



King County



KING COUNTY AUDITOR'S OFFICE

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Vanpool: Improved Monitoring Could Help Achieve Strategic Goals and Reduce Program Risk

MIA NEIDHARDT
BASIL HARIRI
BROOKE LEARY

EXECUTIVE SUMMARY

The King County Commuter Van Services program (Vanpool) provides county-owned vans to carpool groups to reduce traffic congestion and the environmental impact of daily commutes. The Vanpool program is navigating a period of change and uncertainty in response to the COVID-19 pandemic and King County's commitment to transition to a zero-emission fleet by 2035. Although King County Metro Transit's Mobility Services (Mobility Services) has been developing creative and proactive approaches to rebuild ridership, it still faces structural and strategic barriers to achieving its equity and environmental goals. For example, King County Code requires the Vanpool program to recover most program costs which contributes to high fares, limiting the accessibility of the program to low-income populations. The program also faces substantial risk. It has an operating budget well under 1 percent of the overall King County budget, yet it represents over 2.5 percent of the County's insurance claims payments, totaling \$2.3 million in 2023. Mobility Services can better mitigate risk by tracking additional information about vehicle use and their potential misuse and strengthening its monitoring of policies and procedures.

Acknowledgment

We would like to acknowledge the work done by King County Metro Transit Mobility Services (Mobility Services) to recover from the COVID-19 pandemic. Like most transit services, Mobility Services saw ridership plummet during the COVID-19 pandemic. In the face of dramatic changes in ridership and program needs, Mobility Services took the opportunity to convene focus groups, gather survey and testimonial data, and test out pilot programs to bolster equitable access to the King County Commuter Van Services (Vanpool) program. For example, it obtained grant funding to offer subsidized fares for low-income earners in the city of Kent, and it is preparing to expand the pilot countywide. It has also formed partnerships with the Jobs to Housing and Health through Housing programs to provide a commute option for people experiencing housing instability. Finally, it is also using feedback from current and potential customers to consider broader markets for the program. For example, it is planning a pilot program to help transport kids to school.

The King County Vanpool program has been, and continues to be, the largest publicly owned and operated vanpool program in the nation. Many of the issues identified in this audit are issues that all programs with volunteer drivers face. Mobility Services leadership and staff have done an impressive job of recovering ridership while managing county resources and several hundred volunteer drivers.

Mobility Services leadership and staff readily shared information and resources with us.

Management and staff of Mobility Services made time to answer our questions and provide us access to their data systems, policies, and records. We recognize and appreciate the time and effort staff put into supplying us with accurate and timely information.

REPORT HIGHLIGHTS

What We Found

King County Metro Transit Mobility Services (Mobility Services) is working to rebuild Vanpool program ridership equitably in a changing environment, but barriers to accessibility persist. Aside from a grant-funded pilot program, there is no reduced fare option available for low income or other priority populations, partly due to Metro Transit's implementation of King County Code. Equity goals may also come into conflict with the Vanpool program's electrification efforts due to uncertainty about how electrification will impact program costs, fares, and charging accessibility. Metro Transit does not have a process to weigh and respond to these trade-offs.

The Vanpool program's risk management approach has some gaps in preventing unsafe driving and misuse.

Although Mobility Services has structures in place to respond to incidents, it does not always use the information from these incidents in aggregate to proactively manage risk. Mobility Services does not have sufficient or timely information about vehicle usage and incidents, and policies and procedures for risk mitigation are not fully documented. The program's personal use policy for vanpool vehicles is overly broad and inequitable, increasing operational costs for the program while only providing benefits to drivers who also own a personal vehicle. As new technology to monitor driver safety and vehicle operations becomes available, there are opportunities to use new sources of information to improve efficiency and reduce risk.

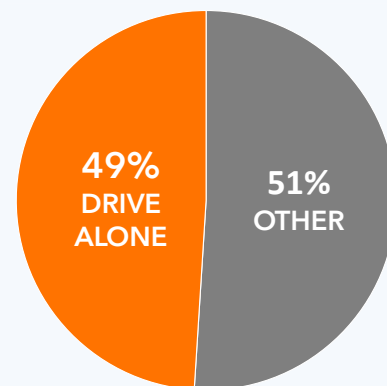
What We Recommend

We make recommendations for Metro Transit to provide reduced fares for priority populations, track performance against equity goals, and account for the unintended consequences of its fleet electrification efforts. We also make recommendations to improve the information that Metro Transit collects to mitigate safety and financial risk.

Why This Audit Is Important

The Vanpool program provides a unique transportation mode within Metro Transit's system to reduce commute congestion and serve communities and regions with limited fixed-route transit options. The Vanpool program removes thousands of cars from the road, reducing the environmental impact of daily commutes. As of December 2023, the program had over 5,000 riders participating in 943 van groups. Forty-nine percent of respondents to a 2023 survey said they would drive alone if they didn't use a vanpool. In addition, the Vanpool program relies on volunteer drivers, which presents a financial and safety risk for the County and public that the program must manage.

About half of survey respondents reported that they would drive alone if they didn't participate in the Vanpool program.



Source: King County Auditor's Office analysis of Metro Transit data from 2023 Vanpool program rider survey



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Section 1: Strategic Planning, Equity, and Environmental Goals

SECTION SUMMARY

The King County Vanpool program is prioritizing county goals in a changing and challenging environment, but additional monitoring and planning could help bolster equity and accessibility.

A drop in ridership during the COVID-19 pandemic spurred the program to adjust its plans, think strategically about priorities, and develop more proactive pro-equity approaches to grow ridership. However, gaps in the program’s strategic planning make it difficult to measure how well the program is achieving its goals and the effectiveness of its strategies. In addition, the application of vanpool fare recovery requirements reduced the affordability of the program for low-income populations. Equity goals may also come into conflict with the program’s electrification efforts since there is imperfect information about how electrification will impact program costs, fares, and accessibility.

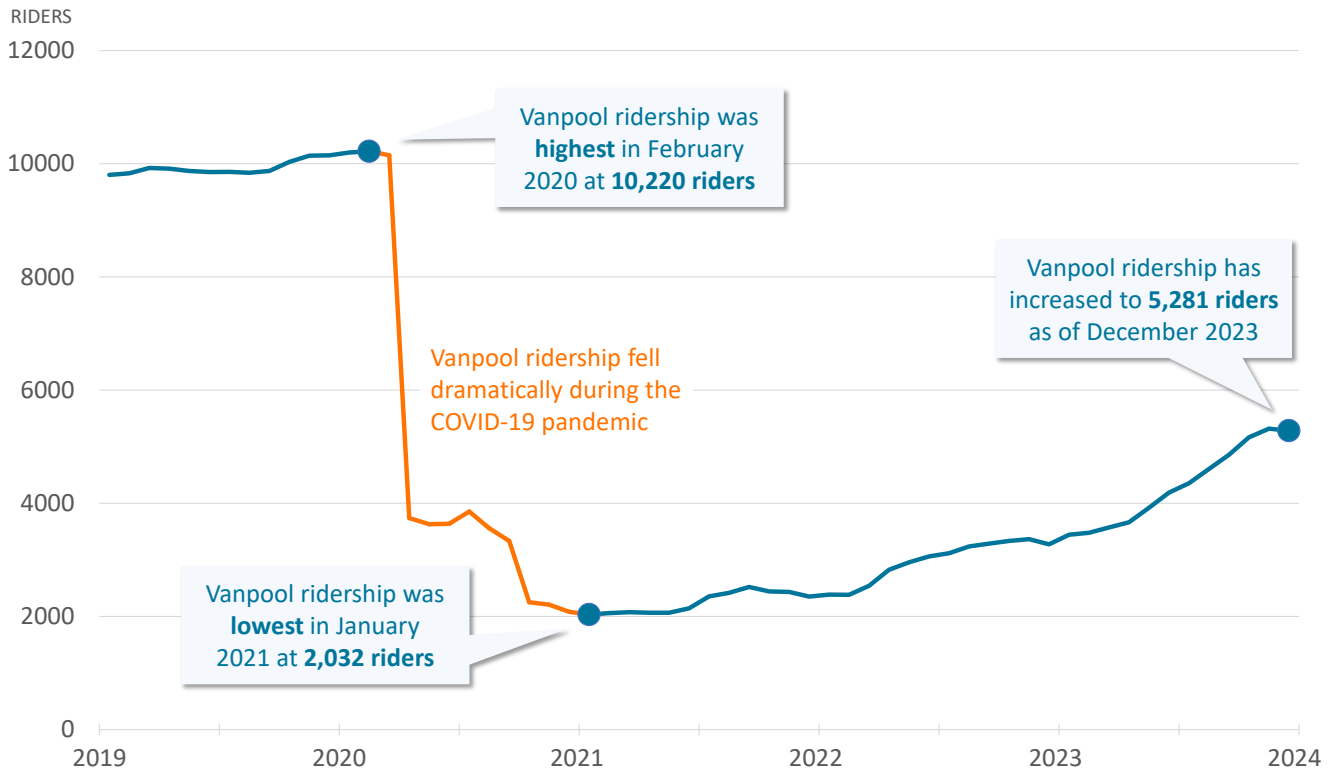
The Vanpool program is adapting to a changing environment

King County’s Vanpool program faces a new commuting environment in response to the economic and societal changes brought about by the COVID-19 pandemic. Vanpool programs are a form of transit in which participants form groups to carpool together using a county-owned van. Each member of the group pays a fare that covers the use of the van, and some members of each group will volunteer as drivers. King County was the first jurisdiction in the country to develop a vanpool program, and it remains the largest public program of its kind nationwide.¹ However, ridership plummeted in 2020 and 2021 as many employees shifted to working from home during the COVID-19 pandemic, and ridership has not yet returned to pre-COVID-19 levels (see exhibit A). At the end of 2019, the program had over 10,000 participants, which dropped to a low of about 2,440 by early 2021. Since 2021, ridership has slowly recovered, reaching over 5,400 riders by the end of 2023. The program is on track to meet Mobility Services’ goals for ridership regrowth by the end of 2024. These ridership trends are consistent with King County Metro Transit’s fixed-route buses, as well as with many other vanpool programs across the country.

¹ Based on data submitted to the Federal Transit Administration’s National Transit Database.

As Metro Transit has reported to the King County Council in September 2023, the decreased ridership has impacted its ability to meet fare recovery requirements.² In 2022, Vanpool program fares only covered 68 percent of the required program costs, although revenue was up 40 percent from 2021.

EXHIBIT A: Vanpool program ridership fell dramatically at the start of the COVID-19 pandemic but has slowly regrown to about half of 2019 levels.



Source: King County Auditor's Office analysis of Vanpool program ridership data

Mobility Services centers equity in its growth plans

Mobility Services has worked to respond to this changing environment in a way that prioritizes King County and Metro Transit equity goals. During the pandemic, Mobility Services began a Vanpool improvement project to reimagine how the program could serve its current and potential new riders going forward. This project centers equity by focusing on improvements that aim to attract customers from geographic areas, industries, and populations in greatest need of public transit. As part of this effort, Mobility Services developed a pilot program for low-income workers in the city of Kent using grant funding. It has also partnered with county

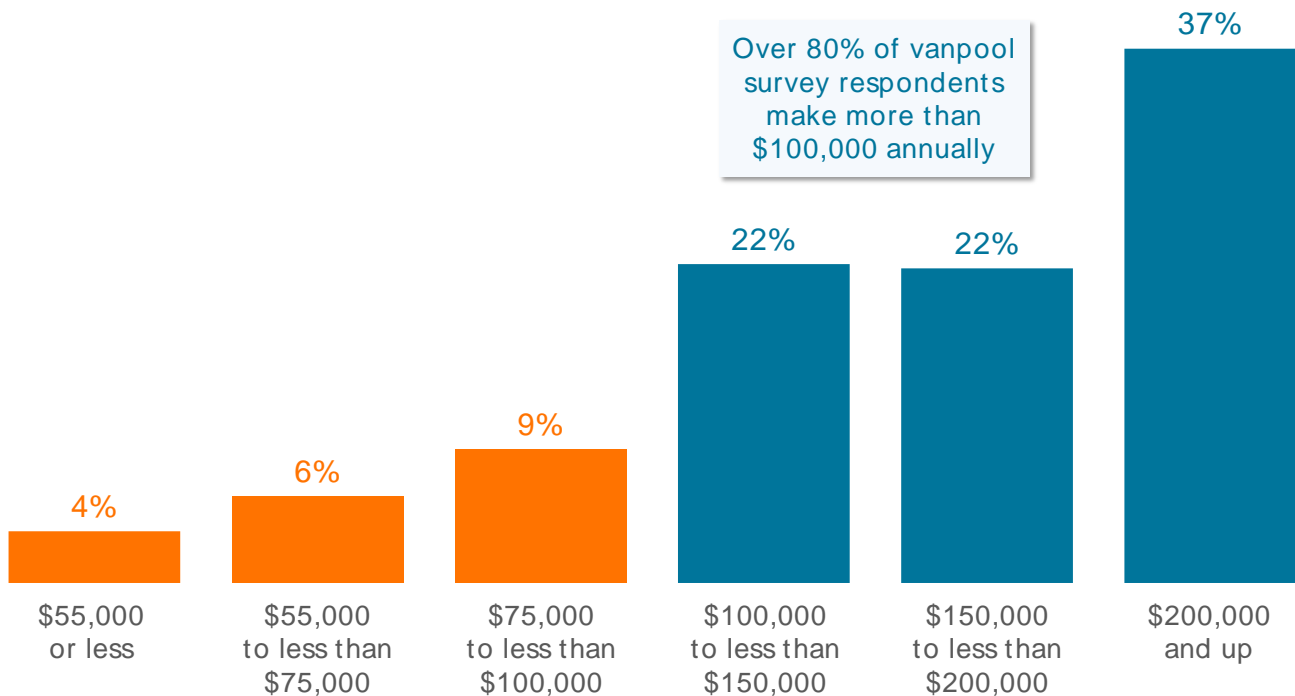
² King County Metro Transit's "Rates of Fare" for the Transit Program 2022 Report.

organizations to facilitate transportation for temporary workers experiencing housing instability.

High fares
reduce
accessibility

Despite Mobility Services' efforts to make the Vanpool program more accessible, participants are disproportionately high-income, and fares may be unaffordable for many potential participants. In 2023, the Vanpool program conducted a survey which showed that over 80 percent of respondents had a household income above the King County median of approximately \$100,000, and more than a third had a household income over \$200,000³ (see exhibit B).

EXHIBIT B: The majority of Vanpool program survey respondents in 2023 earned more than \$100,000.



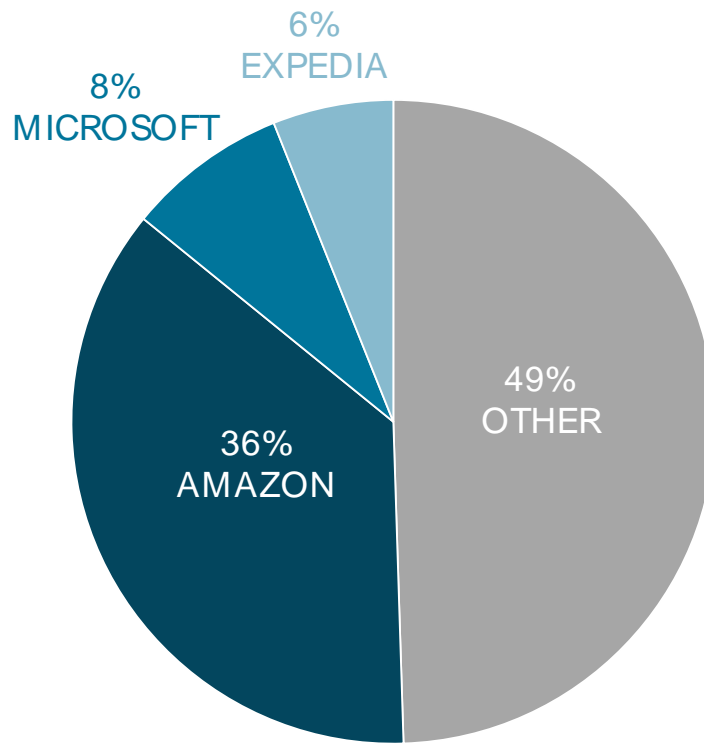
Source: King County Auditor's Office analysis of Vanpool program survey data

There are multiple potential reasons why the program may skew toward high-income riders. The nature of the program works well for predictable, consistent commute times and may not be as well-suited to shift work. Lower-income riders may also find the program too expensive. Vanpool fares vary depending on the number of riders,

³ Since the survey was not a random sample of riders, and respondents did not have to answer every question, the results are not necessarily generalizable to the overall population of Vanpool riders. Percentages are based on the total number of respondents to each question.

the miles traveled, and the number of commuting days per week. For a five-person group traveling 50 miles roundtrip, five days a week, the monthly cost per rider would be approximately \$150. In comparison, a monthly pass for fixed-route bus service is \$99 for adults or \$36 for low-income riders.⁴ Riders are also likely to work for large employers that subsidize vanpool fares for their employees as a method to meet state and local requirements to reduce commute impacts, such as large technology companies⁵ (see exhibit C).

EXHIBIT C: Amazon, Microsoft, and Expedia employees make up over half of groups in the Vanpool program.



Source: King County Auditor's Office analysis of Vanpool program ridership data, October 2023

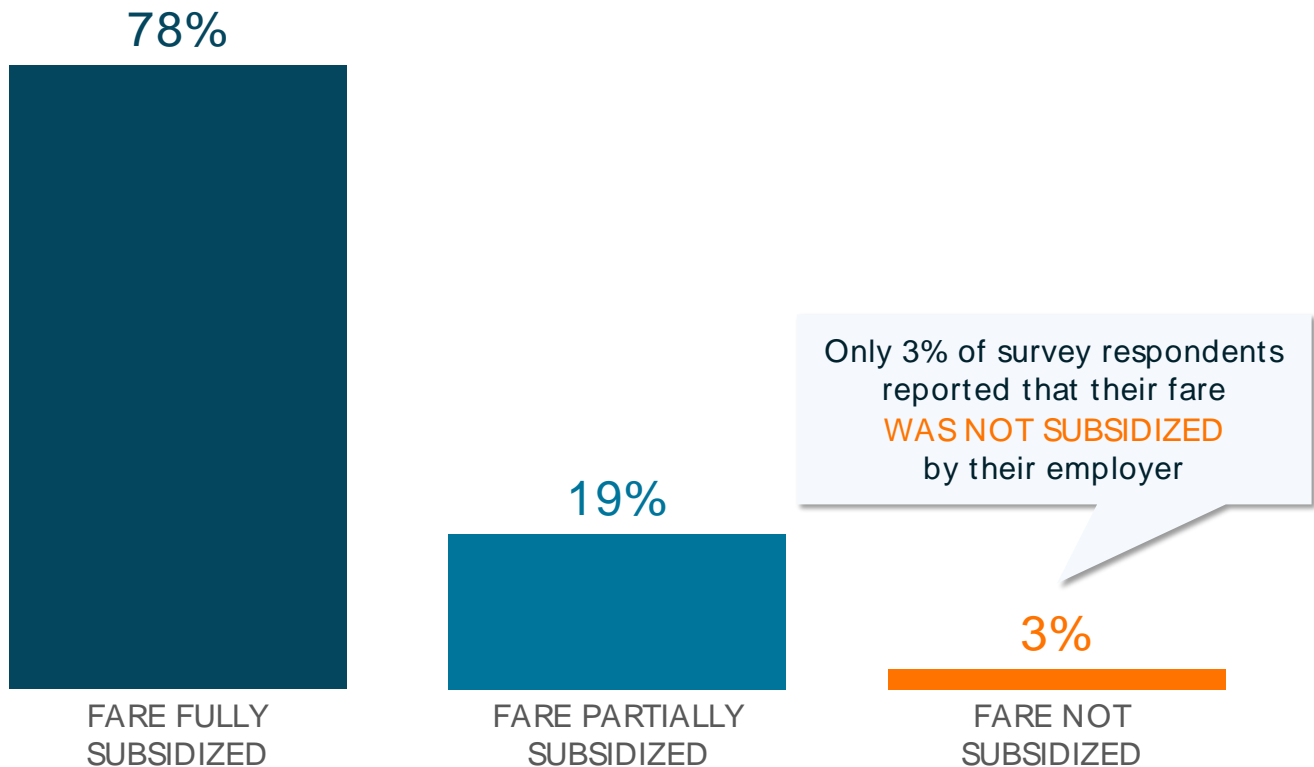
Ninety-seven percent of survey respondents reported receiving at least a partial subsidy from their employer, and about three-quarters reported receiving a full subsidy (see exhibit D). About 30 percent of respondents who received a subsidy said they would not continue to participate in the program if they did not have the

⁴ These passes cover the costs of all trips with fares up to \$2.75 and \$1.00, respectively. One dollar is the fare for the low-income ORCA LIFT program.

⁵ The Washington State Commute Trip Reduction law requires that large employers (>100 employees) in Washington's nine largest counties implement programs to reduce the commutes taken by their employees.

subsidy, and another 50 percent said they might not continue to participate without the subsidy. This suggests that the program may not be financially feasible to people whose employers do not provide subsidies, particularly if the individual is low-income. Smaller employers are less likely to have the resources to subsidize their employees' fares and do not face the same state requirements to reduce commutes.

EXHIBIT D: Nearly all survey respondents reported that some or all of their fare was subsidized by their employer.



Source: King County Auditor's Office analysis of Vanpool program survey data

Cost recovery requirements contribute to high fares

Structural barriers — including county policies and their implementation — contribute to high Vanpool program fares, potentially reducing accessibility for low-income residents. King County Code requires that the Vanpool program recovers the majority of its costs through fares. Program fares must recover 100 percent of operations and capital costs plus 25 percent of administrative costs.⁶ Metro Transit currently sets fares based on a strict interpretation of this cost recovery

⁶ Operating costs include things like maintenance, insurance, and gasoline. Capital costs include van acquisition. Administrative costs include staffing and overhead.

requirement.⁷ Regardless of income, Metro Transit charges Vanpool riders with similar commutes the same fare, which is set at a rate to ensure that Metro Transit recovers costs. This is different from how Metro Transit approaches fare accessibility on its fixed-route services. Metro Transit's ORCA Lift program, which provides reduced fares for low-income riders, does not extend to the Vanpool program. As a result, Mobility Services must rely on limited and temporary grants to fund pilot programs offering reduced fares to groups that Metro Transit defines as priority populations. These reduced-fare pilot projects do not have guaranteed long-term funding, making them less sustainable for the program to maintain over time. This uncertainty may make it harder for Metro Transit to attract riders to these programs, as temporary fare reductions may be less attractive to prospective riders than permanently lower fares.

Mobility Services has several options to provide lower fares to Metro Transit's priority populations: changing its fare structure, proposing code changes, or both. Mobility Services cannot change the cost recovery without action by the King County Council. However, the Prosecuting Attorney's Office suggested that alternative fare structures, or interpretations, may still satisfy the existing requirement. For example, Mobility Services could change the fare structure to differentiate fares based on income. Low-income participants without an employer subsidy could pay less, so long as the overall costs were covered by higher fares for other riders with higher incomes or employer subsidies.⁸ Mobility Services could also work with Metro Transit leadership to incorporate Vanpool program fares into the ORCA Lift program. Mobility Services could also propose a code change to the County Council to exempt priority populations from the cost recovery requirement to further county equity goals.

Recommendation 1

Metro Transit Mobility Services should develop, document, and implement a plan to create a more affordable Vanpool program fare option that is sustainable without reliance on grant funding.

⁷ According to Metro Transit, the current fare structure is set to ensure the Vanpool program requires minimal financial support from the fixed-route system.

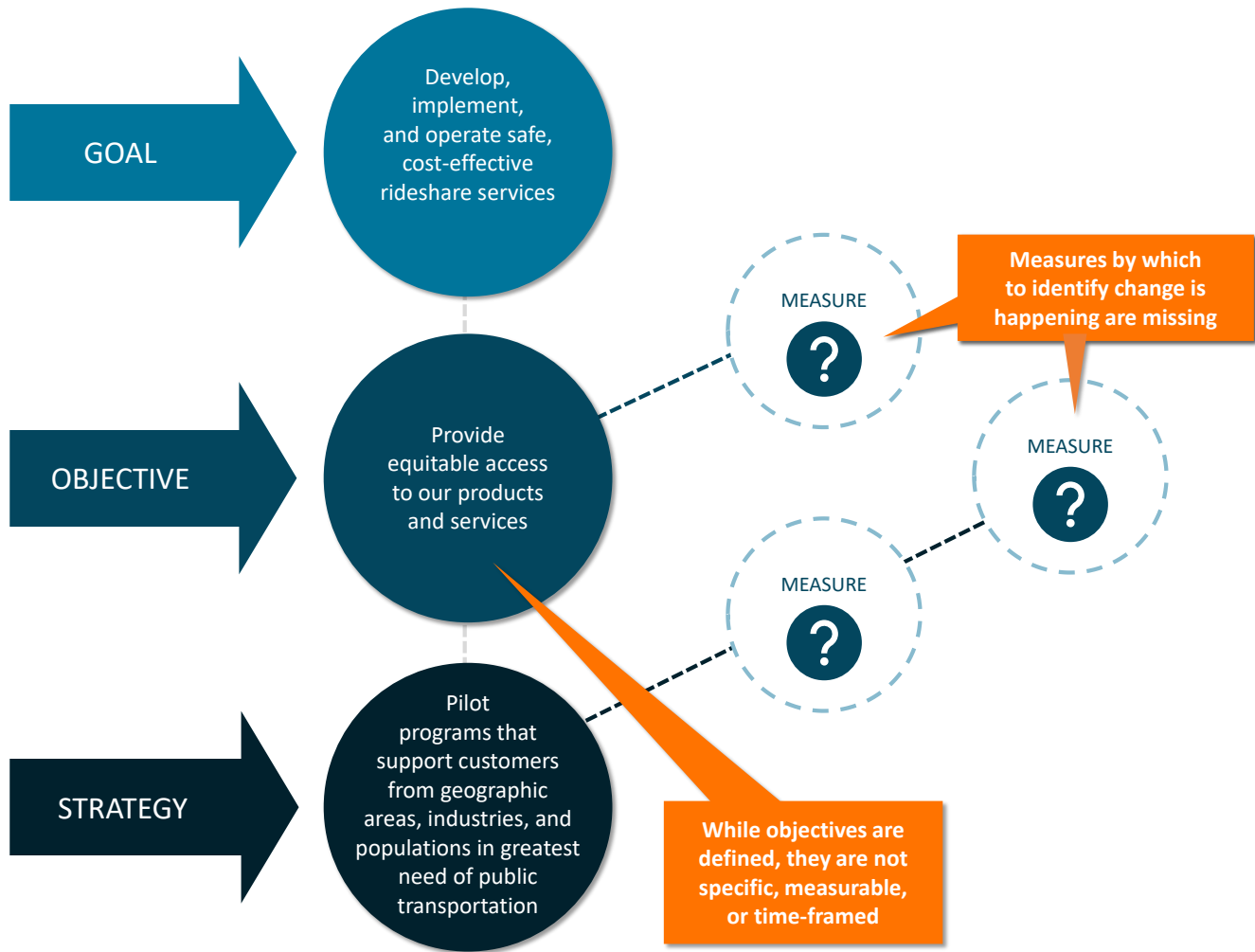
⁸ Mobility Services leadership has expressed concern that this approach could drive participants away or lead more price-sensitive employers to stop subsidizing vanpool fares.

Strategic
plan missing
monitoring
pieces

Mobility Services does not sufficiently measure its performance against equity goals, reducing its ability to assess how well the program is performing and where to focus limited resources going forward. Mobility Services has a strategic plan for 2021–2024 that incorporates equity into its objectives, strategies, and activities. It has been using the plan to guide its work on increasing accessibility to underserved populations. However, the plan’s objectives aren’t always specific, measurable, attainable, relevant, and timely — in accordance with best practices for goal planning. For example, the plan includes an objective to “provide equitable access to our products and services including historically underserved geographic areas, employment sectors and work shifts, and priority populations.” Although this objective is relevant to larger goals, it is not measurable or timebound. Mobility Services also lacks clear targets and does not use available data to measure performance against targets (see exhibit E). The lack of performance monitoring increases the risk that it is not focusing limited resources in the most effective approaches.⁹

⁹ For more detailed information about best practices, see the King County Auditor’s Office technical paper [“Goal Planning: Key Elements of a Performance Management Framework”](#).

EXHIBIT E: Mobility Services’ strategic plan lacks performance measures and targets.



Source: King County Auditor’s Office analysis of Mobility Services’ Vanpool Strategic Plan for 2021–2024

Recommendation 2

To better focus limited resources, Metro Transit Mobility Services should update and document its strategic plan's equity objectives to be specific, measurable, attainable, relevant, and timely.

Recommendation 3

Metro Transit Mobility Services should develop and document performance measures and targets for its equity goals, regularly assess progress toward meeting the targets, and make necessary adjustments.

Zero emissions transition could have unintended consequences

Mobility Services does not have a plan to assess the equity and environmental impacts of different zero emissions approaches for the Vanpool program fleet, risking unintended consequences if the goals conflict with each other. Metro Transit has committed to transitioning to an entirely zero-emission fleet by 2035,¹⁰ with a goal of a zero-emission Vanpool program fleet by 2030. In 2021, Metro Transit conducted a study to examine the feasibility of electrifying the non-bus fleet. The study modeled the expected costs and challenges of fleet electrification but did not estimate how increases in costs would affect fares through the cost recovery requirement. It also recommended the creation of an in-depth fleet transition plan, but Mobility Services' plan is ad hoc and not comprehensive. Given the short timeframe to reach a fully zero-emission fleet, the immaturity of the electric van market,¹¹ and the lack of a comprehensive plan, there is uncertainty about how increased costs of transitioning to an all-electric fleet will impact Mobility Services' equity and environmental efforts, or how those considerations should inform Metro Transit's efforts to transition to a zero-emission fleet.

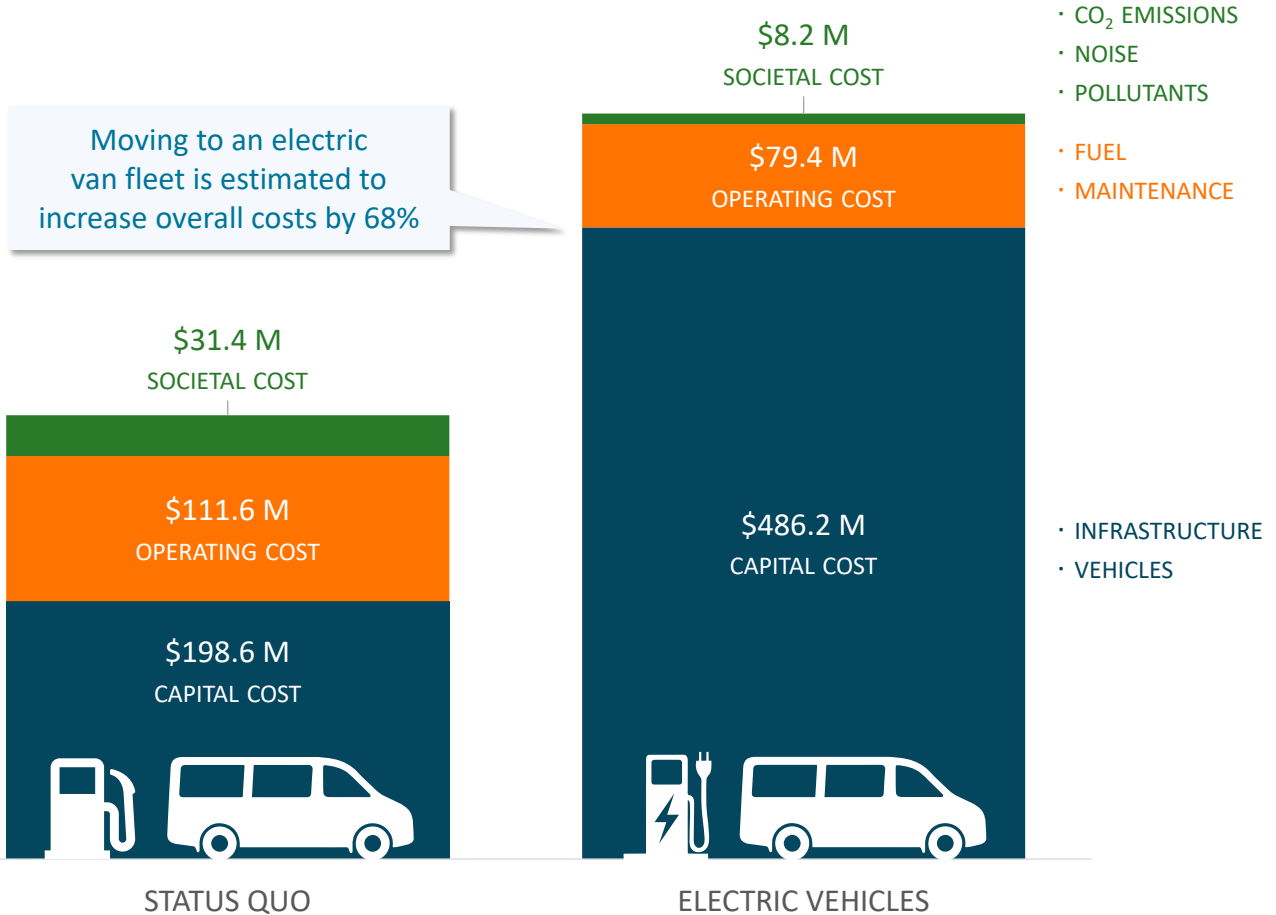
Due to the cost recovery requirement discussed above, transitioning to an electric fleet could negatively impact both equity and environmental efforts by increasing Mobility Services' costs and, as a result, fares. The 2021 electrification feasibility report estimated that transitioning to electric vans could increase costs by \$232 million (or 68 percent) from 2019 to 2050 (see exhibit F). Increased costs would require Mobility Services to increase fares by a substantial amount to continue satisfying the cost recovery requirement. These fare increases could price some Vanpool program participants out of the program. In a 2023 survey conducted by Mobility Services, 49 percent of respondents reported they would drive a single-occupancy vehicle if they did not use a Vanpool program vehicle. If fleet electrification pushes participants to drop out of the program and instead drive single-occupancy

¹⁰ For more information on Metro Transit's larger zero emissions efforts, see our office's audit report, [Zero Emissions: Metro Transit Working to Mitigate Risks to County's Ambitious 2035 Goal](#), published on June 11, 2024.

¹¹ As of April 2024, there was only one, seven-passenger electric vehicle on the market. Mobility Services staff reported that they anticipate more options will be on the market soon.

gas-powered vehicles, the fleet electrification efforts could end up increasing net emissions despite reducing the emissions of the Vanpool program fleet.

EXHIBIT F: Electric vans have the potential to be significantly more expensive than the current fleet, which could result in higher fares.



Source: Metro Transit's Electrification Feasibility Report, 2021

Recommendation 4

Metro Transit Mobility Services should document and implement a plan to analyze the impact of electrification on cost and fares, ridership and accessibility, and risk. The plan should incorporate a method to update the analysis as new information becomes available.

Recommendation 5

Metro Transit Mobility Services should assess and regularly update the impact of Vanpool program fleet electrification on progress toward county environmental and equity goals. Metro Transit Mobility Services should communicate its assessment to Metro Transit leadership.

Recommendation 6

Metro Transit should use the information gathered as part of Recommendation 5 to inform its zero emissions strategy.



Section 2: Asset Management and Risk Mitigation

SECTION SUMMARY

The Vanpool program has developed both proactive and reactive strategies for risk management. However, these approaches may not sufficiently prevent unsafe driving, misuse such as speeding or using the vehicle for excessive personal use, or damage from unexplained causes. Strengthening policies and procedures and tracking additional information about vehicle use and potential misuse could help further mitigate both financial and safety risks. In addition, the program’s personal use policy for vanpool vehicles is overly broad and may not align with King County’s commitment to responsible and efficient use of public funds. The program also uses an inefficient monthly reporting system that is not customer-friendly and relies on time-consuming manual data entry by staff.

The Vanpool program tracks and responds to safety incidents to mitigate risk

Vanpool program incidents make up a relatively large portion of claims against King County, given the program’s small size. The Vanpool program accounts for about 4 percent of claims processed by the Office of Risk Management, making up about 2.5 percent of claims payments (more than \$2 million in 2023). In comparison, the Vanpool program’s operations account for less than 0.2 percent of overall county expenditures. Vanpool program safety risks include driver actions like speeding, braking hard, following too closely, aggressive lane changes, and hitting fixed objects. In addition, vehicle misuse can include using a county-owned vehicle for excessive personal use, which we will discuss later in this section.

The Vanpool program has some systems in place to track the risk introduced by using volunteer drivers. The program uses a point system to track driver safety. Mobility Services monitors drivers’ records of traffic violations monthly, including violations committed while driving personal vehicles. When a Vanpool program driver is involved in an incident, program staff assign a number of points to the driver’s record based on the nature and severity of the incident.¹² As drivers accumulate points, the Vanpool program assigns mandatory trainings, puts drivers on probation, or temporarily or permanently revokes driving privileges. For example,

¹² Mobility Services maintains an internal record of driver incidents. Points do not impact a driver’s record with the Washington State Department of Licensing.

a Vanpool volunteer driver who received a citation for not having their headlights turned on at night would receive one point, while a driver who was charged with driving under the influence would receive nine points, which would immediately disqualify them as a driver. In 2023, the Vanpool program revoked driving privileges from 22 drivers. Having a point system is a leading practice to reduce the risk introduced by volunteer drivers driving county vehicles.

Point system is inconsistent with risk

However, these risk monitoring systems are not always consistent with the actual safety or financial risk. Metro Transit has not updated Vanpool's point system since at least 2016, and it has overlapping categories that staff could apply differently depending on who reviews the incident. This means that staff could apply points and resulting consequences inconsistently and that points may not reflect actual risk. This presents a potential danger to driver and passenger safety and the general public. For example, Vanpool has a category for a violation where a driver was going 0-29 mph over the speed limit (4 points), but it also has separate categories for violations where the driver was going 5 mph over the speed limit in an area with a speed limit above 40 mph (2 points) or speeding any amount in a school zone (3 points). These categories have different point assignments despite having considerable overlap (see exhibit G).

Vanpool has not had a risk specialist for over two years, despite having an allocated FTE (full-time equivalent) for that position. As a result, other staff have had to take on the roles and responsibilities of a risk specialist in addition to their other work. This means there has been limited capacity to assess the effectiveness of the overall risk mitigation system and make the revisions to the structure of the point system. Best practice is to respond to risks based on their significance and to conduct periodic risk assessments as needed to evaluate the effectiveness of the risk responses. At the time of publication, Mobility Services had begun working with human resources to recruit for the position.

EXHIBIT G: Overlapping violation categories could result in inconsistent point assignments to drivers.



If a driver was speeding by 5 MPH in a school zone, it's unclear how many points the driver should receive

VIOLATION	POINTS
Speeding 0-29 MPH over the speed limit	4
Speeding in a SCHOOL ZONE	3
Speeding 0-5 MPH over the speed limit	2

Source: King County Auditor's Office analysis of Vanpool program policies

Recommendation 7

Metro Transit Mobility Services should refine the point system based on risk to ensure consistency in application and to align points with the relative risks of the violations.

Recommendation 8

Metro Transit Mobility Services should hire a risk specialist.

Data systems do not work together

Mobility Services' data system organization does not support proactive risk-based analysis, preventing management from monitoring driver, group, and incident safety patterns and allowing potential risks to go unnoticed. Proactive risk management involves identifying risks before they happen and determining ways to avoid or alleviate risk. Mobility Services tracks driver points and Vanpool program incident responses (e.g., trainings assigned, insurance payouts, etc.) to perform this type of analysis, but the information is stored in separate data systems that do not easily share information. As a result, Mobility Services does not perform a proactive analysis of which drivers, vehicles, groups, or incident categories are driving the highest costs for the County. This prevents management from effectively

understanding and addressing patterns in higher risk cases. For example, if Mobility Services staff found that rear-end collisions drove the highest incident costs for the Vanpool program, they could provide additional training to drivers or invest in vehicle technology to help prevent rear-end collisions. Best practice is to use data to analyze and mitigate risk and ensure that data systems are compatible to perform this type of analysis.

Recommendation 9

Metro Transit Mobility Services should ensure that data systems support proactive risk monitoring such as cost per driver, per vehicle/group, and per incident category over time.

Recommendation 10

Metro Transit Mobility Services should regularly monitor the metrics in Recommendation 9 and respond to patterns that emerge.

The Vanpool program does not have timely information for unexplained incidents

The Vanpool program does not always have timely information about what happened during a vehicle incident, making it difficult to effectively monitor driver safety, potentially increasing the likelihood of incidents in the future.

When responding to incidents, the Vanpool program uses the catch-all category “unexplained damage” when it cannot determine the cause of the damage. From 2022 to 2023, there were 143 reports of unexplained damage that resulted in over \$280,000 in repair costs to King County. Vanpool volunteer drivers reported the damage in less than a quarter of the incidents. Instead, most unexplained damage incidents were reported by staff at the van distribution center or contracted garages during scheduled maintenance. The Vanpool program has policies requiring drivers to do a walkaround of the vehicle to check for damage every time they use it and to report any damage within two business days. However, three-quarters of incidents are reported by people other than Vanpool volunteer drivers and multiple reports show the buildup of rust on damaged areas of vehicles, indicating that this information is not being reported in a timely manner (see exhibit H). The program does not have sufficient controls or incentive structures in place to ensure that drivers identify and report damage in a timely fashion. The untimely reporting of

unexplained damage incidents reduces the Vanpool program's ability to understand what caused the incident and to respond appropriately.

EXHIBIT H: Drivers did not always report vehicle damage in a timely way, as evidenced by the buildup of rust on scrapes and dents.



Source: King County Metro Transit damage reports

Untimely reporting may allow defective vehicles to stay on the road and drivers to avoid consequences imposed by the point system. Even when damage appears minor, it has the potential to impair drivability, structural integrity, fuel efficiency, and county branding. Untimely reporting allows potential issues to continue unmitigated. Also, Mobility Services only assigns one point to drivers in response to an unexplained damage incident, less than most other incident types. This means that drivers could evade the intended consequences of the point system by not reporting an incident

that should warrant several points and allowing Vanpool program staff to discover it through other means instead. This could also keep drivers from receiving training that could help prevent these types of incidents from reoccurring.

Recommendation 11

Metro Transit Mobility Services should identify, document, and implement appropriate controls or incentives to ensure Vanpool volunteer drivers report unexplained damage incidents in a timely manner.

Responding to incidents is costly and difficult

It can be difficult and costly to determine what happened during an incident.

Due to the nature of incident review, the Vanpool program must determine what happened during an incident and make decisions with imperfect and/or subjective information. The frequent lack of objective evidence (e.g., video of the accident) means that the program often must rely on driver reports, eyewitness statements (if available), and police reports and testimony (if available) to determine what happened. Drivers may try to misrepresent what happened or not report damage to avoid or delay any impact on their driving privileges. Seeking out eyewitness and police testimonies to corroborate the driver's account of what happened is time-consuming and resource intensive. As a result, unexplained damage incidents can be costly to King County, both in terms of direct costs (e.g., repairs and liability claims) and the cost of time-consuming investigations.

Mobility Services' plans for telematics do not include risk reduction and response

New electric vehicles will come with telematic capabilities, which present a potentially beneficial tool to enhance the program's risk mitigation approach.

Telematics can provide real-time information about vehicle location, performance, charging, and driver actions. Telematics can also include cameras on the vehicle. The Vanpool program is procuring some electric-only vehicles in 2024 that will come equipped with telematic capabilities that Vanpool program vehicles did not have in the past.

Mobility Services does not have a comprehensive plan for using telematic capabilities to reduce and respond to risk, hindering its ability to begin using those capabilities once telematics are available in the fleet. Best practice is to collect, process, and analyze data to respond to risks. According to the Office of Risk Management, telematic data can enhance risk response by providing more objective evidence of what happened during an incident and improving efficiency. Specifically,

telematics can decrease cost to King County by discouraging people from filing unfounded claims and reducing time to investigate and respond to incidents. Although Mobility Services has begun planning the use of telematics that directly impact operations (e.g., reimbursing drivers charging vehicles at home), it hasn't determined how it will use other telematic information yet. Without a comprehensive plan for piloting telematics on the soon-to-be electrified fleet, Mobility Services will not know what information is most helpful to collect and what information it would not want to collect due to privacy concerns, lack of relevance, or potential risk.

Recommendation 12

Metro Transit Mobility Services should develop a plan for piloting telematics and documenting lessons learned to inform future use. This should include plans to proactively manage risk, reduce the number of incidents with unexplained causes, and consider what data is necessary.

Monitoring is ad hoc and not documented

Mobility Services does some monitoring for misuse, but the procedures are largely ad hoc and not sufficiently documented. This inhibits institutional knowledge and collaboration across staff members. Mobility Services staff monitor and respond to several indicators of misuse of county resources. For example, staff do monthly audits of fuel card transactions. If a Vanpool program fuel card is used at a gas station far from the vanpool group's route to either purchase an unexpectedly large amount of fuel or purchase fuel more often than expected in a certain period, staff will contact the driver and take appropriate actions. However, staff indicated that these monitoring efforts are not documented or guided by Mobility Services' policies and procedures. Best practice is to document internal controls because the lack of documentation creates the risk that controls might not be implemented if specific staff members change or leave their roles. The lack of documentation also reduces knowledge of monitoring efforts among staff members, limiting the ability of management and staff to collaborate to identify misuse. Without a cohesive and documented monitoring strategy, the Vanpool program may not be aware of misuse of government resources, exposing King County to liability and conflicting with the County's commitment to responsible stewardship of public funds.

Recommendation 13

Metro Transit Mobility Services should document and communicate policies and procedures for staff who monitor and respond to vehicle misuse.

Personal use policy is broad and inequitable

The policy for personal use of vehicles is overly broad and could increase program costs. Some Vanpool program drivers can apply for an “excess use authorization” that allows them to drive the van for up to 40 miles of personal use each month for no additional cost. According to the program manual, drivers who provide proof of car ownership and personal insurance may use the vans for up to 250 miles of personal use each month but must pay by the mile for any miles above the initial 40. This policy increases program costs by subsidizing drivers’ personal trips. While the County is not liable for collisions or incidents that happen when a vehicle is being used for personal use, it can be difficult to determine if an incident occurred during personal or official use. In addition, the personal use policy increases gas and maintenance costs for the program and could also have a potentially negative reputational effect for the County if the public sees the vans used for recreational or other non-commute purposes. Vanpool program staff reported multiple instances of complaints resulting from people seeing Vanpool program vehicles in locations such as IKEA or boat ramps.

Additionally, this policy inequitably provides county-subsidized benefits to drivers who own their own vehicles and have personal insurance. The personal use policy excludes vanpool volunteer drivers who do not own a personal vehicle. In other words, the program’s personal use policy gives drivers who can afford to own a personal vehicle more benefit than drivers who cannot.

The Washington State Transit Insurance Pool (WSTIP) has stricter guidelines for personal use of vehicles, only allowing for personal use incidental to the commute. Both Community Transit and Pierce Transit follow WSTIP guidelines for personal use for their vanpool programs. Mobility Services staff expressed that its personal use policy reflects a tension between the need to retain volunteer drivers and protecting county assets and reputation. Mobility Services does not have data about how the personal use policy impacts participants’ willingness to volunteer as drivers.

Recommendation 14

To ensure responsible and equitable use of public funds, Metro Transit Mobility Services should revise its personal use policy to bring it into alignment with Washington State Transit Insurance Pool guidelines.

Monthly reporting is inefficient

The Vanpool program relies on an inefficient system for monthly reporting to track vehicle use and rider participation, creating redundant and time-consuming data entry work for Vanpool program staff. Each month, every vanpool group's bookkeeper submits a PDF report to Vanpool program staff with van odometer readings and rider information. Most volunteer bookkeepers spend less than 30 minutes completing this report each month. Staff then manually input the data from the report into the Vanpool program data system for each group, inputting data for almost 1,000 groups monthly. This process is inefficient and vulnerable to manual data entry errors, requiring additional staff time to ensure that data is input correctly.

Other vanpool programs use online systems that allow volunteer bookkeepers to enter data directly into the system, eliminating the need for county staff to input data at all. The Vanpool program's data system does not support online data entry directly from bookkeepers. Management is aware that the process is inefficient but said that implementing a direct data entry process would require substantial investment in the existing data system or migration to a new one. Management indicated that it was reluctant to make a large investment in improving the data system because those costs might require an increase in fares due to the cost recovery requirement.

Recommendation 15

Metro Transit Mobility Services should assess and document the feasibility and trade-offs of reporting system options that allow volunteer bookkeepers to directly enter vehicle and rider information.

CONCLUSION

King County's Vanpool program has experienced dramatic changes in its operating environment in response to the COVID-19 pandemic and King County's commitment to transition to a zero-emission fleet. The plan to electrify the Vanpool program fleet presents risks to program costs and accessibility but also presents technological opportunities to prevent misuse and mitigate risk. Without intentional planning and implementation, Mobility Services could become increasingly inequitable and fail to capitalize on some of the potential risk prevention and mitigation benefits of electrifying its fleet. It could also fail to discover current or future misuse of county resources. Mobility Services has already demonstrated its flexibility in responding to challenges, understanding customer needs, and evolving and expanding the Vanpool program. Implementing the recommendations in this audit can help the Vanpool program build on these improvements, increase accessibility, meet program goals, and navigate risk.

Appendix 1: Executive Response

May 30, 2024

KyMBER Waltmunson
King County Auditor
Room 1033
COURTHOUSE

Dear Ms. Waltmunson:

Thank you for the opportunity to review and comment on the proposed audit report titled “Vanpool: Improved Monitoring Could Help Achieve Strategic Goals and Reduce Program Risk.”

The Metro Transit Department (Metro) concurs with the 15 recommendations included in the report and agrees that these recommendations will incrementally improve the vanpool program and how Metro serves vanpool customers. The enclosed recommendation table outlines responses to each of the recommendations.

As noted in the report, some of these recommendations will require collaboration with the King County Council and potential code changes. We welcome these discussions, particularly around how we may improve the affordability of and access to vanpools for King County residents.

Metro has one of the largest public vanpool programs in the country which is strengthened by a partnership with business partners that provide subsidy for more than 97 percent of our vanpool participants. Improving how the recordkeeping, reporting, and training is managed could encourage more program participation.

Metro will be moving quickly to implement the 15 recommendations. Metro expects to complete or begin work on three recommendations by the end of 2024, nine by the end of 2025 and three by the end of 2026. Several recommendations will require investment through budget processes and Metro anticipates requesting funds for these investments in the 2026-2027 budget. Metro will need to research options for more sustainable funding for reduced vanpool fare, and the affects of changes on the program and the system.

Continued on next page.

We appreciate the collaborative approach taken by the audit team to identify improvements that can benefit vanpool customers. If you have any questions regarding the audit response, please contact Christina O'Claire, Mobility Division Director, at 206-477-5801 or Christina.OClaire@kingcounty.gov.

Sincerely,



Dwight Dively
Chief Operating Officer

Enclosure

cc: Karan Gill, Chief of Staff, Office of the Executive
Jennifer Hills, Deputy Chief Operating Officer, Office of the Executive
Kelli Carroll, Director of Special Projects, Office of the Executive
Michelle Allison, Director, Metro Transit Department (MTD)
Christina O'Claire, Director, Mobility Division, MTD
Brian Mannion, Deputy Director, Mobility Division, MTD
Gwen Clemens, Section Manager, Contracted Services, Mobility Division, MTD
Jill Krecklow, Interim Assistant General Manager, Finance & Administration Division
MTD

Recommendation 1

Metro Transit Mobility Services should develop, document, and implement a plan to create a more affordable Vanpool program fare option that is sustainable without reliance on grant funding.

AGENCY RESPONSE

CONCURRENCE **CONCUR**

IMPLEMENTATION DATE Metro Transit Mobility Services (Metro) will implement a reduced fare pilot Q3 2024. Q1 2028 target for affordable Vanpool program fare option assuming '26 – '27 budget process.

RESPONSIBLE AGENCY King County Metro

COMMENT King County Code requires that Metro set vanpool fares to recover 100% of the program's operating and capital costs and 25% of administrative costs. The current fare structure is applied equally to all participants, including employers who provide employee vanpool subsidies.

Metro will use pilots, research, and cost and impact analysis to develop and document a plan to create a more affordable Vanpool program fare option. Implementation will require additional funding and will require code changes which would require council support and action. Key steps in this process will include:

- Implementation of a reduced fare pilot to inform the need and market for a more affordable fare program.
- Work with employers on possible long-term solutions to address an affordable fare option and research options, recognizing that Vanpool is largely an employer sponsored program.

Recommendation 2

To better focus limited resources, Metro Transit Mobility Services should update and document its strategic plan's equity objectives to be specific, measurable, attainable, relevant, and timely.

AGENCY RESPONSE

CONCURRENCE **CONCUR**

IMPLEMENTATION DATE Q3 2025

RESPONSIBLE AGENCY King County Metro

COMMENT Metro Transit Mobility Services will review the Vanpool strategic plan's equity goals to align with 2026-27 budget planning and annual workplans. Goals will be developed and documented with targets that can be easily tracked in business analytics software.

Recommendation 3

Metro Transit Mobility Services should develop and document performance measures and targets for its equity goals, regularly assess progress toward meeting the targets, and make necessary adjustments.

AGENCY RESPONSE

CONCURRENCE **CONCUR**

IMPLEMENTATION DATE Q2 2025

RESPONSIBLE AGENCY King County Metro

COMMENT Metro Transit Mobility Services will incorporate equity goals and targets from recommendation two into their PowerBI analytics for review and tracking at the operational staff level. Key performance indicators will be added to Monthly Business Reviews for leadership awareness.

Recommendation 4

Metro Transit Mobility Services should document and implement a plan to analyze the impact of electrification on cost and fares, ridership and accessibility, and risk. The plan should incorporate a method to update the analysis as new information becomes available.

AGENCY RESPONSE

CONCURRENCE **CONCUR**

IMPLEMENTATION DATE Q1 2026

RESPONSIBLE AGENCY King County Metro

COMMENT Metro Transit Mobility Services has a purchase order for 120 electric vehicles in 2024 to begin meeting King County Ordinance 19052 requiring vanpool electrification by 2030. Telematics and home-charging reimbursement software-as-a-service (SaaS) solutions are critical to making vehicles available in an equitable fashion. Timing for purchase and implementation is dependent upon KCIT. Fare planning is currently underway; potential operational and customer impacts will be considered in fare changes; operational and customer impacts will need to be closely monitored. As part of the EV rollout, Metro Transit Mobility Services will identify KPIs for measures noted by the auditor for comparison to the current fleet as well as for refinement of electrification plans. KPI's will be added to operational and Monthly Business Reviews for leadership awareness

Recommendation 5

Metro Transit Mobility Services should assess and regularly update the impact of Vanpool program fleet electrification on progress toward county environmental and equity goals. Metro Transit Mobility Services should communicate its assessment to Metro Transit leadership.

AGENCY RESPONSE

CONCURRENCE **CONCUR**

IMPLEMENTATION DATE Q1 2026

RESPONSIBLE AGENCY King County Metro

COMMENT Traditional environmental metrics such as vehicle miles travelled (VMT) and CO2 reduced will continue to be tracked and reported. With prior electric and hybrid vehicle usage, the employer charging requirement often resulted in underrepresentation among underserved and priority populations. Metro Transit Mobility Services plans to implement home charging reimbursement to prioritize and more easily place EVs in equity priority areas by allowing home charging at no cost to customers. These results will be tracked and reported to leadership.

Recommendation 6

Metro Transit should use the information gathered as part of Recommendation 5 to inform its zero emissions strategy.

AGENCY RESPONSE

CONCURRENCE **CONCUR**

IMPLEMENTATION DATE Q2 2026

RESPONSIBLE AGENCY King County Metro

COMMENT Metro Transit Mobility Services will track and incorporate results about customer usage. Analysis of factors such as maintenance, risk events, customer demand, usage, and vehicle performance will help inform and shape electrification planning efforts. Where possible, results will be stored in business information systems for easy storage and incorporation into PowerBI for analysis and reporting purposes. Results will inform strategy. These results will be tracked and reported to leadership.

Recommendation 7

Metro Transit Mobility Services should refine the point system based on risk to ensure consistency in application and to align points with the relative risks of the violations.

AGENCY RESPONSE

CONCURRENCE **CONCUR**

IMPLEMENTATION DATE Q1 2025

RESPONSIBLE AGENCY King County Metro

COMMENT Metro Transit Mobility Services will research and analyze the driver risk metric systems already in place with various state licensing agencies, the insurance industry, and other public transit agencies that manage similar volunteer driver programs. A risk specialist should be hired in Q3 2024, and work should begin shortly after that. The risk specialist will collaborate with King County's Office of Risk Management to provide leadership with a summary of their findings and recommendations, with the adoption of improvements to the existing system immediately after that.

Recommendation 8

Metro Transit Mobility Services should hire a risk specialist.

AGENCY RESPONSE

CONCURRENCE **CONCUR**

IMPLEMENTATION DATE Q3 2024

RESPONSIBLE AGENCY King County Metro

COMMENT Metro Transit Mobility Services and Transit HR published the job recruitment announcement to hire a risk specialist on May 17. The hiring process is expected to be complete during Q3 2024.

Recommendation 9

Metro Transit Mobility Services should ensure that data systems support proactive risk monitoring such as cost per driver, per vehicle/group, and per incident category over time.

AGENCY RESPONSE

CONCURRENCE **CONCUR**

IMPLEMENTATION DATE Q4 2025

RESPONSIBLE AGENCY King County Metro

COMMENT Metro Transit Mobility Services will collaborate with Metro IT to leverage Metro's existing enterprise application software for risk and safety management, Safety and Security Management (SSaM) system, to develop tools and processes for providing the data necessary to capture and report on the additional recommended program risk and safety metrics included here.

Recommendation 10

Metro Transit Mobility Services should regularly monitor the metrics in Recommendation 9 and respond to patterns that emerge.

AGENCY RESPONSE

CONCURRENCE **CONCUR**

IMPLEMENTATION
DATE Q2 2025

RESPONSIBLE AGENCY King County Metro

COMMENT When available, the noted metrics will be pulled into PowerBI for regular monitoring and reporting by the Metro Transit Mobility Services risk specialist to leadership. The program has existing driver discipline and training programs and resources to use this additional driver risk and safety data effectively.

Recommendation 11

Metro Transit Mobility Services should identify, document, and implement appropriate controls or incentives to ensure Vanpool volunteer drivers report unexplained damage incidents in a timely manner.

AGENCY RESPONSE

CONCURRENCE **CONCUR**

IMPLEMENTATION DATE Q3 2025

RESPONSIBLE AGENCY King County Metro

COMMENT This work will begin after the risk specialist is hired and can begin looking at data and trends to recommend a plan of action for Metro Transit Mobility Services leadership to consider.

Recommendation 12

Metro Transit Mobility Services should develop a plan for piloting telematics and documenting lessons learned to inform future use. This should include plans to proactively manage risk, reduce the number of incidents with unexplained causes, and consider what data is necessary.

AGENCY RESPONSE

CONCURRENCE **CONCUR**

IMPLEMENTATION DATE Q4 2025

RESPONSIBLE AGENCY King County Metro

COMMENT An initial telematics plan currently exists to support the program's Zero Emissions transition, specifically their home charging reimbursement effort, to allow for equitable deployment of the EV rideshare fleet. This effort will provide a better understanding of what type and amount of telematics data can be pulled, including data to manage risk as recommended by the auditor. In addition, the automotive manufacturing industry's onboard vehicle safety technology is continuously improving. Metro will incorporate the evaluation and adoption of this improved technology as part of its vehicle procurement process.

Recommendation 13

Metro Transit Mobility Services should document and communicate policies and procedures for staff who monitor and respond to vehicle misuse.

AGENCY RESPONSE

CONCURRENCE **CONCUR**

IMPLEMENTATION DATE Q4 2024

RESPONSIBLE AGENCY King County Metro

COMMENT Metro Transit Mobility Services is currently revising their “Vanpool Manual” which will more clearly document acceptable use for customers as well as provide documentation on “what to do” for staff who work with customers and respond to these scenarios.

Recommendation 14

To ensure responsible and equitable use of public funds, Metro Transit Mobility Services should revise its personal use policy to bring it into alignment with Washington State Transit Insurance Pool guidelines.

AGENCY RESPONSE

CONCURRENCE **CONCUR**

IMPLEMENTATION DATE Q1 2025

RESPONSIBLE AGENCY King County Metro

COMMENT Metro Transit Mobility Services has been working on revising their personal use policy and researched several options. The recommended solution is to align with Washington State Transit Insurance Pool guidelines. Review of the recommended policy revisions by Metro will need to be completed prior to implementing and communicating the change.

Recommendation 15

Metro Transit Mobility Services should assess and document the feasibility and trade-offs of reporting system options that allow volunteer bookkeepers to directly enter vehicle and rider information.

AGENCY RESPONSE

CONCURRENCE **CONCUR**

IMPLEMENTATION DATE Q2 2025

RESPONSIBLE AGENCY King County Metro

COMMENT Implementation will require the approval of an IT project. Metro Transit Mobility Services has done work in the past to generate a requirement analysis for a customer self-serve portal that would help address this recommendation. To date, capital funding has not been identified for an internal solution. Additionally, smaller solutions have been identified and scoped out that could be provided by Smart Rideshare, the vendor that built RidesareOnline.com (the WSDOT ridematch and TDM platform). There is also potential for grant funding available that could be used. By Q2 2025, we hope to have a path for funding available and necessary internal support.



Appendix 2: Statement of Compliance, Scope, Objective, & Methodology

Statement of Compliance with Government Auditing Standards

We conducted this performance audit in accordance with Generally Accepted Government Auditing Standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Scope of Work on Internal Controls

We reviewed internal controls as they relate to the goals of risk mitigation and management.

Scope

This audit evaluated the management and use of the King County Metro Transit Commuter Van Services (Vanpool) program from 2018 to 2023.

Objectives

1. How does the King County Metro Transit Vanpool program align with county and departmental equity and environmental goals?
2. To what extent does the Vanpool program have sufficient processes in place to prevent misuse of county resources?

Methodology

To assess Metro Transit Mobility Services' (Mobility Services) alignment with county and departmental equity and environmental goals, we examined internal Mobility Services documents, policies and procedures, King County Code, and county and departmental strategic documents. We also interviewed King County staff from Mobility Services as well as staff from comparable programs in Washington state and nationally. We compared Mobility Services' strategic planning documents and program activities with equity and environmental goals outlined in the King County Equity and Social Justice Strategic Plan, Metro Connects, and Metro Mobility Framework. We also reviewed ridership data from 2019–2023 and survey data of Vanpool program participants from 2022 and 2023. The survey data represents a sample

of riders (since not all riders responded to the survey) and is not necessarily generalizable to ridership overall.

To determine the extent to which Mobility Services' processes prevent misuse of county resources, we examined internal Mobility Services' documents and policies and procedures. We interviewed staff from Mobility Services and the Office of Risk Management. We used criteria and best practices from the Washington State Transit Insurance Pool, *Standards for Internal Control in the Federal Government* (known as the "Green Book"), and "Goal Planning: Key Elements of a Performance Management Framework" (strategic planning criteria defined by the King County Auditor's Office). We reviewed 143 unexplained damage reports and documentation from 2022 and 2023 to assess who was reporting damage, how soon after the damage occurred, and what type of damage occurred.

Appendix 3: List of Recommendations

Recommendation 1

Metro Transit Mobility Services should develop, document, and implement a plan to create a more affordable Vanpool program fare option that is sustainable without reliance on grant funding.

Recommendation 2

To better focus limited resources, Metro Transit Mobility Services should update and document its strategic plan's equity objectives to be specific, measurable, attainable, relevant, and timely.

Recommendation 3

Metro Transit Mobility Services should develop and document performance measures and targets for its equity goals, regularly assess progress toward meeting the targets, and make necessary adjustments.

Recommendation 4

Metro Transit Mobility Services should document and implement a plan to analyze the impact of electrification on cost and fares, ridership and accessibility, and risk. The plan should incorporate a method to update the analysis as new information becomes available.

Recommendation 5

Metro Transit Mobility Services should assess and regularly update the impact of Vanpool program fleet electrification on progress toward county environmental and equity goals. Metro Transit Mobility Services should communicate its assessment to Metro Transit leadership.

Recommendation 6

Metro Transit should use the information gathered as part of Recommendation 5 to inform its zero emissions strategy.

Recommendation 7

Metro Transit Mobility Services should refine the point system based on risk to ensure consistency in application and to align points with the relative risks of the violations.

Recommendation 8

Metro Transit Mobility Services should hire a risk specialist.

Recommendation 9

Metro Transit Mobility Services should ensure that data systems support proactive risk monitoring such as cost per driver, per vehicle/group, and per incident category over time.

Recommendation 10

Metro Transit Mobility Services should regularly monitor the metrics in Recommendation 9 and respond to patterns that emerge.

Recommendation 11

Metro Transit Mobility Services should identify, document, and implement appropriate controls or incentives to ensure Vanpool volunteer drivers report unexplained damage incidents in a timely manner.

Recommendation 12

Metro Transit Mobility Services should develop a plan for piloting telematics and documenting lessons learned to inform future use. This should include plans to proactively manage risk, reduce the number of incidents with unexplained causes, and consider what data is necessary.

Recommendation 13

Metro Transit Mobility Services should document and communicate policies and procedures for staff who monitor and respond to vehicle misuse.

Recommendation 14

To ensure responsible and equitable use of public funds, Metro Transit Mobility Services should revise its personal use policy to bring it into alignment with Washington State Transit Insurance Pool guidelines.

Recommendation 15

Metro Transit Mobility Services should assess and document the feasibility and trade-offs of reporting system options that allow volunteer bookkeepers to directly enter vehicle and rider information.

Advancing Performance & Accountability

KYMBER WALTMUNSON, KING COUNTY AUDITOR

MISSION Promote improved performance, accountability, and transparency in King County government through objective and independent audits and studies.

VALUES INDEPENDENCE • CREDIBILITY • IMPACT

The King County Auditor’s Office is committed to equity, social justice, and ensuring that King County is an accountable, inclusive, and anti-racist government. While planning our work, we develop research questions that aim to improve the efficiency and effectiveness of King County government and to identify and help dismantle systemic racism. In analysis we strive to ensure that communities referenced are seen, not erased. We promote aligning King County data collection, storage, and categorization with just practices. We endeavor to use terms that are respectful, representative, and people- and community-centered, recognizing that inclusive language continues to evolve. For more information, see the King County [Equity and Social Justice Strategic Plan](#), King County’s [statement on racial justice](#), and the King County [Auditor’s Office Strategic Plan](#).

ABOUT US The King County Auditor’s Office was created by charter in 1969 as an independent agency within the legislative branch of county government. The office conducts oversight of county government through independent audits, capital projects oversight, and other studies. The results of this work are presented to the Metropolitan King County Council and are communicated to the King County Executive and the public. The King County Auditor’s Office performs its work in accordance with Government Auditing Standards.



This audit conforms to Generally Accepted Auditing Standards for independence, objectivity, and quality.