TRENDS

INTRODUCTION

Beginning in 2013, Innis Consulting Group, LLC, along with partners Bourne Transit Consulting and White Smith Marketing Group, were engaged by the Champaign Urbana Mass Transit District, to complete a strategic plan update study. The effort was undertaken with financial support by the Illinois Department of Transportation (IDOT).

This strategic plan update will provide a framework to meet the daily challenges of operating a transit system while also providing an approach to the challenges and opportunities that will occur in the next five to ten years. It will provide a thoughtful and strategic approach for the board and staff. The purpose of the plan is to provide action steps for the transit board to focus on that will enhance the overall performance of CUMTD. Additionally, it will direct board action toward accomplishing goals that will enhance the transit system and its connection with the community.

BACKGROUND

The 2001 Strategic Plan was successful in providing a future direction for the agency. Several key programs were put in place and substantially built upon. These principles have evolved over time and need to be re-examined from an internal and external process.

Key outcomes from the 2001 Plan include:

Mobility

CUMTD has lead in mobility awareness, education and advocacy. By providing this leadership, single occupancy vehicle alternatives and options have produced a desirable modal share.

Technology

CUMTD's investment in technology is impressive. This has led to enhancements in equipment, vehicles, and customer service. Additionally, the agency has placed an emphasis on sustainability with hybrid buses, particulate filters, geo-thermal systems and other environmentally friendly measures. Also, the agency has moved forward with the ISO 14001 standards.

PLAN UPDATE PROCESS

There are a wide variety of issues and opportunities currently facing the Champaign Urbana Mass Transit District (CUMTD). Although these may not represent a complete list, it is believed that they represent some of the basic issues facing CUMTD:

Key Issues:

- Need to maintain high quality transit services
- Need to provide a basis for direction for seamless management change
- Need to continue to provide demonstrated benefit to the community
- Need to continue CUMTD progression
- Need for a roadmap for CUMTD development and growth

Key Opportunities:

- Provide organizational alignment
- Establish community / stakeholder consensus
- Compliment work already accomplished
- Build upon current policies & programs
- Invest resources properly and efficiently
- Adequately plan for future

Strategic planning is a powerful tool for CUMTD to embrace change and to define the organization. This will be completed as both an internal and external process involving CUMTD Board, Staff, and the Champaign Urbana community as a whole.

The mission statement, goals, objectives and policies will be re-examined in regard to this internal and external input. Plan elements will be revised based on data and input from key stakeholders to produce an updated vision for the organization.

The final work product will ensure that the organization's core transit services will continue the demonstrated history of meeting and exceeding community/rider expectations and provide direction for CUMTD's leaders.

NATIONAL TRENDS

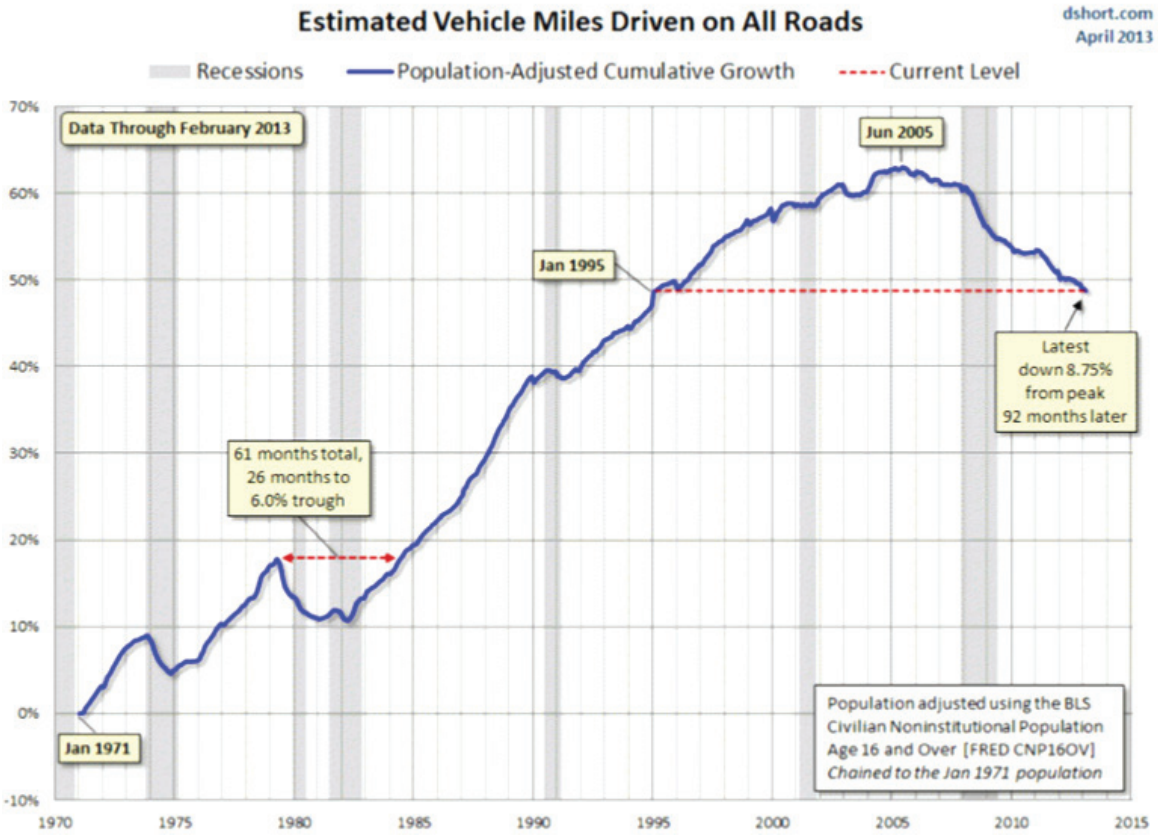
There are several national trends that will affect the demand for transit service in the CUMTD service area in the next five to seven years. In the last decade, there has been a steady decline in vehicle miles traveled, a decrease in young licensed drivers, and a shift in mode preference from the automobile to other modes. Additionally, the proliferation of a variety of media sources that can now be accessed on personal cell phones, which requires a level of concentration not possible while driving, but easily accessible while traveling on transit, has impacted the way we communicate. These trends, which are expected to continue and intensify in the future, will be part of the demand for additional transit service in the Champaign-Urbana area.

Vehicle Miles Traveled

> "IN THE LAST DECADE, THERE HAS BEEN A STEADY DECLINE IN VEHICLE MILES TRAVELED, A DECREASE IN YOUNG LICENSED DRIVERS, AND A SHIFT IN MODE PREFERENCE FROM THE AUTOMOBILE TO OTHER MODES."

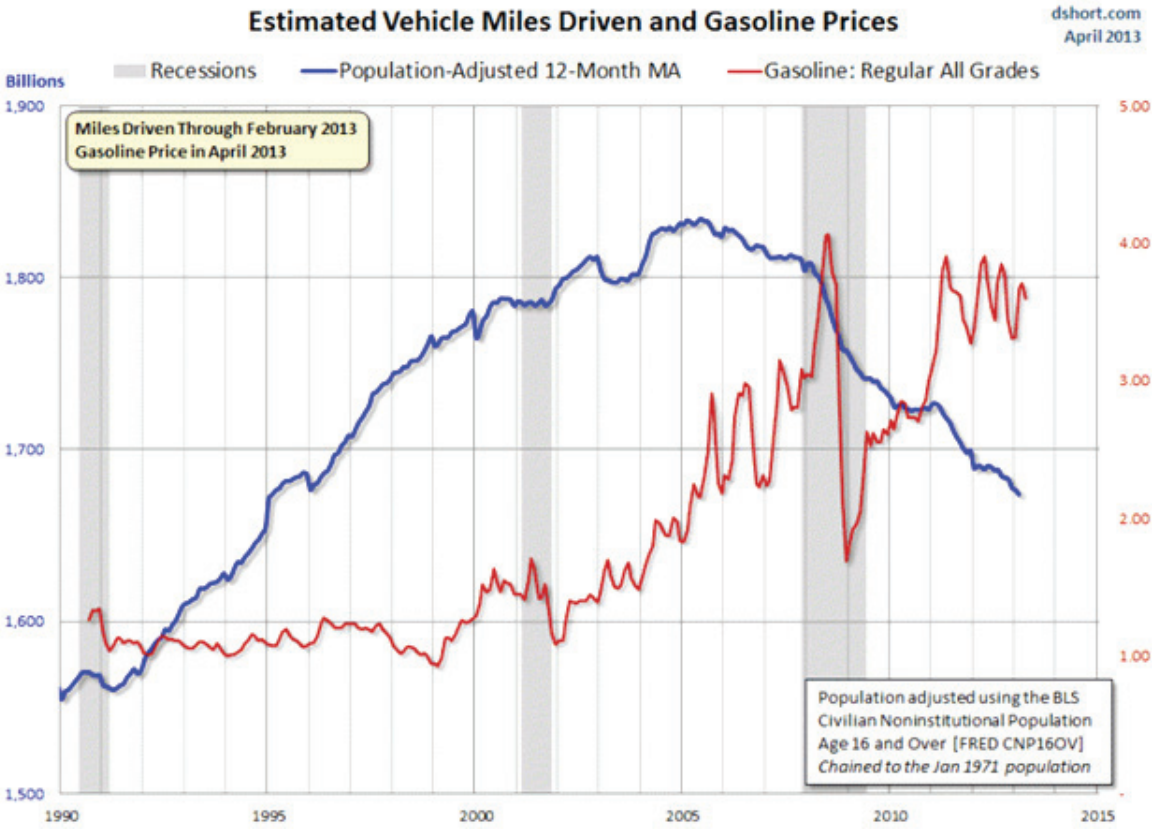
There is no national consensus on the future growth of vehicle miles traveled (VMT). VMT predictions are a key element in developing funding programs at the federal level. The graph on the following page shows that there has been a decline in total VMT on all roads in the United States, with 2005 being the peak year. A correlation was attempted with fuel prices, and there is a loose correlation between increasing fuel prices (in real terms) through approximately 2008.
After 2008, the fuel price/travel relationship is not consistent. Traditionally, economic recessions have a negative effect and then VMT increases after the recession ends. There are two important trends for the future of CUMTD: VMT did not rebound after the 2008 recession, and the correlation with fuel prices is no longer valid.

Research is currently being conducted to determine other causal factors at the national level. Some theories include: an increase in environmental consciousness in all age groups; increase in Internet shopping and home delivery of goods reducing travel need; housing/work location choices to minimize travel; Internet-based office work; and changes in other social behavior.

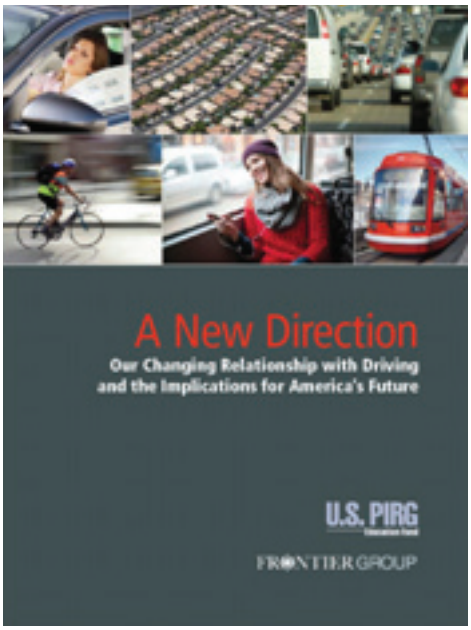


Possible Causal Factors in Decreased Vehicle Miles Driven

> "AN INCREASE IN ENVIRONMENTAL CONSCIOUSNESS IN ALL AGE GROUPS; INCREASE IN INTERNET SHOPPING AND HOME DELIVERY OF GOODS REDUCING TRAVEL NEED; HOUSING/WORK LOCATION CHOICES TO MINIMIZE TRAVEL; INTERNET-BASED OFFICE WORK; AND CHANGES IN OTHER SOCIAL BEHAVIOR."



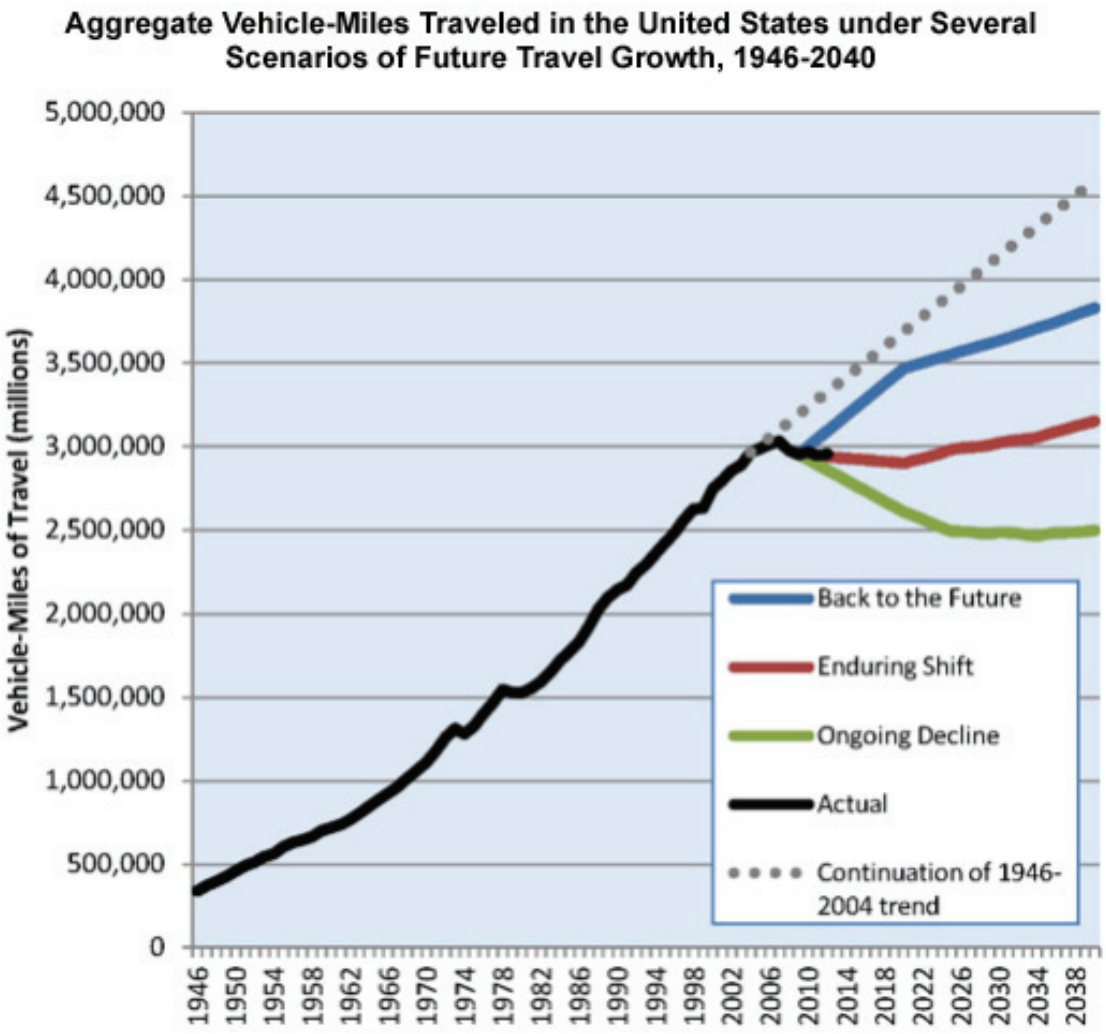
There is no consensus on future trends for VMT among researchers, State DOTs, or transportation providers. The financial stakes are high regarding road construction repair and expansion if financial plans do not match future roadway usage. Similarly, transit operators' decisions made now are critically important, as they will have a long-term effect on their ability to meet changing demand for transit service in the next decade.



Additionally, several trends have been documented by the US PIRG Education Fund and the Frontier Group. These are outlined in the this report ▶

NATIONAL TRENDS

For the Millennial Generation, the chart below shows three different scenarios for the future, but all three indicate less driving than official USDOT projections. Each scenario will affect long-term planning as well as short-term program funding.



All three of these scenarios yield far less driving than if the Driving Boom had continued past 2004. Driving declines more dramatic than any of these scenarios would result if future per-capita driving were to fall at a rate near that of recent years or if annual per-capita reductions continue through 2040.

Some transit systems have experienced significant increases in ridership in the last five years without adding new routes or services, other than meeting demand on existing routes. The recent re-structuring of CTA services in Chicago is one example as is the steady increase in CUMTD ridership.

CUMTD ridership has increased 14.7% from 2007 to 2011, while revenue miles increased 12.9% in the same time period. Both the university community and general community in Champaign and Urbana are technologically sophisticated and environmentally conscious. These characteristics allow residents to reduce their total travel as well as being drawn to high-quality bus service. The national trends, combined with local preferences, will increase the demand on transit service, even without route expansion or span-of-service expansion.

Licensed Drivers

Similar to the VMT trend, there is another trend that will affect transit usage at the national level as well as in the CUMTD service area. A study from the University of Michigan Transportation Research Institute, conducted by Michael Sivak and Brandon Schoettle in 2011, concluded that teenagers were no longer acquiring drivers' licenses in the same proportion as in the past. The original purpose of the study was to study trends among older drivers, and the teenage driver results were an unexpected surprise. A subsequent study was conducted in 15 developed countries, and this trend was also occurring in Sweden, Norway, Great Britain, Canada, Japan, South Korea, and Germany.

"A STUDY FROM THE UNIVERSITY OF MICHIGAN TRANSPORTATION RESEARCH INSTITUTE CONCLUDED THAT TEENAGERS WERE NO LONGER ACQUIRING DRIVERS' LICENSES IN THE SAME PROPORTION AS IN THE PAST."

Table I: U.S. Licensed Drivers as Percentage of Their Age-Group Population

Licensed Drivers by Age		
Age	**1983**	**2008**
16	46.2%	31.1%
17	68.9%	50.0%
18	80.4%	65.4%
19	87.3%	75.5%
20-24	91.8%	82.0%
Source: Spivak and Schoetlle		
University of Michigan, 2011		

A regression analysis was performed on the data for young drivers in the 15 countries studied to explore the relationship between licensing and a variety of societal parameters. Of particular note is the finding that a higher proportion of Internet users are associated with a lower licensure rate. This finding is consistent with the hypothesis that access to virtual contact reduces the need for actual contact among young people and reduces overall travel.

Several states have imposed more restrictions on teen licensing, driver's education, and driving regulations. Increased insurance cost, driver training cost, driving cost, and other competing expenses have allowed teenagers to reduce the importance of driving in their lives. As they move into collegiate settings, there is often no need for auto ownership or a driver's license if the transit system at their college or university meets most of their travel needs.

Spivak and Schoettle concluded that future evolution of licensing trends by age will have potentially major implications for future transportation and its consequences. Specifically, licensing trends will likely affect the future amount and nature of transportation, transportation mode selection, vehicle purchases, the safety of travel, and the environmental consequences of travel. The following table shows that young people make fewer daily trips than middle-age people.

Modal Choice

National trends also show that young people are more likely to use modes other than an automobile for their trips to and from work. Reliance on the automobile tends to increase with age and is relatively constant from ages 36 to 65. Transit, bicycling, and walking are primarily used by young people under the age of 30. This includes students as well as the general public that are not students.

Each of these national trends is reflected in travel decision-making in the CUMTD service area. University communities tend to be in the forefront of social changes caused by, or affecting, young adults. The trend to reduce VMT is occurring in the Champaign-Urbana area, as is increased use of CUMTD transit services.

Table II: Daily Travel by Age Group

Number of Daily Trips by Age Group	
Age	Daily Trips
16-20	3.5
21-25	3.6
26-30	3.9
31-35	4.2
36-40	4.4
41-45	4.5
46-50	4.3
51-55	4.1
56-60	4.0
61-65	3.9
66-70	3.8
71+	3.1
National Household Transportation Survey, 2011	
2009 Data	

Table III: U. S. Transportation Mode to Work by Age

	Auto	Transit	Bicycle	Walk	Other
21-25	91.5%	3.5%	0.9%	2.8%	1.3%
26-30	92.3%	3.3%	0.7%	2.4%	1.3%
31-35	93.5%	2.9%	0.7%	1.8%	1.1%
36-40	94.0%	2.9%	0.7%	1.5%	0.9%
41-45	94.5%	2.5%	0.6%	1.5%	0.9%
46-50	94.3%	2.6%	0.6%	1.6%	0.9%
51-55	94.6%	2.5%	0.5%	1.5%	0.9%
56-60	94.5%	2.6%	0.4%	1.6%	0.9%
61-65	94.3%	2.2%	0.3%	2.3%	0.9%

Source: National Household Transportation Survey 2011 | 2009 Data

NATIONAL TRENDS

CUMTD Trends

There are several local trends that will affect strategic decision-making in the future. The Champaign-Urbana area reflects the national trends of decline in VMT, driver's license rates, and a shift in mode preference to the mode that meets immediate travel needs while being cost-effective and environmentally responsible. National trends are showing that young people, post-college, will continue to use transit. There is also a migration occurring in the under-30 age group to cities with very good transit service. Ridership has been continually increasing and is expected to continue in the future, and this will increase the demand for bus service in the service area.

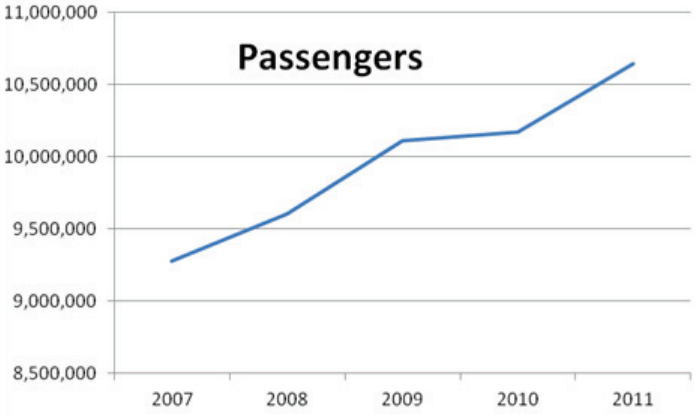
The Champaign-Urbana Urbanized Area Transportation Study (CUUATS) has identified several local transportation conditions in their 2012 Report Card. There is continued growth in "Journey to Work" travel by workers over the age of 16 in the CUUATS service area. In 2000, 6.8% of the working population used transit. This gradually increased in ten years to 7.3% in 2010; but has accelerated to 9.1% in 2011. The 2014 goal is 9.0% for planned growth, and there is an expectation that this trip purpose will increase in the future. It is expected that this trend will continue and CUMTD can take advantage of the propensity towards transit in young population groups with service that meets their travel needs.

Residential land use in the CUUATS is complementary to transit. CUUATS has indicated that 91.0% of housing is within ¼ mile of a bus route. High-density housing has an even stronger relationship to bus routes, with 97.9% of duplexes, 98.2% of apartments, and 100% of fraternities/sororities within a quarter-mile of a bus route. The largest employers, University of Illinois (10,820 employees) and Carle (6,000 employees), have most of their facilities near transit service.

Ridership Trends

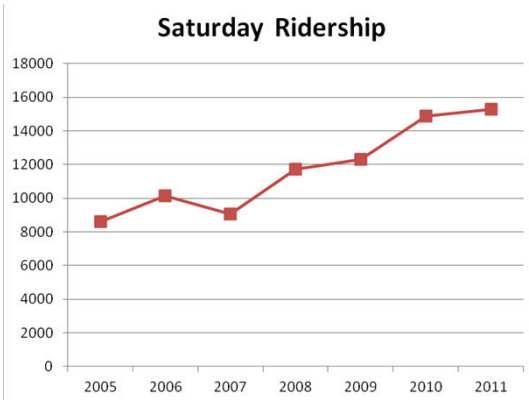
Overall ridership is increasing each year and is expected to continue to increase due to demographic factors as discussed above. Within the CUMTD ridership profile, there are trends on weekends that portend to future growth in non-peak time periods as well as peak periods. Non-peak time period ridership is an important segment that can develop additional ridership and revenue with no additional vehicles. It utilizes vehicles more fully and provides additional work/shopping/socializing opportunities for passengers.

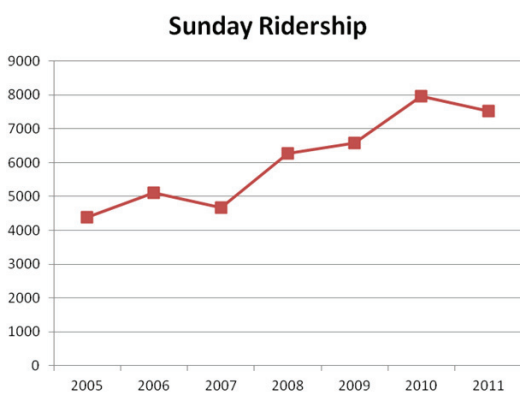
Table IV: Total CUMTD Ridership Trend



Saturday and Sunday ridership has also been steadily increasing in the last seven years. CUMTD has developed a network that provides total access to transit in many portions of the service area. The weekend ridership statistics show that importance and continued growth demand can be expected in the future.

Sunday ridership shows a similar consistent growth pattern and indicates additional demand for more service.





Another ridership segment that is consistently growing is the summer ridership. The following table shows that the highest ridership-growth months over the last four years have been in the summer and in November. While the numbers are relatively small compared to the overall ridership totals, they do reflect the national and local trends. Investment in additional summer service may stimulate demand without increasing the capital cost of new vehicles to meet this growing market segment.

NATIONAL TRENDS

University Trends

The University of Illinois enrollment is expected to remain stable with only modest increases in the future enrollment. Enrollment in 2012-13 was 42,883 and is expected to remain relatively constant. Fall enrollment has increased 4.1% in seven years, and spring enrollment has increased 4.7% in the same time period.

Freshman enrollment is a key predictor of future enrollment. For fall semester it has decreased 7.1% and is expected to be stable at approximately 7,000 to 7,200 students.

CUMTD Monthly Ridership Growth Comparison

Month	2008	2012	Change
Jan	843,420	927,630	10.0%
Feb	1,146,354	1,305,142	13.9%
Mar	913,179	1,073,789	17.6%
Apr	1,077,889	1,134,560	5.3%
May	522,275	693,620	32.8%
Jun	380,599	473,304	24.4%
Jul	365,289	447,178	22.4%
Aug	559,380	745,337	33.2%
Sep	1,093,712	1,215,967	11.2%
Oct	1,178,063	1,391,576	18.1%
Nov	905,337	1,115,234	23.2%
Dec	798,794	887,209	11.1%
Total	9,784,291	11,410,546	16.6%

U of I Enrollment					Freshmen Enrolled	
Fall 12	42,883	Spring 13	40,964		Fall 12	7,227
Fall 11	42,606	Spring 12	40,664		Fall 11	7,561
Fall 10	41,949	Spring 11	40,239		Fall 10	7,447
Fall 09	41,918	Spring 10	40,038		Fall 09	7,496
Fall 08	41,495	Spring 09	39,786		Fall 08	7,656
Fall 07	40,923	Spring 08	39,120		Fall 07	7,423
Fall 06	41,180	Spring 07	39,133		Fall 06	7,778

University-related ridership can increase slightly if enrollment increases gradually. University-related ridership averages about 150 trips per year per student based on current enrollment. A range of 140 to 170 rides per enrolled student is normal in a mature transit system. A 1,000-student increase in enrollment will generate approximately 150,000 additional riders per year, or a daily ridership increase of approximately 900 rides per day on class days. A ridership increase of less than two percent can be expected from increased enrollment.

Significant ridership increases resulting from enrollment increases should not be expected. Ridership increases related to other demographic trends will probably have a more noticeable effect on transit demand.

PEER COMPARISON

A peer group is used to compare performance of similarly sized systems operating in similar conditions. The peer group below shows that CUMTD performs well with other university communities of similar size and transit service. The yellow highlighted column is the average performance for all transit systems in areas with a population between 200,000 and 1,000,000. The cities in the peer group are cities that are in the FTA Small Transit Intensive Cities (STIC) group of high-performing systems in the FTA funding category for cities between 50,000 and 200,000.

One of the purposes of the peer comparison is to determine if the service supplied is proportional to the usage (service consumed) by the public. CUMTD service supplied is measured in Revenue Miles per Capita and Revenue Hours per Capita. Service consumed is measured in Passenger Trips per Capita and Passenger Miles per Capita.

The peer group consists of seven exceptionally high-performing transit systems of similar size with similar community demographics. For service supplied, CUMTD is third in Revenue Miles per Capita and second in Revenue Hours per Capita. For service used, CUMTD is third in Passenger Miles per Capita and fourth in Passenger Trips per Capita.

	UZA								
	200K - 1M	Lafayette	Champaign	Athens	Boulder	Iowa City	Lawrence	State College	Ames
	Average	Indiana	Illinois	Georgia	Colorado	Iowa	Kansas	Pennsylvania	Iowa
Population	414,931	147,725	145,361	128,754	114,591	106,621	88,053	87,454	60,438
Passenger Miles	35,429,043	11,579,692	17,495,873	8,764,927	36,020,872	10,985,610	5,989,964	19,758,168	9,208,511
Veh Rev Miles	4,373,125	1,723,122	3,274,724	1,690,943	3,473,994	2,079,323	1,130,157	2,073,369	1,183,645
Veh Rev Hours	284,131	141,323	296,153	188,106	258,326	186,563	109,007	138,304	112,988
Passenger Trips	5,803,482	5,273,897	10,655,643	10,940,812	6,938,838	6,671,090	2,819,471	7,296,702	5,447,289
Pass Mi / Rev-Mi	6.19	6.72	5.34	5.18	10.37	5.28	5.30	9.53	7.78
Pass Mi/Rev - Hr	105.4	81.9	59.1	46.6	139.4	58.9	55.0	142.9	81.5
Rev Miles/Capita	10.5	11.7	22.5	13.1	30.3	19.5	12.8	23.7	19.6
Rev Hrs / Capita	0.667	0.957	2.037	1.461	2.254	1.750	1.238	1.581	1.869
Pass Miles/Capita	80.1	78.4	120.4	68.1	314.3	103.0	68.0	225.9	152.4
Pass Trips/Capita	12.7	35.7	73.3	85.0	60.6	62.6	32.0	83.4	90.1
Avg Trip Length	6.1	2.2	1.6	0.8	5.2	1.6	2.1	2.7	1.7

SUMMARY

There are several national and local trends that will affect transit ridership in the next five to seven years at CUMTD. Young people are traveling less by auto, reducing their need for a driver's license, and making transportation mode choices that benefit their lifestyle. Bus transit is a popular mode choice for young people in cities with very good transit service.

Local trends show continuous growth in the last five years. Demand for additional weekend and summer service, as well as overall system growth, show that there will be continued pressure for more service in the near future. The ability to stimulate demand with additional service is also likely. A stable university population and stable employment will also provide a framework for additional passengers. Based on these trends, the transit board has the opportunity now to make strategic decisions regarding service improvements that can increase total system usage.