CENTER FOR PUBLIC MANAGEMENT
School of Public Affairs
University of North Texas

September 2026

BENCHMARKING FOR MUNICIPAL FLEET MANAGERS: Supporting Performance Management in Local Government

Part 1

Sustainable Local Policy Lab
Linlang He, PhD
Sophia Van Sickel, MPA Candidate

CENTER FOR PUBLIC MANAGEMENT
School of Public Affairs
University of North Texas

Benchmarking for Municipal Fleet Managers: Supporting Performance Management in Local Government, Part 1

Linlang He
Sophia Van Sickel
Center for Public Management
Department of Public Administration
University of North Texas
September 2, 2026

Suggested Citation:
He, Linlang and Sophia Van Sickel. Benchmarking for Local Government Decision Making: Fleet Manager Survey, Part 1. Denton, TX: Center for Public Management, Department of Public Administration, University of North Texas, September 1, 2026. (pahs.unt.edu/padm/cpm/sustainable-local-policy-lab.html)

Linlang He, PhD, is an Assistant Professor in the School of Public Affairs at the University of North Texas (UNT) and leads the Sustainable Local Policy Lab. She teaches courses in public policy analysis, environmental policy analysis, and local government management. Her research focuses on the environment and social justice, the linkages among natural, built, and social systems within connected rural and urban networks, and the challenges of collaborative governance.

Sophia Van Sickel is a Management Analyst in the Budget and Strategy Department for the town of Flower Mound, Texas. While studying for her Master of Public Administration at UNT she has won multiple awards and scholarships including the Charldean Newell Graduate Scholarship, the UNT College of Public Affairs and Health Sciences Advisory Board Scholarship and the UNT Department of Public Administration MPA Alumni Scholarship. She is also the recipient of the Urban Management Assistants of North Texas (UMANT) William J. Pitstick Scholarship.

Editorial Team
Simon Andrew, PhD
Lydia LeMay. MS
Jeffrey Jon Mecitas

The views and opinions expressed in this working paper are solely those of the author(s) and do not necessarily reflect the views or official positions of the Center for Public Management or the Department of Public Administration.

CENTER FOR PUBLIC MANAGEMENT
School of Public Affairs
University of North Texas

Acknowledgements

We are grateful to the members of the FleetPros Texas Chapter and its leadership team for pilot-testing and participating in our survey. We are also grateful for the Oak Ridge Associated Universities, the UNT VPRI, and the UNT Department of Public Administration for the generous funding support for this project.

This is the first of a two-part series, demonstrating how benchmarking tools support fleet management.

Table of Contents

Executive Summary	01
Recommendations	02
What is Benchmarking?	03
Benchmarking Public Fleet Management: National, State and Local Examples	05
Framework for Public Fleet Management Benchmarking	08
A Multi-Stage Process: Benchmarking Survey Development	09
Moving Forward	13
Municipal Fleet Benchmarking Survey	14
Glossary of Terms	17
References	18
Sustainable Local Policy Lab	19



Executive Summary

Benchmarking has been the subject of significant debate. While it can be a valuable tool for public managers, its application is often complex and accompanied by important methodological and practical considerations.

On one hand, benchmarking holds promise as a management tool for local governments because it is based on the idea that governments can learn from one another (Ammons & Roenigk, 2014). Benchmarking enables local governments to identify successful practices, adapt them to their own contexts, and implement similar workflows to improve operational performance.

However, critics warn that benchmarking can encourage conformity and reinforce mediocrity rather than fostering innovation and excellence (Ammons & Roenigk, 2014; Bovaird & Löffler, 2002; Dattakumar & Jagadeesh, 2003). They point to managerial authorities who have used benchmarking as an incentive mechanism to compare performance, creating a system of "naming and shaming." In such cases, high-performing organizations receive recognition and praise, while lower-performing organizations face public criticism and reputational pressure (Kuhlmann & Jäkel, 2013). The danger with this is, if not applied with care, benchmarking can be reduced to a system of reputational rankings rather than a tool for organizational learning.

Adding to this complexity, while public managers recognize the importance of benchmarking as a tool for improving efficiency, justifying resource allocation, and aligning operations with best practices (Vickers, 2024; Wyrick & Storhaug, 2003), they must also balance operational needs with limited financial resources. This requires optimizing cost-effectiveness by carefully managing expenditures related to fuel, maintenance, insurance, and procurement (Vickers, 2024).

While a survey is a useful tool for benchmarking, developing an effective benchmarking survey is not a straightforward exercise. It is a time-consuming process that requires the collection of data that is both comparable across jurisdictions and meaningful for managerial decision-making. Ensuring consistency in measurement, accounting for differences in organizational contexts, and obtaining reliable data, urther add to the challenge of benchmarking efforts.



Given these challenges, we set out to design a convenient and accessible benchmarking survey for municipal fleet managers in Texas. The goal of this survey is to enable municipalities to compare performance with peers and use this data to support operations decisions.

This study aims to provide fleet managers with a practical, validated, and non-intrusive benchmarking tool that promotes informed decision-making, operational accountability, and continuous improvement.

This is the first survey of its kind for municipal fleet managers in Texas. Unlike broad surveys that benchmark against national or regional averages and lack local peer-group nuance, or cost-prohibitive custom studies that require extensive private consulting, this initiative's focus on relevance, accessibility, and non-intrusiveness addresses a critical gap in existing benchmarking tools for local government fleet management.

Recommendations

Benchmarking for public fleet management is both feasible and meaningful because standardized performance measures are often available and comparable across jurisdictions performing similar activities. In addition, fleet performance is closely tied to the efficiency, effectiveness, and quality of public service delivery. When supported by relevant performance metrics and a commitment to continuous organizational learning, benchmarking enables fleet managers to identify best practices, improve service quality, and make evidence-based decisions rather than relying on assumptions

Recommendation 1

Benchmarking offers broad utility across the full spectrum of local government management —from code compliance, finance, and budgeting to parks and recreation, community development, and economic growth. In municipalities across Texas and throughout the nation, these data-driven insights enable administrators to track long-term operational trends, use performance results to inform budgeting decisions, and serve as a cornerstone for strategic planning.

Recommendation 2

When designing and analyzing benchmarking surveys, public administration professionals and scholars should keep in mind that while benchmarking is a tool for performance evaluation, it is ultimately about the people behind the metrics. Approaching benchmarking with empathy and sensitivity ensures that those involved feel supported rather than targeted or reduced to numbers.

Recommendation 3

For anyone who is interested in developing their own benchmarking survey, embrace its messy process! Creating an effective instrument is an iterative process that involves trial-and-error and continued refinement.

Recommendation 4

Municipal fleet managers are encouraged to benefit from our benchmarking survey. This instrucment was developed through a rigorous, multi-stage, evidence-based process that included the identification, testing, and validation of performance measures within a benchmarking framework. The framework is built on standardized and mutually agreed-upon measures and definitions, ensuring consistency in data collection and analysis.

If you want to learn more about our municipal fleet benchmarking survey, or want to develop your own benchmarking survey, please reach out to us at CPMWorkshops@unt.edu

WHAT IS BENCHMARKING?

Definitions of benchmarking vary across the literature (Ammons & Roenigk, 2014; Anand & Kodali, 2008; Hoods, 2007; Bhutta & Huq 1999); but most share several core elements: **the systematic collection, analysis, and comparison of data across organizations to identify performance gaps and support organizational improvement.** A central premise is that performance can be better understood when viewed in relation to comparable organizations rather than through internal measures alone. By incorporating an external point of reference, benchmarking provides a broader perspective on performance and helps organizations identify areas where change may be needed.

Recommendation #1

Benchmarking offers broad utility across the full spectrum of local government management--from code compliance, finance, and budgeting to parks and recreation, community development, and economic growth. In municipalities across Texas and throughout the nation, these data-driven insights enable administrators to track long-term operational trends, use performance results to inform budgeting decisions, and serves as a cornerstone for strategic planning.

According to Anand and Kodali (2008, p.259), benchmarking can be described as:

> ***"a continuous analysis of strategies, functions, processes, products or services performances, etc. compared within or between best-in-class organizations by obtaining information through appropriate data collection methods, with the intention of assessing an organization's current standards and thereby carry out self-improvement by implementing changes to scale or exceed those standards."***

The definition highlights the importance of benchmarking as a management tool used to compare an organization's processes and outcomes with those of external peers. It is also about sharing information, i.e. willingness of peers to share information (Wyrick & Storhaug, 2003). The objective is to identify opportunities for improvement and adapt practices employed by "best-in-class" organizations (Anand & Kodali 2008; American Productivity & Quality Center [APQC], 1996). In this sense, benchmarking goes beyond measuring performance; **it is also a learning process that seeks to understand how high-performing organizations achieve superior results.**

THREE TYPES OF BENCHMARKING

According to Ammons and Roenigk (2014), in the public sector, there are three types of benchmarking. The first involves comparing performance statistics against established standards and metrics. Christopher Hood (2007) refers to this approach as "**management by numbers**". He explains that this type of benchmarking encompasses systems such as rankings, targets, metric benchmarking, and results benchmarking. The objective is to reveal performance gaps by comparing organizational outcomes against accepted standards or peer benchmark

Metric benchmarking can take either an individual or a cooperative form. In the individual form, for example, a government unit compares its performance with that of similar organizations. In the cooperative form, a group of local governments collaborates to develop a common set of performance measures and compile comparable statistics for benchmarking purposes (Ammons & Roenigk, 2014).

The second type of benchmarking is vision-oriented (Ammons & Roenigk, 2014). Rather than focusing primarily on performance metrics, local governments begin with broad strategic goals and then adopt standards or benchmarks that align with their desired future state. This approach – **vision-based benchmarking** – is often tied to community aspirations and desired social, economic, or environmental conditions.

The third type of benchmarking is commonly referred to as **process benchmarking** (Bowerman et al., 2002) and is most closely associated with best-practice benchmarking. This approach focuses on identifying organizations that are recognized as “best-in-class” or “world-class” performers in a particular function or service area.



The City of Plano's vision of becoming a global leader is embedded in the guiding principles of its comprehensive planning efforts, including Plano Today, Plano 2050, and Plano Together. In this form of benchmarking, progress is assessed against a collectively defined vision of the future rather than against the performance of peer jurisdictions.

Photo courtesy of the City of Plano

A best-practice benchmarking process typically involves: (1) identifying high-performing organizations, (2) analyzing their processes to determine the factors that contribute to superior performance, (3) adapting those key elements to fit the local context, (4) implementing the resulting changes, and (5) monitoring outcomes while making adjustments as necessary (see Ammons & Roenigk, 2014).

Unlike metric benchmarking, which compares performance outcomes across organizations, process benchmarking concentrates on understanding and improving a specific process. As a result, it tends to be narrower in scope, focusing on how work is carried out rather than on overall organizational performance. The assumption is that the organization will use these insights to improve efficiency, effectiveness, and service delivery within the benchmarking organization.

BENCHMARKING PUBLIC FLEET MANAGEMENT: NATIONAL, STATE AND LOCAL EXAMPLES

Relatively little research has been published on public-sector fleet management. Much of the existing literature focuses on transportation systems and public transit, particularly the development of traffic models, optimization techniques, and computational methods used to simulate and improve fleet operations. In addition, there is a limited body of empirical research examining the management and performance of municipal and government vehicle fleets.

The available literature consists primarily of consultant reports, benchmarking studies, policy documents, and guidance developed by federal agencies, professional associations, and industry organizations. These sources tend to emphasize performance indicators, operational standards, and recommended practices rather than providing extensive empirical analyses of fleet management outcomes. As a result, much of the current knowledge base is derived from practitioner-oriented reports, benchmarking initiatives, and professional training programs and webinars that promote adherence to established fleet management standards and best practices.

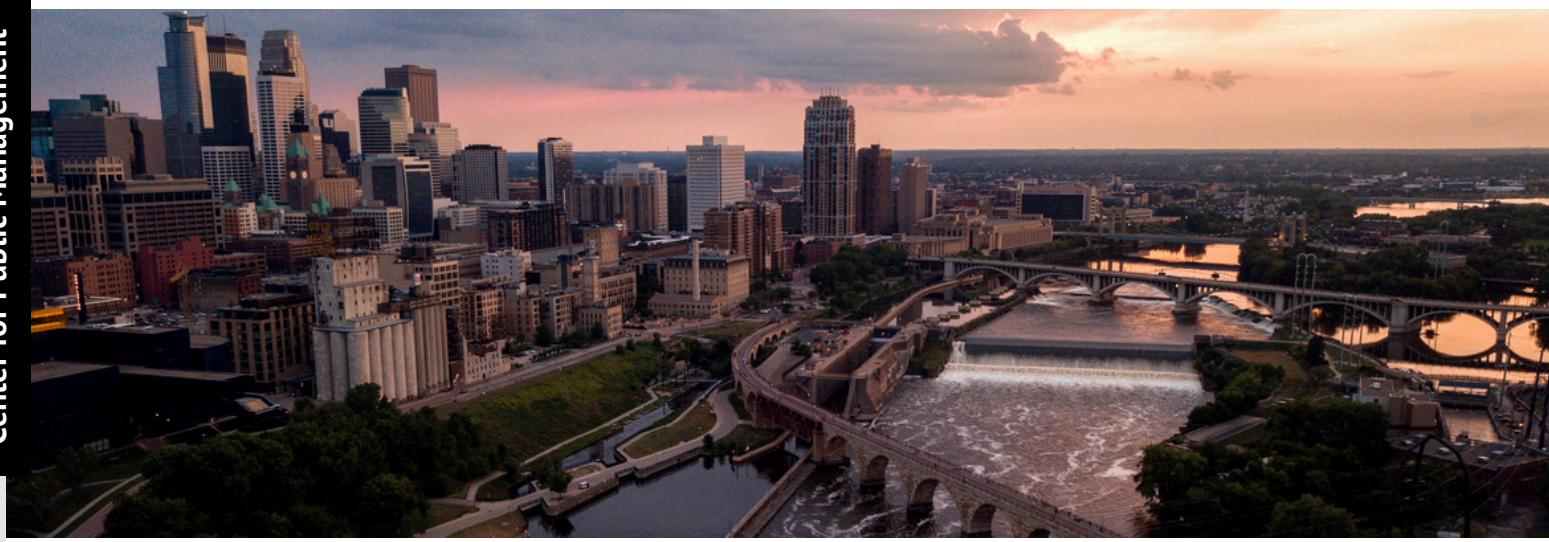


NATIONAL FLEET BENCHMARKING

Policy and guidance developed by federal agencies and professional associations: The U.S. General Services Administration (GSA) oversees the federal fleet management policy and works closely with other agencies responsible for effective management of government vehicle fleets. According to a FedFleet Webinar (Aaron et al., 2023), **federal fleet management best practices emphasize the importance of establishing clear, written fleet policies to guide vehicle operations and management.** Well-defined policies support strategic planning and goal setting, improve problem-solving, provide consistent guidance to supervisors, promote teamwork, reduce operational confusion, and strengthen control over costs and fleet activities.

National organizations such as the NAFA Fleet Management Association and the American Public Works Association (APWA) focus on core fleet management functions that are common across agencies, including fuel consumption, preventive maintenance compliance, vehicle replacement cycles, equipment downtime, and total cost of ownership (NAFA Fleet Management Association, n.d.; American Public Works Association, n.d.). Consistent with this emphasis, **APWA offers professional development opportunities such as its "Fleet Benchmarking for Advanced Decision Making" training course within the Certified Public Fleet Professional (CPFP) program, highlighting the role of benchmarking in supporting data-driven fleet management and continuous improvement (American Public Works Association, n.d.)**.

STATE FLEET MANAGEMENT STUDY



The Minnesota Benchmarking Study (2003): One notable state-level benchmarking study was conducted by the Center for Transportation Studies at the University of Minnesota-Duluth (Wyrick & Storhaug, 2003). The benchmarking fleet management study was used to identify best practices in fleet management for the Minnesota Department of Transportation (MnDOT). The study employed a two-phase approach that included both regional and national assessments.

In the study, the regional assessment phase aimed to examine a range of public and private organizations to find out what MnDOT was or was not doing compared to this comparison group. This comparison group had 25 organizations in it, with minimal representation of local municipalities. The national phase involved participation from 35 state DOTs and included seven benchmarking interviews with Arizona, Maine, Michigan, New Hampshire, New York, Oregon, and Pennsylvania – with a goal to identify best practices from other states that MnDOT should consider.

The Minnesota benchmarking study (2003) proposed comprehensive objective performance measures at the statewide, district, and maintenance shop levels.

One of the most important strengths of the Minnesota benchmarking study was its comprehensive and systematic approach to evaluating fleet management performance.

The study was firmly grounded in established performance measurement and benchmarking literature, drawing on frameworks and best practices developed by organizations such as the American Productivity & Quality Center (APQC).

To ensure both methodological rigor and practical relevance, the researchers engaged a Benchmarking Discussion Group and employed multiple analytical techniques, including Cause-and-Effect Analysis (CEA), Quality Function Deployment (QFD), surveys, structured interviews, and on-site benchmarking visits. That said, **challenges that come with benchmarking are also apparent from this report.** While the report tracked the utilization of 186 benchmarking metrics, the sheer volume of questions makes it challenging to go beyond yes/no binary responses. **Despite the two rounds of effort, there was a lack of feedback from city and government agencies.**

LOCAL FLEET MANAGEMENT STUDY

A notable example of benchmarking at the municipal level is the City of Dallas Fleet Management Study (Alvarez & Marsal, 2018). The study provided a detailed and methodologically rigorous assessment of the City's fleet operations within the Equipment and Building Services and related departments.

The Dallas Fleet Management Study (2018) benchmarked the City of Dallas against data from several governmental sources, including Government Fleet/U.S. General Services Administration (GSA), the State of Texas, and the City of Tulsa. The benchmarking analysis focused on five (5) primary performance dimensions: vehicle age (i.e., average age of fleets), vehicle mileage (i.e., average annual mileage), maintenance costs (i.e., average maintenance cost per vehicle per year), staffing levels (i.e., number of vehicles for every mechanic), and utilization (i.e., number of vehicles driven less than 5,000 miles per year).

In this report, the selected performance measures were not formally benchmarked against specific peer organizations, but to national average data and Federal civilian data. Although national benchmarks can provide valuable context and help identify broad industry best practices, their usefulness for local decision-making may be limited by regional and organizational differences**.** Municipal fleet operations are influenced by factors such as financial capacity, staffing resources, infrastructure conditions, climate, service demands, and overall organizational capabilities.

Although national benchmarks can provide valuable context and help identify broad industry best practices, their usefulness for local decision-making may be limited by regional and organizational differences.



FRAMEWORK FOR PUBLIC FLEET MANAGEMENT BENCHMARKING

The current state of benchmarking in public fleet management underscores a broader gap in local government management practices: the **absence of a standardized, regionally adaptable survey tool that is both comprehensive and accessible.** Effective benchmarking should not be limited to large municipalities with significant analytical capacity. It needs to be scalable and inclusive, allowing smaller cities to participate. When benchmarking surveys account for the local context, public managers can make informed decisions that reflect the realities of their operating environment. There is a need for a regional benchmarking framework that enables more meaningful, actionable, and context-specific comparisons among local governments. The success of such a survey is dependent on the willingness of participating organizations to share operational data; therefore, it must avoid excessive complexity to prevent respondent fatigue and confusion. Signnificantly, a fleet management benchmarking survey must consider a variety of performance indicators.

FLEET MANAGEMENT PERFORMANCE FRAMEWORK

Based on the performance measurement framework established by Poister et al. (2014), operational metrics are divided into six core dimensions.

1. RESOURCES (INPUTS)	2. OUTPUTS (WORKLOAD)	3. EFFICIENCY & PRODUCTIVITY	4. SERVICE QUALITY	5. COST-EFFECTIVENESS	6. OUTCOMES & CUSTOMER PERSPECTIVE
					
---	---	---	---	---	---
Measures the resources available to operate the fleet.	Measures the volume of services provided.	Measures how effectively resources are converted into outputs.	Measures the reliability, safety, and quality of fleet services.	Measures the relationship between performance and costs.	Measures the ultimate results and stakeholder perceptions.
EXAMPLE • Number of mechanics and administrative staff • Fleet size • Operating budget	EXAMPLE • Number of work orders completed • Preventive maintenance inspections performed • Vehicles serviced	EXAMPLE • Vehicles per mechanic • Work orders per technician • Labor hours per repair • Fleet utilization rate	EXAMPLE • Preventive maintenance compliance rate • Vehicle availability rate • On-time repair completion	EXAMPLE • Cost per mile • Maintenance cost per vehicle • Total cost of ownership (TCO)	EXAMPLE • Customer satisfaction ratings • Reduced operating costs • Improved safety performance

The categorization of performance indicators can be organized into 6 overarching dimensions: (1) resources (inputs), (2) outputs (workload), (3) efficiency and productivity, (4) service quality, (5) cost-effectiveness, and (6) outcomes/customer perspective. Together, these dimensions provide a framework for evaluating fleet performance by capturing the resources invested in operations, the volume of services delivered, the efficiency with which resources are utilized, the quality and reliability of service, the costs incurred, and the outcomes experienced by fleet users and other stakeholders.

A MULTI-STAGE PROCESS: BENCHMARKING SURVEY DEVELOPMENT

This section describes how our team developed our benchmarking survey for municipal fleet managers. As shown in **Figure 1**, the survey was developed through a multi-stage process informed by insights from the performance measurement and benchmarking literature, as well as inputs from municipal fleets professionals. The multi-stage approach also combined evidence from research with practitioners' expertise to ensure the survey captured relevant, reliable, and actionable benchmarking data.

Most importantly, we ensured the survey could capture peer groups. An effective benchmarking survey helps fleet managers **benchmark their performance against organizations with similar fleet sizes and resource capacities**, with a goal to identify opportunities to improve fleet management effectiveness and competitiveness.

The survey reflects a deliberate balance between comprehensiveness and usability.

Literature Review: As discussed in our earlier sections, this stage consisted of two primary tasks: (1) developing a benchmarking framework and (2) identifying and synthesizing relevant standardized performance metrics from the benchmarking and public-sector performance measurement literature. This review provided the conceptual foundation for the survey and helped ensure that the selected measures reflected established practices and research findings.

In addition to performance metrics from the academic literature, the development of a survey instrument—discussed later — was developed using a combination of industry best practices and practitioner input to ensure both relevance and usability.

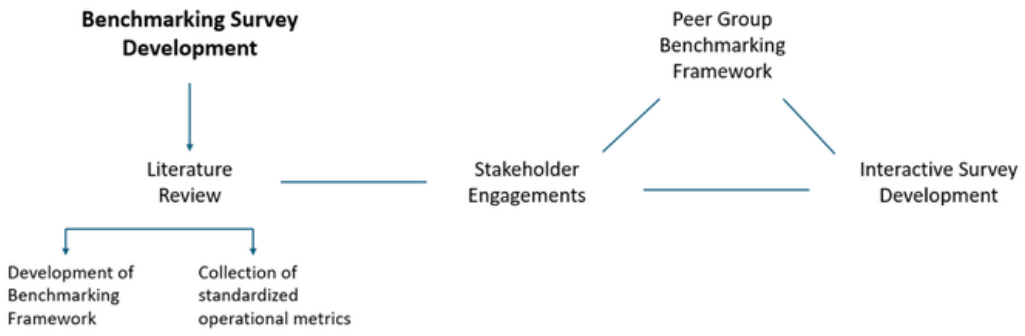


Figure 1 illustrates the development of the benchmarking survey using a multi-stage, evidence-based approach that integrated insights from benchmarking literature, public sector performance measurement literature, and inputs from municipal fleets professionals.

Established benchmarking frameworks from the American Public Works Association (APWA), for example, served as a foundation for identifying key performance areas and operational categories commonly used in public fleet management. These frameworks helped ensure alignment with nationally recognized practices while allowing the research team to streamline the survey and focus on the measures most relevant to municipal fleet operations.

Additional guidance was drawn from publications produced by the NAFA Fleet Management Association, particularly regarding performance measurement, fleet operations, and emerging industry trends. **The resulting survey balances methodological rigor with practical applicability, providing municipalities with a benchmarking tool that is both informative and manageable to complete.**

Stakeholder Engagement: The purpose of this stage was to understand fleet managers' preferences, perspectives, and operational priorities. Insights gathered during this process helped the research team identify the issues that managers considered most important, including vehicle performance, cost efficiency, asset utilization, and overall operational effectiveness.

To collect this information, the research team worked with fleet professionals from *__FleetPros__ – a non-profit fleet management association with a goal to support fleet professionals through education, networking, and resources – and attended its Texas Chapter quarterly meetings, where input was obtained from fleet managers and industry professionals. These engagements were further supplemented through focus group discussions, which provided valuable feedback on fleet managers' priorities.

Subsequently, the research team agreed to assist with collecting and administering benchmarking data that would support informed operational decision-making.

*For more information regarding FleetPros please check their website at www.fleetpros.org/

Recommendation #2

When designing and analyzing benchmarking surveys, public administration professionals and scholars should keep in mind that while benchmarking is a tool for performance evaluation, it is ultimately about the people behind the metrics. Approaching benchmarking with empathy and sensitivity ensures that those involved feel supported rather than targeted or reduced to numbers.

Interactive Survey Development: The goal of this stage was to improve the clarity, relevance, and usability of the survey while ensuring that it reflected the needs and priorities of municipal fleet professionals. Through our stakeholder engagement, the research team and the fleet managers jointly determined the specific sections to be included in the benchmarking survey and revised the language of the questions so that they are straightforward, non-intrusive, and relatable to the operational environments and data systems used on a daily basis (e.g., adopting terms from their current KPI tracking forms and using categories easily exportable from their current telematics data tracking systems).

Recommendation #3

For anyone interested in developing their own benchmarking survey, embrace its messy process! Creating an effective instrument is an iterative process that involves trial-and-error and continued refinement.

Particular care was taken to ensure that questions were framed in a neutral and operationally focused manner, avoiding terminology that could be associated with personnel evaluation, organizational restructuring, or other sensitive topics. This decision recognizes a common concern among fleet personnel that data collection efforts may be used to justify workforce reductions or organizational restructuring. By emphasizing operational and performance metrics rather than personnel-related measures, the survey was designed to build trust, encourage participation, and improve the quality and reliability of responses.

By emphasizing operational and performance metrics rather than personnel-related measures, the survey was designed to build trust, encourage participation, and improve the quality and reliability of responses.

The final survey reflects a deliberate balance between comprehensiveness and usability. While earlier iterations explored a broader set of implementation phases and categories, the finalized version prioritizes those most closely aligned with the goals identified by FleetPros managers. The final survey instrument consists of five primary sectionss:

1. Fleet Size and Composition,
2. Fuel Usage,
3. Fleet Staffing and Workload,
4. Fleet Maintenance, and
5. Resources and Capacity Building Practices.

Survey Distribution and Data Collection: After rounds of pilot-testing, the official survey was launched in May 2025 at FleetPros Texas Chapter's quarterly meeting in Waco. A streamlined version of the survey was also distributed to participants of FleetPros' annual conference in September 2025 in Glendale, Arizona.

The final survey was designed to be distributed across multiple formats, i.e., digital platforms, QR codes, and hard copy options, ensuring that agencies with varying levels of technological capacity can participate. A copy of the survey instrument is provided near the end of this report. To support consistent interpretation of responses, a glossary of technical terms was also developed and included with the survey.

Our survey received 23 usable responses from municipal fleets. Survey results were aggregated and presented in San Antonio at the Texas chapter's year-end meeting in December 2025. Individual benchmarking reports were sent out to participating fleets in early 2026.

Benchmarking Groups: The 23 responses we collected allowed us to construct four meaningfully different benchmarking groups for our participants based on fleet size, budget size, and staffing levels. These criteria were chosen because they have a direct influence on operational capacity, resource availability, and service demands. This approach enabled comparisons to be made regarding municipalities' performance with similar organizational size while accounting for differences in scale and operating environments. Benchmarking criteria and the resulting benchmarking groups are shown below.

To ensure meaningful comparisons among participating municipalities, the survey also collected contextual information such as population served, geographic service area, and other jurisdictional characteristics that may influence fleet operations and performance. This information is especially important for ambiguous cases that are hard to fit into a single group.

Group 1	characterized by larger cap, small/med staff size, and med vehicle size	5 fleets
Group 2	characterized by larger cap, larger staff size, and larger vehicle size	8 fleets
Group 3	characterized by med cap, small/med staff size, and med vehicle size	6 fleets
Group 4	characterized by smaller cap, small/med staff size, and med vehicle size	4 fleets

Definition Key:

Operating Budget size (excluding vehicle replacements)
- small cap: < $1 million
- mid cap: $1 million - $ 5 million
- larger cap: > $ 5 million

Fleet size
- Med vehicle size: Light-duty vehicle <=500; or Reported fleet size total <=800
- Larger vehicle size: Light-duty vehicle >500; or Reported fleet size total >800

Staff size (technicians + admin. Support + other full-time headcounts included in payroll):
- Small/med: reported fleet staff size <=25
- Larger; reported fleet staff size > 25

MOVING FORWARD

Through multiple rounds of benchmarking a preliminary dataset has been established that includes municipalities from the Texas chapter as well as states such as Colorado, Nevada, and Arizona. The aggregate summary results for these participating fleets will be shared in the second part of this report.

The survey is designed with scalability in mind and we anticipate collecting additional data overtime, allowing the survey to evolve and better reflect the needs of fleet managers. This future iteration will seek to ensure that the tool remains responsive to operational realities and emerging industry trends.

The more fleet managers that participate in this survey, the more robust the benchmarking comparisons. This will allow municipalities to identify more precise peer groups based on size, capacity, and service demands.

While the current version prioritizes accessibility and ease of completion, future iterations may incorporate additional questions to deepen analytical value, provided that such expansions do not compromise participation rates. This balance between depth and usability will remain a central consideration as the tool develops over time. In the next section you will find our survey.



Recommendation #4

Municipal fleet managers are encouraged to benefit from our benchmarking survey. This instrument was developed through a rigorous, multi-stage, evidence-based process that included the identification, testing, and validation of performance measures within a benchmarking framework. The framework is built on standardized and mutually agreed-upon measures and definitions, ensuring consistency in data collection and analysis.

If you want to learn more about our municipal fleet benchmarking survey, or want to develop your own benchmarking survey, please reach out to us at CPMWorkshops@unt.edu

Municipal Fleet Benchmarking Survey

Name and Contact Information
Organization Name:
Which State Is Your Organization Based in?:

There are 5 Categories of questions in total. It will take roughly 20 minutes for you to answer all the questions.

Category 1: Fleet Size and Composition

Qn. 1.1. How many vehicles in your fleet are licensed for travel on roads?

Light-duty vehicles (<10,000 lbs.) _____
Medium-duty vehicles (10,000 - 26,000 lbs.) _____
Heavy-duty vehicles (>26,000 lbs.) _____

Qn. 1.2. How many police pursuit vehicles do you have in your light-duty fleet (with a gross vehicle weight rating under 10,000 lbs.) _____?

Qn. 1.3. Can you tell us a little more about your heavy-duty fleet?

	Do you have this vehicle type in your fleet?		**Do you provide in-house maintenance on them?**	
	Yes	No	Yes	No
Fire Trucks	◯	◯	◯	◯
Dumpter Trucks	◯	◯	◯	◯
Street Sweepers	◯	◯	◯	◯

Category 2: Fuel Usage

Qn. 2.1. What is the average annual mileage, fuel efficiency, and average age for the following vehicle types in your fleet?

Police Pursuit Vehicles:
Average Annual Mileage: _____
Average Fuel Efficiency: _____
Average Age: _____

Non-Police Light-Duty Vehicles:
Average Annual Mileage: _____
Average Fuel Efficiency: _____
Average Age: _____

Mileage Options:
A. Less than 10,000 miles
B. 10,000 - 20,000 miles
C. 20,000 - 30,000 miles
D. 30,000 - 40,000 miles
E. More than 40,000 miles

Fuel Efficiency Options:
A. Less than 10 MPG
B. 10 - 15 MPG
C. 15 - 20 MPG
D. 20 - 25 MPG
E. More than 25 MPG

Qn. 2.2. Do you have low-emission vehicles or alternative fuel vehicles in your light-duty fleet?: Yes No Considering

Do you have any electric vehicles in your light-duty fleet?: Yes No Considering
If yes, how many? _____

Qn. 2.3. Please select the option that most closely aligns with your opinion for each of the following statements.

	Strongly Agree	Somewhat Agree	Neutral	Somewhat Disagree	Strongly Disagree
1. Electric Vehicles (EVs) are viable alternatives to conventional vehicles.	◯	◯	◯	◯	◯
2. I am concerned about EVs' potential fire hazard.	◯	◯	◯	◯	◯
3. I am concerned about the need to update technicians' skills with EV adoption	◯	◯	◯	◯	◯
4. There is not much accessible information regarding the cost of owning an EV.	◯	◯	◯	◯	◯

Category 3: Fleet Staff and Workload

Qn. 3.1. How many staff members do you have in the following categories?

Technicians on the floor: _____

Administrative support staff: _____

Others such as supervisors/managers: _____

Qn. 3.2. Do you have regular night-shift technicians?

Yes No Considering

Qn. 3.3. What is your vehicle-to-technician ratio?

A. 0 - 10 vehicles per technician

B. 10 - 20 vehicles per technician

C. 20 - 30 vehicles per technician

D. 30 - 40 vehicles per technician

E. 40 - 50 vehicles per technician

F. 50 - 60 vehicles per technician

G. More than 60 vehicles per technician

Category 4: Fleet Maintenance

Qn. 4.1. How do you categorize your maintenance/repair orders?

	Scheduled	Non-scheduled
Issues flagged during routine preventive maintenance	◯	◯
Emergency repair deferred and scheduled for off-hours	◯	◯

Qn. 4.2. Roughly what percentage of labor hours is spent on non-scheduled work orders?

_____ Percent

"Scheduled" work orders normally refer to planned maintenance tasks for fleet vehicles that follow a predetermined timeline based on usage, time, or manufacturer recommendations. "Non-scheduled" work orders are reactive maintenance/repair triggered by unexpected events like engine failure.

Qn. 4.3. Which of the following services are outsourced at your organization? (Select all that apply)

- ☐ Body and paint
- ☐ Towing
- ☐ Glass
- ☐ Transmission work
- ☐ Engine
- ☐ Uplifting
- ☐ Wheel alignment
- ☐ Heavy-duty Tire Repair and Replacement
- ☐ Others (Please specify):_____

Category 5: Resources and Capacity Building

Qn. 5.1. What is your annual fleet operating budget excluding vehicle replacements?

- ◯ $0-$250,000
- ◯ $250,001-$500,000
- ◯ $500,001-$1,000,000
- ◯ $1,000,001-$5,000,000
- ◯ $5,000,000+

Qn. 5.2. Please provide more information about your financial resources.

	Yes	No
Does your organization have a designated vehicle replacement fund?	◯	◯
Does your department provide tool allowance for existing technicians and new hires?	◯	◯
Over the past five years, has your department used donation or external grant for vehicle replacement?	◯	◯

Qn. 5.3. What do you consider to be valuable being part of FleetPros? Pick all that apply)

- ☐ Participating in the (online or in-person) trainings and courses provided
- ☐ Learning from peers' experiences
- ☐ Staying up-to-date with the latest market trends and technology development
- ☐ Trouble-shooting challenges encountered at work
- ☐ Establishing contacts with vendors
- ☐ Making friends and being part of a great community

--Thank You! You have reached the end of the benchmarking survey--

GLOSSARY OF TERMS

Alt Fuel Vehicle	A vehicle that operates on a fuel other than traditional gasoline or diesel.
Average Mileage	The mean number of miles traveled by vehicles in a fleet over a given time period.
Capacity Building	Activities and strategies aimed at strengthening an organization's ability to manage its fleet effectively.
Electric Vehicle	A vehicle powered entirely or primarily by an electric motor using energy stored in rechargeable batteries.
External Benchmarking	The practice of comparing an organization's fleet performance metrics against those of peer organizations.
Fleet Composition	The mix and distribution of vehicle types within an organization's fleet.
Fleet Management	The process of coordinating and overseeing all aspects of an organization's vehicle fleet.
Fuel Efficiency	The amount of distance a vehicle can travel per unit of fuel consumed.
Internal Performance	An internally conducted assessment comparing current fleet metrics against the organization's own historical data or targets.
Light, Medium, & Heavy Duty	Light-duty vehicles are under 10,000 lbs GVWR; medium-duty are 10,001–26,000 lbs; heavy-duty exceed 26,000 lbs.
Low Emissions Vehicle	Vehicles designed to reduce harmful exhaust emissions compared to conventional vehicles.
Non-Scheduled Work Orders	Maintenance or repair tasks that arise unexpectedly and are not part of routine scheduled maintenance.
Off Hours	Time periods outside standard working hours during which fleet vehicles may or may not be in use.
Operating Budget	A financial plan outlining the expected costs of running fleet operations over a specific period.
Peer Organizations	Organizations with similar size, structure, and operational scope used as comparison points in benchmarking.
Performance Measurement	The systematic process of collecting, analyzing, and reporting data on fleet operations.
Police Pursuit Vehicles	Specialized law enforcement vehicles equipped and rated for high-speed pursuits.
Resource Endowment	The quantity and quality of resources available to an organization for fleet operations.
Services Outsourced	Operational or maintenance tasks contracted to external vendors rather than performed in-house.
Tool Allowance	A monetary reimbursement or stipend provided to technicians for purchasing and maintaining their own tools.
Vehicle Replacement Fund	A dedicated reserve account set aside to finance the purchase of new vehicles when existing ones reach end of life.
Vehicle Replacements	The planned removal and replacement of aging or underperforming vehicles in a fleet.
Vehicle-to-Technician Ratio	A performance metric comparing the number of vehicles in a fleet to the number of technicians available to service them.
Vehicle Utilization	A measure of how frequently and efficiently vehicles in a fleet are being used.

REFERENCES

Aaron, C., Chisolm, D., & Jack, R. (2023, January). Best practices in federal fleet management [Webinar]. U.S. General Services Administration. https://www.gsa.gov/system/files/Correct_copy_of_FedFLeet_2023_Best_Practices_in_Federal_Fleet_Management_Session_508.pdf

Alvarez & Marsal. (2018, December 5). City of Dallas fleet management study: Executive summary report. City of Dallas. *https://dallascityhall.com/departments/budget/financialtransparency/DCH%20Documents/FMS.pdf*

American Productivity & Quality Center. (1996). Emerging best practices in knowledge management.

American Public Works Association. (n.d.). Fleet benchmarking for advanced decision making. *https://www.apwa.org/resource/fleet-benchmarking-for-advanced-decision-making/*

Ammons, D. N., & Roenigk, D. J. (2014). Benchmarking and interorganizational learning in local government. *Journal of Public Administration Research and Theory, 25(1),* 309–335. https://doi.org/10.1093/jopart/muu014

Anand, G., & Kodali, R. (2008). Benchmarking the benchmarking models. *Benchmarking: An International Journal, 15(3), 257–291*. https://doi.org/10.1108/14635770810876593

Bhutta, M. K. S., & Huq, F. (1999). Benchmarking–best practices: An integrated approach. *Benchmarking: An International Journal, 6(3),* 254–268. https://doi.org/10.1108/14635779910289261

Bovaird, T., & Löffler, E. (2002). Moving from excellence models of local service delivery to benchmarking "good local governance". *International Review of Administrative Sciences,* 68(1), 9–24. https://doi.org/10.1177/0020852302681001

Bowerman, M., Francis, G., Ball, A., & Fry, J. (2002). The evolution of benchmarking in UK local authorities. *Benchmarking: An International Journal,* 9(5), 429–449. https://doi.org/10.1108/14635770210451455

Dattakumar, R., & Jagadeesh, R. (2003). A review of literature on benchmarking. *Benchmarking: An International Journal, 10*(3), 176–209. https://doi.org/10.1108/14635770310477744

Hood, C. (2007). Public service management by numbers: Why does it vary? Where has it come from? What are the gaps and the puzzles? *Public Money & Management, 27*(2), 95–102. https://doi.org/10.1111/j.1467-9302.2007.00564.x

Kuhlmann, S., & Jäkel, T. (2013). Competing, collaborating or controlling? Comparing benchmarking in European local government. *Public Money & Management, 33*(4), 269–276. https://doi.org/10.1080/09540962.2013.799815

NAFA Fleet Management Association. (n.d.). *Certification.* https://www.nafa.org/certification/

Poister, T. H., Aristigueta, M. P., & Hall, J. L. (2014). *Managing and measuring performance in public and nonprofit organizations: An integrated approach.* John Wiley & Sons.

Vicker, J. N. (2024). *The importance of cost optimization in fleet management for public institutions* [Master's creative component, Iowa State University]. Iowa State University Digital Repository. https://dr.lib.iastate.edu/server/api/core/bitstreams/68fe14a3-b21f-4ef4-b652-14cd7ea239a2/content

Wyrick, D. A., & Storhaug, B. J. (2003). *Benchmarking fleet management* (Final Report CTS 04-10). Center for Transportation Studies, University of Minnesota. https://conservancy.umn.edu/server/api/core/bitstreams/40980d00-7b54-4f9f-820a-0ad5e741e22f/content

Sustainable Local Policy Lab

A key contribution of this effort is its role within the Sustainable Local Policy Lab, which has pioneered one of the first survey instruments specifically designed to assess municipal fleet management capacity in relation to peer benchmarking. Unlike broader or nationally oriented datasets, this initiative emphasizes comparibility among municipalities with similar resource levels and operational constraints, addressing a critical gap in existing benchmarking practices.

By examining both internal capacity and external constraints, the Sustainable Local Policy Lab seeks to inform more effective decision-making at the municipal level. This includes contributing to policy development, supporting advocacy coalitions, and helping shape strategic agendas that respond to evolving challenges. Ultimately, the goal is to equip municipalities with the tools and data necessary to adapt to shifting economic, environmental, and organizational conditions, while also identifying opportunities for innovation and improved service delivery.

The Sustainable Local Policy Lab is one of three labs in the Center for Public Management. The Lab is led by Dr. Linlang He, Assistant Professor in the Department of Public Administration at the University of North Texas. For more information on the Lab please visit our website at pahs.unt.edu/padm/cpm/sustainable-local-policy-lab.html.



Center for Public Management
School of Public Affairs
University of North Texas

The Center for Public Management is the professional development arm of the University of North Texas' Department of Public Administration, home of the NASPAA accredited Master of Public Administration Program, #1 in Texas for Local Government Management and #1 for Public Budgeting and Finance.

The mission of the Center for Public Management is to build capacity in the public and nonprofit sectors through research, training and community engagement. For nearly 35 years, CPM has served as a resource for lifelong learning and professional education. Our research is university led, practitioner informed and for the public good.

pahs.unt.edu/padm/cpm/ 940-360-6157 cpmworkshops@unt.edu
Center for Public Management
School of Public Affairs
1155 Union Circle #305129
Denton, TX 76203-5017