

2023



# Virginia Tech Blacksburg Campus Parking Survey Report



# INTRODUCTION

Virginia Tech Parking Services is an auxiliary of the university that oversees more than 14,200 parking spaces and a motorist assistance program on the Blacksburg campus. As an auxiliary, the Code of Virginia requires Parking Services to be 100 percent self-funded with no tuition, mandatory student fees, or funds from the Commonwealth contributing to its operations. Parking Services must therefore generate its own revenue to provide, maintain, and regulate parking for those who use its services. The department does this by charging students, employees, vendors/businesses/contractors, and visitors to park on campus.

In 2021, Transportation Services (which includes Parking Services, Fleet Services, Sustainable Transportation and Air Transportation Services) conducted the first parking survey since 2014. The survey helped gauge advancements and changes for the entire department, as well as helping the department manage the limited resources in its custody. The 2021 survey was the foundation for the 2023 Virginia Tech Blacksburg Campus Parking Survey.





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# SURVEY RESPONSE RATE & DEMOGRAPHICS

Figure 1: Comparison of the Percentage of Campus Affiliates and Survey Respondents

Survey Participants	Number of Respondents	Total Affiliates	Response Rate	Percentage of Total Survey Participants
Faculty	737	5,026	15%	33%
Staff	734	3,590	20%	33%
Students	695	37,989	2%	31%
Retired Faculty/ Staff	3	N/A	N/A	0.1%
None/Visitor	62	N/A	N/A	3%
Total	2,231	46,605	5%	-

Transportation Services administered the 2023 Parking Survey from February 15, 2023 through May 3, 2023. A total of 2,231 valid responses were received from Virginia Tech’s Blacksburg campus (see Figure 1). This total does not include 782 deleted, incomplete responses. At a 95 percent confidence level, this sample size has a 2 percent margin of error.

Participants for this survey are affiliated with Virginia Tech in a variety of ways. As shown in Figure 1, faculty, staff, and students make up the largest percentage of participants, each at around a third of the responses. Within the students, 24 percent of the total survey participants are undergraduates and 7 percent are graduate/professional students. These percentages are to be expected given the total number of affiliates in each group and the typical response rates associated with each. Breaking down the faculty and staff by employment status reveals that the overwhelming majority (96 percent) are full time. A similar breakdown for students indicates that 97 percent are full time and 63 percent reside off campus.

<sup>1</sup> Per Virginia code §3-4.01





# CURRENT STATE OF PARKING

Faculty, staff, students, visitors, vendors, contractors, and others utilize Virginia Tech's 14,000+ parking spaces everyday on the Blacksburg Campus. Managing these spaces fairly is an important aspect of Parking Services' mission.

The current state of parking on the Blacksburg campus reflects intentional master plan goals. The 2016 Parking and Transportation Master Plan<sup>2</sup> and the university-wide campus master plan (Beyond Boundaries 2047: The Campus Plan)<sup>3</sup> of 2018 set guideposts for the future of parking and transportation on campus. As these master plans lay out, campus growth will continue to disrupt parking across campus and we will need to continually monitor and adjust how we assign and allocate parking as well as encourage participation in non-drive-alone transportation modes.

Virginia Tech's Blacksburg campus is currently experiencing a boom in new construction and other campus improvement projects. Construction projects in the Perry Street Area (i.e. the Data and Decision Sciences Building, the Blacksburg Transit Multi-Modal Transit Facility, the Undergraduate Science Laboratory Building, and Hitt Hall) were built on existing parking lots causing a loss of over 1,000 parking spaces. The campus has a daily surplus of approximately 700 parking spaces with most located on the exterior of campus. Parking Services strives to maintain an equilibrium among its assets and those it serves by balancing demand and availability of parking spaces on campus. When parking supply no longer meets demand, the Campus Master Plan calls for additional parking garages on campus. Due to the high cost of building new parking garages, delaying construction as long as possible while maintaining a parking surplus is fiscally imperative.

<sup>2</sup> <https://www.facilities.vt.edu/planning-financing/other-planning/parking-and-transportation-master-plan.html>

<sup>3</sup> <https://www.facilities.vt.edu/planning-financing/campus-master-plan.html>

<sup>4</sup> Estimates of building a parking garage show a cost around \$30,000 per parking space and building a surface parking lot around \$8,000 a space.







One of the tools Parking Services uses to help manage campus parking is the sale of parking permits. By requiring a valid permit or the payment of a daily rate from all users, Parking Services is able to keep the cost of parking down for all groups and ensure that everyone visiting campus is helping to cover the costs.

Parking Services offers a wide range of parking permit options including: annual; monthly; and daily. Eighty-six percent of survey participants indicated they purchased a permit. Sixty percent of those permit holders indicated they were able to find a parking space in less than five minutes, and another 21 percent reported it took six to ten minutes to find a space.

Generally speaking, the annual permit is the most cost-effective permit available for those parking on campus for full time employees and students. However, the annual parking option is not always the best choice for everyone. Depending on how often someone needs to be on campus, other parking permit options may make more sense financially. Survey participants were asked in Question 12 (Q12) about their awareness of the daily parking options with 88 percent indicating they were aware of this option for occasional parking. This high percentage indicates that the communication campaign over the last year to increase awareness about daily permit options was successful.

Q23 asked about the awareness of the Evening Only permit, and 62 percent of respondents indicated they were aware of this option. Survey responses from 2021 show that awareness of the Evening Only permit option has decreased slightly, but negligible, as 65 percent of respondents were aware of the option two years ago.

Given all of the construction taking place on the Blacksburg campus, it is imperative to safeguard the finite parking resources and ensure they are fairly available to people who park on campus. Parking Services must continue to be flexible and responsive, while providing multiple options, to help meet the growing needs of its customers.

# SATISFACTION OF PARKING

It is important to Parking Services to provide the highest level of customer service possible while still upholding the required rules and regulations. Q38 and Q39 asked about interactions with Parking Services staff by phone or email, including office cashiers and Parking Enforcement Officers. Of the 73 percent of respondents who indicated they had interacted with the department, 51 percent indicated they were extremely satisfied or somewhat satisfied with their interactions. The satisfaction rate in 2021 was 61 percent. Improving this response rate will continue to be an important goal of the department.

Maintaining open and accessible parking lots and reinforcing the rules and regulations of parking on campus is an important aspect of Parking Services' mission. When asked about parking enforcement specifically, 28 percent indicated they were somewhat satisfied or very satisfied, with another 32 percent saying they were neutral.

In addition to permits and parking enforcement, Parking Services offers other services to those visiting the university. One of these services is the Motorist Assistance Program (MAP) which provides vehicle jump-starts and car door unlocking free of charge. Q34 and Q35 asked if the respondents had used MAP, and if so, how satisfied they were with the service. Overwhelmingly 76 percent indicated they were neutral with this program, likely because only 8 percent of respondents have used the service. Q36 asked whether or not the program should continue, and 92 percent of respondents agree. Parking Services sees this as an important community engagement program and will continue to provide, as well as increase awareness of, this service across campus.

Parking Services conducts a wide array of functions on campus from selling permits, issuing citations, and even helping customers when vehicle batteries are dead or their keys have been locked in their vehicle. Even though these are all in place to assist motorists, Parking Services tends to elicit a negative response when customers are queried, typically based on bad interactions with any previous parking experience, not just those on our campus. Q45 asked for the respondents satisfaction with the department. Results show that 54 percent are very or somewhat dissatisfied, and 20 percent are very or somewhat satisfied. Over the next subsequent surveys, Parking Services hopes to improve the positive results and mitigate the more negative responses as an important goal of the department. As a follow-up to overall satisfaction, Q46 asked what factors most influenced the respondents satisfaction level with Figures 2 and 3 showing the results from 2021 and 2023.

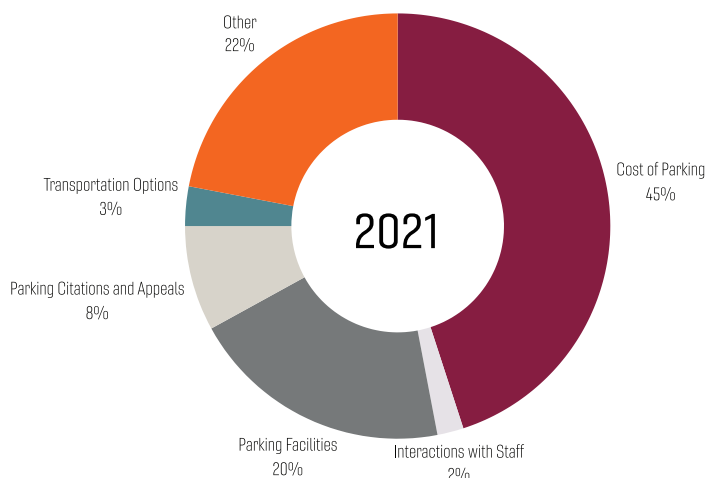


Figure 2: What Most Influenced One's Overall Satisfaction with Parking Services (2021).

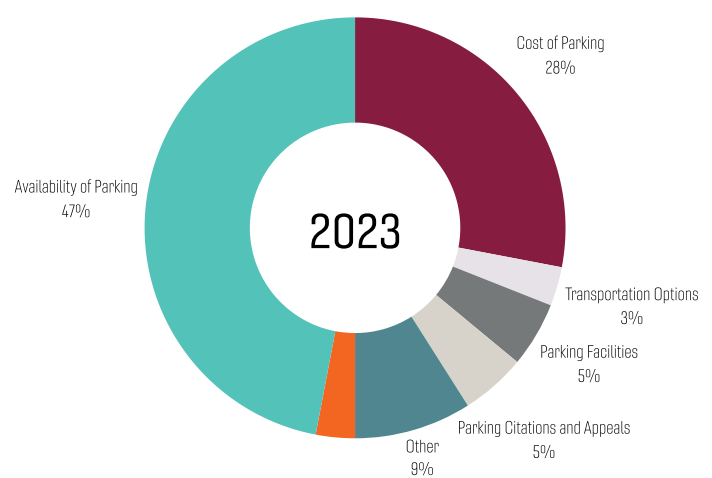


Figure 3: What Most Influenced One's Overall Satisfaction with Parking Services (2023).



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In 2021, the perceptions of the high cost of parking, condition and quantity of parking facilities, and “other” were the biggest factors influencing overall satisfaction. Most of the “other” responses referenced the availability of parking, so that was added as an answer option in the 2023 survey. This heavily influenced the results in 2023, as nearly 50 percent of respondents listed the availability of parking as something that influenced their satisfaction response. Among those respondents who indicated they were dissatisfied with the parking experience on campus, 51 percent of them chose the availability of parking as the main reason why. For those who indicated they were satisfied with the parking experience, 46 percent chose the availability of parking as the main reason. This highlights how drastic parking availability can be at different parts of campus, and how perceptions can contribute to one’s satisfaction.



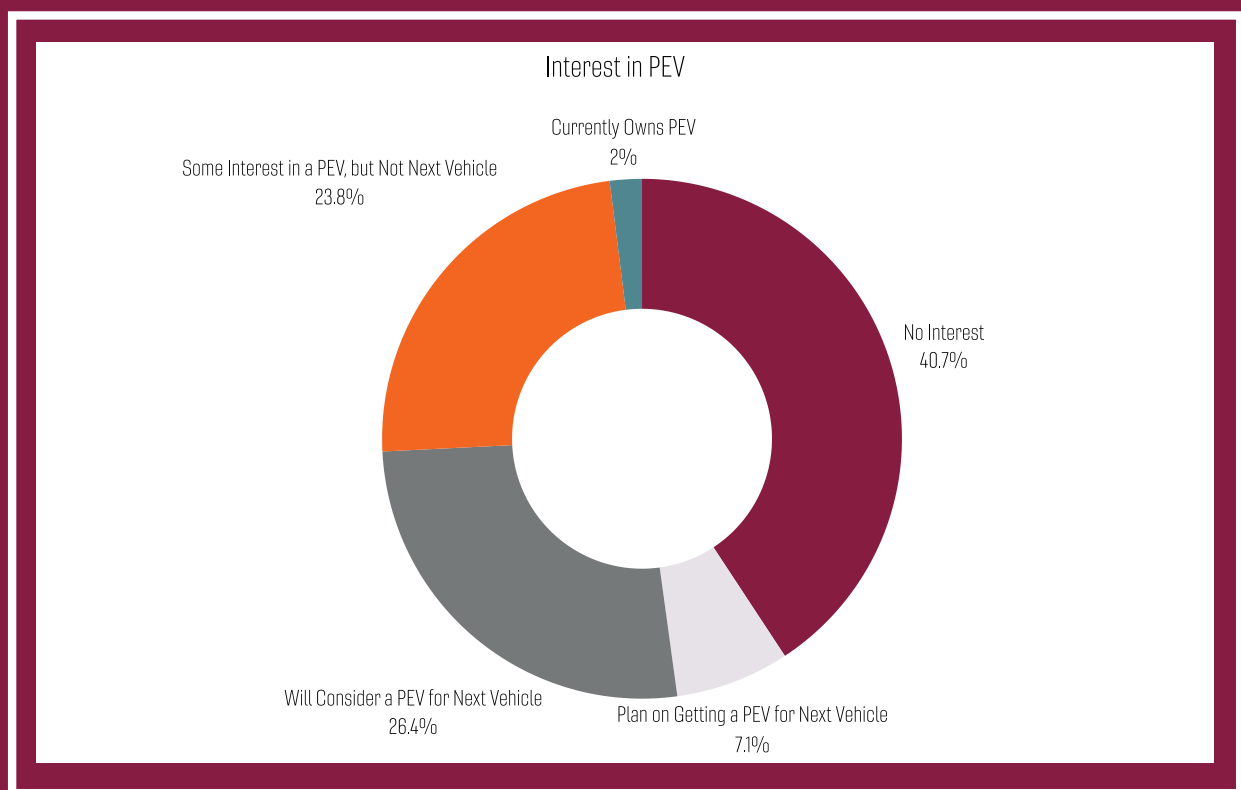
# CLIMATE ACTION & OTHER INITIATIVES

The Virginia Tech Climate Action Commitment serves as the university's guiding framework around sustainability and energy efficiency in campus operations, facilities, curriculum, and research. Since commuting-related transportation comprises 9 percent of all campus greenhouse gas emissions, the commitment's policies and decisions impact parking and transportation on campus.

As stated previously, the Blacksburg campus has a surplus of approximately 700 parking spaces on any given day, proximate to the periphery of campus. When survey participants were asked about the extent to which they would support a university commitment to not build any additional parking on campus, even if it meant they might have to park on the periphery of campus and take a shuttle to the core (Q21), 26 percent said they support such a commitment while 74 percent said they oppose it.

While only 2 percent of participants currently own an EV, 27 percent will at least consider one for their next vehicle (see Figure 4). Furthermore, 34 percent agreed that having publicly-available EV charging stations on campus would influence their decision to purchase an EV. Despite only a third of participants owning/being interested in an EV for their next vehicle, 57 percent of them support the university installing publicly-available EV charging stations across campus. Most EV charging currently occurs at home or work. This can make it more difficult for people who live in multifamily housing with shared parking to charge their EVs. On-campus charging stations will help make it easier for these individuals to own an EV.

Figure 4: Current/Future Interest in Owning a Plug-In Electric Vehicle (PEV).



<sup>5</sup> U.S. Department of Energy's Idaho National Laboratory. <https://inl.gov/article/charging-behavior-revealed-large-national-studies-analyze-ev-infrastructure-needs/>



# CONCLUSION

Utilizing the results of the 2023 survey and the 2018 Campus Master Plan, Parking Services will continue supporting campus parking and transportation decisions to enable fiscally-responsible future growth and optimal use of the current limited parking resources. The department continually strives to be customer-focused, service-oriented, and mission-driven, all the while upholding and maintaining the rules and regulations of the campus.

Parking Services must remain flexible and responsive in order to provide all customers with the necessary options for parking solutions at Virginia Tech. The Parking Services team provides a valuable service to the campus community, including enforcing campus parking rules and regulations, providing customer-focused payment options to meet the campus community's needs, performing vehicle lock-out and jump start services, and being a campus ambassador. Additionally, Parking Services in collaboration with Sustainable Transportation will aim to raise awareness of options such as the BB&W permit and carpooling/ridesharing, as well as add EV charging stations, bike lanes/paths, and expanded bike share. These efforts will increase Virginia Tech's sustainable transportation infrastructure and create a more inclusive parking and transportation environment for the future of the university.







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