

June 26, 2024



The Champaign-Urbana Mass Transit District (MTD) formed its 2023 – 2024 Decennial Committee in response to the Decennial Committees on Local Government Efficiency Act of 2023 (50 ILCS 70/). The Committee’s charge was to “study local efficiencies and report recommendations regarding efficiencies and increased accountability” to the Champaign County Board.

The Committee Membership included myself, Managing Director/CEO, the members of MTD’s Board of Trustees, and two Community Members at large.

Below is an alphabetical list of the Committee Members who served:

- Dick Barnes
- Margaret Chaplan
- Paul Debevec
- Tomas Delgado
- Bradley Diel
- Phil Fiscella
- George Friedman
- Karl Gnadt
- Bruce Hannon
- Alan Nudo
- Donna Tanner-Harold
- Sharif Ullah

The Committee agreed in the value of seeking outside consultants to support the District’s research and ultimately to advance recommendations. A formal request for proposals did not yield any responses. MTD Staff were prepared to take on the work ourselves when a suggestion came to seek the services of the Gies College of Business’s Illinois Business Consulting (IBC).

With IBC, students gain real-world, project-based consulting experience and clients get access to an experienced, interdisciplinary team of students who can deliver maximum results for their business.

Illinois Business Consulting (giesbusiness.illinois.edu/experience/experiential-learning/illinois-business-consulting)

Staff worked with a group of ten students throughout the Spring 2024 semester and were impressed by their work ethic, curiosity, and commitment to the project. Staff also valued the opportunity to provide insight into the operation of a public sector industry for young professionals, many of whom were riders of the system.

What follows is the IBC Consultant’s report which includes insights from interviews with members of our staff as well as interviews with peer transit agencies across the country. Enjoy.



Karl P. Gnadt
Managing Director/CEO

Decennial Committee Report

Prepared as a collaboration between Illinois Business Consulting and MTD

Date: 5/22/2024

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Section I: Unit of Government

Content:

Champaign – Urbana Mass Transit District (MTD)

Section II: District Information

Overview:

MTD is located in Champaign County and is the urban public transit provider for the City of Champaign, City of Urbana, Village of Savoy, and on the campus of the University of Illinois.

Content:

MTD offers fixed-route bus service, demand response service, and ADA Paratransit service. MTD operates fixed-route service during weekdays and weekends. During University of Illinois Fall and Spring semesters, some routes operate nearly 24 hours a day, seven days a week. MTD high frequency routes operate at either 10- or 15-minute frequencies connecting the core of Urbana, Champaign, and the University of Illinois campus. MTD also provides service to Champaign Unit 4 School District and Urbana School District #116, the two school districts serving Champaign, Urbana, and Savoy. In addition, Champaign County contracts with MTD to provide rural public transportation service outside MTD's urban service area, through Champaign County Area Rural Transit System (C-CARTS). C-CARTS has an on-demand van program and two fixed routes, one specifically for Rantoul and the other connecting Rantoul to Champaign-Urbana.

As of the 2020 Census, the population of the Champaign urban area was 147,452. The population of the MTD service area, which is within the urban area, was approximately 135,400. The total population of Champaign County was 205,865.

MTD currently has 408 employees.

MTD's fiscal year 2023 audited operating expenses were: \$44,882,624.

MTD's equalized assessed valuation for 2023 was \$3,288,952,215 according to the Champaign County Tax Computation Report. In fiscal year 2023, the District's property tax revenue was \$11,034,909.

Section III: Committee Information

Overview:

At the MTD Board of Trustees meeting on May 31, 2023, in compliance with the Decennial Committee on Local Government Efficiency Act, P.A. 102-1088, the district formed a committee to study local efficiencies and report recommendations regarding efficiencies and increased accountability to the Champaign County Board.

Content:

The Committee is comprised of the MTD Board of Trustees, Karl Gnadt as MTD's Chief Executive Officer, and two residents of the District, Donna Tanner-Harold and H. George Friedman, Jr., who were appointed by the Board Chair with the advice and consent of the Board of Trustees.

Agendas and minutes for the committee's meetings can be found on mtd.org.

June 28, 2023

December 6, 2023

January 31, 2024

March 27, 2024

April 24, 2024

June 26, 2024

Section IV: Programs Offered by District

Overview:

In addition to fixed-route bus service, demand response service, and ADA Paratransit service, MTD also provides several specialized mobility services for the district. The programs and services offered fall into the categories outlined below.

Content:

Additional Transit Services

In terms of transit services, five late-night fixed routes operate after midnight during the University of Illinois' Fall and Spring semesters. For interested students, SafeRides is an on-demand van

service providing a safe ride for individuals (or small groups up to three people) traveling at night in areas of campus where standard bus service is unavailable. SafeRides can be requested through the MTD Connect app.

Fare Accommodations

Fare Capping on the Token Transit app automatically upgrades users to a Monthly or Annual Pass after they pay the equivalent amount in single fares. This benefits those who cannot afford to purchase a pass up-front or do not know how often they will ride. MTD offers a renewable, three-year term DASH Pass for passengers with disabilities or adults over the age of 65 to ride the bus fare-free. Students in high school or younger can purchase discounted bus tokens (six for \$3) on the Token Transit app, from the Illinois Terminal Customer Service desk, or from any Operator. Additionally, veterans ride fare-free by applying for MTD's Veteran Pass.

ADA Provisions

For passengers unable to reasonably access fixed-route bus services, MTD provides ADA Paratransit services within 0.75 miles of the District's boundaries utilizing wheelchair lift-equipped vans. Accessibility features on fixed-route vehicles include low-floors, ramps, prioritized seating, wheelchair securements, and audio & visual stop announcements. MTD supports service animals and other reasonable modifications to accommodate individuals with disabilities.

Illinois Terminal

MTD owns and operates Illinois Terminal, which is a critical hub of travel and commerce in downtown Champaign. Outside the Terminal, passengers can access almost every route in MTD's fixed-route service as well as intercity buses. Inside the Terminal, the first floor includes passenger waiting areas as well as the Customer Service Center that assists in planning trips, selling fares, and answering questions about area transportation options. The second floor includes the region's Amtrak station, with three northbound trips and three southbound trips each day. The Amtrak waiting area includes an Amtrak Customer Service Desk as well as an electronic ticketing kiosk. The second floor also includes leasable office space. The third floor is occupied by the READY Program serving 6th through 12th grade students in the Champaign-Ford County region. On the fourth floor, the CityView Events and Meeting Center is rented for events and meetings.

Section V: Awards and Recognitions

Content:

- 1984: Seventh best transportation system in America - USA Today
- 1986: Outstanding Achievement Award - American Public Transportation Association (APTA)
- 1986: Champaign-Urbana named one of eight "Chosen Cities" by the Swedish Public Transportation Association
- 1986: MTD became the first system in the nation to become 100% lift-equipped and accessible vehicle to people with disabilities. The Americans with Disabilities Act (ADA) would become law four years later in 1990, which mandated the practice.
- 1989: By a student vote, MTD became the University of Illinois' Campus Transportation System: UIUC students passed a referendum establishing a one-year trial, during which MTD would serve as the campus transportation provider. The project proved to be an immense success and continues to this day.
- 1993: MTD became the first system in the U.S. to order low-floor buses, making boarding quicker and safer and improving access for the elderly and people with disabilities.
- 1994: Outstanding Achievement Award - American Public Transportation Association (APTA)
- 2004: MTD launches a real-time information system for riders, becoming one of the first systems in the U.S. to provide these tools to our passengers. The real-time information system has evolved since then and is the basis for the passenger tools found on mtd.org today.
- 2013: MTD achieves Environmental & Sustainability Management System ISO 14001 certification. Today, the Administration Facility, CDL Training Facility, and Illinois Terminal have achieved, and continue to maintain, certification.
- 2016: Awarded Silver level Bicycle Friendly Business – League of American Bicyclists
- 2018: Quality Management System ISO 9001 certification obtained for the entire District and its operations.
- 2018: MTD became the first in the nation to commercially order 60' zero-emission hydrogen fuel cell electric buses and began the process to update the infrastructure and technology needed to operate them. 100% of the hydrogen needed to fuel the 12 bus fleet is produced on-site using a solar-powered electrolyzer.
- 2022: Awarded Most Innovative Climate Action Plan – Federal Transit Administration
- 2024: Awarded Silver level Bicycle Friendly Business – League of American Bicyclists

Section VI: Intergovernmental Agreements

Overview:

MTD has over a dozen intergovernmental agreements in and around the Champaign- Urbana area consisting of each parties' service needs. This section explains the populations MTD is providing services to, how they are currently leveraging these agreements, and how they will continue to fulfill these agreements in the future.

Content:

Champaign Unit 4 School District and MTD

This agreement between Champaign Unit 4 School District and MTD consists of transportation for students in five different schools (Central High School, Centennial High School, Edison Middle School, Jefferson Middle School, and Franklin STEAM Academy) within the District in the 2023-2024 school year. This agreement contains 35 different stops for the District and both parties work together to prevent bus overcrowding, supervise behavior, and provide data of student ridership. The students within these five schools benefit from this service because they are provided safe and reliable transportation to and from their school.

Urbana School District #116 and MTD

This agreement is between Urbana School District #116 and MTD and provides transportation to seven neighborhoods/subdivisions in the Urbana area (Edgewood, King School Area, Country Club Apartments, Ivanhoe Estates, Prairie School Area, Yankee Ridge Area, and Savannah Green). This agreement also puts focus on bus overcrowding and supervision, and provides data regarding how many students utilize the offered service depending on the students' eligibility for the service.

Benefit: The collective benefit of these two agreements is financial savings for the two school districts, providing this service for people who do not have access to transportation, data, supervision, and various safety procedures (like annual bus evacuation practice) for students to follow. To expand further on MTD's community impact through these agreements, in the 2015 economic development impact study conducted by TischlerBise, MTD's contracted service for the local school districts saved the districts and local taxpayers around \$1.4 million per year in transportation costs. By capitalizing on this intergovernmental agreement, MTD can continue to provide yearly service to these school districts to maintain and hopefully increase student ridership to other schools within the districts, ultimately increasing economic impact.

Champaign County and MTD

This agreement is between Champaign County and MTD to operate the Champaign-County Area Rural Transit Service (C-CARTS). C-CARTS provides access to public transportation in rural areas. This is possible through three main grants:

1. Illinois Department of Transportation - Office of Intermodal Project Implementation (“IDOT-OIPI”) Non-Metro Area Transportation Operating
2. Operating Capital and Administrative Assistance (“Section 5311”, 49 USC & 5311)
3. Downstate Public Transportation Operating Assistance (“Downstate”)

This agreement discusses the performance of the governmental services, activities, or undertakings, which the agencies entering into this agreement are allowed to perform by law. MTD openly works and communicates regarding rural public transportation funding with the county’s Regional Planning Commission (RPC) to determine bus service regulations, oversee fiscal administration, and prepare quarterly/yearly reports to submit for these grants. MTD in turn operates vans for rural area services and provides transportation for those who live outside the MTD service area.

Benefit: This allows MTD to provide a community impact through providing cost-effective, safe, and reliable rides for individuals who are in areas in which public transportation, or other forms of transportation, may not be available. MTD benefits from this agreement through their compensation based on the vehicles’ hourly maintenance rates documented in the C-CARTS maintenance agreement. In 2024, the MTD maintenance hourly rate was \$65.15 per hour and the current predicted rates for 2025 and 2026 are \$67.54 per hour and \$69.85 per hour. Through this agreement, MTD vehicles can be consistently serviced to maintain high vehicle reliability.

Developmental Services Center (DSC) and MTD

This agreement describes the relationship between the Developmental Services Center (DSC) and the Champaign-Urbana Mass Transit District (MTD). It outlines that DSC provides a regular bus service for mobility-limited disabled persons. MTD agrees to pay \$577,548 to DSC annually for this service. DSC will provide MTD with monthly ridership reports and other important ridership information. DSC is to comply with industry regulations and maintenance of insurance coverage.

Benefit: This agreement facilitates the establishment of a service that substantially enhances public transit access for individuals with limited mobility in the Champaign-Urbana area. The implementation of this service under the intergovernmental agreement has had a profound economic impact on the community by assisting limited mobility individuals to participate in local commerce by providing accessible transit. Additionally, this initiative aligns seamlessly with the core objectives of MTD, particularly its commitment to inclusivity, which ensures equitable access to transportation for all community members. Besides benefiting the community, this service has

also increased MTD's ridership, stemming from its enhanced capacity to serve this specific demographic.

University of Illinois Urbana-Champaign (UIUC) Division of Disability Resources and Educational Services (DRES)

This agreement is established in accordance with the Americans with Disabilities Act (ADA) and its regulations. ADA prohibits discrimination against individuals with disabilities in transportation. Through this agreement, UIUC will purchase equipment and employ operators, and MTD will provide indoor parking spaces for DRES buses. MTD will perform maintenance on these buses, with UIUC being responsible for delivery, parking, and retrieval of the buses. UIUC will provide MTD with ridership reports and other information necessary for grant applications. UIUC compensates MTD for specialized bus services, parking, and maintenance costs, and MTD compensates Illinois for subcontracting services.

Benefit: This agreement empowers MTD to purchase a dedicated transportation service for UIUC students with disabilities, significantly enhancing their mobility and access to essential services and activities. This intergovernmental agreement is particularly impactful in the context of the UIUC community, where a diverse body of students, staff, and faculty with varying mobility benefit from improved transportation options. The enhanced transportation service made possible by this agreement impacts the local economy by enabling more individuals to engage fully in employment and consumer activities. Moreover, students with disabilities can access work locations and internship opportunities more reliably, which may enhance their professional development and economic contributions to the area. Additionally, this service facilitates greater participation in university life for those with mobility challenges, potentially leading to increased retention and success rates among this demographic. By ensuring that students with disabilities can navigate the campus and its surroundings more efficiently, UIUC can foster a more inclusive academic and social environment. Overall, by prioritizing accessibility through this agreement, MTD not only upholds its commitment to inclusivity but also stimulates economic activity and enriches the community of the University of Illinois Urbana-Champaign, making it a more accessible and equitable place for everyone.

University of Illinois Urbana-Champaign (UIUC) and MTD for the Maintenance and Repair Services of University-Owned Vehicles

This intergovernmental agreement is also a maintenance agreement and outlines the maintenance MTD must perform on buses provided by DRES. MTD will perform preventive and regular maintenance services. If emergency maintenance for DRES vehicles cannot be performed within three working days, DRES reserves the right to receive servicing from a third party. DRES will pay

MTD within thirty days of receipt of the invoice at the rates specified. MTD will maintain service records for three years, in which copies are available upon request. MTD maintains insurance as agreed upon in the previous document.

Benefit: Through this intergovernmental maintenance agreement, MTD affirms its dedication to ensure that all DRES vehicles are kept in optimal condition, thereby guaranteeing dependable public transportation for the entire UIUC community. This commitment aligns with MTD's mission to support inclusivity and contributes to the broader economic vitality of the campus. Reliable transportation enhances access to education and work opportunities, facilitating timely and consistent attendance for students and faculty alike. The resulting improvement in academic performance and professional productivity promotes a more vibrant campus economy and fosters a dynamic community that attracts and retains students and staff at the University of Illinois.

Contracted Transit Service for the University of Illinois at Urbana-Champaign (UIUC)

UIUC students have unlimited access to all MTD transit routes including campus-specific routes. This agreement eliminates the inefficiencies and time involved with fare collection in extremely high-density areas. While the pandemic impacted MTD service, service is projected to return to its original levels in 2024.

Benefit: This agreement has a positive economic impact on the community. By enhancing the efficiency of transit services, students are more likely to engage with local businesses and partake in community events, contributing to the local economy. The convenience of the improved transit system may also attract prospective students and faculty, fostering growth and further investment in the area. Moreover, the increased ridership may lead to job creation within MTD, providing employment opportunities to residents. Thus, the ripple effect of this enhanced transit service could be a significant driver of economic vitality in the area.

Annexation of the Cities of Urbana, Champaign, and Savoy

MTD has expanded its service area boundaries to mostly align with the cities of Urbana, Champaign, and Savoy, per annexation agreements with each municipality, to best organize service. Annexation under the Illinois Local Mass Transit District Act is defined as adding contiguous non-farmland territory to the MTD service area. Such actions have prevented duplication of effort or conflicting regulations, increased accessibility, and allowed for greater coordination between municipalities and MTD transportation.

Benefit: Annexation will lead to the expansion of jobs and routes in a larger geographic region, causing a greater positive economic impact. Generally, annexation also has resulted in growing ridership for MTD due to an increase in service. The Regional Planning Commission (RPC) produced the Long Range Transportation Plan (LRTP) which exists as a blueprint for how to optimize transit

networks in the urbanized areas of Champaign, Urbana, and Savoy. The LRTP encourages the MTD service area to grow with the communities' growth via annexation.

Expanding Services of The Rantoul Transportation Service Program ("C-CARTS")

Champaign County and MTD entered into this agreement to provide rural public transportation through a program known as the Champaign County Area Rural Transit System (C-CARTS). Under this, the Village of Rantoul makes monthly payments to MTD for transit services that facilitate mobility, access to jobs, and accommodations for the elderly or those with disabilities. This includes on-demand service and two fixed routes: the Eagle Express, which operates within Rantoul only, and the Rantoul Connector, which brings passengers directly to and from Rantoul into Champaign-Urbana.

Benefit: This cooperation enhances MTD's economic impact in nearby communities because they maximize use of their vehicle fleet while further strengthening their relationship with individuals in the rural community. Through this service, they help individuals obtain transportation in less-populated areas that do not get public transportation or other reliable transportation services. MTD is positively impacting those within this community by providing reliable service to those in these areas who may struggle with transportation access due to income, ability, and/or age.

Maintenance Agreements

Memorandum of Understanding between MTD and CRIS Rural Mass Transit District

This agreement shows the mutual understanding and partnership between CRIS Rural Mass Transit District (CRIS), and MTD. MTD agrees to provide CRIS Rural Mass Transit District with maintenance services requested and agreed to by CRIS. CRIS agrees that MTD will determine the scheduling of repairs and that MTD vehicle repairs take priority over CRIS vehicles. MTD will notify CRIS of the cost estimate for repairs before the work is done. CRIS agrees to pay costs associated with the estimate even if the repairs are declined. MTD shall invoice CRIS for services monthly, and they shall be paid within thirty days after the receipt or acceptance of the service, whichever is later. This maintenance agreement allows MTD to aid in other services in the community run by CRIS.

Champaign Park District

MTD agrees to provide Champaign Park District (CPD) with maintenance services requested and agreed to by CPD. CPD agrees that MTD will determine the scheduling of repairs and that MTD vehicle repairs take priority over CPD vehicles. MTD will notify CPD of the cost estimate for repairs before the work is done. CPD agrees to pay costs associated with the estimate, even if repairs are

declined. MTD shall invoice CPD for services monthly, and they shall be paid within thirty days after the receipt or acceptance of the service, whichever is later. This maintenance agreement allows MTD to aid in other services in the community run by the Champaign Park District.

Section VII: Review of Laws, District Policies, District Rules and Procedures, District Training Materials, and Other Documents

Overview:

As the public transportation provider of the Champaign-Urbana-Savoy urban area, MTD is governed by federal and state legislation.

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At the federal level, Congress establishes the legal authority to commence and continue Federal Transit Administration (FTA) programs through authorizing legislation. Each reauthorization amends the Federal Transit Laws codified in Title 49 USC Chapter 53.

The most recent authorization, the Bipartisan Infrastructure Law, was signed by President Biden on November 15, 2021. The legislation reauthorizes surface transportation programs for Fiscal Year (FY) 2022 through FY 2026. Prior authorization legislation includes:

In December 2015, President Obama signed the Fixing America's Surface Transportation (FAST) Act, reauthorizing surface transportation programs from FY 2015 through FY 2020.

In July 2012, President Obama signed Moving Ahead for Progress in the 21st Century (MAP-21) Act, which reauthorized surface transportation programs from FY 2012 through FY 2014.

At the state level, MTD is governed by the Local Mass Transit District Act (70 ILCS 3610) and the Downstate Public Transportation Act (30 ILCS 740). Internally, MTD abides by its own by-laws, policies, and procedures, and MTD2071, an internal Quality and Environmental Management System that includes two International Organization for Standardization (ISO) certifications: 9001:2015 and 14001:2015. As needed, MTD also creates project-specific and district-wide plans that are publicly available on mtd.org.

Section VIII: Current Strengths

Overview:

MTD's core strengths in sustainability, maintenance, communication, ridership, and bus utilization are being leveraged to optimize operations, minimize expenditures, and elevate service delivery.

Content:

Sustainability Strengths

Regarding sustainability, maintenance, route optimization, and internal/external communication, MTD is setting new standards in operational excellence. Public transportation plays an important role in reducing greenhouse gas emissions and decreasing reliance on oil by providing an alternative to single-occupancy vehicles. MTD's sustainability efforts are shown by introducing zero-emission buses that use a fully renewable source (hydrogen) to generate electric power. MTD currently has two zero-emission hydrogen fuel cell buses fully functioning on routes, and they are working on commissioning 10 additional zero-emission hydrogen fuel cell electric buses in Spring 2024. MTD is also utilizing solar panels and has built an array of 5,500 solar panels to generate clean, renewable energy to power their hydrogen fuel production station. MTD has also invested in a variety of other vehicle, facility, and administrative related sustainability efforts that are detailed in MTD's award-winning 2022 Climate Action Plan. In short, MTD is adhering well to sustainability practices with zero-emission technology and energy powered by natural resources.

Maintenance Strengths

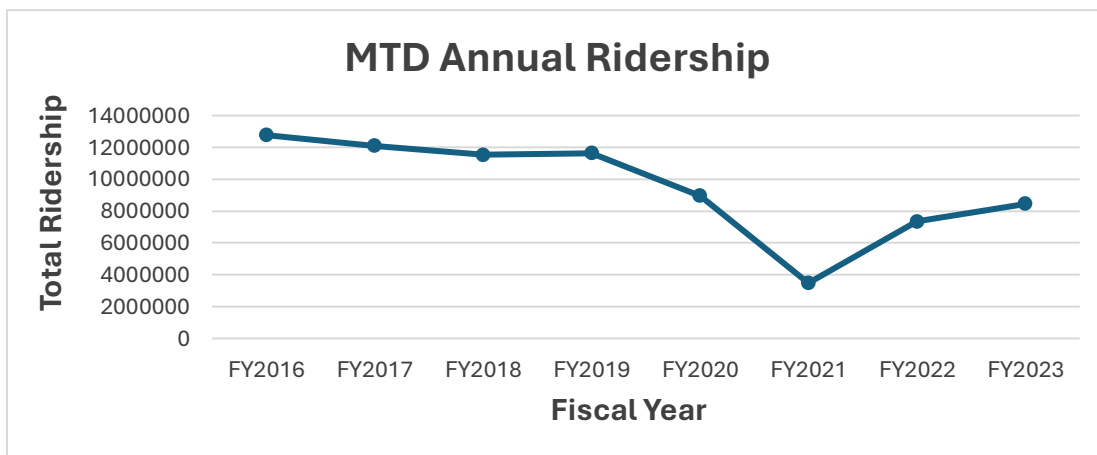
MTD is performing exceptionally well in the Maintenance sector with zero employee gaps and a full team that works efficiently. Additionally, MTD has more than doubled the lifts in the maintenance garage from four lifts to nine and has added fall protection for servicing in each bay. This has given more versatility and improvements to the facility itself. Furthermore, the Maintenance Department is working with consultants to develop and update the current software used to track key performance indicators (KPIs), maintenance, and scheduling.

Communication Strengths

Through interviews with MTD employees, it was made clear that there is frequent and effective communication within the District which encourages collaboration, increases engagement, builds trust and transparency, and reduces conflicts. Looking closer, communication within the Maintenance Department is also up to standard and the supply chain issue that existed during the coronavirus pandemic has been resolved. MTD's external communication is also very efficient, with bus operators constantly informing MTD headquarters when issues occur such as traffic, route delays, capacity issues on buses, or other factors that might hinder the maximum ridership and efficiency of buses.

Ridership Strengths

Ridership is a vital metric for MTD because it directly correlates with its primary mission and financial sustainability. Ridership throughout this report is defined by the amount of people riding MTD transportation service which in turn is also providing economic impact on the community by making transportation accessible. High ridership levels indicate a strong demand for the service, suggesting that the organization is effectively meeting the community's transportation needs. Additionally, increased ridership contributes to the environmental goals of reducing congestion and pollution by decreasing the number of private vehicles on the road. MTD is doing well in terms of ridership from the data calculated and observed in recent fiscal years. Ridership grew 55.4% from 2021-22, 15.3% from 2022-23, and is projected to increase 12.2% from 2023-24. This shows the positive impact MTD is having on the local Champaign-Urbana community, and it underscores MTD's success in enhancing its service model to support its mission and ensure financial stability. Additionally, this increase in ridership can help MTD by obtaining more government funding and grants since higher ridership numbers can strengthen MTD's case for government funding. Furthermore, high ridership improves the public perception of public transit as a viable alternative to other modes of transportation. This perception can lead to increased community support and advocacy for MTD, further enhancing its role and expansion in urban planning. Increased utilization of public transit can also lead to more data on travel patterns and rider needs, which can be used to optimize routes and schedules. The upward trend in ridership is a testament to MTD's operational success and is vital for its ongoing sustainability and capacity to innovate in public transportation services.

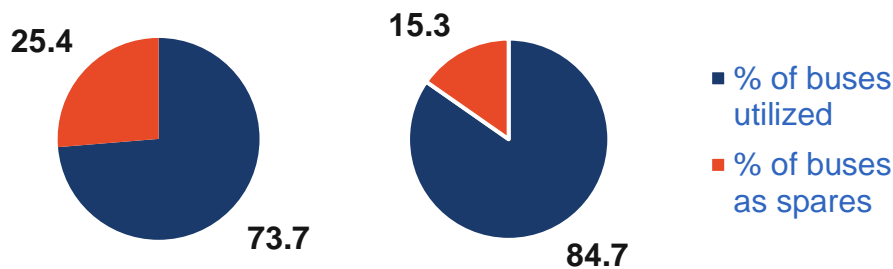


The graph above shows annual ridership; something to note is the drop off from 2019-2021, largely due to the worldwide pandemic COVID-19. Although ridership decreased during COVID years, post COVID data shows a promising increase of annual ridership, projecting to increase by 12.2% from 2023-2024. A benchmark to achieve on ridership is 12,006,778 annual rides, which was the annual ridership pre-COVID.

Bus Utilization Strengths

The utilization rate, which measures how effectively a public transit system's capacity is being used, is extremely important to MTD because it offers a clear insight into the operational efficiency of the service, indicating whether the transit resources are being used. The spare ratio was also analyzed in tandem with bus utilization to see if MTD is overusing/underutilizing buses and is in line with the industry benchmark set by the Federal Transit Administration (FTA). MTD is performing within the optimal standards for the spare ratio and their utilization rate is on the rise. The current spare ratio for Spring 2024 is 25.4% but that number is projected to be closer to 15% by Fall 2024, meeting the FTA guidelines of having a spare ratio of under 20%. Additionally, the percentage of buses in utilization is 73.7% in Spring 2024 but will be projected to increase to 85.7% in the Fall which shows that MTD is effectively using more buses in their fleet.

Pie charts show the current utilization rate compared to the projected Fall 2024 utilization rate. The pie chart on the left is the current utilization rate and the pie chart on the right is the projected Fall 2024 utilization.



Section IX: Identified Inefficiencies

Overview:

An analysis of various key performance indicators (KPIs) shows the main areas where MTD faces inefficiencies are in staffing and data tracking technology. Identifying the inefficiencies within MTD is crucial to ensure that operations are run at their fullest capabilities.

Content:

Staffing Challenges

MTD has a relatively low turnover rate of 20.8% (2022) and an absenteeism rate of 2.64% compared to the transportation turnover rate average of 54% (2021) and the national absenteeism average of 2.6% according to the U.S Bureau of Labor statistics. However, the benchmark for a healthy

absenteeism rate is 1.5% according to AIHR and BrightHR. Therefore, MTD’s higher percentage reflects an unhealthy absenteeism rate. The retention of bus operators within the first year of training most significantly impacts turnover. Approximately 60% of bus operators leave within the first year, wasting the time, effort, and resources MTD invested in that employee. Therefore, the main inefficiencies related to staffing may be in the training process since this closely relates to the first-year retention rate of bus operators. The training process of bus operators itself was also described as very expensive and on the longer end of training periods. In addition to first-year operator retention, finding enough suitable applicants to pass the drug screening and training test is another inefficiency that MTD can improve on.

	Pre-COVID Average (2019)	During COVID (2020-2022)	Post-COVID Average (2023-2024)	Average for 2019-2024
Operators	1.27%	2.91%	2.78%	1.59%
Non-Operators	1.10%	0.72%	2.19%	1.28%
Combine	1.23%	2.39%	2.64%	2.28%

The table above showcases different absenteeism rates across Operators, Non-Operators, and combined. It also shows the averages pre COVID-19, during, and post COVID-19. The sudden increase in absenteeism rate is common across the public transit industry due to the pandemic, however the post COVID average absenteeism rate for MTD is still above the benchmark of 1.5% as well as slightly above the average absenteeism rate of 2.6%.

Outdated Systems for Evaluating Performance

Data tracking technologies and software were identified as key concerns during interviews with MTD employees. Most software across all departments needs improvement. Specifically, MTD employees have identified a lack of adequate technology and software for analyzing financial KPIs. Hence, complex and dynamic analysis of financial trends cannot be done to project or estimate future trends that may impact MTD. Outdated software can cause several inefficiencies in day-to-day operations. Older software often lacks the features and optimizations found in newer versions, which can slow down work processes. Employees may need to perform tasks manually that could be automated or simplified with updated software. There may also be compatibility issues with systems and software leading to issues with integrating systems and hardware.

Section X: Current Steps to Improve Identified Inefficiencies

Overview:

In addressing the identified inefficiencies within MTD, it is crucial to adopt a strategic and comprehensive approach that not only targets immediate areas for improvement but also lays the groundwork for sustained operational efficiency. MTD has already begun implementing several strategies to address these inefficiencies, particularly focusing on critical areas such as staffing and software systems.

Content:

Through enhancing recruitment processes and optimizing software applications, MTD is taking proactive steps towards streamlining operations and improving overall productivity. These efforts are essential in building a robust foundation that supports long-term success and adaptability in an evolving industry landscape.

Strategies for Staffing:

Regarding staffing strategies, MTD has implemented a mentorship program where seasoned operators work with new operators to help them through any difficulties or questions they may have. A mentorship program can be immensely beneficial in several ways. By pairing less experienced operators with seasoned professionals, mentorship facilitates direct knowledge transfer and skill development, which can significantly accelerate a newcomer's learning curve. It nurtures a supportive workplace culture that values continuous personal and professional growth. Additionally, through regular feedback and guidance, mentees can more effectively identify and address their weaknesses, fostering a more confident and competent workforce. Ultimately, a robust mentorship program not only benefits the individuals involved but also boosts the overall productivity and morale of the organization, creating a more engaged and committed team. This mentorship program has already proven effective to MTD as it has increased employee retention by 23% in its first year, providing a solution for the increase of ridership and demand for operators. Although there are not many data points as the program is relatively new, this initial success will pave the way for future improvement regarding bus operator retention in the first years after training.

Strategies for Software:

Another focus that can help to drive operational efficiency is assessing the functionality and capabilities of the software used by MTD for their data collection and analysis. The modernization of software can be a crucial avenue for addressing inefficiencies in operations. Keeping software

up to date is crucial for maintaining efficient operations within a company. Updated software often includes performance enhancements that optimize processes, reduce loading times, and ensure smoother operations which directly contribute to overall operational efficiency. Moreover, updated software ensures compatibility with the latest technologies and standards, facilitating seamless integration with new tools and systems that can further enhance operational efficiency. This compatibility is vital in a rapidly evolving technology landscape where new advancements can significantly impact how businesses operate.

For MTD, there are a lot of different software options available across different departments. For instance, the Maintenance Department uses software for scheduling and specific bus maintenance performance indicators. In January 2024, MTD's Board of Trustees approved a proposal for consultancy services to replace and procure new software to support numerous workflows and departments including Maintenance, Finance, Customer Service, and Operations. This strategy can be implemented in all MTD departments by finding a third-party partnership such as the university or professional technology integration consultants to improve their software. Making this change will foster higher levels of collaboration within MTD departments and will promote unique, efficient, and effective programs for MTD to use. In addition, vehicle performance tracking software is being trialed in a 3-month pilot period for MTD. This is helpful because these telematic features allow for remote data and alerts to be conveyed to MTD staff for quicker maintenance responses. Telematics enhances proactive maintenance, reducing breakdowns and service interruptions.

Section XI: Studies on Governmental Efficiencies

Overview:

This section's insights are primarily focused on key performance indicators (KPIs) related to ridership, bus utilization, and staffing, facilitating a robust horizontal comparison of MTD's operations with those of its peers in the public transit industry.

Content:

Data was collected from six peer companies to study their operational efficiency: Cambus (Iowa City, IA), CityBus (Lafayette, IN), Lane Transit District (Eugene, OR), Metro Transit (Madison, WI), Centre Area Transportation Authority (State College, PA), and Central Ohio Transit Authority (Columbus, OH). These companies were selected due to their similarities with MTD in terms of size, university affiliations, revenue sources, and long-term goals.

The research findings were instrumental in drawing various conclusions about the operations of these peer companies, providing valuable insights that reflect the state of the public transit

industry. The primary insights gathered pertain to the peer companies' ridership growth post-pandemic, staffing inefficiencies, and KPIs utilized to track and monitor operational efficiency.

Ridership: Current State and Improvement Strategies Employed by Peers

The ridership of all six of the peer companies interviewed was affected by the pandemic. Although ridership levels are steadily increasing, they have not reached pre-pandemic levels yet. On average, all the peer companies were able to attain approximately 75% of their pre-pandemic ridership. For example, City Bus of Lafayette, IN had a pre-pandemic ridership of 5 million. In the fourth quarter of Fiscal Year 2023, the number reached slightly above 4 million after having dropped considerably in 2020.

In response to the pandemic, peer companies are trying to boost demand for their bus services by leveraging their intergovernmental agreements and contracts with the universities and residential complexes in their operating districts. Additionally, companies are seeking to expand their ridership by increasing the size of their buses, restructuring their routes, or focusing on accessibility and equity among riders based on the needs and preferences of commuters.

Bus Utilization and Spare Ratio

Regarding bus utilization data from interviews, similar trends were observed across the industry. On average, the bus utilization rates during peak times fell in the range of 70% to 85%. The industry trend shows a focused effort on optimizing bus utilization during peak times to ensure efficient use of resources. This is critical for maintaining service reliability and meeting rider demands.

When it came to the spare ratio, all the peer companies interviewed are required to comply with the limit prescribed by the Federal Transportation Authority (FTA). All the companies reported spare ratios in the range of 15% to 20%, thus adhering to the legal mandate. However, peer insights suggested that the spare ratio mandate may need an upward revision due to the inclusion of fuel-efficient buses equipped with newer technology, necessitating accounting for older, more reliable buses to be kept as spares.

Staffing Challenges Across the Industry

Based on the research conducted, it can be concluded that staffing challenges are prevalent in the public transit industry at large. Of the peer companies interviewed, all but one reported issue with staffing, experiencing particularly high employee turnover post-pandemic. Some companies reported difficulties in retaining and recruiting staff, thus indicating a supply problem. Others pointed towards reduced ridership levels due to reduced commute patterns post-pandemic as a driving factor for reduced levels of service, thus indicating a demand problem. It was a consensus that rostering practices significantly impacted operator retention and productivity.

Nevertheless, companies are actively implementing strategies for staff recruitment and retention. They have adopted measures to incentivize employees through increased monetary compensation in terms of higher wages and bonuses. Some companies are also providing health, education, and family benefits. Further, all the companies diverted resources towards advertising and marketing, recruited from other districts, and actively participated in job fairs and other hiring events.

Concluding Insights Regarding Governmental Efficiencies

Overall, the public transit industry is positioned for operational success owing to increasing ridership levels post-pandemic and fair bus utilization and spare ratios. The introduction of fuel-efficient buses and the use of new and innovative technology can ensure operational efficiency. However, public transit companies are still navigating the repercussions of the pandemic's blow to the industry, with staffing challenges remaining a prevalent hurdle as they strive for full recovery.

The table below shows various data points gathered from all six of the peer companies interviewed and compares them to MTD's data.

	MTD	Cambus	CATA	COTA	LTD	CityBus	Metro
Ridership 2019	11M	4M	11M	19M	9M	5M	12M
Ridership 2023	8M	3M	8M	11M	6M	4M	10M
% of 2019	73%	75%	73%	58%	67%	80%	83%
Employees 2023	400	160	230	1120	325	130	500
Operating Budget FY23-24	\$31M	\$13M	\$11M	\$197M	\$56M	N/A	\$55M
Y/Y \$change	+3M	N/A	-0.14M	+7M	+36M	N/A	-13M
Y/Y %change	+10%	N/A	-1%	+4%	+64%	N/A	+24%
Spare Ratio	~20%	~20%	~20%	~20%	~20%	~20%	~20%

The table shows that none of the peer companies interviewed have been able to achieve their pre-pandemic ridership. Companies have achieved approximately 75% of their pre-pandemic ridership on average. Further, the number of employees indicates the differences in the size of the organizations interviewed, a crucial factor when making conclusions. The operating budget also varies vastly across companies with most of them seeing an increase in the budget from FY2022-

23. The Y/Y (year over year) change reflects the change in dollar and percentage of the 2019 ridership and the operating budget versus the 2023 ridership and operating budget. Finally, the spare ratios of all the companies are less than 20% in keeping with the FTA's mandate.

Section XII: Final Recommendations

Overview:

Owing to the comprehensive research conducted on MTD's operations and the state of the transit industry, certain measures to overcome staffing and software inefficiencies can be recommended. The implementation of some of these recommendations by the peer transit companies mentioned in this report also lends credibility to their potential effectiveness in combating the current challenges. Moreover, the analysis of the pros and cons of some of these measures in Section X enables the creation of a more accurate and well-researched list of final recommendations applicable to MTD.

Content:

Recommendations to Overcome Staffing Challenges

Expanding the Pool of Potential Employees:

Leveraging contracts and agreements with the University has proven beneficial in increasing ridership, thus solving demand-side issues. They could also be used to address supply-side issues related to staffing. Building on the relationship with the University to allow students to be employed as operators or administrative staff either part-time or full-time can go a long way towards expanding the pool of potential recruits. During the summer and winter breaks, students could be offered internships to fill the gaps in staffing observed during those periods. With the recruitment of students, the negative impact of employee turnover rates may be mitigated owing to a regular supply of employees year after year. Moreover, peer data indicates that student employees tend to have lower absenteeism rates. Students at the University of Illinois accredited with a comprehensive skill set, innovative ideas, and unique perspectives can help accomplish goals of innovation and growth at MTD and make its agreement with the university stronger.

MTD Experience with Student Employment Strategies

MTD has a consistent history of hiring University students and graduates as interns, part-time employees, and full-time employees in a variety of administrative roles. While the above suggestion to hire students as Bus Operators could provide traction in other locations, this strategy has significant limitations in our District. One limitation is that the State of Illinois requires CDL holders with passenger endorsements to be 21 and over. This

age limit prevents most undergraduates from being eligible to hold the proper licensure for bus operation. Another limitation to hiring students as Operators is that the training for a Bus Operator is 8-9 weeks of nearly 40-hour weeks, which would be hard for a student to do while taking classes. Additionally, driving only occasionally to accommodate class schedules might be challenging for students, increasing safety risks with fewer ongoing hours behind the wheel.

Incentivizing Employees through Monetary and Non-Monetary Benefits:

Monetary and non-monetary benefits can help attract and retain employees. MTD is currently employing these incentive tactics and they have also been widely implemented by peer transit companies after the pandemic and have proven effective. These benefits can increase proportionately with seniority. Some of the most crucial benefits are highlighted below.

Monetary Benefits: One of the most widely adopted and effective methods of retention of staff is monetary compensation in the form of bonuses, higher wages, and overtime pay that increase with seniority. Several peer companies including Central Ohio Transportation Authority have increased wages by over 10%. Offering bonuses or higher overtime pay to employees who take on difficult shifts during odd times of the day and rewarding good employee performance can also help retain staff and motivate employees to improve productivity. At the same time, ensuring that employees understand the company values and build loyalty to the organization can avoid the problem of compensation-mindedness.

MTD Experience with Monetary Benefits

From FY2022 to FY2024 (in a span of two years), MTD increased the starting wage of a Bus Operator by 24.5%. All current Operators also received comparable wage steps. As of March 2023, all current employees and new hires can use prior, relevant work experience to increase their pay by another 10%.

Non-monetary Benefits: Non-monetary benefits can help retain employees long term. Such benefits include family, health, and education benefits offered to employees. Equity in rostering practices, i.e., how operator shifts are assigned or recorded, also plays an important role in ensuring operator productivity. A balance between pre-assigned and discretionary roster runs needs to be achieved to ensure adequate scheduling on par with demand and employee autonomy. Increasing the amount of discretion with seniority helps retain employees for the longer term. Granting autonomy to employees can instill a sense of responsibility and improve employee productivity.

MTD Experience with Non-Monetary Benefits

As of July 1, 2022, MTD pays 100% of the contributions towards employee-only health, dental, and vision insurance premiums. As of December 2023, employees can take off up to 10 days

for any reason throughout a 12-month year. These personal days are in addition to other benefit time, such as vacation or other approved time off.

Implementing Active Recruitment Strategies:

Apart from offering benefits, MTD can continue to participate in hiring events and job fairs, thus engaging in active recruiting. Both students and regular employees can be easily accessed through these events. Recruiting from other townships is another avenue that could be explored. Apart from events, it is crucial to emphasize advertising and marketing strategies, ensuring that employee incentives and company strengths are highlighted in the marketing material. Moreover, marketing needs to be targeted toward the right audiences and job advertisements need to be posted consistently until vacant positions are appropriately filled.

MTD Experience with Active Recruitment Strategies

MTD frequently attends community job fairs including the Chamber of Commerce Fall Job Fair and the Champaign Public Library Community Job Fair offered annually. In addition, the District seeks out other recruiting opportunities such as inclusion in the private job fairs held in 2023 for employees of Dart Container when the closure was announced. MTD also enjoys regularly attending high school career fairs at Urbana High School, Lincoln's Challenge, Villa Grove, and Urbana Adult Education to promote MTD opportunities and overall interest in the industry. Finally, the District partnered with Parkland College in 2023 to create an apprenticeship program for Maintenance Technicians to facilitate a consistent pipeline of trained Technicians and avoid extended vacancies in that crucial department.

Over the past two years, the District's website and job postings were revamped to include wage and salary ranges and a detailed description of benefits to increase the appeal of our positions and provide greater transparency to potential applicants.

Improvements in Training and Development of Mentorship Programs:

Training improvements refer to the shortening of the training period for non-operators and the implementation of exams at the end of the online learning modules. MTD has been able to cut down employee training time, thus reducing costs, and ensuring higher retention during the training period. It would be beneficial to continue this approach because it has proven effective. Another improvement in training to be considered is the implementation of online exams at the end of the learning modules offered by MTD. Such exams can inform MTD that employees have indeed achieved the required proficiency in theory. Moreover, issuing certificates upon completion of such exams can help boost employee morale and confidence, another driving factor in increasing retention.

Further, MTD can continue developing its mentorship program within the organization. Seasoned operators not only help new operators with navigating their new jobs, but they can mentor the junior staff to help them understand the realities of the job upon graduation from the training

program. Since it has been observed that most operators tend to leave upon graduation due to the difficult demands of vehicle operation, establishing a meaningful connection with seasoned mentors may help operators feel better prepared to take on the job and provide mental support in continuing their work at MTD.

Recommendations to Improve Software

Centralizing software through the utilization of existing platforms:

To improve the overall operations and efficiencies within MTD, updating software used and ensuring effective utilization to track all relevant data. As MTD currently utilizes Microsoft Excel to track live data such as work order scheduling in the Maintenance Department, implementing this program to record other key performance indicators (KPIs) would be beneficial when conducting an audit. Another potential program that can be implemented into MTD's data collection and analysis is an automated business planning software. These software help organizations of any size by automating business processes. These programs would allow MTD to track all aspects of operations including financials, inventory, supply chain, ridership, and more from a centralized collection and analysis tool.

Using economic impact software for record keeping:

For future analysis of the economic impact MTD has on directly served and surrounding communities, an economic impact software could help document impact over time. This software could provide MTD with the benefits the company has provided for the surrounding population and businesses. As inputting the data into this type of software can be time-consuming and requires data collection to be exhaustive, a third party is recommended to ensure all aspects of MTD are included.

Leveraging grant money to cover software implementation costs:

The recommendations for updating software and the use of external programs with implementation from a third party would entail a financial investment, therefore it would be beneficial to leverage grant money to cover the costs. By applying for grants, MTD benefits the community by improving its current service while also improving business operations. A potential grant that can be utilized by MTD is the Grants for Buses and Bus Facilities Program, which would allow MTD to propose the benefit of continuously adding zero-emission vehicles to the current fleet. This money can be leveraged to update transit related technologies by devoting some of the awarded money to platforms or software that could better track and analyze the KPIs collected from the new project. Utilizing grants would allow MTD to create a better service for the community while improving MTD's data collection and operations simultaneously.

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