CHAMPAIGN COUNTY
rpc
REGIONAL
PLANNING
COMMISSION

PLANNING & COMMUNITY DEVELOPMENT
1776 East Washington Street
Urbana, IL 61802

Phone 217.328.3313
Fax 217.328.2426
www.ccrpc.org

Champaign County
Rural Transit Advisory Group (RTAG)

DATE: Wednesday, January 15th, 2014
TIME: 4:00 PM
LOCATION: John Dimit Room (POD 100)
Brookens Administrative Building
1776 E Washington Street
Urbana, IL 61802

Agenda

I. Call to Order

II. Roll Call

III. Audience Participation

IV. Approval of Agenda

V. Approval of Minutes

A. *Meeting of October 15th, 2013*

VI. New Business

A. *Champaign County 1st & 2nd Quarterly FY14 Service Reports*

B. *1st and 2nd Quarterly FY14 Operator's Fiscal Reports*

C. *Review & Approval of Champaign County Rural Mobility Plan*

VII. Old Business

A. *Future of Champaign County Rural Transit System Operations*

VIII. Announcements

IX. Audience Participation

X. Adjournment

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Champaign County
Rural Transit Advisory Group (RTAG)
Special Meeting Minutes DRAFT

DATE: Thursday, October 17th, 2013
LOCATION: John Dimit Room (POD 100),
1776 E Washington St, Urbana, IL 61802

Attendee	Representation	Organization
Stan James	*County Board	Champaign County Board Liaison
Michelle Ramage	*Education	Rantoul City Schools
#Andy Kulczycki	*People with Low Income(s)	Community Service Center of Northern Champaign County
Elaine Palencia	*People with Disabilities	Champaign County Developmental Disabilities Board
Seamus Reily	*Employment	Parkland College, Institutional Advancement
Mary Sleeth	*Seniors	St. Joseph Resident
Debra Busey	Administrator	Champaign County
Rita Morocoima-Black	Executive Director	Champaign County Regional Planning Commission
Eileen Sierra-Brown	HSTP Coordinator	Champaign County Regional Planning Commission
Amy Marchant	Public Operator Staff	CRIS Rural MTD & CRIS Healthy Aging
Kathy Cooksey	Public Operator Staff	CRIS Rural MTD & CRIS Healthy Aging
April Brown	Public Operator Staff	CRIS Rural MTD & CRIS Healthy Aging

#Chair **Voting*

I. **Call to Order** – Mr. Kulczycki called the meeting to order at 3:02 p.m.

II. **Roll Call** – Ms. Brown called the roll. A quorum was established.

III. **Audience Participation** – None.

IV. **Approval of Agenda** – Mr. James motioned to approve the agenda, Mr. Seamus seconded, and the motion carried unanimously.

V. **Approval of Minutes** –

A. Meeting of August 29th, 2013 –

Mr. James motioned to approve the minutes as amended and described below, Mr. Seamus seconded, and the motion carried unanimously.

Mr. James noted that his name appeared on Line 13 of the draft minutes; however, Mrs. Brown accidently left his name off of the attendee list on the first page. Additionally, several grammatical changes were discussed that appeared on the draft minutes. Including a note

that on one page Champaign County should be listed and not just "Champaign" in order to avoid confusing the issue discussed impacting the County and not the City. All of those changes to the draft minutes were noted and would be made before the final minutes are posted online.

VI. New Business –

A. Request to approve Champaign County Rural Transit System Operator Change –

Mrs. Black provided an update on issues discussed during the last meeting held in late August. During that meeting, the committee recommended meeting with different public transit operators given the barriers discussed. The service and operational changes required by IDOT, which includes the implementation of the PCOM to continue countywide service and meet the mandates to have a PCOM in place to act as a program compliance officer for the Grantee (Champaign County). At the previous TRAG meeting in August, Ms. Marchant recommended discussing changes with Bill Volk, the managing director of CUMTD - since they have the offices, maintenance personnel, and garage space that CRIS has been utilizing and renting at a low cost from CUMTD.

Therefore, RPC and the County held discussions with numerous public transit agencies from the surrounding areas including CUMTD. Mr. Volk indicated he understood the requirements imposed by IDOT. However, he would need to speak with the Chair of the CUMTD Board, before determining how they could assist the County with rural public transit service. Additionally, the County met with Mr. Jung, of Rides Mass Transit District – a rural provider who covers 19 southern counties. When discussing the service and operational changes needed to meet Champaign County's needs, Mr. Jung inquired why the County was meeting with Rides since the logical place would be to go to CUMTD before considering Rides as an operator of the Champaign County Rural Public Transit system. At the same time, Mr. Jung confirmed that Rides MTD would be willing to operate the countywide rural public transit system for Champaign County, if solicited by Champaign County.

Additionally, he noted that if Champaign County decided to go with CUMTD as their pass through operator; then Rides would be willing to assist with the transition, because 1) it would be a new service model that CUMTD does not have experience and 2) Rides' communities in Edgar, Clark, and Cumberland Counties travel to Savoy, Champaign, and Urbana often and a mutual working relationship would be jointly beneficial no matter which operator serves Champaign County's rural area needs.

Ms. Black continued stating that, after receiving Mr. Jung's recommendation the County staff along with the Champaign County Chair (Alan Kurtz) held an informal discussion with CUMTD's managing director (Mr. Volk), the Chair of CUMTD (Don Uchtmann), and the newly named managing director (Mr. Karl Gnadt). During this discussion, given the new requirements (effective January 1st, 2014) topics covered included: the role and purpose of the Project Compliance Oversight Management (PCOM) staff as well as budget considerations; other general public transit agency options being considered in the area. Since Champaign County went through the three year ICCT Primer Process, CRIS was approached first. Then, it was discussed the possibility of Piatt County operating the service

for Champaign County. However, they indicated that given their own need to implement a Piatt County PCOM and the facility construction that would be building in the summer, at this time, they would not be able to provide the service for Champaign County. However, in the future they would be open to consider it.

Based on all those discussions with each public transit agency, given that CUMTD is already storing and providing the maintenance for Champaign County's vehicles as well as having the space needed to operate the service - CUMTD was the most logical option to run a countywide rural public transit system on behalf of Champaign if the County Board were to approach CUMTD about operating the service. This would be a similar model to the Public Health District agreement. Currently, CRIS staff is housed by CUMTD in their Urbana offices off of University Avenue. Especially, as they are locally based within Champaign County, unlike the other public transit agencies – there would be fewer barriers to operate and manage the rural public transit service.

Mr. Kulczycki inquired if having CUMTD operates the service would entail the County hiring another staff person to act as a PCOM. Mrs. Black replied that she discussed the issue with IDOT over the phone and recapped for them all the general public operators being considered (CRIS, Piattran, Rides MTD, CUMTD) – after reviewing each option – the logical choice would entail either 1) the County establishing their own rural MTD with CUMTD as the operator for Champaign County (which would require a County staff employee acting as a PCOM); or 2) RPC housing the PCOM staff person (given the January 1st deadline) and using the same intergovernmental agreement that they currently have with CRIS, but with CUMTD as the operator on behalf of Champaign County. IDOT's asked if RPC employees were considered to be County employees as well. This was a very surprising question from IDOT, given all the discussions that have occurred over the last year and a half regarding conflicts of interest between the HSTP Coordinator and PCOM responsibilities. Mrs. Black re-stated again that RPC staff members are Champaign County employees too. Based on this response, IDOT-DPIT staff then clarified that a Champaign County employee, other than the HSTP Coordinator could be the PCOM for Champaign County. This means the only requirement is to be a Champaign County employee and RPC can have the PCOM supervise under Mrs. Black – however, Ms. Brown can no longer act as the PCOM. Therefore, the whole group discussed what to do at this point. Some concerns expressed were that starting over with a new operator would be difficult and there is a human component for the current riders using the system.

Mr. James inquired if there was anyone in mind – besides Mrs. Brown that could perform the responsibilities of the PCOM, for example from the highway department and/or within RPC. Mrs. Black replied that there was a planner other than Mrs. Brown that could act as the PCOM. With this new information from IDOT, the county no longer needs to form an MTD with CRIS – it is possible to continue with things as they are, and RPC will take on the work of the PCOM and establishing a transit interest bearing account. Mrs. Ramage inquired if the decision was up to the RTAG or the Champaign County Board. Debra Busey clarified that the decision is ultimately up to the Champaign County Board based on the direction RTAG has advised. Mr. Kulczycki inquired if RPC's Executive Director was okay with taking on the

PCOM responsibilities, and Mrs. Black indicated that RPC was willing to do so. However, there may be some operational issues and concerns that IDOT has with CRIS MTD.

Ms. Marchant then began to describe the issues and concerns IDOT has with their operational structure as a matter of opinion – and even though CRIS' attorneys had given the same advice to this effect – she has reorganized her board to meet those concerns. Ms. Marchant stated that these issues being debated regarding the same governing board members sitting on both CRIS Healthy Aging and their MTD board was a moot point since October 2013 when CRIS reorganized and the Vermilion County Board reaffirmed their MTD status by approving their new board member for CRIS Rural MTD.

Mr. James inquired if the issue with the service operating until 5pm had been resolved. Ms. Marchant indicated that that issue had also been addressed and they were now operating in both Champaign and Vermilion Counties until 5pm. Mr. Kulczycki sought additional clarification if CRIS was willing to continue to provide the Champaign County service. Ms. Marchant replied that they were willing as long as that was desired by the Champaign County. Mrs. Brown asked if the transit interest bearing account year to year was a problem. Mrs. Cooksey replied that is not an issue. Ms. Brown noted that the PCOM has stronger oversight responsibilities than she currently has in regards to oversight. Ms. Marchant indicated that she is okay with the PCOM oversight responsibilities. Mrs. Black asked if Mrs. Marchant had planned on meeting with Mr. Gnadt (CUMTD). The group continued to discuss how to move forward. Mr. Kulczycki inquired if there were any other issues moving forward that we could anticipate from IDOT. Mrs. Black indicated that they have an email from IDOT-DPIT confirming that the PCOM staff could be housed at and supervised by RPC. However, IDOT can always bring up other concerns that need to be addressed as they are the funding agency receiving the Section 5311 funding. Mr. Seamus and the group discussed the need for expansion of service in the future, given vehicle and fleet issues. Nine more vehicles are anticipated to be delivered. Some rural areas currently do not seem to be aware of the availability of public transit services. Mrs. Black inquired about what happened with the JARC and New Freedom routes. CRIS staff replied they had gone to Chicago a month ago to meet with the IDOT-DPIT Deputy Director and one of the items on their agenda was discussing delivery of vehicles and those JARC/NF routes.

Mrs. Ramage motioned to make the recommendation for CRIS to remain as the lead operator, pending further discussion with IDOT-DPIT, and for RPC to work with the County to name the PCOM staff member, Mr. Seamus seconded, and the motion carried unanimously.

VII. **Announcements** – Ms. Marchant announced that CRIS Rural MTD will be leasing a new office in Danville as the headquarters for their district. The parking facility currently stores the Vermilion County's vehicles there – but they will be moving into these new offices shortly. New address is 615 E. Forth East Street, Danville.

VIII. **Audience Participation** – None.

IX. **Adjournment** – The meeting adjourn.

Champaign County Rural Transit Advisory Group (RTAG)
DRAFT First Quarter FY14 Service Report

Grantee: Champaign County
Subcommittee & Oversight: Rural Transit Advisory Group Appointees & CCRPC
Operator: CRIS Rural Mass Transit District (CRIS)

This table reflects rural public transit service provided within Champaign County for FY14 first quarter:

- **Trip Type Broken-Out** is the total number of trips grouped by the purpose of each trip. These categories include – **Medical, Personal, Shopping, Social, Employment, Educational, & Miscellaneous.** {*Note: Trips to return home are classified by the trip's purpose preceding it. For example, if a rider goes to a doctor, then to a grocery store before returning home; then these trips would be classified as 1 medical and 2 shopping.*}
- **Trips** are transportation service units that are counted each time an individual rider enters and exits a vehicle.
- **Days** are the number of business days (M - F) that CRIS operated within a month (*except on federal holidays and inclement weather service).
- **Daily Average** is the total trips divided by total number of operating days.
- **Accessible** services include the number of trips requiring ADA *Lift* equipment to be used, and trips provided to older adults *60+* years of age.
- **Requests Denied** includes the total number of individuals who called to request transportation that could not be accommodated.

Transportation Services

Month	Trip Type Breakouts							Trips	Days	Daily Average	Accessibility		*Requests Denied*
	Medical	Personal	Shopping	Social	Employment	Education	Misc.				Lift	60+	
July*	481	235	73	209	348	0	0	1,346	22	61	680	213	27
Aug	512	239	85	221	338	53	0	1,448	22	66	760	179	108
Sept*	458	185	46	168	314	104	0	1,275	20	64	681	143	230
Total	*1451*	*659*	*204*	*598*	*1000*	*157*	*0*	*4,069*	*64*	*64*	*2,121*	*535*	*365*

System Operations

Month	Vehicle Capacity			Operation	
	6-Passenger	12-Passenger	14-Passenger	Miles	Hours
July*	2	0	8**	20,419	861.5
Aug	2	0	8**	24,630	1,077.25
Sept*	2	0	8**	22,479	993.5
Total	***8-9 Active Vehicles in Use*			*61,715*	*2,716*

***For July thru Sept. a14-Passenger Vehicle #28 was used only 1 day of the entire month.*
***For August a new vehicle #37 started in use.*

This table reflects the rural operations within the quarter:

- **Number of Vehicles** used for transportation services within Champaign County (excluding service contract vehicles);
- **6, 12, & 14 passenger** references number of rider seats per vehicle in service (all vehicle have an ADA lift); and
- **Total Miles** driven by vehicles within a month.
- **Total Hours** driven by vehicles to provide rural public transportation.

***Note service numbers contained within the report can be reconciled as needed, which is common in rural transit systems.*

The table reflects new registered riders in this quarter. Several notes regarding ridership & fares are below.

- Fares: 5311 riders that trips begin or end in the rural general public service area. 5311D or 60+ riders are eligible for a $2 one-way fare. Passenger Assistants ride for free, and children ride for $1 each way. There is a service contract with riders from the Champaign County nursing home can scheduled to be picked up a contracted rate of $26.
- **Rural Demand Response Zone (DRZs):** Eligible transit service areas of Champaign County divided into quadrants.

FY14 1st Quarter Champaign County Registered Riders

DRZs	2010 Census	# Served Since 2011	% of Pop. Served	Community	New Riders			Total	New% Served
					July	Aug.	Sept.		
DRZ1	22,171	5	3.70%	Dewey				5	3.95%
		10		Fisher				10	
		0		Foosland*				0	
		10		Gifford				10	
		17		Ludlow	1	1		19	
		5		Penfield				5	
		760		Rantoul	20	24	6	810	
		14		Thomasboro		1	1	16	
DRZ2	17,317	0	0.18%	Allerton*				0	0.18%
		0		Broadlands				0	
		10		Homer				10	
		0		Longview*				0	
		1		Ogden				1	
		2		Philo				2	
		0		Royal*				0	
		17		Saint Joseph				17	
		2		Sidney				2	
DRZ3	12,317	1	0.14%	Ivesdale				1	0.15%
		1		Pesotum				1	
		0		Sadorus*				0	
		15		Tolono	1			16	
DRZ4	20,327	31	0.16%	Mahomet	5	6		42	0.21%
		1		Seymour				1	
		0		*Bondville*				0	
CUMTD District	*128,949**	60	0.17%	*Champaign*				60	0.21%
		3		*Savoy*				3	
		161		*Urbana*	9	8	8	186	
Outside County Registered Riders		*16*	*Not Applicable*	*Outside County*	2			18	1.46%
Previous Total = 1,125					New Riders = 93			Total = 1,233	

**Note that CUMTD boundary population is approximate due to the ¾ mile deviation that their Paratransit service provides. Additionally, the 2010 Census' Urbanized Area Boundaries for Champaign, Urbana, Bondville, and Tolono do not match up with the service area boundaries of CUMTD.*

Several notes on the chart above:

- *Residency is based on the provided home address's zip code.*
- *Outside County Registered Riders* – The following towns listed are not trip destinations provided by CRIS. These registered rider home addresses are outside of the county, but at some point they traveled within Champaign County.

Outside County Registered Riders			
Armstrong	1	Hillsboro	1
Chicago	1	LeRoy	4
Danville	2	Little Rock	1
Decatur	1	Monticello	3
Des Plains	1	Oak Brook	1
Oakwood	2	Windsor	2

***Note service numbers contained within the report can be reconciled as needed, which is common in rural transit systems.*

Champaign County Rural Transit Advisory Group (RTAG)
DRAFT Second Quarter FY14 Service Report

Grantee: Champaign County
Subcommittee & Oversight: Rural Transit Advisory Group Appointees & CCRPC
Operator: CRIS Rural Mass Transit District (CRIS)

This table reflects rural public transit service provided within Champaign County for FY14 second quarter:

- **Trip Type Broken-Out** is the total number of trips grouped by the purpose of each trip. These categories include – **Medical, Personal, Shopping, Social, Employment, Educational, & Miscellaneous.** {*Note: Trips to return home are classified by the trip's purpose preceding it. For example, if a rider goes to a doctor, then to a grocery store before returning home; then these trips would be classified as 1 medical and 2 shopping.*}
- **Trips** are transportation service units that are counted each time an individual rider enters and exits a vehicle.
- **Days** are the number of business days (M - F) that CRIS operated within a month, except on federal holidays and inclement weather service.
- **Daily Average** is the total trips divided by total number of operating days.
- **Accessible** services include the number of trips requiring ADA *Lift* equipment to be used, and trips provided to older adults *60+* years of age.
- **Requests Denied** includes the total number of individuals who called to request transportation that could not be accommodated.

Transportation Services

Month	Trip Type Breakouts							Trips	Days	Daily Average	Accessibility		*Denials*	
	Medical	Personal	Shopping	Social	Employment	Education	Misc.				Lift	60+	*Requests*	*Trips**
Oct.	364	179	46	205	321	102	2	1,219	22	55	111	628	101	201*
Nov.*	346	156	41	168	276	82	0	1,069	18	59	100	512	86	188*
Dec.*	468	200	45	143	274	61	0	1,191	20	60	123	599	15	27*
Total	*1,178*	*535*	*132*	*516*	*871*	*245*	*2*	*3,479*	*60*	*58*	*334*	*1,739*	*202*	*416**

**Total of trips denied is approximate, as riders often call in requesting more than one round trip at a time.*

System Operations

Month	Vehicle Capacity			Operation	
	6-Passenger	12-Passenger	14-Passenger	Miles	Hours
Oct.	2	0	8*	21,669	924
Nov.*	2	0	8*	19,042	790
Dec.*	2	0	7*	19,925	827
Total	*Average of 8 Vehicles Available*			*60,636*	*2,540*

**For Oct. & Nov. the 14-Passenger Vehicle #28 was used only 1 day of the entire month.*

This table reflects the rural operations within the quarter:

- **Number of Vehicles** used for transportation services within Champaign County (excluding service contract vehicles);
- **6, 12, & 14 passenger** references number of rider seats per vehicle in service (all vehicle have an ADA lift); and
- **Total Miles** driven by vehicles within a month.
- **Total Hours** driven by vehicles to provide rural public transportation.

***Note service numbers contained within the report can be reconciled as needed, which is common in rural transit systems.*

The table reflects new registered riders in this quarter. Several notes regarding ridership & fares are below.

- Fares: 5311 riders that trips begin or end in the rural general public service area. 5311D or 60+ riders are eligible for a $2 one-way fare. Passenger Assistants ride for free, and children ride for $1 each way. There is a service contract with riders from the Champaign County nursing home can scheduled to be picked up a contracted rate of $26.
- **Rural Demand Response Zone (DRZs):** Eligible transit service areas of Champaign County divided into quadrants.

FY14 1st Quarter Champaign County Registered Riders

DRZs	2010 Census	# Served Since 2011	% of Pop. Served	Community	New Riders Oct	New Riders Nov	New Riders Dec	Total	% Served
DRZ1	22,171	5	3.95%	Dewey				5	4.15%
		10		Fisher		3	1	14	
		0		Foosland*				0	
		10		Gifford				10	
		17		Ludlow			2	21	
		5		Penfield				5	
		760		Rantoul	8	8	23	849	
		14		Thomasboro		1		17	
DRZ2	17,317	0	0.18%	Allerton*				0	0.21%
		0		Broadlands				0	
		10		Homer		1		11	
		0		Longview*				0	
		1		Ogden				1	
		2		Philo				2	
		0		Royal*				0	
		17		Saint Joseph	1	2		20	
		2		Sidney				2	
DRZ3	12,317	1	0.15%	Ivesdale				1	0.17%
		1		Pesotum			1	2	
		0		Sadorus*			1	1	
		15		Tolono	1			17	
DRZ4	20,327	31	0.21%	Mahomet		1	1	44	0.23%
		1		Seymour			1	2	
		0		*Bondville*				0	
CUMTD District	*128,949**	60	0.21%	*Champaign*			4	64	0.21%
		3		*Savoy*				3	
		186		*Urbana*	4	7	4	201	
Outside County Registered Riders		18	*Not Applicable*	*Outside County*				18	*N/A*
Previous Total = 1,233					New Riders = 75			Total = 1,308	

**Note that CUMTD boundary population is approximate due to the ¾ mile deviation that their Paratransit service provides. Additionally, the 2010 Census' Urbanized Area Boundaries for Champaign, Urbana, Bondville, and Tolono do not match up with the service area boundaries of CUMTD.*

Several notes on the chart above:

- *Residency is based on the provided home address's zip code.*
- *Outside County Registered Riders* – The following towns listed are not trip destinations provided by CRIS. These registered rider home addresses are outside of the county, but at some point they traveled within Champaign County.

Outside County Registered Riders			
Armstrong	1	Hillsboro	1
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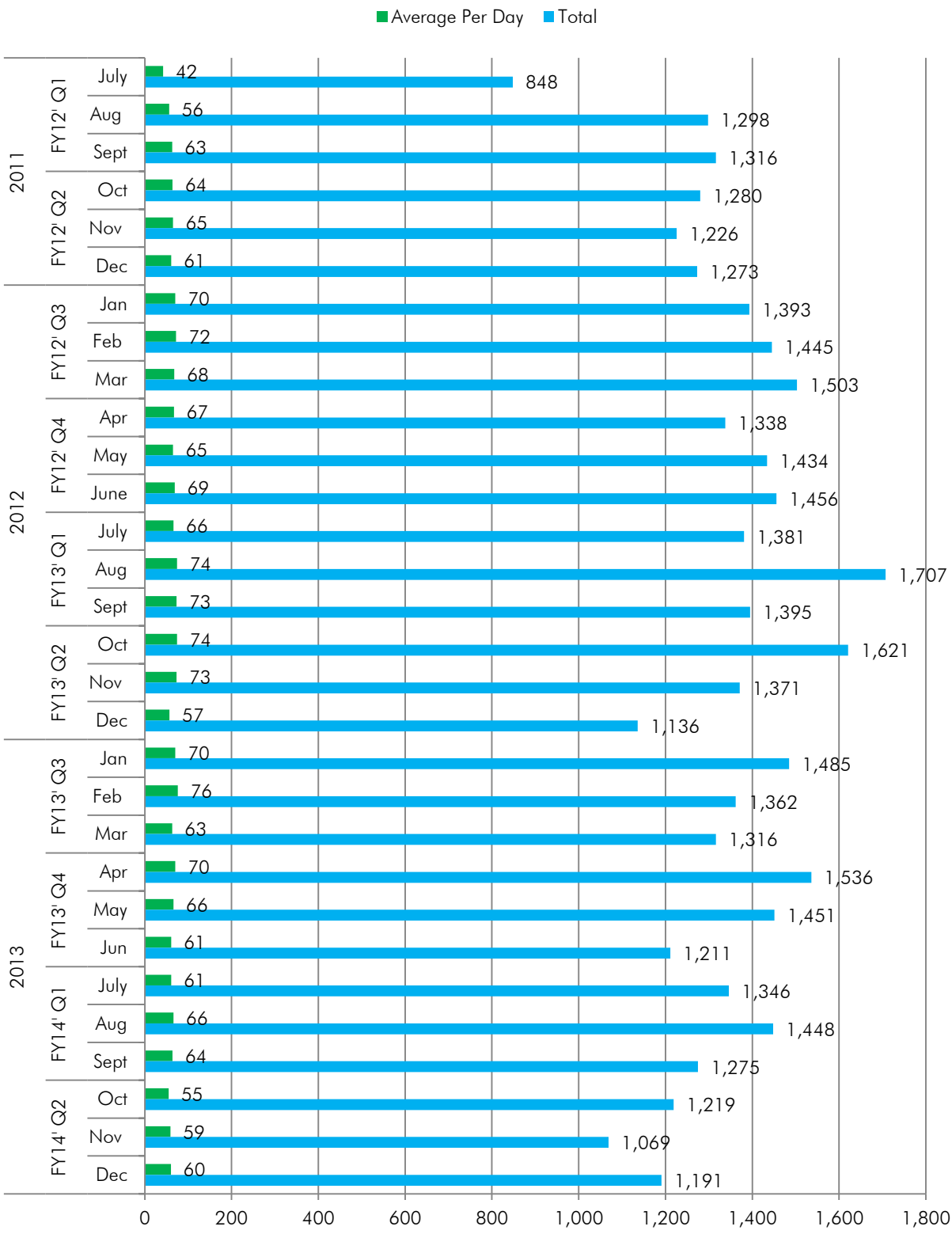
Decatur	1	Monticello	3
Des Plains	1	Oak Brook	1
Oakwood	2	Windsor	2

***Note service numbers contained within the report can be reconciled as needed, which is common in rural transit systems.*

Trip Trend Chart 1-15-14



Rural Mobility Plan

Champaign County

Prepared by
Champaign County Regional Planning Commission

rpc CHAMPAIGN COUNTY REGIONAL PLANNING COMMISSION




Draft Report

January 2014

1776 East Washington Street, Urbana IL 61802
Phone: (217) 328-3313 Fax: (217) 328-2426

Acknowledgments

Plan Prepared by staff at the Champaign-Urbana Urbanized Area Transportation Study (CUUATS), a program of the Champaign County Regional Planning Commission (CCRPC).

In Cooperation with The Champaign County Rural Transit Advisory Group (RTAG); CRIS Rural Mass Transit District (CRIS); and the Illinois Department of Transportation.

All maps were created utilizing the Champaign County Geographical Information System (GIS) Consortium.

Table of Contents

List of Figures

List of Tables

Executive Summary

Chapter 1

1. Executive Summary

The Champaign County *Rural Transportation Mobility Plan* provides a comprehensive examination of existing transportation services and current mobility needs in rural Champaign County, as well as a projection of future mobility needs originating or terminating in rural areas (outside CU-MTD service boundaries) of Champaign County. The purpose of this document is to assess transportation gaps, identify strategies to improve the efficiency of the existing rural transit system, and make recommendations on how to expand mobility options to better meet current and future needs in rural Champaign County.

Per federal rural public transit funding guidelines, only trips ending or beginning in the rural areas of Champaign County (i.e. outside of the urbanized area of Champaign-Urbana-Savoy-Bondville-Tolono as defined in the U.S. 2010 Census) are eligible for rural public transit service. Public transit inside the urbanized area is funded through Section 5307 federal funding and is served by the Champaign Urbana Mass Transit District (CU-MTD). CU-MTD does not serve all the communities inside the urbanized area, Bondville and Tolono are not served by CU-MTD as well as some portions of Savoy, Champaign and Urbana. This represents a gap in service, therefore, for the purposes of this plan, the study area is defined as all Census block groups outside of the 2009 CUMTD service boundary (Figure 3.1).The study area was then divided into four rural zones (RZ 1-4) for capacity and scheduling purposes (Figure 3.2). The boundary lines were drawn based on rural area travel patterns, population density, as well as major access roads. For the purposes of this study, census block groups were utilized to help define the rural zones.

For each rural zone, the transit analysis focuses on the transportation disadvantaged population, persons are classified as transportation disadvantaged if they meet one or more of the following socio-economic characteristics:

- Youth (17 years or younger);
- Older Adults (60 years or older);
- Persons with Disabilities;
- Persons with Low Income(s); and
- Zero Vehicle Households(s) (i.e. no access to a personal motor vehicle).

On the other hand the performance analysis for each rural zone examines the current rural transit provider's historical quarters using six widely used performance measures for demand-response transit service[1]:

- Trips Per Vehicle Hour;
- Trips Per Vehicle Mile;
- Operating Cost Per Vehicle Mile;
- Operating Cost Per Vehicle Hour;
- Operating Cost Per Trip; and
- Fare Box Recovery Ratio.

Finally, recommendations are provided regarding how to improve system performance and how to accommodate unmet transportation needs in Champaign County.

1. Demand Response Service as defined by the Federal Transit Administration is any non-fixed route system of transporting individuals that requires advanced scheduling by the customer, including services provided by public entities, nonprofits and private providers.

Literature Review

Chapter 2

2. Literature Review

The purpose of a literature review is to provide readers with a general overview of the research conducted and an understanding of how analysis and recommendations were developed. Each summary below outlines the core methodology and/or best practices that contributed to the development of this plan. It is important to note that the following summarizes the primary research utilized and not all research conducted throughout the development of this plan.

2.1 Methods for Forecasting Demand and Quantifying Need for Rural Passenger Transportation

The Transit Cooperative Research Program (TCRP) Report 161 workbook provides definitions and step-by-step instructions for estimating transportation need, mobility gap, and demand for rural passenger transportation. Estimates are broken into two categories: program-based transportation (e.g. for developmental services, Head Start, nursing homes) and non-program related transportation. The formula takes into consideration four main factors: the population 60 years and older; mobility limited persons ages 18-64; persons without access to a motor vehicle; and persons under 64 years in families that are below the poverty line.

2.2 Guidebook for Rural Demand-Response Transportation: Measuring, Assessing and Improving Performance

The TCRP Report 136 states that demand-response transportation (DRT) is made unique from fixed-route transportation due to trip reservation, which can be difficult to assess. Rural DRT can be particularly challenging to assess because many different factors affect performance, including service area size and geography, trip purpose, and agency capacity. As such, context is very important for assessing performance. This workbook defines six key elements for rural DRT performance assessment: vehicle hours, vehicle miles, passenger trips, total operating expenses, crashes, and on-time trips (using definitions according to the 2006 Rural National Transit Database for standardization).

These elements can then be used to calculate six performance measures which can be monitored and compared to national averages of similar agencies. The six measures are as follows:

- Passenger Trips Per Vehicle-Hour;
- Operating Cost Per Vehicle-Hour;
- Operating Cost Per Vehicle-Mile;
- Operating Cost Per Passenger Trip;
- Safety Incidents Per 100,000 Vehicle-Miles; and
- On-Time Performance.

This guidebook offers national ranges for all six performance measures and discusses some of the controllable and non-controllable factors that affect performance. Additionally, overall recommendations on how to improve rural transit performance are provided within this workbook.

2.3 Funding the Public Transportation Needs of an Aging Population

The American Public Transportation Association's report states that local transportation agencies need to think through how public transportation needs to and will need to adapt to the rapid growth of the elderly population. This includes everything from bus routes and stops, actual vehicles, marketing, expanding supplementary services, and facility and stop design. National estimates project operating and capital costs to grow approximately $3.9 million over the next 20 years to serve this population. The authors of this report developed a spreadsheet tool to serve as an analysis method to help local agencies estimate projected trips and funding needs that will result from an increasing elderly population. The method provided includes the following four steps:

Develop data cost per trip and ridership level for all modes;
Apply age per capita trip estimates by mode;
Multiply by population trends; and
Obtain Resulting-estimates costs and trips needed.

2.4 Data Needs for Assessing Rural Transit Needs, Benefits, and Levels of Service

The National Cooperative Highway Research Program (NCHRP) Research Results Digest 376, states that with a growing elderly and veteran population, rural public transportation is becoming a growing mobility option. As government funding increases, a greater depth of performance analysis and scrutiny is necessary. Currently, transit data is gathered and used to measure performance, to determine unmet transit needs, to evaluate benefits, and to report required financial information. This report reviews available data to assess performance and level of service of rural transit and suggests what additional or new data is needed for a more accurate assessment. Special focus is placed on how to report data more systematically for increased consistency on identifying level of service (LOS) thresholds. Currently, performance standards (how effective, efficient, safe and reliable) are typically defined at the state level and take into account the difference between demand-response and fixed-route transit. Although multiple measures can be used, six key indicators are easily accessible and widely used:

- Passenger Trips Per Vehicle Revenue Hour;
- Operating Cost Per Vehicle Revenue Hour;
- Operating Cost Per Vehicle Revenue Mile;
- Operating Cost Per Passenger Trip;
- Fare box Recovery Ratio; and
- Safety Incidents Per 100,000 Vehicle-Miles.

LOS allows for meaningful comparison of rural transit services; and provides transit agencies with a framework for choosing the appropriate services based on local community's needs. Taking into account the differences between demand-response and fixed-route transit systems, LOS thresholds can be categorized based on many different features, such as temporal availability, service capacity or geographic availability. When determining the appropriate LOS to provide, rural transit agencies can consider a few key questions to frame the discussion listed in the box on the following page.

Data is also available to conduct needs assessments, which are integral to the planning and

- What are the mobility goals for the service?
- Where is the service intended to provide mobility? (e.g. small city; county; town to town)
- Are the major trip generators distributed or concentrated?
- What is the majority of the trip purposes? (e.g. daily needs, employment, seasonal visitors)

implementation of transit services. It is important to begin with the distinction between need and demand. Need is the number of people that will likely need transit services based on demographic characteristics, while demand refers to the estimated number of trips. Many different methodologies and models have been created to conduct need assessments. The most popular are the Arkansas Model and the Mobility Gap model. Typically, key demographics such as zero vehicle households, persons below the poverty level, persons with mobility disabilities, and persons over the age of 65, are used in the needs models.

2.5 Organizing Transit in Small Urban and Rural Communities

Federal and state governments are the primary financial supporters of rural transit. Section 5311 funding provides financial resources for rural transit development, maintenance and operations and is intended to increase access to amenities for rural residents. The purpose of this study is to examine the cost structure of rural transit to determine whether government support is justified, and if it is justified, transit agencies need to ensure that funds are being used efficiently and effectively to meet the intended purpose of the funding. The author uses transportation cost concepts, econometric models, and empirical methods to analyze whether a natural monopoly exists and to outline the most efficient regional organization of transit. Transit agencies need to be effective and efficient, but also need to consider the needs of riders, service area demographics and geography, and the political atmosphere.

Section 5311 funding also includes resources for capital funding. Having this federal funding assistance changes the cost structure for rural transit agencies. Using economic models to find the optimal level of capital based on service level and capacity, the author finds that most rural transit agencies are overcapitalized. This means agencies have vehicles that are sitting in storage or are otherwise underutilized and that acquiring additional vehicles (or capital infrastructure) does not necessarily result in greater capacity or levels of service. At a local level, agencies may need to consider vehicle sharing.

2.6 A Guide for Planning and Operating Flexible Public Transportation Services

This report is a practical guide for public transportation providers and local decision-makers considering creating new or transitioning existing fixed-route services or demand response services to flexible public transportation services. Flexible public transit vehicle route operations are defined by route deviation, point deviation, demand-response connector, request stops, and flexible-route segments. The report lists the benefits of such a transition and notes the additional service requirements and some potential drawbacks. Cautions are given as to when flexible public transportation service may not be beneficial. The goal of this report is to provide

information regarding transit agencies providing flexible services, understanding the cost in terms of services and needs, and trade offs. Decision flow charts as well as an implementation process, are provided as tools based on: past research; survey results; and lessons learned.

The list below shows the steps to be followed by rural agencies considering providing flexible public transit services:

1. Start with your current service area;
2. Work with your coordinated public transit system and HSTP Coordinator;
3. Find locations where transit-dependent people come from and where they go to;
4. Develop or modify routes based on these needs;
5. Ask for public input; and
6. If the public supports it, develop a flexible public transportation service

Steps for implementing flexible public transit services include:

1. Analyzing existing conditions;
2. Obtaining community input;
3. Conducting route planning and scheduling;
4. Determining vehicle and technology needs;
5. Understanding costs, and
6. Marketing services.

National Transit Database (NTD) Transit System Definitions

Demand Response (DR)

A transit mode comprised of passenger cars, vans or small buses operating in response to calls from passengers or their agents to the transit operator, who then dispatches a vehicle to pick up the passengers and transport them to their destinations. A demand response (DR) operation is characterized by the following:

The vehicles do not operate over a fixed route or on a fixed schedule except, perhaps, on a temporary basis to satisfy a special need.Typically, the vehicle may be dispatched to pick up several passengers at different pick-up points before taking them to their respective destinations and may even be interrupted on route to these destinations to pick up other passengers. The following types of operations fall under the above definitions provided they are not on a scheduled fixed route basis:

- Many origins - many destinations
- Many origins - one destination
- One origin - many destinations, and
- One origin - one destination.

Demand Response Service
Shared use transit service operating in response to calls from passengers or their agents to the transit operator, who schedules a vehicle to pick up the passengers to transport them to their destinations.

Fixed Route Service
Transit service using rubber tired passenger vehicles operating on fixed routes and schedules, regardless of whether a passenger actively requests a vehicle.

Deviated Fixed Route Service
Transit service that operates along a fixed alignment or path at generally fixed times, but may deviate from the route alignment to collect or drop off passengers who have requested the deviation.

Background

Chapter 3

3. Background

3.1 Study Area

Per federal rural public transit funding guidelines, only trips ending or beginning in the rural areas of Champaign County (i.e. outside of the urbanized area of Champaign-Urbana-Savoy-Bondville-Tolono as defined in the U.S. 2010 Census) are eligible for rural public transit service. Public transit inside the urbanized area is funded through Section 5307 federal funding and is served by the Champaign Urbana Mass Transit District (CUMTD). CUMTD does not serve all urbanized areas, Bondville and Tolono are not served by CUMTD. This represents a gap in service, therefore, for the purposes of this plan, the study area is defined as all Census block groups outside of the 2013 CUMTD service boundary (Figure 3.1).The study area was then divided into four rural zones (RZ 1-4) for capacity and scheduling purposes (Figure 3.2). The boundary lines were drawn based on rural area travel patterns, population density, as well as major access roads. For the purposes of this study, census block groups were utilized to help define the demand-response zones.

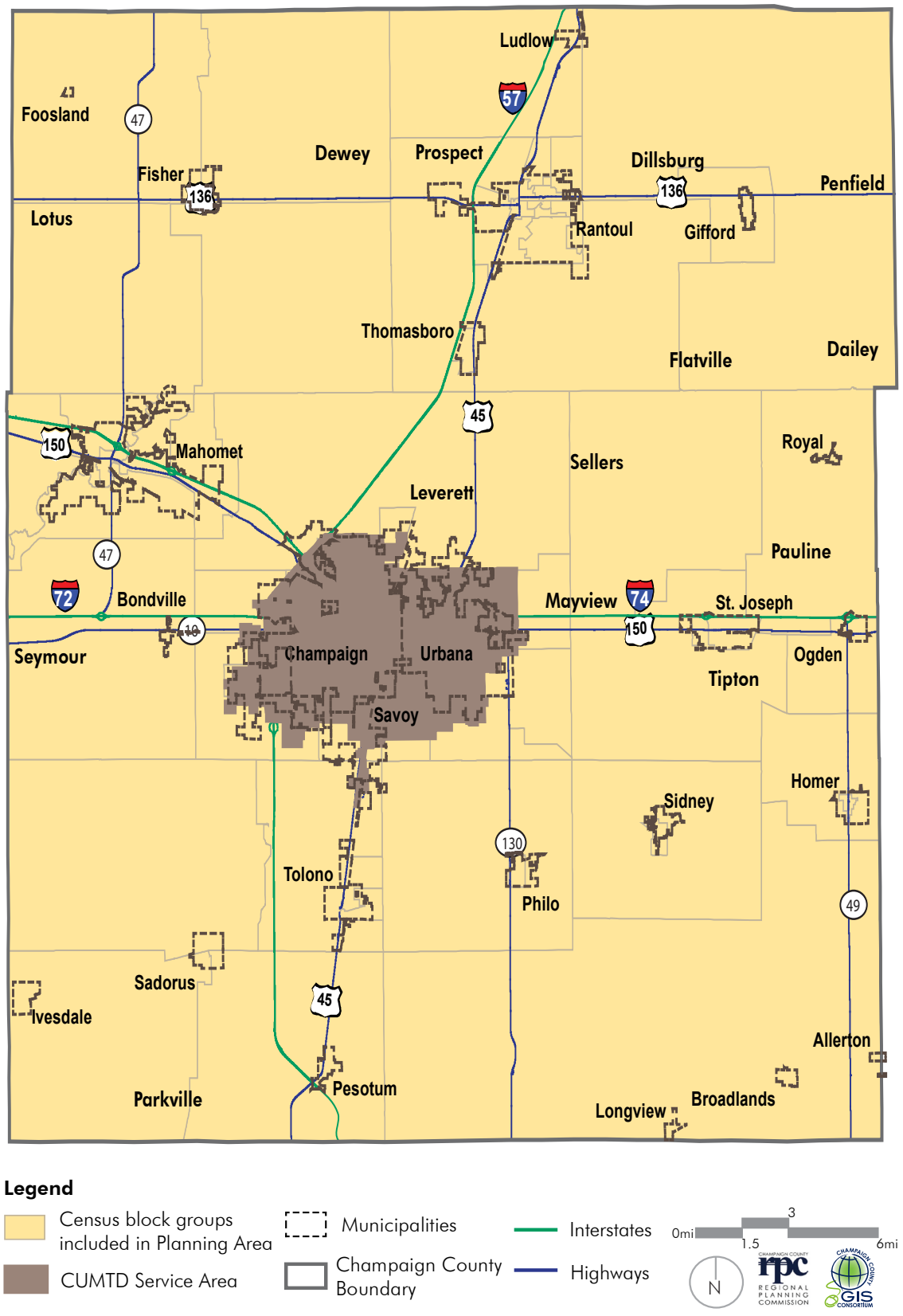


Figure 3.1: Study Area

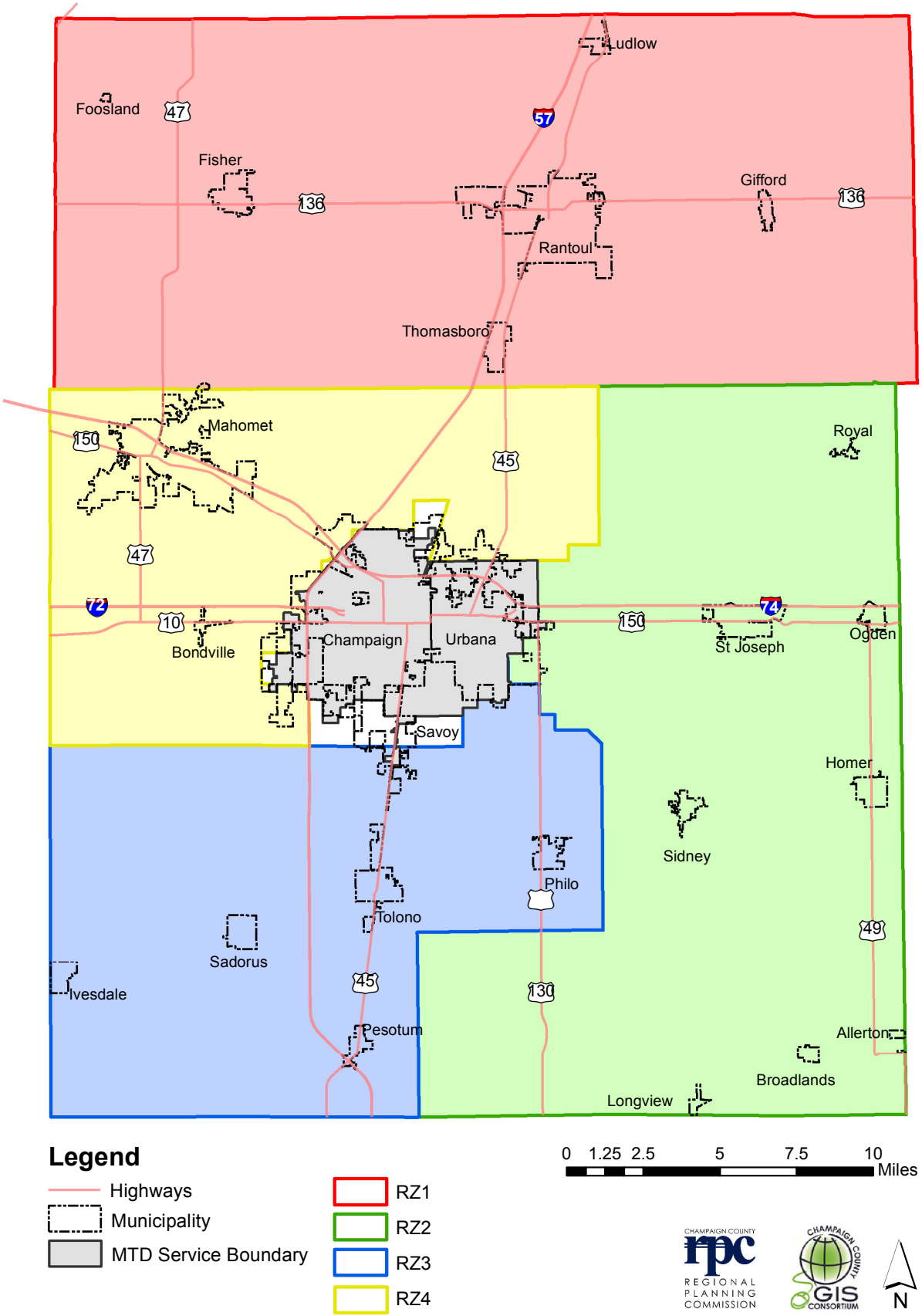


Figure 3.2: Rural Demand-Response Zones

3.2 History

Community planning efforts to establish a Champaign County rural public transit system have been ongoing since the 1970s. When compared to urbanized areas, rural communities in Champaign County encounter more mobility related challenges and barriers that are associated with rural characteristics such as longer distances to resources and employment, and a faster rate of population aging. Between 1995 and 1997, a more organized planning effort formed a Rural Transportation Steering Committee comprised of various organizations that saw first-hand the increasing need for rural transportation. The steering committe partnered with UIUC urban planning professors and students to create a feasibility study for a rural county-wide system in a report titled, UIUC Rural Transportation Study Group Final Report. It included community surveys, GIS mapping review, and proposed a rural transportation hot-line. While the hot-line never came in existence, the report detailed possible federal funding known as Section 16 for the state to purchase vehicles for non-profit organizations that provide program transportation for older adults and people with disabilities, and Section 18 funding for capital and service operation outside the urbanized areas. In 2005, under the Safe Accountable Flexibile Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), these programs were retitled as Section 5310 and Section 5311, respectively. The report also noted that there was increase transportation need for the Village of Rantoul as a result of the closing of the Chanute Air Force Base in 1993. The closing of the Air Force Base decreased local income, employment options, private investment and produced an overall decline in population. All of these factors negatively impact mobility options; fewer employment options mean more people traveling further distances for work and population decline make providing transit services not only difficult but also impractical in some cases. Twenty-two of Champaign County's top 25 employers are located within the urbanized area of Champaign Urbana.

Amtrak's nationwide stoppage of service to smaller community train stations in 1998 compounded the need for public transportation in Rantoul. The Chicago-Champaign-Carbondale trains have stopped at Rantoul since this rail line's inception on May 1, 1971; and while there was a state-funded Chicago-Champaign Illini rail line stopping at Rantoul – this line only operated during the afternoon hours and was mainly serving University of Illinois students traveling between Champaign and Chicago. Therefore, service timing did not adequately provide the needed transit services for employment based trips between Rantoul and Champaign-Urbana. For Rantoul's rail stops, the state did eventually respond to the needs of the Rantoul community by starting a 10 AM rail frequency, known as the Saluki; however, rail like human service agencies are limited in their operational ability to meet all types of transportation needs in the rural area.

In the UIUC report, various other transportation human service agency programs[1] were identified; however, many of them were limited to provide transport services to rural areas by their program funding and eligibility. For example, East Central Area Agency on Aging provided older adult transportation through a Title IIIB grant operated by Champaign County Regional Planning Commission's Senior Services Program that established what became known as the Rural Rider Program. While this program helped meet some of the needs of older adults, limited funding and eligibility requirements (60 years of age or older) only provided a limited service for older adults. The program only had one vehicle at its disposal, which would

1. Human service agency programs are programs aimed at providing assistance to persons in need. Transportation human service programs focus on meeting the needs of transportation disadvantaged persons.

travel to certain sections of the county on certain days of the week. In 2004, a Champaign County Rural Transportation Needs Assessment was prepared by BMI-SG on behalf of the Champaign County Regional Planning Commission (CCRPC). At the time, CCRPC was planning on consolidating its rural senior transportation services program known as the Rural Rider Program and the needs assessment was utilized in determining service operation hours, fares and routes. Also as a result of the assessment, it was again noted that Section 5311 funding (formally known as Section 18) continued to not be utilized by Champaign County.

Rural Transit Funding Overview

Section 3013 (s) of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), amended eligible recipients to include a State or Indian tribe that receives a Federal transit program grant directly from the Federal Government. A sub-recipient of the program includes a State or local governmental authority, a nonprofit organization, or an operator of public transportation or intercity bus service that receives federal transit program grant funds indirectly through a recipient.

Federal Funding Section 5311

FTA apportions Section 5311 funds to the States by a statutory formula using the latest available U.S. decennial census data. Eighty percent of the statutory formula is based on the non-urbanized population of the States. Twenty percent of the formula is based on land area. No State may receive more than 5 percent of the amount apportioned for land area. In addition, FTA adds amounts apportioned based on non-urbanized population according to the growing States formula factors of 49 U.S.C. 5340 to the amounts apportioned to the States under the Section 5311 program.

Local Match

The Federal share of eligible capital and project administrative expenses may not exceed 80 percent of the net cost of the project. For operating, the Federal share may not exceed 50 percent of the net operating cost of the project. For projects that meet the requirements of the Americans with Disabilities Act, the Clean Air Act, or bicycle access projects, they may be funded at 90 percent Federal match.

In 2005, as a result of the passage of SAFETEA-LU, 50% additional funding was allocated to rural transportation. Prior to this, when compared to large urban areas - rural transportation programs were significantly underfunded, especially considering the physical distances and higher occurrence of people with disabilities and older adults that live in the rural areas. In August 2007, the Illinois Department of Transportation-Division of Intermodal Transportation (IDOT-DPIT) notified the Champaign County Board of available rural transportation funding that could be banked on their behalf if the county was interested in completing the state required Interagency Coordinating Committee on Transportation (ICCT) Primer Process to be eligible for the rural operating grant funding.

Before a grant could be awarded, IDOT-DPIT required that counties go through the Interagency Coordinating Committee on Transportation (ICCT) Primer Process. The ICCT Primer is a five-

year process facilitated by the ICCT Clearinghouse staff. The main objective of this process is to bring people together, identify needs and resources, develop an action plan, obtain funding, and evaluate the outcome.

> **What was the Primer Process?**
> The ICCT Primer Process is an extensive local effort that involves numerous local human service agencies working together to identify a rural public transportation operator based on local needs and existing resources. Between 2008 and 2010, the ICCT Primer Process was spearheaded by CCRPC staff and facilitated by IDOT's Rural Technical Assistance Center (RTAC).

3.3 ICCT Primer Process Timeline (2008-2010)

Phase I (June 2008) - Phase I required the creation of the Champaign County Transit Partnership Group (CCTPG). The CCTPG was created, coordinated, and facilitated by CCRPC staff. The CCTPG consisted of a group of volunteers and transportation providers working under the guidance of the staff of IDOT's Rural Technical Assistance Center to develop coordinated public transportation throughout our county.

Phase II (July 2008- July 2009) - The second phase of the Primer required a needs assessment to be performed. CCRPC staff developed a needs assessment survey and prepared an inventory of Champaign County resources. CCTPG members and CCRPC staff distributed, collected and analyzed surveys from rural residents and transportation providers regarding transportation needs in rural Champaign County (outside Champaign-Urbana-Savoy-Bondvillle[2]).

Phase III (August 2009 - January 2010) - For this phase, the CCTPG was required to develop a coordinated rural public transportation system based on the available resources. To meet that requirement, the CCTPG created two groups, the Contract Development Group (CDG) and the Public Education and Legislative Outreach Group (PELOG). The CDG utilized the Wish List, Needs Assessment, Inventory of Resources and other data to develop interagency agreements for a coordinated rural transportation system. The PELOG provided education and outreach for the general public, media, employers, business leaders and legislators at the city, county and state levels.

Phase IV (February 2010 - April 2010) - This phase involved developing an action plan for a rural public transportation system based on community needs. The three main components of the action plan were: identifying a single transportation operator; establishing service routes; and strategizing program funding. CRIS Rural Transit of the Healthy Aging Senior Center in Danville, as the rural transit public operator for Vermilion County was identified as the only willing agency to operate rural general public transit for Champaign County. On February 17, 2010, the CDG recommended to the County Board the designation of CRIS Rural Transit as the primary operator for rural transportation in Champaign County, in order for the remaining steps of the ICCT primer process to be completed.

2. At the time of Phase II of the Primer Process, Tolono was excluded from the Champaign Urbana Urbanized Area.

Phase V (May 2010- December 2010) - On June 10, 2010; IDOT held Transit 101 training at the CCRPC. The completion of this training fulfilled part of Phase V and officially marked the end of the ICCT Primer Process, which was necessary to receive program concurrence from IDOT to submit FY11 application for Section 5311 and IL Downstate Operating Assistance Programs (DOAP) funding to start providing rural transportation services in Champaign County.

In December 2010, the Champaign County Board appointed RTAG members from human service agencies that participated in the CCTPG process. This was the second and final step in completing Phase V of the ICCT Primer Process. The purpose of RTAG as a subcommittee of the Champaign County Board would be to monitor and evaluate the process of the rural transportation system provided to rural communities.

February 2011 - CRIS began operating the demand response general public transportation service in Rantoul, Gifford, Ludlow and Thomasboro, as well as older adult transportation services countywide. The rural public transportation service was demand-response with reservations requiring 48 hours minimum notification. Curb-to-Curb service was available weekdays from 7:00 am – 4:00 pm. The fare for a one-way trip was $2.00 within a district and $5.00 between districts within the county. Older adults and persons with disabilities pay a discounted fare of $2.00 anywhere within the county.

The service details were determined by the CCTPG based on the information collected. The service had a district structure, which was defined by high school district boundaries. Initial service targeted the Rantoul Township High School District (northwest quadarant), which showed the greatest need and potential usage. While service started in Rantoul and Ludlow. It was planned to progressively expand service within the first and second year by going clockwise around the county as funding was available. However, service demand rapidly outpaced the system capacity due to limited rolling stock; therefore the system was not expanded after the second year of service. IDOT-DPIT requested for the system to expand to the whole county by the end of June 2013.

Per IDOT-DPIT's request, in May 2013, CRIS expanded services countywide. As of FY 2014 county-wide service was facilitated by taking two buses out of the regular service pattern (in the northeast quadrant of the county) and assigning one of them to the northwest quadrant on Mondays, Wednesdays and Fridays and the southwest quadrant on Tuesdays, Thursdays and Fridays. The second bus provides service to the east section of the county on Mondays and Wednesdays and covers the southeast quadrant on Tuesdays and Thursdays.

Service Milestone & Timeline

FY11

- February 15th, 2011 - First day of rural public transit provided in Champaign County.
- March 2011 – New Urbana offices opened in partnership with Champaign-Urbana Mass Transit District to purchase at cost gas and vehicle maintenance, as well as rent vehicle facilities.

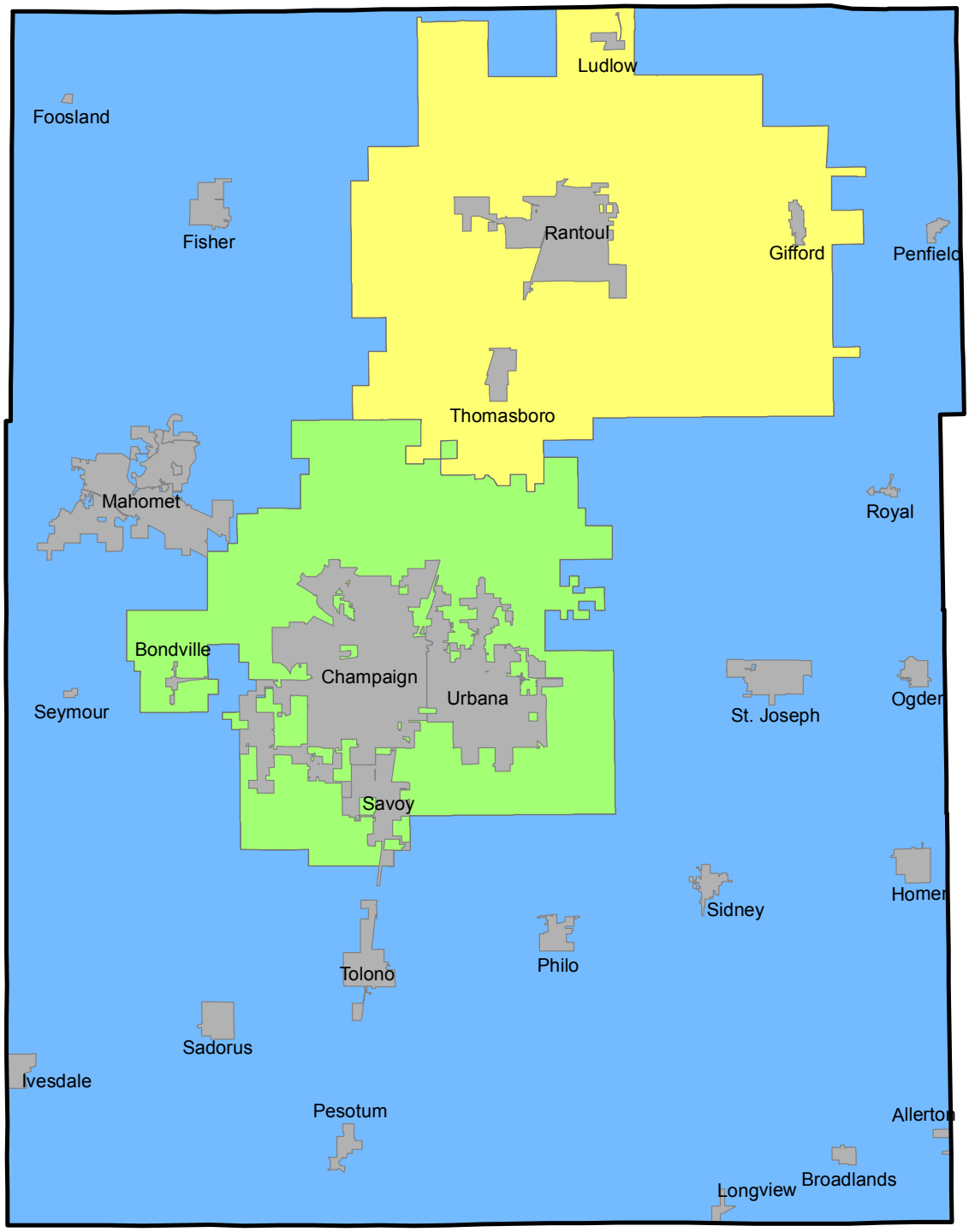
FY12

- August 2011 - CRIS averaged 54 trips a day in Champaign County surpassing IDOT's stated goal of 50 trips a day a year in advance.
- April 2012 - Champaign's startup funded (two mini-vans/6passenger & three medium duty/14-passenger) vehicles were delivered. Due to demand, an additional 3 vehicles continued to be leased from Vermilion County; additional rolling-stock applications have been submitted.

FY13

- March 1st, 2013 – East Central Illinois Area Agency on Aging funded transportation ended due to federal cuts.
- May 1st, 2013 – General public service area expanded countywide to cover all rural areas. See demand response zone map attached.

FY14 Note: Service hours expanded in order to increase transportation services for those needed work transportation with a returning trip pick-up at 5pm.



Champaign County Rural Transit Fare Schedule

Yellow to Yellow	$2.00 each way
Yellow to Green	$5.00 each way
Yellow to Blue	$5.00 each way
Blue to Green	$5.00 each way
Blue to Blue	$5.00 each way
Green to Green	$5.00 each way
Children Under 12	$1.00 each way

0 2.5 5 10 Miles

N

Figure 3.3: CRIS Service Area and Fare Structure

Existing Conditions

Chapter 4

4. Existing Conditions

4.1 Rural Public Transit Services Today

Champaign County's rural transit system operates between 6:00am - 6:00pm Monday through Friday (except holidays). All drivers have been trained in passenger assistance and emergency procedures to insure that transportation services provided are safe, comfortable and secure. In Champaign County, CRIS employs 1 full-time safety associate (trainer/driver), 2 full-time dispatchers, and between 10 to 12 part-time drivers, in addition to 4 management staff positions that split their time working on Champaign and Vermillion County transportation that includes: one director of transportation, one billing clerk, one associate administrator, and one CEO.

Trips

CRIS' growth in ridership is slowing. Between February 2011 and June 2013 CRIS experienced a ten fold increase in average trips per day from 6 to 61 (Figure 3.4). The growth experienced for FY 2011 (Feb 2011-June 2011) was 400%, while the growth experienced for FY 2012 (July 2011- June 2012) was 64%. On the other hand, CRIS experienced a 7% decline in ridership during FY 2013 (July 2012- June 2013). Changes in ridership may be corelated with the capacity (number and type of vehicles available) of the system.

Trip Types

Medical trips was the major trip type for all months since service inception in February 2011 (Table 4.1). Although medical trips was the major trip type, during FY 2012 medical trips experienced the slowest growth of 33% from 444 trips in July 2011 to 591 in June 2012. During FY 2012, educational trips experienced the greatest increase of 88% from 17 total trips for July 2011 to 32 total trips for June 2012. For FY 2011, senior trips accounted for 66% of all trips for all months (Feb 2011- June 2011), compared to 45% and 49% for FY 2012 and FY 2013 respectively.

Registered Riders

There are a total of 1,146 registered riders; 115 disabled and 288 older adults (Table 4.2). The Majority of registered riders live in Rantoul, there are currently 760 registered riders in Rantoul, 22% of which are seniors and 11% are disabled. There are several villages and towns that do not have any registered riders, they include; Foosland, Allerton, Broadlands, Longview, Philo, Sadorus and Bondville. All but one Champaign County Nursing Home riders reside in the urbanized area, 90% of which reside in the City of Champaign. There are 24 registered riders outside of Champaign County.

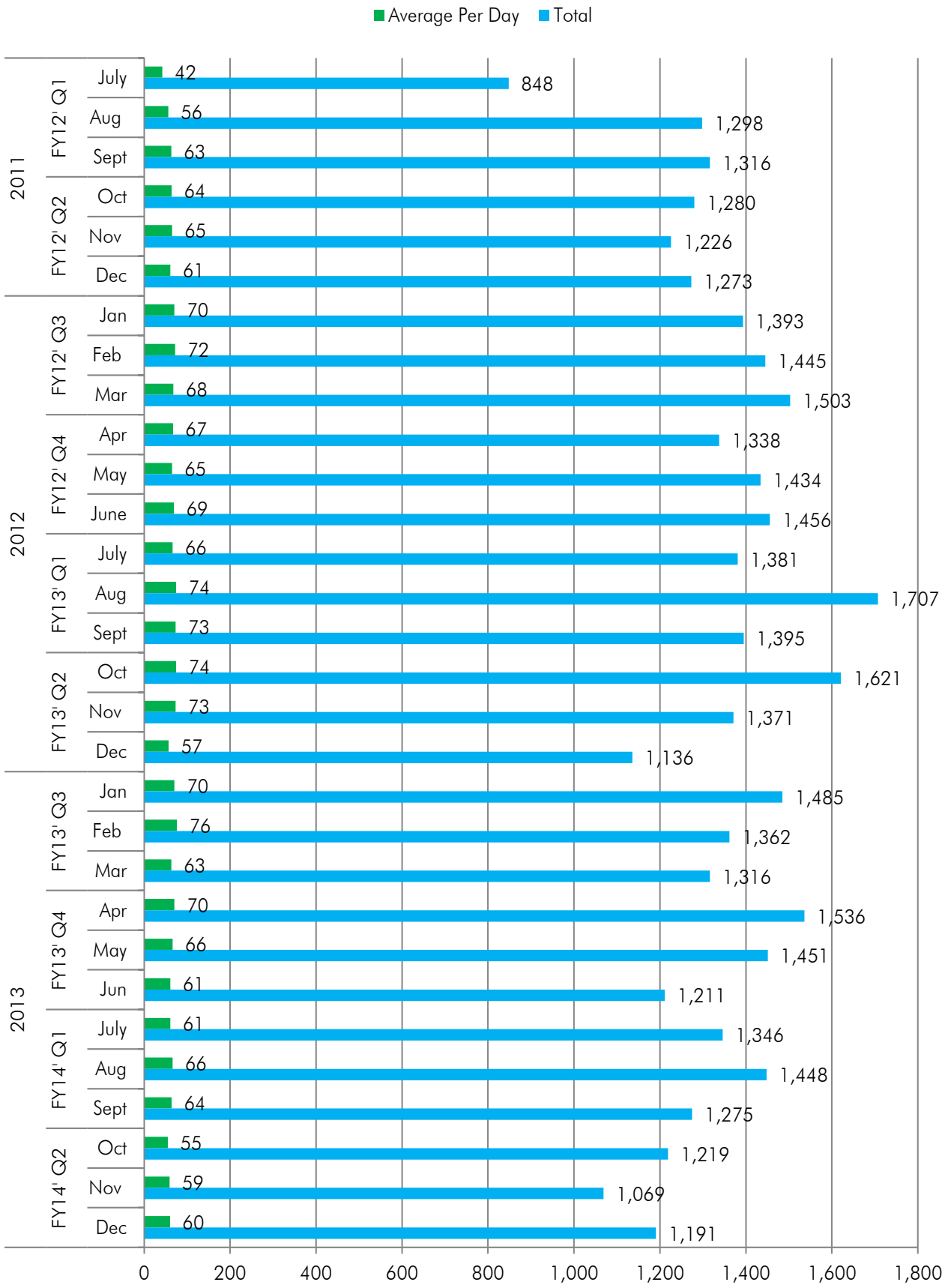


Figure 4.1: Trip Totals & Averages Per Day

Table 4.1: Trip totals & Types

Fiscal Year	Month	Total Trips	Medical	Personal	Shopping	Social	Employment	Education	Misc.	Lift	60+
2011	Feb	116	*CCRPC requested that operator start tracking trip type for quarterly reports starting in May 2011. Prior to this, CRIS was not tracking trip type, only the total trips, average per day, and other logistics required for reimbursement.								
	Mar	302									
	April	359									
	May	514	254	56	50	90	18	44	2	70	349
	June	712	356	96	45	69	113	33	0	130	456
2012	July	848	444	122	72	82	111	17	0	161	455
	Aug	1,298	693	156	105	133	184	27	0	232	649
	Sept	1,316	582	208	136	111	205	74	0	181	569
	Oct	1,280	477	258	142	110	204	89	0	132	526
	Nov	1,226	458	240	191	100	169	68	0	130	522
	Dec	1,274	509	246	216	93	182	28	0	176	586
	Jan	1,393	613	246	173	94	198	69	0	185	551
	Feb	1,445	469	345	177	135	242	77	0	126	589
	Mar	1,503	497	359	200	122	289	36	0	127	659
	April	1,338	442	349	136	120	267	24	0	120	617
	May	1,434	571	277	135	177	249	25	0	158	710
	June	1,456	591	360	119	159	195	32	0	195	728
2013	July	1,381	521	284	163	164	247	2	0	164	666
	Aug	1,707	575	416	179	202	306	28	1	178	787
	Sept	1,395	484	287	74	197	273	75	5	111	664
	Oct	1,621	553	345	99	259	271	92	2	145	814
	Nov	1,371	442	242	94	283	237	73	0	132	735
	Dec	1,136	405	160	103	240	195	33	0	120	595
	Jan	1,485	477	235	87	281	331	74	0	157	723
	Feb	1,362	466	161	74	233	340	88	0	129	639
	Mar	1,316	431	185	90	218	309	82	1	101	593
	April	1,536	608	202	103	249	317	57	0	166	719
	May	1,451	515	204	116	247	331	38	0	177	724
	June	1,211	439	225	73	182	292	0	0	171	611

Table 4.2: Transit System Capacity by Quarter

Fiscal Year	Quarter	6 Rider Seats Per Vehicle	12 Rider Seats Per Vehicle	14 Rider Seats Per Vehicle	Total Miles Driven Per Quarter
2012	Q1	0	2	4.25	48,176
	Q2	0	2	4.5	53,570
	Q3	0	2	6.5	72,648
	Q4	2	0.5	7	66,268
2013	Q1	2	0	7.5	57,591
	Q2	2	0	7.25	62,828
	Q3	2	0	6	59,874
	Q4	2	0	6	57,730

Table 4.3: Registered Riders (June 2013)

Zone	Area	5311	5311D	RR (60+)	CCNH	Total Registered Riders To Date
Demand Response Zone 1	Dewey	4		1		5
	Fisher		2	8		10
	Foosland					0
	Gifford	1		9		10
	Ludlow	11	3	3		17
	Penfield	1		4		5
	Rantoul	507	84	169		760
	Thomasboro	8		5		13
Demand Response Zone 2	Allerton					0
	Broadlands					0
	Homer	1	1	8		10
	Longview					0
	Ogden			1		1
	Royal					0
	Saint Joseph	1	2	14		17
	Sidney			2		2
Demand Response Zone 3	Ivesdale	1				1
	Pesotum		1			1
	Philo		2			2
	Sadorus					0
	Tolono			15		15
Demand Response Zone 4	Mahomet	4	4	23		31
	Seymour		1			1
Urbanized Area	Bondville					0
	Champaign	33	5	11	11	60
	Savoy			1	2	3
	Urbana	18	7	11	125	161
Other	Outside Champaign County	14	3	3	1	24
Total		**604**	**115**	**288**	**139**	**1,146**

**5311- General Public
5311- Disabled
RR - Older Adults
CCNH - Champaign County Nursing Home

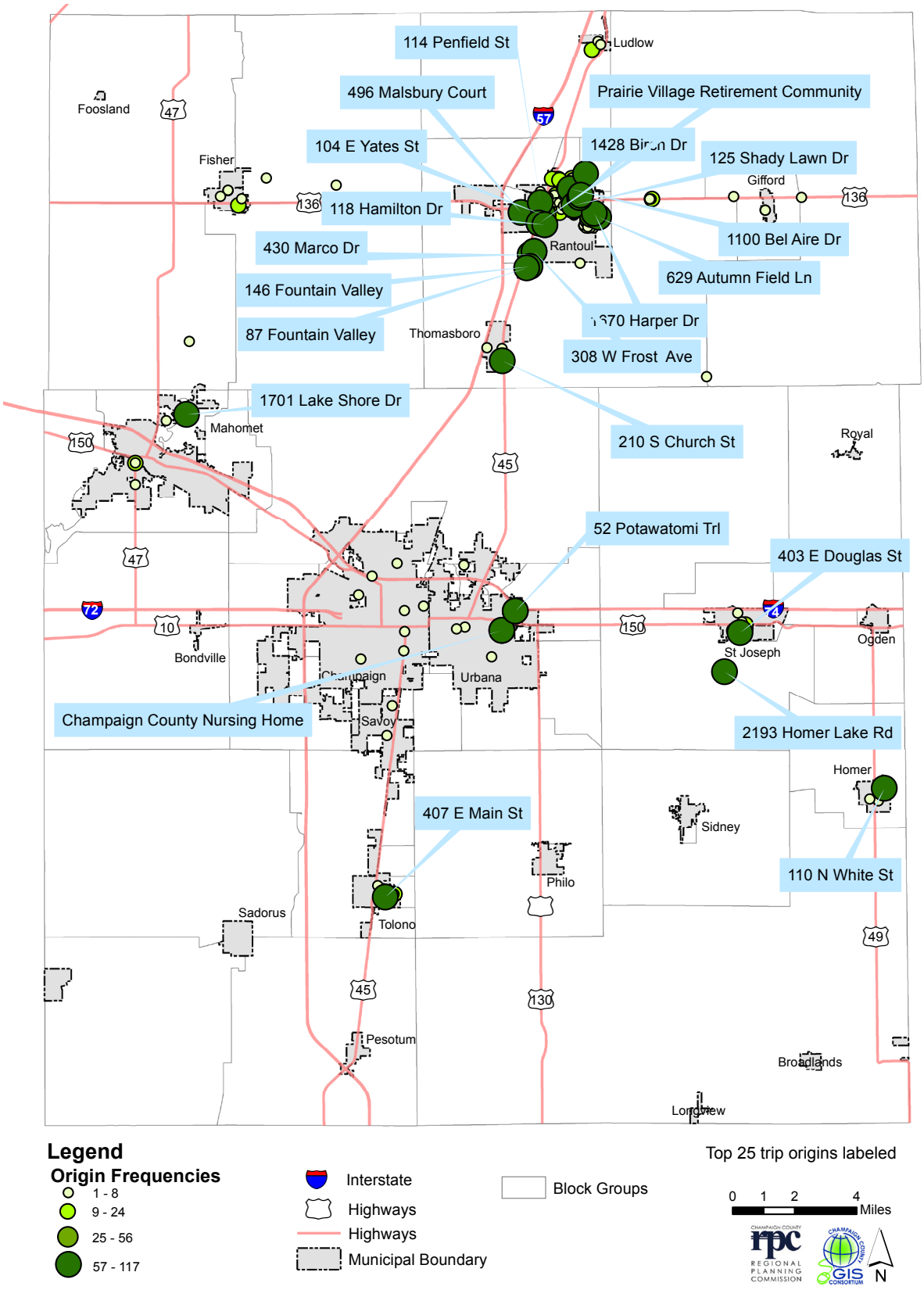


Figure 4.2: Trip Origins

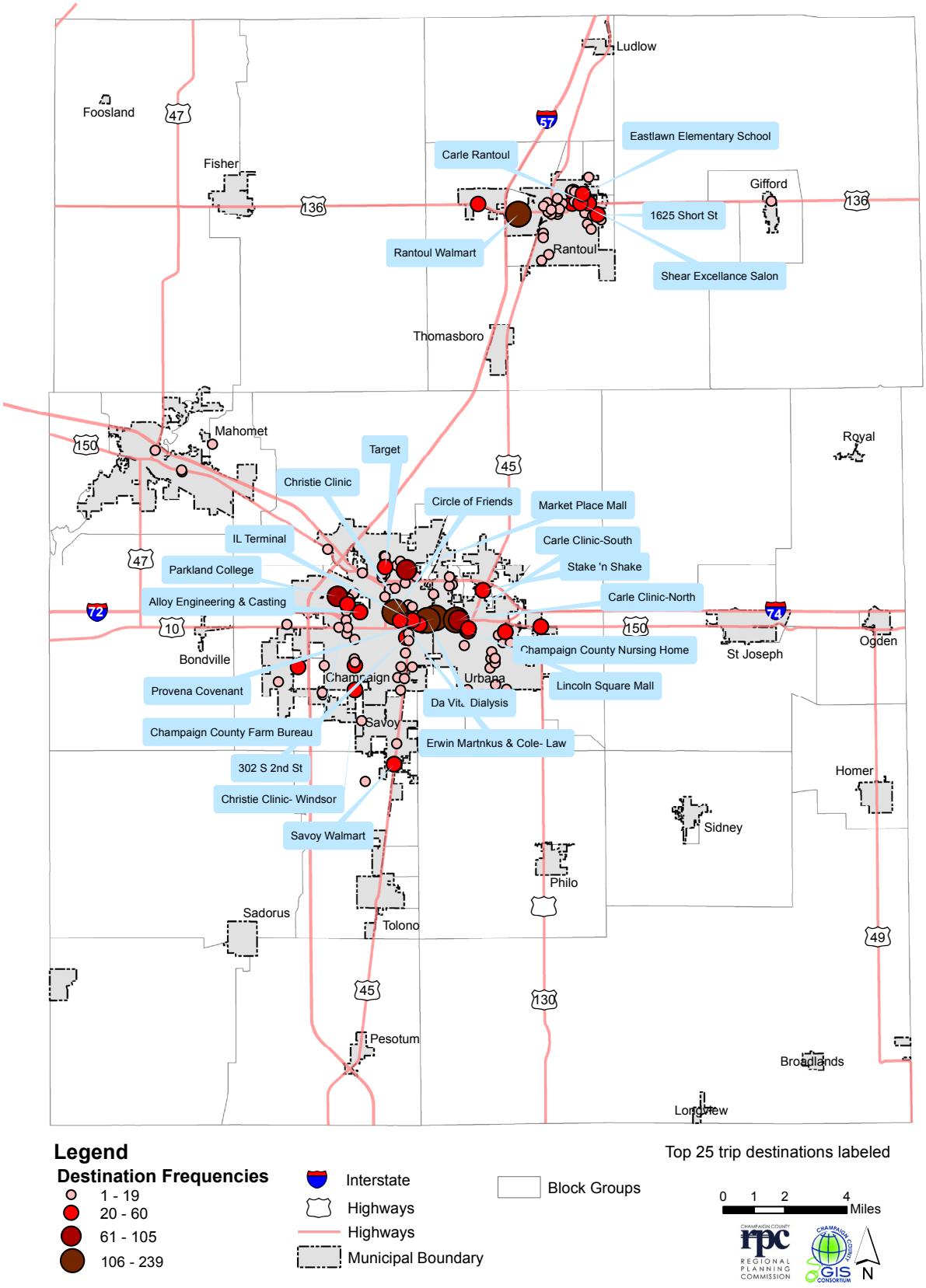


Figure 4.3: Trip Destinations

4.2 Socio-Economic Analysis

A key step in developing and evaluating transit plans is a careful analysis of the demographic and socio-economic characteristics of the population in an area. The distribution or concentration of certain populations determines demand, need, and where gaps in existing services are occurring. Certain physical, financial, and legal limitations do not permit them to drive or carpool; therefore, public transit is the only viable option for their mobility needs. Populations that statistically have greater need and reliance on rural public transportation services include:

- Youth (17 years or younger);
- Older Adults (60 years or older);
- Persons with Disabilities;
- Persons with Low Income(s); and
- Zero Vehicle Home(s) (i.e. no access to a personal motor vehicle).

This section incorporated 1990, 2000 & 2010 U.S. Census data, as well as 2007-2011 5-year American Community Survey (ACS) data. The current study area was defined as all rural areas outside of CUMTD's 2009 service area. Due to changes in MTD's service boundaries between 1990 and 2010, historical comparisons will be based on the U.S. Cenus' delineation between of urban and rural. The following Champaign County rural area demographic and socio-economic analysis provides information to guide operational decisions regarding scheduling and vehicle distribution.

Age

According to the 2010 Census, the total population within the study area is 72,132. In 2010, there were 18,068 youths (17 years and younger) representing 25% of the total population, while 40,357 adults (18-60 years) accounted for 55% of the total population. Older adults (60 years and older) represented 19% (13,707) of the total population within the planning area. High percentages of youth populations are concentrated near Rantoul, Mahomet, and the southeast quadrant of the county (Figure 4.4), while senior populations are clustered closer to Thomasboro or just outside of CUMTD boundaries (Figure 4.5).

The spatial distribution of the transportation dependent age cohorts of youth and older adults reveal that, at the county scale, the urbanized area[1] has a greater share of Champaign County's older adults and youth (Table 4.4) for all years 1990, 2000, 2010. However, when comparing demographic composition between urban and rural areas, rural areas have equal or higher shares of both youth and older adults for the years 1990, 2000 and 2010 (Table 4.5). According to the 2010 U.S. Census, there were 18,568 older adults living in the urbanized area compared to 9,966 in rural areas. In 2010, the rural population was comprised of 26% youth and 18% elderly. In contrast the urbanized area was comprised of 17% youth and 13% older adults

Rural areas are aging at a faster rate than urban areas. Aging is driven by two major processes: an increase in the share of older adults and a decrease in the share of youth. Between 1990 and 2010, rural areas saw a 5% increase in their share of older adults from 12% in 1990 to 18% in 2010; while the rural youth population experienced a 3% decrease in their share of youth from 29% in 1990 to 26% in 2010. In contrast, the urbanized area only experienced a

1. Urbanized area refers to the Champaign Urbana urbanized area as defined by the US census. Rural area figures will differ from study area figures because the study area is larger than the area the census defines as rural. The census differentiates between rural and urban based on population density, while the study area is defined as areas outisde of the 2009 MTD service boundary.

1% increase in older adults and a 1% decrease in youth over the same period.

Table 4.4: Spatial Distribution of Champaign County's Youth and Older Adults 1990-2010

Geography	Percent					
	1990		2000		2010	
	Youth	Older Adults	Youth	Older Adults	Youth	Older Adults
Urban	56	65	59	64	62	65
Rural	44	35	41	36	38	35

Source: 1990, 2000 and 2010 US Census

Table 4.5: Urban and Rural Age Composition 1990-2010

Geography	Percent					
	1990		2000		2010	
	Youth	Older Adults	Youth	Older Adults	Youth	Older Adults
Urban	18	12	18	12	17	13
Rural	29	12	28	15	26	18

Source: 1990, 2000 and 2010 US Census

Persons with Disabilities[2]

The U.S. Census defines a disability as "a long-lasting physical, mental, or emotional condition that can make it difficult for a person to do activities such as walking, climbing stairs, dressing, bathing, learning, or remembering. This condition can also impede a person from being able to go outside the home alone or to work at a job or business." In 2010, Persons with limited mobility due to a disability account for 10% (6,927) of the total population within the study area (Figure 4.5).

Champaign County experienced a decline in the number of persons with disabilities for the period 2000 to 2010. The county, rural and urbanized areas all experienced a decline of approximately 21% during this period. In 2010, there were approximately 17,269 persons with disabilities in the county with 11,117 living in the urbanized area and 6,152 living in rural areas.

Although most persons with disabilities in Champaign County live in the urbanized area, rural areas' demographic composition have a greater share of persons with disabilities. For both 2000 and 2010, approximately 64% of Champaign County's disabled population resided in the urbanized area. Despite this concentration of persons with disabilities in the urbanized area; the rural population was comprised of 14% and 11% persons with disabilities for 2000 and 2010 respectively, on the other hand the urban area was comprised of 11% and 8%.

2. Due to changes in the classification of persons with disabilities by the U.S. Census, 1990 disability data cannot be compared with 2000 disability data. Disability data was not collected by the 2010 Census and is instead estimated by the American Community Survey. These estimates are not accurate for Champaign County and therefore 2010 disability data for Champaign County is projected from 2000 Census data.

Low-Income Population

Low income persons tend to depend on transit to a greater extent than persons with a high level of disposable income. In the study area, 8% (5,939 persons) of the population is considered to be living at or below the poverty level. A large percent of these persons are concentrated in parts of Rantoul, just outside the Champaign-Urbana urbanized area, and in the southeast quadrant of the county (Figure 9).

In 1990, 2000 and 2010, the majority of Champaign County's low income residents resided in the urbanized area. Between 1990 and 2010, the share of rural population that are considered low income ranged between 7% and 9%, while the urban populations share ranged between 20% and 28%. In 2010, there were 5,121 low income persons residing in rural areas compared to 33,031 in the urbanized area.

Table 4.6 shows that for the period 2000-2010, the number of low income persons for the county, urbanized and rural areas increased by approximately 44%. Three News Gazette articles (See Appendix) that featured interviews with local citizens and government officials in Rantoul and neighboring small towns, attributed this dramatic increase in the rural low income population to a large influx of low income residents from Chicago seeking cheaper housing in safer communities in rural Champaign County.

Table 4.6: Rate of Poverty Status Change 1990-2000 and 2000-2010

Geography	Percent Change			
	1990-2000		2000-2010	
	Above Poverty Line	Below Poverty Line	Above Poverty Line	Below Poverty Line
Urban	10	13	-1	44
Rural	-1	-8	9	45
County	6	10	3	44

Source: 1990, 2000 and 2010 U.S. Census

Zero-Vehicle Households[3]

Households without a personal motor vehicle use public transit more than other households. It is important to analyze this characteristic for transit purposes. Out of the 28,607 households within the study area, 1,402 (5%) have no access to a motor vehicle (Figure 10).

The spatial distribution of zero vehicle households in Champaign County for both 2000 and 2010 is heavily concentrated in the urbanized area, for both of these years, 85% of Champaign County's zero vehicle households were within the urbanized area. The number of zero vehicle households in the county, rural and urbanized areas all increased by 23% for the period 2000-2010. The number of zero vehicle households in 2010 for the county, urbanized and rural areas are 8,303, 7,092, 1,211 respectively.

3. Zero vehicle household data was not collected by the census for the year 1990, therefore zero vehicle household data will be compared for 2000 and 2010 only.

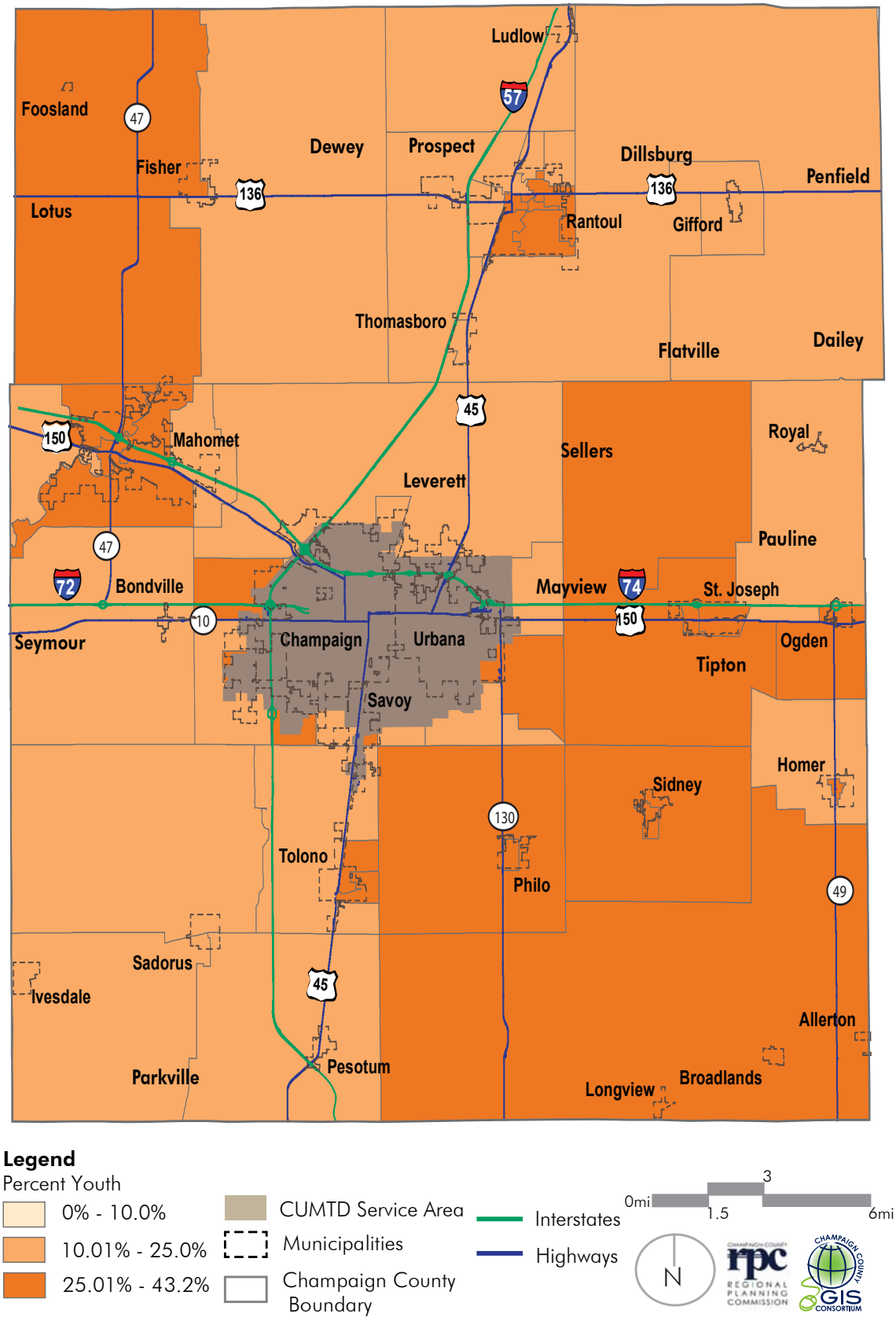


Figure 4.4: Youth (17 years or younger)

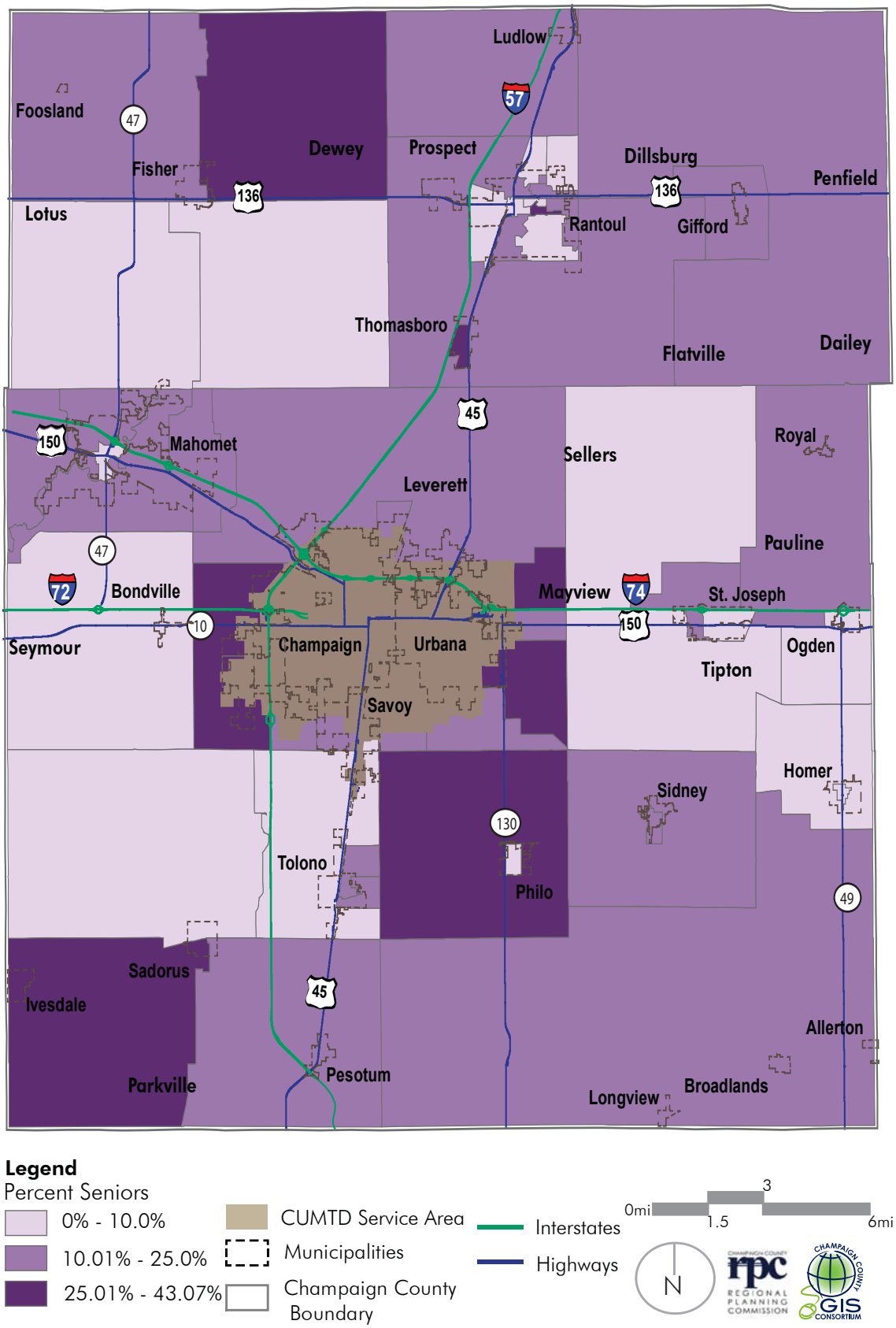


Figure 4.5: Older Adults (60 years or older)

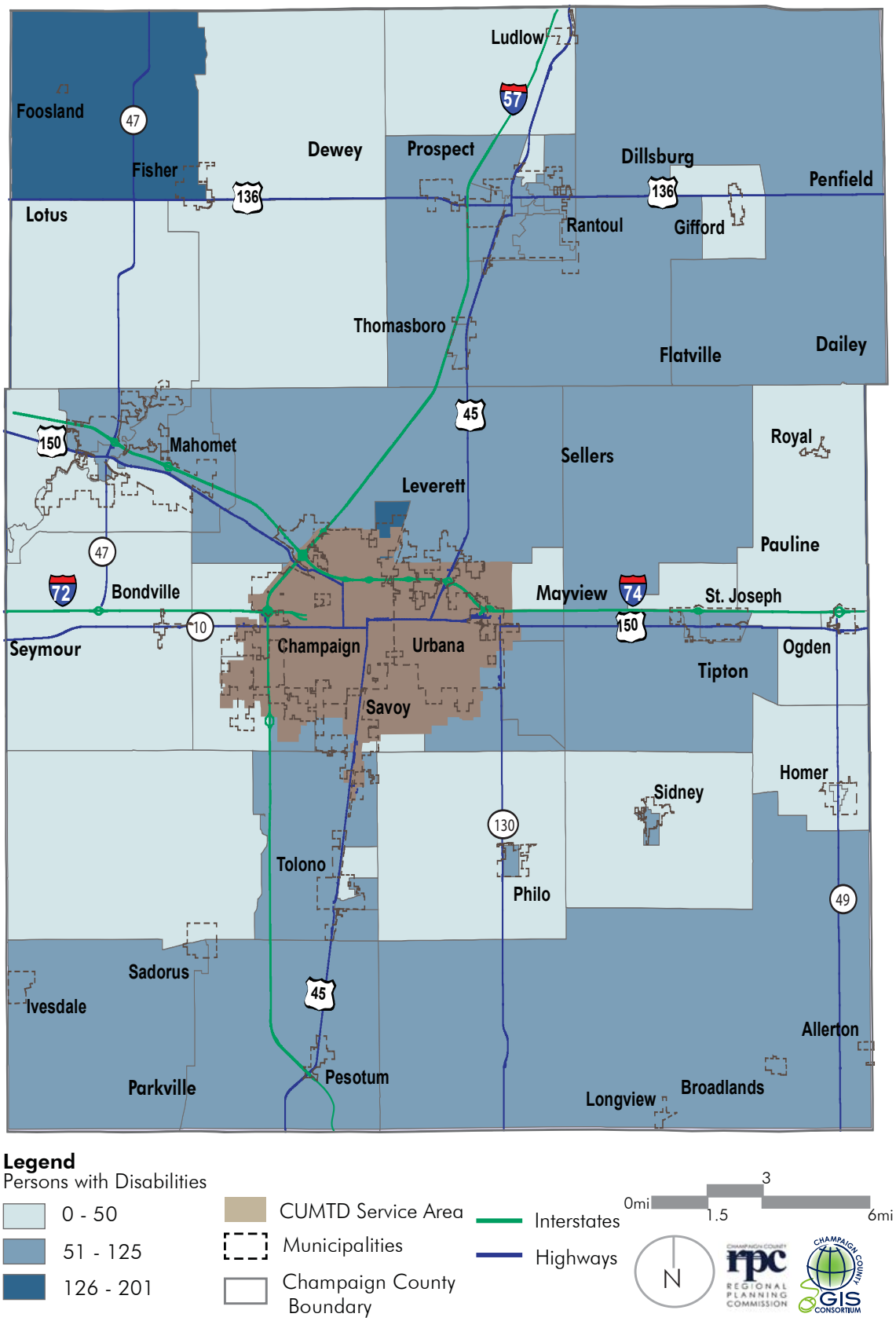


Figure 4.6: Persons with Disabilities

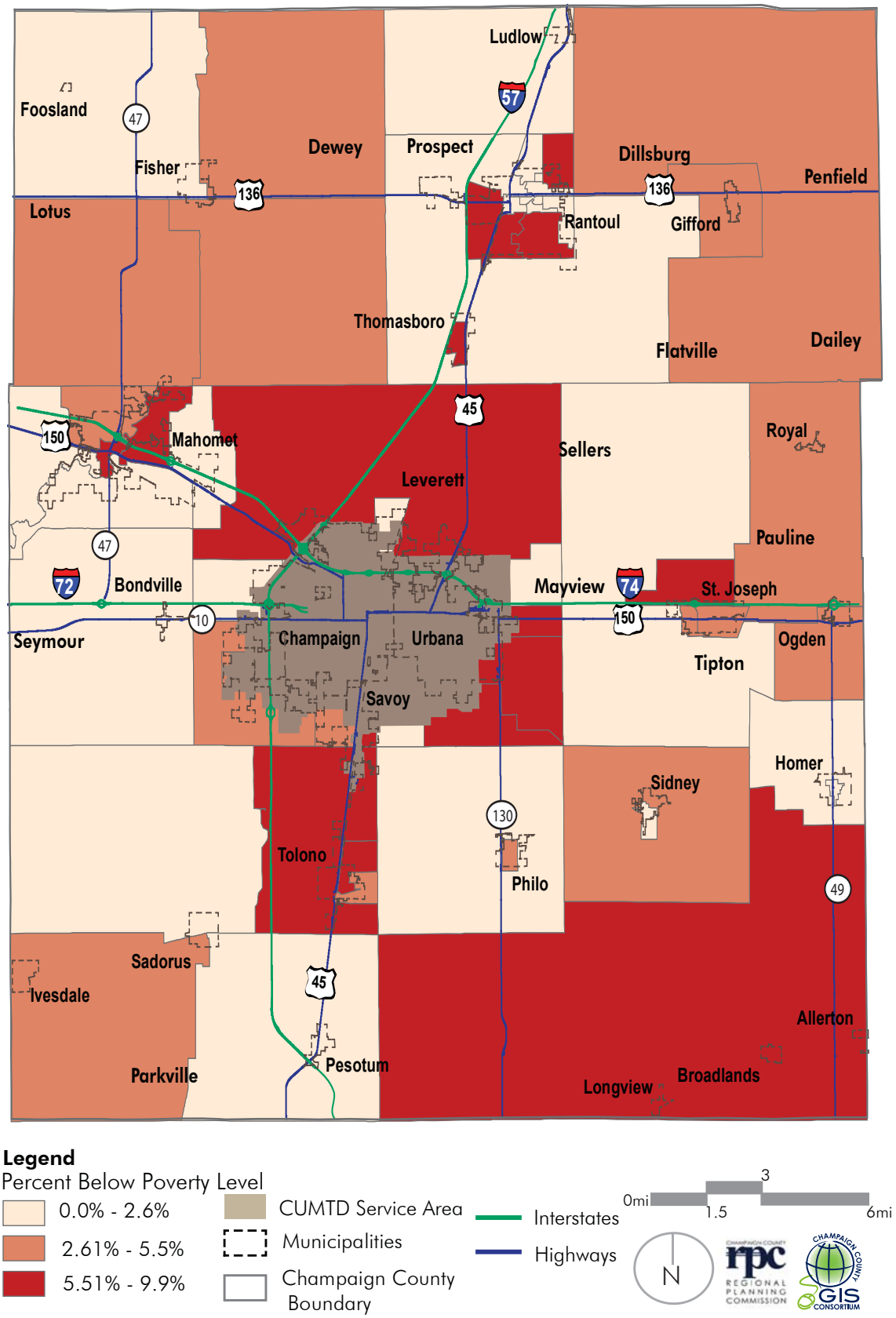


Figure 4.7: Persons with Low Income(s)

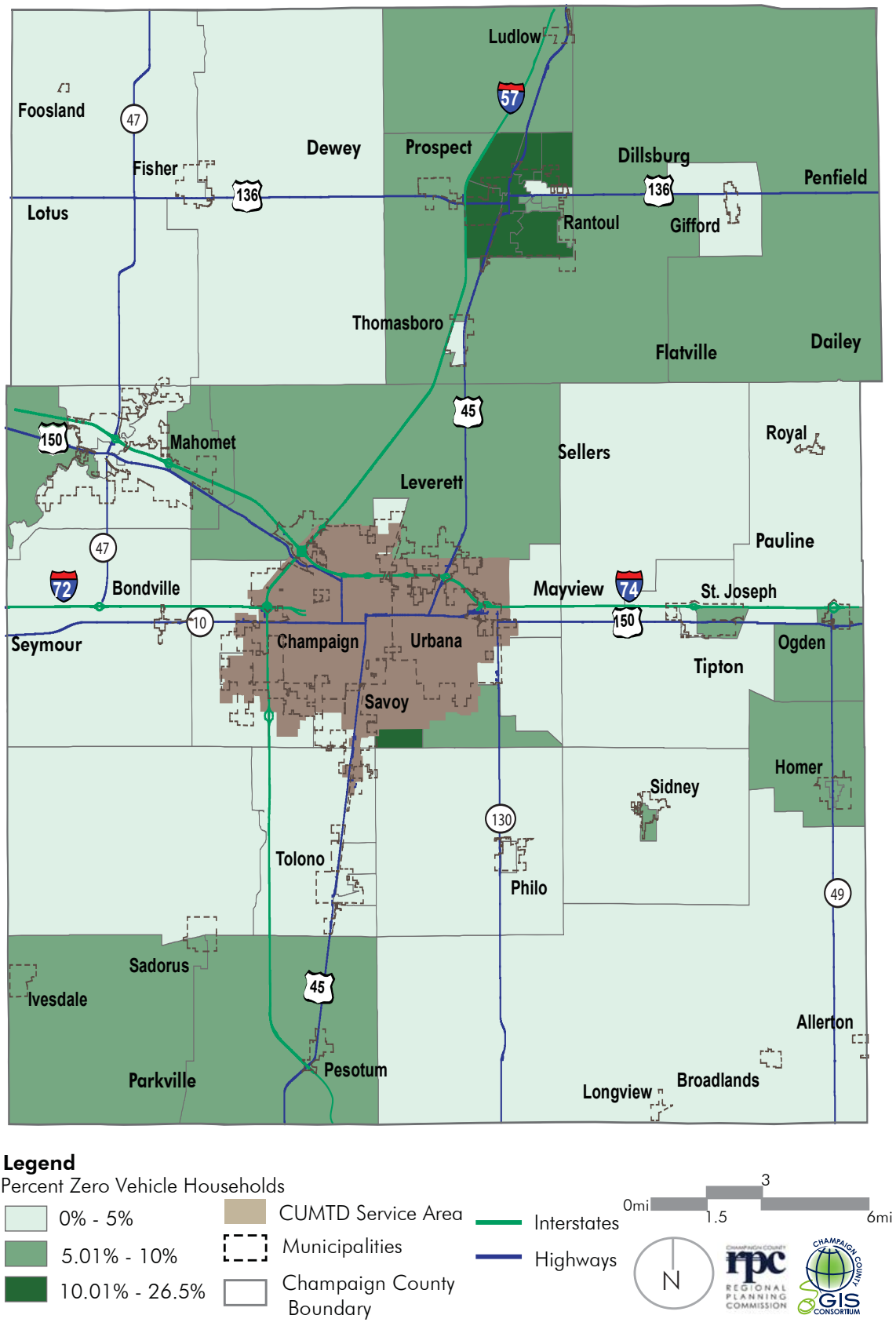


Figure 4.8: Zero Vehicle Households

Transit Dependent Populations

For this mobility plan, persons that fall into one or more of the demographics analyzed in the preceding section are considered 'transit dependent.' The five socio-economic characteristics described above were used to determine whether 2010 Census block groups exhibited a low, medium, or high level of persons with a need for transit. Each characteristic was given a score based on the percentage or number of persons with those characteristics living within each census block group. The five categories were added for each block group to attain a final score ranging from 6.5 to 16. Census block groups with a score of 6.5 to 9.5 were determined to have a low level of transit dependent persons; 10 to 12.5 were determined to have a medium level; and 13 to 16 were given a high level.

The results of the analysis reveal a high level of transit dependency in the corners of the county and in the Census block groups just outside of the CUMTD boundary (Figure 4.8). The villages of Rantoul, Thomasboro, and Tolono also exhibit high levels of persons with a need for transit.

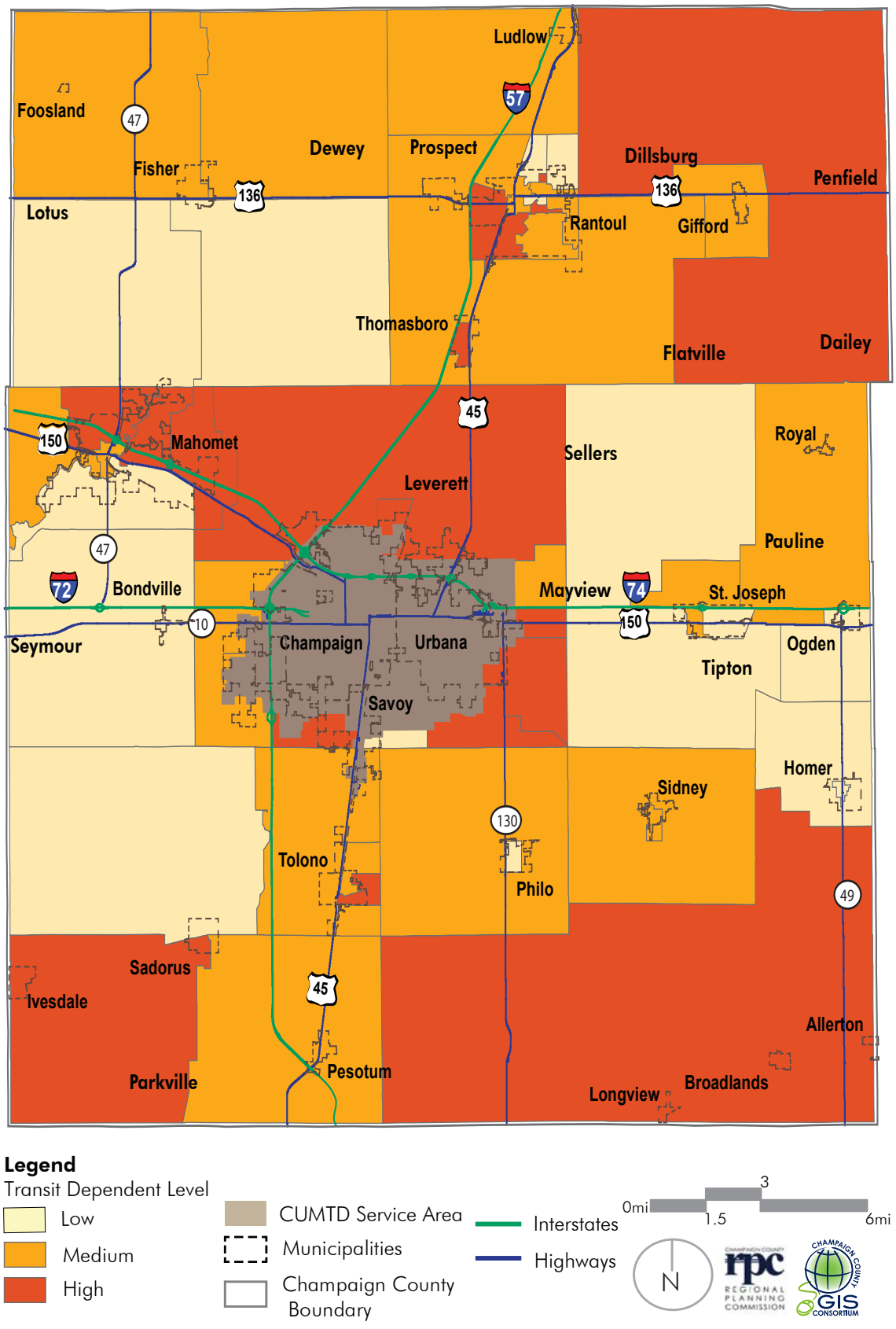


Figure 4.9: Transit Dependent Population Level by Census Block Group

Rural Zone Analysis

Chapter 5

5. Rural Zone Analysis

For further analysis, the study area has been divided into four rural demand-response zones (Figure 5.1). The boundary lines were drawn based on rural area transportation patterns, population density, as well as major access roads. The demand-response zone analysis begins with modeling potential need and demand using the demographic data from the socio-economic analysis. Transit Cooperative Research Program's (TCRP) calculations (provided in Report 161) were used to estimate need, mobility gap, and demand for each zone. The results of the needs and demand analysis show target numbers based on every potential rider being reached using unlimited funding and unlimited capacity. Champaign County currently does not have the capacity nor the funding required to meet all the possible demand for rural transit. Some demand, however, is currently being met by other transit services and programs. The goal is not only for Champaign County to expand its service and capacity to meet demand, but also to partner with other agencies to ensure no need for transit goes unmet.

Need[1]

Need is defined as the number of people in a given area likely to require transportation service. Need can be calculated as the population without access to a motor vehicle plus the persons with disabilities.

> Need = Residents of Households having No Vehicle + Persons with Disabilities

Mobility Gap

The mobility gap is the difference between the number of trips per day by persons living in households with one personal vehicle versus those living in households with zero personal vehicles. This is generally calculated through a multiplier determined at the state level. For Illinois, the multiplier is 1.4 (TCRP Report 161, 2013).

> Mobility Gap = 1.4 X Residents of Households having No Vehicle

Demand

Demand is defined as the expected number of trips to be made over a given period within a given geographic area. This report calculates non-program demand, which means all demand not related to social service programs. The formula for non-program demand is a combination of three socio-economic characteristics and estimates the number of demand for annual one-way trips (Note: Annual trips calculated on an average of 300 service days a year; currently CRIS operates approximately 240 days per year).

> Non-Program Demand = (2.20 × Population age 60+) + (5.21 × Persons with Disabilities) + (1.52 × Residents of Households having No Vehicle)

1. Need formula does take low income population into consideration although not explicitly stated.

5.1 Current Rural Area Riders & Demand

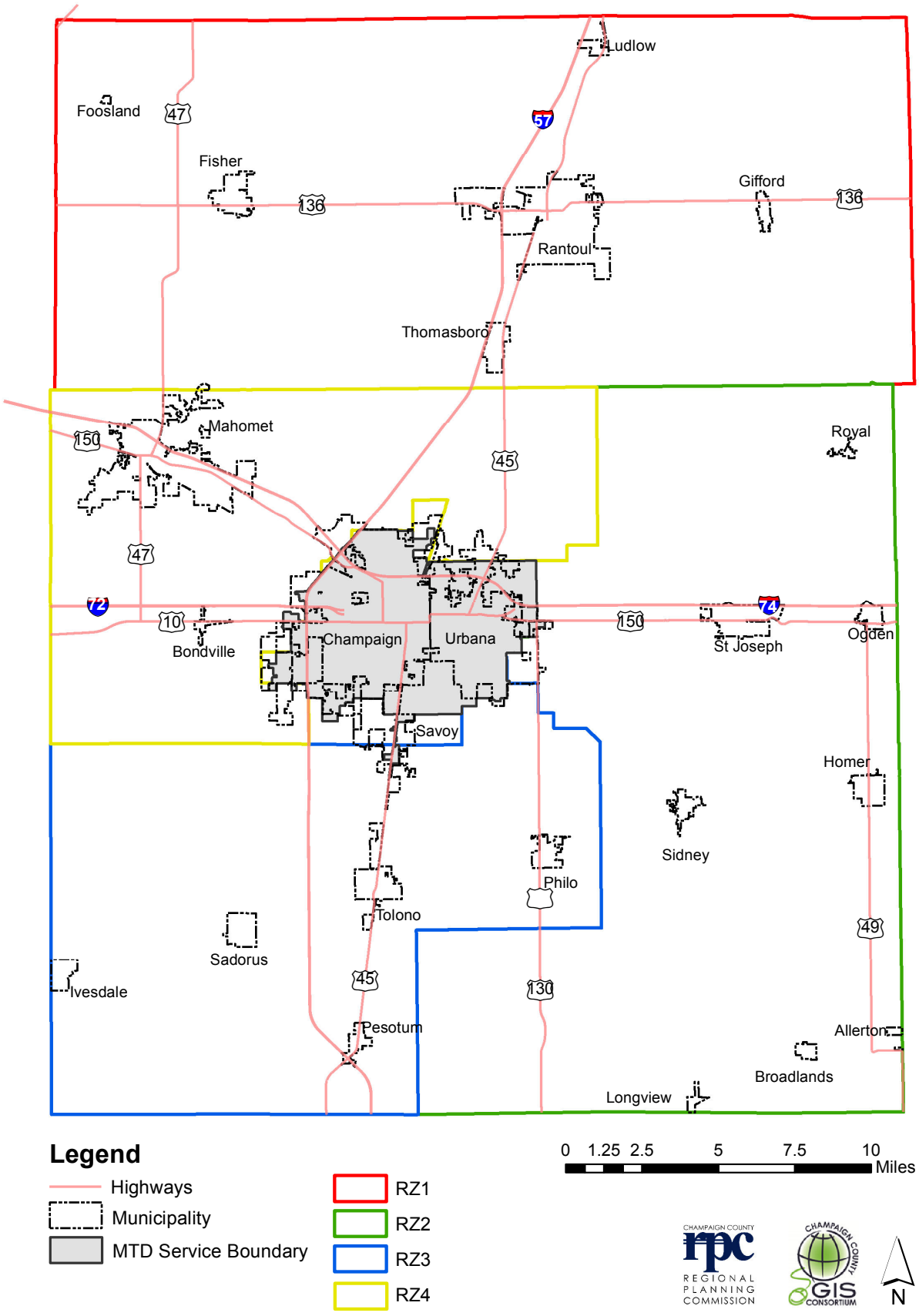


Figure 5.1: Study Area with Demand Response Zones

Table 5.1: Transit Dependent Population

Study Area	Number	%
Total Rural Population	72,132	
Youth	18,068	25
Older Adults	13,707	19
Persons with Disabilities*	6,927	10
Persons with Low Income	5,939	8
Zero Vehicle Households	1,402	5
Total Households	28,607	

Source: 2010 Census

*Due to changes in census between 2000 and 2010, persons with disabilities was updated using the rate of population change between 2000 and 2010 for each block group

Table 5.2: Rural Service, Demand and Mobility Gap FY2013*

	CRIS	Demand/ Need	Gap
Riders	1,146	7,300	6,154
Trips/ Day	68	1,960*	1,892
Annual Trips	16,972	68,400**	51,428

Source: 2010 census data and FY2013 CRIS ridership data

*Demand/Need for Trips/day is based on mobility gap and is expressed as the number of daily 1 way trips
**Demand/Need for Annual trips is general public non program demand and is expressed as the number of annual 1 way trips

Table 5.3: CRIS Registered Riders by Type FY2013**

Registered Riders	5311	5311D	RR	CCNH	Total
	604	115	288	139	1,146

Source: CRIS Rural Mass Transit District

**5311- General Public
5311- Disabled
RR - Older Adults
CCNH - Champaign County Nursing Home

Demand Response Zone 1

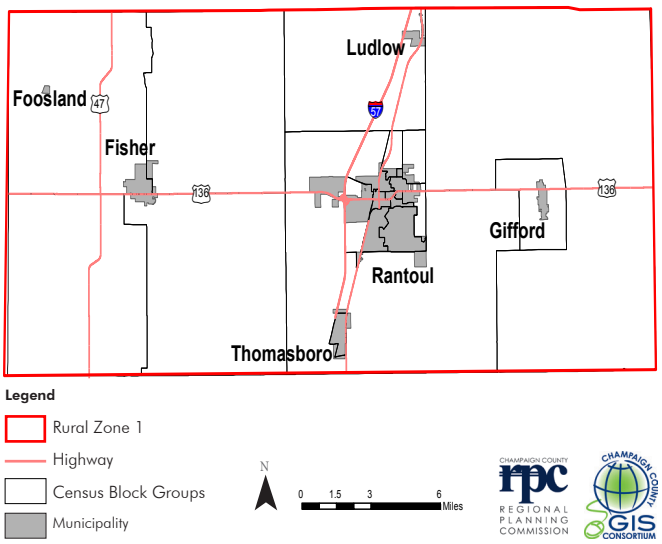


Figure 5.2: DRZ 1

Rural Zone 1(RZ1) encompasses the north half of the county (Figure 5.2). It is the largest zone in terms of square miles and total population. The majority of CRIS' registered riders in DRZ1 reside in the major population centers such as the villages of Rantoul, Gifford, Ludlow and Thomasboro. Excluding individual residences, major trip generators and attractors include Prairie Village Retirement Community in Rantoul, Rantoul Walmart and the Rantoul Carle Clinic.

Table 5.4: DRZ 1 Mobility Needs and Demand

Characteristic	DRZ 1	%
Total Zone 1 Population	22,171	
Youth	5,020	23
Older Adults	4,425	20
Persons with Disabilities*	2,990	13
Persons with Low Income	2,925	13
Zero Vehicle Households	773	9
Total Households	8,780	
Current Mobility Needs & Demand		
Total Need for Passenger Transportation Services (Persons)	3,700	
Total Need Based on Mobility Gap (Daily 1-way Trips)	1,080	
General Public Rural Non-Program Demand (Annual 1-way Trips)	26,500	

Source: 2010 U.S. Census

*Due to changes in U.S. Census between 2000 and 2010, persons with disabilities was updated using the rate of population change between 2000 and 2010 for each block group

Table 5.5: DRZ 1 Registered Riders by Type

Registered Riders	5311	5311D	RR	CCNH	Total
	532	89	199	0	820

Source: CRIS Rural Mass Transit District

**5311- General Public
5311- Disabled
RR - Older Adults
CCNH - Champaign County Nursing Home

Demand Response Zone 2

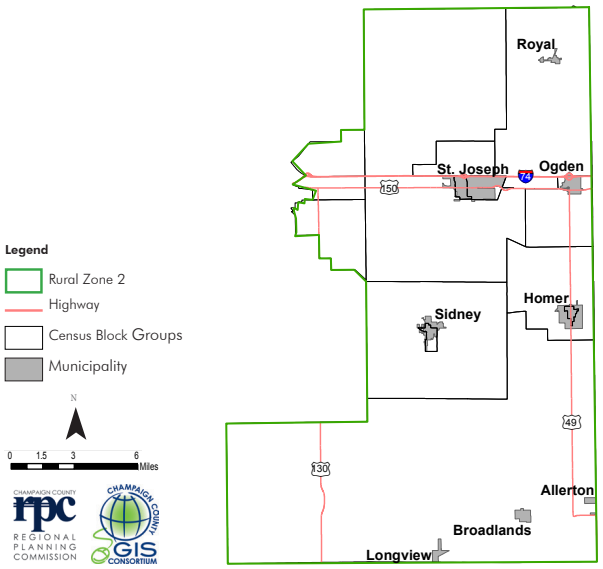


Figure 5.3: DRZ 2

DRZ 2 encompasses the east-central and southeast portions of Champaign County (Figure 5.3). As of May 2013 DRZ2 includes the Villages of St.Joseph, Ogden, Royal, Homer, Sidney, Longview, Broadlands and Allerton. CRIS is averaging 4 trips per day, the top destination is the Urbana Walmart on High Cross Road.

Table 5.6: DRZ 2 Mobility Needs and Demand

Characteristic	DRZ 1	%
Total Zone 2 Population	17,317	
Youth	5,429	31
Older Adults	3,267	19
Persons with Disabilities*	1,592	9
Persons with Low Income	1,054	6
Zero Vehicle Households	214	3
Total Households	6,743	
Current Mobility Needs & Demand		
Total Need for Passenger Transportation Services (Persons)	1,300	
Total Need Based on Mobility Gap (Daily 1-way Trips)	300	
General Public Rural Non-Program Demand (Annual 1-way Trips)	15,800	

Source: 2010 U.S. Census

*Due to changes in U.S. Census between 2000 and 2010, persons with disabilities was updated using the rate of population change between 2000 and 2010 for each block group

Table 5.7: DRZ 2 Registered Riders by Type

Registered Riders	5311	5311D	RR	CCNH	Total
	2	5	25	0	32

Source: CRIS Rural Mass Transit District

**5311- General Public
5311- Disabled
RR - Older Adults
CCNH - Champaign County Nursing Home

Demand Response Zone 3

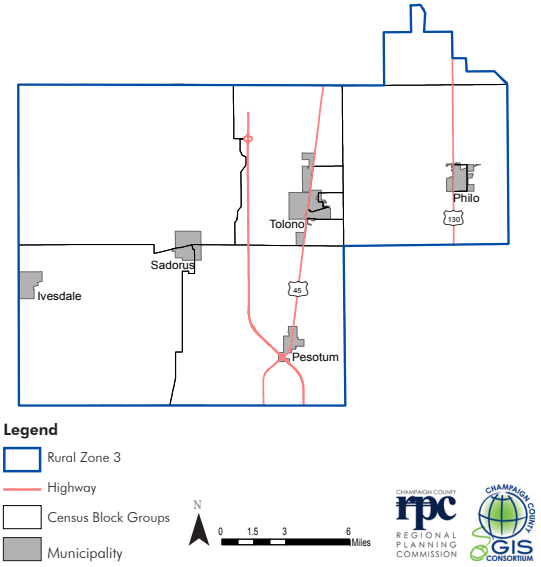


Figure 5.4: DRZ 3

DRZ 3 encompasses the southwest quadrant of Champaign County (Figure 5.4). At the end of FY2013, there were only 17 registered riders within this zone; however, an estimated 1,000 persons have the potential to need transit services. At this time CRIS averages only 2 trips per day (mostly to the Savoy Walmart).

Table 5.8: DRZ 3 Mobility Needs and Demand

Characteristic	DRZ 3	%
Total Zone 3 Population	12,317	
Youth	3,955	32
Older Adults	2,722	22
Persons with Disabilities*	1,061	9
Persons with Low Income	730	6
Zero Vehicle Households	240	5
Total Households	5,248	
Current Mobility Needs & Demand		
Total Need for Passenger Transportation Services (Persons)	1,000	
Total Need Based on Mobility Gap (Daily 1-way Trips)	340	
General Public Rural Non-Program Demand (Annual 1-way Trips)	11,900	

Source: 2010 U.S. Census

*Due to changes in U.S. Census between 2000 and 2010, persons with disabilities was updated using the rate of population change between 2000 and 2010 for each block group

Table 5.9: DRZ 3 Registered Riders by Type

Registered Riders	5311	5311D	RR	CCNH	Total
	1	1	15	0	17

Source: CRIS Rural Mass Transit District

**5311- General Public
5311- Disabled
RR - Older Adults
CCNH - Champaign County Nursing Home

Demand Response Zone 4

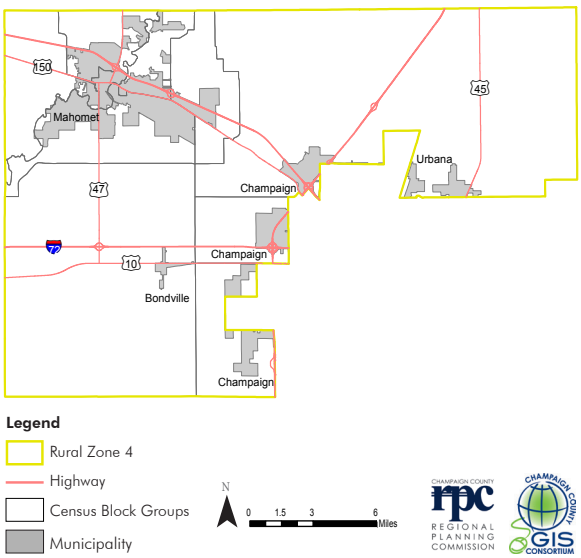


Figure 5.5: DRZ 4

DRZ 4 in the eastern section of the county encompasses the villages of Mahomet and Seymour (Figure 5.5).

In Rural Zone 4, 14.5% of the population is over the age of 60. Currently, there are only 32 registered riders within this zone; however, an estimated 1,400 persons have the potential to need transit services.

Table 5.10: DRZ 4 Mobility Needs and Demand

Characteristic	DRZ 4	%
Total Population	20,327	
Youth	3,664	18
Older Adults	2,293	11
Persons with Disabilities*	1284	6
Persons with Low Income	1,231	6
Zero Vehicle Households	177	2
Total Households	7,836	
Current Mobility Needs & Demand		
Total Need for Passenger Transportation Services (Persons)	1,400	
Total Need Based on Mobility Gap (Daily 1-way Trips)	250	
General Public Rural Non-Program Demand (Annual 1-way Trips)	12,000	

Source: 2010 U.S. Census

*Due to changes in U.S. Census between 2000 and 2010, persons with disabilities was updated using the rate of population change between 2000 and 2010 for each block group

Table 5.11: DRZ 4 Registered Riders by Type

Registered Riders	5311	5311D	RR	CCNH	Total
	4	5	23	0	32

Source: CRIS Rural Mass Transit District

**5311- General Public
5311- Disabled
RR - Older Adults
CCNH - Champaign County Nursing Home

5.2 Urbanized Area

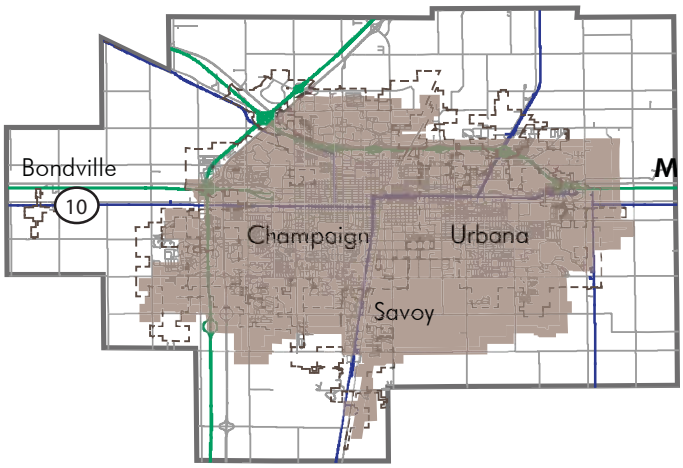


Figure 5.6: Urbanized Area

The 2010 Urbanized Area is composed of Champaign, Urbana, Savoy and Bondville (Figure 5.6). Since residents in the urbanized area are served by CUMTD, a needs-demand analysis was not conducted for this area. Nonetheless, residents within this zone are eligible to use rural transportation if their trip ends outside of the urbanized area.

Currently, CRIS is averaging 27 trips per day that begin or end within this zone. Many trips originate at the Champaign County Nursing Home and Chief Illini Village. The top destinations include Circle of Friends Adult Day Care, Provena Covenant, Carle Clinic, DaVita Dialysis, and Market Place Mall.

Table 5.12: Urbanized Area Registered Riders by Type

Registered Riders	5311	5311D	RR	CCNH	Total
	51	12	23	138	224

Source: CRIS Rural Mass Transit District

**5311- General Public
5311- Disabled
RR - Older Adults
CCNH - Champaign County Nursing Home

Performance Analysis

Chapter 6

6. Performance Analysis

6.1 Performance Analysis

Performance standards measure the effectiveness, efficiency, and safety of transit service. Performance level evaluations are not only important for improving operations and service quality, but also critical for obtaining rural transit funding. Although multiple measures can be analyzed, this report examines six widely used performance measures for demand-response transit service as suggested by the TCRP Report 136.

These performance measures include:

- Passenger Trips Per Vehicle Hour;
- Passenger Trips Per Vehicle Mile;
- Operating Cost Per Vehicle Mile;
- Operating Cost Per Vehicle Hour;
- Operating Cost Per Passenger Trip; and
- Fare Box Recovery Ratio.

Passenger Trips Per Vehicle Hour and *Passenger Trips Per Vehicle Mile* are measures of productivity that show the ability of the transit provider to schedule passenger trips with similar origins and destinations and time parameters using the least number of vehicles and service hours. *Operating Cost Per Vehicle Mile* and *Operating Cost Per Vehicle Hour* are measures of cost efficiency that reveal the financial resources required to produce one unit of service. *Operating Cost Per* Passenger *Trip* is a measure of cost effectiveness. *Fare Box Recovery Ratio* is passenger fares divided by total operating expenses and is the percentage of all operating expenses that is covered by collected passenger fares. For example, in fiscal year 2012, CRIS' fare box recovery ratio of .06, means that 6% of all operating costs are covered by collected passenger fares. This ratio is useful for evaluating overall financial viability of the transit service and determining additional funding needed to operate the service.

Vehicle Hours refer to the time the vehicle leaves the garage and goes into services until the vehicle pulls back into the garage after service.

Vehicle Miles refer to the miles from when the vehicle leaves the garage and goes into services until the vehicle pulls back into the garage after service.

Total Passenger Trips also referred to as ridership, is the total number of passengers who board the vehicle.

Total Operating Expenses are all the costs needed to operate and administer the day to day transit services, including salaries, wages, benefits, materials, supplies, insurance, taxes, and any other outside services.

Costs associated with establishing rural transit service is always anticipated to be most costly at startup. Since Champaign's rural transit service started over two and a half years ago in February 2011, data has been tracked every month for evaluation and reporting purposes. Quarterly rural transit service reports have been prepared to review performance and monitor service changes overtime. Champaign County's rural system statistics described above, improved from the initial service year (Fiscal Year 10) to a more consistent performance between the Fiscal Years 12 and 13 (Figure 6.1 & 6.2). For further evaluation, service data was aggregated for each fiscal year (Table 6.1), then compared to state and national averages of similar service providers (Table 6.2). Making these comparisons are helpful service benchmarks, but

it is important to take into consideration non-controllable factors like service area size and geography. In most performance measures, CRIS shows less efficiency and effectiveness than other state and national transit agencies. The rural transit provider may be able to improve performance by evaluating the factors it has control over and making changes accordingly.

Table 6.1: CRIS Data by Fiscal Year

Fiscal Year	Quarter	Vehicle Hours	Vehicle Miles	Total Trips	Passenger Fares	Total Operating Expenses
2011	Q3	295	7,993	255	$1,778	$36,630
	Q4	1,362	27,054	158	$2,858	$75,598
	Total	**1,657**	**35,047**	**1,845**	**$4,636**	**$111,228**
2012	Q1	2,310	53,335	3,462	$2,329	$101,565
	Q2	2,848	62,647	3,779	$7,401	$104,265
	Q3	3,279	72,015	4,341	$9,633	$141,631
	Q4	2,850	64,677	4,228	$9,575	$124,448
	Total	**11,286**	**252,674**	**15,810**	**$28,938**	**$471,909**
2013	Q1	2,746	61,959	4,483	$5,965	$135,089
	Q2	2,420	62,283	4,128	$5,579	$132,398
	Q3	2,281	58,005	4,163	$7,643	$116,066
	Q4	2,468	57,530	4,198	$7,763	$115,935
	Total	**9,915**	**239,777**	**16,972**	**$26,949**	**$499,487**

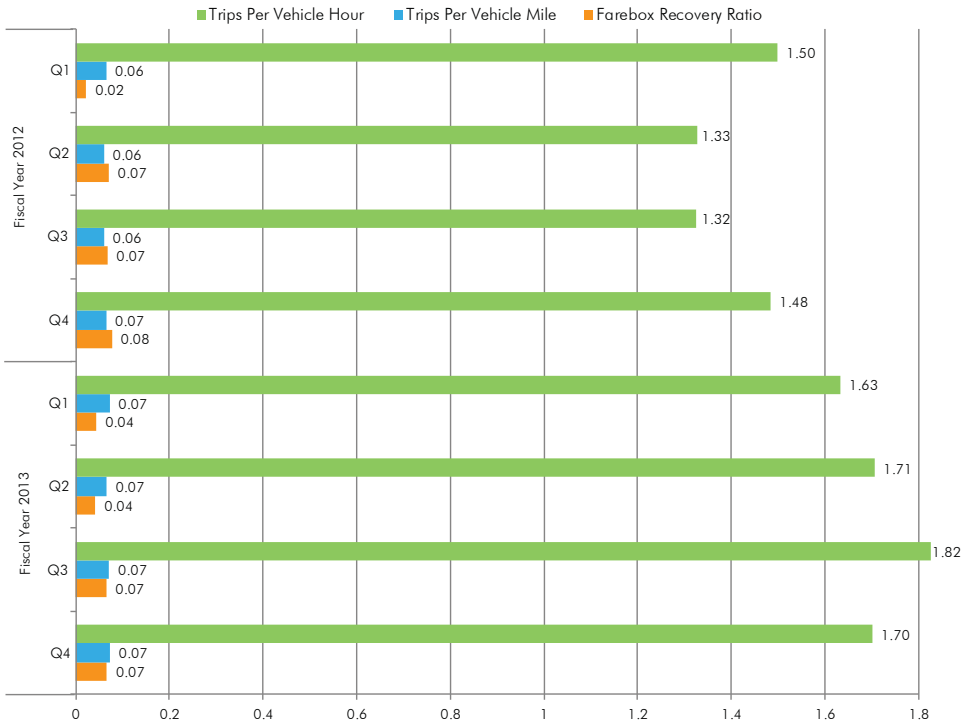


Figure 6.1: CRIS Performance

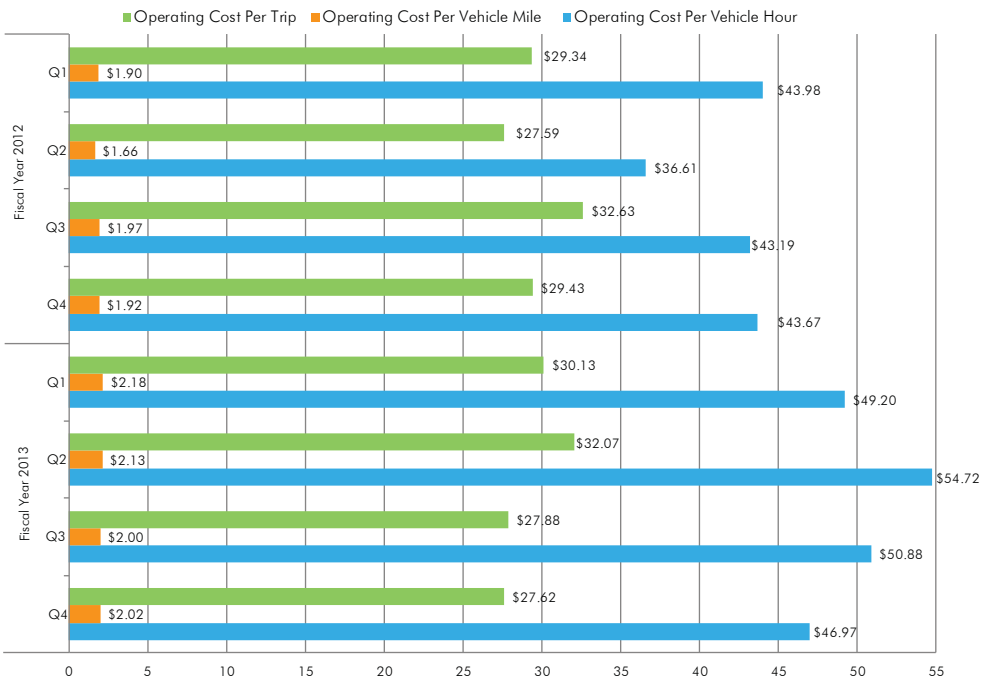


Figure 6.2: CRIS Performance

Table 6.2: CRIS vs National and State Averages

Fiscal Year	Passenger Trips Per Vehicle Hour	Passenger Trips Per Vehicle Mile	Operating Cost Per Vehicle Hour	Operating Cost Per Vehicle Mile	Operating Cost Per Passenger Trip	Fare Box Recovery Ratio
National* Averages	3.13**	.11	$34.86**	$2.02	$16.83	.07
Illinois*	2.85	.15	Not Available	$2.62	$8.38	.04
FY11	1.11	.05	$67.15	$3.17	$60.45	.04
FY12	1.40	.06	$41.81	$1.87	$29.85	.06
FY13	1.71	.07	$50.38	$2.08	$29.43	.05

Source: 2012 Rural Transit Handbook

**Data from TCRP Report 136

Controllable (or partially controllable) factors that will affect performance measures include:

- Significant deadhead miles and hours[1];
- Significant waiting times at pick-up or drop off locations;
- Limited dispatch control to respond to trip changes on a real-time basis;
- Scheduled vehicle hours that do match with ridership demand;
- Scheduling policies that allow for individualized trips;
- High number of cancellations or no-shows;
- Ineffective driver manifests that are created without logical groupings or sequencing;
- High labor and/or administrative costs; and
- High maintenance costs.

6.2 Denial Analysis

Denials, trips requested by passengers that the transit operator is unable to provide, are another important component of performance analysis and system evaluation. Denials are concrete evidence of limited capacity and point out where different routes or driver schedules are needed.

For this report, denials were tallied from September 2011 to June 2013. Over this time period, CRIS provided 30,636 passenger trips and had to deny 711 requests. Assuming most requests would be for a round-trip ride (or 2 trips), the denial rate is 4.6%. Most of the denials are due to CRIS already having a full schedule for the time requested and unable to accommodate additional riders.

Table 6.3: Trip Denials

Reason	Count	Description
Same Day Request	96	
Urbanized Trip	18	
Need To Request 48 Hrs In Advance	178	
Outside Public Area	14	Under 60 age trip not allowed outside of DRZ1 (at the time)
Holiday	28	
Schedule Full	286	
Saturday Request	3	
Out of County	15	
System Operating Hours Start Too Late or End Too Early (Week Day)	58	Possible pick up and drop off times will not be enough time for rider's need
No New RR Accepted Currently	9	
Other	6	
Total	**711**	

1. Deadhead is the miles and hours that a vehicle travels when out of revenue service. Deadhead includes: Leaving or returning to the garage or yard facility; changing routes, whenever there is no expectation of carrying revenue passengers.

Recommendations

Chapter 7

7. Recommendations

7.1 Recommendations

Providing rural transit service for an entire county is challenging. With only a capacity of eight vehicles; dispatching, scheduling and coordination strategies become highly important. This chapter provides recommendations regarding ways to improve the existing transit service, as well as how to accommodate unmet transportation needs in rural Champaign County. Recommendations consider input received from existing riders or general public at travel trainings, public meetings, phone calls, online comments from the 2040 Long Range Transportation Plan website, interviews, etc. since February 2011. Rural public transit data from the National Transit Database was also utilized to set goals and objectives. Timelines for objectives were categorized as short term (FY 2015), medium term (FY 2017) and long term (FY 2020).

Goal 1: Provide a service that meets the employment related transportation needs of the rural population

Objectives:
1. Increase work related trips facilitated by the CRIS service by 50% by FY 2017
2. Increase annual service hours by 35% by FY 2015

Performance Measures: Number of Work Related Trips, Total Service Hours,

Strategies:

A. *Expand service hours to 5am-7pm Monday-Saturday* - Public outreach for this study revealed a concern from employers and employees that cannot use the current rural transit system because the operating hours do not allow them to get to work on time or take them home when their shift is over. Longer hours would offer the promise of greater provision of employment trips, as well as allowing for a greater number of general demand response trips.

B. *Create an Employment Transportation service for the rural population* - The Bureau of Labor Statistics Monthly Labor Review for December 2007 (See Appendix) focused on the prevalence of flexible work schedules and shift work[1]. This report stated, that in 2004 21% of the american workforce engaged in shift work outside of regular daytime schedules. Twenty-two of the top 25 employers in Champaign County are located in the urbanized area of Champaign and Urbana. Over half of these 22 employers operate on a 24 hour rotational shift schedule. Many low income working families are employed in the service sector, often in jobs that require working long hours and on night and weekend shifts. In 2011, one quarter of adults in low income families in the United States were employed in eight occupations, some of which include cashiers, janitors, health aids and foodservice workers. Therefore, providing rural transportation service beyond even the suggested expanded time frame of 5AM to 7PM will not meet the needs of majority of these workers.

1. Flexible work schedules are determined in part or entirely by the employee, whereas shift work is determined solely by the employer.

Providing this type of support will involve working in collaboration with major employers who have a high demand for workers on a 24 hour shift schedule. All top ten employers for Champaign County are located within the cities of Champaign and Urbana, and six of those ten employers operate on a 24 hour shift schedule. The service could utilize JARC funding to provide mileage reimbursements. This service could also utilize volunteer drivers who would also qualify for mileage reimbursements. An important component of mileage reimbursements is to ensure that limits are set for maximum monthly reimbursements and monitoring to ensure that each ride is work related.

C. *Implement two driver shifts per day for each vehicle* - This step will make it possible for Champaign County to increase the length of its service day as well as eliminate periods of inactivity during the midday. Instead of having drivers work all day with a lengthy break around midday, drivers could work one continuous shift in the morning or afternoon (with the appropriate breaks for meals and rest This would allow drivers to remain part-time, but have more consistent hours. This step should be possible to accomplish if additional drivers are hired.

Responsible Entities: CRIS, CUUATS, IDOT and Busines Owners

Goal 2: Improve Efficiency of Rural Transportation Service

Objectives:
1. Achieve 3.18 or more trips/vehicle hr by FY 2020
2. Achieve 0.22 trips or more/vehicle mile by FY2020
3. Achieve an operating cost of $20 or less per trip by FY2015
4. Achieve an operating cost per vehcile mile of $1.80 or less by FY2015
5. Achieve an operating cost per vehicle hour of $35 or less by FY2017
6. Achieve a fare box recovery ratio of 0.07 or greater by FY 2017

Performance Measures: Passenger Trips per Vehicle Hour, Passenger Trips per Vehicle Mile, Operating Cost per Vehicle Hour, Operating Cost per Vehicle Mile, Operating Cost per Passenger Trip, Fare Box Ratio

Strategies: A. *Distribute vehicles by demand response zones throughout the county*- Flexibility should be maintained to allow vehicles with no requests in a given zone to support vehicles in another zone if that zone is overwhelmed by requests at a particular time.

B. Utilize satellite parking sites - Many trips do not originate within the Urbanized Area, where the vehicles are currently being stored. Satellite parking sites will help to minimize deadhead.

C. Utilize or upgrade scheduling technology - Implementing real time scheduling through a computer assisted scheduling / dispatch (CASD) system will allow dispatchers to maximize grouping of trips and minimize slack time.Automatic Vehicle Locators are also helpful to know a vehicle's exact location within the county when riders need to know a more precise pick up time.

D. Create a policies and procedures manual for intake, scheduling and dispatching - Staff, particularly the Transportation Manager, should prepare a policy and procedural manual that will allow for uniformity and clarity. Comprehensive training will allow all employees to feel confident in their work and ensure safe operations and service quality. Cross training of employees will also allow one person to fill multiple roles in instances where another employee cannot make it to work.

Responsible Entities: CRIS, IDOT

Goal 3: Improve Convenience and Accessibility for Riders

Objectives:
1. Make rural transit service 25% less expensive than private vehicle commute by FY 2015
2. Increase annual rides by 20% by FY 2015
3. Reduce the denial rate from 4.6% (September 2011-June 2013) to 2% by FY 2017

MOEs: Ridership, Denials and cost saving of rural transit service compared to private commute

Strategies:

A. *Decrease advanced ride request to 24 hours* - The denial analysis shows many trips have been denied due to not requesting the trip at least 48 hours in advance. Changing the time frame for reserving rides from 48 hours to 24 hours may decrease no shows because it reduces the likelihood of persons forgetting that a trip has been scheduled. Taking advantage of CASD will allow for a shorter scheduling period.

B. *Extend the discounted fare to low income persons* - Low income persons disproportianately spend more on transportation. Per 2013 Federal Poverty Guidelines, an individual is considered low income if their annual income is less than $11,490. The CRIS fare is currently set at $5 each way for most regions in the county; if a person is utlizing the service for full time work related trips the total cost would annualize to $2,600. This means that a working individual at the 2013 poverty line would spend over 20% of their annual income on transportation alone. When the annual cost of CRIS service is compared to the

annual cost of commuting in a private vehicle[1], the cost of CRIS service is about $700 more expensive. Due to the results of this cost comparisson, it is ideal to reduce the fare for the general public, however providing a discounted fare for low income persons is a good place to start. If the fare was reduced to $2 for the general public, the annual cost of CRIS service would be about $500 cheaper than private vehicle commuting.

C. *Increase marketing and outreach* - A county wide outreach and awareness effort is needed to let residents know service is available and how it works.

Responsible Entities: CRIS, IDOT

7.2 Conclusion/Summary

Current capacity will not be able to meet all need and demand, but the implementation of the aforementioned recommendations will allow for greater efficiency until more vehicles can be purchased and personnel can be hired and sufficiently trained. Implementation of the recommendations will come with greater operational expenses, but trade off should result in increased passenger fares and efficiency due to increased ridership. The overall goal is for Champaign County to provide a sustainable, affordable, quality rural transit service for those residents that cannot be served by CUMTD.

1. Commuting cost estimates were calculated using the distance from Fisher to Champaign.

Appendix

Champaign County Operators

Below is a general description of types of transportation services within the Champaign-Urbana HSTP Urbanized Area.

1. Public Transportation – Agencies whose primary mission is the provision of transportation and use federal and/or state resources:
   Urban Transit –
   - Fixed Route, Express and Direct Service;
   - Special Services; and
   - Half Fare Cab Program.

   Rural Transit – Demand Response or another type of flexible transit service.
2. Human Services Transportation – Agencies whose mission is the provision of transportation:
   - Medical Vans;
   - Specialized Transit;
   - Senior Transportation; and
   - Other Specialized Transportation Providers.
3. Student Transportation – Agencies who provide transportation services to students:
   - School Districts; and
   - Public Transportation.
4. Private Transportation – Companies providing private transportation services:
   - Inter-City Rail and Motor-Coach Transportation;
   - Taxi and Livery Car (i.e. Limo) Transportation; and
   - Air Transportation.

Note that Private Nursing Home Transportation was included in this section and/or in the human services transportation section in the table below.

Type	Services	Organization
General Public	Urban Transit	Champaign-Urbana Mass Transit District (CUMTD)
	Rural Transit	CRIS Rural Mass Transit District (CRIS)
Human Services	Medical-Vans	Carle Arrow Ambulance PRO Ambulance Rantoul UC Express – A Precious Cargo Carrier
	Specialized	Provena Covenant Medical Center / Faith in Action Champaign-Urbana Rehabilitation Center Carle Hospital American Cancer Society
	Persons with Disabilities	Developmental Services Center (DSC); Disability Resources & Educational Services; Pace, Inc.
	Senior	Circle of Friends Adult Day Center Champaign County Nursing Home Adult Day Care Inman Place Shuttles Canterbury Ridge Retirement & Assisted Living
	Other	American Legion Post 88
Student	School Districts	First Student (contracted) Various Districts (Individual Yellow Bus Programs) Head Start (Savoy & Rantoul Only)
	Public Transportation	CUMTD (contract with Champaign CUSD 4, Urbana SD 116 & University Student/Faculty Passes)
Private	Inter-City	Amtrak; Burlington Trailways; Greyhound Lincoln land Express; Megabus; Peoria Charter; Monticello Bus Service, Inc.; The BusBank; Cavallo Bus Lines, Inc.; Illini Shuttle; Marie's Tours and Charters; SouthSide Express; Suburban Express
	Taxis	A Ride To Remember Limousine Service; A-Cab; Andy's Limousine Service; Atlas Cab; Black Cab & Limo; Blue Line Taxi; Bubble City Taxi; C & G Taxi; Cain's Limo Service; Champaign Taxi Company; Checker Cab; City Transit Taxi Cab; Classic Cab; Coast Transportation Services; Cool Cab; C-U Karaoke; D & D Cab; Elite Luxury Limousines, Inc Emerald Lime Green Taxi; Express Cab Green Transportation; Gus's Taxi Cab Illini Taxi Express; Jet Cab; Joe's Limo Service John's Shuttle; Larry's Limousine Service Orange Taxi; Pink Taxi; Quality Limo & Taxi Inc Quasi Taxi; R & H Cab; Red Flash Cab Safeway Taxi; Shamrock Taxi; Silver Cab South Side Express; Starr Limousines The Taxi Company; Wilbur's Taxi; Yellow Cab
	Air	American Airlines

ICCT Phase II Needs & Resources Surveys

Community Transportation Surveys

The CCTPG distributed, collected, and analyzed surveys from rural residents, agencies, and transportation providers regarding transportation needs and existing transportation resources. A total of 884 community surveys were collected and the results showed there was a need for rural public transportation and that people would use the service. Thirty-four (34) agency surveys were completed which showed there was an even greater need for provision of rural public transportation services than indicated in the community survey. The inventory of resources showed that there were many transportation services already being provided in a variety of ways.

++++SEE INSTERTED PAGES HERE DUE TO FORMATTING +++++

Relevant Sustainable Choices 2040 Long Range Transportation Plan Comments

Public comments recieved online through the Sustainable Choices 2040 Long Range Transportation Plan that pertains to rural transportation/ transit service are:

"Our small town could benefit from rural public transportation. People who can't use mental health services end up walking"

"Need weekend transportation to Rantoul so people can get to work"

"Need one or two bus stops in Rantoul that go to Champaign-Urbana"

"Service should expand to Rantoul until 9PM"

"Need public transportation in Rantoul"

"CRIS bus is good but need to expand service and hours"

" No good transportation between Mahomet and Champaign Urbana"

"We are in Champaign County and would prefer to ride a bus. But Bondville doesn't have bus service"

"Champaign-Tolono needs a commuter bus"

"I would like to see Tolono have MTD service. I think Tolono would benefit from having public transportation for many reasons. I know there are a lot of kids as well as adults who would use it to go back and forth for things such as school. Jobs and shoppintg of course too. Hopefully this will be a reality soon"

"Tolono is a great town but there is no bus service at all"

ICCT Phase II Needs & Resources Surveys

Community Transportation Surveys

++++SEE INSTERTED PAGES HERE DUE TO FORMATTING +++++

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