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Funding the Way to Work: Transportation Policies with Provisions for Low-Wage Workers

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FUNDING THE WAY TO WORK: TRANSPORTATION POLICIES WITH
PROVISIONS FOR LOW-WAGE WORKERS

A Thesis
Presented to
the Graduate School of
Clemson University

In Partial Fulfillment
of the Requirements for the Degree
Master of City and Regional Planning

by
Ronald Fred Combs II
August 2010

Accepted by:
Dr. Anne Dunning, Committee Chair
Dr. Barry Nocks
Dr. Holley Ulbrich

ABSTRACT

Adequate access to employment is a primary factor in providing a means to self-sufficiency for disadvantaged populations. In order to secure and retain employment, people must enjoy a degree of mobility.

The Job Access and Reverse Commute (JARC) program enhances mobility for low-wage workers and low-income individuals by offering federal funding for locally planned and developed access projects. Funding for JARC projects is a combination of federal and local funding, with local funding derived from local sources, such as dedicated taxes, other local-level government-funded programs for disadvantaged populations, businesses, or general accounts.

The objective of this research is to identify local-level funding sources for JARC projects and identify associations between types of local funding and utilization of JARC funding. Little research has been conducted on the implications of local funding measures on federally funded JARC projects. How do the different methods of generating matching local-level funds interact with JARC projects? This research fills a gap in the literature by surveying JARC recipients to uncover sources of local funds.

Survey results show JARC recipients tap a wide range of local sources to fund projects and JARC projects quickly receive federal funding respective to application submittal.

DEDICATION

I owe thanks to many people for helping me both professionally and personally while writing this thesis. Committee members Dr. Barry Nocks and Dr. Holley Ulbrich provided much appreciated wisdom and guidance. Chair Dr. Anne Dunning contributed heavily to the structure and the execution of this project while being able to put out many fires that arose during the past year.

I am grateful for the folks at transportation agencies nationwide for participating in the survey, while also spending time discussing their personal experiences with JARC programs.

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CHAPTER 1: INTRODUCTION

Adequate access to employment is a primary factor in providing a means to self-sufficiency for disadvantaged populations. Securing and retaining employment is the first step to self-sufficiency (Long, 2001). In order to secure and retain employment, people must enjoy a degree of mobility. Lack of efficient, reliable mobility is one of the greatest employment barriers for the poor (Blumenberg, 2003). Low-wage workers spend a higher proportion of their income on transportation and commuting costs (Roberto, 2008).

Current federal programs that target job access for low-wage workers promote public involvement and planning through mandatory funding matching policies. Little research has been conducted investigating the relationship of sources of local-level funds used for federal matching requirements. Local funds can be extracted through numerous sources, including local taxes specifically dedicated to transportation projects. This research investigates different methods of generating matching funds at the local level and their implications on implementation of federally funded transportation job access projects.

A literature review was conducted to provide background information on the issue of transportation access to employment for low-wage people. Transportation struggles for low-wage workers first came to the forefront of scholars during the social riots of the 1960s. The federal government acknowledged the issue during landmark legislative reform in the 1990s, which shifted the power to plan for and solve issues at the local

level. Legislative reform gave birth to the Job Access and Reverse Commute program (JARC), the primary federal policy that targets transportation access to employment, in 1998. This document first introduces current scholarly research on the relationship between transportation, low-wage workers, and employment. Then, a discussion of the major history of the issue follows, including both the social rioting of the 1960s and legislative reform of the 1990s. A dissection of the JARC program is included to provide the backdrop for the research questions and methodology. The third chapter introduces the methodology used to identify and associate local matching methods with federal program outcomes, and the fourth chapter provides statistical findings followed by the conclusion chapter.

CHAPTER 2: ADDRESSING JOB ACCESS

Research has shown that American cities have experienced job growth in low-density suburban areas, while public transportation systems struggle to bridge the gap between work and home effectively for low-wage workers. Typically, public transit systems are designed around the nine-to-five workday, while low-wage workers are more likely to work non-standard hours (Thakuria, 2008; Blumenberg, 2003; Cervero, 2002; GAO, 1998).

With public transit's poor coverage of low-wage jobs, some low-wage workers are left to rely on the automobile as their primary means of mobility, even though low-wage workers often lack the resources needed to purchase and maintain private vehicles (Blumenberg, 2003). Typically, low-wage workers have old unreliable cars that are close to needing expensive repairs (Cervero, 2004; Blumenberg & Haas, 2002). With the use of automobiles comes an increase in the negative externalities that automobiles create, such as poor air quality, traffic congestion, and gasoline consumption; however, access to automobiles leads to higher employment rates for welfare recipients (Blumenberg & Haas, 2002).

Discrepancies emerge when comparing job accessibility via public transit and private vehicle for low-wage workers. Research shows job accessibility for transit riders to be considerably lower than for those who commute using an automobile (Blumenberg, 2003; Kawabata, 2001). Numerous studies have been conducted to test the correlation

between public transportation and low-income employment, and no positive correlation has ever been found (Blumenberg, 2003). Some findings have included:

- proximity to transit might have small positive effect on low-income employment in Portland and Atlanta (Sanchez, 1999),
- transit has no effect on employment (Sanchez, Zhong-Ren, & Shen, 2003),
- small connection exists between transit and employment in Dade County, Florida (Thompson, 1997), and
- transit access has small effect on employment rates of car-less welfare recipients (Ong & Houston, 2002).

Policies that create access to employment opportunities sought to provide the means to self-sufficiency for the working poor. The working poor have been defined as individuals who are employed, but yet qualify for government assistance programs and have incomes less than twice the federal poverty threshold (Blumenberg, 2003). In 2003, working poor households represented nearly 21 percent of all households in the United States (Roberto, 2008). The working poor often find mobility difficult, and spend a higher proportion of their income on commuting than other members of society (Glaeser, Kahn, & Rappaport, 2008; USDOT, 2003). In a 2000 study of former recipients of Temporary Assistance to Needy Families (TANF) federal funds, 41 percent of unemployed responses identified transportation problems in maintaining employment (Julnes & Halter, 2000).

In short, people cannot work without access to work. People who fill low-wage positions are typically disadvantaged in terms of mobility. The disconnection between low-wage

workers, spatial location of employment and transportation was established in mainstream research during the 1960s. Landmark transportation legislation reform in the 1990s targeted job access for low-wage employees, which evolved into the Job Access and Reverse Commute Program (JARC).

2.1 Transportation and Social Unrest in the 1960s

The McCone Commission sought to describe reasons for high unemployment among central-city African Americans in the 1960s. The commission noted three possible causes of distress among the residents of South Central Los Angeles, including excessive unemployment and lack of education (Fogelson, 1967). The report also identified poor public transportation as one cause of social isolation (Cervero, 2002; Fogelson, 1967).

The commission noted:

Our investigation has brought into clear focus the fact that the inadequate and costly public transportation currently existing throughout the Los Angeles area seriously restricts the residents of disadvantaged areas, such as South Central Los Angeles. This lack of adequate transportation handicaps them in seeking and holding jobs, attending schools, shopping, and fulfilling other needs. It has had a major influence in creating a sense of isolation, with its resultant frustrations among the residents of South Central (Governor's Commission on the Los Angeles Riots, 1966).

The McCone Commission offers three solutions to the social inequities of inner city African Americans.

1. A job training center should be located in South Central.
2. A permanent pre-school should be placed in South Central.
3. Lastly, in terms of transportation inequality, public subsidy should be used to ensure adequate service for the area (Fogelson, 1967).

Following the McCone Commission, the Kerner Commission released recommendations to combat spatial mismatch based on a study of the causes of riots in US cities in 1968. The Kerner Commission cited the idea of geographically unbalanced job growth as a primary cause of social unrest, as employment opportunities were thriving in the suburbs while a workforce was isolated in the inner city (Thakuriah, 2008).

The Kerner Commission offered three solutions to help curb social unrest.

1. Incentives could be used to attract new employers to locate near the inner city, thereby shrinking the geographic distance between inner city residents and employment opportunities.
2. Policies and programs could be implemented to assist inner city residents in moving to job-rich suburban locations.
3. Transportation policies and services could be expanded to increase the mobility of inner city residents, and in turn increasing employment opportunities (National Advisory Commission on Civil Disorders (Kerner Commission), 1968).

Following the McCone and Kerner reports, John Kain studied high rates of poverty and unemployment among inner city African Americans in 1968. He found African Americans were subject to geographic barriers to finding well-paying jobs, due to the

suburbanization of employment centers and rising housing costs near new job locations (Kain 1968). Kain's work has spawned numerous studies focusing on the relationship between spatial location of people and jobs, which would become known as the spatial mismatch hypothesis. Preston and McLafferty define spatial mismatch as "the geographical barriers to employment for inner city residents that arise from changing social and economic relations and the impacts of those barriers on labor market achievement (Preston & McLafferty, 1999)." By adjusting the "inner city residents" classification to read "city residents," a definition of spatial mismatch emerges that works well with this research. Widening the lens to capture all residents, instead of inner city residents (inner city to suburb, or reverse commuting), allows the inclusion of rural commuters, suburb to suburb and typical suburb to inner city commuting for low-wage workers.

Current spatial mismatch scholars generally agree that the theory underscores a valid issue. The most prominent argument from advocate scholars is that low-income residents have been disconnected from suburban employment opportunities and do not have the ability or resources to overcome the disconnection (Blumenberg & Manville, 2004).

The Government Accountability Office released a report in 1998 that reiterated that a lack of mobility haunts welfare recipients in their quest to gain employment. The GAO reported that public transit service was unsatisfactory in terms of connecting people and employment as only 32 percent of entry-level jobs in manufacturing, retail and wholesale sectors were located within one quarter of a mile from a transit stop. A 1998 study of

Boston, cited by the GAO, identified three inadequacies of Boston's transit system: growing entry-level employment locations were beyond transit service, commuter rail fares were expensive, and where transit was available commute times were long with transfers and schedules that did not match evening or weekend work schedules.

In response to the McCone Commission, the Kerner Commission, and John Kain's spatial mismatch hypothesis, fixed-route transit service expansion policies were introduced in the late 1960s and early 1970s, but were met with disappointing results, and thus political support eroded (Cervero, 2004). Due to the shift in the political climate toward transportation in the 1990s, especially regarding devolution under the Intermodal Surface Transportation Efficiency Act of 1991 (discussed in detail in the next section), transportation programs have reemerged as a primary option for planners and policy makers to combat spatial mismatch (Thakuria, 2008; Cervero, 2002).

Empirical evidence for the spatial mismatch phenomenon is sufficiently documented so that Congress directly cited the spatial disconnect between low-income people and employment to justify the Job Access and Reverse Commute Program (Blumenberg, 2002)(49 USC §5309). A report released by the Federal Transit Administration in 2002 states:

While two-thirds of all new jobs are in the suburbs, three-quarters of welfare recipients live in central cities or rural areas. Studies in some metropolitan areas with extensive transit systems have shown that less

than half of the jobs are accessible by transit. Even fewer jobs are accessible by transit in areas with limited transit systems. Many entry-level workers have difficulty reaching jobs during evening or weekend shifts when transit services are frequently diminished or non-existent. Work trips can also be complex, involving several destinations, including childcare providers. The problems can be more challenging in rural areas, where approximately 40 percent of rural counties lack public transit systems and commuting distances generally are longer than in urban areas... Transportation is clearly a key barrier to those moving from welfare to work. Providing a variety of new or expanded transportation options for low-income workers, especially those who are receiving or who have recently received welfare benefits, will increase the likelihood that those workers will get and retain jobs. (Federal Transit Administration, 2002)

2.2 Devolution and Transportation Legislation

The passage of the Intermodal Surface Transportation Efficiency Act (ISTEA) in 1991 marked the beginnings of a significant shift of decision making authority and responsibility for transportation issues from the federal government to local entities (Blumenburg & Schweitzer, 2006; Edner & McDowell, 2002; Boschken, 1998; Lewis & Sprague, 1997; Gage & McDowell, 1995). The devolution of transportation continued through the expiration of ISTEA and subsequent passage of the Transportation Equity

Act for the 21st Century (TEA-21) in 1998, and the passage of the Safe, Accountable, Flexible, Efficient Transportation Equity Act-A Legacy for Users (SAFETEA-LU) in 2005.

Transportation reform bestowed greater authority for planning and implementation to metropolitan planning organizations (MPOs) (Katz, Puentes, & Bernstein, 2005). MPOs are regional bodies that originally served as advisors for state transportation departments through research (Katz, Puentes, & Bernstein, 2005). Through devolution, MPOs are now accountable for economic and environmental performance measures, incorporating public input and adhering to federal laws (Katz, Puentes, & Bernstein, 2005). State departments of transportation are responsible for delegating planning and implementation responsibilities for areas not served by MPOs. Under ISTEA, TEA 21 and SAFETEA-LU, the federal government increased local responsibility through greater decision-making authority to metropolitan areas, requiring MPOs to conduct transportation planning, and allowing flexibility in the use of federal dollars (Blumenburg & Schweitzer, 2006).

The literature has shown numerous arguments for and against federal devolution. Proponents of devolution argue it is beneficial for the most local levels of government to have decision making authority because they have a better understanding of the needs of their jurisdictions. Decentralized decision making could also result in innovation and more effective programs (Blumenburg & Schweitzer, 2006).

Detractors of federal devolution claim increased authority at the local level can create too much competition between jurisdictions. Such competition can result in a “race to the bottom,” where a minimal amount of programs and services are provided by the jurisdictions (Blumenburg & Schweitzer, 2006).

Devolution stimulates innovation through competition for resources. Competition for resources can result in the development of better programs and more efficient funding (Buchanan, 1995; Elazar, 1994). Devolution also allows a means for issues to be brought forth and solved by local experts, who are typically the most knowledgeable about the characteristics of the stakeholders where they practice. A thorough characterization of the social, economic, and political environments at the local level is vital to drafting policies that best address the needs of a jurisdiction (Blumenburg & Schweitzer, 2006; Elazar, 1994). Devolution of transportation policies allows all stakeholders to provide their expertise in holistic collaboration to generate policies that reflect the needs of the community; furthermore, local governments have easy access to give citizens voice in policy evolution (Kinkaid, 1999; Elazar, 1994; Ingram, 1990).

There is debate whether the devolutionary intent behind TEA-21 was actually realized. Some scholars argue that in TEA-21 the role of MPOs was significantly expanded, increasing public participation in the transportation planning process (Dilger, 2002). Other scholars claim the increase in local responsibility might actually be less than initially thought (Edner & McDowell, 2002; Cho & Wright, 2001; Kinkaid, 1999).

2.3 Job Access and Reverse Commute Program

Under TEA-21 in 1998, the Job Access and Reverse Commute (JARC) program was launched to provide federal funding for local transportation-related projects that improved job access. Congress cited aspects of the spatial mismatch hypothesis in justifying the need for JARC, and installed mechanisms within the program to promote local planning, problem identification, and solutions (Federal Transit Administration, 2002). The goal of JARC is to:

“Improve access to transportation services to employment and employment related activities for welfare recipients and eligible low-income individuals and to transport residents of urbanized areas and non-urbanized areas to suburban employment opportunities. Toward this goal, the Federal Transit Administration (FTA) provides financial assistance for transportation services planned, designed, and carried out to meet the transportation needs of eligible low-income individuals, and of reverse commuters regardless of income. The program requires coordination of Federally-assisted programs and services in order to make the most efficient use of Federal resources.” (Federal Transit Administration, 2007)

In 2009, the Federal Transit Administration contracted Commonwealth Environmental Systems to evaluate JARC services provided in 2007 and 2008. Two performance measures were defined and used for study: jobs accessed and one-way trips provided through JARC services. Commonwealth Environmental extracted data from 155 grant

recipients responsible for 645 JARC funded services. The final estimate concluded JARC services created access to 43.4 million jobs, 21.2 million of which were low-wage jobs. For fiscal year 2006, JARC services provided 22.9 million one-way trips (Commonwealth Environmental Systems, 2009). Thakuriah (2008) found JARC does well in effectively targeting the low-income population it intends to serve. Five primary goals for the JARC program were established in the Commonwealth Environmental Systems (2009) report to the Federal Transit Administration.

1. Expanded geographic coverage, which includes increasing the coverage area for a service
2. Extended hours or days of services, which includes adding hours and /or days to existing services
3. Improved system capacity, which includes adding resources that result in additional quantities of service
4. Improved access or improved connections, which include projects that improve an individual's ability to travel
5. Improved customer knowledge, which provides additional resources for information-based services especially customer information and training programs

JARC funding is available for several different types of services and programs.

Thakuriah (2008) categorized JARC programs into four categories:

- Fixed-route services,
- demand response services,
- car-oriented programs, and

- information services.

Fixed-route transit services are the most common category funded under JARC, comprising approximately 44 percent of projects for fiscal year 2006 (Thakuriah, 2008).

The Commonwealth Environmental Systems (2009) report also categorized JARC projects as capital improvement, trip-based projects, and information-based projects. Capital-improvement projects qualify under JARC's 80/20 federal-to-local match requirement and include "facilities and infrastructure to support transportation services." Trip-based services provide services to targeted people, such as fixed-route, flexible-route, and demand-response services. Information-based services include projects that disseminate information about transportation services, such as marketing and trip counseling.

2.3.1 Responsibility of JARC Recipients

JARC funding is divided among potential recipients first by size of locality. The chief executive officer of a state has responsibility to designate a state agency to administer the JARC program in small urban (population between 50,000 and 200,000) and rural areas (population less than 50,000). For large urbanized areas the Federal Transit Administration designates a local recipient which then has the authority to administer the JARC program.

Responsibilities of JARC recipients include the following.

- Notifying eligible local entities of funding availability
- Developing project selection criteria
- Determining applicant eligibility
- Conducting the competitive selection process
- Forwarding an annual program of projects (POP) and grant application to FTA
- Ensuring that all sub-recipients comply with Federal requirements
- Documenting the State's or designated recipient's procedures in a State Management Plan or a Program Management Plan as appropriate
- Certifying that allocations of grants to sub-recipients are distributed on a fair and equitable basis
- Certifying that projects selected were derived from a locally developed, coordinated public transit-human services transportation plan developed through a process that consists of representatives of public, private and non-profit transportation and human services providers with participation by the public

The Government Accountability Office found JARC recipients might have a large administrative workload relative to the available funding (United States Government Accountability Office, 2007).

2.3.2 JARC Project Profile for Charleston, South Carolina

The Berkeley-Charleston-Dorchester Council of Governments (BCDCOG) is the designated recipient of JARC funds for the large urban area of Charleston, South Carolina. BCDCOG received over \$450,000 in JARC funding during fiscal year 2008. This section provides a profile of BCDCOG's JARC projects for FY 2008 to illustrate use of the JARC program.

BCDCOG collaborated with Charleston Area Regional Transportation Authority (CARTA) to produce a capital improvement project and an operating project funded under the JARC program. BCDCOG provided over \$230,000 in local revenue from a mixture of general funds and real-estate tax revenue.

The purpose of the capital improvement project was to purchase an in-ground vehicle lift to service 40-foot express bus vehicles. The busses were used to provide job access and reverse commuting from Charleston's urban core to suburban employment centers (Federal Transit Administration, 2010). The in-ground vehicle lift improved system capacity and provided access to approximately 3,500 employment opportunities (Federal Transit Administration, 2010). Because the project was considered a capital improvement project it was eligible under the 80/20 federal to local funding match. The federal share was \$376,964.

The purpose of the operating project was to provide service connection between low-income individuals and jobs in Mt. Pleasant, South Carolina. Furthermore, the project provided a link to regional transit via a transfer agreement with a rural provider (Federal Transit Administration, 2010). The new services expanded geographic coverage, and provided access to 2,800 employment opportunities and 133,985 unlinked passenger trips (Federal Transit Administration, 2010). Because the project was considered an operating project it was eligible under the 50/50 federal to local funding match. The federal share was \$74,344.

BCDCOG's JARC projects illustrate the flexibility of options local agencies have in improving access to employment. The funding was used flexibly for both capital improvements and operations to provide trips for job access where spatial mismatch existed between residential low-income neighborhoods in the city and low-wage jobs in the suburbs.

2.3.3 JARC Planning Processes

JARC projects must be designed as a result of a planning process, which includes the creation of a coordinated plan between public transit and human services transportation, such as Medicare and services provided for the elderly and people with disabilities . The planning process should include inputs from representatives of “public, private, and non-profit transportation and human services providers and participations by members of the public” (Safe Accountable Flexible Efficient Transportation Equity Act: A Legacy for Users, 2010).

Having a plethora of choices for projects, local governments can use the planning process to determine the most efficient way to tackle their unique issues. All JARC projects are required to result from a collaborative planning process, including stakeholders such as area transportation planning agencies, councils of government (COGs), rural planning organizations (RPOs), regional councils, state departments of transportation, local governments, transportation providers, and human service agencies. The JARC program requires recipients to provide a minimum of 50 percent of a project's cost with the federal government providing a maximum of 50 percent for operating projects; for capital

projects, the federal government will provide up to 80 percent of the funding with an expected minimum 20 percent local share. The funding match mechanism stimulates interagency collaboration (Blumenberg & Manville, 2004). Leveraging of other federal funds given to human service agencies is allowed for local funding match under JARC, and the planning process is a vehicle to promote collaboration between human service agencies and transportation stakeholders (Federal Transit Administration, 2007) (Blumenburg & Schweitzer, 2006). The Government Accountability Office’s review of JARC cited the planning process as a challenge to JARC recipients (GAO 2009).

Authorized funding levels have steadily increased since fiscal year 2005. Authorized funding increased from 4 to 11 percent annually between FY 2005 and FY 2009 (Table 1). From a period perspective, funding increased 33 percent from 2005 to 2009, or \$41 million. The Federal Transit Administration authorized \$727 million in total funding from FY 2005 to FY 2009.

JARC Authorizations 2005-2009		
Fiscal Year	Authorizations	Percent Change
2005	\$ 124,000,000	
2006	\$ 138,000,000	11%
2007	\$ 144,000,000	4%
2008	\$ 156,000,000	8%
2009	\$ 165,000,000	6%
Total	\$ 727,000,000	33%

Table 1: Job Access and Reverse Commute Authorizations FY 2005-2009

Including lapsing funds from FY 2006, JARC apportionment figures show that nearly \$18 million more than was authorized from the Federal Transit Administration was

available for FY 2009 projects (Table 2). Because JARC funds lapse after a three-year implementation window has expired, total apportionments for future fiscal years depend on the success of project implementation of prior fiscal years.

JARC Apportionments 2005-2009	
Fiscal Year	Apportionments
2005	\$ 124,000,000
2006	\$ 136,620,000
2007	\$ 144,000,000
2008	\$ 156,000,000
2009	\$ 183,103,175
Total	\$ 743,723,175

Table 2: Job Access and Reverse Commute Apportionments Fiscal Years 2005-2009

Federal funding for JARC projects was originally grant-based under TEA-21, but it was changed to a formula-based allocation under SAFETEA-LU. Distribution of authorized funding is as follows.

- Large urban areas with population greater than 200,000 are apportioned 60 percent of funding;
- small urban areas with population between 50,000 and 200,000 are apportioned 20 percent of funding; and,
- rural areas with population less than 50,000 are apportioned 20 percent of funding.

A formula is then applied to each area to determine the maximum amount of federal funding available for JARC projects (Federal Transit Administration, 2007).

At the local level, various sources can be tapped to generate funds to satisfy the federal matching requirements. Some local governments have used dedicated taxes to fund transit related projects, in which these funds may be used for JARC projects (United States Government Accountability Office, 2007). Dedicated funding sources include transportation user taxes and charges, taxes and charges related to economic benefit, broad based taxes, and so forth. Non-dedicated funding sources for JARC local funding include other local agencies that receive federal funding (typically funds from Temporary Assistance for Needy Families and Welfare to Work), private company donations and local general funds (Blumenburg & Schweitzer, 2006).

Recipients of JARC funding in large urbanized areas are typically the agencies with authority and responsibility of administering the project. For small urbanized areas and rural areas, the chief executive officer of a state has the responsibility of designating recipient agencies (Federal Transit Administration, 2007). A time line of JARC projects can be found in Table 3.

<p>Identify and designate recipients. <i>Federal Transit Administration (FTA)</i></p>	<ul style="list-style-type: none"> • Designated recipients for large urbanized areas apportioned 60% of funding • State governor selected State agencies apportioned 20% for small urbanized and 20% rural areas
<p>Engage a local planning process.</p>	<ul style="list-style-type: none"> • Designated recipients must engage in a planning process. • JARC must be derived from a human services transportation plan.
<p>Conduct a competitive selection process.</p>	<ul style="list-style-type: none"> • Develop application and evaluation criteria. • Announce a call for projects. • Collect and review applications. • Evaluate applications against developed criteria.
<p>Incorporate JARC projects into transportation coordination plans.</p>	<ul style="list-style-type: none"> • Projects outside urbanized areas must be included in statewide long-range transportation plans. • Projects in urbanized areas must be included in metropolitan transportation plans.
<p>Submit the locally designated program of projects; distribute awarded funds to selected projects.</p>	<ul style="list-style-type: none"> • Designated recipients submit list of projects to be funded. • FTA awards JARC funds via Transportation Electronic Awards Management (TEAM). • Designated recipients then distribute them to projects.

Table 3: Project Timeline for Job Access and Reverse Commute

Source: United States Department of Transportation

2.3.4 Job Access and Reverse Commute Descriptive Statistics

The JARC program derives authorized funds from the mass transit account of the Highway Trust Fund. Authorized levels of funding increased by approximately 33 percent from 2005 (when JARC shifted to a formula-based program) to 2009.

Source of Federal Funding for JARC, in Millions						
Federal Source	2005	2006	2007	2008	2009	Total
Mass Transit Account	\$ 108	\$ 138	\$ 144	\$ 156	\$ 165	\$ 711
General Fund	\$ 16	\$ -	\$ -	\$ -	\$ -	\$ 16
Total	\$ 124	\$ 138	\$ 144	\$ 156	\$ 165	\$ 727

Table 4: Job Access and Reverse Commute Federal Funding Sources Source: United States Department of Transportation

Yearly funding increases have ranged from a high of \$14 million between 2005 and 2006 to a low of \$6 million between 2006 and 2007 (Table 5).

Job Access and Reverse Commute Authorizations and Apportionments 2005-2009		
Fiscal Year	Authorizations	Apportionments
2005	\$ 124,000,000	\$ 124,000,000
2006	\$ 138,000,000	\$ 136,620,000
2007	\$ 144,000,000	\$ 144,000,000
2008	\$ 156,000,000	\$ 156,000,000
2009	\$ 165,000,000	\$ 183,103,175
Total	\$ 727,000,000	\$ 743,723,175

Table 5: Job Access and Reverse Commute Authorizations and Apportionments 2005 to 2009

Authorized funding levels do not include lapsed funds. In FY 2006, approximately 14 percent of funds lapsed (United States Government Accountability Office, 2009). Funds that lapsed during 2006 were added to the original \$165 million authorized for FY 2009. Therefore, the total funding available for FY 2009 is slightly more than \$183 million. Because JARC funding can be retroactively applied to projects that were planned and

approved, but not implemented in fiscal years 2007 and 2008, the total funding available for 2010 and 2011 is unknown at the time of this report.

Because lapsed funding is added to future authorized funding, there is value in grasping the amount of authorized funding unused per fiscal year. In fiscal year 2005, the Federal Transit Administration obligated 2 percent more funding than was authorized. In fiscal year 2006, FTA obligated just 56 percent of authorized monies; and 41 percent in FY 2007. Like FY 2005, FY 2008 had more obligated funding than apportioned funding (Table 6).

Aggregate JARC funding data is depicted in Table 6 which shows JARC obligations and apportionments from FY 2006 to 2009. FY 2005 is omitted because the Federal Transit Administration's 60/20/20 funding scheme was first applied in FY 2006.

Job Access and Reverse Commute Obligated and Apportioned Funding 2006-2009		
Fiscal Year	Obligated	Apportioned
2006	\$ 77,283,469	\$ 136,620,000
2007	\$ 59,568,417	\$ 144,000,000
2008	\$ 164,405,959	\$ 156,000,000
2009	\$ 134,135,341	\$ 183,103,175
Total	\$ 435,393,186	\$ 619,723,175

Table 6: Job Access and Reverse Commute Obligated and Apportioned Funding 2006-2009

Large urbanized areas (larger than 200,000 people) receive 60 percent of JARC apportions per fiscal year, beginning in FY 2006. The percentage of apportioned funding used from FY 2006 to FY 2009 is 69 percent, with a yearly high of 106 percent in FY

2008 and low of 33 percent in FY 2007. Small urbanized areas (between 50,000 and 200,000 people) are apportioned 20 percent of JARC funds per fiscal year, beginning in FY 2006. Small urbanized area funding was underutilized in FY 2006 and 2007, as 11 percent of apportioned funding was obligated in FY 2006, and 12 percent of apportioned funding was obligated in FY 2007 (Table 7).

	Large Urban (60%)	Small Urban (20%)	Rural (20%)	Total
Fiscal Year	Percent of Apportioned Funding Used	Percent of Apportioned Funding Used	Percent of Apportioned Funding Used	Percent of Apportioned Funding Used
2006	59%	11%	95%	57%
2007	33%	12%	97%	41%
2008	106%	72%	138%	105%
2009	75%	57%	86%	73%
Total	69%	40%	104%	70%

Table 7: Percent of Apportioned Funding Obligated for Job Access and Reverse Commute Projects 2006-2009

Funding obligations increased to 72 percent of apportioned funds in FY 2008 and 57 percent in FY 2009. Like small urbanized areas, 20 percent of JARC apportions are assigned to rural areas (less than 50,000 people). From FY 2006 to FY 2009, 104 percent of apportioned funding has been obligated to rural areas. In FY 2008 alone, 138 percent of apportioned funding was obligated.

2.3.5 Job Access and Reverse Commute Program Evaluation Challenges

The Government Accountability Office (GAO) released a report in 2009 that outlined issues with evaluation and implementation of JARC projects. To evaluate issues surrounding JARC, the GAO interviewed 26 designated recipients and 16 sub-recipients,

including 9 states and 17 agencies that represented large urbanized areas. The GAO found evaluating JARC was a challenge due to difficulties quantifying jobs accessed. Other issues arise in terms of data reliability, including isolating JARC-specific transit trips and the effectiveness of educational services within some JARC programs. The GAO also found that the mandatory planning processes and collaboration are extensive compared with the relatively small amount of funding available. Some agencies that were interviewed noted concerns about securing stable funding sources to satisfy JARC's matching requirement.

2.3.6 Summary on Job Access and Reverse Commute

The JARC program encompasses elements of devolution by shifting decision making authority from the federal government to local governments and combats social ills stemming from spatial mismatch of people and jobs. JARC's built-in components of mandatory planning and fundraising allow for each jurisdiction to solve their spatial mismatch issues as they see fit; however, administration cost (both fiscal and opportunity) might be excessive relative to the amount of funding available.

2.4 Funding for Employment Access

Research has shown that employment access is best achieved through private vehicle; however, many low-income persons cannot afford to purchase, insure, and maintain private vehicles. Publicly funded access to employment offers an alternative to the automobile through transit. Even though JARC is the primary program to enhance access

to employment for low-income persons, existing transit services and other social programs also contribute.

2.4.1 Federal Funding for the Job Access and Reverse Commute Program

The Job Access and Reverse Commute program has been federally funded exclusively through the Mass Transit Account of the Highway Trust Fund since 2006. In FY 2005, \$16 million was contributed from general funds via the extension of TEA-21, in addition to \$108 million drawn from the Mass Transit Account (Table 9).

Source of Federal Funding for JARC, in Millions						
Federal Source	2005	2006	2007	2008	2009	Total
Mass Transit Account	\$ 108	\$ 138	\$ 144	\$ 156	\$ 165	\$ 711
General Fund	\$ 16	\$ -	\$ -	\$ -	\$ -	\$ 16
Total	\$ 124	\$ 138	\$ 144	\$ 156	\$ 165	\$ 727

Table 8: Federal Funding Sources for Job Access and Reverse Commute Projects

The Highway Trust Fund is funded through a combination of sales taxes on tires, trucks, buses, and trailers' truck usage taxes; and, excise taxes on motor fuels. Approximately 90 percent of Highway Trust Fund revenue is generated from motor fuel excise taxes (Fischer, 2004). The current rate of tax on gasoline and gasohol is 18.4 cents, with 15.44 cents going toward the Highway Trust Fund, 2.86 cents toward the Mass Transit Account and 0.1 cents to the Underground Storage Tank Trust Fund (Table 9: Federal Highway-User Tax Rates).

Federal Highway-User Tax Rates - Current and Enacted for the Future

Fuel	Tax Rate	Effective Date	Distribution of Tax			
			Highway Trust Fund		Leaking Underground Storage Tank Trust Fund	General Fund
			Highway Account	Mass Transit Account		
Fuel Taxes (cents per gallon)						
Gasoline	18.4	10/01/97	15.44	2.86	0.1	0
Gasohol	18.4	01/01/05	15.44	2.86	0.1	0
Diesel Fuel	24.4	10/01/97	21.44	2.86	0.1	0
Liquefied Petroleum Gas	13.6	10/01/97	11.47	2.13	0	0
	18.3	10/01/06	16.17	2.13	0	0
Liquefied Natural Gas	11.9	10/01/97	10.04	1.86	0	0
	24.3	10/01/06	22.44	1.86	0	0
M85 (85 percent methanol)	9.25	10/01/97	7.72	1.43	0.1	0
Compressed Natural Gas (cents per thousand cubic feet)	48.54	10/01/97	38.83	9.71	0	0
	TBD ¹	10/01/06	TBD	9.71	0	0

Table 9: Federal Highway-User Tax Rates

Revenue to the Highway Trust Fund suffered during late 2007 through mid-2008 due to Americans driving 100 billion fewer miles than the same period the previous year (Federal Highway Administration, 2008). Decreasing vehicle miles traveled (VMT) sparked a debate on the dependability of the federal gas tax, as it is inherently a user fee that can be significantly affected by rising oil prices, increased mass transit options, and more fuel-efficient vehicles. In September of 2008, the Highway Trust Fund was nearly depleted due to the sharp decrease in highway users and in turn, Congress passed legislation to replenish the Highway Trust Fund by slightly more than \$8 billion

(AASHTO, 2008). The rate of tax on motor fuels has remained relatively constant since 1993.

2.4.2 Local Public Funding for Transit

Funding for transit at the local level is a complicated web of taxes, fees and other policies incorporated by numerous agencies and transit providers. Local funding is defined as “any revenues where the tax or fee is assessed in a local or regional area and a local or regional government is empowered to implement the tax or fee.” In 2007, 23.4 percent of operating revenue and 11.2 percent of capital funding was generated at the local level (Neff, 2009).

In some cases, transit organizations are granted taxation powers. State legislatures must grant or establish taxation powers to transit organizations, usually in the form of an authority, district, agency, or corporation (Vuchic, 2005). Transit organizations with taxation powers typically serve several local jurisdictions. Examples of transit organizations with local taxation power at the metropolitan level include the San Francisco Bay Area Rapid Transit and the Denver Regional Transportation District. Examples of medium-sized metropolitan areas with organizations that have taxation power include Albany, New York, and Bridgeport, Connecticut. State legislature also restricts the type of taxation transit organizations can levy (Vuchic, 2005).

2.4.3 Transit Generated Revenue

Transit service providers generate significant revenue from fares and business ventures. Fares can be described in ratio form, as the ratio of fares generated to operating expenses, called the farebox recovery ratio. Typical farebox recovery ratios are between 30 and 90 percent (Vuchic, 2005).

Other sources of transit-generated revenue include (Cherrington, 2008):

- contract services with other local organizations,
- lease revenues for the use of capital assets owned by the transit agency,
- advertising revenues,
- concession revenue, and
- donations from other individuals or organizations

2.4.4 Taxes on Consumption: Local Sales Tax

Sales taxes, in a general sense, are used to extract revenue from a wide base of consumers. Areas with attractive tourist destinations can serve as an example.. People who visit tourist destinations use local public services for short periods of time, while also contributing revenue through consumption, be it eating at local restaurants, staying in local hotels, or shopping at local stores (Ulbrich, 2003). Because of the broad base of sales taxes their applicability of different types of goods, and their ability to be exported (Wachs, 2005; Ulbrich, 2003), sales taxes are widely used to fund transit at the local level (Cambridge Systematics, Inc, 2009).

A major concern with reliance on sales taxes to fund transit is its volatility. Sales taxes are directly linked to consumption, which in turn links generated revenue to consumption. When consumption decreases, as it does in times of economic recession, generated revenue also decreases. Transit systems that are too reliant on sales tax revenue are vulnerable to significant reduction in generated revenues during sporadic economic periods.

2.4.5 Taxes on Income

Taxes on income are based on the financial income of an individual. The use of income tax to fund transit at the local level is less common than sales, property, or gas taxes (Cambridge Systematics, Inc, 2009).

Income taxes are possibilities for transit authorities to expand their tax bases. Income taxes can be structured progressively, and thus the burden of the income tax is absorbed by taxpayers who have a higher ability to pay (Ulbrich, 2003). The positive externalities transit use generates, such as reduced congestion, improved air quality, and less energy consumption, are all externalities enjoyed by all members of a community. Thus, even if people with a higher ability to pay choose not to use transit directly, they do receive the positive externalities that result from increased income taxes funding transit.

2.4.6 Taxes on Wealth

Taxes on wealth and assets for transit purposes are primarily property taxes. Property taxes are ad valorem taxes on real property. Property taxes are authorized for use by

special districts and authorities (Ulbrich, 2003). Property taxes are based on mill rates applied to an assessed value of the property (Cambridge Systematics, Inc, 2009; Ulbrich, 2003).

In terms of transit, property taxes are most likely to be used by special districts (Cambridge Systematics, Inc, 2009). Revenue generated from property taxes are often used for debt service on bonds rather than operating costs (Cherrington, 2008)

2.4.7 Local Fuels Tax

Local fuels taxes are typically excise taxes, much like federal and state versions. Fuel taxes are relatively less common than other types of taxes at the local level. Fuel taxes are most often found in larger urbanized areas (Cherrington, 2008).

Excise taxes are similar to sales taxes in that they are unstable sources of revenue because of their relationship to consumption. However, at the state and national level, the majority of fuel taxes are derived from single passenger automobiles. If local agencies expand the use of excise fuel taxes for transit then the some of the burden of funding transit would fall on the automobile user.

2.4.8 Other Local Funding Sources

Other local funding sources that are used to fund transit include user fees, vehicle registration and license charges, truck weight and distance charges, and tolls. Fees and taxes that relate to different classes of vehicles should reflect the costs incurred by the government to provide the ability to travel (Wachs, 2005).

2.4.9 Temporary Assistance for Needy Families

In 1996, the Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA) transformed social welfare in the United States. PRWORA replaced the Aid to Families with Dependent Children, Job Opportunities and Basic Skills and Emergency Assistance programs with the Temporary Assistance for Needy Families (TANF) block grant program (National Association of Social Workers, 1996).

PRWORA established national policy goals and other regulations while providing block grants to states. PRWORA policy allows states flexibility in the usage of the block grants, and allows states to shift the functions of welfare to local governments (Blumenberg, 2002). TANF grants provide direct cash assistance to families with children with the goal of providing an avenue for families to move toward financial self-dependence (United States Office of Management and Budget, 2010).

2.4.10 Workforce Investment Act

The Workforce Investment Act of 1998 (WIA) is the current legislation focused on employment and training that provides federal grants to states to improve the local labor pool (U.S. Office of Management and Budget, 2010). WIA offers many of the same policy attributes as JARC, including assigning decision making authority and implementation responsibility to the most local level of government (devolution) while promoting cooperation and collaboration between economic regions (Mason, 2008). Goals of WIA include increasing the number of jobs through business community-driven

economic development, and improving the quality of the local labor pool through job-seeking and retaining assistance (Working for America Institute).

WIA provides a myriad of services to potential job-seekers that are administered through One-Stop centers and organized on three progressive levels, as shown on **Table 10: Services Provided through One-Stop Centers** (Working for America Institute). Transportation support is found on the fringes of services offered under WIA; however WIA funding can be used as JARC local funds (Job Links, 2010).

Level I: Core Services

- Skills assessments
- Access to job vacancy listings
- Job search and placement assistance
- Access to information on job skills requirements
- Information on providers of vocational rehabilitation activities
- Access to lists of training providers
- Other information

Level II: Intensive Services

- Available to persons who have completed Level I and are unable to gain employment
- Also available to persons who are employed and are in need of services to obtain better employment as a path to self-sufficiency
- Individual career planning
- Resume preparation assistance
- Internships
- Comprehensive assessments

Level III: Training Services

- Available to employed adults who completed Level II and can not gain employment which leads to self-sufficiency
- To access training services, applicants must demonstrate the necessary skills needed to complete the program
- Applicant must select a training program that is linked to local job vacancies
- Applicant must not be eligible for Federal Pell Grants or other financial assistance

Other Assistance

- On-the-Job-Training
- Customized Training
- Support Services
 - Transportation
 - Childcare
- Needs-Related Payments

Table 10: Services Provided through One-Stop Centers

Federal programs beyond TANF and WIA may also be used to contribute to the local funding match for JARC projects, but are much less common. Allowing other federally funded programs to contribute to JARC is a mechanism used to spur collaborative planning among local agencies.

2.4.11 Synthesis on Funding Job Access

Funding for employment access can derive from many sources. Many low-income or unemployed persons rely on public transit for access to work, and because public transit is not typically financially self-sustaining, funding for public transit is generated at the local level from various sources including taxes and fees. Federal programs such as Temporary Assistance to Needy Families and the Workforce Investment Act contain provisions to provide some transportation access.

JARC is the primary program designed to increase employment access for low-income people. JARC recipients may use any combination of local funding sources (taxes and fees) or funding from other federal programs (almost exclusively TANF and WtW) to enhance mobility.

2.5 Synthesis of the Literature

People cannot work if they do not have access to work. Low-income people are disadvantaged in finding and retaining employment because:

- they spend a higher portion of their income on commuting (Roberto, 2008);

- they are more likely to work non-standard hours (Thakuriah, 2008; Blumenburg, 2003; Cervero, 2002);
- employment opportunities have increased in the suburban fringe, outside the reach of transit (GAO, 2007; Blumenburg & Waller, 2005); and,
- a spatial disconnection separates entry-level jobs and entry-level workers (Thakuriah, 2008; GAO, 2007).

The JARC program was established to provide funding for transportation-related services that provide employment access to low-income people. The structure of the JARC program reflects examples of best practices for access to employment. JARC funding is flexible, thereby allowing for a “mix of transportation solutions” and the pursuit of “varied regional and local policy strategies creatively” that Blumenburg and Waller (2003) cite as key in effective access to employment. JARC projects must be derived from a collaborative planning process.

JARC projects operate under a funding mechanism that drive collaboration and planning. Localities applying for JARC monies must match federal funds with locally generated funds. Local match requirements are 50 percent minimum for transit operating projects and 20 percent minimum for capital improvement projects. JARC recipients may tap many local funding sources to satisfy JARC’s matching requirement. The literature falls short of describing the interaction between different local funding sources and JARC. How do the different methods of generating matching funds interact with Job Access and Reverse Commute (JARC) funding disbursement?

CHAPTER 3: METHODOLOGY

The objective of this research was to characterize local funding structures for JARC projects and identify associations between types of local funding and utilization of JARC funding. How do the different methods of generating matching local-level funds interact with JARC funding disbursement? What implications do local funding sources have on types of JARC projects? This research fills a gap in the literature by observing JARC from the perspective of local funding.

3.1 Analysis Methods

To fulfill this objective, this research used statistical analysis of local funding sources for JARC projects. This research has assessed associations between federal numbers and the local funding structures of awardees. Four subtopics were developed to frame and fulfill the research objective:

1. local funding sources,
2. use of multiple local funding sources,
3. speed of federal disbursement, and
4. types of JARC projects.

3.1.1 Local Funding Sources

The first and broadest subtopic outlined is the sources of local funding used to satisfy JARC's matching requirement. The goal of this subtopic was to identify possible avenues for localities to generate matching funds and count their occurrence in JARC projects.

Reliance on types of local funding sources emerged upon query of local funding sources. Reliance on types of local funding sources was measured by identification of the most prevalent primary sources, as well as the most prevalent secondary sources, used to fund JARC projects. Occurrence of sources was then categorized by size of locality and type of project.

Aggregation of local funding source types was applied to build a workable data set. Local funding sources were determined to be dedicated or non-dedicated, and categorized accordingly (Figure 1).

Dedicated Funding Sources	Non-Dedicated Funding Sources
<ul style="list-style-type: none"> •Fuel or motor vehicle taxes •Parking revenues •Tolls or entry fees •Employer payroll or occupational taxes •Real estate value increment financing •Retail sales taxes •Personal income taxes 	<ul style="list-style-type: none"> •Non-profit agency contributions •Local agency contributions •Philanthropic contributions •General funds

Figure 1: List of Dedicated and Non-Dedicated Funding Sources

Local funding source data were aggregated on two levels, dedicated and non-dedicated (Table 1), adapted from Vuchic (2005) and GAO (2009). Dedicated funding sources are those that are perpetual revenue generators, such as taxes or fees. Dedicated funding sources are more dependable and can carry over from year to year, thereby more sensitive

to economic changes. Non-dedicated funding sources are contributions from specific sources that theoretically only occur for negotiated sums for limited periods of time. Non-dedicated funding sources can be less dependable from year to year, but less sensitive to economic changes. In other words, non-dedicated funding sources allow for JARC projects to become a reality by promising and delivering a sum of funds used to satisfy JARC's local match requirement.

3.1.2 Use of Multiple Local Funding Sources

Multiple local funding sources may contribute to the matching requirement of a single JARC project. Projects that tapped multiple funding sources could have different implications compared to projects with a single funding source, therefore counting the occurrences of multiple funding sources projects was necessary.

3.1.3 Speed of Federal Disbursement

JARC funding apportionments lapse if they are not used within three fiscal years. The speed of federal disbursement is the difference in years between the fiscal year of the first federal disbursement for a JARC project and the fiscal year of application for federal funding.

3.1.4 Types of Projects

The Federal Transit Administration requires JARC projects to be reported under specific project classifications in order to better measure overall program impact, and those classifications were used here (Table 11: Federal Transit Administration Project

Classification). Data aggregation for local funding sources remained as above, in terms of dedicated and non-dedicated sources.

Operating and Planning Projects	Capital Improvement Projects
<ul style="list-style-type: none"> •Fixed route •Flexible route •Shuttle feeder •Demand response •User-side subsidy/vouchers •Mobility management •One-stop center/customer referral •Trip/itinerary planning •One-on-one travel •Group training •Internet based information •Information materials/marketing 	<ul style="list-style-type: none"> •Vehicles for individuals •Vehicles agencies •Infrastructure

Table 11: Federal Transit Administration Project Classification

Further exploration of Federal Transit Administration classified projects and local funding sources was conducted by re-aggregating operating and planning projects by Commonwealth Environmental Systems (2009) model (Table 12: Commonwealth Environmental Systems' Model for Project Classification). Because previous research has shown trip-based services have been the most frequent type of JARC project (Commonwealth Environmental Systems, 2009), isolating information-based services offered new insight on lesser-used JARC programs.

Trip Based Service	Information Based Service	Capital Improvement Projects
<ul style="list-style-type: none"> •Fixed route •Flexible route •Shuttle feeder •Demand response •User-side subsidy/vouchers 	<ul style="list-style-type: none"> •Mobility management •One-stop center/customer referral •Trip/itinerary planning •One-on-one travel •Group training •Internet based information •Information materials/marketing 	<ul style="list-style-type: none"> •Vehicles for individuals •Vehicles for agencies •Vanpool or carsharing

Table 12: Commonwealth Environmental Systems' Model for Project Classification

The four subtopics each offer alternate perspectives of JARC projects' use of local funding sources. Many of the questions this research attempted to answer required data from local JARC participants, as well as federal data.

3.2 Data Collection

Data needed to complete this research included the following for fiscal years 2005-2009.

- Federal apportion levels for JARC funding for large urban, small urban and rural areas
- A comprehensive list of JARC grantees
- Federal funding appropriations for JARC projects
- Local funding contributions for JARC projects
- Date of project submittal to the FTA for each JARC project

- Date of initial federal disbursement of funding for each JARC project
- Source of local matching funds for each JARC project
- JARC project classification

Data were collected from three sources: a Freedom of Information Act (FOIA) request of the Federal Transit Administration, data collected from internet sources (online FTA data), and a survey of JARC recipients from FY 2005 to 2009.

3.3 Freedom of Information Act Request

A Freedom of Information Act (FOIA) request was submitted to the Federal Transit Administration on February 9, 2010 (Appendix 1) and data were received on April 10, 2010. The FOIA request provided a comprehensive listing of JARC recipients, amount of federal funding disbursement and the fiscal year(s) in which disbursement(s) was issued. Based upon the FTA listing of JARC recipients, a data base of contact information (primarily email addresses) of recipients was collected through internet research.

3.4 Internet Data Collection

The Federal Transit Administration offers JARC data on its website as a public source.

Data collected from the FTA website included:

- Federal authorization and apportionment of JARC funding for FY 2005-2009 (Appendix 3)
- Federal obligations for JARC projects for FY 2005-2009 (Appendix 4)
- Designated JARC recipients
- Apportioned funding for each large urban, small urban and rural recipient

The lack of information on local funding sources from both the public FTA data from www.fta.gov and data received from the FOIA request received from the FTA led to the need to design and execute a survey of JARC recipients.

3.5 Survey of Job Access and Reverse Commute Recipients

The purpose of surveying JARC recipients was to build data on local funding used for JARC projects. Such data were not available from the Federal Transit Administration. The survey (Appendix 7) was designed and distributed electronically to each JARC recipient based on the listing of recipients provided by the FTA under the FOIA request. The survey asked recipients for the following data to complete the needed data for fiscal years 2005-2009:

- Fiscal year of JARC application
- Fiscal year of federal contribution
- Amount of local funding budgeted per JARC project
- Amount of federal funding budgeted per JARC project
- Source(s) of local funding for each JARC project

The first three survey questions are mechanisms to identify the respondent by agency name, project number and project description.

1. Please select the agency you represent from this pull-down list. If your agency does not appear, please type it into the space provided.
2. What is the FTA project number (ex: SC37x001)?
3. Please enter a brief title for this project for verification (50 character max.)

The agency name and project number were used in conjunction with the FOIA data to match projects across data sources. Project description data was used as a last resort to match an agency with a project in case an error was made by a respondent during input of survey answers.

The fourth survey question asked the fiscal year the project was submitted for funding. The fiscal year of project application is important because the objective of this research is to study the timeliness of implementation of JARC projects. The responses to question four are assumed to be the first fiscal year the project is approved for federal funding. The fifth survey question offers the second half of the temporal data as it asks JARC recipients to identify each year a specific project received federal funding. The responses for question five were compared to the FOIA data, which included federal disbursements of funding.

The sixth survey question seeks the amount of local funding budgeted for specific project numbers. Understanding the amount of local funding budgeted was used in a descriptive manner to further measure the sample captured in the survey responses, and as another mechanism to match projects with FOIA data.

The seventh survey question is the indication of JARC project type by FTA class. The project classes used as options were taken from Commonwealth Environmental Systems (2009). Knowing the JARC project by FTA class provided a means to answer questions about the implications of local-matching funds and projects types. Furthermore, JARC

project classes allow for grouping into capital, operating and planning projects which have different funding implications.

The eighth and ninth questions are the essence of this research because they identify all local funding sources used to satisfy JARC's funding match requirement and the largest local source used. The eighth question uncovers all local funding sources used, while the ninth question asks for the largest local source if more than one local source is present. Each local source has an effect on JARC projects, and was captured in question seven while the assumption is made that the largest local source has the most impact on project implementation.

The tenth question is a mechanism to repeat the second through ninth questions if an agency is the recipient on more than one project number. The survey was designed to allow for eight different project numbers to be input per agency.

The conclusion of the survey provided space for respondents to offer comments and their email if they would like a copy of study results.

Launching the survey began on June 10, 2010 and concluded June 22, 2010. There were two invitations to participate in the survey emailed directly to JARC recipients. Data extraction from the survey concluded on June 28, 2010.

3.6 Conclusion

This research employs statistical analysis of data from three sources, as indicated in Table 13. Data from these sources provided information on local funding sources, speed of

federal disbursement, and types of projects. This study described, analyzed, and tested Aligning data across each data source was challenging due to multiple projects being assigned a single project number.

Internet Research	FOIA Request to the FTA	Survey of JARC Grantees
<ul style="list-style-type: none"> • Federal allocation levels of JARC projects for FY 2005-2009 per each large urban, small urban and rural area. • Contact Information for each JARC grantee used to distribute the survey. 	<ul style="list-style-type: none"> • Comprehensive list of JARC grantees for FY 2005-2009, including FTA assigned project numbers. • Dates of federal funding disbursement for each JARC project. 	<ul style="list-style-type: none"> • Fiscal year of project application for JARC funding. • Amount of federal JARC funding budgeted for projects. • Amount of local contributions budgeted for projects. • Sources of local funding used to satisfy JARC's local match requirement. • JARC project classification.

Table 13: Data Collection Methodology

CHAPTER 4: DATA ANALYSIS

Population was measured under two perspectives. First, the number of JARC recipients who received JARC funding during FY 2005 to 2009 (JARC recipients who received funding as part of university research were excluded) for a total of 297 potential respondents. Second, individual JARC project numbers were used because some recipients were connected with more than one project number. There were a total of 640 unique project numbers supplied by FTA (Table 14: JARC Project Numbers Fiscal Year 2005-2009).

Fiscal Year	Count of Project Numbers
2005	138
2006	81
2007	81
2008	212
2009	128
Total	640

Table 14: JARC Project Numbers Fiscal Year 2005-2009

4.1 Data Cleaning

Data cleaning was conducted to determine responses that were eligible to be cross referenced with other data sources. During the data cleaning phase, all responses were considered unless they failed to be attributed to federal data or offered non-descriptive data.

A two-question test was applied to all responses to extract usable data:

1. Does the project number, or other identification data, reported by the respondent match a project number found on the data from FTA FOIA request?
2. Does the response offer specific data about local funding sources and FTA classification?

The first question connects survey data with FTA FOIA request data which is necessary to determine the first year of federal funding. The project number was the first attempt to match survey responses to FOIA data. If the project number was not a perfect match, other identification data gathered by the survey were used to attempt to connect the two data sources.

The second question validates responses by proving their impact on potential relationships between local funding measures and JARC program. Vague responses, such as “varies” or “multiple” do allow follow the protocol for this research because vague responses cannot be aggregated appropriately.

4.2 Survey Population and Sample Size

Table 15: Population, Sample Size and Survey Response Rate offers the valid survey responses, in terms of project numbers and recipients, per fiscal year after the two-question quality test was applied.

Survey Population and Sample Size			
JARC Recipients	Population	Sample Size	Response Rate
Total	297	40	13%

JARC Project Numbers	Population	Sample Size	Response Rate
2005	138	11	8%
2006	81	4	5%
2007	81	4	5%
2008	212	31	15%
2009	128	18	14%
Total	640	68	11%

Table 15: Population, Sample Size and Survey Response Rate

By both JARC recipient and project number metrics, response rates were lower for fiscal years 2005-2007. This phenomenon of low response rates might be reflect recipients whom received JARC funding during the earlier fiscal years of this study who are no longer participating in the JARC program. Current JARC recipient might be more likely to engage in the study survey.

The count of population for both JARC recipients and project numbers drops sharply from FY 2005 to 2006, which might reflect JARC's metamorphosis to a formula-based program. Population size in terms of recipients and project numbers increased from FY 2007 to FY 2008, and then slightly decreased to FY 2009. JARC projects are currently being awarded for FY 2008 and 2009; thus, these numbers increase until the three-year implementation window closes for each fiscal year.

4.3 Survey Results I: Local Funding Sources

Of the qualified responses received, local agency funding was the most frequent (29 percent) source of local funds used for JARC’s matching requirement. Real estate value increment taxes and fuel or motor vehicle taxes were the least frequent (one percent each) (Figure 2).

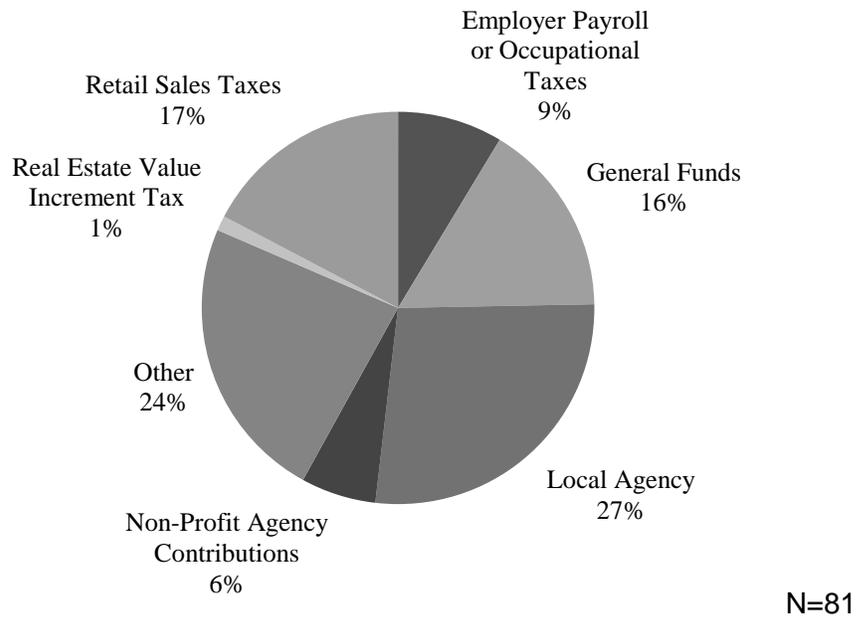


Figure 2: Percent of Largest Local Funding Sources for JARC Projects FY 2005-2009

Local match funding sources aggregated as dedicated and non-dedicated reveal 67 percent of responses used a non-dedicated source while thirty 33 used a dedicated source (Figure 3: Percent of Local Match Funding Sources Aggregated as Dedicated and Non-Dedicated FY 2005-2009).

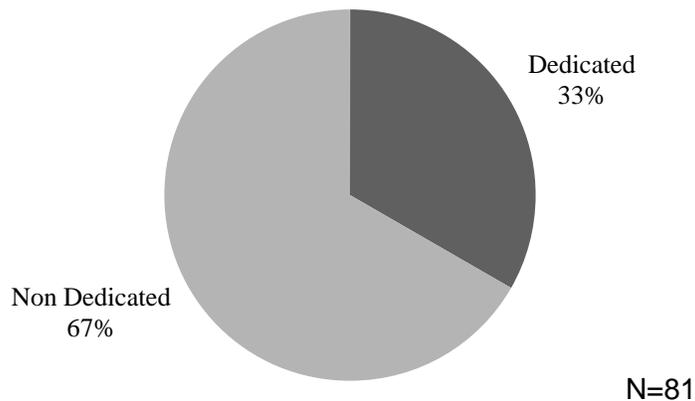


Figure 3: Percent of Local Match Funding Sources Aggregated as Dedicated and Non-Dedicated FY 2005-2009

Extracting data from large urbanized areas (areas which are apportioned 60 percent of total JARC funds); nearly one quarter of projects tapped retail sales tax revenue for JARC projects Figure 4. Aggregated funding sources were more evenly divided for large urban areas as 46 percent of projects used a dedicated source and 54 percent used a non-dedicated source (Table 16).

Local Funding Source	Number of Projects	Percent
Dedicated	25	46%
Non Dedicated	29	54%
Total	54	100%

Table 16: Local Funding Sources for JARC Projects in Large Urban Areas

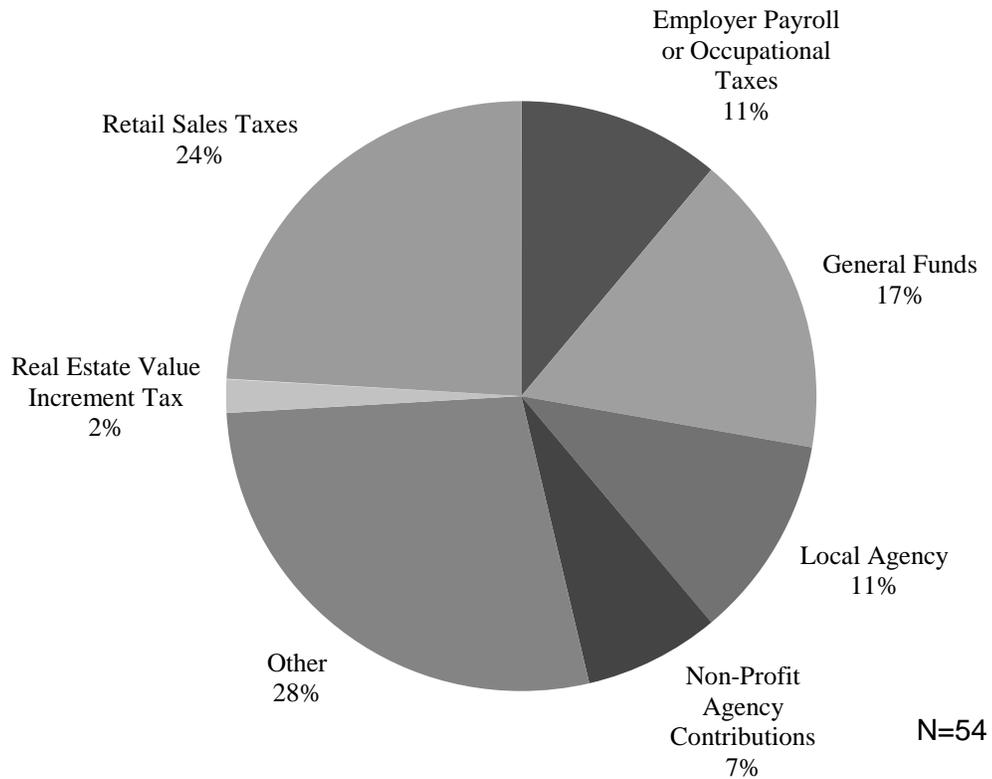


Figure 4: Percent of Local Funding Sources for JARC Projects in Large Urban Areas

State agencies act as the intermediary between the Federal Transit Administration and local JARC participants for small urban and rural areas. Survey responses from state recipients reflect small urban and rural JARC projects. Local agency funds dominated small urban and rural projects compared to large urban projects. Many potential sources of local funding are not being used in small urban and rural areas.

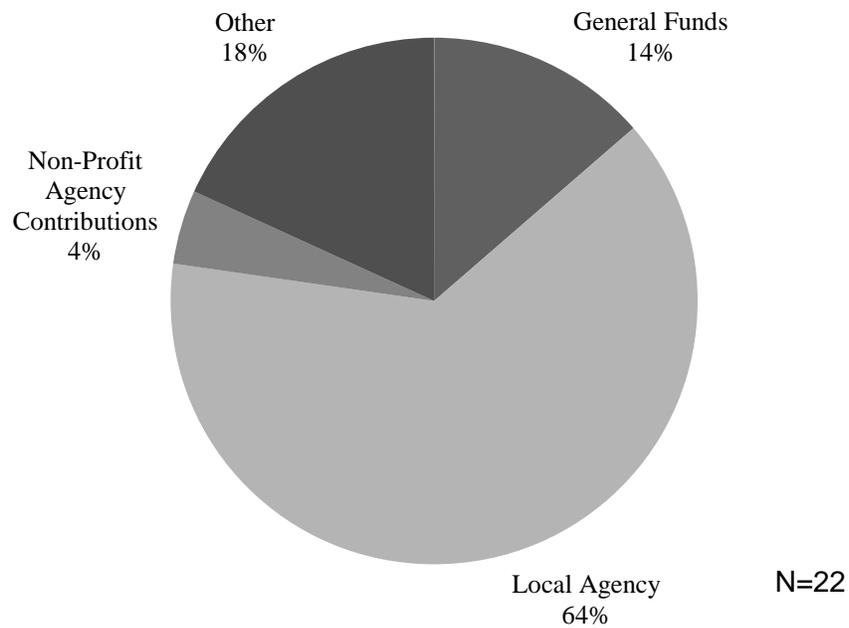


Figure 5: Percent of Local Funding Sources for State Recipients

The survey asked respondents to identify the largest funding source that contributed to JARC projects. Most JARC projects used a single local funding source to satisfy the federal match. Reliance on local funding sources extracts the largest local funding source for both capital and operating projects; however, second and third local funding options were also extracted from the survey results, as indicated in Figure 6.

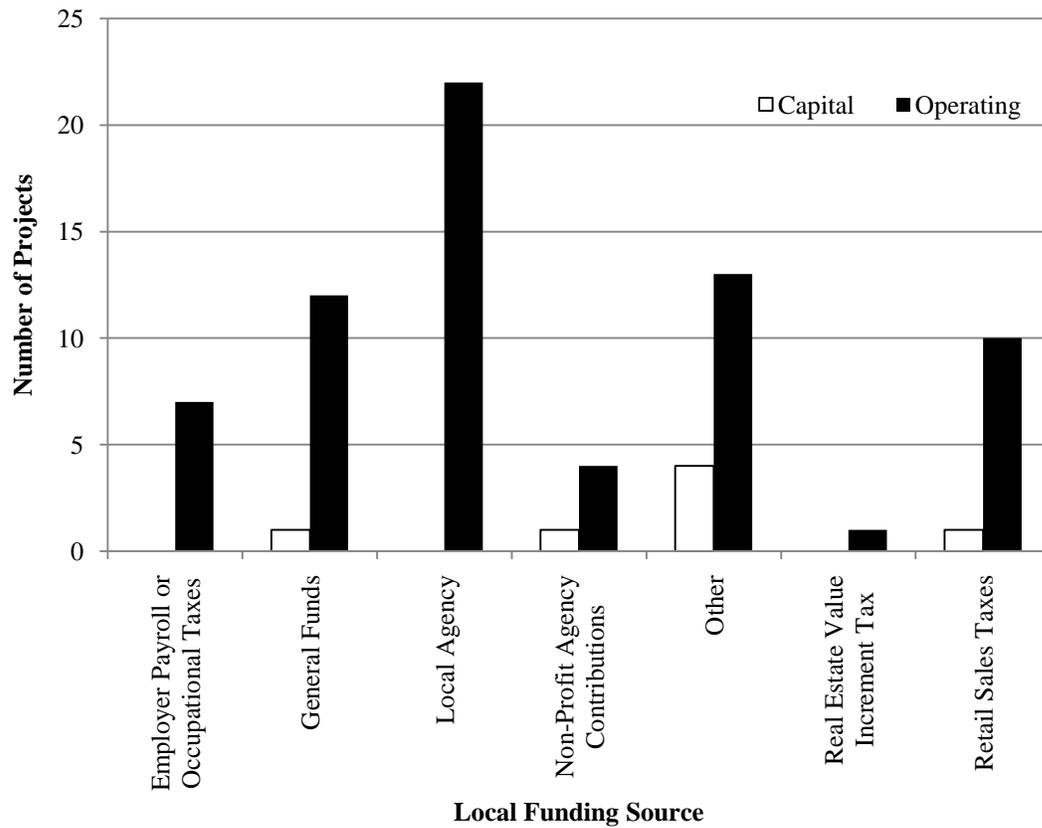


Figure 6: Capital and Operating Projects by Local Funding Source

Local agency funds were the most frequent primary source of funding for operating projects. Other sources were the most frequent primary source for capital projects. Examining secondary sources, “other sources” of local funding were the most frequent secondary source for both operating and capital JARC projects, as shown in Figure 7.

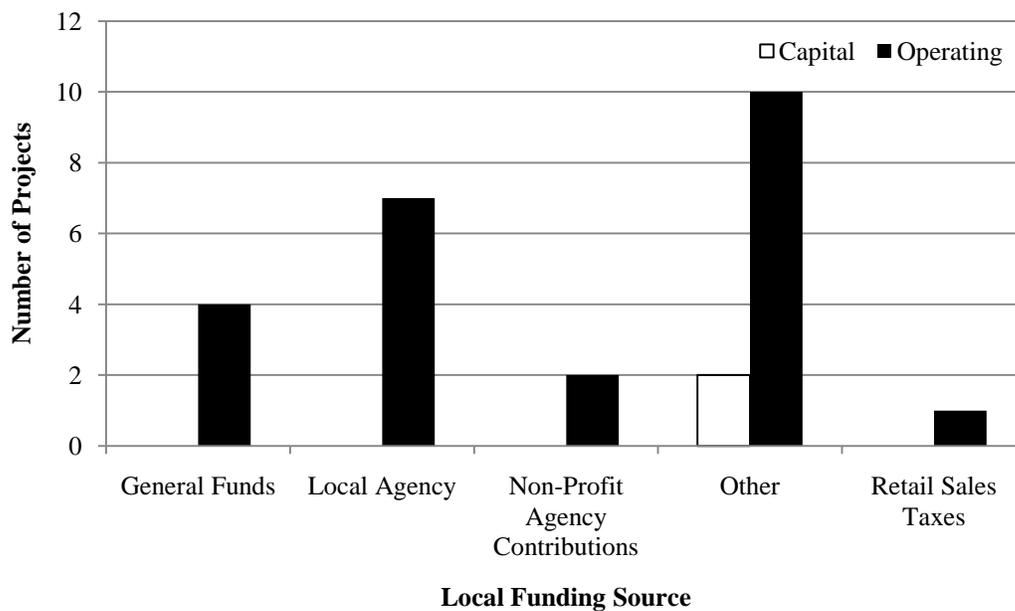


Figure 7: JARC Capital and Operating Projects by Local Funding Source

4.4 Survey Results II: Multiple Sources

JARC projects must be born through a local-level planning process. The Federal Transit Administration designed the planning process requirement to foster communication between knowledgeable agencies to generate effective access to employment. JARC funding allows multiple sources to contribute to the total sum required to match FTA funds. Most JARC projects rely on a single local funding source, while no respondent identified a JARC project with more than three local funding sources Table 17.

Number of Local Sources Used for JARC Projects		
Number of Sources	Total	Percent of Total
1	59	72.8%
2	18	22.2%
3	4	4.9%
Total	81	100.0%

Table 17: Number of Local Funding Sources Used for JARC Projects

Survey results show more than a quarter of JARC projects leveraged more than one source of local funding. At a 90 percent confidence level, between 20 and 36 percent of all JARC projects use more than one source of local funding.

Further dissection of the data (Table 18) shows similar frequencies of multiple funding sources among projects found in large urban areas and small urban/rural areas (state recipients). At a 90 percent confidence, between 18 and 37 percent of all JARC projects in large urban areas use more than one source of local funding, while between 23 and 56 percent of all JARC projects in small urbanized or rural areas use more than one source of local funding.

Number of Local Sources Used for JARC Projects for Large Urban Areas and State Recipients				
Number of Sources	Large Urban	Percent of Total	State Recipient	Percent of Total
1	40	74.1%	13	61.9%
2	12	22.2%	6	28.6%
3	2	3.7%	2	9.5%
Total	54	100.0%	21	100.0%

Table 18: Number of Local Sources Used for JARC Projects for Large Urban Areas and State Recipients

4.5 Survey Results III: Speed of Federal Disbursement

Speed of federal disbursement was defined as the difference between the fiscal year of the first federal disbursement of funds and the fiscal year of project application for federal funding. The fiscal year of first federal disbursement for project numbers was acquired via FOIA request of the Federal Transit Administration and the fiscal year of project application was part of the survey of JARC recipients. The results show thirteen projects to have a negative speed of federal disbursement, meaning FTA funding was granted before the project application was submitted. Due to the odd phenomenon of negative speed of federal disbursement, the validity of either survey responses or FTA data pertaining to the first federal disbursement of funding is questionable.

Speed of Federal Disbursement in Years	Number of Projects	Percent of Total
-3	1	1.3%
-1	12	15.6%
0	47	61.0%
1	7	9.1%
2	10	13.0%
Total	77	100.0%

Table 19: Speed of Federal Disbursement for JARC Projects

Nearly two-thirds of projects received federal funding within the same fiscal year as application. About one-fifth of the projects received funding in the first or second fiscal year after application (Table 19). No reported projects received funding in the third year after application. Federal funding will lapse after three fiscal years.

Using prior aggregation of dedicated and non-dedicated funding sources, hypothesis testing revealed no measurable relationship between funding sources and speed of disbursement. Instances of negative speed of disbursement were excluded. Chi square was the statistical calculation used to test the inter-dependence of local funding sources and speed of disbursement because the data collected was nominal. Thus, the null hypothesis for the first chi-square testing is:

H₀: Local match funding sources and federal funding disbursement for JARC projects are independent.

After excluding invalid responses, a sample size of 64 projects was used to calculate chi square (Table 20).

Local Funding Source	Same Year	1-2 Years	Total
Dedicated	16	6	22
Non-Dedicated	31	11	42
Total	47	17	64

Table 20: Local Funding Source and Speed of Federal Disbursement of JARC Projects

$$\text{Degrees of freedom} = (\text{rows}-1)(\text{columns}-1) = (2-1)(2-1) = 1$$

Establishing a critical chi-square score was based on an 80 percent confidence, or alpha=0.2: critical chi-square=1.62.

$$\text{Chi-square observed} = 0.01$$

With an observed chi-square of 0.01 and a critical chi-square of 1.62, the null hypothesis of independence between local funding sources and timeliness of implementation being

independent cannot be rejected. Therefore using a dedicated or non-dedicated funding source has no measurable effect on the timeliness of implementation for JARC projects between fiscal years 2005 and 2009.

Because JARC funding is divided among large urban, small urban, and rural areas, exploration of data categorized by size of urbanized area was conducted to further explore implications of local funding and timeliness of implementation. The null hypothesis was refined as follows.

H₀: Local match funding sources and federal funding disbursement for JARC projects in large urban areas are independent.

Large urban areas are isolated such that small urban and rural areas are excluded from further hypothesis testing because data were insufficient for chi square analysis. When survey responses were categorized by area, the resulting observed chi-square scores are 0.00 for large urban areas. At 80 percent confidence (alpha=0.2), chi-square critical is 1.62, therefore the null hypothesis of independence of local match funding sources and timeliness of implementation cannot be rejected for large urban area projects.

Local Funding Source	Speed of Federal Disbursement		
	0 Years	1-2 Years	Total
Dedicated	14	6	20
Non-Dedicated	16	7	23
Total	30	13	43

Table 21: Local Funding Source and Speed of Federal Disbursement for JARC Projects in Large Urban Areas

4.6 Survey Results IV: Types of Projects

JARC recipients were asked to classify their projects under the same scheme as the Federal Transit Administration uses to evaluate the JARC program. The most frequent JARC projects were fixed-route (33 percent) and demand-response (29 percent) while the following project classifications were not represented (Figure 8: JARC Projects by FTA Classification).

- One-Stop center/customer referral
- Trip/itinerary planning
- One-on-one travel
- Group training
- Internet based information
- Information materials/marketing

The unrepresented projects were found under information-based services, and it is possible these types of projects are less desired by localities applying for JARC funding.

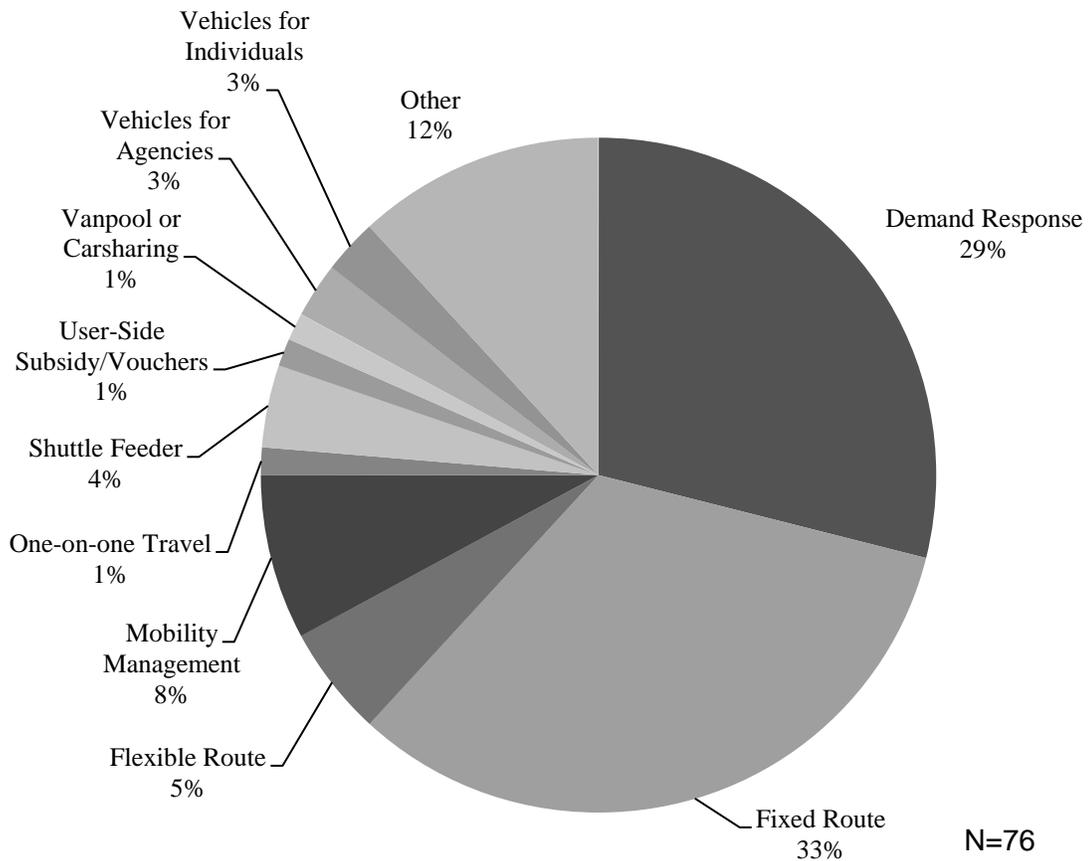


Figure 8: JARC Projects by FTA Classification

Project classifications were aggregated by their level of maximum federal share (80/20 for capital projects, 50/50 for planning and operating projects). Operating and projects were much more frequent, consisting of 91 percent of responses (Figure 9: FTA Classification Aggregated by Capital and Operating). Capital projects were identified on only 9 percent of responses. An overwhelming number of operating projects compared with capital projects is due to the relatively small amount of apportioned funding per

recipient. Some capital projects are too costly to be covered fully under JARC, even with an 80 percent federal share.

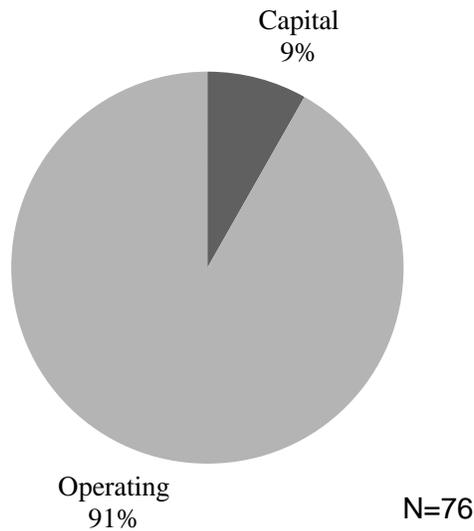


Figure 9: FTA Classification Aggregated by Capital and Operating

A second aggregation was conducted to explore 50/50 matching projects further by categorizing responses as trip-based and information-based services, which uncovered 82 percent of projects were classified as trip-based services (Figure 10: FTA Classification by Trip-based and Information-based Service). Trip-based services include fixed- and flexible-route, demand-response, and other expansions of services that increase access to employment. Information-based services educate and disseminate information about existing service to needy workers (and potential workers), and composed 9 percent of responses.

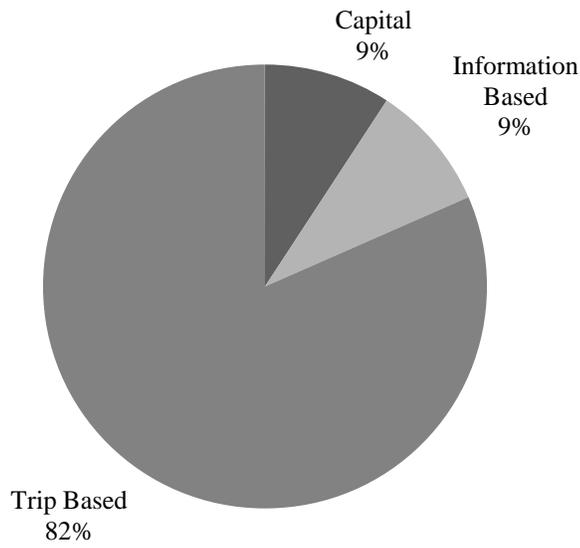


Figure 10: FTA Classification by Trip-based and Information-based Service

4.7 Data Analysis Conclusion

The collected data represent JARC recipients during FY 2005-2009, identifying JARC attributes related to local funding sources, fiscal year of project funding, and project classification. Descriptive analysis of survey data revealed five major findings.

1. A substantial portion of JARC projects use multiple local funding sources.
2. JARC projects are typically implemented within the fiscal year of application.
3. JARC projects are most likely to be trip-based services.
4. Not all types of JARC projects are being used.
5. Two-thirds of all JARC projects use non-dedicated funding sources, while approximately one-half of JARC projects in large urban areas use non-dedicated sources.

JARC program design can benefit from increased local use of dedicated funding sources. Dedicated funding sources are more stable and because of their ability to carry over yearly, dedicated sources might be less cumbersome in terms of administrative costs.

CHAPTER 5: CONCLUSION

In conclusion, there is no measurable association between dedicated and non-dedicated local funding sources and timeliness of project implementation or FTA classification of project. Six primary lessons can be drawn from this study:

1. JARC projects are receiving federal funding quickly.
2. Local agencies are creative in generating matching funds.
3. Local agencies are planning and implementing operating projects more frequently than capital.
4. Local agencies juggle multiple local funding sources, and the General Accountability Office has already identified cumbersome burden from program administration.
5. Information-based programs are not as frequent as trip-based services.
6. Project tracking might cause future difficulty in measuring JARC performance.

Analysis of the survey results shows most JARC projects have received their first federal dollars in the same year as project application. Quickly funding projects is beneficial to the Federal Transit Administration and recipients because as more projects are operational and more funding is disbursed, effective JARC appears more effective; however, quick implementation of projects is most beneficial to the low-income people that JARC is designed to serve. Regardless of specific metrics of JARC effectiveness, timeliness in providing transportation access to people in need can improve their quality of life through gainful employment, coinciding with the spirit and goals of JARC.

Survey results show local agencies generating matching funds from a plethora of sources. Multiple jurisdictions show no similar dependency on specific local funding sources; therefore, each locality is engaging JARC using unique available resources. In other words, JARC projects are being planned and paid for at the local level, which can result in more effective programs through devolution of decision-making authority. On the downside, local sources are more frequently non-dedicated, which might require more administration costs and the need to be re-evaluated yearly.

Survey results show a large proportion of JARC funding supporting operating projects, even though a higher percentage of local matching funds is required for operating projects compared with capital. This research follows previous research that also found more operating than capital projects because average JARC grants are small compared to the cost of capital projects.

Some local agencies must secure and administer multiple local funding sources. More local funding sources indicate more interested parties participating in the planning process, but also represent another layer of project management. Because JARC funding is relatively small, the amount of administration might be cumbersome relative to the size of the program, reinforcing the Government Accountability Office's findings (GAO 2009).

Information-based services are funded under JARC much less frequently than trip-based services. More research is needed to characterize the nature, impact, and value of

information-based services and the reasons why such programs are developed less than service-based programs. One possible explanation is that the typical JARC recipient is better versed on transportation and the movement of people than on designing and developing devices for information dissemination.

Cross matching survey responses with data from the Federal Transit Administration was troublesome in some cases. JARC benefits greatly from freedom to choose and implement projects to serve local needs, but suffer from lack of standardized tracking and data collection. Perhaps state agencies empowered to administer JARC could take a lesser role in data collection and reporting, shifting the burden again to the local level. The Federal Transit Administration and the Government Accountability Office have both expressed difficulty in developing a method to measure JARC effectiveness, and better data collection and project tracking should lead to stronger and more accurate JARC evaluation.

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Appendix 1: Request for Federal Data

Fred Combs
23 Dove Cir
Clemson, SC 29631
February 9, 2010

FOIA Public Liaison

FOIA Requester Service Center
Federal Transit Administration
1200 New Jersey Avenue, SE
4th Floor East Building
Washington, DC 20590

Dear [REDACTED]:

I am writing to request data under the Freedom of Information Act to complete a master's thesis at Clemson University. The data needed pertain to disbursement of federal funds for the Job Access and Reverse Commute (JARC) program projects for fiscal years 2005-2009. Specific data needed for each JARC project for fiscal years 2005-2009 is as follows:

- Project title
- City and state
- Large metropolitan, small metropolitan or rural area project
- Lead agency
- Collaborating agencies (if applicable)
- Amount of requested federal funding
- Amount of federal funding disbursed
- Date of request for funding
- Date of funding disbursement
- Local funding sources used to generate funding match requirement (if available)

If you have questions about my request, please contact me by phone at [REDACTED] or by e-mail at rcombs@clemson.edu.

Thank you for your assistance.

Sincerely,

Fred Combs

Appendix 2: Federal Authorization and Apportionment of Job Access and Reverse Commute Funding for Fiscal Years 2005 to 2009

Job Access and Reverse Commute Authorizations and Apportionments 2005-2009		
Fiscal Year	Authorizations	Apportionments
2005	\$ 124,000,000	\$ 124,000,000
2006	\$ 138,000,000	\$ 136,620,000
2007	\$ 144,000,000	\$ 144,000,000
2008	\$ 156,000,000	\$ 156,000,000
2009	\$ 165,000,000	\$ 183,103,175
Total	\$ 727,000,000	\$ 743,723,175

Appendix 3: Job Access and Reverse Commute Obligations and Apportionments for Fiscal Years 2005 to 2009

Job Access and Reverse Commute Obligations and Apportionments, FY 2005 to 2009					
Fiscal Year	Capital Obligations	Operating Obligations	Planning Obligations	Total Obligations	Apportionments
2005	\$10,947,244	\$115,045,205	\$ -	\$125,992,449	\$ 124,000,000
2006	\$ 7,469,955	\$ 69,813,514	\$ -	\$ 77,283,469	\$ 136,620,000
2007	\$10,356,181	\$ 47,418,794	\$1,793,442	\$ 59,568,416	\$ 144,000,000
2008	\$44,157,720	\$118,127,099	\$2,121,140	\$164,405,959	\$ 156,000,000
2009	\$ -	\$ -	\$ -	\$136,439,025	\$ 183,103,175
Total	\$72,931,100	\$350,404,612	\$3,914,582	\$563,689,318	\$ 743,723,175

Job Access and Reverse Commute Obligations and Apportionments for Large Urbanized Areas, FY 2005 to 2009					
Fiscal Year	Capital Obligations	Operating Obligations	Planning Obligations	Total Obligations	Apportionments
2005	\$ 8,438,814	\$ 67,734,915	\$ -	\$ 76,173,729	
2006	\$ 5,059,861	\$ 43,357,303	\$ -	\$ 48,417,164	\$ 81,972,000
2007	\$ 3,684,270	\$ 23,000,008	\$1,528,626	\$ 28,212,904	\$ 86,400,000
2008	\$25,654,005	\$ 72,786,308	\$ 574,160	\$ 99,014,473	\$ 93,600,000
2009	\$ -	\$ -	\$ -	\$ 81,868,068	\$ 109,861,905
Total	\$42,836,950	\$206,878,534	\$2,102,786	\$333,686,338	\$ 371,833,905

Job Access and Reverse Commute Obligations and Apportionments for Small Urbanized Areas, FY 2005 to 2009					
Fiscal Year	Capital Obligations	Operating Obligations	Planning Obligations	Total Obligations	Apportionments
2005	\$ 204,230	\$ 5,686,086	\$ -	\$ 5,890,316	
2006	\$ 307,378	\$ 2,570,770	\$ -	\$ 2,878,148	\$ 27,324,000
2007	\$ 719,051	\$ 2,630,845	\$ -	\$ 3,349,896	\$ 28,800,000
2008	\$ 4,005,079	\$ 17,811,013	\$ 647,049	\$ 22,463,141	\$ 31,200,000
2009	\$ -	\$ -	\$ -	\$ 20,726,862	\$ 36,620,635
Total	\$ 5,235,738	\$ 28,698,714	\$ 647,049	\$ 55,308,363	\$ 123,944,635

Job Access and Reverse Commute Obligations and Apportionments for Rural Areas, FY 2005 to 2009					
Fiscal Year	Capital Obligations	Operating Obligations	Planning Obligations	Total Obligations	Apportionments
2005	\$ 2,304,200	\$ 41,624,204	\$ -	\$ 43,928,404	\$ -
2006	\$ 2,102,716	\$ 23,885,441	\$ -	\$ 25,988,157	\$ 27,324,000
2007	\$ 5,952,860	\$ 21,787,941	\$ 264,816	\$ 28,005,617	\$ 28,800,000
2008	\$14,498,636	\$ 27,529,778	\$ 899,931	\$ 42,928,345	\$ 31,200,000
2009	\$ -	\$ -	\$ -	\$ 31,540,411	\$ 36,620,635
Total	\$24,858,412	\$114,827,364	\$1,164,747	\$172,390,934	\$ 123,944,635

Appendix 4: Job Access and Reverse Commute Obligations and Apportionments by Area

Job Access and Reverse Commute Obligated and Apportioned Funding, FY 2006-2009 (in Dollars)								
	Large Urban (60%)		Small Urban (20%)		Rural (20%)		Total	
Fiscal Year	Obligated	Apportioned	Obligated	Apportioned	Obligated	Apportioned	Obligated	Apportioned
2006	48,417,164	81,972,000	2,878,148	27,324,000	25,988,157	27,324,000	77,283,469	136,620,000
2007	28,212,904	86,400,000	3,349,896	28,800,000	28,005,617	28,800,000	59,568,417	144,000,000
2008	99,014,473	93,600,000	22,463,141	31,200,000	42,928,345	31,200,000	164,405,959	156,000,000
2009	81,868,068	109,861,905	20,726,862	36,620,635	31,540,411	36,620,635	134,135,341	183,103,175
Total	257,512,609	371,833,905	49,418,047	123,944,635	128,462,530	123,944,635	435,393,186	619,723,175

Appendix 5: Survey of Job Access and Reverse Commute Recipients

Funding the Way to Work: An Analysis of Local Programs and JARC

1. Please choose your agency from the pull-down list:

1. What is the FTA project number (ex: SC37X001)?
2. Please enter a brief title for this project for verification (50 character max.):
3. In what fiscal year was the application for the project submitted to the FTA for JARC funding?
4. During which fiscal year(s) did the JARC project receive federal funding (choose all that apply)?
5. Please indicate the total amount of local funding budgeted for the project:
6. Please indicate the type of JARC project by FTA class.
 - a. Fixed route
 - b. Flexible route
 - c. Shuttle feeder
 - d. Demand response
 - e. User--side subsidy/vouchers
 - f. Mobility management
 - g. One-Stop center/customer referral
 - h. Trip/itinerary planning
 - i. One-on-one travel
 - j. Group training
 - k. Internet based information
 - l. Information materials/marketing
 - m. Vehicles for individuals

- n. Vehicles for agencies
 - o. Vanpool or carsharing
 - p. Other
7. Indicate the funding source(s) that contributed to the local share of the project's cost. Choose all that apply:
- a. Fuel or motor vehicle taxes
 - b. Parking revenues
 - c. Tolls or entry fees
 - d. Employer payroll or occupational taxes
 - e. Real estate value increment/tax increment financing (TIF) district revenues
 - f. Retail sales taxes
 - g. Personal income taxes
 - h. Non-profit agency contributions
 - i. Local agency (social welfare, transportation, employment or related local agencies)
 - j. Philanthropic contributions
 - k. General funds
 - l. Other
8. If more than one local source was used, which source was the largest?
- a. Fuel or motor vehicle taxes
 - b. Parking revenues
 - c. Tolls or entry fees
 - d. Employer payroll or occupational taxes
 - e. Real estate value increment/tax increment financing (TIF) district revenues
 - f. Retail sales taxes
 - g. Personal income taxes

- h. Non-profit agency contributions
 - i. Local agency (social welfare, transportation, employment or related local agencies)
 - j. Philanthropic contributions
 - k. General funds
 - l. Other
9. Do you have another project to report?
- a. Yes
 - b. No
10. You have now completed the survey. Thank you for your time and effort.
- If you have any questions about this survey or the study, please offer them here.
11. If you would like to see the results of this study, please enter your email address below.