had before starting to use the service?

(Check all that apply)

- Helped me access a job with better pay
- Helped me access a job with better conditions (more convenient shift, near better day-care service and so on)
- Allowed me to improve your schooling or job training skills
- Made my travel more reliable and convenient
- Made my travel more affordable
- Other: _____

Information about you – Question 42 to 55

42. What street intersection is closest to where you live? (Please write in street names)

_____ and _____

OR near what place do you live (for example, Marketplace Mall)?

_____.

43. Which of the following happened *since* you first started traveling on this bus service?

(Check all that apply):

- I graduated from school
- I went back to school
- I completed a job-training program
- I got a promotion at my job
- I moved to a different home
- I had a child
- I lost a job
- None of the above

44. What was your total annual **PERSONAL INCOME** in 2008?

\$ _____ **OR**

(Check one box):

- Less than \$10,000
- \$10,000-\$19,999
- \$20,000-\$29,999
- \$30,000-\$49,999
- \$50,000-\$69,999
- \$70,000 or more

45. Gender:

- Male
- Female

46. In what year were you born? 19 _____

47. Including yourself, how many people live in your household?

_____ people

48. Including yourself, how many people in your household work for pay?

_____ people

49. How many members of your household are under 16 years of age?

_____ people

50. What is the highest year or grade of school that you have completed?

- 5th grade or less
- 6th, 7th, or 8th grade
- Some High School
- High School graduate or GED
- Some college
- Completed college

51. How many total vehicles (cars, trucks and motorbikes) does your household own?

_____ Vehicles

52. Do you have a valid drivers' license?

- Yes
- No

53. Have you received public assistance (TANF assistance, food stamps etc.) since January 2006?

- Yes
- No

54. Has a vehicle owned by your household been repossessed since January 2006?

- Yes
- No

55. Since January of 2006, was a home that you were living in foreclosed on?

- Yes
- No

Please use the space below for additional comments. If you need additional space, please continue on the back.

2C.2 Program Manager Survey

SURVEY OF JOB ACCESS AND REVERSE COMMUTE (JARC) AND NEW FREEDOM (NF) TRANSIT PROGRAM MANAGERS ABOUT PROJECT

Hello, This survey is part of a study that the University of Illinois at Chicago (UIC) is conducting for the Federal Transit Administration. Our study is about the economic benefits and user outcomes of the Job Access and Reverse Commute and New Freedom programs. The survey asks about the nature of your JARC or NF program, operating costs and other factors that are essential to our analysis. If you have any questions about your rights as a research subject, you may call the Office for the Protection of Research Subjects (ORPS) at the University of Illinois at Chicago toll-free at **1-866-789-6215**. Your answers are completely confidential and cannot be traced back to you in any way. Your responses will be grouped together with a national sample. If you have specific questions about the survey items or would like clarification regarding the information we are requesting, please call Dr. Vonu Thakuria at 312-355-0447 or vonu-pt@uic.edu. Thank you for your time.

PART I: JARC OR NF PROGRAM INFORMATION

1. Please provide us with the FTA grant number for your project or service.

2. What is the name of the agency or organization, which administers the service?

3. Where is the organization located?

_____ (City or Town)

_____ (State)

4. What is the area where the service operates?

_____ (City or Town names)

OR _____

_____ (County names)

5. When did the service start operating?

_____ Month _____ Year

6. Does the service operate 7 days a week?

Yes

No (Please provide more information on days of operation)

7. During which hours does the service operate?

During business hours only

24-hour service

Nighttime/owl service only

Other (Please provide more information on hours of service) _____

8. What type of service does the program offer?

(Please check all that apply)

New fixed route service

Existing fixed route service with increased hours of service

Existing fixed route service with increased frequency

Existing fixed route service with route extension

Existing fixed route feeder service to rail or bus terminal

New demand-responsive service

Existing demand-responsive service with increased service area coverage

Existing demand-responsive service with increased service frequency

Other _____

(Please provide more details about the service in the box below).

PART II: FINANCIAL INFORMATION

9. What is the annual funding amount from FTA for this JARC or NF project?

\$ _____

10. Which agencies or organizations matched the FTA funds? *(Please write in the name of the organization and the match amount)*

Organization Type	Organization Name	Match Amount or %
State Human Services Agency		
State Workforce Development Agency		
State Education Agency		
State Housing Agency		
State Economic Development Agency		
Private Non-Profit Transportation Providers		
Private-for-Profit Transportation Providers		
Local Workforce Development Agency		
Local Human Services		
Public Housing		
Security and Emergency Management Agencies		
Local Economic Development Organization		
Employer groups/Chamber of Commerce		
Faith-based or Community org.		
Other Advocacy and/or Community-based Organizations		
Area Agency for Aging		
Area hospitals, medical and counseling centers		
Other: (please identify type)		

11. Do you use JARC or NF funds for additional routes and/or services?

- Yes
 No → **SKIP TO QUESTION #15**

12. Please list the additional services for which you use JARC or NF funds.

Service # 1: _____

Service # 2: _____

13. What was the total *operating* cost, if any, for the service in 2008? \$ _____

14. What elements do the operating costs include and how much?

- Labor \$ _____
 Gas \$ _____
 Vehicle maintenance and repair \$ _____
 Information technology, such as computerized systems \$ _____
 Insurance \$ _____
 Subcontracting \$ _____
 Promotion and Marketing \$ _____
 Other *(Please describe cost categories and cost)*

15. What was the total *capital* cost, if any, for the program in 2008? \$ _____

16. What do the capital costs include?

- Vehicle purchase \$ _____
 Equipment purchase \$ _____
 Construction \$ _____
 Other *(Please explain the cost categories and how much was expended on these categories)*

17. What was the annual farebox return from this service in 2008?

18. What was the fare per ride? (If you have multiple categories of fares for different types of riders or uses, please describe).

PART III: USAGE OR RIDERSHIP INFORMATION

19. What is the average round-trip travel time for the route or service?

_____ Hours _____ Mins.

20. How many passenger miles were incurred in the service during the last year?

_____ # passenger miles

21. What is the number of unlinked trips during the last year?

_____ # unlinked trips

22. How do you, if at all, monitor the service's effectiveness in meeting the goals of the JARC or NF programs? (Please write in your response)

23. Was there any special marketing effort associated with the program? (Please write in your response)

24. How many route miles did transit vehicles incur on this service?

_____ # route miles

25. Based on information that you may already have (for JARC or NF demand-responsive programs), for what types of trip purposes do riders use the service and what percent of riders are in each category:

Trip Purpose	Percent
Work	
Job training	
School or college	
Medical or counseling centers	
Job-seeking/interview	
Child-care	
Other	

26. Please indicate or estimate what percent of program participants need assistance in order to travel and what type of assistance they need:

Type of Assistance	Percent
Cane, crutches, or walker	
Assistance from another person outside the home	
Assistance from another person inside the home	
Electric scooter or wheelchair	
Manual wheelchair	
Audible or visual signage and information	
Help in communicating	
Oxygen	

27. Please indicate or estimate what percent of program participants are in each age category:

Age Category	Percent
Less than 19	
19 - 30	
31 - 45	
46 -65	
65 or older	

28. Please indicate or estimate what percent of the program participants are female:

- Less than 5 percent
- Between 6 and 25 percent
- Between 26 and 50 percent
- Between 51 and 75 percent
- Between 76 and 95 percent
- Over 95 percent

29. Please indicate or estimate what percent of program participants have a valid drivers' license:

- Less than 5 percent
- Between 6 and 25 percent
- Between 26 and 50 percent
- Between 51 and 75 percent
- Between 76 and 95 percent
- Over 95 percent

32. On a scale of 1 to 5, with 1 being "Very Easy" and 5 being "Very Difficult", how possible will it be to keep the service operating next year? (Please select one)

Very Easy	1	2	3	4	5	Very Difficult
	▼	▼	▼	▼	▼	
	<input type="checkbox"/>					

PART IV: YOUR EXPERIENCE WITH THE PROGRAM

30. On a scale of 1 to 5, with 1 being "Very Easy" and 5 being "Most Difficult", what was the program's experience with raising financial match for the service? (Please select one)

Very Easy	1	2	3	4	5	Very Difficult
	▼	▼	▼	▼	▼	
	<input type="checkbox"/>					

31. On a scale of 1 to 5, with 1 being "Very Useful" and 5 being "Not Useful At All", what was the program's experience with the Coordinated Public Transit - Human Services Transportation Planning process? (Please select one)

Very Useful	1	2	3	4	5	Not Useful At All
	▼	▼	▼	▼	▼	
	<input type="checkbox"/>					

33. In your opinion, what are the strongest points and areas of weakness in the JARC or NF program? (Please write in your response)

2C.3 CHSTP Lead Organization Survey

CHSTP Lead Organization Survey

COORDINATED PUBLIC TRANSIT-HUMAN SERVICES TRANSPORTATION PLAN (CHSTP) LEAD ORGANIZATION SURVEY

Hello, We would like your help in understanding more about the *Coordinated Public Transit - Human Services Transportation Planning* process in your region. We have sent you this survey because you have been identified as the *lead agency* responsible for this process in your region.

The survey is part of a nationwide effort to better understand the planning and coordination processes associated with the Federal Transit Administration's Job Access and Reverse Commute and New Freedom programs. Your region is one of 24 regions randomly selected around the country, from the list of locations that has received funding from one or both of these programs. If you have any questions or concerns about the survey, please contact Prof. Siim Soot, University of Illinois at Chicago, at 312-996-2666.

You may write in your answers or place an "X" as needed to indicate your response. Please skip questions that do not apply.

1. Please identify the name and address of your organization.

2. How would you describe your organization?

- MPO
- COG
- Transit Agency
- Other (please describe) _____

INFORMATION ABOUT THE COORDINATED PUBLIC TRANSIT-HUMAN SERVICES TRANSPORTATION PLAN (CHSTP)

3. Please identify the region covered by the CHSTP.

4. When was the CHSTP first created in your region?

_____ Month _____ Year

5. If your area did not complete an CHSTP as yet, in your opinion, how far away are you from completion?

- Next few months
- Within the next year
- Unknown

6. How many times has the CHSTP been updated since it was initially created?

- Never
- Once
- Twice
- Three times
- More than 3 times

7. Did the lead agency change since the CHSTP was first created?

- Yes
- No

CHSTP Lead Organization Survey

8. Which organizations served as partners in the CHSTP development process during the entire time or part of the time? (Please identify the names of the organizations)

Organization Type	Organization Name
State Department of Transportation	
State Human Services Agency	
State Workforce Development Agency	
State Education Agency	
State Housing Agency	
State Economic Development Agency	
Public Transportation Organization (governmental) <ul style="list-style-type: none"> • Regional transportation authority • City or municipal department of transportation • County transportation agency 	
Private Non-Profit Transportation Providers	
Private-for-Profit Transportation Providers <ul style="list-style-type: none"> • Taxi Services • Transportation Providers • Private Bus • ADA Paratransit 	
Local Workforce Development Agency	
Tribes and Tribal Representatives	
Local Human Services Agency	
Public Housing Agency	
Security and Emergency Management Agencies	
Local Economic Development Organization	
Local Elected Governmental Organization	
Employer groups/Chamber of Commerce	
Faith-based and Community –based Organization	
Transportation Planning Organization <ul style="list-style-type: none"> • Regional Planning Organization • County transportation planning organizations 	
Metropolitan Planning Organization	
Council of Government	
Other Advocacy and/or Community-based Organizations	
Area Agency for Aging	
Independent Living Resources	
Area hospitals, medical and counseling centers	
Elected Officials	
Other: (please identify type)	

CHSTP Lead Organization Survey

9. What was the primary method of communication among CHSTP partners?

- Meetings
- Email
- Mail
- Telephone
- Other (*Please describe*) _____

10. How often did the group meet in a given year?

- None at all
- Once
- Twice
- Three to five times
- Very Frequently (more than five times)

11. In your view, what was the level of participation by the CHSTP partners:

- Very high
- High
- Medium
- Low

12. Please indicate which of the following best describes the participation level of the partner agencies in developing the CHSTP:

- All partners actively participated in developing the plan
- One or a few partners had significantly more influence than others
- The lead agency proposed the program and the partners basically agreed
- All partners signed off on the plan and prioritized projects.

Please provide any additional comments you feel are relevant:

13. In your opinion, what was the level of consensus among CHSTP partners with respect to:

<i>Factor</i> ▼	<i>Very High</i> ▼	<i>High</i> ▼	<i>Medium</i> ▼	<i>Low</i> ▼
(a) An assessment of transportation needs for individuals with disabilities, older adults and persons with limited incomes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(b) An inventory of available services that identifies areas of redundant services and gaps in service	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(c) Strategies to address the identified gaps in service	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(d) Identification of coordination actions to eliminate or reduce duplication in services and strategies for more efficient utilization of resources	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(e) Prioritization of implementation strategies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CHSTP Lead Organization Survey

14. In your opinion, how important was the requirement to have the CHSTP in achieving the region’s goals regarding persons with disabilities, seniors and individuals of low-income?

- Very Important
- Important
- Somewhat Important
- Not Important

15. In your opinion, how do the following factors rank in terms of difficulty level, during the CHSTP development process?

<i>Factor</i> ▼	<i>Very High</i> ▼	<i>High</i> ▼	<i>Medium</i> ▼	<i>Low</i> ▼
(a) Getting the “right” organizations to be involved in the process	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(b) Keeping the organizations involved over time	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(c) Finding the data and information needed for developing the assessment of transportation needs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(d) Doing the analysis for the assessment and the identification of gaps in service	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(e) Identifying the coordination activities needed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(f) Prioritization of implementation strategies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(g) Implementing the public participation aspect of the CHSTP	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(h) Incorporating CHSTP prioritized projects in your metropolitan or statewide transportation plans	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

16. Did your organization make any financial contribution (cash, in-kind etc) to operating transportation services for income limited individuals or persons with disabilities?

- Yes
- No

17. On a scale of 1 to 5, with 1 being “Very Useful” and 5 being “Not Useful At All”, what was your organization’s experience with the Human Services Transportation Planning process? (Please select one)

	1 ▼	2 ▼	3 ▼	4 ▼	5 ▼	
Very Useful	<input type="checkbox"/>	Not Useful At All				

18. In the space below, please provide us with additional comments about your organization’s experience and value derived, if any, from the CHSTP process.

Thank you very much!

2C.4 CHSTP Partner Organization Survey

**COORDINATED PUBLIC TRANSIT - HUMAN SERVICES TRANSPORTATION PLAN
(CHSTP) PARTNER ORGANIZATION SURVEY**

Hello. This survey is part of a nationwide effort to better understand the transportation planning and coordination processes associated with the Federal Transit Administration's Job Access and Reverse Commute (JARC) and New Freedom programs. Specifically, we would like your help in understanding more about the *Coordinated Public Transit - Human Services Transportation Planning (CHSTP)* process in your region. Your region was randomly selected to participate in this survey along with 23 other regions that have received funding from the JARC and/or New Freedom programs. You are receiving this survey as one of the partner organizations involved in the transportation coordination process through a JARC or New Freedom grant.

If you have any questions or concerns about the survey, please contact Prof. Siim Soot, University of Illinois at Chicago, at 312-996-2666 or 847-372-7560 (cell).

CHSTP Partner Organization Survey

1. Please identify the name and address of your organization.

2. What type of entity are you (check all that apply)?

<input type="checkbox"/> State department of transportation	<input type="checkbox"/> Public housing agency
<input type="checkbox"/> State human services agency	<input type="checkbox"/> Security or emergency management agency
<input type="checkbox"/> State workforce development agency	<input type="checkbox"/> Local economic development organization
<input type="checkbox"/> State education agency	<input type="checkbox"/> Local elected governmental organization
<input type="checkbox"/> State housing agency	<input type="checkbox"/> Employer group/Chamber of Commerce
<input type="checkbox"/> State economic development agency	<input type="checkbox"/> Faith-based or community-based organization
<input type="checkbox"/> Public transportation organization <input type="checkbox"/> Regional transportation authority <input type="checkbox"/> City or municipal department of transportation <input type="checkbox"/> County transportation agency	<input type="checkbox"/> Transportation planning organization <input type="checkbox"/> Regional <input type="checkbox"/> County-wide
<input type="checkbox"/> Private non-profit transportation provider	<input type="checkbox"/> Metropolitan planning organization
<input type="checkbox"/> Private-for-profit transportation provider <input type="checkbox"/> Taxi service <input type="checkbox"/> Private van provider <input type="checkbox"/> Private bus operator <input type="checkbox"/> ADA paratransit operator <input type="checkbox"/> Non-emergency medical transportation provider <input type="checkbox"/> Sedan/limousine service	<input type="checkbox"/> Council of government <input type="checkbox"/> Tribal nation or tribal representative group <input type="checkbox"/> Local human services agency <input type="checkbox"/> Other advocacy and/or community-based organization <input type="checkbox"/> Area Agency for Aging
<input type="checkbox"/> Local workforce development agency	<input type="checkbox"/> Independent living resource [Disability services organization?]
<input type="checkbox"/> Area hospital, medical or counseling center	<input type="checkbox"/> Office of an elected official
<input type="checkbox"/> Other (<i>Please identify type</i>):	

3. In what parts of the CHSTP process was your organization involved? (Check all that apply)

- For the initial planning phase
- For the median part of the planning phase
- For the entire planning phase
- For the follow-up phase
- For the second or additional plan update phase

4. If your organization was not involved in the initial planning phase, please indicate why not? (Check all that apply)

- We did not initially know that our agency was required to be involved in the planning process
- We knew about the requirement but had no information on how to get involved
- We knew about the requirement but did not have the resources to be involved
- Other (Please describe)

5. If your organization was not involved for the entire duration of the coordinated planning process, what were the contributing factors? (Check all that apply)?

- It became difficult for us to allocate personnel or other resources to the process over time
- We felt our needs were not being included in the process because the group had become very large
- We felt our needs were not included in the process because one or two other agencies continued to have an undue influence in the process over time
- Other (please describe)

6. What was the primary method of communication among CHSTP partners?

- In-person meetings
- Email
- Mail
- Telephone
- Other

7. How often did your organization participate in meetings in a given year?

- None at all
- Once
- Twice
- Three to five times
- Very frequently (more than five times)

8. In your view, what was the level of participation by all the CHSTP partners?

- Very high
- High
- Medium
- Low

CHSTP Partner Organization Survey

9. Please indicate which of the following best describes the participation level of the partner agencies in developing the CHSTP:

- All partners actively participated in developing the plan
- One or a few partners had significantly more influence than others
- The lead agency proposed the program and the partners basically agreed to the ideas presented.
- All partners signed off on the plan and prioritized projects.

Please provide any additional comments you feel are relevant:

10. In your opinion, what was the level of consensus among CHSTP partners with respect to:

<i>Factor</i> ▼	<i>Very High</i> ▼	<i>High</i> ▼	<i>Medium</i> ▼	<i>Low</i> ▼
(a) An assessment of transportation needs for individuals with disabilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(b) An assessment of transportation needs for older adults	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(c) An assessment of transportation needs for persons with limited incomes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(d) Availability of service	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(e) Areas of redundant service	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(f) Gaps in service	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(g) Strategies to address the identified gaps in service	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(h) Identification of coordination actions to eliminate or reduce duplication in services	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(i) Identification of coordination actions for more efficient utilization of resources	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(j) Prioritization of implementation strategies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CHSTP Partner Organization Survey

11. Please rank the following factors rank in terms of the level of difficulty they posed to the process of developing a CHSTP.

<i>Factor</i> ▼	<i>Very High</i> ▼	<i>High</i> ▼	<i>Medium</i> ▼	<i>Low</i> ▼
(a) Getting the “right” organizations to be involved in the process	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(b) Keeping the organizations involved over time	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(c) Garnering public participation in the development of the CHSTP	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(d) Finding the data and information needed for assessing transportation needs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(e) Analyzing the collecting data on transportation needs and gaps in transportation services	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(f) Identifying the coordination activities needed to address the recognized needs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(g) Prioritizing implementation strategies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(h) Incorporating projects identified as a priority in the CHSTP into metropolitan or statewide transportation plans	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

12. In your opinion, how important was the requirement to develop a CHSTP in achieving the region’s goals regarding mobility for persons with disabilities, seniors and individuals with limited income?

- Very Important
- Important
- Somewhat Important
- Not Important

13. On a scale of 1 to 5, with 1 being “Very Useful” and 5 being “Not Useful At All,” what was your organization’s experience with the CHSTP process in: (Check one for each item below)

<i>Factor</i> ▼		<i>1</i> ▼	<i>2</i> ▼	<i>3</i> ▼	<i>4</i> ▼	<i>5</i> ▼	
(a) Achieving your organization’s internal goals	Very Useful	<input type="checkbox"/>	Not Useful At All				
(b) Serving your organization’s target population	Very Useful	<input type="checkbox"/>	Not Useful At All				
(c) Your organization’s ability to network and build community partnerships	Very Useful	<input type="checkbox"/>	Not Useful At All				
(d) Developing additional partnerships	Very Useful	<input type="checkbox"/>	Not Useful At All				

CHSTP Partner Organization Survey

14. Did your organization make any financial contribution (cash, in-kind etc) to operating transportation services for income limited individuals, seniors or persons with disabilities?

- No → **SKIP TO QUESTION #16**
 Yes

15. What was the source (grant, sponsorship, donation) of the financial contribution made by your organization?

Source 1:

Source 2:

Source 3:

16. What additional types of support did your organization provide to the partnership's efforts? (Check all that apply)

- Collected and provided data on our customer/client's unmet transportation needs
 Collected and provided data on locations of major job destinations
 Collected and shared data on customer/client's child care destinations
 Collected and shared data on senior centers and destinations of seniors
 Provided information on medical and counseling center locations
 Provided space for partnership meetings
 Provided space for public meetings
 Helped to write grant applications
 Other (Please specify)

17. What types of activities did your organization undertake to support the transportation services developed by the partnership? (Check all that apply)

- Marketed transportation services directly to our customers through brochures, timetables
 Provided information on the services at job fairs
 Marketed the services through local media outlets
 Marketed the services to local health facilities, medical centers or counseling centers
 Marketed information on the services to senior care centers
 Provided information on the services to job training programs
 Provided feedback about the services from customers to service providers
 Other (Please specify)

18. What impact has your participation in this partnership had on your organization?

(Check all that apply)

- Raised awareness of customers' transportation needs
- Raised awareness of available transportation options
- Identified new ways to support customers in reaching jobs by informing them about available transportation services, travel training programs, auto loan programs
- Encouraged our staff in linking customers with jobs that are accessible via existing transportation services
- Encouraged our staff to link customers with job-supportive services such as child-care centers, job training programs, employment centers, etc., that are accessible via existing transportation services
- Encouraged our staff to link customers with medical facilities or counseling centers via existing transportation services
- Encouraged our staff to link customers with shopping, social visits via existing transportation
- Other *(Please specify)*

19. Does your organization provide customers with any of these services to help link them with job-related transportation?

- Our organization does not work with job-related transportation → **SKIP TO QUESTION #22**
- Work one-on-one with customers to connect them with transportation to jobs
- Provide them with transportation brochures or schedules
- Purchase and distribute transit passes to customers
- Provide vouchers for private transportation options (e.g., taxi, volunteer driver)
- Fund a vanpool, shuttle, or bus to a job location or job center
- Provide a place for customers to link with other customers for shared rides to work (e.g., a ride sharing board in the office)
- Provide a subsidized auto loan program
- Help customers obtain a driver's license or have their license be reinstated
- Help customers afford gas, repairs, or insurance for their private vehicle
- Give cash reimbursement for mileage to interviews or schools
- Other *(Please specify)*

20. Please describe additional ways your organization could partner with other community entities on employment transportation issues that would be valuable for your organization.

21. Please describe your organization's future plans, if any, for supporting employment-related transportation services for low-income workers, seniors or persons with disabilities.

22. Please provide us with additional comments about your organization's experience and value derived, if any, from the CHSTP process.

Thank you very much!

PART 3: SITE VISIT REPORTS

3A: Anchorage, Alaska

3A.1 Introduction to Service

The JARC-funded service in Anchorage is operated by Anchor Ride, a van service that specializes in providing rides for senior citizens. The program takes seniors to work several days per week.

FIRST FLOOR		2ND FLOOR	
COMMUNITY COUNCILS CENTER	100	AMERICAN CIVIL LIBERTIES UNION OF ALASKA FOUNDATION	
VICTIMS FOR JUSTICE	101	BIG BROTHERS BIG SISTERS	
ALASKAN AIDS ASSISTANCE ASSOCIATION	102	SILC	
ALASKA COMMUNITY SERVICES, INC	103	ALASKA MOBILITY COALITION	
		STANDING TOGETHER AGAINST RAPE	

In this manner, several hundred participants are served. The service is coordinated by Alaska Community Services Inc., located approximately one mile south of downtown Anchorage in a building that includes a number of social-service agencies. A list of the other tenants in the building is seen on the left. The offices are situated at a location that facilitates interaction with other analogous services and therefore is convenient for a number of clients.

The AnchorRIDES vans reach their destinations relatively quickly. The vans witnessed in our visit were seen to make few stops and therefore the average speed appeared to be much higher than for conventional city buses. AnchorRIDES is “a complementary shared ride service for seniors age 60 and over, people whose disabilities prevent them from using the fixed route

(“People Mover”) and other coordinated transportation”

(www.muni.org/departments/transit).

The service is provided throughout Anchorage. The municipality of Anchorage is a relatively low-density city with a well-defined downtown area. Most of the city consists of single-family homes with a high-capacity street network.



3A.2 Location and Site Description

The unemployment rate in the Anchorage area increased by almost two points in 2008 (Table 3A-1), but the rates in the table are among the lowest of all the twenty-five places visited in our study. Interestingly, six places among our site visits had minimum rates lower than Anchorage but the 7.2 percent maximum is the second lowest rate behind Salt Lake County. So, it is not surprising that the home mortgage delinquency rate is less than half of the national figure of 5.7. Similarly the auto loan delinquency rate is also about half the national level (1.1).

Table 3A-1 Recent Socio-demographic Data for the Municipality of Anchorage

Variable Description	Value(s)
Minimum and maximum monthly civilian labor force unemployed - %	5.4/7.2
Home mortgage delinquency rate, 2010Q1	2.5
Auto loan delinquency rate 2010Q1	0.6

Source: BLS, 2009 and TransUnion LLC, 2010 Q1

A wider array of data is available from the American Community Survey (ACS). These data in Table 3A-2 show a set of characteristics that are consistent with the above comments on Table 3A-1. The unemployment figures are consistent and the high income levels speak of a relatively healthy economy. All of the data score better than nationwide figures - for example, the 5.8 percent of the households without a vehicle is three points lower. All the measures of poverty and assistance (food stamps) are about two thirds of the national level.

Table 3A-2: Census Socio-demographic Data for Anchorage, AK

Variable Description	Value
Civilian labor force unemployed - %	6.7
Percent Female	49
Household income / State median household income	1.09
Mean travel time to work (minutes)	18.1
Median household income	72,137
No vehicle available, occupied housing units	5.8
Percent of households with food stamp benefits in past 12 months	5.9
Percent of Households with incomes < 10K	2.8
Percent of the female headed families with children under 18 in poverty	25
Percent of the families living in poverty during the past 12 months	5.8

Source: 2006-2008 American Community Survey

Perhaps most noteworthy is the short mean commute time. The 18.1 minute mean commute time is more than seven minutes shorter than the national mean. Among our study sites only Lafayette Indiana had a lower mean commute.

3A.3 Characteristics of clients (riders)

Forty-six individuals responded to our survey. They were predominantly female (just over three quarters) and sixty-two percent that reported their income indicated that it was less than \$10,000 annually. Both levels are higher than the average for all of our study-sites data combined.

Further, twenty-eight percent indicated that they did not have a household vehicle. While this is much higher than the statistic for all residents in Anchorage, it is considerably lower than the forty-six percent of all the respondents in our total study of over 25 sites. The education level, however, was very similar to the rest of the JARC client we surveyed nationally. Forty-four percent of the Anchorage respondents had education levels beyond high school graduation in comparison with forty-nine percent for our national survey of JARC clients.

3A.4 Coordination Aspects

The CTAA inventory lists 72 organizations as planning partners. It is a rather long and very diverse list. It includes at least seven organizations representing the Municipality of Anchorage, six representing the state and two federal departments. Among the more unique are a hotel, a café, a school district, the Alaska Railroad and the Special Olympics. The YMCA, Salvation Army, United Way and one faith-based organization are also included.

3A.5 Highlights/Major Issues

The service is largely for senior citizens who find working limited hours a week to supplement their income an important part of their lives. They do not earn minimum wages but they offer their employers needed services. Most importantly, the JARC service provides them with a sense of accomplishment as productive members of society.

3B: Phoenix, Arizona

3B.1 Introduction

The Phoenix area has been one of the fastest growing metropolitan areas in the first part of the millennium. Between 2000 and 2007 it grew by almost 800,000 residents. It had the highest percentage growth among the major metropolitan areas. This triggered a building boom that attracted a large number of workers. Since then the region's economy declined more sharply than in most other places.



3B.2 Location and Site Description

Valley Metro, the principal transit system in the region, operates the Start 131 JARC-funded service in west suburban Phoenix, largely in Avondale and adjacent suburbs. The service area is relatively low density and operates through a mix of residential and retail neighborhoods.

The service starts operation at 6:00 a.m. and completes its last run at 7:00 p.m. At the north end of the service is the Estrella Mountain Community College. The bus stop is a few minute walk from the main campus buildings (photo below). This institution was built in 1992 and “provides educational opportunities, workforce training and community education programs” as described on their website. It currently has over 12,000 registered students but is expected to be several times larger in the future.



At the east end of the service is the Desert Sky Mall Transit Center with connections to numerous other routes (shown in the next photograph). It operates five days a week and runs from roughly 6 a.m. to 7 p.m.



Along the route the bus travels through typical suburban arterials with a variety of shops and residences. It also services the Avondale Civic Center with numerous municipal offices and resources. In other parts of the route it swings farther west and travels through relatively low-density semi-rural areas.



While the unemployment rate in Phoenix began to rise in 2009, the data in Table 3B-1 shows that from November 2008 to December 2009 the rate increased by only approximately three points. In our study sites, the increase was four points and the mean maximum unemployment rate was 10.2 percent. The home mortgage delinquency rate, however, was nearly double the mean rate at our study sites, 5.7. The auto delinquency rate also was higher, 1.5 versus 1.1 for our study sites. This implies that the region is not having so much a problem with unemployment rates but an overextension of their anticipated incomes.

The data in Table 3B-2 offer a glimpse into the contrasting economic conditions in Avondale, the primary service area, and the much larger county. Arizona has only fifteen counties and with a population approaching four million, Maricopa dominates the state's population. Avondale has 70,000 residents. The unemployment rate of Maricopa County in Table 3B-2 is lower than in Table 3B-1 suggesting the rate has been moving upwards during the last several years though lower than the national level of 6.4 percent. In comparison, the Avondale rate is higher than the Maricopa rate and essentially the same as the national rate. The median income data illustrate a different relationship. The Avondale median household income of over \$61,000 is considerably higher than the state median and also higher than the national median of \$52,175.

The only indicator that suggests that there is noteworthy economic distress is the percentage of the Avondale households that have received food stamps benefits. The national percentage is 8.1 so the 10.4 is not only higher than in Maricopa County but also the national level. All other

statistics in the last four rows in Table 3B-2 are lower than the national level except the 9.7 poverty percentage in Avondale; the national level is 9.6. These data indicate that the overall population is faring relatively well but in Avondale there is group of households that need public assistance. It is this population that the JARC program targets.

Table 3B-1: Recent Socio-demographic Data for Maricopa County

Variable Description	Value(s)
Minimum and maximum monthly civilian labor force unemployed - %	5.6/8.5
Home mortgage delinquency rate, 2010Q1	11.1
Auto loan delinquency rate 2010Q1	1.5

Source: BLS, 2008 & 2009 and TransUnion LLC, 2010 Q1

Table 3B-2: Census Socio-demographic Data for Avondale and Maricopa Counties

Variable Description	Avondale	Maricopa
Percent Female	50.4	49.6
Civilian labor force unemployed - %	6.6	4.9
Household income / State median household income	1.21	1.11
Mean travel time to work (minutes)	27	26.2
Median household income	61,665	56,555
No vehicle available, occupied housing units	3.8	5.9
Percent of households with food stamp benefits in past 12 months	10.4	5.7
Percent of Households with incomes < 10K	4.6	5.5
Percent of the female headed families with children under 18 in poverty	22.2	30.5
Percent of the families living in poverty during the past 12 months	9.7	9

Source: 2006-2008 American Community Survey

Regarding commuting time, both Avondale and Maricopa have travel times that are modestly higher than the national level of 25.2 minutes. Perhaps more importantly, the proportion of households without a vehicle is very low. With the national level at 8.8 percent, the 3.8 percent in Avondale and the 5.9 percent in Maricopa County are clearly lower. This is typical of communities that are automobile oriented and it puts the carless households at a distinct disadvantage.

3B.3 Characteristics of clients (riders)

Of the twenty-two returned surveys from the Smart 131 service 55 percent were from females, essentially the same percentage as the national survey. Fifty three percent reported their incomes to be less than \$10,000, ten points higher than the national survey. This may be attributable to the number of students that used the service to access the community college. Also, only 30 percent of the respondents did not have a vehicle in their household, more than fifteen points below the national survey. This is typical of many college students that reside at home. The alternative explanation of having more low-income clients is also plausible since 62

percent of the respondents indicated not having education beyond high school, ten points above the national survey.

3B.4 Coordination Aspects

The lead organization, the Maricopa Association of Governments, has provided us with approximately seventy agencies in their list of planning partners. This includes a dozen public transportation entities and a half dozen private transportation companies. There are also at least a half dozen health-related organizations, elected officials and human service agencies. There are at least two faith-based groups and perhaps, what is unique to the Phoenix area, the participation of four native-American tribes or nations.

The CTAA inventory of planning partners lists 52 for the Phoenix-area CHSTP. The lists are quite similar, though the time difference between the two lists suggests some changes in the organizations participating in the process. If indeed there have been changes, and that is quite expected in a list as long as that found for the Phoenix area, then the representation over the years has clearly been very varied and quite extensive. One list by itself does not provide the complete picture. The CHSTP planning process was identified as a means to derive innovative services that lead to cost savings and broaden transportation services. On the other hand, it was reported to be a somewhat difficult process that required staff resources to make it successful.

3B.5 Issues

Since we first surveyed this service, the route has been altered. This is not unusual and reflects the distinct advantage of bus service; the route can be easily modified.

3C: San Diego, California

3C.1 Introduction

San Diego, CA, is the eight-largest city in the US and a major center of biotechnology and biosciences as well as defense-related manufacturing. San Diego has a considerably higher proportion of workers in the management, professional and related occupations (44.4%), compared to the US as a whole (34.5%), and fewer families under the poverty level (8.8%), compared to the US (9.6%). We surveyed JARC-funded fixed-route service in San Diego, CA. Bus Route 960, surveyed as part of the project, is considered by SDMTS to be “Express”, which includes “high-speed services geared toward linking major sub-regional residential, employment and activity centers. Service is generally provided throughout the weekday and possibly on weekends. Operates primarily on highways and major arterials” (San Diego Metropolitan Transit System, 2007).

Route 960 operates between the Euclid Trolley Station in downtown San Diego (below: left), and the employment areas in Westfield University Towne Center Shopping Mall (below: right) near La Jolla and Del Mar, via I-15 Mid City/Kearney Mesa. This “peak-hour/peak-direction” service operates between 5 AM and 7:45 AM and in the evening from 3:20 PM to 7 PM in the peak direction only (i.e., from downtown San Diego to UTC in the morning and from UTC to downtown in the evening). The service has existed since the late 1990’s. Since 2002,



JARC funding has been used for this existing fixed route service to increase hours of service. The service runs express from downtown along I-15, but stops in a few low and mixed-income locations en route to the UTC, including City Heights Transit Plaza, the Boulevard Transit Plaza and Kearny Mesa.

3C.2 Location and Site Description

Overall, the unemployment rate in San Diego County increased from an annual average of 6.0% in 2008 to an annual average of 9.7% in 2009. At the time of surveying (July 2009), the county unemployment level had climbed to 10.3%. The large spike in the July unemployment level is attributed to about 8,600 seasonal layoffs in education by local government agencies in July (California Employment Development Department, 2009). During the same period, about 3,300 manufacturing workers in the region lost their jobs, and 2,400 employees in financial services also became unemployed. The 3.7% point increase in the annual average was the 20th largest increase in unemployment rates nationally, between the two years, for large metropolitan areas with Census 2000 population of 1 million or more.

Table 3C-1: Recent Socio-demographic Data for San Diego County

Variable Description	Value(s)
Minimum and maximum monthly civilian labor force unemployed - %	6.0/9.6%
Mortgage delinquency rate (90+ days), 2010Q1	7.6%
Auto loan delinquency rate (60+ days), 2010Q1	0.9%

Source: BLS, 2008 & 2009; TransUnion LLC, 2010 Q1

Other indicators in Table 3C-1 show that San Diego County's economic performance mirrored that of the rest of the county's economic crisis. The 90+ day mortgage delinquency rate in the first quarter of 2010 was 7.9%, considerably higher than the US average of 5.7%, and up 2.1% from 2009. The 60+ day auto loan delinquency in the first quarter of 2010 was 0.9%, down 0.1% from 2009.

Table 3C-2: Census Socio-economic data for City of San Diego

Variable Description	San Diego City
Civilian labor force unemployed - %	6.3
Median household income / State median household income	1.02
Mean travel time to work (minutes)	22.5
Median household income	61,962
No vehicle available, occupied housing units	7.0
Percent of households with food stamp benefits in past 12 months	2.6
Percent of Households with incomes < 10K	3.5
Percent of the female-headed families with children under 18 in poverty	23.4
Percent of the families living in poverty during the past 12 months	8.8
% population 65+	10.7
% population with a disability	(X)

Source: 2005-2009 American Community Survey

Two previous welfare-to-work studies – one in 1999 and the second in 2003 - identified several gaps in transportation service for CalWorks clients, including the fact that the highest concentrations of CalWorks clients are in areas south of I-8, whereas the types of employment most likely to be pursued by CalWorks clients are spread throughout the study area, but with the highest concentrations north of I-8. The areas close to the Euclid Trolley Station (located near I-805 and SR-94) have high levels of CalWorks clients and other low-income households. The bus route surveyed takes riders to locations which have high levels of jobs for low-skilled workers.

The City of San Diego has fewer families under the poverty level (8.8%), compared to the US (9.6%). The estimated median household income was \$61,962 in 2008 inflation-adjusted dollars. Close to 7.0% of households are zero-vehicle households. Roughly 76% of the population commute by single-occupant vehicles and 3.9% use public transportation. Carpooling is relatively common, at 9.4%.

3C.3 Characteristics of Clients

A relatively high percent of riders use the services to commute to work and the vast majority, 88 percent, has one job. Approximately 67 percent of the riders surveyed were female, with the majority in the 25 to 55 years age group. About 45 percent have some college education. Over 65 percent of the respondents had no car at home and close to 10 percent reported having their vehicles repossessed recently.

3C.4 Coordination Aspects

The lead agency for the CHSTP is the San Diego Association of Governments (SANDAG). The CHSTP covers San Diego County and was created for the first time in 2007. SANDAG has made an effort to include an extensive number of organizations in the planning process. The lead agency noted that the requirement enabled SANDAG to combine its Regional Short Range Transportation Plan with the Coordinated Plan so that all services (public transit and human services transportation) were finally included in one plan. SANDAG also updates the plan periodically as needed with the third update completed in the fall of 2009.

3D: Denver, Colorado

3D.1 Introduction to Service



Denver is located in the foothills of the Rocky Mountains. The east side is relatively flat and the street network is a grid with bus service on the major arterials. Transit service is provided by the Regional Transit District (RTD). The RTD operates in eight counties and through bus and light rail services carries over

300,000 passengers daily. The two services surveyed, the #73 and #121L, ran largely north-south in the eastern part of Denver. The former runs along Quebec Street from the former international airport site (Stapleton Transit Center) past Lowry Community College to the Denver Technological Center (left). The service operates from 5:30 am to 9:30 pm.

The 121L is a semi-express service that runs along Peoria Street from the Montbello park-n-ride transit center in the north, past the large Anschutz Medical Campus (shown here) to the Nine Mile light rail station. It operated on weekdays from approximately 5 am to 6 pm.



3D.2 Location and Site Description

Denver is one of the few places in the nation in which the city and the county share the same name and boundaries. Unlike all other places in this national study, however, the city has lower socioeconomic statistics than the larger county.

Table 3D-1: Recent Socio-demographic Data for Denver County

Variable Description	Value(s)
Minimum/maximum monthly civilian labor force unemployed - %	6.1/8.9
Percent of mortgaged homes, 2009Q4	5.2
Auto loan delinquency rate 2009Q4	1.5

Source: BLS, 2009 and TransUnion LLC, 2010 Q1

Table 3D-2: Census Socio-demographic Data for the City of Denver

Variable Description	Value
Civilian labor force unemployed - %	5.9
Household income / State median household income	0.8
Percent Female	49.4
Mean travel time to work (minutes)	24.8
Median household income	45,002
No vehicle available, occupied housing units	13.3
Percent of households with food stamp benefits in past 12 months	6.5
Percent of Households with incomes < 10K	10.1
Percent of the female headed families with children under 18 in poverty	39.3
Percent of the families living in poverty during the past 12 months	14.1

Source: 2006-2008 American Community Survey

3D.3 Characteristics of clients (riders)

Fourteen riders returned their surveys. Seventy-seven percent were female; higher than the national sample of 55%. Three of fourteen responded as follows: (1) their personal annual income was less than \$10,000, (2) they had a household income and (3) they had a high school education or less. With these responses, the Denver service clients were much better educated, were far less likely to have a household vehicle but much more likely to have a personal income of over \$10,000. The big difference in income and household vehicles may be a sign of urban living where incomes are high but automobile ownership rates can be low.

3D.4 Coordination Aspects

The planning process was organized by the Denver Regional Council of Governments (DRCOG). DRCOG covers a ten-county area with approximately 2.7 million residents and is the local MPO. The planning process included over twenty organizations that provided some form of transportation services in the Denver area. Numerous agencies associated with aging were also included. The original plan was developed in 2007 and has since then been updated. The group met frequently, more than five times a year and there seemed to be consensus about the plan. While the lead organization found the process to be useful, it was considered less useful than we found in most other places.

The planning partners seemed to be more enthusiastic. One indicated DRCOG was open with information and receptive to suggestions from partners. As a whole the partners found the process to be important or very important. One wrote: "We appreciated the openness of DRCOG staff to input from stakeholders throughout the process. They sought multiple ways to get stakeholders involved, worked collaboratively with the regional coordinating council, and were responsive to suggestions."

3E: Kissimmee, Florida (Orlando suburb)



3E.1 Introduction to Service



The PUL 631 service operates largely in the Buena Ventura Lakes (Kissimmee) area of northern Osceola County. The northern edge of the service area borders Orange County (Orlando). Valencia Community College, seen on the right, is one of the major traffic generators

on the line. It is also known as the PickUpLine (PUL). It is a demand response operation that runs within a well-defined area, five days a week (Monday to Friday). The service runs from 5:30 am to 8:00pm. Calls to schedule a ride need to be made at least two hours prior to the trip. The full fare is two dollars with age-based discounts available. LYNX weekly and monthly passes are honored to permit transfers to other LYNX lines. In this regard, the PUL631 is also a feeder



to two LYNX lines that stop at the college and are part of a large bus network that covers a three-county metropolitan area. The photo below shows one of the lines that also has a stop here.

3E.2 Location and Site Description

By the end of 2009, Osceola County had the third highest unemployment among the twenty-six sites in this study, 13.4 percent (Table 3E-1). The more than five-point swing from the minimum to the maximum is also one of the highest in this study. The same applies to the home mortgage delinquency rate, 22.6. This compares to the national rate of 5.7, effectively four times higher. The auto delinquency rate is also higher than the national level though only by about fifty percent.

Table 3E-1: Recent Socio-demographic Data for Osceola County

Variable Description	Value(s)
Minimum and maximum monthly civilian labor force unemployed - %	8.2/13.4
Home mortgaged delinquency rate, 2010Q1	22.6
Auto loan delinquency rate 2010Q1	1.6

Source: BLS, 2009 and TransUnion LLC, 2010 Q1

Since the 2006-2008 ACS data span a longer time horizon, the unemployment percentage reported in Table 3E-2 is considerably lower. This suggests that the increasing unemployment rate is a long-term problem. The unusually high average commute time of 30.4 minutes may also be an indicator of difficult economic times. It suggests that residents commute long distances to find work.

The rest of Table 3E-2, however, paints a rather different picture. First, the ratio of the county's median household income is only two points below the median for the state. Second, the other variables in Table 3E-2 all have values lower than the national levels.

For example, only 5.0 percent of the households are without an automobile in contrast to the national figure of 8.8 percent. Also, the county's proportion of households with incomes less than \$10,000 is only 4.8 percent, 2.4 points less than the national level.

Perhaps this seeming contradiction between signs of extreme distress and otherwise normal descriptors is that there have been sharp decline in the region in recent years. The economic conditions in the averaged 2006 to 2008 period were much better than the most recent data that pertain to 2009. It may not be a long-term problem but the radical nature of the change may be one that calls for immediate assistance through better transportation.

Table 3E-2: Census Socio-demographic Data for Osceola County

Variable Description	Value
Civilian labor force unemployed - %	6.7
Household income / State median household income	0.98
Percent Female	50.2
Mean travel time to work (minutes)	30.4
Median household income	47,751
No vehicle available, occupied housing units	5
Percent of households with food stamp benefits in past 12 months	6.9
Percent of Households with incomes < 10K	4.8
Percent of the female headed families with children under 18 in poverty	28.7
Percent of the households living in poverty during the past 12 months	9.2

Source: 2006-2008 American Community Survey

3E.3 Characteristics of clients (riders)

A total of fourteen surveys were returned from the PUL631 service. More than eighty percent of the respondents were female (of the ones that provided gender). The same percentage also

applies to the proportion that lived in a household without an automobile. Both statistics were much higher than the combined data for all sites visited. The combined data report 55% female and 46% without a household vehicle. The majority that reported incomes indicated that it was less than \$10,000 annually; 63% versus the combined national data of 42%. Lastly, the sixty percent that reported having only up to a high school degree or its equivalent was about ten points above the combined sample.

3E.4 Coordination Aspects

The lead organization in the Orlando area is the Central Florida Regional Transportation Authority. It operates in three counties under the popular moniker of LYNX. It produced the CHSTP in 2007 and since then has revised it twice. The plan was developed with a long list of participants that included many public and private organizations. Many advocacy agencies representing seniors, persons with disabilities, housing for the homeless, persons with AIDS and homeless veterans as well as one faith-based organization participated. The process also included three prominent private organizations: Walt Disney World, Universal Orlando and Northrop Grumman.

The CHSTP process experience was found to be useful and important in meeting the needs of target population, but the lead reported difficulty in keeping all the participants active over time. The region, however, is not new to the process. The lead organization observed:

“Though the development of the CHSTP was important, Florida has for many years already had in place policies and procedures to address coordinated transportation services, so the CHSTP was just an extension of the coordinated planning process already established. LYNX has for many years been the Community Transportation Coordinator for the three-county LYNX service area, as designated by the Florida Commission for the Transportation Disadvantaged.”



3E.5 Highlights

The vehicles are equipped with monitors that inform the drivers of their next stops. Through a central dispatch, the route can be changed to meet the evolving demand.

3F: Ottumwa, Iowa

3F.1 Introduction to Service

The Ottumwa Transit Authority (OTA) serves Appanoose, Davis, Jefferson, Keokuk, Lee, Lucas, Mahaska, Monroe, Van Buren, Wapello, and Wayne Counties in southeastern Iowa. The OTA's JARC service operates as a demand-responsive service. Riders may use the service to go to work, childcare, or home, and the service is open to any person. To use the service, a traveler calls the dispatcher, provides the trip destination and the preferred pick-up time, and indicates whether a return trip will be needed. Fares are charged as follows:

- Cash fare: \$1.50, Tokens: \$1.20, Monthly pass: \$35.00
- Monthly pass for elderly and disabled: \$25.00
- Monthly youth pass: \$20.00, Children under 5 free

All vehicles are lift-equipped. Service hours run Monday through Friday from 8pm – 2am, and Saturdays from 12pm – 4pm and 8pm – 2am.

3F.2 Location and Site Description

Ottumwa, IA was established as the county seat of Wapello County in 1844. Growth in agriculture and manufacturing led to a population high of 33,871 residents in 1960, before the closure of manufacturing plants led to job loss and population decline. The area's largest employers include Excel Corporation, John Deere Ottumwa Works, Ottumwa Regional Health Center, Ottumwa Community Schools and Cargill, Inc. The tables below present the county's most recent socio-demographic data, and Census data of interest.

Table 3F-1: Recent Socio-demographic Data for Wapello County

Variable Description	Value(s)
Minimum and maximum monthly civilian labor force unemployed - %	6.9/9.6
Home mortgaged delinquency rate, 2010Q1	3.8
Auto loan delinquency rate 2010Q2	0.9

Source: BLS, 2009 and TransUnion LLC , 2010 Q2

Table 3F-2: Census Socio-demographic Data for Wapello County

Variable Description	Value
Civilian labor force unemployed - %	4.7
Percent Female	51.1
Household income / State median household income	0.81
Mean travel time to work (minutes)	17.4
Median household income	39,298
No vehicle available, occupied housing units	6.3
Percent of households with food stamp benefits in past 12 months	14.7
Percent of Households with incomes < 10K	7.2
Percent of the female headed families with children under 18 in poverty	46.6

Percent of the households living in poverty during the past 12 months	11.2
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Source: 2006-2008 American Community Survey

3F.3 Characteristics of clients (riders)

The Ottumwa on-board survey resulted in 13 completed items. Of those who completed the survey, six were female and six male, with one response refusal. Ten of the thirteen participants reported their income, with two reporting less than \$10,000 per year, and eight reporting greater than \$10,000. Most (seven out of twelve respondents) reported that they have a vehicle in their household. 66.7% reported having less than a high school degree, though most (12 of 13 respondents) reported that they are currently employed. Seven of the thirteen reported that they had not been employed in the month before using the service, though only one respondent attributed this to lack of transportation. Ten persons responded that the service is “Very Important” to keeping their job, while two reported that it is “Important”. Such responses indicate that in Ottumwa, the JARC service is meeting the overall aims of the program for the riders.

3F.4 Coordination Aspects

The JARC service is run through the Ottumwa Transit Authority, which, along with 10-15 Regional Transit, partnered with the Area 15 Regional Planning Commission to develop the “RPA 15 Passenger Transportation Development Plan”. This plan is applicable to Jefferson, Keokuk, Mahaska, Van Buren and Wapello Counties in southeast Iowa. According to the Program Manager for the Ottumwa JARC service, the program’s experience with this Coordinated Public Transit - Human Services Transportation Planning process was “Very Useful.” Coordination efforts reported in the plan included both meeting with and surveying area transportation and health and human service providers.

The Plan document reported that fifty-one surveys on transportation needs of health and human service providers were distributed, and twenty-one returned; and four transit advisory meetings were held. Invited participants in the process included the five area public transportation providers, along with county Community Services centers, area schools, nursing and rehabilitation centers, area Agencies on Aging, and others.

The returned Program Manager survey indicated that raising the financial match (in this case, a city tax levy) for the service was easy, with a score of 2 reported on a scale of 1-5, where 5 was “Most Difficult”. The program manager also reported that it will likely be “Very Easy” for the service to continue running in the coming year. Comments and responses received in the rider surveys also helped to confirm the PM’s assessment that the service is strongly supported by workers and employers.

3F.5 Highlights/Major Issues

The Ottumwa JARC service clearly serves a need in the community. The service attracts a good number of users, with approximately 80% (as identified by the PM survey) using the service to travel to work, with additional trips for school, job training, interviews, or child-care. Results of both the PM and the rider surveys indicate that the service meets the needs identified by the JARC program.

3G: Chicago, Illinois

3G.1 Introduction to Service

The Chicago service consists of two parallel east-west routes that provide late-night operations: the #7 Harrison and the #65 Grand Avenue. The JARC-funded service continues the daytime service, running from 7pm until 10pm. The fare on the service is the same as for other routes and varies considerably based on the rider and the type of ticket purchased, such as individual ride or monthly ticket.

At its west end the #7 route serves an African American neighborhood and as it proceeds to the Chicago downtown it runs through the city's medical district and the University of Illinois at Chicago. It continues past Union Station (offering both Amtrak and commuter trains) through



the core of the Chicago downtown to its eastern boundary on Michigan Avenue. The inbound #65 bus starts in a largely Latino neighborhood and proceeds past several CTA rail and Metra commuter rail stations before the route terminates at Navy Pier. This route does not service the core of the

Chicago downtown. Navy Pier, on the left, is the most popular tourist destination in the state and in addition to being an entertainment destination, the Pier represents entry-level employment opportunities. The Pier is open well into the evening and therefore the late service is necessary for many employees as well as visitors.

3G.2 Location and Site Description

The data in Table 3G-1 are for Cook County, which with more than five million residents is the second largest county in the nation. The data do not specifically describe the JARC-funded service area. This area is likely to have economic conditions less favorable than the county-wide data below. The Cook County unemployment figure is rather high. At a peak of 11.5 percent, it is higher than the mean of the more than thirty places included in our study, 10.2 percent. Moreover, the increase from the minimum to the maximum, 4.8 points, is also higher than the mean for our study sites, 3.9. This suggests that there are a large number of individuals looking for work and that the rate of increase among these individuals is higher than most other study sites.

Table 3G-1: Recent Socio-demographic Data for Cook County

Variable Description	Value(s)
Minimum and maximum monthly civilian labor force unemployed - %	6.7/11.5
Percent of mortgaged homes, 2010Q1	8.2
Auto loan delinquency rate 2010Q1	1.6

Source: BLS, 2009 and TransUnion LLC , 2010 Q1

The data for the City of Chicago underscores more specifically that the city has residents with needs. The unemployment rate of 9.5 percent (Table 3G-2), for example, is approximately fifty percent higher than the 6.4 percent national rate. Also the median household income of \$46,767 is only 84 percent of the statewide median. These difficult economic circumstances are also evident in the last four rows of Table 3G-2, all of which are above national levels. The proportion of the households who have received food stamps is more than fifty percent above the national level, 13.8 versus 8.8. The same is true for households earning less than \$10,000 annually and for households living in poverty. At 16.9 percent the poverty level is much higher than the nationwide level of 9.6 percent.

What is also distinctive about Cook County is the very high proportion of the households without a vehicle, 25.9 percent. This is almost triple the 8.8 percent level for the nation. Also the median travel time to work, 34.1 minutes is almost ten minutes higher than the national median, 25.3 minutes.

Table 3G-2: Census Socio-demographic Data for the City of Chicago

Variable Description	Value
Civilian labor force unemployed - %	9.5
Percent Female	51.3
Household income / State median household income	0.84
Mean travel time to work (minutes)	34.1
Median household income	46,767
No vehicle available, occupied housing units	25.9
Percent of households with food stamp benefits in past 12 months	13.8
Percent of Households with incomes < 10K	11
Percent of the female headed families with children under 18 in poverty	42.2
Percent of the households living in poverty during the past 12 months	16.9

Source: 2006-2008 American Community Survey

3G.3 Characteristics of clients (riders)

The two services in Chicago serve distinctly different communities, though near the downtown end of the services they operate in neighborhoods that have been gentrified and are populated by young professionals.

We received 28 returns from users of the #65 service and 13 returns from the #7 route. Three quarters of the #7 riders are female, higher than the study percentage of 55 and higher than the percentage on the #65 service. Both routes have a relatively low rate of riders with incomes under \$10,000. The 24 percent and the 13 percent on the #65 and #7 routes respectively fall well below the 42 percent for our overall study of more than 550 respondents. Similarly, the respondents are more educated than the respondents in our national study. Only 15 percent and 8 percent for the #65 and #7 route respondents had only a high school education, or its equivalent. The national study percentage was 51%. Regarding the presence of a vehicle in the household, however, 64 percent of the #7 respondents indicated that they did not have a

vehicle in the household versus 46 percent for the national study. The #65 riders were close to the national level for households without vehicles.

3G.4 Coordination Aspects

The CHSTP in the Chicago area is organized by the Regional Transportation Authority. Their plan covers a six-county area of over eight millions residents. The region has a long history in addressing special transportation needs. The CHSTP has naturally transitioned from the earlier efforts.

3G.5 Highlights/Major Issues

As a large and diverse metropolitan area, it is very difficult to select the most worthy projects for JARC funding. Chicago is an area with classical labor/jobs mismatch; the communities with jobs, particularly entry-level jobs, are rather distant from neighborhoods with high unemployment levels. The distances are frequently so great that in most cases it is not practical to connect the areas with public transportation. This is due in part to the fact that suburban Chicago is very low density with job sites scattered over a large area.

3H: Lafayette, Indiana

3H.1 Introduction to Service

The Lafayette JARC-funded service is operated by the Greater Lafayette Public Transportation Corporation. Established in 1971, the municipal corporation is known to the public as CityBus. It operates seventy buses plus ADA paratransit vans. In addition to fourteen regular routes it also has numerous specialty routes as well as several campus routes at Purdue University in West Lafayette.



The JARC-funded service is an extension of Route 6B that operates from downtown Lafayette directly southward. It extends several miles further south than other routes. Its general orientation is north-south until it reaches Veterans Memorial Parkway, a southern beltway around Lafayette, where it turns east to service a Wal-Mart before turning south again to terminate in the Benjamin Crossing residential complex (seen in photographs).



On weekdays, the service operates at Benjamin Crossings from approximately 6:45 am to 6:15 pm. It starts its run half an hour earlier from downtown Lafayette and maintains half-hour headways throughout the operating hours. Saturdays, it starts operating an hour later and the last run is half an hour earlier. There is no Sunday service.

3H.2 Location and Site Description

The unemployment rate in Tippecanoe had the largest difference between the high and low levels in 2009 (November 2008 to December 2009) among the more than thirty sites in our study, with 5.4 percentage points (Table 3H-1). It started with a rather low level of 5.2 and reached 10.6, half a point above the average for all of our study sites. The home mortgage and auto delinquency rates, however, are relatively low. The home mortgage delinquency rate is more than two points below the national level and the auto-loan delinquency rate is about two-thirds of the national rate.

Table 3H-1: Recent Socio-demographic Data for Tippecanoe County

Variable Description	Value(s)
Minimum and maximum monthly civilian labor force unemployed - %	5.2/10.6
Home mortgage delinquency rate, 2010Q1	3.2
Auto-loan delinquency rate 2010Q1	0.7

Source: BLS, 2009 and TransUnion LLC , 2010 Q1

The census unemployment rate of 7.8% is largely in the middle of the range in Table 3H-1. As such it is above the national level of 6.4%. This is consistent with the income data that show that the median household income is at 77% of the statewide median level and at \$37,342, well below the national median of \$52,175.

On a positive note, the mean commute time to work is only 16.7 minutes. This is well below the national mean of 25.3 minutes. This is accomplished despite 9.5% of the households being without a vehicle, just above the national figure of 8.8%.

Regarding the lower income segments of the population, 8.6% of households have incomes less than \$10,000, slightly higher than the national level of 7.2%. Similarly the other three statistics relating to poverty and food stamps (bottom portion of Table 3H-2) all have levels considerably above the national levels. The largest deviation is for poverty among female headed families. The 14.5% in Table 3H-2 is approximately fifty percent higher than the national percentage, 9.6%. As a whole, the general economic conditions in the Lafayette area are below average, both in comparison to the nation and the state of Indiana.

Table 3H-2: Census Socio-demographic Data for Lafayette, Indiana

Variable Description	Value
Civilian labor force unemployed - %	7.8
Household income / State median household income	0.77
Percent Female	51.2
Mean travel time to work (minutes)	16.7
Median household income	37,342
No vehicle available, occupied housing units	9.5
Percent of households with food stamp benefits in past 12 months	13.9
Percent of Households with incomes < 10K	8.6
Percent of the female headed families with children under 18 in poverty	48.7
Percent of the families living in poverty during the past 12 months	14.5

Source: 2006-2008 American Community Survey

3H-3 Characteristics of clients (riders)

We collected data only for the JARC-funded extension. This is approximately the southern third of the entire length of Route 6B. There were seven returned survey instruments and six provided socio-demographic information. Two respondents had personal annual incomes of less than \$10,000, had no household vehicles and had only complete high school. The driver indicated that several of the passengers use the bus to attend classes at Purdue University.



3H-4 Highlights/Major Issues

While the CityBus network is largely radial with the Lafayette downtown functioning as the core, the transfer from on route to another is relatively easy. As seen on the photograph below, the buses congregate at the downtown transit station facilitating easy transfer.

3I: Sanford, Maine

3I.1 Introduction to Service



Over the last few decades, the region has been hit hard by the closure of many large textile mills. One of the mills can be seen in the photograph on the left. There are several of these facilities, now largely vacant. Other than these large relics, there are few visual clues that the region has economic difficulties. The overall appearance is reminiscent of a solid New England community. Still, there are numerous individuals that need assistance in reaching employment opportunities that are scattered over a large region.

The van service in Sanford is a demand-responsive service that operates in the greater Sanford area. Since the service is popular, trips need to be scheduled 48 hours in advance. The vans are operated by the York County Community Action Corporation (YCCAC). The service is fixed-route with a route-deviation and rural service.

The service starts early in the morning to provide transportation for those that begin work before most workers. The photograph below shows the beginning of service at approximately 5



am which continues until approximately 11pm. The service is provided seven days a week, frequently by volunteer drivers. YCCAC has over a hundred volunteer drivers. Since they provide tailored service there are many repeat riders. The drivers know the clients and the atmosphere during the ride is very friendly.

YCCAC is a nonprofit organization with a board of directors consisting of business owners, private citizens, and public officials. It also provides other public transportation services but the WAVE (Wheels Access Vocation and Education) is the focus of our study.

3I.2 Location and Site Description

Sanford became a mill town after the Civil War and experienced its greatest growth near the beginning of the twentieth century. It initially made blankets but expanded to produce a variety of textiles. In 1954, the nation's largest textile firm, Burlington Mills, bought Sanford Mills but soon closed the facilities. It had employed 3,600 workers in the mills that covered 2,000,000 square feet. In 2003, a statewide referendum defeated a proposal to build a casino in nearby South



Sanford that was to include a recreation area. Together they were to employ over 4000 workers.

With these economic difficulties in the past, the current unemployment situation is not very different from many of the other places visited in this study. In fact, the unemployment data in Table C-16 shows slightly lower than the average for the more than thirty sites in this study. The York County minimum, for example, was 5.7% compared to the 6.3% average for our study sites. The home mortgage delinquency rate is also lower than the national level by one percentage point, but the auto-loan delinquency rate is that same as the nationwide figure. As we will see below, however, the county includes relatively affluent coastal areas not necessarily indicative of the inland community of Sanford.

Table C-3 Recent Socio-demographic Data for York County

Variable Description	Value(s)
Minimum/maximum monthly civilian labor force unemployed - %	5.7/9.0
Home mortgage delinquency rate, 2010Q1	4.7
Auto-loan delinquency rate 2010Q1	0.7

Source: BLS, 2009 and TransUnion LLC, 2010 Q1

Sanford and York County typify the importance of size of the statistical area. Some data are only available by county such as the information in Table 3I-1, though the census frequently provides data from smaller geographies. In the case of New England there are towns and cities referred to as New England Towns and Cities (NECTA). There are no 'place' data in New England as found for the rest of the country. What is most important is that in many cases the county data mask the special circumstances in the JARC-funded service area. Considering this, in Table 3I-2, we provide both county and town data. The county encompasses a larger, more up-scale community and the socioeconomic data may not describe the service area in question well.

Interestingly, the Census ACS data (Table 3I-1) show an even lower unemployment rate for the town and the county, 4.8% and 5.2% respectively than the 5.7% in Table 3I-1. This is also lower than the national rate of 6.4%. As we interpret these data, we must recognize that the 2006-8 data are based on a sample and therefore have margins of error associated with them. In the case of York County the margin of error is 0.6 and 1.5 for Town of Sanford. Sanford has a higher margin of error because the sample size is small. York County has a population of close to 200,000 while Sanford's is just under 29,000. We therefore cannot conclude that the town has a lower unemployment rate, even though the percentage in Table 3I-2 is lower. While it is important to recognize the importance of the margin of error in the data assessments, we will not refer to them in the rest of this report.

More true to reality, the \$54,463 median household income in the county is 16% higher than the state median while the town median is seven points below the state median. This is approximately a ten thousand dollar difference. Unfortunately the lower incomes come with a moderately higher travel time, 29.6 minutes versus 26.8 minutes, though both are higher than the national mean of 25.3 minutes. Also, lack of a household vehicle is more common in the town than in the county, 8.5% versus 4.3%. The national percentage is 8.8%.

At the lower end of the economic spectrum, the story is similar to the description above. Each of the last four variables in Table 3I-2 is considerably higher in the town of Sanford than in York County. The percentage of households receiving food stamps is twice as high in Sanford. The

other three statistics are close to fifty percent higher in Sanford in compared to the county. These three statistics for Sanford are also very close to national figures. Only the food-stamp statistic is considerably higher, 18.9% versus 8.1% nationally.

Table 3I-2: Census Data for Sanford Micropolitan NECTA and York County

Variable Description	Town	County
Civilian labor force unemployed - %	4.8	5.2
Household income / State median household income	0.93	1.16
Mean travel time to work (minutes)	29.6	26.8
Median household income	43,724	54,463
No vehicle available, occupied housing units	8.5	4.3
Percent of households with food stamp benefits in past 12 months	18.9	9.5
Percent of Households with incomes < 10K	6.9	5
Percent of the female headed families with children under 18 in poverty	36.5	24.2
Percent of the families living in poverty during the past 12 months	7.9	5

Source: 2006-2008 American Community Survey

3I.3 Characteristics of clients (riders)

Just over sixty percent of the respondents to our survey were female. This is about six points higher than the overall study sample. Twenty three of the thirty two respondents provided income information. Approximately thirty percent indicated that their personal income is less than \$10,000. This is about ten points less than the national total (ca. six hundred respondents). Forty two percent reported not having a vehicle in the household and fifty four percent indicated that they did not have education attainment beyond high school. Both of these were close to the national sample.

3I.4 Coordination Aspects

As a relatively small region, the list of partners in the coordinated planning process is relatively short but they have managed to obtain almost a quarter of the financial match from private sources. The rest of the match comes largely from the state department of human services and the local adult education program. Still, there is concern about the amount of effort that is needed to secure the match. On a scale of one to five where five is the most difficult, the effort needed to obtain the match is rated a four. At the same time they indicate that the program has been very useful.

The JARC-funds come from both urban and non-urban programs and provide service seven days a week for the first time ever. This is important to many riders, particularly the commuters. The service is also designed to be flexible. Early in the coordination process, an assessment was made of the most likely work destinations, but in practice the destinations were much more scattered across the county than originally anticipated. WAVE conducts random surveys to determine the quality of trip, timeliness, courtesy of driver and office staff, as well as safety and also provides an opportunity to make open ended comments. They advertise their services with brochures and through the local Chamber of Commerce.

31.5 Highlights/Major Issues

Some of the employment in the region is seasonal. Sanford is approximately fifteen miles from the Maine coast, a popular summer vacation destination. During that season there is demand to reach jobs in the coastal area. Our visit in the winter did not experience that demand. Still, there were a number of riders very dependent upon the service to reach employment scattered over a large area.

3J: Hennepin County, Minnesota

3J.1 Introduction to Service

Three demand responsive services that are funded through JARC were identified in Minnesota. These were AnokAccess, a program of Anoka County Job Training Center, which provides rides to work or to the workforce center; Emerge Community Development, which provides group rides to work; and Rise Inc., which operates van rides to Rise's employment program for Minnesota Family Investment Program (MFIP) participants. Emerge's van transportation service was randomly selected to be surveyed.

Emerge provides services in several workforce related areas including refugee employment, adult career services, skills training, and youth employment. Their clients are low-income city residents, refugees and Minnesota Family Investment Program (MFIP) recipients. In addition to its' job counseling services, Emerge provides group transportation services (van rides) to their employed clients taking them to work locations that are not served by traditional public transportation across the metropolitan area.

3J.2 Location and Site Description

Demographic and Economic data for Hennepin County where the surveyed service operated is presented in Tables 3J-1 and 3J-2. Economically, residents of the Hennepin county city are relatively well off as compared to the rest of the State, with the city's median household income at 8% higher than of the statewide median. As with many urban counties, there are variations in different regions within the county.

Table 3J-1: Recent Socio-demographic Data for Hennepin County

Variable Description	Value(s)
Minimum/maximum monthly civilian labor force unemployed - %	5.4/8.3
Home mortgage delinquency rate, 2010Q1	4.2
Auto-loan delinquency rate 2010Q1	0.8

Source: BLS, 2009 and TransUnion LLC, 2010 Q1

The average unemployment level for the county from November 2008 to December 2009 (7.1%) is a less than the nationwide county level average unemployment of 8.9%. The shift in unemployment for the county in the same period 2.9 percentage points from its period low, below the national county average of 4.2 percentage points. Hennepin County had a mortgage delinquency rate of 4.2% for the first quarter of 2010 and an auto loan delinquency rate of 0.8% for the same period, both under the national rates for the quarter. The national numbers for the period were 5.7% for mortgage delinquency and 1.1% for auto loan delinquency.

Annual incomes for 6% of households in the city were less than \$10,000, and 7% of families are estimated to have lived in poverty in the previous 12-month period. The percentage of households that have also been on food stamps in the previous 12 months is 5.6%. About a tenth (9.9%) of households also have no vehicle available.

Table 3J-2: Census Socio-demographic Data for Hennepin County

Variable Description	Value
Civilian labor force unemployed - %	5.7
Household income / State median household income	1.08
Percent Female	50.6
Mean travel time to work (minutes)	22
Median household income	62,655
No vehicle available, occupied housing units	9.9
Percent of households with food stamp benefits in past 12 months	5.6
Percent of Households with incomes < 10K	6
Percent of the female headed families with children under 18 in poverty	33.7
Percent of the families living in poverty during the past 12 months	7

Source: 2006-2008 American Community Survey

3J.3 Characteristics of clients (riders)

There were eight users of Emerge transportation that completed the survey. Five of eight respondents (62.5%) were female. Two persons were below 26 years of age, three between 26 and 35, and one person each in the 36-55 and over 65 categories. Educational attainment among respondents was low, with 86% (six persons) at the high school/GED level or lower, and one person with some college training, but none reporting a degree. The service caters to clients who are destined to work, and all eight riders are employed. Income levels are low with seven of eight reporting personal incomes of \$10,000 or less for 2008, and one person between ten and twenty thousand dollars. None of the riders report any household vehicles. Exactly half of them have been on some kind of public assistance since 2006.

Overall the demographics suggest that respondents have limited transportation options, and are in the low skilled labor market. Verbal discussions with the personnel at Emerge suggested that the service has many riders that are relatively recent immigrants, who may require translators for the survey and hence accounting for the lower number of responses. The service however enables its users to access jobs that are otherwise not accessible through regular transit.

3J.4 Coordination Aspects

The lead agency for the metropolitan area of the Twin Cities is the Metropolitan council. The CHSTP covers the counties of Anoka, Carver, Dakota, Hennepin, Ramsey, Scott and Washington. The CTAA database of HSTP lead and partner organizations lists 38 CHSTP partners, including several public/government transportation organizations, counties, cities, boards of ageing and workforce centers and some private transportation providers. Communication among partners was primarily through email and no group meetings were held among the partners. The region's CHSTP was first created in March of 2007. The plan was mainly proposed by the Metropolitan council and partners agreed to it, however, the council envisions increased participation in future updates of the plan.

According to the Metropolitan Council there was a fair amount of consensus among partners on several issues. High level of consensus was identified on having an inventory of available

services that identifies areas of redundant service and gaps in service, as well as on strategies to address the identified gaps. Medium levels of consensus were present on assessment of transportation needs for different groups of individuals (e.g. low income, older adults, or persons with disabilities), with identification of coordination actions to eliminate service duplication, and on prioritization of implementation strategies [of the plan?]. Keeping partner organizations involved over time was identified as being most difficult among a series of issues, while getting the “right” organizations, finding data and information for developing assessment of transportation needs, and prioritization of implementation strategies were also identified as some of the items with high levels of difficulty in the planning process. Over all the process was rated of medium usefulness.

Two partners responded to surveys sent to them. Both thought the requirement to develop a CHSTP was very important, they reported medium to high levels of consensus among partners on many issues related to service, needs assessment, and gaps in service.

3K: Kansas City, Kansas and Kansas City, Missouri

3K.1 Introduction to Service

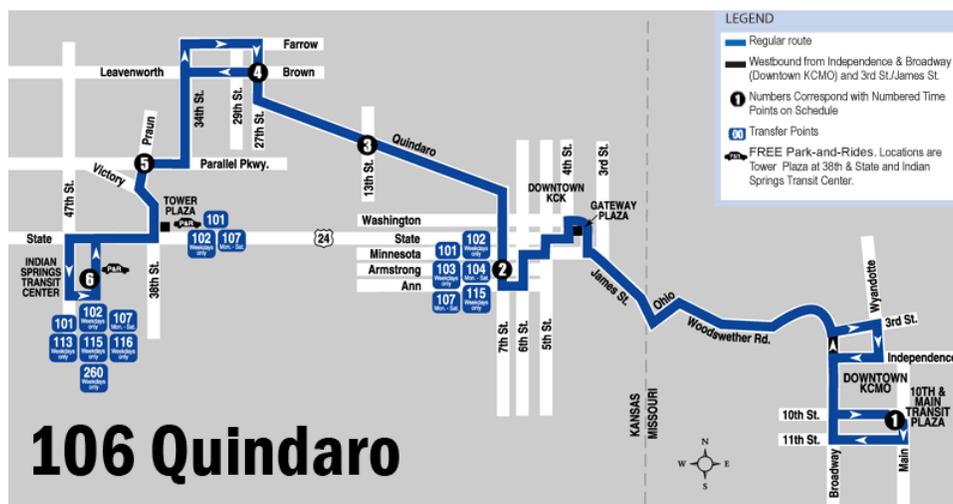
The Kansas City, MO-KS metropolitan area is served by three primary transit agencies. The Kansas City Area Transportation Authority (KCATA) is the largest of the three (providing roughly 90% of area fixed-route transit), and mainly provides service in Kansas City, MO, though it partners with Unified Government Transit (UGT) on several routes which serve the Wyandotte County/Kansas City, KS area, and also provides service into Johnson County, KS in coordination with Johnson County Transit (The JO). The #106 Quindaro Route is one of several services which begins in downtown Kansas City, MO and provides service across the state line into Wyandotte County/Kansas City, KS (see Figure 3K-1). The service runs Monday through Saturday, with Sunday service provided on certain holidays (New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving and Christmas). Weekday services run westbound from 4:37 AM until 11:16 PM, and eastbound from 4:53 AM to 11:35 PM; while Saturday services run westbound from 6:06 AM to 6:47 PM, and eastbound from 6:22 AM to 8:01 PM.

The service connects a regional employment center (downtown Kansas City, MO) with both downtown Kansas City, KS and with residential areas along Quindaro Blvd. and then on to the Indian Springs Transit Center at the former Indian Springs Mall, where seven other routes may be accessed. The residential areas along the route are largely low- to moderate-income (excepting portions of downtown Kansas City, MO), with some small pockets of local retail outside of the main Kansas City, MO and KS downtown areas. In addition, the route runs through a light industrial zone northwest of Kansas City, MO. The Quindaro route is open to all, with a fare structure as follows:

- \$1.50 for regular passengers,
- 75 cents for seniors over age 60, youth up to age 18, and persons with disabilities.

In large part, the Quindaro route is designed to provide residents with access to jobs in downtown Kansas City, KS and downtown Kansas City, MO, along with providing a connector to services to jobs in western Wyandotte County, KS.

Figure 3K-1 Route Map for #106 Quindaro, Kansas City, as of November 2010



Source: KCATA, 2010

3K.2 Location and Site Description

Wyandotte County/Kansas City, KS and Kansas City, MO are part of the larger Kansas City metropolitan area. Major employers include Sprint Nextel Corporation, AT&T, BNSF Railway, Cerner, Garmin, Hallmark Cards, Asurion, and Citigroup, among others. Wyandotte County is also home to the Village West development, which is located roughly 11 miles from Downtown KCK and is anchored by the Kansas Speedway. Village West includes such tenants as The Legends At Village West, Cabela's, Nebraska Furniture Mart, Great Wolf Lodge, and Community America Ballpark. Travelers may transfer to buses serving Village West at the Indian Springs Transit Center. The tables below provide an overview of recent socio-demographic and census data for the two areas. Residential densities for the region are fairly low, and employment

Table 3K-1: Recent Socio-demographic Data, Jackson County, MO

Variable Description	Value(s)
Minimum/maximum monthly civilian labor force unemployed - %	9.2/10.9
Home mortgage delinquency rate, 2009Q4	4.3
Auto-loan delinquency rate 2009Q4	1.2

Source: BLS, 2009 and TransUnion LLC, 2009 Q4

Table 3K-2: Recent Socio-demographic Data, Wyandotte County, KS

Variable Description	Value(s)
Minimum/maximum monthly civilian labor force unemployed - %	8.3/13.5
Percent Female	51.1
Home mortgage delinquency rate, 2009Q4	6.1
Auto-loan delinquency rate 2009Q4	1.5

Source: BLS, 2009 and TransUnion LLC, 2009 Q4

centers are distributed throughout the region, with recent growth taking place in Johnson County and in the western portion of Wyandotte County.

Table 3K-3: Census Socio-demographic Data, Jackson County, MO

Variable Description	Value
Civilian labor force unemployed - %	7.5
Household income / State median household income	1.00
Percent Female	51.7
Mean travel time to work (minutes)	23
Median household income	46,382
No vehicle available, occupied housing units	9.1
Percent of households with food stamp benefits in past 12 months	11
Percent of Households with incomes < 10K	8.3
Percent of the female headed families with children under 18 in poverty	38.8

Percent of the families living in poverty during the past 12 months	11.4
Source: 2006-2008 American Community Survey	

Table 3K-4: Census Socio-demographic Data, Wyandotte County, KS

Variable Description	Value
Civilian labor force unemployed - %	11.1
Household income / State median household income	0.80
Mean travel time to work (minutes)	20.9
Median household income	39,162
No vehicle available, occupied housing units	8.6
Percent of households with food stamp benefits in past 12 months	11.2
Percent of Households with incomes < 10K	11.1
Percent of the female headed families with children under 18 in poverty	42.9
Percent of the families living in poverty during the past 12 months	15.6

Source: 2006-2008 American Community Survey

3K.3 Characteristics of clients (riders)

50 surveys were distributed to riders on the #106 Quindaro route; 14 were returned. Of riders who responded to the survey, 3 were female, 8 were male, and 3 chose not to respond. As shown in the tables above, roughly 90% of households in Kansas City, MO-KS have a household income of over \$10,000; however, of the riders who responded to income questions on the survey, nearly 54% (7/13) reported an income of below \$10,000. In addition, 9 of 13 respondents reported that they have no vehicle available, far higher than the regional average. Seven of the fourteen reported that they are employed, with one person reporting two jobs. All seven persons who reported being employed reported that work was either the origin or destination of the current trip. Six persons responded that the service is "Very Important" in getting or keeping their jobs, while 13 of the 14 respondents reported that the service is "Very Important" overall, while one person reported that it is "Important". In terms of major life events, seven persons reported receiving public assistance, six reported having a vehicle repossessed, and two reported that they have had a home foreclosed.

3K.4 Coordination Aspects

The CHSTP process was overseen by the Mid-America Regional Council (MARC), the Metropolitan Planning Organization (MPO) for the Kansas City, MO-KS metropolitan area. According to the MARC website:

"In 2007, MARC amended the Public Transportation Element of Transportation Outlook 2030 Update, the region's long-range transportation plan [LRTP], to serve as the coordinated plan for the metro area. It serves as the foundation for the competitive selection processes for Federal Transit Administration funding for Job Access and Reverse Commute (Section 5316) and New Freedoms (Section 5317) programs. It also guides the Transportation for Elderly and Disabled (Section 5310) program.

MARC manages the competitive selection process for JARC and New Freedom on behalf of Kansas City Area Transportation Authority, the region's designated recipient for Federal Transit Administration funds."

The transit portion of the LRTP was developed by MARC staff with input from the existing Transit and Special Transportation-Job Access Partnership committee, which include representatives from area transit agencies, elected officials, social service providers, and others, along with the overarching Total Transportation Policy Committee, public meetings, and others. The plan outlines coordination efforts between the three transit service providers, a proposed regional transit plan intended to better serve the region, financial considerations, and information on services for low-income, disabled, and elderly populations.

3K.5 Highlights/Major Issues

The Quindaro JARC service in the Kansas City, MO-KS region provides needed transit access to persons who are disadvantaged in terms of income, education, and vehicle availability. The relatively low density of the region and the geographic spread of area employment opportunities increase the need for transit services, particularly for those without vehicle access.

3L: Camden, New Jersey

3L.1 Introduction to Service

Camden is located directly across the Delaware River from downtown Philadelphia. It has been an established urban center on the New Jersey side of the greater Philadelphia area for several centuries and is currently well served by the South Jersey Transportation Authority (SJTA). The services provided by SJTA include an extensive bus network and a rail line that runs from downtown Camden northeast to Trenton (River Line).



The service surveyed for this study is the Pureland Shuttle. The shuttle operates from the Walter Rand Transportation Center (pictured on the following page) to the Pureland Industrial Park located southwest of Camden in Gloucester County (the opposite direction of the River Line). The park includes major employers and is part of large industrial complex.

The Pureland Shuttle service is by reservation only and operates three times a day matching the three work shifts at the industrial park. Service begins at 6:35 a.m. and the third and last run starts from Camden at 10:40 p.m. The entire one-way route is completed in approximately fifty minutes. Along the way it connects with seven NJ transit bus lines and with a commuter rail operation (Lindenwold Line).



3L.2 Location and Site Description

The unemployment rate in Camden County is only slightly higher than the mean level of the places that we surveyed. Also, the increase from 6.8 to 11.0 percent (Table 3L-1) was slightly higher than average. Then not surprisingly the home mortgage delinquency rate of 6.7 is modestly higher than the national rate of 5.7 and the auto delinquency rate is 0.2 points higher than the national level.

Table 3L-1: Sociodemographic Data for Camden County

Variable Description	Value(s)
Minimum/maximum monthly civilian labor force unemployed - %	6.8/11.0
Home mortgage delinquency rate, 2010Q1	6.7
Auto loan delinquency rate 2010Q1	1.3

Source: BLS, 2008 & 2009; TransUnion LLC, 2010 Q1

Table 3L-2: Census Sociodemographic Data for the City of Camden

Variable Description	Value
Civilian labor force unemployed - %	18
Household income / State median household income	0.37
Mean travel time to work (minutes)	24.4
Percent Female	53.1
Median household income	25,753
No vehicle available, occupied housing units	38
Percent of households with food stamp benefits in past 12 months	28.2
Percent of Households with incomes < 10K	23.1
Percent of the female headed families with children under 18 in poverty	57.4
Percent of the families living in poverty during the past 12 months	36

Source: 2006-2008 American Community Survey

The data in Table 3L-1 describe the county-level information. Examining the data for the City of Camden describes a less prosperous setting. The unemployment rate is much higher than the county level and the median household income of \$25,753 is just over a third of the statewide level. Almost a quarter of the households had incomes less than \$10,000. Furthermore, over a third of the households do not have a vehicle. The travel time to work, however, is relatively low at 24.4 minutes compared to the national mean of 25.3 minutes. Both are lower than the travel time for most commuters on the Pureland Shuttle, but the service is tailored to be convenient.

Levels of poverty and public assistance in the City of Camden are high. Over a quarter of the households received food stamps in the pasts twelve months. Of greatest note is the percentage of the female headed households that live in poverty, 57 percent.

3L.3 Characteristics of clients (riders)

Thirty-three of the clients responded to our survey. The majority (64%) were female and they were all using the shuttle to commute to work. Nearly seventy percent did not have a household vehicle and about the same percentage did not go beyond completing high school or its equivalent. Still, only a small percentage had a personal income of less than \$10,000, less than one in five. Note that in Camden nearly a quarter of the households had household incomes of less than \$10,000 as opposed to the personal income question in the survey.

Based on the overview of the survey results, the Pureland Shuttle does remarkably well in meeting the goals of the JARC program, very likely better than all of the other services surveyed. Three characteristics stand out. First, a high proportion of the riders, over half, were not employed before the service began. In many other sites surveyed, there were relatively few current commuters that were not previously employed (before and after they started using the JARC-funded service). In these other cases it may be partially due to the slow economy. Second, those that were previously working are now spending far less time commuting to and from work. Third, for those that were previously employed, their hourly and monthly wages increased

substantially. Again this occurred against a backdrop of declining employment nationwide. In short, the Pureland Shuttle is an exceptionally successful service.

3L.4 Coordination Aspects

There are numerous lead CHSTP organizations in southern New Jersey. Based on our inventory for the CTAA, SJTA is represented as a participant in several of them. The people we met with in Camden were also the lead organization in their region. They head a large, diverse and active group of partners in the CHSTP process. While many represent governmental agencies, there are private-sector transportation entities, a faith-based organization and numerous health-care and senior citizens groups as well. The partners meet frequently and seem to be in concurrence in their transportation decisions.

3L.5 Highlights/Major Issues

What is also noteworthy about of the Pureland Shuttle is the employer match contribution. The \$100,000 contribution is something that, nationally, most organizations seek but few are successful in securing. Nevertheless, future match funds are always an item of concern.

Many River Line stations (above) link to bus services. This option can be used by Pureland Shuttle riders.



3M: Pembina County, North Dakota

3M.1 Introduction to Service

In North Dakota, the JARC funded rural demand responsive service we surveyed is run by Pembina County Meals and Transportation. The program provides rides to work for individuals with disabilities. According to the program manager, job sites available for their clients are often not in their communities, and long distance trips are necessary in the rural county. All current clients work in towns other than where they reside, or live in rural areas. The fare per ride for this service is \$5.00.

3M.2 Location and Site Description

Demographic and economic data for Pembina County is presented in Table 3M-1. ACS data for Pembina County (population 8585, 2000 Census) is not available as the county population is less than the 20000 that ACS 3-year data is released for. Based on monthly data from the Bureau of Labor Statistics (BLS), unemployment in the county for the period November 2008 to December 2009 is lower than the national average for counties nationwide, falling in the lowest quartile of county level unemployment figures. The shift in unemployment for the county in the same period is 3.3 percentage points above its low for the same period, below the national county average of 4.2 percentage points above the low for counties nationwide.

TransUnion reports that both mortgage delinquency rates of and auto loan delinquency rates in the county were at 1.5% and 0% respectively for the first quarter of 2010. National figures for the same period were 5.7% and 1.1% respectively for mortgage and auto loan delinquencies.

Table 3M-1: Recent Socio-demographic Data for Pembina County

Variable Description	Value(s)
Minimum/maximum monthly civilian labor force unemployed - %	4.3/7.6
Percent Female	50
Home mortgage delinquency rate, 2010Q1	1.5
Auto-loan delinquency rate 2010Q1	0

Source: BLS, 2009 and TransUnion LLC, 2010 Q1

3M.3 Characteristics of clients (riders)

The service in Pembina County was relatively different from other JARC funded services in this study in that it catered to persons with disabilities. There were a total of four responses from the users, three of whom were male. All respondents used the service to access their jobs. All of the riders possess a high school diploma or have completed their GED. Incomes were low (less than \$10000 for all respondents).

None of the respondents have a valid driver's license though all households reported having household vehicles. Respondents report travel times ranging from 20 to 80 minutes. The service provides transportation to its riders at a fee of \$5.00 in this rural community. Though household vehicles are available, these travel times to work imply significant burden on family members if they were to take over providing transportation. According to the program manager, clients either would not be able to access their job sites or would have to pay much larger fees to access their jobs without this program.

3M.4 Coordination Aspects

The lead agency that covers Pembina County is the North Dakota Department of Transportation. The CTAA database of HSTP lead and partner agencies lists 12 partners including county social services, a technical college, and different community, training and private organizations.

3N: Rochester, NY

3N.1 Introduction to Service

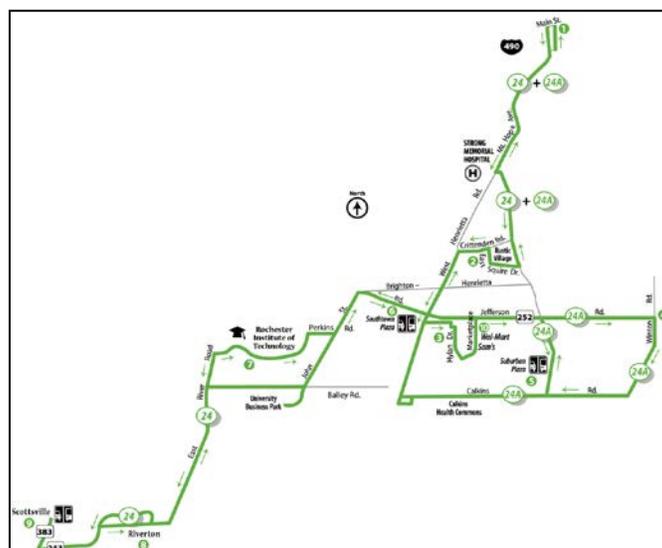
The Rochester Genesee Regional Transportation Authority (RGRTA) runs transit services in the city of Rochester, NY. RGRTA has JARC funded fixed route services on routes 20, 21 and 24. JARC funded runs operate Monday through Sunday on route 24, Monday through Saturday on route 21, while JARC funds are used only during weekdays on route 20. The weekday route 24 service was randomly selected and surveyed for this study. JARC funded runs on this route occur four times a day during weekdays, starting from downtown Rochester going to Marketplace Mall and returning back to Main & Clinton.

The route serves different retail employment centers, a corporate park, a school as well as a medical center (see Figure 3N-1). During the survey, some segments of the bus route were full. On the day of the survey, the demographics of the riders appeared to be mostly young and African-American.

3N.2 Location and Site Description

Demographic and Economic data for Monroe county and the city of Rochester in which the surveyed service operated are presented in Tables 3N-1 and 3N-2. Economically, residents of the city are of lower income than the rest of the State, with the city's median household income at just 66% of the statewide median. Unemployment levels for the city also appear to be much higher than the rest of the county, where BLS reports a range of 5.9 to 8.5 percent for the period. The shift in unemployment for the county in the period from November 2008 to December 2009 was on the low end as compared to the national county average of 4.2 percentage points from the minimum for the period. Monroe County had a mortgage delinquency rate of 2.4% and auto loan delinquency rate of 0.7% for the first quarter of 2010. Both are lower than the national levels of 5.7% and 1.1% nationally.

Figure 3N-1: Route 24 and the different destinations served



Source: RGRTA, 2010

Annual incomes for 17% of households in the city of Rochester were less than \$10,000, and a quarter of families are estimated to have lived in poverty in the previous 12-month period. An

almost equivalent percentage of households have also been on food stamps in the previous 12 months. A quarter of the households also have no vehicle available suggesting potential problems to access destinations that are not well served by regular transit.

Table 3N-1: Recent Socio-demographic Data for Monroe County

Variable Description	Value(s)
Minimum/maximum monthly civilian labor force unemployed - %	5.9/8.5
Home mortgage delinquency rate, 2010Q1	2.4
Auto-loan delinquency rate 2010Q1	0.7

Source: BLS, 2009 and TransUnion LLC, 2010 Q1

Table 3N-2: Census Socio-demographic Data for the City of Rochester

Variable Description	Value
Civilian labor force unemployed - %	10.9
Household income / State median household income	0.66
Percent Female	51.8
Mean travel time to work (minutes)	18.5
Median household income	36,867
No vehicle available, occupied housing units	24.7
Percent of households with food stamp benefits in past 12 months	24.3
Percent of Households with incomes < 10K	17.4
Percent of the female headed families with children under 18 in poverty	49.8
Percent of the families living in poverty during the past 12 months	25

Source: 2006-2008 American Community Survey

3N.3 Characteristics of clients (riders)

There were 43 respondents that completed the survey. About 64% of respondents were female. Ridership on route 24 was mostly young. About 67% were 35 years old or younger and overall 94% were 55 years old or younger. Educational attainment among respondents was low, with 8.8% lower than the high school/GED level, 38.2% at the high school/GED level and a further 41% with some college training. Only 11.7% of respondents have completed college. A little more than half the riders were employed at the time of the survey (53.8%). Among respondents, 48.3% reported personal income less than \$10,000, 31% in the range of \$10,000 to \$19,999, and another 17.2% in between \$20,000 and \$30,000. In addition, over half (58.3%) reported having been on some kind of public assistance since January of 2006. In Monroe county, the ACS estimate for households making \$10,000 or less is 8.1%, while those on food stamps over the past 12 months is 9.6%.

Respondents were asked what their origins and destination were for the current trip. 37% of respondents selected more than one origin, and 21% selected more than one destination purpose. Most trips on route 24 were either originating from home or destined to home (72.1%). Trips for 48.8% of respondents involved work either as an origin or destination. Other

purposes in order of their prevalence were indicated as school (27.9%), shopping (27.9%), medical (23.2%), and job seeking (16.3%). Other purpose was selected by 16.3% of respondents. Overall 74.4% of the respondents had selected trip purposes of work, school or job seeking as an origin or destination on their current trip. Over half of the respondents (54.3%) reported having no vehicles in their household, suggesting limited transportation options in reaching their destinations were the bus service not available. The proportion that doesn't have a vehicle is higher (61%) for those who indicated using the bus for a work trip either on the survey day or on other days (N=11 of 19).

In terms of employment status before and after the respondent started to use the service, conditions have not changed for a majority of the riders. 66% were either employed (43%) or unemployed (23%) in both the before and after periods, while 14% found jobs they did not have, and 20% lost their jobs and became unemployed. The mean weekly wage for riders that were working in the before period was \$8.82 (median = \$8.00), while it was \$8.98 (median = \$9.00) for those working in the after period. The weekly average income also changed from \$299.1 to \$305.1 (median from \$290 to \$337.5).

The trip purposes and demographic information suggest that the route serves low-income riders, mostly going to work, school or job-seeking, and for whom transportation options are limited. Aggregate wage changes among respondents were not significant, however the vehicle ownership levels among those using the service suggests that the route is essential to maintain their jobs and incomes.

3N.4 Coordination Aspects

The Rochester Genesee Regional Transportation Authority (RGRTA), which also operates the JARC funded transit line surveyed, serves as the HSTP lead agency for the region. It covers the counties of Genesee, Livingston, Monroe, Ontario, Orleans, Seneca, Wayne and Yates. The CTAA database lists a total of 17 HSTP partners for RGRTA including the offices of those counties covered by the human services transportation plan, as well as public and private transportation organizations, and workforce investment boards. Interactions between the lead and partner organizations were mainly through face to face meetings. The CHSTP plan for the region was created in July of 2007.

The lead agency viewed the CHSTP planning process as very useful and noted a high level of consensus among partners on assessment of transportation needs for persons with disabilities, the elderly and those with limited incomes, as well as on strategies to address identified gaps in service, and on prioritization of implementation strategies. However, several factors were identified as posing very high difficulties during the CHSTP process. These include getting the "right" organizations to be involved, finding the data and information needed for developing an assessment of transportation needs, doing the analysis for the assessment and identification of gaps, and implementing the public participation aspect of the CHSTP.

Five of the HSTP partners also responded to a survey sent to them. Overall the feeling of the partners about the CHSTP process was positive with four of five partners rating it of medium to very high usefulness. One partner noted the similarity in needs among each of the rural counties and that these challenges were different from those experienced in the more urban Monroe County. Overall this partner felt the process provided an opportunity to work together with others, and to look at "mutually beneficial coordination practices to assist target populations."

30: Piketon, Ohio

30.1 Introduction to Service



The service is essentially a fixed route between Piketon and Waverly, OH with considerable route deviation at both ends. The service to Waverly is important because Piketon is much smaller and has relatively few businesses in contrast to Waverly. Waverly has numerous large stores including a Wal-Mart as well as a mix of services. The Community Action Transportation Service (CATS) is well advertised and the white vans are very visible as they travel between Piketon and Waverly servicing passengers in both

communities.

30.2 Location and Site Description

Piketon is one of our rural sites in southeastern Ohio. It is a small community about an hour and a half drive southeast of Columbus. The community is essentially a series of businesses along highway US 23 (see the following picture). Piketon lies in the middle of Pike County and was its county seat until 1845 when it was moved to Waverly, about five miles north. The 2006-8 American Community Survey (ACS) reported a county population of approximately 27,500 with Piketon accounting for less than ten percent (1907 in 2000—the ACS did not report a more currently population estimate).



The largest city in the county is Waverly (population ca. 4500) located approximately five miles north of Piketon (photo of Waverly on left). It too is largely elongated along US 23 but it has a cluster of buildings that remain from a historic downtown. The main business in this downtown is the Emmitt House, an upscale restaurant that closed within the last year. It is for sale.

Table 30-1 shows that the 2008 unemployment rate in the county increased by six points to 16.7 percent. This is the highest unemployment percentage among the places surveyed for this study—Providence Rhode Island had the second highest at 14.3 percent and Osceola County in Florida had the third highest at 13.4 percent. Perhaps surprisingly, its home mortgage delinquency rate of 4.7 is considerably lower than the national level (5.7) but the auto delinquency rate is approximately fifty percent higher. This suggests that many residents are remaining in place but may need transportation services.

Table 30-1: Recent Socio-demographic Data for Pike County

Variable Description	Value
Minimum and maximum monthly civilian labor force unemployed - %	10.7/16.7
Mortgage delinquency rate, 2010Q1	4.7
Auto loan delinquency rate, 2010Q1	1.6

Source: BLS, 2009 and TransUnion LLC, 2010 Q1

The 2006-2008 ACS data (Table 30-2) show an unemployment level that is near the high end of the range in the previous table, indicating that the rate is indeed high. Also, since the median household income is only seventy percent of the statewide median, the incomes for those that are working are not particularly high. Also the proportion of the households with incomes less than \$10,000 is about fifty percent higher than the national percentage. The level of poverty is also striking—twice the national average. The rate of families using food stamps is also three times the national rate.

Still, a relatively low percentage of the households are without an automobile, 8.1 percent versus the nationwide level of 8.8 percent. Unlike the auto delinquency rate that is high, the low percentage of the households without a private vehicle indicates that the public transportation need is not universal.

However, the workers tend to have long commutes, more than three minutes longer than the national mean travel time of 25.3 minutes. This high mean may be attributable to those commuters that travel to distant places such as Columbus. In some places the high use of public transportation drives up the mean travel time. In Pike County, 95 percent of the labor force either drives to work or is a passenger in a private vehicle. The most common category of work is education, health and social services (26 percent of the work force). Further, the county population is relatively homogeneous with 99.5 percent being native born and 83 percent having been born in Ohio (2006-2008 ACS).

Table 30-2: Census Socio-demographic Data for Pike County

Variable Description	Value
Civilian labor force unemployed - %	15.1
Household income / State median household income	0.70
Percent Female	50.5
Mean travel time to work (minutes)	28.6
Median household income	33,493
No vehicle available, occupied housing units	8.1
Percent of households with food stamp benefits in past 12 months	23
Percent of Households with incomes < 10K	11.7
Percent of the female headed families with children under 18 in poverty	56.6
Percent of the families living in poverty during the past 12 months	19

Source: 2006-2008 American Community Survey

30.3 Characteristics of Clients (riders)

Based on the results from the surveyed clients, over half reported personal incomes under \$10,000 and over half did not have a household vehicle. The gender mix was equal and more than half of the riders had graduated from high school or had the GED equivalent. Relatively few clients used to service to reach work or training, less than half. The lack of local employment opportunities was likely a major reason.

30.4 Coordination Aspect

The Community Action Committee for Pike County, an organization whose mission is to assist the low-income households in the county, runs the service. The organization has been in existence since 1964.

The CTAA inventory lists eight partners in the planning process. Six of the eight organization names started with Pike, suggesting that these were county units. The remainder included the library and a major privately developed housing community (Bristol Village Homes). The latter is a large development that includes a large portion of Waverly and is home to hundreds of retirees and other home owners.

Both the lead agency and the partners found the CHSTP to be an important aspect of accomplishing their goals but also found that resources need to be committed to remain active in the process. They attended three to five meetings but found the attendance by others was not consistent. As a whole they indicated that the planning process raised awareness providing adequate transportation for reaching jobs and services. Making useful networking connections was also cited as an advantage of the CHSTP.

30.5 Highlights/Major Issues



The day that we visited Piketon, the community was stunned by the announcement that the largest employer in the county would close. The May 12 Chillicothe Gazette reported:

“The Masco Cabinet Group has announced it was closing its Hopewell Road facility in Waverly. The plant is the largest single employer in Pike County and one of the largest in southern Ohio. The county has the sixth highest unemployment rate in the state. This closing could push unemployment there to 24 percent, putting it close to the highest unemployment rate in Ohio.”

The Masco plant has changed ownership in recent decades and has faced considerable international competition over the years. Since many employees had worked overtime in recent months, the announcement of the plant closing was



particularly difficult to accept. The photograph on the previous page shows only a small part of the plant.

3P: Portland, Oregon

3P.1 Introduction to Service



The JARC-funded service in Portland surveyed in this study was the Swan Island Shuttle. The service operates only in the evening, after the regular Tri-Met service terminates, and is therefore an important link to the Swan Island industrial complex during these hours. Raz Transportation services the route with one vehicle (pictured). The route runs from a MAX Light Rail station at the Rose Garden to the Swan

Island Industrial area. It operates express from MAX (see the picture on the next page) to Swan Island where it connects directly with most of the major employers in the area. Swan Island is the Port of Portland and includes a large number of distribution and warehousing facilities. Many of the employers operate several shifts during the day.

3P.2 Location and Site Description

Multnomah County typifies the nation with rising unemployment in 2009, an increase from 7.0% to 11.6% (Table 3P-1). Its maximum rate is among the top five of the places surveyed. There are however, six places surveyed that had a higher increase in the unemployment rate. The auto loan delinquency is very close to the national figure of 1.1. The home mortgage delinquency rate, however, is considerably lower than the nationwide level. At 3.6, the rate is 2.2 points lower than the national rate (Table 3P-1).



Table 3P-1: Recent Socio-demographic Data for Multnomah County

Variable Description	Value(s)
Minimum / maximum monthly civilian labor force unemployed %	7.0/11.6
Home mortgage delinquency rate, 2010Q1	3.6
Auto loan delinquency rate 2010Q1	1

Source: BLS, 2009 and TransUnion LLC, 2010 Q1

More demographic data is available from the American Community Survey for the City of Portland (2006, 2007 and 2008 data are combined to provide a large sample). These data show that the unemployment rate was slightly lower (Table 3P-1) than the minimum value in Table 3P-2. Just over ten percent of the households lived in poverty and received food stamps during the last twelve months. Both of the figures are above the national levels of 9.6% and 8.8% respectively.

Nevertheless only 4.8% of households in Portland earned less than \$10,000, 2.4 percentage points lower than the national rate. The median household income level was under \$50,000 compared to the national median of \$52,175 but much closer to the statewide level. The poverty rate among female headed families with children is one point above the 37.5% national figure.

Nearly fifteen percent of the households are without a vehicle, about six points above the national level. This may be partially due to the extensive public transportation system in Portland. In either case the mean commuting time is moderately low, below the 25.3 minutes national mean.

Table C-4 Socio-demographic Data for the City of Portland

Variable Description	Value
Civilian labor force unemployed - %	6.6
Household income / State median household income	0.98
Percent Female	50.9
Mean travel time to work (minutes)	24.1
Median household income	48,993
No vehicle available, occupied housing units	14.9
Percent of households with food stamp benefits in past 12 months	11.5
Percent of Households with incomes < 10K	4.8
Percent of the female headed families with children under 18 in poverty	37.5
Percent of the families living in poverty during the past 12 months	10.5

Source: 2006-2008 American Community Survey

3P.3 Characteristics of clients (riders)

As a late night operation serving an industrial complex, ninety percent of the respondents are male. This was the highest male percentage of all the approximately twenty-five service surveys. The percentage for all service surveyed was 45%. Of the respondents, 57% lived in household without a vehicle and approximately forty percent of the respondents have personal annual incomes of less than \$10,000. Still, It was a relatively well educated group; 72% had education beyond high school. The average for our entire survey was close to fifty percent.

3P.4 Coordination Aspects

The planning process included a variety of organizations. Among them were several local public transportation organizations covering suburban areas as well as TriMet, the lead organization. It also included Rider Connection, the major private non-profit transportation provider along with

“their 33 non-profit providers.” In addition, numerous public agencies representing the ageing and persons with disabilities participated in the process.

One partner indicated: “our region has a long history of coordination between transit, human service transportation providers, advocates and community members. In 2000 a diverse group of stake holders was brought together to develop the region’s first transportation plan in 2008 it was updated and again in 2009. Now the coordinated human service transportation plan includes older adult, people with disabilities and low-income job seekers.”

The planning process was generally considered by the respondents, the lead organization, project manager and partners, to be an important process that raises awareness by identifying new ways to support customer needs. There were numerous meetings that were well attended, but the time commitment to the planning process together with our survey was found to be a strain.

3P.5 Highlights

Most of the riders knew the driver and there was a special, cordial atmosphere on the bus. This was particularly evident when the bus dwelled at the MAX stop before starting its run. It was clear that the clients enjoyed the ride and very much appreciated the service.

3Q: York, Pennsylvania

3Q.1 Introduction to Service



The JARC-funded service operates over-the-road buses (as seen on the left) from York to Harrisburg, the Pennsylvania state capital. The downtown to downtown highway distance is approximately 25 miles but there is a set route in York as well as in Harrisburg making the total round-trip mileage considerably longer. The service is provided by Rabbit Transit, the local transit operator in the York area. The vehicles are large buses that are comfortable and attract a range of riders with a fairly high proportion of white collar employees.

There are several curb-side stops in York but many riders use the park-n-ride facility (pictured below) provided on the edge of town, on the road to Harrisburg. The riders tend to know each other as well as the bus driver.

3Q.2 Location and Site Description

The York area is typical of Pennsylvania as the state reorients from a manufacturing base to a more diverse economy. Unemployment rates have increased, nearly doubling in one year, 2009 (Table 3Q-1). Despite this increase the minimum and maximum are both approximately one point lower than the average minimum and maximum for the over thirty places surveyed in this study (6.3 and 10.2). The almost four- point increase, however, is quite similar to the rise other study areas.

The home delinquency rate, 4.0, is considerably lower than the national rate of 5.7. The same applies to the auto-loan delinquency rate; the national rate is 1.1. Consequently the data in Table 3Q-1 portrays a county that is having economic difficulties but tends to better-off than other study areas and the nation as a whole. The data describing the conditions in the City of York, however, describe a slightly different picture (Table 3Q-2).



Table 3Q-1: Recent Socio-demographic Data for York County

Variable Description	Value(s)
Minimum/maximum monthly civilian labor force unemployed - %	5.4/9.2
Home mortgage delinquency rate, 2010Q1	4
Auto loan delinquency rate, 2010Q1	0.8

Source: BLS, 2009 and TransUnion LLC, 2010 Q1

Table 3Q-2: Census Socio-demographic Data for the City of York

Variable Description	Value
Civilian labor force unemployed - %	13.1
Household income / State median household income	0.55
Percent Female	51.1
Mean travel time to work (minutes)	21.3
Median household income	27,640
No vehicle available, occupied housing units	25.6
Percent of households with food stamp benefits in past 12 months	25.4
Percent of Households with incomes < 10K	18
Percent of the female headed families with children under 18 in poverty	63
Percent of the families living in poverty during the past 12 months	31.2

Source: 2006-2008 American Community Survey

3Q.3 Characteristics of clients (riders)

Fourteen of the fifteen survey respondents reported their gender and it was evenly split between males and females. The service is a long-distance operation and effectively all were riding to and from work. Consequently none reported personal annual income of less than \$10,000 nor did anyone indicate that their household was without a vehicle. Further only two of fourteen indicated that they only had no education beyond high school. This 14% was clearly lower than the 51% in our national sample. As such the ridership was more affluent and more likely white collar workers than in other services surveyed.

3Q.4 Coordination Aspects

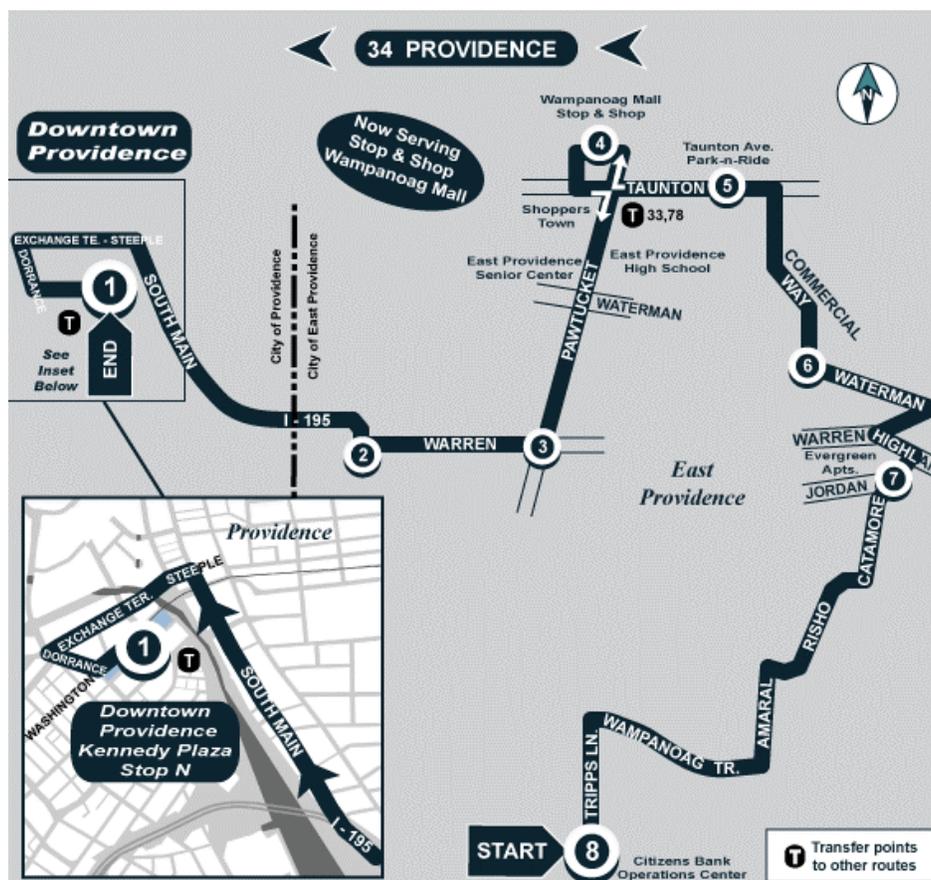
The lead organization is the York County Transportation Authority, locally known as rabbitransit. Their logo is well known and most vehicles are easily spotted traveling through York County. The CHSTP was produced in 2007 and has since been updated. The planning group included the typical governmental agencies representing senior, workforce development and general human services as well as the Center of Independent Living. The more unique representatives were from Capitol Trailways and the Margaret Moul Home; the Home is a private, non-profit long term care facility that provides services for adults with cerebral palsy, spina- bifida, multiple sclerosis, and other neuromuscular disorders.

3R: Providence, Rhode Island

3R.1 Introduction to Service

The Rhode Island Public Transit Authority (RIPTA) operates the service surveyed in Rhode Island. At the time of surveying, RIPTA operated JARC funded fixed route segments on routes 34, 55 and 92. On route 34 (East Providence), the segment of the route that is JARC funded serves a suburban business park and a low-income housing complex. On route 55, JARC funds were used on two segments. One is an extension into a low-income neighborhood, from past Providence College to Rhode Island College. The second segment connects another low-income area to downtown jobs and connections to other bus lines. Route 92, also known as the green trolley route, was extended from Knight Street and Atwells Avenue to Eagle Square in the Valley neighborhood, which is a low-income neighborhood.

Among these three services, the route 34 extension was randomly selected for surveying (see Figure 3R-1). The JARC funded portion of this service runs in the morning and evening rush hours and connects a low-income apartment complex to a suburban industrial park that includes a large bank-processing center. This extension service operates between 6:30am - 9:00am and from 3:00pm to 5:30pm.



Source: RIPTA, 2010. *The JARC route component connects points 7 and 8..

Figure 3R-1: Route 34 in Providence, RI

3R.2 Location and Site Description

Demographic and Economic data for Providence County and the city of Providence in which the surveyed service operated are presented in Tables 3R-1 and 3R-2. Economically, residents of the city are of lower income than the rest of the State, with the city's median household income at just 66% of the statewide median.

Unemployment levels for the city also appears to be similar to that of the county, where BLS reports a range of 9.1 to 14.2 percent for the period of November 2008 to December 2009. The shift in unemployment for the county (5.1% from the period's minimum) was on the high end as compared to the national county average of 4.2 percentage points from the minimum for the same period. Providence County had a mortgage delinquency rate of 6.2% and auto loan delinquency rate of 1.2% for the first quarter of 2010, both greater than the national average of 5.7% and 1.1% respectively for the same period.

Table 3R-1: Recent Socio-demographic Data for Providence County

Variable Description	Value(s)
Minimum/maximum monthly civilian labor force unemployed - %	9.1/14.2
Home mortgage delinquency rate, 2010Q1	6.2
Auto loan delinquency rate, 2010Q1	1.2

Source: BLS, 2009 and TransUnion LLC, 2010 Q1

Annual incomes for 15.4% of households in the city of Providence were less than \$10,000, and a fifth of families are estimate to have lived in poverty in the previous 12-month period. A comparable proportion of households (18.1%) have also been on food stamps in the previous 12 months. Nineteen percent of households also have no vehicles available in their household suggesting potential problems to access destinations that are not well served by transit.

Table 3R-2: Census Socio-demographic Data for the City of Providence

Variable Description	Value
Civilian labor force unemployed - %	11
Household income / State median household income	0.66
Percent Female	51.0
Mean travel time to work (minutes)	21.7
Median household income	36,298
No vehicle available, occupied housing units	19.1
Percent of households with food stamp benefits in past 12 months	18.1
Percent of Households with incomes < 10K	15.4
Percent of the female headed families with children under 18 in poverty	48.9
Percent of the families living in poverty during the past 12 months	20.5

Source: 2006-2008 American Community Survey

3R.3 Characteristics of clients (riders)

There were six respondents that completed the survey. About 67% of respondents were female. Ridership was mostly young with 50% under the age of 35. Educational attainment among respondents was relatively high with 83% of respondents having at least some college education or having completed college.

The route extension services office locations during rush hour only. As such all respondents were employed, and identified their trip as originating from work. Only half of the respondents provided personal income information, with all persons making between \$10,000 and \$30,000. Forty percent of respondents reported having no household vehicles, making the work locations inaccessible for them without the route extension, except by walking or bicycling. None of the respondents were recipients of public assistance since 2006.

Ridership on the service during the afternoon peak (when this survey was conducted) was low. However, most (83%) of the riders, and all of those with no household vehicles, report travel times to work of over 30 minutes, which suggests this work destination would have been difficult to access without the route extension.

3R.4 Coordination Aspects

The Rhode Island Public Transit Authority (RIPTA) is the lead agency responsible for the CHSTP for the State of Rhode Island. Information from RIPTA lists six partners, five of which are state agencies (RI Departments of Transportation, Human Services, Labor and Training, Elderly Affairs, and the Statewide Planning Program), and the RI Governors' commission for disabilities. RIPTA used a consultant to act as a coordinator for the development of the CHSTP, and comments received from interested individuals and agencies during a public meeting were incorporated into the plan. Partners met about three to five times a year and communicated primarily through meetings. The CHSTP was created in February of 2008.

According to the RIPTA there was a medium amount of consensus among partners on having an inventory of available services that identifies areas of redundant service and gaps in service, on strategies to address identified gaps in service, on assessment of transportation needs for different groups of individuals (e.g. low income, older adults, or persons with disabilities), on identification of coordination actions to eliminate service duplication, and on prioritization of implementation strategies. The agency felt another long running program they were undertaking was significantly more useful for their region than the CHSTP.

Two of RIPTA's CHSTP partners responded to surveys sent to them. They rated the requirement to develop a CHSTP as important and somewhat important respectively, and noted the level of consensus among partners on several issues as medium to high. These include areas such as assessment of needs, availability of service, gaps in service and prioritization of implementation strategies. In terms of helping their organizations internal goals, serving their target populations, and ability to network and create new partnerships one found the process to be of medium usefulness to not useful at all, while the other noted the process was useful to their organization.

3S: Nashville, Tennessee

3S.1 Introduction to Service

The Nashville Metropolitan Transit Authority provides public transit services to the Nashville-Davidson County area in middle Tennessee, as well as running three routes which travel outside the county limits. Bus service 96X (the Nashville/Murfreesboro Relax and Ride) begins in downtown Nashville and runs to Middle Tennessee State University (MTSU), with additional stops in La Vergne, Smyrna, and the Tennessee Rehabilitation Center. The service, partially funded through JARC funding, runs on weekdays starting from Mercury Plaza in Murfreesboro at 5:47 AM, with the last stop arriving in downtown Nashville at 6:17 PM. Any person may use the service, with a fare structure as outlined:

- Regular Fare Express Plus (all travel between Nashville and La Vergne, Smyrna or Murfreesboro): \$3.50
- Reduced Fare Express Plus (seniors over age 65, people with disabilities, Medicare cardholders and students): \$1.75
- Children under age 4: No Charge
- Multi-Ride Passes - 20-Ride R&R Express Plus: \$60.00

The service operates as a kind of “barbell”, with a major employment and education center on either end, with more sparsely populated areas in between. Students and employees travel between home and work, home and school, or school and work at the two ends of the barbell.

3S.2 Location and Site Description

Davidson County and Nashville, the county seat, have a consolidated city-county government. Nashville also serves as the state capital of Tennessee, though the city ranks second in the state in population (behind Memphis). As of 2008, the area’s largest employers were Vanderbilt University and Medical Center, Nissan, HCA, St. Thomas Health Services, Bridgestone, Ingram and Dell.

Table 3S-1: Recent Socio-demographic Data (Davidson County)

Variable Description	Value(s)
Minimum/maximum monthly civilian labor force unemployed - %	7.4/9.6
Home mortgage delinquency rate, 2010Q2	4.3
Auto loan delinquency rate, 2010Q2	1.3

Source: BLS, 2009 and TransUnion LLC, 2010 Q2

Table 3S-2: Recent Socio-demographic Data (Rutherford County)

Variable Description	Value(s)
Minimum/maximum monthly civilian labor force unemployed - %	8.7/11
Home mortgage delinquency rate, 2010Q2	4.4
Auto loan delinquency rate, 2010Q2	0.9

Source: BLS, 2009 and TransUnion LLC, 2010 Q2

The Relax and Ride route ends in Murfreesboro, Tennessee, which is home to Middle Tennessee State University (MTSU), the second-largest institution of higher learning in Tennessee by enrollment (behind the University of Tennessee at Knoxville), with the state's largest undergraduate enrollment. Murfreesboro is the county seat of Rutherford County. Its' top employers include Rutherford County government, MTSU, State Farm Operations Center, Alvin C. York Veterans Administration Medical Center, and the Middle Tennessee Medical Center. The tables below provide socio-demographic and other Census data pertaining to Nashville-Davidson and Murfreesboro.

Table 3S-3: Census Socio-demographic Data (Davidson County)

Variable Description	Value
Civilian labor force unemployed - %	5.6
Household income / State median household income	1.07
Percent Female	51.5
Mean travel time to work (minutes)	23.1
Median household income	46,780
No vehicle available, occupied housing units	7.4
Percent of households with food stamp benefits in past 12 months	10.2
Percent of Households with incomes < 10K	8.6
Percent of the female headed families with children under 18 in poverty	38.5
Percent of the families living in poverty during the past 12 months	11.4

Source: 2006-2008 American Community Survey

Table 3S-4: Census Socio-demographic Data (Rutherford County)

Variable Description	Value
Civilian labor force unemployed - %	6.3
Household income / State median household income	1.46
Percent Female	50.4
Mean travel time to work (minutes)	26.3
Median household income	63,653
No vehicle available, occupied housing units	3.1
Percent of households with food stamp benefits in past 12 months	7.7
Percent of Households with incomes < 10K	5.8
Percent of the female headed families with children under 18 in poverty	33.1
Percent of the families living in poverty during the past 12 months	8

Source: 2006-2008 American Community Survey

3S.3 Characteristics of clients (riders)

The Nashville MTA survey resulted in 22 returned surveys. While three refused responses, 11 reported their gender as male, while eight responded female. Of the fifteen who reported their incomes, three were less than \$10,000 per year. Most (16 of 19 respondents) reported having a

car, and most (17 out of 21 respondents) also reported more than a high school education. Seven responded that their main destination for the surveyed trip was work, while ten reported it to be school, college, or job training. Twenty of twenty-one respondents reported that the service is “Important” or “Very Important,” while only one responded that it is “Not Important.” Only three riders reported having no vehicle available in the household, though seven reported not having a valid driver’s license. The educational levels of riders were very high, with only four respondents reporting a high school education or less.

3S.4 Coordination Aspects

The Nashville Metropolitan Transit Authority (MTA) partnered with the Regional Transportation Authority (RTA) to develop the “Coordinated Human Services Transportation and Program Management Plan” for the urbanized areas within Davidson and Rutherford counties, as well as for Cheatham, Dickson, Maury, Robertson, Sumner, Williamson and Wilson counties (the RTA 9-County Region).

Development of the plan included a steering committee composed of members from the MTA and RTA, as well as representatives from the Greater Nashville Regional Council, Neighborhoods Resource Center, Rochelle Center, Center for Independent Living, the Nashville Area MPO, the Council on Aging of Greater Nashville, the TMA Group, InShuttle Transportation, and the Tennessee Department of Transportation. In addition to these members, other stakeholders and citizens were invited to participate in the plan development through the use of surveys and public meetings.

According to the MTA Program Manager survey, the program’s experience with the CHSTP process was “Very Useful.” In addition, it was indicated both that raising the matching funds for the program was “easy” (scored as 2 on a scale of 1-5, with 1 representing “Very Easy”). Matching funds for this service were indicated to come from TDOT and from the Nashville-Davidson County Metropolitan Government. It was estimated that it will be “Easy” (again a score of 2) to keep the service running in the next year.

3S.5 Highlights/Major Issues

The Nashville MTA Relax and Ride service provides a useful method for travelers to commute between two major employment and educational centers by means other than a private car. While the vehicle ownership and educational levels of the travelers are high, the level of importance which riders perceive the service to have indicates that it is serving a need in the impacted communities.

3T: El Paso, Texas

3T.1 Introduction to Service

El Paso, situated near the Mexican border in the far western corner of Texas, has evolved over the last few decades into a large metropolitan region. The population grew from less than half a million in 1980 to approximately 750,000 in 2010. The region has a long bilingual history; even one hundred years ago half of the population was Latino. Today it is approximately sixty percent Latino.



The JARC funded service in El Paso is provided by Sun Metro, the principal public transportation system in the area. The service operates over fifty routes including numerous express services and two downtown circulators. Because of topography, the developed area radiates in three non-adjacent sectors from the downtown area. JARC provides funds for the operation of a demand-responsive service. Most of the clients use it to reach work and job training facilities.

The service begins early in the morning and is available until late afternoon. Originally provided by CNG vans (shown on the left) which are being discontinued by their manufacturer, Sun Metro has recently requested and received funds to acquire diesel-power vans for the service.

3T.2 Location and Site Description

The unemployment rate in El Paso County has increased in the last fourteen months (November 2008 to December 2009) from 6.8% to 9.8%. The three-point increase is one point lower than the average increase at the more than thirty sites surveyed in this study. Also, El Paso's maximum unemployment level is slightly lower than the average of 10.2%. The home mortgage delinquency rate of 3.5 is also lower than the average level at our study sites, 5.7. This is surprising since the rates tend to be high in places that have had rapid growth in recent years. Conversely, the rate of auto-loan delinquency is effectively at the national rate of 1.1.



The recent Census data show that the unemployment rate is right at the national level of 6.4 percent (Table 3T-1). Nevertheless, the median household income level is only 75% of the statewide median and well below the national household income median of \$52,175. It is not surprising then that the values for the last four variables in Table 3T-2 are so high.

Table 3T-1: Recent Socio-demographic Data for El Paso County

Variable Description	Value(s)
Minimum/maximum monthly civilian labor force unemployed, %	6.8/9.8
Percent of mortgaged homes, 2010Q1	3.5
Auto loan delinquency rate 2010Q1	1.2

Source: BLS, 2009 and TransUnion LLC, 2010 Q1

Table 3T-2: Census Socio-demographic Data for the City of El Paso

Variable Description	Value
Civilian labor force unemployed - %	6.4
Household income / State median household income	0.75
Percent Female	52.8
Mean travel time to work (minutes)	21.6
Median household income	36,649
No vehicle available, occupied housing units	9.7
Percent of households with food stamp benefits in past 12 months	18.4
Percent of Households with incomes < 10K	12.3
Percent of the female headed families with children under 18 in poverty	53.4
Percent of the families living in poverty during the past 12 months	22.6

Source: 2006-2008 American Community Survey

Both the percent of the households with food stamps and the percent of families living in poverty in the last 12 months are more than twice the national rates. Also, the 53.4 percent of female headed households with children under 18 living in poverty is considerable higher than the national percentage of 36.5.

Regarding transportation options, 9.7 percent of the households in the city were without a vehicle, slightly higher than the national percentage of 8.8. Perhaps due to the large proportion with private vehicles and the compact size of the developed urban area, the median commute time to work is only 21.2 minutes compared to the national mean of 25.3 minutes.

3T.3 Characteristics of clients (riders)

Forty-eight surveys were returned from El Paso. Sixty percent of the respondents are female, only five points above the national survey data (all sites combined). Fifty seven percent did not have a household vehicle, more than ten points above the national data. It was education and income, however, which were most divergent from the national survey results. Eighty-five percent had only a high school education or less compared to 51% for the national data. This is more than thirty points higher. Also, the percentage earning less than \$10,000 annually is 94 versus the national data of 46 percent. These last two statistics were among the most divergent from the JARC services surveyed in this study. In this regard, the El Paso service appears to target the population that would most likely benefit from the service.

3T.4 Coordination Aspects

The service in El Paso was initiated, in part, to provide transportation service outside the normal business hours of the main transit operations. It also supplements the Sun Metro service by offering specialized service to employment and job training sites. The CTAA data base lists approximately forty members in the planning process. The extensive list includes governmental state and municipal agencies as well as organizations that represent senior citizens and individuals with disabilities. There is also one faith-based organization.

The project manager of the El Paso service reports that the CHSTP been useful in planning the service and that it has been relatively easy to keep the participants involved in the process. Conversely, finding the financial match for the program has been difficult.

3T-5 Highlights/Major Issues

El Paso is truly a multi-cultural region located on the international border with Mexico. Latinos make up a large proportion of the population and many residents are bilingual. Interstate 10 parallels the border, within less than a mile, in several parts of El Paso.



3U: Victoria, Texas

3U.1 Introduction to Service

The JARC-funded service in Victoria is located approximately two hours southwest of Houston (130 miles) and less than an hour from the Gulf Coast. It has a city population of approximately 62,000 residents (2006-2008 ACS). The JARC-funded service begins at 6am with a few primary pick-up points. It travels approximately one hour to the Inteplast Plant near Lolita Texas. Lolita is a very small community and the Inteplast Plant has more workers than the city of Lolita. The plant draws workers from a broad area.



The Inteplast Plant is an integrated plastics manufacturing company. It produces wood-plastic composite decking and building materials for residential and commercial purposes as well as other wood fiber and plastic products. Other products include garment bags and trash liners. It is a sprawling 700-acre facility (more than a square mile) with large buildings and extensive outdoor storage. It is serviced by both rail and highways. The work in the plant consists of 12-hour shifts, from approximately 7:30 am to 7:30 pm. The shuttle arrives at 7:20 am and pm and departs at 7:50 am and pm. The employees work less than five days a week, but on days that they work their off-hours are relatively short.

The shuttle bus leaves the Inteplast facility in the evening before 8 pm and within a few stops runs express for approximately forty miles back to Victoria. After the passengers depart the shuttle, the driver returns to the motor pool and refuels the bus for the morning run. He returns the bus to the overnight transit yard (right) and goes home so that he can retire for the evening. The same driver is back at the yard to pick up the bus and check it out at 5:30 am for the morning run. His free time occurs between the morning run and the evening run, in the middle of the day. The riders seem to know each other and those that are not napping on the ride enjoy a playful banter during the trip.



3U.2 Location and Site Description

Victoria is a city of approximately 60,000 residents and the county seat of Victoria County. While its unemployment was relatively low the rate nearly doubled to 7.8 percent in 2008 (Table 3U-1). Similarly, the mortgage delinquency rate in Victoria County is lower than in Fort Bend. However, the automobile delinquency rate is higher (3U-1).

The slightly older, 2006-08 ACS data however show a different unemployment comparison rate of 7.4 percent and a median commuting time of 18.9 minutes. While approximately 93 percent of the workers commute to work by private vehicle, a high percent of all workers carpool. Just under ten percent (9.7) do not have a household vehicle.

Approximately 94 percent are native born (83 percent born in Texas) with German ancestry being the largest group (19.4 percent). This is more than twice the residents of Irish ancestry. Still, the largest second language is Spanish accounting for 32 percent of the households. Also the high percentage of the households that rent their homes suggests either a less permanent population or lower incomes. The median household income of \$44,300 is less than the statewide figure of \$49,000.

Table C-5 Recent Socio-demographic Data for Victoria County

Variable Description	Value(s)
Minimum/maximum monthly civilian labor force unemployed - %	4.3/7.8
Home mortgaged delinquency rate, 2010Q1	3
Auto loan delinquency rate 2010Q1	1.8

Source: BLS, 2009 and TransUnion LLC, 2010 Q1

Table C-6 Census Socio-demographic Data for the City of Victoria

Variable Description	Value
Civilian labor force unemployed - %	7.4
Household income / State median household income	0.90
Percent Female	51.6
Mean travel time to work (minutes)	18.9
Median household income	44,323
No vehicle available, occupied housing units	9.7
Percent of households with food stamp benefits in past 12 months	12
Percent of Households with incomes < 10K	7.9
Percent female headed families with children under 18 in poverty	47.5
Percent of the families living in poverty during the past 12 months	14

Source: 2006-2008 American Community Survey

3U.3.Characteristics of Clients (riders)

Based on the responses from forty-two returned surveys, just over 80% of the clients were male. This compares with 45% for all sites combined. The respondents also had higher incomes and fewer carless households than the national sample. For example, eight percent did not have a vehicle while in the national sample, of which Victoria is a part, 46% of households are without a vehicle. Also, since all of the riders were commuting to and from work, only 14% have personal annual incomes of under \$10,000. Conversely, the riders were less likely than the national sample to have education levels beyond high school, 28% versus 48% for the national sample.

3U.4 Coordination Aspect

Located in Victoria, the Golden Crescent Regional Planning Commission conducts the planning for a seven-county area (Texas has over 254 counties, smaller in area than in many western states). The CTAA inventory lists 23 partners in the coordinated planning process. Four are health related, five are government units and six relate to adult/seniors/aging. Three are

educational institutions and two are workforce boards. These and the Inteplast Plant constitute twenty one of the twenty-three partners. It is evident from this list that the planning process has attracted a wide variety of organizations.

The planning groups meets three to five times annually and there is generally consensus on planning activities and prioritization of projects. The process is found to be useful but a considerable effort is required to keep participants active over time. The partners found the process to be important or very important and most contributed financially. They indicated that it raised awareness of transportation issues, identified ways to help clients access jobs and linked customers to job-related activities and other destinations.



3U.5 Highlights/Major Issues

The shuttle service was originally operated by Inteplast but the company was not experienced in providing such a service and planned to terminate the operation. Victoria Transit was able to assume the operation and maintain this critically important service to the clients.

3V: Salt Lake City and Tooele, Utah

3V.1 Introduction to Service

This study surveyed the users of two JARC-funded services in the greater Salt Lake area. One operates from the southern terminus of the TRAX light rail network in Sandy (Rte. 201 – shown here) and the other is in Tooele, a distant suburb located approximately 30 miles west of downtown Salt Lake City (Rte. F400). Route 218 is a fixed route while route F400 in Tooele runs largely north-south through the community with some route deviation. Both services are coordinated by the Utah Transit Authority in Salt Lake City and both have a base fare of \$2 for adults and \$1 for seniors and persons with disabilities prior to any fuel surcharge. Route deviation from the fixed route in Tooele carries an additional one dollar charge.



The route in Salt Lake City operates along wide boulevards that are lined with numerous businesses and residential areas. It acts both as feeder to TRAX but also as means to reach the community college at the other terminus. As a whole, the

service route is rather typical of Salt Lake City—relatively low population densities that are spread over a large area. Such urban areas are difficult to effectively serve by public transportation but the service is essential to its users.

The county west of Salt Lake is Tooele and it is known as the site of the Tooele Army Depot and a large chemical weapons incinerator. The city of Tooele is the county seat and while it is largely a free-standing community, with little residential settlement between Salt Lake City and Tooele, there are a number of workers that commute to Salt Lake City. Most of the highway to Salt Lake City is a four-lane expressway and the average commuting speeds are relatively high.



Tooele had a year 2000 population of 22,500. Since the 2006-2008 ACS now reports 30,584 residents, Tooele is clearly growing rapidly. Geographically, it has a traditional core and a wide arterial emanating from this core all the way to Salt Lake City with a variety of big box stores and other retail facilities. The JARC-funded vans operate principally in the original core and along the main business strip oriented toward Salt Lake City, providing 40 to 50 rides on most days. Along the basic route is the Mountain West Medical Center shown below on the left. Near the end of the route is a transfer station, shown on the right that is the principal stop for the express bus

service to Salt Lake City. Thus the JARC van also acts as a feeder for the much longer service to Salt Lake City.



3V.2 Location and Site Description

Even though both Salt Lake and Tooele Counties have experienced increases in the proportion of the population that is unemployed, the maximum levels of 6.3 and 7.6 percent (Table 3V-1) are the lowest in our study. Of the twenty-six places surveyed, they had the lowest mean unemployment rates in 2009. Salt Lake County was the only place surveyed that had a mean rate of less than five percent.

The mortgage delinquency rate was also lower than the national level but was not as impressive as the unemployment data. Perhaps due to its rapid growth rate, Tooele County had a higher home delinquency rate than Salt Lake County, but both were below the national rate of 5.7. Perhaps surprisingly, the vehicle delinquency rate was essentially at the national rate of 1.1.

The American Community Survey data for the years 2006 to 2008 confirm that the unemployment rates are below the national level (6.4 percent). The rest of Table 3V-2 shows the contrast between the aggregate data for Tooele County and Salt Lake City. To make the places a little more comparable, we chose to use city data for Salt Lake.

In nearly all statistics in Table 3V-2 the Tooele values are better than the national levels while Salt Lake values are not better. The same would not be true if we included the entire county. Regarding income, the national median household income is \$52,175. The two places in Table 3V-2 deviate seven to ten thousand dollars from this national level; Tooele is higher and Salt Lake is lower. The only statistic in which both places are below the national level is the percent of households with food stamp benefits in the past 12 months. The national level is 8.1 percent.

The commute time to work illustrates the contrast well. The national mean is 25.3 minutes. The high value in Tooele County reflects the number of workers that are employed outside the community. By contrast the 19.4 mean travel time to work in Salt Lake is indicative of the proximity of jobs to residential areas.

Table C-7 Recent Socio-demographic Data for Tooele and Salt Lake Counties

Variable Description	Tooele	SLC
Minimum / maximum monthly civilian labor force unemployed %	4.0/7.6	3.5/6.3
Percent of mortgaged homes, 2010Q1	5.5	4.9
Auto loan delinquency rate 2010Q1	1	1.1

Source: BLS, 2009 and TransUnion LLC, 2010 Q1

Table C-8 Census Socio-demographic Data for Salt Lake City and Tooele Counties

Variable Description	Tooele	SLC
Civilian labor force unemployed - %	4.8	4.7
Household income / State median household income	1.09	0.79
Percent Female	49.6	49.5
Mean travel time to work (minutes)	27.8	19.4
Median household income	61,552	44,552
No vehicle available, occupied housing units	3.8	11.3
Percent of households with food stamp benefits in past 12 months	5.7	7.5
Percent of Households with incomes < 10K	3.5	9.6
Percent of the female headed families with children under 18 in poverty	29	43
Percent of the families living in poverty during the past 12 months	5.7	11.6

Source: 2006-2008 American Community Survey

3V.3 Characteristics of clients (riders)

Approximately sixty percent of clients in both Salt Lake and Tooele were female. This is several percentage points above our national sample but sufficiently close to say that there is no appreciable difference. Both services had clients that had lower educational achievement levels than our national sample (high school graduate or equivalent), particularly in Salt Lake. The Salt Lake clients were also less likely to have a household vehicle and a higher proportion entered less than \$10,000 annually. By contrast the Tooele clients were more likely to have a household vehicle and earn more than \$10,000 annually than our national sample.

In both cases the majority used the service to reach either jobs or job training. Interestingly, among those that used it to commute, the Tooele riders saw a drop in travel times while the Salt Lake City riders experienced an increase in travel time. In the latter case, riders may have been able to use an automobile for their previous commutes.

3V.4 Coordination Aspects

The service is organized by the Utah Transit Authority that operates in six counties in the greater Salt Lake City area. The lead organization is the Wasatch Front Regional Council, planning for a five-county area including Salt Lake and Tooele Counties. The CHSTP group includes a large and varied collection of organizations. There are over a half dozen transit providers and well over a dozen governmental agencies representing workforce, senior, veterans and health interests.

There is an Indian tribe representative as well as YMCA and a faith-based organization. In short, the planning group seems to 'cover all of the bases.'

The lead organization has found the CHSTP process to be very important and very useful but also indicated that the greatest challenge was public participation. The lead organization also provided the following observation:

"Our CHSTP is a great resource/guide for me as the Mobility Manager. The Regional Coordination Council that was formed as a result of the CHSTP is dynamic and the membership is engaged. However, most of the agencies aren't really aware of what is in the CHSTP. I'm currently looking at methods to bring the CHSTP to life online so instead of a once every two years focused effort, the CHSTP becomes a "living" dynamic resource that agencies are actively engaged in throughout the year."

The partners also found the process to be helpful and that the level of participation was high or very high. They gained an awareness of their clients need for transportation and they encouraged their staff to link their client to other destinations. One of the partners indicated that "we were asked to participate to help increase the quality of the CHSTP process on behalf of our clients. It has been a valuable experience."

3V.5 Highlights/Major Issues

The two services operate in settings in which automobile ownership rates are very high. Also, the unemployment rates are low. Still, the real value of the service is for those individuals that need it to access employment and conduct their daily activities.

3W: Richmond, Virginia

3W.1 Introduction to Service

The JARC program surveyed in Virginia is operated by the Greater Richmond Transit Company (GRTC). GRTC operates a demand responsive van service (C-VAN) targeting people moving from welfare to work. According to GRTC's website, the program provides assistance for Virginia Initiative for Employment not Welfare (VIEW) participants who are referred to it through the Department of Social Services.

3W.2 Location and Site Description

Demographic and Economic data for Richmond where the surveyed service operated is presented in Tables 3W-1 and 3W-2. Economically, residents of the city are of lower income than the rest of the State, with the city's median household income at just 63% of the statewide median. The average unemployment level for the city from November 2008 to December 2009 (9.5%) is a little higher than the nationwide county level average unemployment of 8.9%. The shift in unemployment for the county in the same period 3.9 percentage points from its period low, slightly below the national county average of 4.2 percentage points.

Table 3W-1: Recent Socio-demographic Data Richmond County

Variable Description	Value(s)
Minimum / maximum monthly civilian labor force unemployed %	6.9/10.8
Percent of mortgaged homes, 2010Q1	4.7
Auto loan delinquency rate 2010Q1	1.6

Source: BLS, 2009 and TransUnion LLC, 2010 Q1

Table 3W-2: Census Socio-demographic Data for the City of Richmond

Variable Description	Value
Civilian labor force unemployed - %	9.6
Household income / State median household income	0.63
Percent Female	53.7
Mean travel time to work (minutes)	20.9
Median household income	38,385
No vehicle available, occupied housing units	19.2
Percent of households with food stamp benefits in past 12 months	12.6
Percent of Households with incomes < 10K	12.3
Percent of the female headed families with children under 18 in poverty	45.1
Percent of the families living in poverty during the past 12 months	17.7

Source: 2006-2008 American Community Survey

Richmond City had a mortgage delinquency rate of 4.7% and auto loan delinquency rate of 1.6% for the first quarter of 2010. The mortgage delinquency was lower than the national figure of 5.7% for the same period. However, auto loan delinquency was higher than the national figure of 1.1%.

Annual incomes for 12.3% of households in the city were less than \$10,000, and 17.7% of families are estimated to have lived in poverty in the previous 12-month period. The percentage of households that have also been on food stamps in the previous 12 months is 12.6%. About one fifth (19.2%) of households also have no vehicles available.

3W.3 Characteristics of clients (riders)

There were seven respondents that completed the survey, all of whom were female. Four of the riders were 35 years or younger, while the remaining were between 36-55 years of age. Educational attainment among respondents was low, with 71.4% at the high school/GED level or lower, and the remainder with some college training but no degrees. Four out of seven (57%) were employed at the time of the survey.

For 2008, while one person did not report an income, the remainder all made less than \$20,000 in annual income, with 50% less than \$10,000. Four out of seven (57%) have also received some form of public assistance since January of 2006. Regionally, households that make \$10,000 or less in the Richmond area constitute 12.3% of the households, and those with food stamp benefits are 12.6%. If the income distribution of our sample holds for the population of C-VAN users, it suggests that the program targets the proper target group to provide transportation access to jobs and training.

Respondents were asked what their origins and destination were for the current trip. Three of the seven have selected more than one trip purpose at the origin or destination. All the trips on C-VAN were either originating from home or destined to home. Trips for 71.4% of respondents involved work either as an origin or destination, while one person also selected school as involved in the trip. No other trip purposes were selected by the respondents. Five of the seven respondents (71.4%) do not have vehicles in their household. Though the sample size for this demand responsive service is low, their responses confirm the focus on jobs and training of persons earning low-income, and with limited transportation options.

3W.4 Coordination Aspects

The Virginia Department of Rail and Public Transportation (DRPT) is the agency responsible for the development of the CHSTP. Eleven of DRPT's partners responded to the partner's survey. These include public transportation organizations, a regional transportation authority, city/municipal DOTs, public housing agencies and private non-profit transportation providers. Communication among partners was maintained through meetings, email, mail and telephone, with the group meeting three to five times in a given year.

Overall, the lead agency thought the level of participation was high, and 73% of the partners also rated the partner involvement as high or very high. The CHSTP for the region was created in February of 2008. According to DRPT, the level of consensus among partners was high on many factors including assessment of needs, service availability, on strategies to address identified service gaps and prioritization of implementation strategies among others.

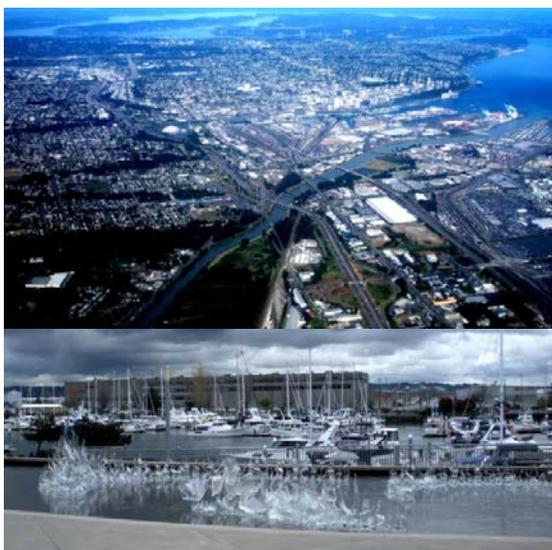
The partners' responses were also in line with that of the lead agency in their assessment of consensus levels with the most number of partners choosing high levels of consensus for each of these areas. Both the lead agency and 91% of the partners found the CHSTP important (or very important) in achieving the regions' goals regarding mobility for persons with disabilities, seniors and individuals with limited income.

3X: Tacoma, Washington

3X.1 Introduction to Service

Tacoma is the principal city in Pierce County, WA. Much like Seattle thirty miles to the north, Tacoma is located to the west of the region stretching to the upper ridge of the Cascade Mountains. Outside the city's built-up area there is an extensive semi-rural area that is not well served by public transportation.

Tacoma is a port city with the downtown located on the western perimeter of a large port-related industrial complex. Many of the jobs in the metro area are located in the downtown, which is experiencing revitalization, and the industrial area immediately to the east (left). With



a campus of the University of Washington, new museums and the river and Sound-oriented recreational activities, the downtown area is growing in popularity.

The service surveyed was Beyond Borders and was designed to bring residents of the vast rural territory to the nearest Pierce County Transit stop from which they can connect to a variety of destinations. Tacoma also has fareless street-car operation in the downtown area. The eligible clients may utilize this dial-a-ride service from Monday through Friday. WSDOT Public Transportation Division is the designated recipient and the subrecipient is the Pierce County Department of Community Services.

3X.2 Location and Site Description

While the nearly four point increase in the percent of the labor force that is unemployed speaks of declining economic circumstances, the 6.4 to 10.2 rise is very close to the average for the more than thirty places surveyed in this study. However, each of these statistics is about one point higher than King County (Seattle) to the north.

Table C-9 Recent Socio-demographic Data for Pierce County

Variable Description	Data
Minimum / maximum monthly civilian labor force unemployed %	6.4/10.2
Percent of mortgaged homes, 2010Q1	6.2
Auto loan delinquency rate 2010Q1	1.1

Source: BLS, 2009 and TransUnion LLC, 2010 Q1

Table C-50 Census Socio-demographic Data for Tacoma and Seattle, WA

Variable Description	Tacoma	Seattle
Civilian labor force unemployed - %	7.3	5
Household income / State median household income	0.82	1.07
Percent Female	50.8	50.2
Mean travel time to work (minutes)	25.1	24.9
Median household income	47,207	61,055
No vehicle available, occupied housing units	10.8	15.3
Percent of households with food stamp benefits in past 12 months	13	6.4
Percent of Households with incomes < 10K	9.3	7.5
Percent of the female headed families with children under 18 in poverty	36.6	26.2
Percent of the families living in poverty during the past 12 months	12.1	6.7

Source: 2006-2008 American Community Survey

3X.3 Characteristics of clients (riders)

Two characteristics in the Tacoma-area service matched closely with the national study. First, the proportion of the respondents that was female, 54% was only one percentage point less than the overall percentage. Second, the proportion that did not have a household vehicle, 43%, was three points less than the overall average. The largest difference from national conditions was the percentage that has personal annual incomes less than \$10,000, 64% in Tacoma versus 42% for the entire study. Lastly, about sixty percent of the respondents did not go beyond high school, versus 51% for the overall, national study.

3X.4 Coordination Aspects

The lead organization for the Tacoma area is the Puget Sound Regional Council. The Council conducts the planning for four counties that include the cities of Seattle and Everett as well as Tacoma. The CTAA list of Tacoma partners includes forty organizations of which approximately ten were public or private transportation organizations and another ten represented work-development agencies. There were also a half dozen organizations representing seniors and several health related groups, two United Way partners and one faith-based group.

The CHSTP was found to be very useful in planning and prioritizing projects, but also reported by many as cumbersome to set-up and time consuming. One of the important aspects of the process was that it “helped further elevate special needs transportation planning into the regional transportation plan.” The planning partners were supportive of the process and attended numerous meetings. All respondents had contributed financially and found the process to be either important or very important. However, at least one indicated that they did not have the staff resources to continue attending the meetings.

3X.5 Highlights/Major Issues

A service such as Beyond the Borders is neither truly rural nor urban. It focuses completely on the rural part of the Pierce County but bring the clients to one of two transit stops that provide access to an extensive transit network. In this regard, although our study categorizes programs

into rural, small urban and large urban based on funding designations, the actual services frequently span mixed densities and do not easily lend themselves to the three size categories.

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