

FY 2019-2021 TRIENNIAL PERFORMANCE AUDIT OF UNITRANS

SUBMITTED TO



SACRAMENTO AREA COUNCIL
OF GOVERNMENTS



asucd CITY OF DAVIS
UNITRANS



SUBMITTED BY

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INTERNATIONAL

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Executive Summary

The Sacramento Area Council of Governments (SACOG) engaged the Michael Baker International audit team (Michael Baker) to conduct the Transportation Development Act (TDA) triennial performance audit of the nine public transit operators under its jurisdiction. The performance audit serves to ensure accountability in the use of public transportation revenue. This performance audit is conducted for Unitrans, covering the most recent triennial period, fiscal years 2018-19 through 2020-21.

The audit includes a review of the following areas:

- Compliance with TDA requirements
- Status of prior audit recommendations
- Transit system performance trends
- Detailed functional review

From the review, recommendations were developed to improve the operational efficiency and effectiveness of Unitrans.

Compliance with TDA Requirements

Of the compliance requirements pertaining to Unitrans, the operator fully complied with seven of nine requirements. Unitrans was in partial compliance with regard to the completion and submittal of the Transit Operators' Financial Transactions Report to the State Controller and the timely completion of the FY 2021 annual fiscal and compliance audit. Two additional compliance requirements did not apply to Unitrans (i.e., rural/blended farebox recovery ratios).

Status of Prior Audit Recommendations

Unitrans has implemented one of the three prior audit recommendations. The implemented recommendation pertained to reclassifying the human resources manager as a career position. One recommendation, to conduct long-range strategic planning for transit, is in the process of implementation. The recommendation for continuing to work with the City of Davis in pursuing ITS solutions to improve on-time performance and service reliability has not been implemented, however Unitrans has made an effort to work with the City who ultimately has control over the transit signals. Unitrans staff continues to engage City staff on reviewing, reactivating, and expanding ITS solutions such as transit signal priority to improve on-time performance and service reliability. Russell Boulevard transit signal priority remains deactivated.

Transit System Performance Trends

1. Operating costs increased by 11.3 percent using audited data from the FY 2018 base year to FY 2021. On an average annual basis, costs increased 3.8 percent, with an increase of 13.1 percent occurring in FY 2020. Operating costs decreased just 0.9 percent in FY 2021. The jump in operating costs seen in FY 2020 can be primarily attributed to higher employee wages and compensation costs to keep pace with the increase in the minimum wage as well as higher rates being paid during the COVID-19 pandemic to retain staff.
2. Ridership decreased 91.3 percent from 4,021,956 trips during the FY 2018 base year to 350,421 trips during FY 2021. On an average annual basis, ridership decreased 39.4 percent, with the highest decrease of 87.7 percent occurring in FY 2021, followed by 23.6 percent decrease in FY 2020. Effects of COVID-19 on ridership are evident in these percentages. Remote learning replaced on-campus learning during the audit period following the initial COVID-19 outbreak as well as during the following variant outbreaks through FY 2021 and was a significant driver of the drop in ridership.
3. Vehicle service hours and miles both exhibited significant decreases from the FY 2018 base year to FY 2021, primarily due to the effects of COVID-19 on services needed for a reduced ridership base. Vehicle service hours decreased 31.2 percent over the audit period while vehicle service miles decreased 28.6 percent over the audit period. In addition to the reduction of services during the time of the pandemic with fewer students on campus requiring service, Unitrans suffered from driver shortages seen across Yolo County and the transit industry at large, which led to disruptions in services provided.
4. Operating cost per passenger, an indicator of cost effectiveness, increased 1,177.2 percent from \$1.46 during the FY 2018 base year to \$18.62 during FY 2021. The effects of COVID-19 explain the steep increase in this metric as operating costs continued to rise comparative with the previous audit period while total passengers fell dramatically. From the FY 2018 base year to FY 2019, there was a more modest increase of 10 percent from \$1.46 to \$1.56 before the effects of the pandemic can be seen.
5. Operating cost per hour, an indicator of cost efficiency, increased 61.7 percent from \$73.96 during the FY 2018 base year to \$119.61 during FY 2021. The trend in this indicator is reflective of the effects of COVID-19, where operating costs remained consistent while hours of operation were reduced. When comparing the increases in operating cost per hour, FY 2018–FY 2019 exhibits a slight increase of 4 percent, compared to an increase of 35 percent for FY 2019–FY 2020 and an increase of 15 percent for FY 2020–FY 2021.
6. Despite the effects of COVID-19 on ridership and hours of operation, Unitrans exceeded the 20 percent farebox ratio requirement. For the three-year audit period, the combined farebox recovery ratio (with Davis Community Transit [DCT]) was 44.48 percent in FY 2019; 53.42 percent in FY 2020; and 62.42 percent in FY 2021. A contributing factor in why farebox recovery remained high despite the effects of COVID-19 on ridership was due to the structure

in which Unitrans fares are built into UC Davis student fees. Student enrollment continued to grow during the audit period with a 14 percent increase in fall 2021 enrollment alone and annual fees were also increased over the audit period.

Detailed Functional Review

1. Prior to the pandemic, Unitrans was averaging roughly 21,000 riders daily with the majority being UCD students. Ridership was severely impacted by the pandemic and Unitrans hoped to recover beginning in FY 2022 as in-person instruction begins again on campus. Routes are reviewed annually, and schedule changes are implemented in August before the start of UCD's fall quarter. Typically, UCD has a 15 passenger per hour criteria that is used to determine if a route should be considered for elimination or other service intervention. This criterion may be adjusted depending on the rate of recovery of its ridership post pandemic.
2. Unitrans is unique in that UCD students compose 90 percent of employees including all drivers and other areas of operation such as maintenance, administration, and support functions. The students are managed and guided under the supervision of professional career staff within the transit system. Typically, it takes approximately 175 drivers to operate regular bus service. In FY 2021, Unitrans had approximately 115 drivers with this count decreasing with the next class of drivers graduating. Prior to the pandemic, there had been challenges with retention and turnover given the temporary nature of student drivers who eventually move on post-graduation. Drivers have an average tenure of 1.5 to 2 years with a rate of attrition between 40 to 50 percent. Career training staff has been added which should help with issues related to training new staff and retention as new federal regulations in 2020 mandate that training personnel to have at least two years of experience driving a transit bus, a requirement that will exclude more undergraduates.
3. The maintenance department is staffed with 5 career mechanics as well as student shop assistants. A mechanic hired during the audit period has electric vehicle servicing experience, a useful resource as Unitrans transitions to an electric fleet. The student mechanics work under the supervision of the career journeyman mechanics, who sign off on the repair work. Interest in the undergraduate maintenance training program has remained strong and remains very popular among undergraduates. All maintenance is performed in-house, which allows for better quality control and quicker turnaround times.
4. In prior audit periods, the Unitrans Advisory Committee (UAC), staffed by City of Davis public works staff, met annually to review proposed service changes for the following academic year and address any issues raised by the public. In FY 2018, the UAC meeting schedule was changed from annual to quarterly, which has helped the UAC to provide more timely information to the public and engage in better dialogue with community and student stakeholders. Quarterly transit coordination meetings are also held between Unitrans, DCT, and Yolo County Transportation District. These meetings have moved to being held virtually through Zoom in response to the pandemic.

5. The current general manager has been with the agency since June 2017 following the retirement of the prior general manager toward the end of FY 2017. The current general manager is a UCD alumnus and a former Unitrans student employee.
6. In FY 2018, Unitrans began to replace its aging plexiglass paneled shelters through the city. This project began in FY 2019 after Unitrans staff worked with the City of Davis to acquire the necessary permits to replace the shelters at 20 different locations. The first phase of this project was completed in fall of 2019. With the success of this first phase, Unitrans set out to rehabilitate 17 more shelters as well as install three new shelters on Fifth Street at Windmere Apartments Eastbound, Fifth Street at Spafford Street Eastbound, and Fifth Street at Spafford Street Westbound and two additional shelters near Fifth Street at the new Sterling Apartments. The bus stop improvement project was completed in FY 2021, replacing a total of 37 shelters.
7. Unitrans was awarded \$1.2 million in federal State of Good Repair funding to rehabilitate its aging 2009 New Flyer single deck bus fleet. This funding will be used to rehabilitate 13 buses and help extend the useful life of these vehicles as well as increase passenger capacity through seating improvements inside the buses. Unitrans also secured funding for 14 battery electric buses aimed at replacing 14 aging CNG buses. To purchase the buses, Unitrans has battery-electric bus options in an active joint procurement with the California Department of General Services. Unitrans completed negotiations for all 14 buses in June 2021 and has a purchase agreement in place for six buses in early 2022, four buses in early 2023, and four buses in early 2024. The first six were due by February 2022.
8. An internal audit of Unitrans's operations was conducted at the end of the previous audit period. The UCD Audit and Management Advisory Services Department performed a financial review of Unitrans to verify financial projections, degree of net deficit, and financial tracking tools, and made recommendations to resolve the deficit. The review found that despite the deficit, Unitrans was operating in an efficient and fiscally responsible manner. In April 2019, the Unitrans Workgroup used this review to make additional recommendations to improve the deficit. Progress was made towards some of these recommendations; however, the pandemic slowed the ability for Unitrans to implement all the recommendations.
9. Unitrans instituted a fee referendum during the audit period, its first since 2008. The proposed fee referendum would increase the \$34.50 fee each student already pays for Unitrans services by an additional \$13.33 per quarter. The Unitrans Winter 2019 Fee Referendum passed with a 91.6 percent "yes" vote based on an undergraduate voter turnout exceeding 35 percent in February 2019. The 2019 Unitrans Fee Referendum is indexed to inflation and 25 percent of the fee will be returned to student aid as required by University of California policy. This referendum has proved successful at achieving its goal of stabilizing the operating budget prior to the pandemic.

Recommendations

Performance Audit Recommendation	Background	Timeline
1. Look to address additional accounting burden resulting from the implementation of audit deficiency findings and the upcoming "Aggie Enterprise" financial management system by the University	During the audit period, both the FY 2020 and FY 2021 audits noted that "Unitrans' has not been assigned a full chart of accounts by ASUCD to report its financial activity consistently with Unitrans' audited financial statements. This results in numerous reclassifying entries being needed to facilitate financial reporting." As a result, a deficiency finding was made and a recommendation put forth that Unitrans develop a full, self-balancing set of accounts that is consistent with its reporting requirements and facilitates accurate and complete reporting of all financial activity. At about the same time, UC Davis began a transition from its current Kuali Financial System (KFS) to a new Oracle-based platform called "Aggie Enterprise" as part of a UC-wide initiative to establish a common chart of accounts and institute best accounting practices across all UC campuses. Scheduled to go live on July 1, 2023, the timing of this initiative is beneficial to Unitrans as it works to address the deficiency finding. At the same time, however, Unitrans has determined that the implementation of Aggie Enterprise and establishment of a full Unitrans chart of accounts will create a far more complex set of accounting requirements than Unitrans or ASUCD staff has worked with in the past. Unitrans realizes that it does not currently employ staff with the kind of accounting experience and knowledge to properly manage a complete set of accounts with all of the fund (grant) and account reconciliation, period close, and reporting activities that are required. Consequently, it is recommended that Unitrans address this issue with ASUCD and the University to ensure that Unitrans has the staff resources necessary to carry out its financial accounting, management, and reporting responsibilities in compliance with TDA requirements. This includes completion of all activities necessary to prepare accurate and complete account and grant reconciliations on at least a quarterly basis and the	High Priority

Performance Audit Recommendation	Background	Timeline
	financial system transactions necessary to achieve this objective, and to accurately prepare, complete and submit all necessary period close transactions and annual fiscal and compliance reports in a timely manner.	
2. Aim to restore service to pre-pandemic levels and reevaluate transit operational areas of improvement	The pandemic has had a dramatic effect on the transportation industry as a whole. Normal metrics used to assess areas of strengths and areas of weakness were masked by factors on ridership and service outside of Unitrans's control. Unitrans has a history of detailed reviews each year provided in the General Manager's Reports with analysis of both its services and finances that help inform system-wide changes. As the pandemic recedes, how public transit is utilized may change and "pre-pandemic" levels may not see similar trends as prior to March 2020. Unitrans should continue to review its services as it has in the past while also addressing areas that may not fit the needs of the Unitrans rider community, due to pandemic-related changes to how services are utilized.	High Priority
3. Consider studying and implementing a microtransit demand response service	Prior to the pandemic, Unitrans reported that new transportation alternatives from on-demand services like Uber and Lyft have impacted Unitrans ridership. Many students utilize these services to commute to and from campus. On-demand microtransit services have been implemented by surrounding transit operators and have been measured with a degree of success. Even with the effects of the COVID-19 pandemic, demand-response services had been impacted far less than fixed-route services. It is recommended that Unitrans review potential microtransit options for its student base at UC Davis. Microtransit could be an option to provide convenient, efficient service to riders during low demand periods. Additionally, these services could cover time periods in which fixed route does not provide transportation to the UC Davis student body.	Medium Priority

Section I

Introduction

California's Transportation Development Act (TDA) requires that a triennial performance audit be conducted of public transit entities that receive TDA revenues. The performance audit serves to ensure accountability in the use of public transportation revenue.

The Sacramento Area Council of Governments (SACOG) engaged the Michael Baker International audit team (Michael Baker) to conduct the TDA triennial performance audit of the nine public transit operators under its jurisdiction. This performance audit is conducted for Unitrans, covering the most recent triennial period, fiscal years 2018-19 through 2020-21.

The purpose of the performance audit is to evaluate Unitrans's effectiveness and efficiency in its use of TDA funds to provide public transportation in its service area. This evaluation is required as a condition for continued receipt of these funds for public transportation purposes. In addition, the audit evaluates Unitrans's compliance with the conditions specified in the California Public Utilities Code (PUC). This task involves ascertaining whether Unitrans is meeting the PUC's reporting requirements. Moreover, the audit includes calculations of transit service performance indicators and a detailed review of the transit administrative functions. From the analysis that has been undertaken, a set of recommendations has been made which is intended to improve the performance of transit operations.

In summary, this TDA audit affords the opportunity for an independent, constructive, and objective evaluation of the organization and its operations that otherwise might not be available. The methodology for the audit included in-person interviews with management, collection and review of agency documents, data analysis, and on-site observations. The *Performance Audit Guidebook for Transit Operators and Regional Transportation Planning Entities*, published by the California Department of Transportation (Caltrans), was used to guide in the development and conduct of the audit.

Overview of the Transit System

Unitrans is the principal fixed-route public transit operator serving the City of Davis and the University of California, Davis (UCD). The service began under the name University Transport System in 1968. At this time, the Associated Students, University of California, Davis (ASUCD) purchased two vintage London double-decker buses to operate on two routes. Unitrans opened its services to the general public in 1972 with partial funding provided by the City of Davis. Since then, ASUCD and the City of Davis have continued partnering to provide public transit service. Unitrans now serves the entire city with 51 buses on 18 routes, and carried over 4 million passengers a year—over 23,000 on a typical day prior to the COVID-19 pandemic.

Davis is the largest of the four incorporated cities in Yolo County and is the home to UCD. The city lies at the junction of Interstate 80 and State Route (SR) 113 and is located 12 miles west of Sacramento and 8 miles south of Woodland, the county seat. The city has a total land area of 9.89 square miles. Founded in 1868 as a depot for the Southern Pacific Railroad, Davis was incorporated in 1917 and has a council-manager form of government. Based on the 2020 US Census, the city's population was 66,850, of which 7,745 or 11.3 percent was age 65 or older according to 2019 ACS 5-Year Estimates. The 2022 population is estimated to be 64,869 as reported by the California Department of Finance.

As a nationally and internationally esteemed university, UCD is closely tied to the City of Davis, both economically and in how the city has developed over the years. UCD's undergraduate enrollment for the fall of 2020-21 was reported at 31,162 students. The campus is adjacent to the Davis city limits, in unincorporated Yolo County. It consists of four units:

- Central Campus – located just west of downtown Davis, the Central Campus runs along Hutchison Drive, the main roadway that bisects the campus. The Central Campus is where most of UCD's academic, housing, and support facilities are located. It also includes the Health Sciences District.
- West Campus – located west of SR 113 and south of Russell Boulevard, this area's primary purpose is for field teaching and research facilities. It is home to the new West Village development.
- South Campus – located south of I-80 along Old Davis Road, this area consists mostly of field teaching and research facilities.
- Russell Ranch – located approximately 6 miles west of the Central Campus along Russell Boulevard, Russell Ranch supports large-scale agricultural and environmental research, sustainable agricultural practices, and habitat mitigation.

System Characteristics

Unitrans operates 18 separate, lettered fixed routes that operate weekdays from 6:25 a.m. to 11:00 p.m. Weekend service is operated from 8:20 a.m. to 7:00 p.m. The naming designation for all Unitrans routes is the letter of the line and then the main destinations covered (e.g., P-Davis Perimeter Counterclockwise, or D-Lake Blvd/Arlington). The service is focused primarily on connecting various student-cluster neighborhoods with the UCD campus, but service is also provided throughout the city. The route system is depicted in Table I-1 and Figures I-1 and I-2.

The UCD campus has two main terminals: the Memorial Union (MU) Terminal and the Silo Terminal (Silo). The MU Terminal is the major transfer center, including bus layover pads for Unitrans and Yolobus, shelters, benches, information, and other passenger amenities. The Silo is located along the Hutchison corridor, which bisects the UCD campus. Fairfield/Suisun Transit moved operations to the Silo Terminal in FY 2018. The Silo Terminal also has the Causeway

Connection service which is jointly operated by YoloBus and Sacramento Regional Transit and connects UC Davis campus to the UC Davis Medical Center in Sacramento.

Eleven routes serve the MU and seven routes serve the Silo. The T Line, which provides service to the junior high schools and high school, does not serve either UCD terminal. Five service types operate according to the UCD school calendar:

- Regular Service operates Monday through Friday on all scheduled lines except the O Line. There is no night service on Fridays, with the last run being 8:10 p.m.
- Weekend Service operates Saturday and Sunday from the MU Terminal on select lines.
- Finals Service is free and operate during days of UCD finals. Night service runs Monday through Friday on the Finals Service.
- Summer Service operates from the end of UCD spring quarter to the start of the fall quarter. All locations are served but with less frequency.
- Break Service operates from the MU Terminal on select lines. The Silo Terminal is NOT served. The A, C, D, J, and W lines do NOT operate. The L and V run from the MU.

Unitrans does not operate on Thanksgiving, Christmas Eve, Christmas, New Year's Eve, and New Year's Day. On the other holidays, weekend schedule service applies. Unitrans operates a weekend service schedule on Martin Luther King Jr. Day, Presidents' Day, Memorial Day, Labor Day, Veterans Day, and the day after Thanksgiving. Unitrans ends service early the day prior to Thanksgiving.

Table I-1
Unitrans Route Summary

Line	Line Description	Terminal Hub	Service Type
A	Amtrak/5 th Street/Alhambra	Silo	Regular/Finals/Summer
B	Sycamore/Drake/U-Mall	MU	Regular/Finals/Summer/Break
C	Wake Forest/Sycamore	Silo	Regular/Finals/Summer
D	Lake/Arlington	Silo	Regular/Finals/Summer
E	Downtown/F Street/J Street	MU	Regular/Finals/Summer/Break
F	Oak/Anderson/F Street	MU	Regular/Finals/Summer/Break
G	Anderson/Alvarado/N. Sycamore	MU	Regular/Finals/Summer/Break
J	Anderson/Alvarado/N. Sycamore	Silo	Regular/Finals/Summer
K	Lake/Arlington/Arthur	MU	Regular/Finals/Summer/Break
L	E. 8 th /Pole Line/Moore/Loyola	Silo (MU-	Regular/Finals/Summer/Break

Line	Line Description	Terminal Hub	Service Type
		Break)	
M	B Street/Cowell/Drew	MU	Regular/Finals/Summer/Break
O	Shopper Shuttle/Downtown/Target/ Davis Manor	MU	Weekend
P	Davis Perimeter Counterclockwise	MU	Regular/Finals/Summer/Break
Q	Davis Perimeter Clockwise	MU	Regular/Finals/Summer/Break
T	Davis High	Weekday Tripper Service	
V	West Village	Silo (MU-Break)	Regular/Finals/Summer/Break
W	Cowell/Lillard/Drummond	Silo	Regular/Finals/Summer
Z	Amtrak/5 th Street/Target	MU	Regular/Finals/Summer/Break

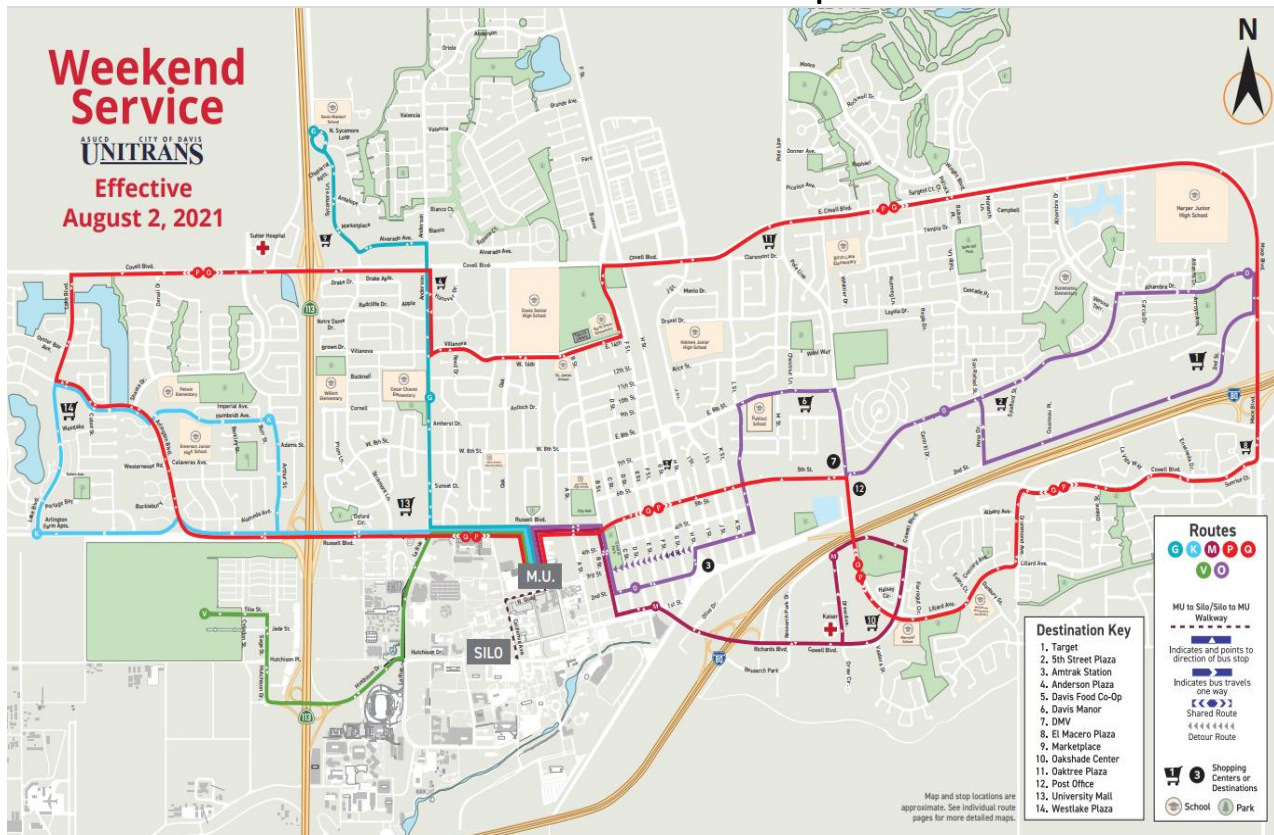
Source: Unitrans

Unitrans operates weekend service from the MU Terminal on the G, K, M and V lines as well as on the Davis Perimeter Lines P and Q Lines. Unitrans also provides weekend service out of the MU Terminal with Line O, which has no weekday service.

Figure I-1
Unitrans Weekday Route Map



Figure I-2
Unitrans Weekend Route Map



Fares

Unitrans's fare structure is based primarily on fare media although cash fares are accepted (exact fare only). Most of the ridership is composed of UCD students in possession of an undergraduate Aggie Card, which allows for unlimited access on the system. Other rider categories such as senior citizens, persons with disabilities, Medicare card holders and City of Davis employees have unlimited access to the system with proper identification presented to the driver. Up to two children under the age of five ride free per one fare-paying adult. During the audit period, Unitrans introduced the "Youth Pass," which allows youth 18 and under to ride fare free with a Unitrans youth pass or with a current, valid student identification card from the Davis Joint Unified School District.

The fare structure is shown in Table I-2.

**Table I-2
Unitrans Fare Schedule**

Fare Categories	Audit Period
Single Ride (Ages 5-59)	\$1.25
UCD Undergraduate (With Aggie Card)	Unlimited Access
UCD Undergraduate (Without Aggie Card)	\$1.25
Seniors (Age 60 or Older) with Senior Pass/Medicare Card	Unlimited Access
Seniors (Without ID)	\$1.25
Customer with Disabilities (With Disabled Pass)	Unlimited Access
Ten-Ride Ticket	\$7.50
Monthly Pass	\$30.00
Quarterly Pass	\$77.00
Annual Pass	\$216.00

Source: Unitrans

Other fare media include ten-ride tickets as well as monthly, quarterly, and annual passes. Unitrans also accepts interagency transfers from the Amtrak Capitol Corridor, Davis Community Transit, Fairfield-Suisun Transit, Sacramento Regional Transit District, and YoloBus. Unitrans does not accept the Connect Card used by transit agencies in the surrounding areas. Unitrans has expressed interest in utilizing ZipPass, which would link its riders' mobile fares with surrounding operators like SacRT and YoloBus.

Fleet

There were 51 vehicles in the total fleet during the audit period, including four vintage double-decker buses (two of which are inactive) and four newer models. Unitrans operates a compressed natural gas (CNG) powered fleet except for the double-decker buses and two Glaval Titan Low Floor buses. Most vehicles are equipped with wheelchair ramps in conformance with the Americans with Disabilities Act (ADA). Table I-3 shows the vehicle fleet and service type.

**Table I-3
Unitrans Fleet**

Year	Make & Model	Quantity	Fuel Type	Seating Capacity
1948	AEC (Double Decker)	1	Diesel	54
1950	AEC (Double Decker) - INACTIVE	1	CNG	54
1952	AEC (Double Decker) - INACTIVE	1	Diesel	54
1954	AEC (Double Decker)	1	Diesel	54
2006	Orion V	4	CNG	36 (2 W/C)
2009	New Flyer C40LFR	25	CNG	40 (2 W/C)
2010	Alexander Dennis Enviro 500 (Double Decker)	2	Diesel	81 (2 W/C)
2014	New Flyer XN40	3	CNG	37 (2 W/C)
2016	New Flyer XN40	4	CNG	37 (2 W/C)
2019	Alexander Dennis Enviro 500 (Double Decker)	2	Diesel	81 (2 W/C)
2019	Glaval Titan Low Floor	2	Unleaded	20 (2 W/C)
2020	New Flyer XN40	5	CNG	37 (2 W/C)
Total		51		

Note: Electric vehicles were delivered and put in service after the audit period.

Source: Unitrans

W/C=Wheelchair

Section II

Operator Compliance Requirements

This section of the audit report contains the analysis of Unitrans’s ability to comply with state requirements for continued receipt of TDA funds. The evaluation uses Caltrans’s *Performance Audit Guidebook* to assess transit operators. The guidebook contains a checklist of 11 measures taken from relevant sections of the PUC and the California Code of Regulations. Each requirement is discussed in the table below, including a description of the system’s efforts to comply with the requirements. In addition, the findings from the compliance review are described in the text following the table.

Table II-1 Operator Compliance Requirements Matrix		
Operator Compliance Requirements	Reference	Compliance Efforts
The transit operator submitted annual reports to the RTPA based upon the Uniform System of Accounts and Records established by the State Controller. Report is due within seven (7) months after the end of the fiscal year (on or before January 31). The report shall contain underlying data from audited financial statements prepared in accordance with generally accepted accounting principles, if this data is available.	Public Utilities Code, Section 99243	Completion/submittal dates: FY 2019: January 24, 2020 FY 2020: February 1, 2021 FY 2021: March 2, 2022 Conclusion: Partial Compliance.
The operator has submitted annual fiscal and compliance audits to the RTPA and to the State Controller within 180 days following the end of the fiscal year (Dec. 27) or has received the appropriate 90-day extension by the RTPA allowed by law.	Public Utilities Code, Section 99245	Completion/submittal dates: FY 2019: December 27, 2019 FY 2020: January 25, 2021 FY 2021: June 22, 2022 The FY 2020 annual fiscal and compliance audit was submitted within the 90-day extension period by the RTPA

Table II-1 Operator Compliance Requirements Matrix		
Operator Compliance Requirements	Reference	Compliance Efforts
		as allowed by law. The FY 2021 annual fiscal and compliance audit was submitted after the 90-day extension period. Conclusion: Partial Compliance.
The CHP has, within the 13 months prior to each TDA claim submitted by an operator, certified the operator's compliance with Vehicle Code Section 1808.1 following a CHP inspection of the operator's terminal.	Public Utilities Code, Section 99251 B	Unitrans participates in the CHP Transit Operator Compliance Program, in which the CHP conducted inspections within the 13 months prior to each TDA claim. Inspections took place at the Unitrans operations and maintenance facility located at 800 Garrod Drive on the UCD campus. Inspection dates applicable to the audit period were August 4-5, 9, and September 20, 2018; September 3-5, 2019; June 22-23 and July 14, 2020; and August 2-4, 17, 2021. Inspections were found to be satisfactory. Conclusion: Complied.
The operator's claim for TDA funds is submitted in compliance with rules and regulations adopted by the RTPA for such claims.	Public Utilities Code, Section 99261	As a condition of approval, Unitrans's annual claims for Local Transportation Funds and State Transit Assistance is included in the City of Davis's submittal to SACOG in compliance with the rules and regulations adopted by SACOG. The City submits a TDA claim for its apportionment share and allocates to the recipient agencies according to budgeted amounts. Conclusion: Complied.

Table II-1 Operator Compliance Requirements Matrix		
Operator Compliance Requirements	Reference	Compliance Efforts
If an operator serves urbanized and non-urbanized areas, it has maintained a ratio of fare revenues to operating costs at least equal to the ratio determined by the rules and regulations adopted by the RTPA.	Public Utilities Code, Section 99270.1	This requirement is not applicable, as Unitrans serves an urbanized area only. Conclusion: Not Applicable.
The operator's operating budget has not increased by more than 15% over the preceding year, nor is there a substantial increase or decrease in the scope of operations or capital budget provisions for major new fixed facilities unless the operator has reasonably supported and substantiated the change(s).	Public Utilities Code, Section 99266	Percentage change in Unitrans's operating budget: FY 2019: +6.8% FY 2020: +10.7% FY 2021: +9.0% <i>Source: Unitrans - ASUCD Budgets for FYs 2018-2021</i> Conclusion: Complied.
The operator's definitions of performance measures are consistent with Public Utilities Code Section 99247, including (a) operating cost, (b) operating cost per passenger, (c) operating cost per vehicle service hour, (d) passengers per vehicle service hour, (e) passengers per vehicle service mile, (f) total passengers, (g) transit vehicle, (h) vehicle service hours, (i) vehicle service miles, and (j) vehicle service hours per employee.	Public Utilities Code, Section 99247	A review of Unitrans annual reports and driver count sheets indicate overall compliance. Conclusion: Complied.

Table II-1 Operator Compliance Requirements Matrix														
Operator Compliance Requirements	Reference	Compliance Efforts												
If the operator serves an urbanized area, it has maintained a ratio of fare revenues to operating costs at least equal to one-fifth (20 percent), unless it is in a county with a population of less than 500,000, in which case it must maintain a ratio of fare revenues to operating costs of at least equal to three-twentieths (15 percent), if so, determined by the RTPA.	Public Utilities Code, Sections 99268.2, 99268.3, 99268.12, 99270.1	Pursuant to the TDA, SACOG has established a consolidated 20 percent farebox ratio for Unitrans and Davis Community Transit (DCT) in the City of Davis. According to SACOG TDA Guidelines, Unitrans is subject to a 20 percent farebox recovery ratio. Unitrans's operating ratios using audited data were as follows: <table border="1"> <tr> <th>Fiscal Year</th><th>Unitrans Only</th><th>DCT & Unitrans</th></tr> <tr> <td>FY 2019</td><td>49.34%</td><td>44.48%</td></tr> <tr> <td>FY 2020</td><td>58.81%</td><td>53.42%</td></tr> <tr> <td>FY 2021</td><td>68.78%</td><td>62.42%</td></tr> </table> <i>Source: Unitrans Audited Financial Statements</i> Conclusion: Complied.	Fiscal Year	Unitrans Only	DCT & Unitrans	FY 2019	49.34%	44.48%	FY 2020	58.81%	53.42%	FY 2021	68.78%	62.42%
Fiscal Year	Unitrans Only	DCT & Unitrans												
FY 2019	49.34%	44.48%												
FY 2020	58.81%	53.42%												
FY 2021	68.78%	62.42%												
If the operator serves a rural area, or provides exclusive services to elderly and disabled persons, it has maintained a ratio of fare revenues to operating costs at least equal to one-tenth (10 percent).	Public Utilities Code, Sections 99268.2, 99268.4, 99268.5	This requirement is not applicable, as Unitrans serves an urbanized area only. Conclusion: Not Applicable.												
The current cost of the operator's retirement system is fully funded with respect to the officers and employees of its public transportation system, or the operator is implementing a plan approved by the RTPA which will fully fund the retirement	Public Utilities Code, Section 99271	Unitrans, as an enterprise of UCD, contributes to its employees' retirement through the University of California Retirement Plan. To be eligible for TDA funds, the annual TDA claims form requires a sign-off from the transit claimant to comply with standard assurances, one of which is that the agency's retirement system is funded.												

Table II-1 Operator Compliance Requirements Matrix		
Operator Compliance Requirements	Reference	Compliance Efforts
system within 40 years.		Conclusion: Complied.
If the operator receives state transit assistance funds, the operator makes full use of funds available to it under the Urban Mass Transportation Act of 1964 before TDA claims are granted.	California Code of Regulations, Section 6754(a)(3)	Unitrans utilizes federal funds that are available to the agency, as reported in the National Transit Database as follows: FY 2019: \$1,762,854 (operations) \$2,037,701 (capital) FY 2020: \$2,275,058 (operations) \$2,719,011 (capital) FY 2021: \$2,220,789 (operations) \$1,856,119 (capital) <i>Source: Form F-10, National Transit Database</i> Conclusion: Complied.

Findings and Observations from Operator Compliance Requirements Matrix

1. Of the compliance requirements pertaining to Unitrans, the operator fully complied with seven of nine requirements. Unitrans was in partial compliance with regard to the completion and submittal of the Transit Operators' Financial Transactions Report to the State Controller and the timely completion of the FY 2021 annual fiscal and compliance audit. Two additional compliance requirements did not apply to Unitrans (i.e., rural/blended farebox recovery ratios).
2. Pursuant to the TDA, SACOG has established a consolidated 20 percent farebox ratio for Unitrans and Davis Community Transit in the City of Davis. According to SACOG TDA Guidelines, Unitrans is subject to a 20 percent farebox recovery ratio. For the three-year audit period, the combined farebox recovery ratio was 44.48 percent in FY 2019; 53.42 percent in FY 2020; and 62.42 percent in FY 2021. Unitrans exceeded the 20 percent farebox ratio requirement.
3. Unitrans participates in the CHP Transit Operator Compliance Program and received vehicle inspections within the 13 months prior to each TDA claim. Satisfactory ratings were made for all inspections conducted during the audit period.
4. The operating budget increased modestly for all three years of the audit period. There was an increase of 6.8 percent in FY 2019 followed by a 10.7 percent increase in FY 2020. For FY 2021, there was a 9.0 percent increase.

Section III

Prior Triennial Performance Recommendations

Unitrans's efforts to implement the recommendations made in the prior triennial audit are examined in this section of the report. For this purpose, each prior recommendation for the agency is described, followed by a discussion of Unitrans's efforts to implement the recommendation. Conclusions concerning the extent to which the recommendations have been adopted by the agency are then presented.

Prior Recommendation 1

Consider reclassifying the human resources manager as a career position in Unitrans.
(High priority)

Background: Due to the challenges faced with retention and turnover due to student-held positions, it was recommended that Unitrans consider reclassifying the human resources manager from a student position to a career position. As a career position, the human resources manager can bring past professional experience with retention and a consistent approach to the job function to recruit, train, and retain staff. Unitrans will need to review future budgets to determine if another career position can be sustainably funded and receive approval from the campus to create and fill a position. Unitrans will also need to review closely how the agency can ensure student involvement and engagement in Human Resources.

Actions taken by Unitrans

Unitrans implemented this recommendation with the addition of a career human resources manager added to the FY 2020-2021 budget; however, due to the University hiring freeze during the pandemic, the position was not filled during the audit period. The position was filled in April 2022.

Conclusion

This recommendation has been implemented.

Prior Recommendation 2

Continue to work with the City of Davis in pursuing ITS solutions to improve on-time performance and service reliability. (Medium priority)

Background: In prior audits, it was recommended that Unitrans and the City expand the successful Russell Boulevard ITS/TSP project to additional corridors within Davis. UCD

commissioned a transit signal priority implementation study that was released in September 2011 and identified key intersections and corridors in Davis that degrade Unitrans's on-time performance (OTP) due to high vehicle and passenger delays. During the previous audit period, OTP declined from 93 percent in FY 2016 to 89 percent in FY 2018.

While service planning staff have been very astute in rerouting certain lines and adjusting schedules to improve reliability, it is suggested that Unitrans and the City revisit traffic signal priority and other ITS solutions. Funding will need to be secured for this effort and a consultant hired, as Unitrans and the City do not have the expertise or resource capability.

Actions taken by Unitrans

Unitrans has not been able to implement this recommendation. Unitrans reports that its ability to influence signal system operations and request information on signal operations is limited. Additionally, during the winter of 2022, both University and City staff confirmed that the transit signal priority systems on the UC Davis campus and Russell Boulevard had been disabled. Neither entity is aware of the reason the systems were disabled or how long they had been disabled. University staff is currently working on bringing systems back online and City staff is reviewing signal timing and priority systems as part of the Reimagine Russell planning vision.

Conclusion

This recommendation has not been implemented.

Prior Recommendation 3

Conduct long-range strategic planning for transit. (Medium priority)

Background: Unitrans, along with the other transit providers in Davis including Davis Community Transit and Yolobus, are addressing transportation needs of different rider markets. General public passengers such as students and commuters, and specialized riders including senior and disabled passengers, each have distinguishing characteristics for travel. While UCD completed its transportation planning process called Transportation Tomorrow addressing mobility and connectivity to the Davis campus, a wider net for strategic planning for transit in the long term should be considered that combines the efforts of the University, Unitrans, and the City. The non-student market should be addressed in the longer term and how growth patterns forecasted by the University and the City impact transit's role as a clear option in crafting a sustainable transportation solution.

The strategic plan could include a strengths, weaknesses, opportunities, and threat (SWOT) analysis that identifies barriers and opportunities to Unitrans's growth within the community for the long term. Unitrans's ongoing coordination with DCT and Yolo County Transportation District is admirable and should include long-term strategic planning for the Davis community.

Funding will need to be secured for this effort and a consultant hired, as Unitrans and the City do not have the expertise or resource capability.

Actions taken by Unitrans

In response to this recommendation, Unitrans and City staff discussed the need for an update on their 10-year short-range transit plan on January 20, 2022, and February 4, 2022. Unitrans plans to work with City staff in 2022 on a scope of work to bid out. Unitrans's goal is to have this plan completed by summer of 2024.

Conclusion

This recommendation is in the process of being implemented.

Section IV

TDA Performance Indicators

This section reviews Unitrans’s performance in providing transit service to the community in an efficient and effective manner. TDA requires that at least five specific performance indicators be reported, which are contained in the following tables. Farebox recovery ratio is not one of the five specific indicators but is a requirement for continued TDA funding. Therefore, farebox calculation is also included. Two additional performance indicators, operating cost per mile and average fare per passenger, are included as well. Findings from the analysis are contained in the section following the tables.

Table IV-1 provides the performance indicators for Unitrans system-wide. Graphs following depict the trends in the indicators.

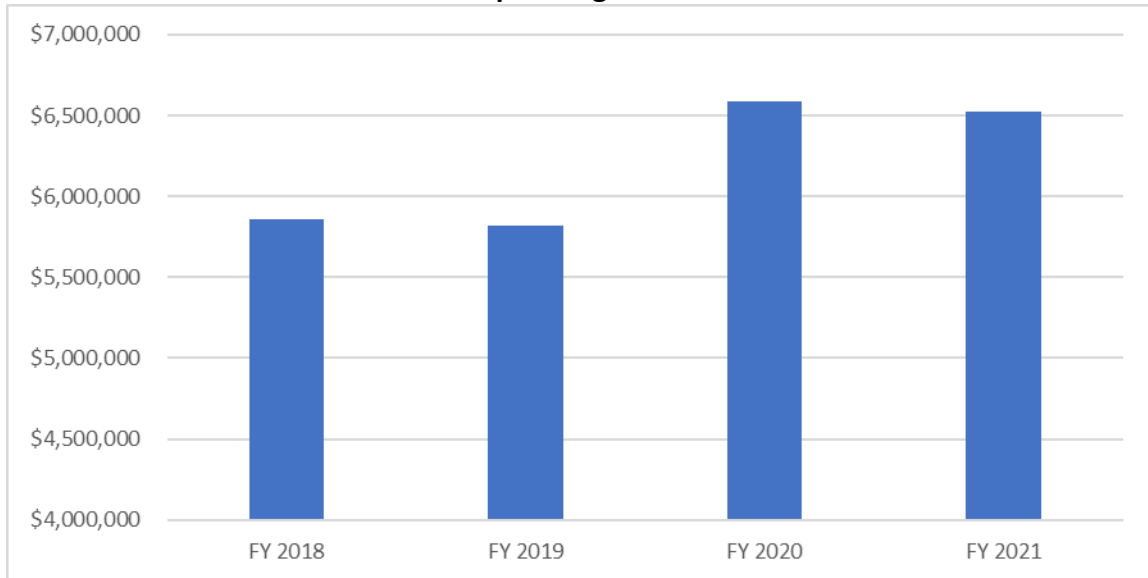
Table IV-1
Unitrans TDA Performance Indicators

Performance Data and Indicators	FY 2018	Audit Period			% Change FY 2018- 2021
		FY 2019	FY 2020	FY 2021	
Operating Cost ¹	\$5,862,267	\$5,821,160	\$6,585,060	\$6,523,514	11.3%
Total Passengers	4,021,956	3,741,782	2,857,127	350,421	-91.3%
Vehicle Service Hours	79,258	75,578	63,133	54,540	-31.2%
Vehicle Service Miles	835,743	799,008	674,451	597,058	-28.6%
Employee FTEs	102	106	95	96	-6.0%
Passenger Fares	\$261,641	\$231,319	\$168,589	\$43,253	-83.5%
Transit Fees	\$2,736,639	\$2,640,727	\$3,704,324	\$4,443,821	62.4%
Passenger Fares + Transit Fees	\$2,998,280	\$2,872,046	\$3,872,913	\$4,487,074	49.7%
Operating Cost per Passenger	\$1.46	\$1.56	\$2.30	\$18.62	1177.2%
Operating Cost per Vehicle Service Hour	\$73.96	\$77.02	\$104.30	\$119.61	61.7%
Operating Cost per Vehicle Service Mile	\$7.01	\$7.29	\$9.76	\$10.93	55.8%
Passengers per Vehicle Service Hour	50.7	49.5	45.3	6.4	-87.3%
Passengers per Vehicle Service Mile	4.81	4.68	4.24	0.59	-87.8%
Vehicle Service Hours per Employee	777.0	715.6	667.2	568.8	-26.8%
Average Fare per Passenger	\$0.75	\$0.77	\$1.36	\$12.80	1617.7%
Fare Recovery Ratio	51.15%	49.34%	58.81%	68.78%	34.5%
Consumer Price Index - (CPI-CA)		3.0%	1.7%	4.2%	9.1%

Source: Unitrans - Audited Financial Statements & Compliance Reports, Transit Operators Financial Transactions Reports

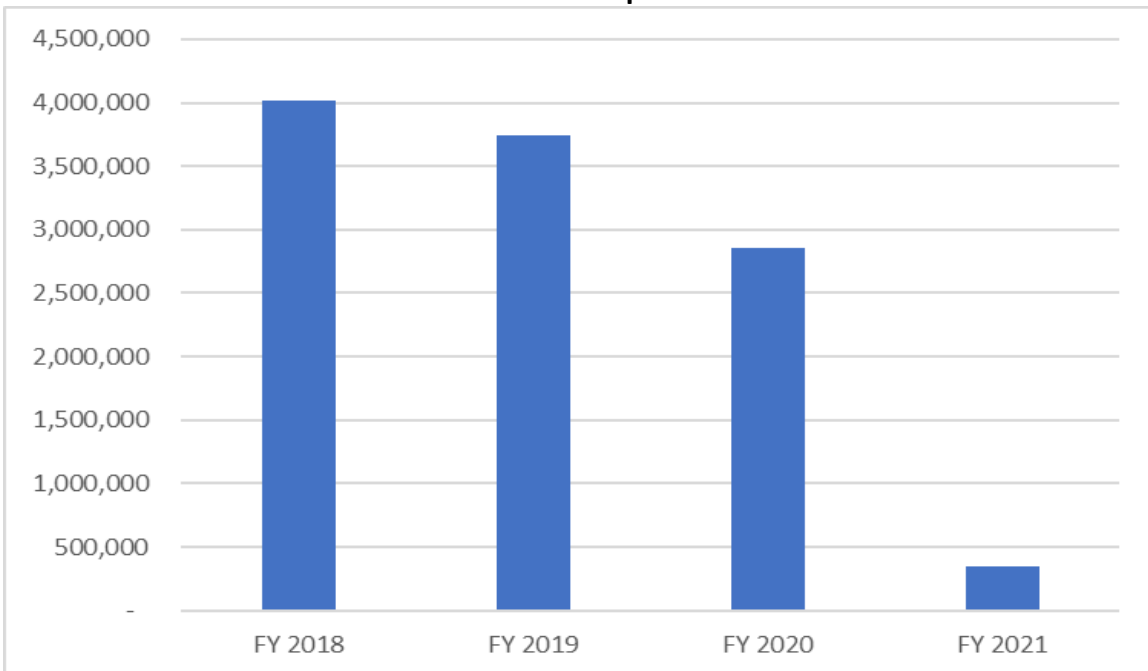
¹ System-wide audited operating costs exclude depreciation.

**Graph IV-1
Operating Costs**

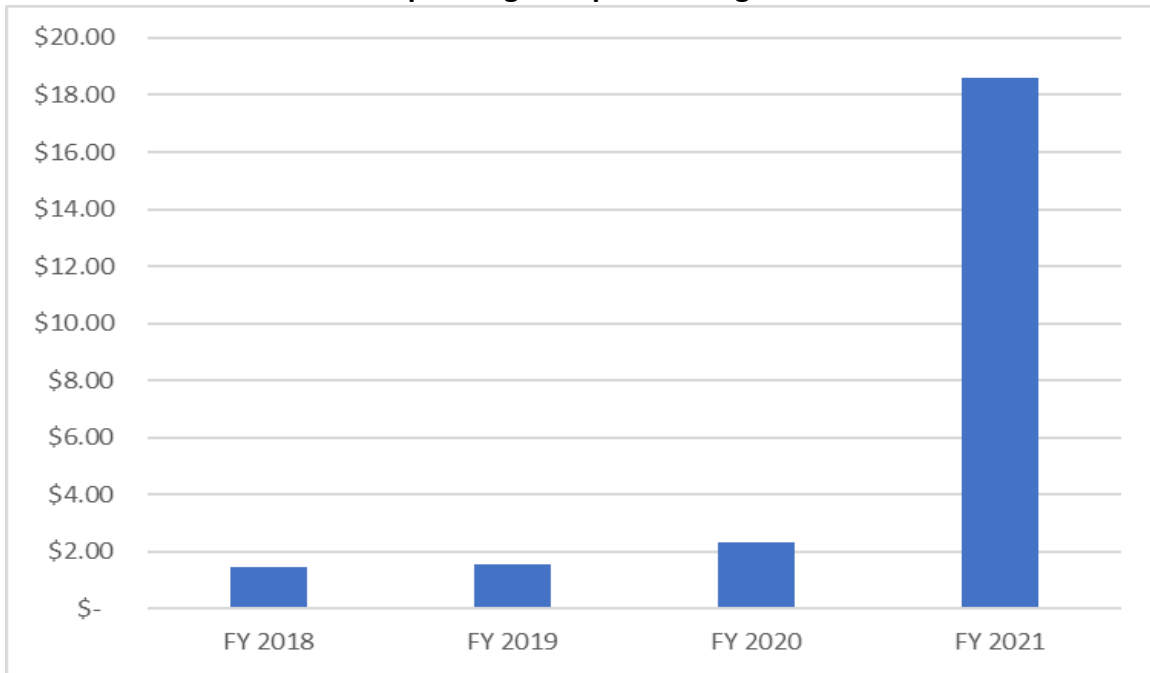


Note: Operating cost is audited data

**Graph IV-2
Ridership**

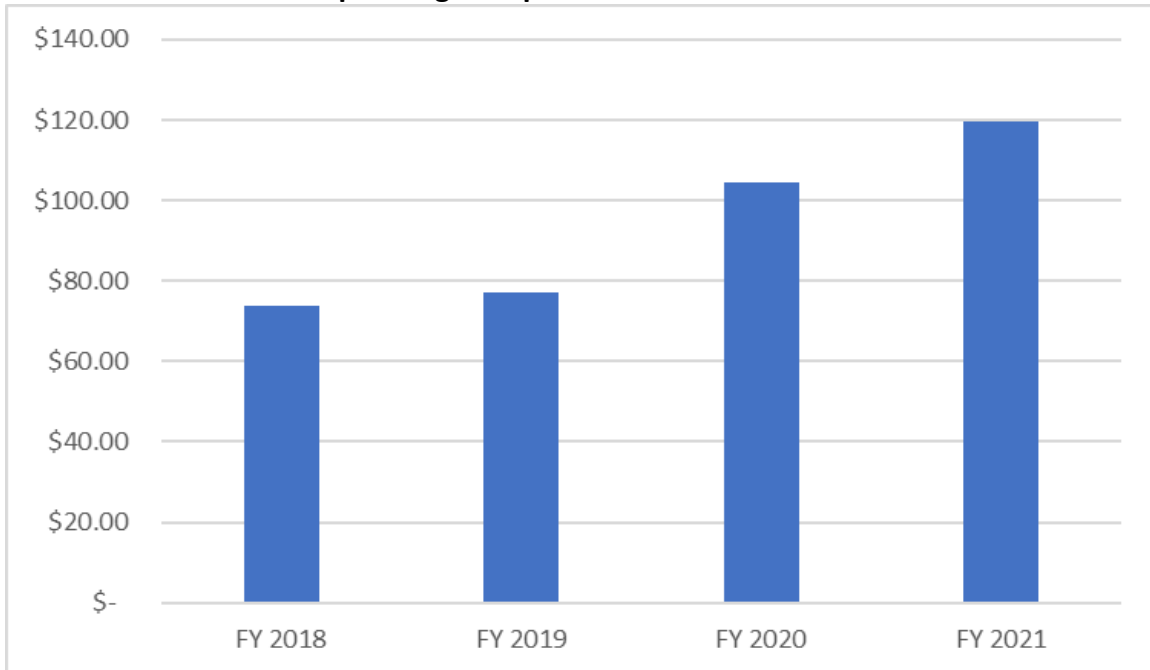


Graph IV-3
Operating Cost per Passenger



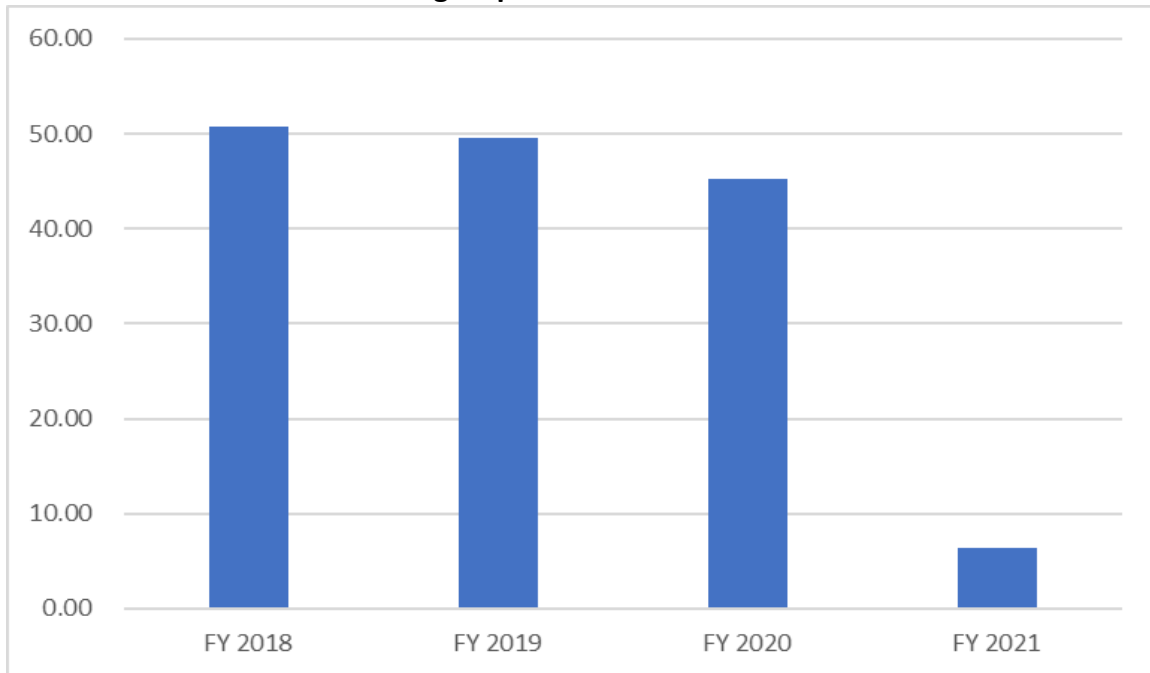
Note: Operating cost is audited data

Graph IV-4
Operating Cost per Vehicle Service Hour

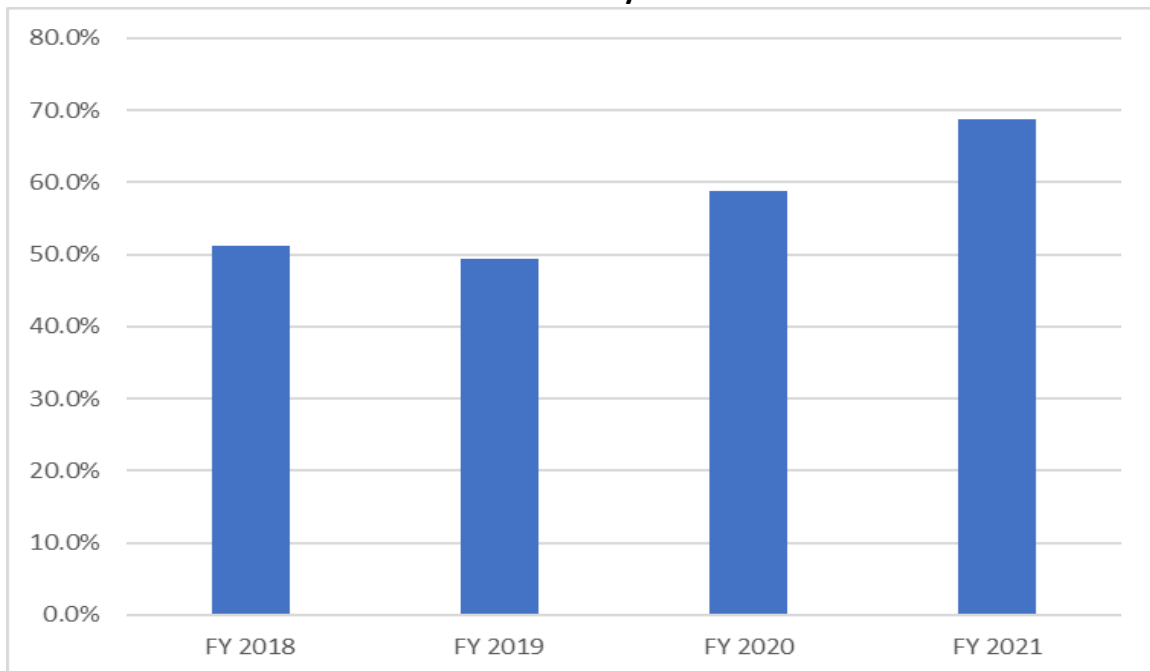


Note: Operating cost is audited data

Graph IV-5
Passengers per Vehicle Service Hour



Graph IV-6
Fare Recovery Ratio



Note: Operating cost and fare revenue are audited data

Findings from Verification of TDA Performance Indicators

1. Operating costs increased by 11.3 percent using audited data from the FY 2018 base year to FY 2021. On an average annual basis, costs increased 3.8 percent, with an increase of 13.1 percent occurring in FY 2020. Operating costs decreased just 0.9 percent in FY 2021. The jump in operating costs seen in FY 2020 can be primarily attributed to higher employee wages and compensation costs to keep pace with the increase in the minimum wage as well as higher rates being paid during the COVID-19 pandemic to retain staff.
2. Ridership decreased 91.3 percent from 4,021,956 trips during the FY 2018 base year to 350,421 trips during FY 2021. On an average annual basis, ridership decreased 39.4 percent, with the highest decrease of 87.7 percent occurring in FY 2021, followed by 23.6 percent decrease in FY 2020. Effects of COVID-19 on ridership are evident in these percentages. Remote learning replaced on-campus learning during the audit period following the initial COVID-19 outbreak as well as during the following variant outbreaks through FY 2021 and was a significant driver of the drop in ridership.
3. Vehicle service hours and miles both exhibited significant decreases from the FY 2018 base year to FY 2021, primarily due to the effects of COVID-19 on services needed for a reduced ridership base. Vehicle service hours decreased 31.2 percent while vehicle service miles decreased 28.6 percent over the audit period. In addition to the reduction of services during the time of the pandemic with fewer students on campus requiring service, Unitrans suffered from driver shortages seen across Yolo County and the transit industry at large, which led to disruptions in services provided.
4. Operating cost per passenger, an indicator of cost effectiveness, increased 1,177.2 percent from \$1.46 during the FY 2018 base year to \$18.62 during FY 2021. The effects of COVID-19 explain the steep increase in this metric as operating costs continued to rise comparative with the previous audit period while total passengers fell dramatically. From the FY 2018 base year to FY 2019, there was a more modest increase of 10 percent from \$1.46 to \$1.56 before the effects of the pandemic can be seen.
5. Operating cost per hour, an indicator of cost efficiency, increased 61.7 percent from \$73.96 during the FY 2018 base year to \$119.61 during FY 2021. The trend in this indicator is reflective of the effects of COVID-19, where operating costs remained consistent while hours of operation were reduced. When comparing the increases in operating cost per hour, FY 2018–FY 2019 exhibits a slight increase of 4 percent, compared to an increase of 35 percent for FY 2019–FY 2020 and an increase of 15 percent for FY 2020–FY 2021.
6. Passengers per hour, which measures the effectiveness of the service delivered, decreased by 87.3 percent from 50.7 passengers during the FY 2018 base year to 6.4

passengers per hour during FY 2021. The indicator is reflective of the decrease of 91.3 percent of passengers over the audit period. By comparison, passengers per hour fell only 2 percent from FY 2018 to FY 2019 versus 86 percent from FY 2020 to FY 2021.

7. Vehicle hours per full-time equivalent (FTE) employee, which measures labor productivity, decreased by 26.8 percent from the FY 2018 base year to FY 2021. This measure is based on the number of employee FTEs using employee pay hours from the State Controller Report and dividing by 2,000 hours per employee. Unitrans's employee count decreased from 102 in FY 2018 to 96 in FY 2021. The student-staffed system has an employee turnover rate of between 40 to 50 percent with the average term of service of 1.5 to 2 years. Due to the effects of the pandemic with fewer students on campus, the ability to recruit and train drivers was disrupted and has led to driver shortages.
8. According to SACOG TDA Guidelines, Unitrans is subject to a 20 percent farebox recovery ratio. Despite the effects of COVID-19 on ridership and hours of operation, Unitrans exceeded the 20 percent farebox ratio requirement. For the three-year audit period, the combined farebox recovery ratio (with DCT) was 44.48 percent in FY 2019; 53.42 percent in FY 2020; and 62.42 percent in FY 2021. A contributing factor in why farebox recovery remained high despite the effects of COVID-19 on ridership was due to the structure in which Unitrans fares are built into UCD student fees. Student enrollment continued to grow during the audit period with a 14 percent increase in fall 2021 enrollment alone and annual fees were also increased over the audit period.

Section V

Review of Operator Functions

This section provides an in-depth review of various functions within Unitrans. The review highlights accomplishments, issues, and/or challenges that were determined during the audit period. The following functions were reviewed with staff at the Operations and Maintenance facility on the campus of UCD. City of Davis Public Works Department staff involved with Unitrans were also interviewed.

- Operations
- Maintenance
- Planning
- Marketing
- General Administration and Management

Within some departments are sub-functions that require review as well, such as Grants Administration that falls under General Administration.

Operations

Unitrans provides public transportation service to the City of Davis with 51 active buses on 18 routes. Routes are reviewed annually, and schedule changes are usually implemented in August before the start of UCD's fall quarter except for changes made as a result of the pandemic.

The demographics and population of the service area, which encompasses the UCD campus and the City of Davis, are primarily stable except for the time period in which UCD moved to remote learning in response to the pandemic. Ridership during the audit period dropped significantly due to the pandemic, transporting almost 4 million in FY 2019 to 2.86 million in FY 2020 to just over 350,000 passengers in FY 2021.

Operations data and service highlights are compiled in the annual Unitrans General Manager's Report. Unitrans made several service adjustments aimed at improving on-time performance (OTP) and productivity; however, the effects of the pandemic impacted Unitrans's ability to implement these changes fully. Prior to the pandemic, Unitrans staff focused on stabilizing and improving OTP and customer reliability. In particular, Unitrans implemented Friday afternoon schedule changes and extra standby buses to mitigate traffic delays related to Mace Boulevard and Interstate 80 traffic. The interventions and adjustments paid off and OTP stabilized and/or trended up on most lines. These delays primarily impacted the P and Q lines. In FY 2019, Unitrans launched a new Davis Joint Unified School District student-focused pilot line called the

S line serving North Davis, West Davis, Davis High School, and Holmes Junior High School. This line, along with the X line weekend-only service connecting the Tercero Dorms to the MU Terminal, were discontinued in FY 2020 due to very low ridership. Following FY 2019, Unitrans was considering significant route changes on the A, P, Q, and Z lines to help reduce travel times and improve performance in East Davis.

Overcrowding has been an ongoing issue for Unitrans for decades and has a negative impact on customer experience and the number of total riders utilizing the service. While overcrowding was not an issue during the pandemic, it can be expected to be a continual factor on the quality of services going forward as services returns to a “normal” state. Student enrollment has increased in recent years and is expected to continue to increase, particularly as UCD built a new dorm during the audit period, part of a Long-Range Development Plan aimed at increasing available beds on campus to at least 15,000 by fall 2023. Unitrans has begun to investigate “fringe” services to help address overcrowding concerns.

Following the outbreak of COVID-19, Unitrans had to transition its focus to adjusting service based on the decreased demand as well as lack of available drivers. This involved reducing service from regular academic year service with 18 lines operating every 15-30 minutes to operating weekend service or six lines operating every 60 minutes. The Unitrans mission going into FY 2022 was to review ridership data, productivity, delays, and trip needs and provide a 2022-2023 service plan that will best meet projected service demands, considering current ridership conditions and driver staffing challenges.

In order to address a fiscal deficit, Unitrans proposed and received approval on a series of service reductions and fare increases for FY 2019. These measures included eliminating weekday service on the C Line and Sunday evening Amtrak Shuttle; reducing midday service from 15 minute to 30-minute headways on the D, G, J, W, and V Lines; increasing the cash fare from \$1.00 to \$1.25; and increasing pass prices by 20 percent. Unitrans implemented fare and pass price increases, midday service reductions, and the elimination of the Amtrak Shuttle but did not eliminate the C Line entirely due to potential overcrowding impacts to adjacent lines.

In FY 2018, Unitrans began to replace its aging plexiglass paneled shelters through the city. This project began in FY 2019 after Unitrans staff worked with the City of Davis to acquire the necessary permits to replace the shelters at 20 different locations. The first phase of this project was completed in fall of 2019. With the success of this first phase, Unitrans set out to rehabilitate 17 more shelters as well as install three new shelters on Fifth Street at Windmere Apartments Eastbound, Fifth Street at Spafford Street Eastbound, and Fifth Street at Spafford Street Westbound and two additional shelters near Fifth Street at the new Sterling Apartments. The bus stop improvement project was completed in FY 2021, replacing a total of 37 shelters. Unitrans has continued to improve its shelters going into FY 2022, focusing on adding backrests to benches to meet ADA compliance regulations. The project estimate is \$50,000.

Driver paddles are entered into a web-based Unitrans database and downloaded into Excel. Starting at the University terminal, the buses generally stay out on the road most of the day.

Drivers call into dispatch at pull-out and check in every 30 minutes on the tripper routes. Each bus is equipped with up to 16 cameras. The vintage double deckers did not have cameras during the audit period however, Unitrans has added cameras to all vintage buses as of Spring 2022. Drivers utilize a trip count sheet and the data from the daily trip count sheets are entered into a proprietary software program that can be downloaded into Excel for analysis. The trip length is already known for each line used to calculate the mileage. Deadhead mileage is added to the calculation, although deadhead is nearly nonexistent based on the location of where the buses are stored and maintained. The sheet also records passenger boarding and alightings. Even though buses are equipped with automated passenger counters (APC), Unitrans relies on driver count sheets and ride checks for data validation. The ride check data are reconciled with the APC data and used to a large extent for planning purposes for each stop and feed into NextBus real-time transit information platform. NextBus is also used to investigate complaints such as pass-ups. Unitrans has investigated Trapeze as a potential scheduling system but does not feel it is worth the resources to invest in for their services provided.

Buses are equipped with manually operated Diamond fareboxes. At the end of each run, staff drop and lock the fareboxes, which are placed into a camera-equipped secure room at the Garrod Road Maintenance & Operations (M&O) facility. One career operations and one career maintenance employee empty the contents of the vaults into money bags in the secure room. The funds are transported to the ASUCD cash room and counted by another career employee. Cash fare revenue exceeding \$5,000 requires an escort of two employees. Unitrans was averaging \$300 to \$400 in daily cash fares prior to the pandemic. Student fee revenue is transferred to Unitrans using internal campus fund accounts.

One of the performance metrics tracked by Unitrans is OTP, defined as a bus arriving at the arrival terminal zero to five minutes late compared to the scheduled arrival time. A summary of OTP trends per line and system-wide is presented in Table V-1:

Table V-1
On-Time Performance

Line	FY 2019	FY 2020	FY 2021
A	85%	84%	96%
B	92%	92%	100%
C	96%	96%	100%
D	92%	92%	100%
E	70%	78%	97%
F	87%	90%	100%
G	96%	96%	100%
J	89%	86%	100%
K	88%	94%	100%
L	97%	97%	100%
M	83%	86%	100%
O	91%	99%	99%

Line	FY 2019	FY 2020	FY 2021
P	80%	84%	98%
Q	68%	76%	96%
V	96%	97%	100%
W	90%	86%	93%
Z	90%	87%	98%
All Lines	88%	89%	99%

Source: Unitrans – General Manager’s Report

Overall OTP declined from the previous audit period through FY 2020, with FY 2019 being Unitrans’s lowest system-wide performance on record. These low OTP trends in FY 2019 can be attributed to fall and winter challenges with increasing traffic and construction on Covell and Cowell Boulevards, Third Street, and Fifth Street. The Q line experienced the largest drop that year, going from 81 percent OTP to 68 percent OTP due to increased congestion around Mace Boulevard in the afternoons. Prior to the pandemic, Unitrans was considering significant route changes on the A, P, Q, and Z lines to help alleviate these OTP issues. In FY 2020, Unitrans worked on improving OTP with several strategies, most notably implementing Friday afternoon schedule changes and extra standby buses to mitigate traffic delays in problem areas like Mace Boulevard and I-80. These changes resulted in improvements in OTP on eight lines, with the Q line improving to 76 percent OTP. FY 2021 saw OTP rise dramatically for all lines, averaging 99 percent for the fiscal year. This can be attributed to historically low ridership as well as reduced traffic as a result of the COVID-19 pandemic. As traffic volumes increased throughout the year, OTP began trending downward in the summer of 2021.

Customer service is another metric used to monitor performance. Unitrans tracks the number of complaints, suggestions, and commendations received from its ridership. Table V-2 summarizes the customer service metrics for the three categories for the period.

Table V-2
Complaints, Suggestions, and Commendations

Category	FY 2019	FY 2020	FY 2021
Complaints	162	135	76
Suggestions	7	9	6
Commendations	4	10	3
Total	173	154	85

Source: Unitrans – General Manager’s Report

The customer service metrics show a decrease in the number of overall complaints, with complaints decreasing every year from FY 2019 to FY 2021. FY 2019 saw the highest number of complaints whereas FY 2021 saw the lowest number. The number of commendations increased from 4 in FY 2019 to 10 in FY 2020 and then down to 3 in FY 2021. Based on the General Manager’s Report data, in FY 2019-2020 the category responsible for the majority of complaints was “Driving” which includes complaints of unsafe operation such as pulling into traffic

unsafely, abrupt stopping, or aggressive driving. The general course of action on these complaints is to pull the video of the incident, review for validity, and if valid, bring the driver in for counseling and retraining, if needed. In FY 2021, the majority of complaints were related to “pass up” or customer bypass complaints. FY 2021 also saw the introduction of a new form of complaints related to COVID-19 such as face covering. Unitrans also began tracking a “Courtesy” complaint in FY 2021 as well as a Title VI suggestion category.

In regard to vehicle safety, Unitrans tracks the number of major accidents. Major incidents are those requiring a party involved to be transported to the hospital or an incident requiring a vehicle to be taken out of service or towed due to damage. Unitrans also determines whether these accidents are “preventable.” According to the Federal Motor Carrier Safety Administration, a preventable accident is one which occurs because the driver fails to act in a reasonably expected manner to prevent it. Safety and incident reports are reviewed daily for trends and commonalities. All incidents are followed up with the safety manager or an operations staff person. The number of major accidents is summarized in Table V-3:

Table V-3
Summary of Major Accidents

	FY 2019	FY 2020	FY 2021
Accidents	3	0	0

Source: Unitrans

Major accidents remained low over the course of the audit period with three in FY 2019 and none in FY 2020 and FY 2021. The three accidents in FY 2019 were all deemed non-preventable based on driver behavior.

While no major accidents occurred in FY 2020, Unitrans experienced its first driver assault in August 2019. Unitrans responded to this incident by implementing improved driver communications protocols to report customer issues as well as a staff ride-along program where staff are paid on evening trips to be an extra set of eyes and ears on the vehicle to support the drivers. The program proved popular with staff and almost 900 ride-alongs have been completed, costing approximately \$15,000.

COVID-19 Pandemic Impacts

As impacts from the novel coronavirus (COVID-19) started to be realized in California, a state of emergency was declared on March 4, 2020. The first confirmed COVID-19 case in Yolo County was reported in early March 2020. In response to the order and pursuant to Centers for Disease Control and Prevention protocols, Unitrans enacted many new protocols.

While service never came to a complete stop, service was reduced dramatically following the stay-at-home orders issued in California. Prior to the pandemic, Unitrans could expect 20,000

riders a day. Following the closing of campus and the transition to remote learning, this daily ridership dropped to 350 riders a day in April 2020. In addition to this loss of ridership, Unitrans lost approximately half of its available drivers with its available driver pool being directly tied to the student body of UC Davis. On March 19, 2020, Unitrans reduced service from regular academic year service with 18 lines operating every 15-30 minutes to operating weekend service or six lines operating every 60 minutes. Unitrans slowly increased service as staffing stabilized and as the health and safety situation was better understood. Service and ridership began to recover in late FY 2021—however, not to pre-pandemic levels. Since March 2020, ridership slowly increased from under 10,000 customers in April 2020 to over 36,000 in June 2021. Ridership has begun to recover in FY 2022 with UC Davis resuming full in-person instruction.

Unitrans implemented several safety measures to protect both riders and employees. Drivers participated in weekly COVID-10 testing and were required to take a daily symptoms survey. Buses were wiped down before each shift and drivers were provided masks, gloves, hand sanitizer and sanitizing wipes before each shift. Plexiglass barriers were installed on buses to separate passengers and riders and tape was put down to signify six feet of social distancing from the drivers. Plastic seats were also installed to replace the cloth ones as they are easier to disinfect, and signs were put on seats to signify they are not to be used to encourage social distancing. Windows also remained open with the ventilation system remaining on to maximize air flow. Bus capacity was reduced to 18 passengers. Buses were disinfected each day with two methods: a disinfecting spray used to wipe down all hard surfaces and a fogging machine used to disinfect the entire interior of the vehicle.

In response to the significant changes in service due to the pandemic, the Planning Department at Unitrans conducted a Customer Survey Report in the fall of 2020. This survey aimed to study changes in travel patterns and confidence levels on COVID-19 related measurements that Unitrans implemented for their customers as well as focusing on the customer's overall experience riding Unitrans and sociodemographic information, such as ethnicity and vehicle owner status. Unitrans collected 267 valid, completed responses out of a total of 363 recorded responses despite the ongoing complications from the pandemic. Some of the key findings from the survey were that around 80 percent of respondents either "strongly agreed" or "somewhat agreed" to the statement "I feel safe and comfortable with the enhanced cleaning and the COVID-19-related measurements that Unitrans is taking." Participants of the survey were also asked for written suggestions of what they would like to see Unitrans doing to make riders feel more comfortable using the service.

Personnel

Unitrans is unique in that drivers and employees are UCD students in all areas of operation including maintenance, administration, and support functions, under the supervision of 15 career staff. The majority of employees are full-time UCD undergraduate students that work part time.

There are approximately 158 drivers, including supervisors and trainers. There have been challenges with retention and turnover. Drivers have an average tenure of 1.5 to 2 years with a rate of attrition between 40 to 50 percent. Unitrans career staff have started aggressively tracking student staff graduation dates and refocused on hiring and recruitment. In FY 2020, Unitrans was projected to exceed driver staffing targets by the end of the fiscal year for the first time in over five years. These projections were undermined by the COVID-19 pandemic as Unitrans lost drivers and trainees with the University moving to remote learning. Unitrans retained enough staff to continue to provide reduced service uninterrupted; however, the lack of available drivers impacted the ability to ramp up service.

Unitrans relied on several methods of addressing driver shortages to limited success. As the University planned to return to on-campus learning in FY 2021, Unitrans projected that there would be a large driver shortage. To improve recruitment, Unitrans instituted “premium” wages to all front-line student employees from March 2020 to July 2021. Premium wages were \$18.75/hr., with base wages at \$17.25/hr. Drivers in training received the base rate during the pandemic, up from \$15.00/hr. they would normally receive. Post audit period, Unitrans had continued its efforts to recruit drivers by offering free housing and meals to trainees during summer 2021. Despite efforts, Unitrans still suffered a shortage of roughly 50 drivers for the Fall 2021 semester. As of August 2022, driver premium wages have been raised to \$19.50/hr and base wages \$18.00/hr.

Unitrans only hires UCD students through the ASUCD. Applications are posted on the ASUCD web page (<https://vacancy.ucdavis.edu>). The hiring manager reviews the applications for qualifications and arranges interviews. Candidates interview before a panel of Unitrans employees. The agency places an emphasis on good safety and time management skills. All drivers are required to work weekend shifts. Disciplinary action consists of a “strike” system for missed shifts, complaints, and unsafe driving.

Drivers are allowed to pick their own shifts to accommodate their school schedules. The majority of shifts are in one-hour increments to enable maximum flexibility with school. Other shifts are 2 to 2.5 hours coinciding with the pull-out and pull-in shifts, with generally two to three drivers on-call each quarter. Driver training is composed of a three-stage process; the process is as follows:

- Classroom Training - Classroom training is two to three 2 -2.5-hour long sessions where trainees go over federal regulations, cover topics relevant to being a transit driver, and prepare to pass the Class B permit test.
- Driver Training (DT) - After passing the permit test, trainees begin driver training. Each trainee will begin training one-on-one with a driver trainer to prepare for the Class B license test. Driver training consists of fifteen 3–4-hour phases. Trainees are expected to work 8-12 hours per week during driver training, including weekends.
- Route Training (RT) – After passing the Class B license test, trainees are ready to start route training, where they work in service, with passengers, and a route trainer who

teaches company policy and advanced driving techniques. This training includes about 3 to 6 weeks of sufficient observation, the equivalent of approximately 50 hours.

DMV testing is conducted by career training staff who are DMV-certified to be testers. In addition to the Class B license, candidates also test for their Verification of Transit Training certificate and air brake endorsement. In FY 2020, federal regulations related to transit driver training would require training personnel to have at least two years of experience driving a transit bus, a requirement that would preclude the vast majority of the student workforce from becoming driver trainers. This has forced Unitrans to transition this role to a career trainer model. All career trainers are former students.

There are three mandatory safety meetings and evaluations per quarter and annual refresher trainings during the summer. Other trainings include accident refresher training and wheelchair securement. Transportation Security Administration (TSA) type training and assessment are also introduced. Efforts to boost employee morale and retention include an employee appreciation week held at the M&O facility. Employees are treated to coffee, bagels, and pizza. Unitrans has also held employee breakfasts and barbecues as part of its annual employee recognition and awards events. Other activities have included ice skating and annual rodeos.

There were several career staff departures and additions during the audit period. In FY 2019, Unitrans's long-time IT manager left along with an administrative assistant. A mechanic also retired mid-year during the fiscal year. Initially Unitrans had put a pause on hiring; however, with the student fee initiative passing, by the end of year Unitrans had hired a new IT manager, a new administrative assistant, a new mechanic, and expanded their career trainer workforce from one trainer to four trainers.

In FY 2020, Unitrans's long-time maintenance manager accepted a new position with another operator and the newly hired IT manager departed for a new opportunity in the summer of 2020. In FY 2021, Unitrans promoted their lead mechanic to maintenance manager and hired a new mechanic in winter 2021 who had electric bus maintenance experience. The former maintenance manager, who maintained the Unitrans M&O facility, left for a new job opportunity after over a decade with Unitrans. Unitrans experienced challenges recruiting a new IT manager and vacancies persisted for the position, as well as for the maintenance manager position and the approved career HR/payroll coordinator. The IT position had been vacant since August 2020 until hiring for this position in FY 2022. Following the audit period, the human resources manager remains a student-held position; however, Unitrans added and is actively recruiting for a new career position of employment & payroll coordinator.

Unitrans has approximately 18-22 employees represented by AFSCME, the largest trade union of public employees in the United States. The contract was renegotiated in FY 2019 to take effect in 2020 and will remain in effect until 2024.

Maintenance

Maintenance and storage of Unitrans vehicles are conducted at the Garrod Road M&O Facility. The hours of operation are from 6:00 a.m. to 11:00 p.m. The M&O facility is composed of six service bays plus one steam rack. In-ground and portable lifts are utilized. In addition to the Unitrans transit fleet, UCD Fire Department vehicles are serviced as needed.

The maintenance department is staffed with 5 career mechanics as well as student shop assistants. A mechanic hired during the audit period has electric vehicle servicing experience, a useful resource as Unitrans transitions to an electric fleet. The student mechanics work under the supervision of the career journeyman mechanics, who sign off on the repair work. Interest in the undergraduate maintenance training program has remained strong and remains very popular among undergraduates.

All maintenance is performed in-house, which allows for better quality control and quicker turnaround times. Transmission work is also performed in-house; however, major paint and bodywork are outsourced. Unitrans has a diverse fleet, with each year/make requiring a specific maintenance procedure. Having specific preventative maintenance for each vehicle ensures proper maintenance is being done to increase vehicle durability and reliability. There are two different preventative maintenance programs performed on the Unitrans fleet of heavy-duty vehicles. The first, known as a 12/24K program, receives preventative maintenance at 3K miles, 6K miles, 12K miles, 24K miles, and 72K miles. The vintage double-decker buses receive preventative maintenance at these intervals. The second program, known as the 18/36K program, receives preventative maintenance at 3K miles, 6K miles, 18K miles, 36K miles, and 72K miles. All other buses follow this preventative maintenance schedule. Support vehicles receive preventative maintenance every 90 days. Additionally, before any transit bus purchased by Unitrans, new or used, is put into service, a 12K, 18K, or 24K mile preventative maintenance is performed as an acceptance inspection. All preventative maintenance should be performed within a 10 percent window of the schedule. The night lead mechanic is assigned the responsibility of tracking buses that are due for service. Shop maintenance personnel are responsible to alert the maintenance manager to any buses that are closing the 3,000-mile service point and have not been completed for service within the acceptable window time frame.

Unitrans also emphasized rehabilitation of its current fleet to extend each vehicle's useful life. In FY 2019, Unitrans was awarded \$1.2 million in federal State of Good Repair funding to rehabilitate the aging 2009 New Flyer single deck bus fleet, extending the useful life by six years. Of these 13 buses, 9 have been completed as of the audit period, with some engines being replaced with zero emission engines.

In addition to rehabilitation projects, Unitrans has begun to replace its current CNG fleet with electric vehicles. In FY 2019, Unitrans, along with the University's Design Construction Management (DCM) department, set out to engineer electric charging infrastructure with the goal of electrifying 14 buses by FY 2022-23. By FY 2021, Unitrans had secured funding for 14 battery electric buses, which will replace 14 old CNG buses. To purchase the buses, Unitrans has

battery-electric bus options in an active joint procurement with the California Department of General Services.

Unitrans completed negotiations for all 14 buses in June 2021 and has a purchase agreement in place for 6 buses in early 2022, 4 buses in early 2023, and 4 buses in early 2024. The first 6 were originally due by February 2022 and went into service in September 2022. The project is funded through FTA urban area formula funds, a \$3.76 million discretionary FTA Bus and Bus Facilities grant awarded in August 2020, and a SACOG regional program grant for \$2.52 million. Unitrans has also secured funding to upgrade its facilities to accommodate the transition to electric vehicles. Facility construction started in August 2020 and was substantially completed in early 2021. Installation of the electrical transformers took place in April and May 2021, completing the majority of the project. In May 2021, the University released a public bid for electric charger procurement and installation. The project was awarded and started in July 2021. Fourteen chargers have been installed with additional funding secured for 12 to 15 additional charging stations once the electric fleet is expanded.

Fueling is also conducted and maintained at the M&O facility. The Unitrans CNG fueling facility has been in operation for over 20 years. In April 2019, the \$1.658 million project to replace two antiquated CNG compressors with two newer, more efficient compressors to better service vehicle demands was completed. Since its completion, there have been some issues with the new compressors. The two new compressors were not built to operate during sustained 100+ degree heat. As a result, during summer 2020, Unitrans staffed maintenance employees on hot weekends to ensure the compressors worked during fueling. Some facility alterations were made which appear to be working; however, final roof and ventilation modifications are needed. The modifications were expected to be completed by the end of summer 2021 and would cost an additional \$50,000.

Unitrans maintains a low parts inventory. A storekeeper is tasked with maintaining the parts room and procurement. Most parts are procured and shipped the next day from the New Flyer distribution center in Fresno. The storekeeper considers availability and costs while getting two to three quotes. Purchase orders are also generated by the storekeeper. Anything valued under \$10,000 is considered a micro purchase. Mechanics can sign out parts when the storekeeper is unavailable. Unitrans conducts annual cycle counts to control inventory. Tires are owned by the agency and tire work and mounting are performed in-house. Disruptions to the supply chain have been felt, leading to a lag in bus equipment upgrades such as the arrival time prediction system, which suffered outages following the conclusion of the audit period.

A measure of maintenance performance is the number of recorded incidents that are related to equipment breakdown. Road calls are tracked on a vehicle/equipment work history reports. These data are reported annually to the National Transit Database as revenue vehicle mechanical system failures. The number of road calls incurred during the audit period is summarized in Table V-6:

Table V-6
Unitrans Road Calls

	FY 2018	FY 2019	FY 2020	FY 2021
Major Failures	57	84	69	50
Other Failures	27	36	8	11
Total Failures	84	120	77	61

Source: National Transit Database, Form R-20

The number of road calls reported by Unitrans peaked in FY 2019 at 120 before decreasing to 61 in FY 2021. Road calls have decreased in conjunction with the bus rehabilitation projects as well as lower service levels.

Planning

Unitrans conducts an annual route and service planning review. The review period runs from January through April. Adjustments are made to routes based on passenger loads and OTP. Service changes are generally implemented in early August prior to the start of the fall quarter at UCD. OTP and ridership are monitored on a quarterly basis.

Other planning initiatives have involved interagency coordination. The City of Davis Short Range Transit Plan (S RTP) for FYs 2014-15 to 2020-21 was adopted in September 2014. The S RTP was prepared by SACOG in coordination with the ASUCD/Unitrans and the City of Davis. The S RTP is composed of an introduction; planning context; fixed-route service analysis; demand-response service analysis; staffing/marketing; fleet and facilities plan; and financial analysis. Unitrans is currently working on an updated S RTP to replace the current one. The new plan will include Unitrans's plans to continue its electric vehicle initiatives, as well as its path towards recovery from the effects of the pandemic. Additionally, Unitrans plans to investigate its fleet makeup, most notably its signature double-decker buses, which may not fit into the plans with the limits the buses put on routes due to height constraints.

Unitrans follows the S RTP protocols regarding fleet management and replacement. In addition, the S RTP provided a series of goals, objectives, performance measures, and standards. The four service goals are effectiveness, efficiency, integration/coordination, and accessibility. These metrics are included as an appendix in the General Manager's Report along with the performance results for the fiscal year.

The City of Davis and the University of California campus are growing in resident and student population, respectively, resulting in new travel needs and changes in landscape which adds to capacity constraints to existing transit service. A recent focus has been on providing improved service to the local schools around the city. Unitrans was awarded Low Carbon Transit Operations Program funding for a two-year pilot program to provide free rides to youth 18 and under in Davis. The program was implemented in August 2021 with close coordination with the Davis Joint Unified School District. In June 2019, UC Davis published its transportation planning

process called *Transportation Tomorrow* which aimed to address methods of providing greater mobility and connectivity for the Davis campus. Unitrans's ongoing coordination with DCT and Yolo County Transportation District is admirable and has proven vital during the audit period with all three operators assisting one another with the challenges faced due to the pandemic. The Yolo County Transportation District took over operation of two Unitrans lines temporarily due to severe driver shortages during the pandemic with assistance from the City of Davis using Coronavirus Aid, Relief, and Economic Security (CARES) Act funding. Unitrans has also assisted the DCT team and has been commended by them for their ongoing support. Unitrans should aim to continue to foster these relationships with surrounding operators.

Prior to the pandemic, Unitrans reported that new transportation alternatives from on-demand services like Uber and Lyft have impacted Unitrans ridership. Many students utilize these services to commute to and from campus.

On-demand microtransit services have been implemented by surrounding transit operators and have been measured with a degree of success. Even with the effects of the COVID-19 pandemic, demand-response services had been impacted far less than fixed-route services. Microtransit could be an option to provide convenient, efficient service to riders during low demand periods. Additionally, these services could cover time periods in which fixed route does not provide safe reliable transportation to the UC Davis student body.

Marketing

Unitrans utilizes a variety of creative methods and media to market its transit system. The system is best known for its iconic red London double-decker buses, which are featured in its marketing materials. The budget for marketing and promotion is relatively small; therefore, the agency has relied on its staff of student employees to develop and disseminate information about the service.

Unitrans maintains a marketing manual that outlines staffing roles, responsibilities, a calendar of events, branding, and messaging guidelines. Marketing activities are tracked through a customer outreach representative report. Unitrans has developed an event evaluation process that gauges the success of customer outreach events attended or organized by Unitrans staff, the collateral distributed at each event, and the general productivity and effectiveness of the event.

Printed collateral includes the Unitrans schedule that gets updated annually in August. The schedule contains information on rider etiquette and usage, route and schedule changes, fares and passes, Title VI notice, service calendar, and maps of the weekday and weekend routes. Unitrans also offers poster advertising inside single-decker buses and on the exterior of the vintage double-decker buses. In addition to printed collateral, Unitrans has praised its use of "strike teams" where teams of Unitrans advocates get out on campus and on buses to interact with riders and students in person to inform the community on service changes and other marketing related information.

The Unitrans website (<https://unitrans.ucdavis.edu/>) includes general information about service changes, bus schedules, and fares, and a real-time route map using NextBus technology. A mobile version of the website provides accessibility for tablets and smartphones. Links are also provided to special services and neighboring transit systems. The website was last updated during the summer of 2017. The website is normally refreshed every three years; however, with the vacancy of the IT manager position during the audit period, this has been delayed. A new website refresh is currently in the works. Social media outreach is conducted through Facebook, Twitter, and Instagram and is heavily relied upon as the demographic of riders are heavily engaged with social media.

Unitrans conducts a joint travel training workshop with the City of Davis and other local partners in April. The agency also coordinates travel training events with DCT at the Senior Center prior to its closing due to the pandemic.

Pursuant to the federal Civil Rights Act of 1964, Unitrans has an adopted Title VI Program in conjunction with the City of Davis. Title VI of the Civil Rights Act of 1964 requires that no person in the United States, on the grounds of race, color, or national origin, be excluded from, be denied the benefits of, or be subjected to discrimination, under any program or activity receiving federal financial assistance. During the audit period, the Title VI program was updated in August 2020 following the expiration of the 2017 Title VI Program. There were no significant changes proposed in the update. The results were considered in the decision for fare increases. The City of Davis/Unitrans 2020 Title VI Program & Language Assistance Plan compliance includes Title VI notices posted on the website, in all transit vehicles, schedules, and at Unitrans offices and facilities. Unitrans and the City have provided this notice in English, Spanish, and Chinese. Complaint forms are available on the website. The University student body places high importance on the topic of diversity with a Diversity Equity Committee on campus that advocates for diversity equity in all aspects of the University, including the Unitrans services.

General Administration and Management

Unitrans is jointly administered by UCD and the City of Davis. The City and UCD have a cooperative agreement which allows for Unitrans to provide public transit services throughout the city. As a unit of the ASUCD, Unitrans realizes important cost efficiencies such as low insurance rates through UCD's pooled insurance program, a student workforce, and use of UCD facilities. The ASUCD Senate adopts an annual budget for Unitrans. The Davis City Council oversees Unitrans in its adoption of an annual operating agreement and the submission and approval of FTA and TDA grants for capital and operating funds.

The Unitrans Advisory Committee (UAC), staffed by City of Davis public works staff, generally meets once a year to review proposed service changes for the following academic year and address any issues raised by the public. In FY 2018, the UAC meeting schedule was changed from annual to quarterly. The change has helped provide more timely information to the public

and better dialogue with community and student stakeholders. This meeting has been held virtually through Zoom since the start of the pandemic.

The budget process commences in late March. The ASUCD business manager, a career position, reviews the budget which gets presented to the ASUCD Senate for adoption. The UAC and the Davis City Council also review and approve proposed service changes. There are quarterly budget updates and an actuals to budget review conducted monthly. According to the budget documentation, wages and benefits comprise 75-80 percent of the operating budget.

Unitrans administration is overseen by 10 career staff members: the general manager, one assistant general manager of administration, one assistant general manager of operations, maintenance manager, safety manager, training manager, administrative assistant, shop administrative assistant, storekeeper, and IT manager. The IT manager position has struggled to remain filled during the audit period. Unitrans has added an 11th career staff position with the title employment & payroll coordinator, which remained unfilled during the audit period. This addition was part of the prior audit recommendation to address the issue of retention and turnover in student-held positions by adding this career position where the applicant can bring past professional experience with retention and a consistent approach to the job function to recruit, train, and retain staff, and consistently oversee and manage implementation of the attrition reduction strategy. About 15 student managers oversee the various facets of the transit operation such as operations, maintenance, human resources, and planning.

The current general manager has been with the agency since June 2017 following the retirement of the prior general manager toward the end of FY 2017. The current general manager is an UCD alumnus and a former Unitrans student employee, who started off as a driver and eventually became a student manager overseeing planning, marketing, and administration.

In October 2018, the University led a task force to review Unitrans's finances and provide recommendations on resolutions to its fiscal deficits and held four meetings between October 2018 and February 2019. The task force was composed of University, ASUCD, and City staff and issued 12 recommendations in March 2019. One of these recommendations was the Winter 2019 Fee Referendum discussed below. To date the only recommendations that have been implemented are recommendations to provide evidence that relevant Long Range Development Plan (LRDP) documents and reports have been incorporated into the scope of the Unitrans Workgroup, implementing human resources and training strategies, and continue to implement collision reduction strategies. The remaining 8 recommendations not yet implemented/in the process of implementation are as follows:

1. Pursue a future Unitrans Graduate Student Association Fee Referendum.
2. Pursue increased advertising, sponsorship, and gift revenue.
3. Evaluate transportation funding models used at UCLA and UC Irvine for campus shuttle service.

4. Evaluate transportation funding opportunities with new/existing off campus apartment housing.
5. Support transportation demand management planning efforts through UCD's Transportation Services Department.
6. Pursue planning efforts that maximize Unitrans's routing efficiency, prioritize mass transit access, and reduce operating costs.
7. Support campus and City projects that prioritize transit service such as improved traffic signal technology that prioritizes transit, boarding islands on major corridors, etc. and low-cost technology to simplify fare collection.
8. Include the Unitrans 10-year capital program in the Division of Student Affairs capital planning and funding process.

The pandemic has put a hold on many plans and improvements to services and budget. Unitrans should look to review these prior recommendations and see which still make sense in a post-pandemic environment and how to properly implement these recommendations.

In an effort to resolve its deficit challenges due to increased costs such as from minimum wage increases and new federal regulations for bus trainers starting in 2020, Unitrans proposed a fee referendum which increased the \$34.50 fee each student already pays for Unitrans services by an additional \$13.33 per quarter. Unitrans ran a \$450,000 deficit for FY 2018 and was projected to run a \$478,000 deficit in FY 2019. The general manager estimated the deficit would increase to \$1.6 million within four years without the implementation of substantive changes. The last fee referendum passed was in 2008.

The Unitrans Winter 2019 Fee Referendum passed with a 91.6 percent "yes" vote based on an undergraduate voter turnout exceeding 35 percent in February 2019. The 2019 Unitrans Fee Referendum is indexed to inflation and 25 percent of the fee will be returned to student aid as required by University of California policy. This fee referendum has proven successful at stabilizing the operating budget, with the projected \$478,000 deficit coming in at approximately \$127,000 in FY 2019. This pattern was seen again in FY 2020; however, part of this lower deficit was due in part to the reduced service levels related to the pandemic. In 2020, the UC system was sued by students in relation to mandatory student fees being paid for services they no longer had access to. As part of that lawsuit, an estimated \$78,000 in tuition fees must be paid back in relation to Unitrans service. The resources to pay back these fees are available.

Pursuant to the TDA, Unitrans receives Local Transportation Fund (LTF) proceeds. Unitrans has a five-year agreement with the City for a set amount of TDA funding. Unitrans submits quarterly invoices for reimbursement. The most recent 5-year contract for TDA fund distribution between the City and Unitrans was approved by the City Council in September 2019 and included an annual increase of \$25,000 in the use of TDA funds to support Unitrans operations through FY 2024. Based on the City/University agreement and annual approved claims to SACOG, LTF

revenues budgeted during the audit period were \$800,000 in FY 2019; \$825,000 in FY 2020; and \$850,000 in FY 2021. These totals do not reflect the actual amount received each year after expenses are netted out by the City, such as audit and tree trimming expenses. Additionally, the City and Unitrans reached an agreement in April 2021 that in lieu of TDA fund support anticipated for FY 2020-2024, a total of \$4,375,000, the City will utilize an equivalent amount from its federal CARES Act funds. Actual amounts received by Unitrans were \$824,000 in FY 2019, \$829,630 in FY 2020, and \$7,334 in FY 2021 (offset by CARES funds). The City of Davis provides additional funding for the service through FTA urbanized funds to support capital and operating costs.

Unitrans' financial reporting and management functions are carried out by two staff members, one of which is Unitrans' Assistant General Manager-Administration (AGMA). The AGMA has been with Unitrans since July 2012 and has nearly 25 years of grants administration, regulatory compliance, and financial reporting experience. The AGMA is responsible for overseeing the completion of all Unitrans financial and grants management and reporting activities, including the annual Transit Operators' Financial Transactions Report to the State Controller and the timely completion of the annual fiscal and compliance audit.

Although Unitrans staff is knowledgeable of generally accepted accounting principles (GAAP) and basic financial reporting, Unitrans historically employed the services of a certified professional accountant (CPA) firm to compile its annual financial results and complete the required Transit Operators' Financial Transactions Report on behalf of Unitrans. However, Unitrans was required to cease this practice starting in FY 2020, as its on-call CPA firm was unable to perform this service under new "auditor independence" rules established by the International Association of Certified Professional Accountants (IACPA). It should be noted that this CPA firm has also been hired by the Sacramento Area Council of Governments (SACOG) to perform the annual TDA fiscal audits for the small transit operators within the SACOG area, including Unitrans. Consequently, Unitrans staff worked to complete the compilation of its annual financial results without the services of a CPA firm starting in FY 2020.

Subsequently, both the FY 2020 and FY 2021 audits noted that "Unitrans' has not been assigned a full chart of accounts by ASUCD to report its financial activity consistently with Unitrans' audited financial statements. This results in numerous reclassifying entries being needed to facilitate financial reporting." This condition was exacerbated by the lack of specific accounting expertise on the part of Unitrans staff and the inability to bring on a CPA firm to assist with this effort. As a result, a deficiency finding was made and a recommendation put forth that Unitrans develop a full, self-balancing set of accounts that is consistent with its reporting requirements and facilitates accurate and complete reporting of all financial activity.

At about the same time, UC Davis began a transition from its current Kuali Financial System (KFS) to a new Oracle-based platform called "Aggie Enterprise" as part of a UC-wide initiative to establish a common chart of accounts and institute best accounting practices across all UC campuses. Scheduled to go live on July 1, 2023, the timing of this initiative is beneficial to Unitrans as it works to address the deficiency finding. At the same time, however, Unitrans has

determined that the implementation of Aggie Enterprise and establishment of a full Unitrans chart of accounts will create a far more complex set of accounting requirements than Unitrans or ASUCD staff has worked with in the past. This will further spotlight its lack of accounting expertise and knowledge to properly manage a complete set of accounts with all of the fund (grant) and account reconciliation, period close, and reporting activities that are required. Consequently, this TDA audit report includes a recommendation that Unitrans address this issue.

Unitrans's most recent FTA triennial review was conducted in 2021 and included virtual site visits from April 26, 2021, through May 11, 2021. The review examined compliance in 21 areas. Deficiencies were found in 4 areas, with 3 of these areas related to FTA requirements. All deficiencies applied to the City of Davis. Auditors found no deficiencies with Unitrans compliance. These FTA deficiencies were related to Financial Management and Capacity, Technical Capacity – Program Management and Subrecipient Oversight, and Procurement. The triennial review found missing, insufficient, or out of date financial operating procedures, reporting deficiencies, and procurement policies and procedures not being current/complete. Responses were due for Financial Management and Capacity and Procurement by October 12, 2021, and a response for Technical Capacity – Program Management and Subrecipient Oversight was due August 13, 2021. The fourth deficient area was related to the Americans with Disabilities Act for insufficient oversight of subrecipients for ADA requirement with a response due October 12, 2021.

Grants Administration

Grant management is a coordinated effort between Unitrans and its regional partners at the City and the Yolo County Transportation District. During the preapplication phase, staff from both agencies meet quarterly to review opportunities. The City is a direct recipient of FTA funds and Unitrans, as the fixed-route operator, is provided FTA funding through a subrecipient agreement the City has with UCD. Unitrans is also involved with direct grant coordination with SACOG such as State of Good Repair funding.

FTA grants are tracked and updated in the Transit Award Management System (TrAMS). The spreadsheet generated from TrAMS shows the amount of the project expense, local match, FTA grant amount, and encumbrance. Project drawdowns and milestones are detailed for each grant. Unitrans also utilizes a purchase requisition form that tracks and categorizes procurement. There is an FTA MicroPurchase checklist for purchases less than \$10,000, an FTA Small Purchase Checklist for purchases valued between \$10,000 and \$250,000, and an independent cost estimate summary form.

Staff successfully secured federal and state funding through the Congestion Mitigation and Air Quality program and Public Transportation Modernization, Improvement, and Service Enhancement Account Program (PTMISEA) to replace two 2005 single-decker buses that were at their useful life with two new Alexander Dennis double-decker buses. Funding for the buses

was not reliant on Unitrans operating or capital reserves. The purchase cost per vehicle was \$2 million and Unitrans took delivery of the two new double-decker buses in January 2019. The buses were placed into revenue service on April 1, 2019, boosting capacity on heavily traveled lines. The new buses bring to four the number of modern double-deckers in the Unitrans fleet.

Unitrans was awarded \$1.2 million in federal State of Good Repair funding to rehabilitate the aging 2009 New Flyer single deck bus fleet. This funding will be used to rehabilitate 13 buses and help extend the useful life of these vehicles as well as increasing passenger capacity through seating improvements inside the buses. As of the end of the audit period FY 2021, 9 of the 13 buses had been completed.

During the audit period, Unitrans secured funding for 14 battery electric buses aimed at replacing 14 old CNG buses. To purchase the buses, Unitrans has battery-electric bus options in an active joint procurement with the California Department of General Services. Unitrans completed negotiations for all 14 buses in June 2021 and has a purchase agreement in place for six buses in early 2022, four buses in early 2023, and four buses in early 2024. The first six were due by February 2022. The project is funded through FTA urban area formula funds, a \$3.76 million discretionary FTA Bus and Bus Facilities grant awarded in August 2020, and a SACOG regional program grant for \$2.52 million. The project cost estimate is \$14 million.

Through the federal CARES Act emergency relief funding, the City of Davis received \$10.3 million in emergency transit funding. The funding is designed to mitigate COVID-19 related expenses and revenue losses. The City, University, and Yolo County Transportation District agreed to split the funding with \$6.6 million remaining with the City and \$3.7 million going to Yolo County Transportation District. For FY 2020-2021, Unitrans used approximately \$1.15 million in CARES funding for operations support. The remaining CARES Act funding will be used to support operations through FY 2023-24 and offset City of Davis TDA funds. Unitrans also received a federal funding package known as the American Rescue Plan (ARP). The City of Davis was allocated \$830,150 in additional transit funding by the FTA. In September 2021, all ARP funding allocated to the City of Davis was provided to Yolo County Transportation District for the provision of local Davis bus service via Yolobus for the 2021-22 UC Davis academic year.

Section VI

Findings

The following summarizes the findings obtained from this triennial audit covering fiscal years 2019 through 2021. A set of recommendations is then provided.

Triennial Audit Findings

1. Of the compliance requirements pertaining to Unitrans, the operator fully complied with seven of nine requirements. Unitrans was in partial compliance with regard to the completion and submittal of the Transit Operator Financial Transactions Report to the State Controller and the timely completion of the FY 2021 annual fiscal and compliance audit. Two additional compliance requirements did not apply to Unitrans (i.e., rural/blended farebox recovery ratios).
2. Pursuant to TDA, SACOG has established a consolidated 20 percent farebox ratio for Unitrans and Davis Community Transit in the City of Davis. According to SACOG TDA Guidelines, Unitrans is subject to a 20 percent farebox recovery ratio. For the three-year audit period, the combined farebox recovery ratio was 44.48 percent in FY 2019; 53.42 percent in FY 2020; and 62.42 percent in FY 2021. Unitrans exceeded the 20 percent farebox ratio requirement.
3. Unitrans participates in the CHP Transit Operator Compliance Program and received vehicle inspections within the 13 months prior to each TDA claim. Satisfactory ratings were made for all inspections conducted during the audit period.
4. The operating budget increased modestly for all three years of the audit period. There was an increase of 6.8 percent in FY 2019 followed by a 10.7 percent increase in FY 2020. For FY 2021, there was a 9.0 percent increase.
5. Unitrans has implemented one of the three prior audit recommendations. The implemented recommendation pertained to reclassifying the human resources manager as a career position. One recommendation, to conduct long-range strategic planning for transit, is in the process of implementation. The recommendation for continuing to work with the City of Davis in pursuing ITS solutions to improve on-time performance and service reliability has not been implemented, however Unitrans has made an effort to work with the City who ultimately has control over the transit signals. Unitrans staff continues to engage City staff on reviewing, reactivating, and expanding ITS solutions such as transit signal priority to improve on-time performance and service reliability. Russell Boulevard transit signal priority remains deactivated.

6. Operating costs increased by 11.3 percent using audited data from the FY 2018 base year to FY 2021. On an average annual basis, costs increased 3.8 percent, with an increase of 13.1 percent occurring in FY 2020. Operating costs decreased just 0.9 percent in FY 2021. The jump in operating costs seen in FY 2020 can be primarily attributed to higher employee wages and compensation costs to keep pace with the increase in the minimum wage as well as higher rates being paid during the pandemic to retain staff.
7. Ridership decreased 91.3 percent from 4,021,956 trips during the FY 2018 base year to 350,421 trips during FY 2021. On an average annual basis, ridership decreased 39.4 percent, with the highest decrease of 87.7 percent occurring in FY 2021, followed by 23.6 percent decrease in FY 2020. Effects of COVID-19 on ridership are evident in these percentages. Remote learning replaced on-campus learning during the audit period following the initial COVID-19 outbreak as well as during the following variant outbreaks through FY 2021 and was a significant driver of the drop in ridership.
8. Vehicle service hours and miles both exhibited significant decreases from the FY 2018 base year to FY 2021, primarily due to the effects of COVID-19 on services needed for a reduced ridership base. Vehicle service hours decreased 31.2 percent while vehicle service miles decreased 28.6 percent over the audit period. In addition to the reduction of services during the time of the pandemic with fewer students on campus requiring service, Unitrans suffered from driver shortages seen across Yolo County and the transit industry at large which led to disruptions in services provided.
9. Operating cost per passenger, an indicator of cost effectiveness, increased 1,177.2 percent from \$1.46 during the FY 2018 base year to \$18.62 during FY 2021. The effects of COVID-19 explain the steep increase in this metric as operating costs continued to rise comparative with the previous audit period while total passengers fell dramatically. From the FY 2018 base year to FY 2019, there was a more modest increase of 10 percent from \$1.46 to \$1.56 before the effects of the pandemic can be seen.
10. Operating cost per hour, an indicator of cost efficiency, increased 61.7 percent from \$73.96 during the FY 2018 base year to \$119.61 during FY 2021. The trend in this indicator is reflective of the effects of COVID-19, where operating costs remained consistent while hours of operation were reduced. When comparing the increases in operating cost per hour, FY 2018–FY 2019 exhibits a slight increase of 4 percent, compared to an increase of 35 percent for FY 2019–FY 2020 and an increase of 15 percent for FY 2020–FY 2021.
11. Prior to the pandemic, Unitrans was averaging roughly 21,000 riders daily with the majority being UCD students. Ridership was severely impacted by the pandemic and Unitrans hoped to recover beginning in FY 2022 as in-person instruction begins again on campus. Routes are reviewed annually, and schedule changes are implemented in August before the start of UCD's fall quarter. Typically, UCD has a 15 passenger per hour criteria that is used to determine if a route should be considered for elimination or other service intervention. This criterion may be adjusted depending on the rate of recovery of its ridership post pandemic.

12. Unitrans is unique in that UCD students compose 90 percent of employees including all drivers and other areas of operation such as maintenance, administration, and support functions. The students are managed and guided under the supervision of professional career staff within the transit system. Typically, it takes approximately 175 drivers to operate regular bus service. In FY 2021, Unitrans had approximately 115 drivers with this count decreasing with the next class of drivers graduating. Prior to the pandemic, there had been challenges with retention and turnover given the temporary nature of student drivers who eventually move on post-graduation. Drivers have an average tenure of 1.5 to 2 years with a rate of attrition between 40 to 50 percent. Career training staff has been added, which should help with issues related to training new staff and retention as new federal regulations in 2020 mandate that training personnel to have at least two years of experience driving a transit bus, a requirement that will exclude more undergraduates.
13. The maintenance department is staffed with 5 career mechanics as well as student shop assistants. A mechanic hired during the audit period has electric vehicle servicing experience, a useful resource as Unitrans transitions to an electric fleet. The student mechanics work under the supervision of the career journeyman mechanics, who sign off on the repair work. Interest in the undergraduate maintenance training program has remained strong and remains very popular among undergraduates. All maintenance is performed in-house, which allows for better quality control and quicker turnaround times.
14. In prior audit periods, the Unitrans Advisory Committee (UAC), staffed by City of Davis public works staff, met annually to review proposed service changes for the following academic year and address any issues raised by the public. In FY 2018, the UAC meeting schedule was changed from annual to quarterly, which has helped the UAC to provide more timely information to the public and engage in better dialogue with community and student stakeholders. Quarterly transit coordination meetings are also held between Unitrans, DCT, and Yolo County Transportation District. These meetings have moved to being held virtually through Zoom in response to the pandemic.
15. The current general manager has been with the agency since June 2017 following the retirement of the prior general manager toward the end of FY 2017. The prior general manager had held the position since 2012 but had been with the agency since 2000. The current general manager is a UCD alumnus and a former Unitrans student employee who started off as a driver and eventually became a student manager overseeing planning, marketing, and administration.
16. In FY 2018, Unitrans began to replace its aging plexiglass paneled shelters through the city. This project began in FY 2019 after Unitrans staff worked with the City of Davis to acquire the necessary permits to replace the shelters at 20 different locations. The first phase of this project was completed in fall of 2019. With the success of this first phase, Unitrans set out to rehabilitate 17 more shelters as well as install three new shelters on Fifth Street at Windmere Apartments Eastbound, Fifth Street at Spafford Street Eastbound, and Fifth

Street at Spafford Street Westbound and two additional shelters near Fifth Street at the new Sterling Apartments. The bus stop improvement project was completed in FY 2021, replacing a total of 37 shelters.

17. Unitrans was awarded \$1.2 million in federal State of Good Repair funding to rehabilitate its aging 2009 New Flyer single deck bus fleet. This funding will be used to rehabilitate 13 buses and help extend the useful life of these vehicles as well as increase passenger capacity through seating improvements inside the buses. Unitrans also secured funding for 14 battery electric buses aimed at replacing 14 old CNG buses. To purchase the buses, Unitrans has battery-electric bus options in an active joint procurement with the California Department of General Services. Unitrans completed negotiations for all 14 buses in June 2021 and has a purchase agreement in place for six buses in early 2022, four buses in early 2023, and four buses in early 2024. The first six were due by February 2022.
18. An internal audit of Unitrans's operations was conducted at the end of the previous audit period. The UCD Audit and Management Advisory Services Department performed a financial review of Unitrans to verify financial projections, degree of net deficit, and financial tracking tools, and made recommendations to resolve the deficit. The review found that despite the deficit, Unitrans was operating in an efficient and fiscally responsible manner. In April 2019, the Unitrans Workgroup used this review to make additional recommendations to improve the deficit. Progress was made towards some of these recommendations; however, the pandemic slowed the ability for Unitrans to implement all the recommendations.
19. Unitrans instituted a fee referendum during the audit period, its first since 2008. The proposed fee referendum would increase the \$34.50 fee each student already pays for Unitrans services by an additional \$13.33 per quarter. The Unitrans Winter 2019 Fee Referendum passed with a 91.6 percent "yes" vote based on an undergraduate voter turnout exceeding 35 percent in February 2019. The 2019 Unitrans Fee Referendum is indexed to inflation and 25 percent of the fee will be returned to student aid as required by University of California policy. This referendum has proved successful at achieving its goal of stabilizing the operating budget prior to the pandemic.

Recommendations

- 1. Look to address additional accounting burden resulting from the implementation of audit deficiency findings and the upcoming "Aggie Enterprise" financial management system by the University.
(High Priority)**

Although Unitrans staff is knowledgeable of generally accepted accounting principles (GAAP) and basic financial reporting, Unitrans has not historically employed staff with specific expertise and knowledge on accounting practices. In both the FY 2020 and FY 2021 audits noted that "Unitrans' has not been assigned a full chart of accounts by ASUCD to report its financial activity consistently with Unitrans' audited financial statements. This results in numerous reclassifying entries being needed to facilitate financial reporting." This condition is exacerbated by the lack of specific accounting expertise on the part of Unitrans staff and the inability to bring on a CPA firm to assist with this effort. As a result, a deficiency finding was made and a recommendation put forth that Unitrans develop a full, self-balancing set of accounts that is consistent with its reporting requirements and facilitates accurate and complete reporting of all financial activity.

At about the same time, UC Davis began a transition from its current Kuali Financial System (KFS) to a new Oracle-based platform called "Aggie Enterprise" as part of a UC-wide initiative to establish a common chart of accounts and institute best accounting practices across all UC campuses. Scheduled to go live on July 1, 2023, the timing of this initiative is beneficial to Unitrans as it works to address the deficiency finding. At the same time, however, Unitrans has determined that the implementation of Aggie Enterprise and establishment of a full Unitrans chart of accounts will create a far more complex set of accounting requirements than Unitrans or ASUCD staff has worked with in the past. This will further spotlight its lack of accounting expertise and knowledge to properly manage a complete set of accounts with all of the fund (grant) and account reconciliation, period close, and reporting activities that are required.

Consequently, it is recommended that Unitrans address this issue with ASUCD and the University to ensure that Unitrans has the staff resources necessary to carry out its financial accounting, management, and reporting responsibilities in compliance with TDA requirements. This includes completion of all activities necessary to prepare accurate and complete account and grant reconciliations on at least a quarterly basis and the financial system transactions necessary to achieve this objective, and to accurately prepare, complete and submit all necessary period close transactions and annual fiscal and compliance reports in a timely manner.

**2. Aim to restore service to pre-pandemic levels and reevaluate transit operational areas of improvement.
(High Priority)**

The pandemic has had a dramatic effect on the transportation industry as a whole. Normal metrics used to assess areas of strengths and areas of weakness were masked by factors on ridership and service outside of Unitrans's control. Unitrans has a history of detailed reviews each year provided in the General Manager's Reports with analysis of both its services and finances that help inform system-wide changes. As the pandemic recedes, how public transit is utilized may change and "pre-pandemic" levels may not see similar trends as prior to March 2020. Unitrans should continue to review its services as it has in the past while also addressing areas that may not fit the needs of the Unitrans rider community, due to pandemic-related changes to how services are utilized.

**3. Consider studying and implementing a microtransit demand response service.
(Medium Priority)**

Prior to the pandemic, Unitrans reported that new transportation alternatives from on-demand services like Uber and Lyft have impacted Unitrans ridership. Many students utilize these services to commute to and from campus.

On-demand microtransit services have been implemented by surrounding transit operators and have been measured with a degree of success. Even with the effects of the COVID-19 pandemic, demand-response services had been impacted far less than fixed-route services.

It is recommended that Unitrans review potential microtransit options for its student base at UC Davis. Microtransit could be an option to provide convenient, efficient service to riders during low demand periods. Additionally, these services could cover time periods in which fixed route does not provide transportation to the UC Davis student body.