MONTGOMERY COUNTY
DEPARTMENT OF TRANSPORTATION

Commuter Survey Report

2025

MCDOT

Table of Contents

List of Tables

List of Figures

MCDOT

Executive Summary

7,743
Commuter Surveys Collected

Respondent Breakdown
Employees
Residents

Commutes Analyzed
2-Hour Peak
3-Hour Peak
Off-Peak

The Montgomery County Department of Transportation (MCDOT) conducts a biennial commuter survey in compliance with Section 42A-28 of the Montgomery County Code, which directs the County to report data on employee and residential commuting patterns obtained through a survey or other available mechanisms. Using the survey, MCDOT tracks response rates, Non-Auto Driver Mode Share (NADMS), average vehicle occupancy (AVO) rates, and other transportation measures for each Transportation Management District (TMD). The TMDs represent areas of dense employment as well as growth areas targeted for efforts to reduce single occupant vehicle (SOV) traffic. The survey results serve as one of the County's tools for monitoring commuter behavior and transportation demand management efforts, informing County planners' and elected officials' land use and transportation policy decisions.

For the 2025 survey, MCDOT reviewed prior survey questions and layouts in order to make improvements to increase response rates. The agency distributed separate surveys to employees and residents across the county's six TMDs, and other key locations. MCDOT also provided a Spanish-language version for both employees and residents.

The 2025 Commuter Survey collected detailed information on employees' and residents' travel choices, including mode of travel, arrival and departure times, work schedules, parking availability, and transportation benefits. MCDOT reported the results on respondent rates, NADMS, AVO, and other metrics for TMDs, employers, and certain development projects for both the two-hour (7:00 a.m. - 8:59 a.m.), three-hour peak commuting periods (6:30 a.m. - 9:29 a.m.), and off-peak commuting.

Executive Summary (Cont'd)

Employee surveys requested information from workers in private businesses with more than 25 employees and government offices, while resident surveys focused on individuals living in apartments, condominiums, and other multi-unit housing. MCDOT primarily distributed surveys online via email links to employers and building managers, with paper copies provided upon request. County staff and contractors promoted the survey on the County website; across the County's social media platforms; through the Commuter Services e-newsletter and e-blasts; and at outreach events using QR codes linked to a GIS-based tool developed by the County staff that directed responses to surveys in both English and Spanish.

The County collected a total of 7,743 commuter surveys (6,568 employee and 1,175 resident), resulting in a ± 1.09% margin of error at a 95% confidence level. When analyzed separately, the employee results yield a ± 1.17% margin of error at 95% confidence, and resident data had a ± 2.84% margin of error at 95% confidence. A 95% confidence interval is used as the industry benchmark for surveys. The low margins of error demonstrate that the commuter survey results are statistically precise and meet industry standards for significance at the 95% confidence level; however, precision alone does not guarantee that the sample fully represents the broader commuting population.

MCDOT received fewer responses in 2025 than in previous years, which may limit how fully the results reflect current commuting patterns. Participation in the MCDOT survey is voluntary, which naturally influences overall response levels. **TABLE 1** shows a comprehensive list of response rates by survey type and TMD.

TABLE 1: FY25 Response Rates for Employee and Residential Commuter Surveys

Major Area	Employee			Resident		
	Number of Responses	Estimated Population Size	Response Rate (%)	Number of Responses	Estimated Population Size	Response Rate (%)
Bethesda	612	11,308	5.4%	408	14,147	2.9%
Friendship Heights	153	3,187	4.8%	18	3,461	0.5%
Greater Shady Grove	1,056	30,500	3.5%	145	8,106	1.8%
North Bethesda	1,498	20,388	7.3%	357	9,971	3.6%
Silver Spring	1,136	11,486	9.9%	213	4,219	5.0%
White Oak	780	4,822	16.2%	34	5,489	0.6%
Countywide East	157	3,961	4.0%	0	-	-
Countywide West	470	11,941	3.9%	0	-	-
Montgomery County Employees	706	15,504	4.6%	0	-	-
Total	**6,568**	**113,097**	**5.8%**	**1,175**	**45,393**	**2.6%**

- No residential data collected in these geographic areas.

Executive Summary (Cont'd)

TMD Mode Share Goals and Survey Results

The county's six TMDs each have specific NADMS goals, adopted by the County Council in the 2024-2028 Growth and Infrastructure Policy (GIP) and focused on the peak periods of vehicle travel as outlined in the above section. **TABLE 2** below shows the NADMS goals for each TMD and a comparison of the results from the FY23 and FY25 surveys. The survey also tracked NADMS for other groupings (Countywide East, Countywide West, and Montgomery County Government Employees) and these are also included at the bottom of the table.

TABLE 2: FY23 and FY25 NADMS Results Compared to FY25 Goals

Major Area	FY25 NADMS Goal E=Emp/R=Res	FY23 Results	FY25 Results
Bethesda	55% Blended E/R	53.3% Blended E/R	54.2% Blended
Friendship Heights	39% Blended E/R	62.3% Blended E/R	54.6% Blended
Greater Shady Grove	20% E / 50% R	36.8% E / 38.9% R	22.9% E / 42.8% R
North Bethesda	39% E / 30% R	61.8% E / 51.6% R	37.1% E / 61.2% R
Silver Spring	65% Blended E/R	68.9% Blended E/R	64.0% Blended
White Oak	25% Blended E/R	E=64.9% / No Res*	42.2% Blended
Countywide East	-†	-†	54.8% Blended
Countywide West	-†	-†	25.5% Blended
Montgomery County Employees	-†	-†	39.6% Blended

*White Oak TMD has multiple goals for different portions of the area. FY23 survey only reflected 5 employers with FDA being the majority of the responses yielding 64.9%.

† No goal was set for the Major Area.

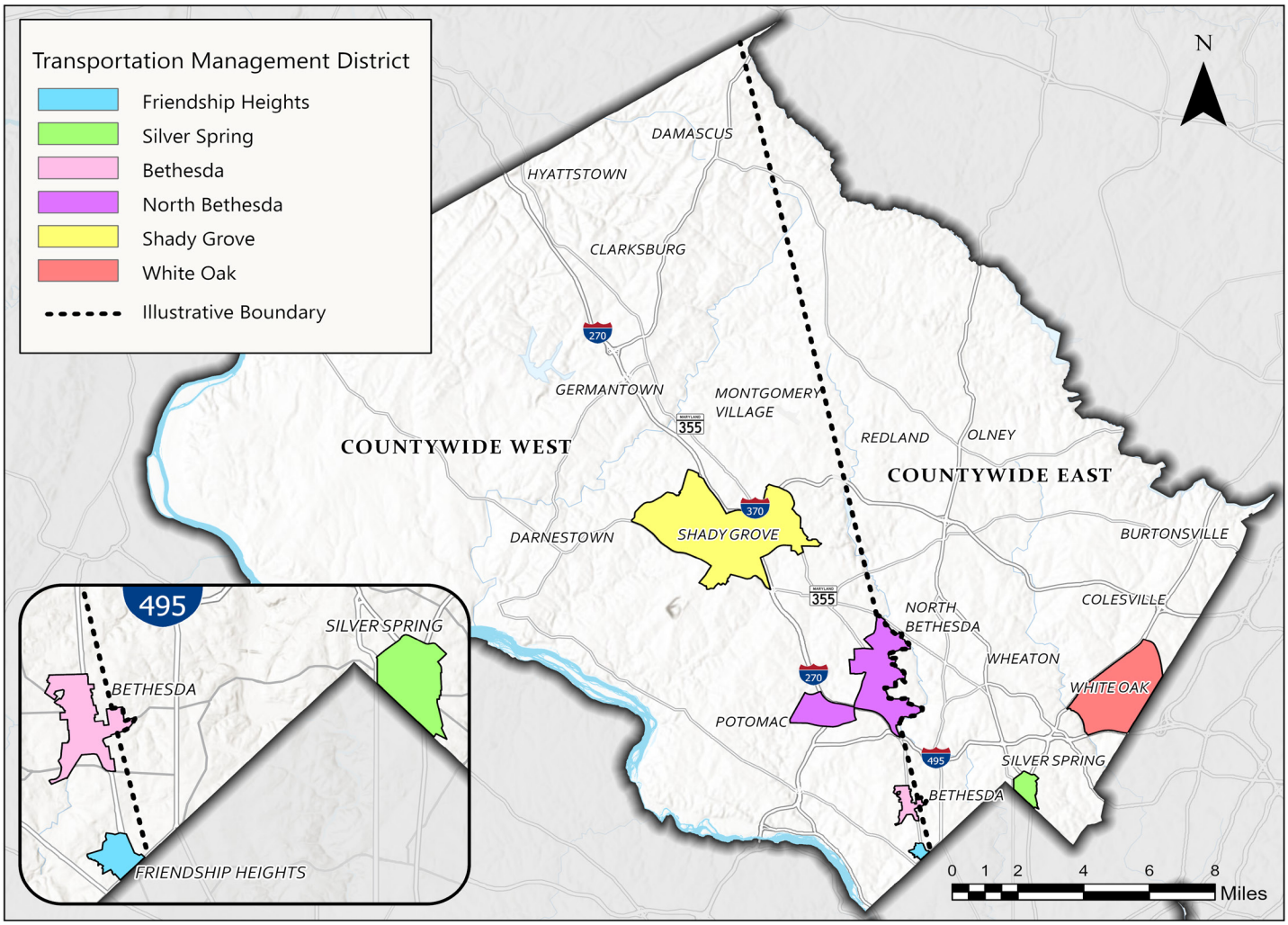
Introduction

Montgomery County Department of Transportation (MCDOT) conducts a commuter survey on a biennial schedule to monitor commuting behavior within the county. The survey focuses on the county's six Transportation Management Districts (TMDs)—Bethesda, North Bethesda, Silver Spring, Friendship Heights, Greater Shady Grove, and White Oak. MCDOT also administered the survey countywide, divided into east and west segments around Route 355 near the Washington, D.C., border. The Bethesda TMD lies just west of this dividing line, which bisects the county. MCDOT also distributed surveys across other major employment centers, and among Montgomery County Government employees **(FIGURE 1)**.

The survey collects information from employees who work in Montgomery County and residents who live in apartments, condominiums, and other multi-unit housing within the TMDs.

MCDOT initially conducted the 2025 Commuter Survey from April 7 through June 30, 2025, then provided a targeted extension during two additional periods, July 8–11 and July 14–22, to enable the additional participation of the U.S. Nuclear Regulatory Commission (NRC).

FIGURE 1: *Montgomery County Transportation Management Districts (TMD)*



This report summarizes the findings from the 2025 Commuter Survey and is organized into the sections outlined below to provide a clear picture of survey results and their implications. Detailed results and technical tables are included in the appendices.

- **Survey Approach and Participation Techniques:** Describes the survey composition, participation techniques, strategies for outreach efforts, and improvements.
- **Response Rates and Comparison with Prior Surveys:** Analyzes response rates for the estimated survey population for both employees and residents, and a comparison of results from historical surveys, when data is available.
- **NADMS Calculation:** Analyzes Non-Auto Driver Mode Share (NADMS) and goal attainment metrics.
- **Average Vehicle Occupancy (AVO):** Analyzes AVO and comparison of results from historical surveys, when data is available.
- **Analysis:** Provides summaries for additional employee metrics related to travel modes, work patterns, and travel during the peak hour and non-peak hours.
- **Other Comparable Surveys and Response Rates:** Includes analysis of U.S. Census American Community Survey (ACS), the Metropolitan Washington Council of Governments' Regional Travel Survey (RTS) and other reports.
- **Implementation Challenges:** Documents barriers to participation and data collection.
- **Recommendations for Future Surveys:** Outlines ways to strengthen participation, refine survey design, and enhance NADMS measurement.

The purpose of the survey is to provide insight into commuting patterns and support County decision-making on transportation demand management, land use, and infrastructure planning. The analysis is required by Section 42A-28 of the Montgomery County Code and examines key elements of commuter behavior, including the modes people use to travel to work, when and how frequently they commute, average vehicle occupancy, and how these factors vary across TMDs.

Survey Approach and Participation Techniques

Previous Montgomery County survey efforts laid the groundwork and basis for the survey in 2025. The two most recent commuter survey cycles reflect an intentional evolution of techniques, from strengthening employer engagement and contact management to piloting new technologies, accessibility measures, and outreach strategies. The following section summarizes the approaches in 2025 while highlighting key lessons and implemented improvements since the most recent survey was conducted in 2023.

Survey Composition and Length

In 2023, the paper version of the employee survey was four pages long, while the resident survey was two. Leveraging lessons learned from 2023, MCDOT and the VHB team collaborated for the 2025 survey to reduce the overall number of questions, streamline text, and adjust language for clarity. The group redesigned the questions to capture multiple data elements at once, decreasing the time needed for completion while still producing robust datasets. This balance between brevity and comprehensiveness is critical in large-scale survey efforts, as it reduces respondent fatigue while maintaining statistical quality. The 2025 survey was 25% shorter than the 2023 survey.

Additionally, the team reviewed the 2025 survey format and the physical layout to optimize the space of the questionnaire. MCDOT maintained a paper size of 8.5x14 for both employee and resident questionnaires to retain all the necessary questions on only three pages. Additionally, the new surveys included notes at the bottom of the pages to incentive participants to continue on to the next page and complete the survey. The note also included reference to the Grand Prize incentive, a $250 gift card. The 2025 online survey motivated respondents to finish the virtual questionnaire by providing page numbers so survey takers could track their progress **(FIGURE 2)**. The average online survey completion time varied between 7 and 10 minutes.

The published commuter survey for employee and resident questionnaires can be found as they appeared in paper form in **APPENDICES A** and **B**, respectively.

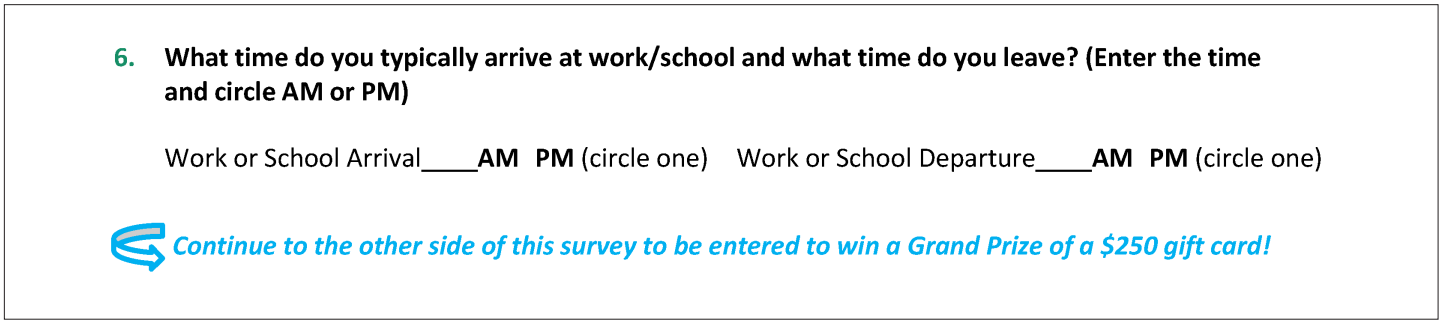
Participation Techniques

Similar to 2023, MCDOT used the Metropolitan Washington Council of Governments (MWCOG) ACT database for the 2025 survey, identifying employers with 25 or more employees as core contacts. ACT is the customer relations management (CRM) software required by participating jurisdictions in the Washington Metropolitan region for transportation demand management (TDM) outreach.

Identified Transportation Coordinators (TCs) at these worksites are responsible for posting and sharing commuting information as they serve as primary survey conduits for MCDOT commuter services. MCDOT contacted TCs in December 2024 to assist with survey distribution planned for March/April 2025. Outreach contractors and MCDOT staff supported this process by vetting contact lists, correcting undeliverable emails, and following up with TCs to ensure survey dissemination, whether using online survey links or hard copy distribution.

Outreach contractors serving the county's six Transportation Management Districts (TMDs) reinforced this commuter survey effort by promoting participation during employer outreach events, offering in-person assistance, and raising awareness among employees. This dual approach of electronic outreach and in-person promotion created a comprehensive framework for reaching both employers and employees. MCDOT developed templates for emails,

FIGURE 2: *2025 Employee Questionnaire (Paper Version) Note, Encouraging Respondents to Complete*



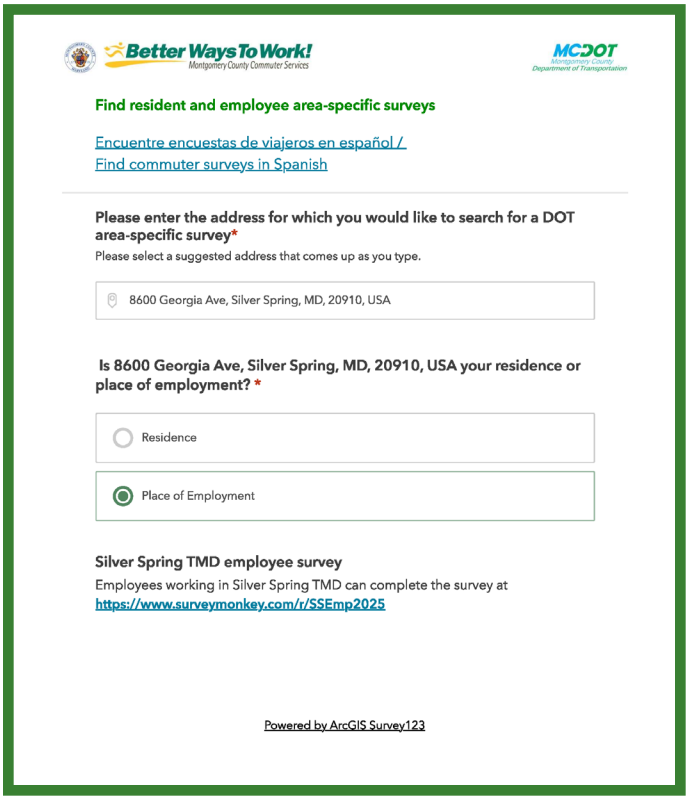
formal letters, and reminders that could be used to interact with employer TCs, resident managers, and others. MCDOT reviewed survey responses biweekly and emailed employers that required more attention.

MCDOT updated its incentive program in 2025 to bring greater parity between the residential and employee surveys. The 2023 survey included $25 weekly gift card drawings and a $500 Grand Prize for employees, while the incentive for residents was a single $100 gift card drawing in each TMD. In 2025, monetary prizes included $25 weekly gift cards and a grand prize of a $250 gift card from Montgomery County Commuter Services. The value of the employee survey grand prize was reduced from $500 to increase the residential survey to the same $250 (originally $100 in 2023). These prizes were limited to those who were eligible and excluded government employees from all federal agencies and Montgomery County.

The MCDOT communications team began marketing in early spring by sending out online links and paper surveys to employers and residents of the targeted areas. This team also led ongoing efforts to market the survey. They sent or posted social media posts, targeted emails to employers and housing associations, press releases, and articles on other local media platforms to spread awareness of the survey and potentially increase response rates. In addition, MCDOT emailed and made internal announcements to staff.

One of the most notable improvements in 2025 was the larger social media distribution with the newly introduced geography-based **survey link** available on all County social media platforms, the Commuter Services website, and via QR code at all outreach events. The link screened respondents based on location and routed them to their specific TMD. Additionally, the tool allowed the user to select either English or Spanish and self-identify as an employee or resident with a prompt to identify their employer or residential building name **(FIGURE 3)**. The process ensured responses were accurately tied to the correct TMD and streamlined the experience for participants.

FIGURE 3: *GIS Survey Link Lookup*



The County added an online Spanish survey in 2025 to address equity concerns and align with national best practice. The County, as always, made language translations of the paper survey available upon request, providing Montgomery County's diverse population with a more inclusive path to engagement. As noted later in this report, the County only received one response in Spanish.

Response Rates and Comparison with Prior Surveys

Similar to 2023, the consultant team calculated response rates for both the residential and employee surveys. VHB maintained all results from the online survey platform, SurveyMonkey, and calculated responses from paper surveys.

Residential response rates represent the number of completed survey responses divided by the estimated number of adult (ages 18 and older) residents per occupied unit within each TMD. To develop these estimates on total multifamily residents per TMD, MCDOT assigned census block groups to each TMD, and used census data to determine the average number of persons per unit.

Because age-specific data for residents was not available, the analysis applied the overall general population age distribution to estimate the number of adults per unit. The analysis assumed a 95% average occupancy rate and incorporated unit counts from files that VHB received. The Department conducted sensitivity testing using alternate groupings of block groups. Larger census tracts produced similar results, supporting the consistency of the estimates across TMDs. Employee response rates were calculated by comparing the number of completed surveys associated with each employer to the estimated

TABLE 3: *Employee and Residential Response Rate for Major Areas and Subareas*[1]

Major Area	Subarea	Employee			Resident		
		Number of Responses	Estimated Population Size	Response Rate (%)	Number of Responses	Estimated Population Size	Response Rate (%)
Bethesda		612	11,308	5.4%	408	14,147	2.9%
Friendship Heights		153	3,187	4.8%	18	3,461	0.5%
Greater Shady Grove	Unassigned	31	6,357	0.5%	145	8,106	1.8%
	Gaithersburg	21	1,839	1.1%	0	0	0
	Rockville	253	4,844	5.2%	0	0	0
	Shady Grove Life Science	194	8,812	2.2%	0	0	0
	Shady Grove Unincorporated	557	8,648	6.4%	0	0	0
	TMD Total	**1,821**	**30,500**	**3.5%**	**145**	**8,106**	**1.8%**
North Bethesda	Unassigned	9	511	1.8%	7	-*	-*
	A Rock Spring Park	71	6,033	1.2%	24	870	2.8%
	B Twinbrook	602	4,735	12.7%	-	-	-
	C Other (Includes Grosvenor Metro Station Area)	95	461	20.6%	38	1,684	2.3%
	White Flint 1	251	5,757	4.4%	288	7,417	3.9%
	White Flint 2 West	470	2,891	16.3%	-	-	-
	TMD Total	**1,498**	**20,388**	**7.3%**	**357**	**9,971**	**3.6%**
Silver Spring		1,136	11,486	9.9%	213	4,219	5.0%
White Oak		780	4,822	16.2%	34	5,489	0.6%
Countywide East		157	3,961	4.0%	0	0	0
Countywide West		470	11,941	3.9%	0	0	0
Montgomery County Employees		706	15,504	4.6%	0	0	0
Total		**6,568**	**113,097**	**5.8%**	**1,175**	**45,393**	**2.6%**

** Resident information for estimated population size was not provided for the 7 responses therefore no rate could be calculated*

[1] Subareas are smaller 'sector plan' or policy areas contained within the boundaries of the larger 'master plan'. They typically have separate mode share and other goals based on their retail, residential, or office character.

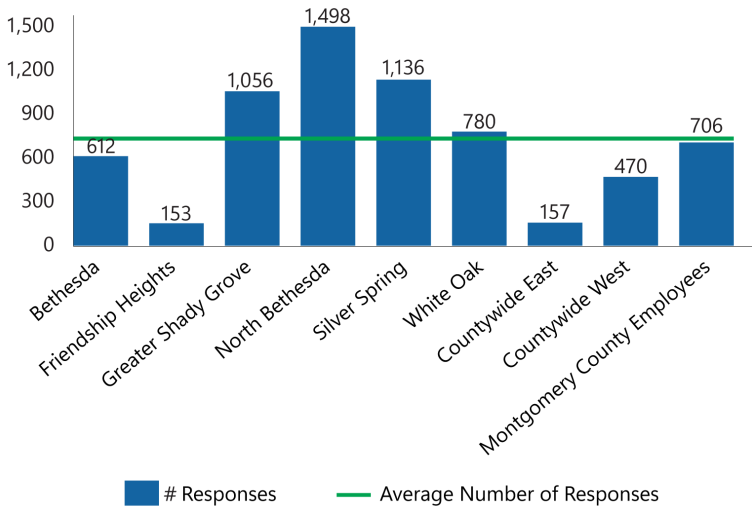
total number of employees reported for that organization was Transportation Coordinators (TCs) confirmed the total number of employees at each worksite. When a value could not be verified directly, data from the ACT CRM database was used as a secondary source.

Employee Survey Response Rates

The overall response rate was 5.8% across all TMDs. The White Oak TMD had the highest response rate for employee surveys, with 16.2%, while the combined Greater Shady Grove TMD had the lowest response rate, with 3.5%. The TMD with the highest distribution of employee surveys was Greater Shady Grove, with 30,500. The TMD with the highest number of employee responses was North Bethesda, with 1,498, and the second-highest was Silver Spring, with 1,136. As previously stated, Countywide East and West areas refer to neighborhoods that fall outside of TMDs—including, for example, Wheaton, Olney, Potomac, and Damascus. Montgomery County Government employees (not a TMD) had 15,504 surveys distributed. Overall, there were 706 responses for the County Employee group, which translates to a 4.6% response rate **(TABLE 3)**.

FIGURE 4 shows the number of employee responses received by each Major Area. It also shows the average (730 responses) with respect to the specific TMDs, Countywide East and West, and Montgomery County Employees. We can see that Greater Shady Grove, North Bethesda, Silver Springs, and White Oak are above average.

FIGURE 4: *Average Number of Employee Responses by TMD*



Historical Comparison – Employee Responses

VHB compared employee response rates in TMDs to the most recently completed 2023 commuter survey, which contained historical data as far back as 2004. Many of the findings in the following sections are based on MCDOT reports for four TMDs: Friendship Heights, Greater Shady Grove, Silver Spring, and White Oak (the other TMDs did not have available reports or were not in formats that allowed for clear comparison). **Overall, the 2025 employee response decreased by 31.8% (3,066 less participants) compared to the 2023 commuter survey. (TABLE 4)**. In general, four of the six TMDs saw a drop in employee responses. The greatest percentage increase was White Oak, with a 47.2% increase, representing 250 more responses. The greatest decrease occurred in Friendship Heights, where there was a 71.2% decrease, to 153 responses. Additional historical trend results for the four TMDs are discussed in the following sections.

FRIENDSHIP HEIGHTS

The Friendship Heights commuting patterns report published in 2023 includes historical survey data starting in 2004, with an employee survey published every two years. The highest response rate the Friendship Heights TMD received was in 2004, at 39%, and its lowest was in 2023, at 9.5%, with an average rate of 21%. From 2023 to 2025, the Friendship Heights TMD's response rate decreased drastically, by 71.2%, as 2023 yielded 532 responses compared to only 153 in 2025. In general, the employee response rate continued to decrease, with the exceptions of small spikes in FY10 (918 responses, or 24%), FY16 (804 responses, or 18%) and FY20 (491 responses or 16%).

GREATER SHADY GROVE

Greater Shady Grove's published commuting patterns for 2015 to 2023 are comprised of only three employee surveys reported in 2018, 2020, and 2023. In 2018, the response rate was 12.4%; in 2020 the response rate increased to 13.7%; and in 2023 it decreased to 10.3%. In 2025, Greater Shady Grove responses increased 5.7% from 2023, with 1,056 responses.

SILVER SPRING

The Silver Spring employee commuting pattern report for 2015 to 2023 included survey data dating to 2004. Response rates during this time were higher compared to other TMDs, with the lowest response rates being 17.6% in 2008 and 18.4% in 2023.

TABLE 4: Employee Response Rates Comparison by Major Area (FY23 to FY25)

Major Area	Subarea	FY23		FY25		Number of Response % Change from FY23 to FY25
		Number of Responses	Response Rate (%)	Number of Responses	Response Rate (%)	
Bethesda		1,134	14.2%	612	5.4%	-46.0%
Friendship Heights		532	9.0%	153	4.8%	-71.2%
Greater Shady Grove	Unassigned	-	-	31	0.5%	-
	Gaithersburg	15	8.4%	21	1.1%	40.0%
	Rockville	395	8.9%	253	5.2%	-35.9%
	Shady Grove Life Science	367	7.8%	194	2.2%	-47.1%
	Shady Grove Unincorporated	224	13.8%	557	6.4%	148.7%
	TMD Total	**999^**	**10.3%*^**	**1,821**	**3.5%**	**5.7%**
North Bethesda	Unassigned	-	-	9	1.8%	-
	A Rock Spring Park	644	8.4%	71	1.2%	-89.0%
	B Twinbrook	849	10.4%	602	12.7%	-29.1%
	C Other (Includes Grosvenor Metro Station Area)	71	31.7%	95	20.6%	33.8%
	White Flint 1	-†	-†	251	4.4%	-
	White Flint 2 West	-†	-†	470	16.3%	-
	TMD Total	**2,511^**	**10.7%*^**	**1,498**	**7.5%**	**-40.3%**
Silver Spring		1,232	18.4%	1,136	9.9%	-7.8%
White Oak		530	5.6%	780	16.2%	47.2%
Countywide East		14	9.3%	157	4.0%	1,021.4%
Countywide West		1,949	8.2%	470	3.7%	-75.9%
Montgomery County Employees		700	4.7%	706	4.6%	0.9%
Total		**9,634^**	**9.4%*^**	**6,568**	**5.8%***	**-31.8%**

**Weighted Average*

^ The following data was extracted from previous reports. In the FY23, report the total sum did not match the sum of subareas.

†In the FY23 report North Bethesda did not have this subarea. North Bethesda had: D White Flint, DD White Flint, and E White Flint II. These areas were adjusted in FY25 and therefore cannot be reported.

However, the 2025 employee survey saw a 7.8% decrease in responses from 2023, to a 9.9% response rate. Overall, the employee response rate for this TMD fluctuated between 17% to 27%, with the highest value of responses occurring in FY18 (2,046 responses). Response rates were maintained after the pandemic as the at 27%, or 2,321 responses, in FY20. Commuter survey responses continued to decrease in 2025, with a large drop in the employee response rate that may reflect survey fatigue and the post-pandemic hybrid work trends. However, federal agencies began implementing layoffs along with expanded return-to-office policies, which disrupted normal work routines and may have reduced employees' availability or interest in participating.

WHITE OAK

White Oak reported data from 2018 to 2023 with three employee surveys conducted during this time. Employee response rates decreased over time as the three surveys were conducted, with 9.1% in 2018, 8.2% in 2020, and 5.6% in 2023. The latest survey, in 2025, saw response rate increase to 16.2%. However, the Federal Drug Administration (FDA)'s presence in the White Oak TMD increased response rates to 6.5%. From 2023 to 2025, the White Oak TMD saw a 47.2% increase in response rates, with the FDA greatly assisting in the effort by contributing 701 responses. The FDA represented 91% of the respondents for the 2025 survey.

NORTH BETHESDA

The commuting patterns report provided to VHB for the North Bethesda TMD contains two special reporting areas: Green Court and Pike & Rose. Both areas have their own traffic mitigation plans and are fully encompassed in the North Bethesda TMD. The response rate for these two areas can be partitioned out for independent analysis. **APPENDIX C** contains commuter survey information pertaining to Green Court and Pike & Rose is summarized in **APPENDIX D**.

Takeaways

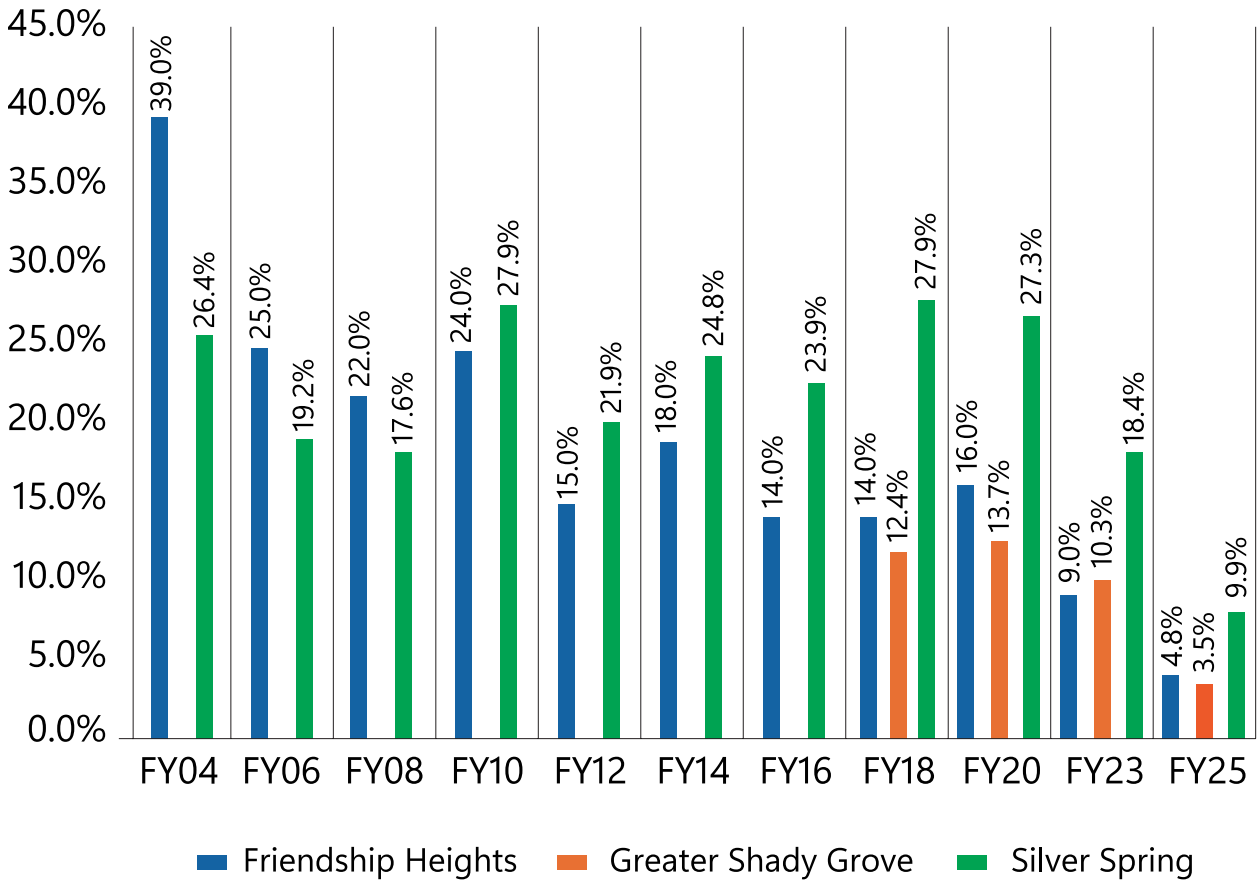
Across the TMDs analyzed, response rates have generally decreased over time, but do not follow a defined trend or pattern. Two TMDs, Greater Shady Grove and White Oak, received increased response rates in 2025 as compared to 2023. Friendship Heights and Silver Spring both saw decreases from 2023. Friendship Heights's historical survey responses decreased drastically (71.2%) from 2023 to 2025. Likewise, Silver Spring saw a 7.8% decrease from 2023 to 2025.

FIGURE 5 shows historical survey responses for the four TMD survey reports. Following the pandemic, survey response rates dropped from relatively high rates across all four TMD areas, which continued into the 2025 commuter survey effort.

Resident Survey Response Rates

Overall response rates for the resident survey were significantly lower than the employee survey response rates. The highest resident response rate was in the Silver Spring, at 5.0%. The most responses occurred in Bethesda, with 408, while the second-most responses occurred in North Bethesda, at 357, or 3.6%. The highest number of surveys distributed occurred in Bethesda, with 14,147 surveys. The lowest response rate occurred in Friendship Heights—with 0.5%, or 18 responses **(TABLE 4)**. Historic resident survey response rates were not included in the four TMD commuter pattern reports for White Oak, Greater Shady Grove, Friendship Heights, and Silver Spring.

FIGURE 5: *Historical Employee Survey Responses*

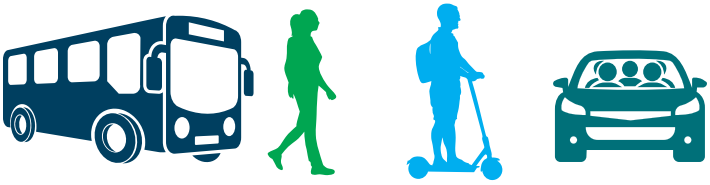


NADMS Calculation

Non-Auto Driver Mode Share (NADMS) is a key metric the County uses to gauge travel behavior and mode. NADMS describes all modes used for employee commuting into the TMD that do not rely on driving a vehicle, including carpooling and vanpooling. NADMS also includes both telework and compressed workdays off, as both remove vehicles from typical travel patterns and reduce commuter trips on days employees work from home or have scheduled days off. The following mode categories are included in the NADMS calculation in addition to telework and compressed workdays off:

- Transit
- Walking
- Biking or e-scooting
- Carpool or vanpool riders

NON-AUTO DRIVER MODES



Transit | Walking | Biking or E-Scootering | Carpool or Vanpool Riders

NADMS goals reflect the two-hour peak period from 7:00 a.m. to 8:59 a.m. Monday through Friday. **TABLE 5** shows NADMS calculations based on employee and resident responses as well as employee, residential, and blended goals as established in the 2024-2028 Growth & Infrastructure Policy Planning Board Draft Appendices per July 2024 (GIP).[2] The County Council recently adopted the GIP by and updated specific NADMS goals when compared to the previous (FY23) commuter survey. Note there are no NADMS goals for Countywide East or West, as both encompass numerous transportation policy areas, nor does Montgomery County Government have a NADMS goal.

TMD Goal Attainment

As shown in **TABLE 5**, three of the TMDs met or exceeded their NADMS goals in 2025 (Friendship Heights, Greater Shady Grove and White Oak). Bethesda and Silver Spring did not meet its blended goal. North Bethesda met its aggregated goal for residential respondents, and portions of their goals for 4 subareas. Specifically, North Bethesda did not meet its goals on the employee survey for Rock Spring Park, Twinbrook, Other, and White Flint 1 subareas.

Based on the low response rates, MCDOT may explore alternative data sources for travel behavior to corroborate goal attainment (see Other NADMS Approaches) as well as validate and supplement survey results. However, assuming the existing commuter survey data reasonably reflects travel behavior, some areas may be experiencing persistent challenges, such as:

- Limited transit options or last-mile connections for commuters;
- Land use or development patterns reinforcing car-centric dependency;
- External conditions impacting travel trends (e.g., return to office and telework policies, increases in fuel prices, etc.).

To determine program effectiveness, MCDOT should compare current NADMS goals with previous results and examine other travel data to see if TMD strategies need to be reinforced or adjusted. Additionally, these gaps can also highlight opportunities where residents/employees lack equitable access to non-automobile options or may benefit from targeted information or incentive programs that encourage sustainable commuting behaviors.

NADMS Changes Since 2023

Compared to the most recent commuter survey (2023), the TMDs show lower NADMS values for most goals in 2025. Overall, NADMS metrics were lower than the previous 2023 commuter survey results, as shown in red in **TABLE 6**. Factors considered in the Implementation Challenges section of this report may explain some of the lower non-auto results. MCDOT should continue to work with partners, including outreach contractors, chambers of commerce, and community groups, to understand if major changes in NADMS goals have clear explanations or can be corroborated by other data.

[2] The GIP-established NADMS goal may be set for employees and residents separately or "blended." Some TMDs have a different goal for employees than for residents, whereas in other TMDs there is only one "blended" NADMS goal calculated based on the combined data from both employees and residents.

TABLE 5: *NADMS Calculation FY25 and Goals for 2-Hour Peak Period on Weekdays*

Major Area	Subarea	Employee		Residential		Blended	
		NADMS Goal	NADMS	NADMS Goal	NADMS	NADMS Goal	NADMS
Bethesda		-	51.4%	-	65.2%	55.0%	54.2%
Friendship Heights		-	53.2%	-	0†	39.0%	54.6%
Greater Shady Grove	Unassigned	20.0%	32.5%	50.0%	42.8%^	-	39.6%
	Gaithersburg		28.8%		^		28.8%
	Rockville		22.0%		^		22.0%
	Shady Grove Life Science		18.2%		^		18.2%
	Shady Grove Unincorporated		23.8%		0		23.8%
	TMD Total		**22.9%***		**42.8%*^**		**24.0%***
North Bethesda	Unassigned	39.0%	40.0%	30.0%	0♦	-	52.0%
	A Rock Spring Park		35.0%		38.2%		35.8%
	B Twinbrook		30.7%		-		30.7%
	C Other (Includes Grosvenor Metro Station Area)		15.6%		72.0%		23.2%
	White Flint 1		34.5%		62.6%		44.8%
	White Flint 2 West		54.0%		-		54.0%
	TMD Total		**37.1%***		**61.2%***		**39.6%***
Silver Spring		-	63.3%	-	74.2%	65.0%	64.0%
White Oak		-	42.5%	-	16.7%	25.0%	42.2%
Countywide East		-	54.8%	-	-	-	54.8%
Countywide West		-	25.5%	-	-	-	25.5%
Montgomery County Employees		-	39.6%	-	-	-	39.6%
Average NADMS		-	41.9%*	-	61.7%*	-	43.2%*

** Weighted Average*

^ Residential survey response from Greater Shady Grove were not assigned to a subarea level during collection. Therefore, they have been allocated to the "Unassigned area and the TMD Average.

† Friendship Heights only had 18 residential responses. None of those responses stated that they drove a vehicle. As a result, the NADMS would have been reported as 100%; therefore, the NADMS was not included.

♦There was only one peak hour traveler that took the bus. Due to low response this information was note recorded.

-No information was collected

TABLE 6: *NADMS FY23 to FY25 Comparison*

Major Area	Subarea	Employee		Residential		Blended	
		FY23 NADMS	FY25 NADMS	FY23 NADMS	FY25 NADMS	FY23 NADMS	FY25 NADMS
Bethesda		50.5%	51.4%	62.7%	65.2%	53.3%	54.2%
Friendship Heights		62.7%	53.2%	85.7%	-†	62.3%	54.6%
Greater Shady Grove	Unassigned	-	32.5%	38.9%	42.8%^	31.8%	39.6%
	Gaithersburg	10.0%	28.8%		^		28.8%
	Rockville	42.4%	22.0%		^		22.0%
	Shady Grove Life Science	38.8%	18.2%		^		18.2%
	Shady Grove Unincorporated	24.9%	23.8%		^		23.8%
	TMD Total	**36.8%* ‡**	**22.9%***		**42.8%*^**		**24.0%***
North Bethesda	Unassigned	-	40.0%	51.6%	0♦	60.7%	52.0%
	A Rock Spring Park	15.3%	35.0%		38.2%		35.8%
	B Twinbrook	68.3%	30.7%		-		30.7%
	C Other (Includes Grosvenor Metro Station Area)	19.2%	15.6%		72.0%		23.2%
	White Flint 1	-◊	34.5%		62.6%		44.8%
	White Flint 2 West	-◊	54.0%		-		54.0%
	TMD Total	**61.9%* ‡**	**37.1%***		**61.2%***		**39.6%***
Silver Spring		71.8%	63.3%	55.4%	74.2%	68.9%	64.0%
White Oak		35.0%	42.5%	-	16.7%	-	42.2%
Countywide East		14.0%	54.8%	-	-	-	54.8%
Countywide West		48.9%	25.5%	-	-	-	25.5%
Montgomery County Employees		42.5%	39.6%	-	-	-	39.6%

** Weighted Average*

^ Residential survey response from Greater Shady Grove were not assigned to a subarea level during collection. Therefore, they have been allocated to the "Unassigned area and the TMD Average.

† Friendship Heights only had 18 residential responses. None of those responses stated that they drove a vehicle. As a result, the NADMS would have been reported as 100%; therefore, the NADMS was not included.

‡ The following data was extracted from previous reports. In the FY23 report the total sum did not match the sum of the subareas.

◊ In the FY23 report North Bethesda did not have this subarea. North Bethesda had: D White Flint, DD White Flint, and E White Flint II. These areas were adjusted in FY25 and therefore cannot be reported.

For TMDs that have experienced major increases in driver mode share and which significantly fail to meet NADMS goals, the County should consider concentrated stakeholder engagement to identify reasons for the changes and targeted solutions. Additionally, it should be noted that these NADMS goals are not intended to be near-term goals, as the GIP states they need to be achieved "at build-out" for these areas. Historical trends for TMD executive reports were reviewed, when information was available.

TMD Historical Comparisons for Employee Goals

In each of the TMD reports below, the NADMS rate has generally increased since 2018 before dropping in 2025. Other sections of the report include potential reasons and remedies for these trends.

FRIENDSHIP HEIGHTS

The NADMS data provided in the 2023 TMD report has three historical years for comparison, with an overall goal of 39% for employees. In 2018 the NADMS was 43.5%, in 2020 it was 48.3%, and in 2023, it was 62.7%. In 2025, it was 53.2%.

GREATER SHADY GROVE

For the 2023 Shady Grove TMD report, the survey had an 18% NADMS goal for employees with three years being reported. In 2018 the reported NADMS was 19.1%, in 2020 it fell below the goal to 14.5%, and in 2023 it rose to 36.8%. It was 22.9% in 2025.

SILVER SPRING

NADMS reporting for the previous Silver Spring TMD report had an employee goal of 46% overall, with responses reaching 57% in 2018, 53.6% in 2020, and 71.7% in 2023. The rate was 63.3% in 2025.

WHITE OAK

NADMS for the White Oak TMD in the 2023 report reported three years of data with no goal stated. In 2018 the NADMS reached 47%, in 2020 it reached 45.4%, and in 2023 it reached 64.9%. A blended goal of 30% was set for the Life Sciences/FDA Village Center and a 25% blended goal for White Oak and Hillandale. Responses were 42.5% in 2025.

Average Vehicle Occupancy

Average vehicle occupancy rate (AVO) reflects the number of people traveling in vehicles during a trip compared with the number of vehicles used. AVO is calculated by dividing the number of commuting employees by the number of vehicles used to arrive at work. An AVO of 2.00, for example, would indicate that every vehicle arriving at a given time includes a driver plus one passenger. Since that is not the case with a large percentage of drivers, the AVO is expressed as a ratio, typically less than 2.00.

Four TMD areas have AVO values that could be compared between the 2023 and the 2025 commuter surveys. For the purposes of this comparison, the analysis used the two-hour peak period commute (7:00 a.m. to 8:59 a.m.) Monday through Friday. The AVO decreased in Friendship Heights in the employee responses. The residential AVO for Friendship Heights was not reported because none of the 18 respondents stated they Drive alone or took a carpool/vanpool to work between Monday and Friday during the two hour peak. Greater Shady Grove met or exceed the FY23 AVO in all

TABLE 7: AVO FY23 to FY25 Comparison for 2-Hour Peak Period on Weekdays

Major Area	Subarea	Employee		Residential	
		FY23 AVO	FY25 AVO	FY23 AVO	FY25 AVO
Bethesda		1.02	1.02	-	1.03
Friendship Heights		1.03	1.00	1.03	-†
Greater Shady Grove	Unassigned	-	1.00	1.01	1.04
	Gaithersburg	1.00	1.09		-
	Rockville	1.03	1.01		-
	Shady Grove Life Science	1.01	1.02		-
	Shady Grove Unincorporated	1.03	1.01		-
	TMD Total	**1.02* ‡**	**1.01***		**1.04**
North Bethesda	Unassigned	-	1.00	-	-♦
	A Rock Spring Park	1.02	1.01		1.00
	B Twinbrook	1.01	1.03		-
	C Other (Includes Grosvenor Metro Station Area)	1.02	1.00		1.00
	White Flint 1	-◊	1.04		1.04
	White Flint 2 West	-◊	1.00		-
	TMD Total	**1.03 ‡**	**1.02***		**1.03**
Silver Spring		1.02	1.02	1.02	1.00
White Oak		1.09	1.09	-	1.00
Countywide East		1.00	1.00	-	-
Countywide West		1.03	1.01	-	-
Montgomery County Employees		1.01	1.00	-	-
Total		**1.02* ‡**	**1.02***	**-**	**1.03***

** Weighted Average*

- Indicates areas where no available data is present for comparison

‡ The following data was extracted from previous reports. In the FY23 report the total sum did not match the sum of the subareas.

◊ In the FY23 report North Bethesda did not have this subarea. North Bethesda had: D White Flint, DD White Flint, and E White Flint II. These areas were adjusted in FY25 and therefore cannot be reported.

subareas excluding the Unassigned employee responses. At an aggregate level, no TMD had an increase in AVO. The employee AVO for both Bethesda, Silver Springs and White Oak remained the same.

Additionally, VHB conducted AVO comparison for employees when reviewing the TMD executive reports for Friendship Heights, Greater Shady Grove, Silver Spring, and White Oak. In general, historic AVO is trending downward from 2018 to 2025, as noted below:

- **Friendship Heights:** The AVO from the 2023 report had data at 1.12 for 2018, 1.14 in 2020 at, 1.03 in 2023, and 1.00 in 2025
- **Greater Shady Grove:** The AVO from the 2023 report had data at 1.02 for 2018, 1.01 in 2020 at, 1.02 in 2023, and 1.01 in 2025
- **Silver Spring:** The AVO from the 2023 report had data at 1.03 for 2018, 1.02 in 2020 at, 1.02 in 2023, and 1.02 in 2025.
- **White Oak:** The AVO from the 2023 report had data at 1.23 in 2018, 1.12 in 2020, 1.09 in 2023, and 1.09 in 2025

Analysis

This section highlights the most important findings from the employee survey results. Detailed results and question-by-question reporting are included in the appendices. **APPENDIX E** summarizes the employee commuter survey analysis and **APPENDIX F** does so for the residential survey. This information has been filtered for the individual TMDs and the three other targeted employee populations: Countywide East, Countywide West, and Montgomery County Government Employees.

The analysis covers information such as travel modes, hours and days of commuting, telework, and compressed work schedules. Calculations related to travel modes and NADMS are based on trip-level or work week data, where each respondent's mode of travel or telework status is recorded for each of the seven days in a typical week. This approach allows the results to reflect the total number of commute trips by mode, meaning the theoretical dataset equals approximately seven times the number of respondents, depending on the completeness of individual responses.

Overall, 12.2% of schedule questions had no response and 26.8% of travel mode questions were left blank.

Travel modes:

- 57.3% of respondents drive alone to work the most common mode of travel.
- More than 19,000 respondents reported driving alone, compared to only 1,888 using Metrorail as the next most common option.

Work schedules and telework:

- Most respondents reported working five days per week, followed by those working four days per week.
- Over 90% of respondents travel to a physical place of employment most days of the week, indicating that telework trends, while lower compared to prior years, have consistent patterns and days.

Travel Modes

For purposes of this analysis, travel mode is defined as all methods of transportation that a person uses to travel from their home to a physical place of employment (telework is not a travel mode, but included in NADMS calculations and therefore included in our travel mode distribution). **FIGURE 6** represents the distribution of trips by TMD. In all the TMDs, "Drive alone" was the most reported category. Metrorail is the most used mode of public transit. **TABLE 8** has a more detailed breakdown of the transit ridership by mode and TMD. Northern Bethesda has the highest number of commuters who drive. In **TABLE 8,** "Active Transit" is defined as walking, biking, or using an e-scooter.

FIGURE 6: Distribution of Employee Travel Mode by Major Area

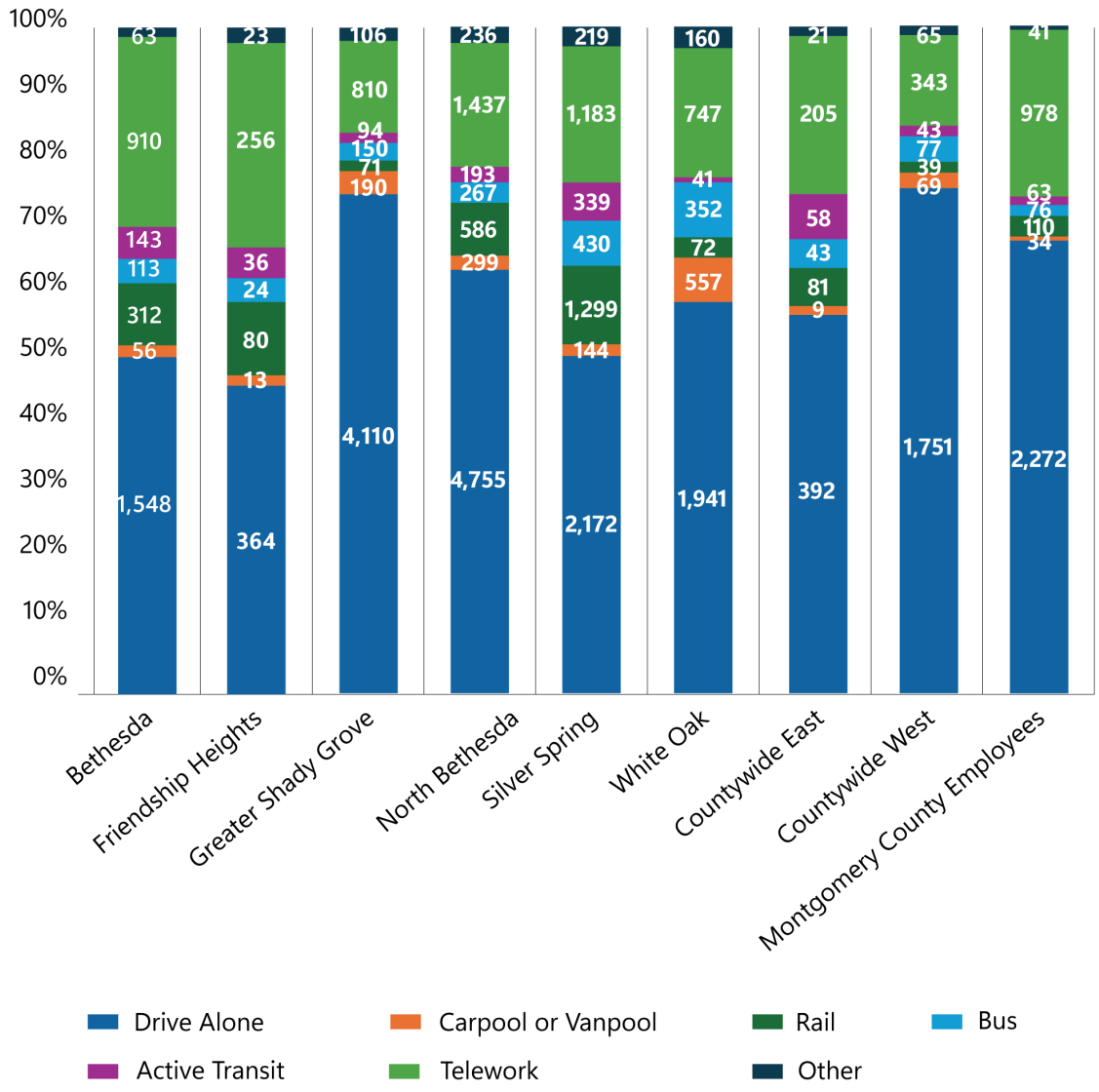
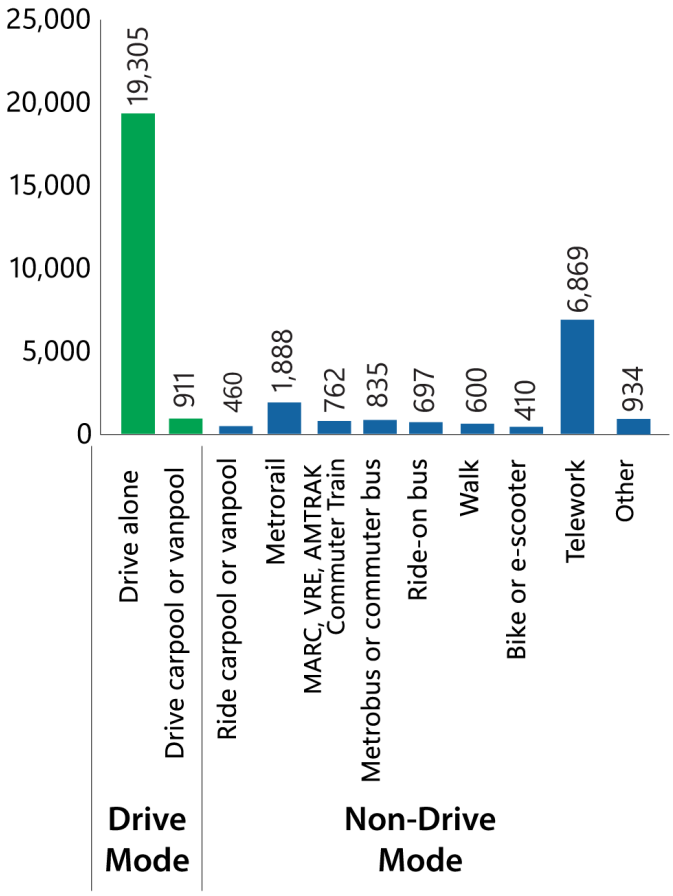


TABLE 8: *Employee Distribution by Travel Mode and Major Area*

Drive Type	Travel Mode	Bethesda	Friendship Heights	Greater Shady Grove	North Bethesda	Silver Spring	White Oak	Countywide East	Countywide West	Montgomery County Employees
Driver Modes	Drive Alone	1,548	364	4,110	4,755	2,172	1,941	392	1,751	2,272
	Drive Carpool or Vanpool	29	11	140	203	105	336	9	54	24
	Total Driver Modes	1,577	375	4,250	4,958	2,277	2,277	401	1,805	2,296
Non-Driver Modes	Ride carpool or vanpool	27	2	50	96	39	221	0	15	10
	Metrorail	307	77	62	531	686	46	70	25	84
	MARC, VRE, or AMTRAK commuter train	5	3	9	55	613	26	11	14	26
	Metrobus or commuter bus	54	19	21	137	288	220	19	44	33
	Ride-On bus	59	5	129	130	142	132	24	33	43
	Walk	106	12	42	132	200	3	35	29	41
	Bike or e-scooter	37	24	52	61	139	38	23	14	22
	Telework	910	256	810	1,437	1,183	747	205	343	978
	Other	63	23	106	236	219	160	21	65	41
	Total Non-Driver Modes	1,568	421	1,281	2,815	3,509	1,593	408	582	1,278
	Total	**3,145**	**796**	**5,531**	**7,773**	**5,786**	**3,870**	**809**	**2,387**	**3,574**

FIGURE 7 shows an aggregated breakdown of the trip counts by mode. As expected, "Drive Alone" was still the largest mode choice. The next highest trip count was Metrorail (1,888 trips).

FIGURE 7: *Employee Trip Count Distribution by Mode*



Telework

FIGURE 8 shows the distribution between telework and all other work types across a typical week, with the highest number of teleworkers on Mondays, at 23.1%. This decreases to 14.5% on Tuesday. On average, 15.2% of the respondents telework on any given day. As expected, Friday also had a high number of teleworkers with 2,041, or 31.6%.

These findings differ from typical telework patterns observed in prior years, where midweek telework days (Tuesday through Thursday) were more common. The lower midweek participation may reflect a shift in employer policies encouraging in-office collaboration on core workdays or a greater preference among employees to telework at the start or end of the week.

FIGURE 8: *Distribution of Telework and Non-Telework by Day of Week*

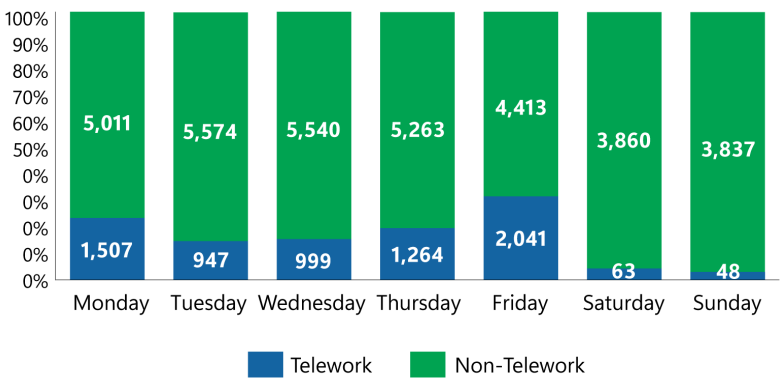
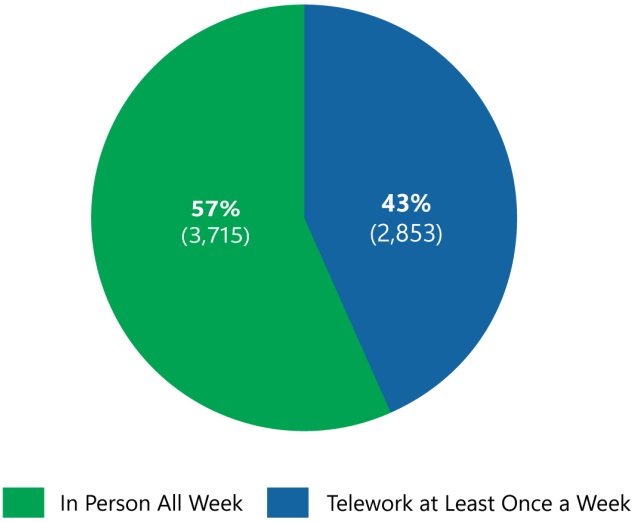


FIGURE 9 shows the number of people who were Hybrid workers in the survey. We defined a Hybrid worker as someone who spends at least one day a week teleworking. We still see a strong percentage of employees teleworking, with 43% of employee respondents stating that they spend at least one day teleworking.

FIGURE 9: *Hybrid Workers from Employee Survey*



Compressed Work Schedule (CWS)

FIGURE 10 shows the distribution of days worked in a typical week. Unsurprisingly, the highest percentage of days of work is five (89%). This was followed by four days, at 5% of the total surveyed population, for those who potentially work a compressed work schedule. A smaller percentage of employees work a three- or two-day compressed schedule. Two percent of employees work six or seven days a week.

FIGURE 10: *Employee Days Worked in a Week*

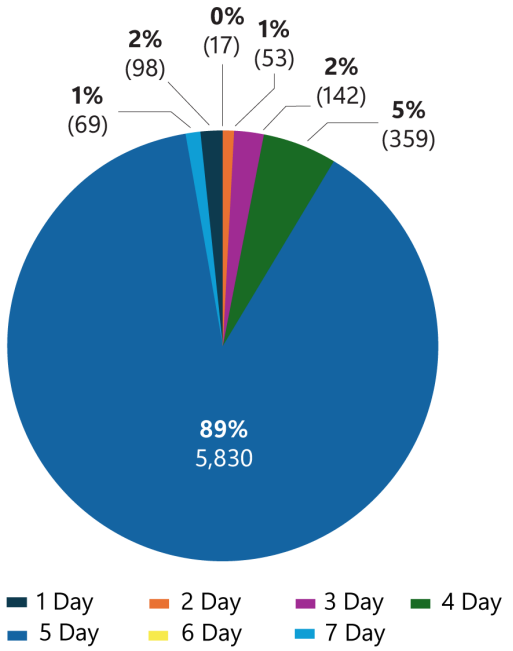
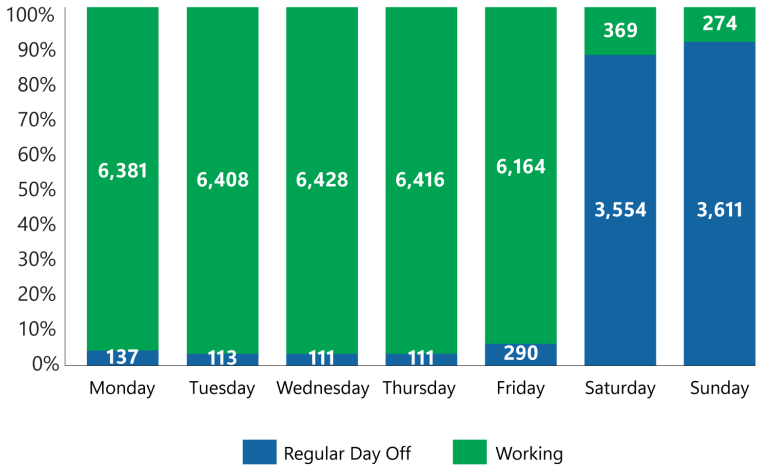


FIGURE 11 shows the percentage of employee respondents who were working on a specific day of week. Outside of weekends, Friday has the most employees who are not working (4.5%) during the work week. This was followed by Monday with 2.1% of employees not working.

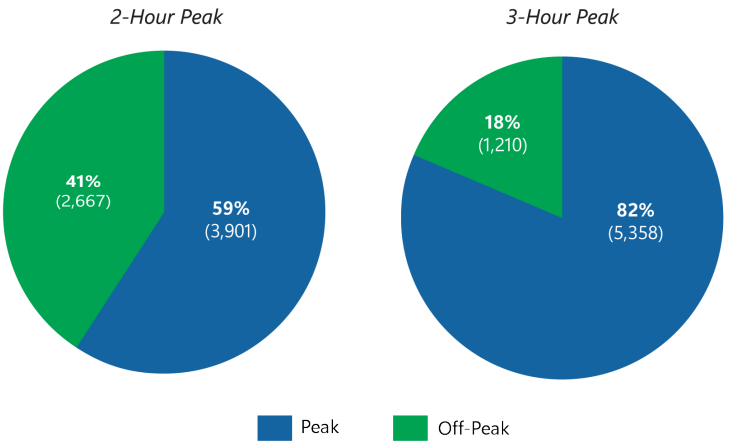
FIGURE 11: *Employee Distribution of Days Working Compared to Not Working*



Peak Hour and Non-Peak Hour Travel Modes

The employee survey asked respondents what time they commute to work. This was broken down into arrival and departure times. Based on responses from this and previous surveys, the two-hour peak is 7:00 a.m. - 8:59 a.m. and the three-hour peak is 6:30 a.m. - 9:29 a.m. Any arrival times to the employee's workplace outside of these windows were allocated to off-peak commuting. **FIGURE 12** shows the number of respondents that commute in the two-hour and three-hour peak periods. The survey results demonstrate that over 80% of employee commuters travel between 6:30 a.m. and 9:29 a.m., indicating peak demand for potential demand management strategies.

FIGURE 12: *Employee Two and Three Hour Peak Commuting Times*



Other Comparable Surveys and Response Rates from Employee Survey

In light of the downward trends in response rates, VHB evaluated Montgomery County's peer agency commuter surveys, focusing on distribution methods, participation levels, and lessons learned. Additionally, VHB examined national commuter and travel surveys to compare response rates.[3] The data from the County's regional peers is largely from 2021 and 2022, so findings should consider the changes in how people travel over the past four years.

Metropolitan Washington Council of Governments (MWCOG) State of the Commute (SOC) Survey

The Metropolitan Washington Council of Governments (MWCOG) conducts its State of the Commute (SOC) survey every three years through the Commuter Connections program. The SOC focuses on commuting travel to and from work across the entire COG region. The most recent survey occurred this year (2025) from March through June via mailed postcards to randomly selected households throughout the region. As of publication of this report, results from the 2025 survey are not available. This survey directly overlapped with the Montgomery County commuter study, as MCDOT ran its activity from April through June, which potentially could have contributed to lower response rates as another similar effort was underway.

In 2022, the SOC received 870 responses from Montgomery County, which exceeded the 600-response goal that had been established for statistical significance. SOC collected 8,396 survey responses for the entire region. The 2019 SOC survey collected 8,246 total responses (758 of which were from Montgomery County).

In 2022, MWCOG distributed 446,000 postcards throughout the region, yielding an overall response rate of 1.88% with a confidence interval of 95% and a margin of error of ± 1.1%.

MWCOG Regional Travel Survey (RTS)

MWCOG last conducted its Regional Travel Survey (RTS)[4] in-depth analysis in September 2021 to ascertain travel in the region. The RTS includes both work and non-work travel, as compared to the SOC, which only focuses on work-based trips. MWCOG mailed surveys to each invited household within the study area, which contained a formal invitation packet and three reminder postcards. RTS also created a website for easier access.

Questions on the survey included modes of transit, teleworking schedule, employment type, and other questions similar to the MCDOT Commuter Survey. The final response rates for the 2021 MWCOG RTS were approximately 69.1%, with 16,330 out of 23,639 finishing the survey. This equates to an initial response rate of 6.6% and an overall final response rate of 4.6%.

Arlington Resident Travel Survey

In 2021, Arlington County conducted an online survey to assess commuting patterns, building on similar efforts from 2009 and 2015.[5] The survey achieved 4,213 responses, surpassing the County's 4,000-responses target and yielding a 3.4% response rate. To achieve its desired response rate, the County mailed out a total of 173,430 postcards in three waves, including 56,528 postcard reminders to non-responsive households.[6]

City of Alexandria Resident Transportation Needs Assessment

During November 2021, the City of Alexandria conducted an online and mailed survey[7] on its citywide multimodal trends. The City sent a total of 4,200 surveys to randomly selected households up to three times via mail with a postcard and/or paper survey.

[3] As part of this research, VHB found that Prince George's County uses the annual Maryland Commuter Survey and COG data; therefore Prince George's County is not included in this section.

[4] MWCOG. "Transportation Regional Travel Survey" September 15, 2025, https://www.mwcog.org/transportation/data-and-tools/household-travel-survey/

[5] LDA Consulting et al., "2021 Arlington Resident Travel Survey and Special Analysis: Technical Report," 2022, https://mobilitylab.org/research/regional-surveys/2021-arlington-resident-travel-survey

[6] While the raw rate of responses to postcards is 3.4%, because some households generated multiple valid responses from a single postcard the postcard response rate was calculated to be 3.6%.

[7] National Research Center, Inc., "Resident Transportation Needs Assessment Survey: Report of Results," April 2022, https://www.alexandriava.gov/sites/default/files/2022-05/Alexandria%202021%20AlexMoves%20Transportation%20Survey%20Report%20Final_0.pdf American Community Survey Data Releases

The City advertised to residents a second online survey via social media and other methods. The City received an 18% response rate, or 617 responses, from households reached by mail, and 282 responses from the publicly available and advertised survey. The City conducted similar travel surveys in 2016 and 2018/2019.

American Community Survey (ACS)

The U.S. Census Bureau (USCB) has conducted the American Community Survey (ACS)[8] annually and nationwide since 2005. USCB sends the survey annually to approximately 3.5 million households in a manner that is randomized and meant to ensure validity of the sample data. Questionnaire topics pertain to race, relationships, housing, and transportation. For the latest ACS report, in 2024, the response rate for the U.S. was 82.9%, which is a lower response rate from 2023's 84.7%.

Excluding 2020's 71.2% response rate due to the pandemic, ACS has returned a response rate of 80% every year since 2000. While federal law mandates a response to the ACS survey, which could be the reason why the response rate is significantly higher than other comparable surveys, major challenges that impact this survey's response rate include survey refusal, inability to locate residents and houses, residents not being home, and others.

[8] United States Census Bureau., "2024 Data Release – Surveys & Programs," September 15, 2025, https://www.census.gov/programs-surveys/acs/news/data-releases.html

Implementation Challenges

The MCDOT Commuter Survey's lower response rates in 2025 affect confidence in NADMS scores and other survey findings. VHB considered challenges to achieving higher response rates in 2025 and in future years.

Survey fatigue and attention span: A key challenge is "survey fatigue," a documented occurrence in which people feel overwhelmed by too many surveys and/or receive a survey requiring a longer completion time. Fatigue can result in lower response rates, partial responses, and skewed data. For the 2025 Commuter Survey, the estimated completion rate is 66%, with an average completion time of 15 minutes. The ACS also shows national trends of lower response rates in recent years, dropping from more than 90% before the pandemic to 85.3% in 2021 and 84.4% in 2024.

The National Health Institute (NIH) defines an individual's attention span as, "how long one is able maintain a state of optimal attention, defined as a period of high performance without response errors and consistent response time (RTs)."[9] In 2023, NIH found that adding length to surveys results in skipped questions and lower response rates, with shorter surveys associated with better response rates and data quality. SurveyMonkey, the MCDOT 2025 Commuter Survey platform, found that any survey that took longer than seven to eight minutes to complete saw a drastic decrease in completion rates, dropping from 20% to 5%. [10] The County's survey was designed to minimize length but still had an average completion time of 15 minutes to include all required topics.

Timing conflicts with other surveys: As mentioned in the Other Comparable Surveys and Response Rates section, this year's MWCOG SOC survey overlapped with the MCDOT Commuter Survey. When multiple surveys targeting similar populations are conducted in the same time frame, employers, property managers, and respondents may experience survey fatigue or confusion, which can result in lower participation. The County does not have data on how much the survey populations overlap, given that the County focused on TMDs and MWCOG mailed postcards to randomly selected households. Coordinating survey schedules across agencies would help minimize respondents' burden, improve participation rates, and ensure more reliable and representative results. For the 2025 survey, coordination with MWCOG was limited to the use of the ACT CRM database, maintained by COG Commuter Connections, to identify eligible employers and confirm employee counts at each work site. The County regularly collaborates with MWCOG on other regional initiatives.

Fear among Spanish-speaking populations: MCDOT published a Spanish language version of the survey for both employees and residents, as census data shows that many county residents speak a language other than English. [11] However, the County received only one response to the Spanish version.

MCDOT hypothesizes that many Spanish-speaking residents may be fearful about sharing information with the government or employers based on increased attention at the federal level to the arrest and detention of immigrants. While not responding in large numbers, at least some of the Spanish-speaking community responded in previous survey years to paper surveys. A near-zero response rate is highly unusual, pointing to other factors discouraging Spanish-speaking residents from engaging in survey responses at this time.

Federal agency downsizing and uncertainty: Also related to actions at the federal level, several federal government agencies with major worksites in Montgomery County have made sizable reductions in their workforce. The FDA, Health and Human Services (HHS), and NIH are three large federal agencies that have historically employed a total of approximately 33,000 in Montgomery County. [12,13,14]

[9] Alexander J Simon et al., "Quantifying Attention Span across the Lifespan," Frontiers in Cognition, 2023, https://pmc.ncbi.nlm.nih.gov/articles/PMC10621754/

[10] Brent Chudoba, "How Long Should a Survey Be? Insights and Best Practices," SurveyMonkey, June 26, 2025, https://www.surveymonkey.com/curiosity/survey_completion_times/

[11] The most recent American Community Survey (ACS), an annual survey by the U.S. Census Bureau that collects detailed information on social, economic, housing, and demographic characteristics from a sample of the population in 2023 found that 43.4% of county residents speak a language at home that is not English.

[12] Montgomery County 2019 Federal Priorities. (n.d.). https://montgomerycountymd.gov/OIR/Resources/Files/2019/federal-priorities_2019.pdf

[13] U.S. Department of Health and Human Services. (n.d.). Bethesda Campus and Leased Space in Montgomery County, Maryland. National Institutes of Health. https://nems.nih.gov/NEMS-locations/Pages/Bethesda_and_Poolesville_Montgomery_County_leases.aspx#:~:text=The%20Bethesda%20campus%20of%20the%20National%20Institutes,Poolesville%2C%20Maryland**%20*%20**27%20institutional%20centers%20(ICs)**

[14] UHealth in Montgomery County, 2013-2022. (n.d.). https://www.montgomerycountymd.gov/HHS/Resources/Files/Health in Montgomery County 2013-22_Final.pdf

MCDOT believes that the Transportation Coordinator(s) for these and other federal agencies may not have distributed and/or promoted the survey consistently with past years. Hypotheses include the transportation coordinator position being vacant or the position managing other priorities during a time of upheaval at their respective agencies. Employment cuts could also have caused some declines in response rates or resulted in figures for total numbers of employees at these worksites being too high.

Relatedly, during this time period, the federal administration issued a return to in-person work order that changed the precedent federal telework policy under the Telework Enhancement Act of 2010. On one hand, the return-to-work order could, in the longer term, affect NADMS goal attainment, as agencies will have greater motivation to manage congestion and parking constraints at their workplaces. However, in the near term, when combined with lower staffing levels and generalized uncertainty, distributing or completing a County survey may have been a lower priority among federal staff.

Recommendations for Future Surveys

Improving survey response rates will require a coordinated, multifaceted approach that addresses timing, outreach, accessibility, survey design, and incentives. Lessons learned from the 2025 survey highlight opportunities for stronger engagement with both employees and residents, streamlined administration, and clearer communication with participants. The following recommendation categories are intended to guide future survey cycles, and the analysis below shows how to build upon actions taken in 2025:

- Coordination to Increase Participation
- Questionnaire Layout and Question Updates
- Other NADMS Approaches

Coordination to Increase Participation

The low response rates documented in the **Survey Approach and Participation Techniques** section and the national and regional trends in the **Other Comparable Surveys and Response Rates** section suggest that MCDOT should increase coordination to improve response rates, maximize participation and reduce the risk of survey fatigue. VHB recommends that MCDOT establish a targeted communication plan and survey distribution strategy several months in advance to provide additional public transparency. For a biennial survey, the off-years should be utilized to plan, coordinate, review, and adopt a proactive strategy. MCDOT does give employers and residential property managers advance notice of the survey and does extensive follow-up during the survey period to improve response rates. MCDOT also holds outreach events and offers gift cards and other prizes to those who complete the survey if approved by their respective employer or property manager. A targeted approach to increase participation would require access to survey respondents' email addresses for direct communication.

When considering future communication plans and survey distribution strategy, VHB recommends integrating the following strategies.

1. Use phased mailings and targeted reminders. VHB and MCDOT sent targeted reminders via email on a biweekly basis based on review of survey responses; however, additional tools—such as a real-time dashboard—could better support real-time coordination efforts. A communication plan may also identify households or areas with historically low response rates and identify target outreach strategies for these audiences. Arlington's Resident Travel Survey demonstrates how phased mailings paired with follow-up postcards yielded statistically valid results while keeping respondents engaged.

2. Plan for mid-cycle analysis of participation patterns and allocate resources to target outreach accordingly. The survey team did ongoing analysis of response rates in 2025 but did not devote resources to generalized local outreach in underrepresented areas. The team relied instead on targeted, personalized outreach to employers and residential managers to stress the importance of distributing the survey to their employees or residents and attempting to schedule on-site events to promote the survey. Example strategies may include information tables at farmers' markets, libraries, parking garages, transit stops, or other community hubs to raise awareness and visibility of the survey to employees and residents. Other targeted outreach may include working with employers and building managers to place QR code placards throughout office and residential buildings with low response rates.

3. Develop relationships with employers, residential owners, civic organizations, and community associations to expand the survey's reach. Building on the established framework, MCDOT can enhance future surveys by cultivating broader, relationship-based outreach that extends beyond employer networks to include residential communities, civic organizations, and local associations. These additional partnerships could create a more diverse and sustainable engagement model that can improve long-term participation across Transportation Management Districts (TMDs). These efforts should be coordinated with other Montgomery County agencies to maximize reach.

4. Coordinate with peer agencies on survey timing to prevent survey fatigue and improve response rates. The overlap between the 2025 Montgomery County survey and the MWCOG SOC survey may have caused confusion for residents and/or employees who received multiple requests for similar information.

Increasing participation will require a coordinated, multichannel strategy that combines phased distribution, response monitoring, innovative outreach, and scheduling alignment. By overcommunicating the purpose and value of the survey, while also making participation easier, Montgomery County can potentially increase future response rates. The County should also monitor trends in peer agency surveys over the off-cycle years to understand emerging national or regional trends in survey response or technology tools that may augment or replace the current survey format.

Questionnaire Layout and Question Updates

The Implementation Challenges section shows that longer surveys are associated with lower survey response and completion. While the 2025 survey incorporated improvements to the questionnaire layout and questions (see Survey Approach and Participation Techniques), opportunities remain for further refinement.

MCDOT should review the future survey format immediately after the previous survey has been finalized. This will allow the department to analyze questions that had low responses and consider whether they should be rewritten or removed.

The department should consider survey layout and content improvements including:

1. Review text for adherence to plain-language guidelines and conduct pilot testing with a small stakeholder group.
2. Update grammar and wording of 2025 questions based on comments received in April 2025.
3. When appropriate, align survey questions with COG and peer agencies to support meaningful regional comparisons and reduce survey fatigue among shared audiences.

In addition to formatting and survey logic requirements, MCDOT should consider the following functional requirements when selecting future survey platforms:

1. Automated emails of weekly lists for participant incentive distribution and ride information/schedules related to transit and/or vanpool matchlists.
2. Application Programming Interface (API) option to allow for additional tool connections (such as Microsoft PowerBI) to compile live survey results for real-time reporting. This will allow the project team to review the overall penetration rate and quickly identify business and specific residents to help support MCDOT.
3. Automatic email generation to specific stakeholder groups and MCDOT staff.
4. Translation integration for Spanish or other identified languages to support additional accessibility.
5. If appropriate, use geolocation to connect responses to specific location.
6. Online surveys should include a progress bar or other graphical representation for participants to track their progress as they complete the questionnaire.
7. The design of the GIS link survey form needs to be reviewed to determine if there is a more intuitive design or visually appealing layout that can be implemented to help support usage and questionnaire connections.

Other Commuter Data Approaches

There are additional methods to collect commuter data, or to validate and supplement the NADMS calculations from the biennial commuter survey. Census-based datasets (including ACS), COG's regional travel survey, and big data platforms can help form estimates for commuter behavior and mode split in subcounty areas. These benchmarks should be compared to one another and to historic survey data, given that the small geographic scales of subcounty areas may result in limited sample sizes or variation between data sources.

Census and Federal Datasets

The ACS is administered annually by the U.S. Census Bureau and provides transportation data at the county, tract, and block group levels. This dataset enables the calculation of NADMS by aggregating the share of workers commuting via transit, walking, biking, or teleworking. While ACS data are statistically robust at larger scales, they carry significant

margins of error at subcounty levels, especially when analyzing smaller block groups. Nonetheless, ACS values remain a critical benchmark for comparing survey-derived estimates.

Regional Surveys and Travel Models

The MWCOG SOC survey provides a regional benchmark on mode split and commuter preferences on a three-year basis. SOC data can be disaggregated by jurisdiction and used to compare NADMS trends at the county level. The MWCOG RTS provides household-level trip data that supports calibration of the regional travel demand model; however, this survey is conducted less frequently than SOC. Both of these datasets can serve as validation points for county-level NADMS values. Additionally, MWCOG's travel demand model produces scenario-based estimates of mode share at the traffic analysis zone (TAZ) level, which can be aggregated to county subareas. While modeled results are not observed data, they provide a valuable check on survey-derived estimates, particularly for geographic areas with low response counts.

GIS-Based Census Block Analysis

NADMS can also be derived using GIS-based aggregation of ACS or block group data. Block group journey-to-work data can be mapped to Montgomery County's TMDs or other subcounty geographies. Weighting these data by employment density, household size, or land use characteristics improves representativeness and allows for more granular NADMS comparisons. This approach aligns survey responses with existing geographic boundaries and provides a statistical foundation for subarea analysis.

This information can be selected based on census blocks or block groups to select and examine data allocated to specific planning areas based on the data coverage. The County uses the commuter survey to calculate NADMS at the TMD and employee levels, data not easily captured through other methods. However, Census geography often does not align with TMD boundaries. When this occurs, data can be adjusted by area size or number of housing units. Although some Census data is available at the block level and offers better alignment, most is limited by privacy rules, sampling methods, and the ten-year release cycle. The use of GIS allows data analysts to apply Census or other data sources to County-designated area boundaries. This presents an opportunity for further collaboration with Montgomery Planning and the Technology and Business Services Department, both of whom have strong geospatial analysis expertise.

Big Data and Passive Data Sources

Big data mobility platforms have become more widely used for supplementing or validating mode share estimates and trip information. Platforms such as StreetLight Data, INRIX, and Replica use anonymized mobile device location data to estimate travel patterns; the cost to use these platforms can vary in price based on the size of the population or vehicle miles traveled. All real-time datasets follow a pricing model that is built on a project- or subscription-based assessment. Montgomery County may be able to access real-time data platforms through coordination with MDOT or other partners, or via its own subscription. The platform algorithms classify trips by mode (auto, transit, walk, bike) and can report mode shares by origin-destination geography, including census tracts, block groups, or custom-defined areas such as Montgomery County's TMDs.

Data penetration rates vary depending on how data is collected and estimated. Location-based or navigation data comes from GPS-enabled devices and in-vehicle navigation systems, typically representing about 1–4% of total travelers. Mobile application data—such as from apps like Google Maps or Waze—captures a larger share of users, with penetration rates around 23%, because many people have smartphones that share anonymized movement data. Probe or connected vehicle data comes directly from vehicles equipped with onboard telematics or sensors that transmit real-time information about speed, location, and performance. Since only a portion of the vehicle fleet currently has this technology, penetration rates are lower, generally 2–12%.

StreetLight and Replica have been adopted by many regional planning agencies to estimate mode share by TAZ or corridor, providing a near–real-time and high-resolution alternative to traditional surveys. The platforms demonstrate strong accuracy in predicting auto trips; however, transit and active modes are more difficult to distinguish because location data alone often cannot differentiate between similar travel patterns—such as walking versus waiting for transit, or biking versus slow-moving vehicle trips. In addition, underground transit activity and shared right-of-way conditions can obscure mode detection.

Despite these challenges, these datasets offer the advantage of large sample sizes and frequent updates, making them a valuable complement to survey-based NADMS estimates.

Conclusion

The 2025 MCDOT Commuter Survey had notably low response rates, resulting in data that may be a less accurate representation of how employees and residents commute than in previous years; however, the actual response rate may be higher than reported, as the total number of individuals who received the survey is not known. Unlike the federally mandated ACS survey, participation in the MCDOT Commuter Survey is voluntary, which inherently affects response levels. The survey results show mixed trends in NADMS attainment, but for most TMDs, rates are trending lower than previous years, suggesting more people driving alone.

The reasons for low response rates and for changing NADMS rates are based on factors both in and out of the County's control, such as federal actions and employer and resident manager cooperation, and survey length and formatting. Despite lower response rates, the survey results remain useful to County staff and other stakeholders when considering transportation plans and programs, and are valuable for understanding general commuting patterns and supporting transportation planning and programming decisions.

VHB documented that survey fatigue and challenges in working with employers have increased in recent years, as has the ability of new data sources and analysis techniques to help planners understand commuter travel behavior. Prior to future commuter surveys, the County should consider alternative methods to collect and understand commuter data, including a cost/benefit analysis of non-survey data collection methods. Based on the results of this analysis, the County may consider updating guidance and policies related to the commuter survey.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