



# a calming effect

Parking anxiety is a real thing for drivers. Here are some ways industry professionals can help mitigate it.

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**by Victor A. Hill,  
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It was the third time the employee insisted our parking garage was full, but I knew we had spaces on our upper levels because I'd sprinted up the stairs moments earlier to be sure.

"You expect me to park up there?" she asked, incredulous to the suggestion.

"Your permit's valid on levels one through three," I said. "I'm happy to show you the open spots."

She reluctantly made her way to the second floor of the garage after voicing her displeasure. It wasn't the last time I'd bear witness to the reality that parking sometimes strikes fear into the hearts of employees, students, and campus visitors, many unaccustomed to multi-level garages. That unfamiliarity seemed to exacerbate their anxiety about driving to campus.

### **Parking Anxiety as a Phobia**

Parking anxiety isn't unique to college campuses. Municipalities, airports, and private property owners are challenged to find ways to mitigate anxiety to provide quality service. Wayfinding, signage, social media, and educational campaigns have all been used to ease the anxiety drivers feel when entering unfamiliar environments.

"A fear of parking would fall under the category of situational phobias, like flying in an airplane or visiting the dentist," says Ryan McKelley, PhD, chair of the department of psychology at the University of Wisconsin-La Crosse. "It's also possible that parking garages and ramps can trigger the same fear response seen in claustrophobia (fear of confined spaces) or agoraphobia (fear of a public place where making a quick exit is difficult)."

Interestingly, there are no peer-reviewed studies that explicitly use "parking anxiety" or "parking stress" as a construct, but ergonomics and assistive technology studies may offer insights into the phobia, he says. As examples, a study in 2000 suggested that commuter college students found parking more stressful than their coursework<sup>1</sup>, while another study considered how assistive technologies used to help with backing up or parallel parking could reduce driver stress<sup>2</sup>. Wayfinding or informational signs could, potentially, play a role in assuaging anxiety as well. McKelley points to a study that sought to improve seatbelt use among residents in a retirement community. Reminder signs

were placed around the community, and seatbelt use increased. Creative signage, possibly even humorous in tone, might help mitigate parking anxiety, he adds.

"At its core, anxiety is most often fear or uncertainty about something that hasn't happened yet—even if based on a past experience," McKelley says. "In other words, it is when our stress response is activated as it should be if we were in a dangerous situation, but it kicks in during times of uncertainty or at the thought of an adverse situation that might happen. For parking, it could be anxiety about finding a spot, getting into a minor collision if paths seem narrow, or uncertainty about your ability to park efficiently when someone is looking."

### **The Perception of Safety**

Safety is another cause for anxiety, particularly in urban areas, or areas that are perceived to be blighted. An overflow parking lot used for resident students at the University of Wisconsin-La Crosse is frequently thought of as unsafe by students and parents due to its proximity to a cemetery, a perception of poor lighting, and the quarter-mile distance to the main campus. The lot is often the only choice for incoming first-year or transfer students who have no other alternatives when parking lots closer to residence halls sell out. The lighting along the street to campus was improved with more intense LEDs, and university police offer rides, most often at night, but safety concerns remain, despite consistently low crime rates on campus and efforts to improve the lot and surrounding area.

"Perception is, unfortunately, sometimes reality, but we make ourselves available any time of day and do our best to help our students feel safe," says Scott McCullough, chief of university police. "We're fortunate to have parking available even if it's not in an ideal location. Our ongoing challenge is to educate our students and their parents about all of their options and address their concerns."

Parking staff and police officers use social media to educate students and meet every year with incoming students to discuss safety and parking options. Parents with

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new college students are frequently more concerned about safety and appreciate speaking directly to officers, McCullough says.

University of Maryland, Baltimore County faced the challenge of managing a perception problem when it tried to encourage students to park at a discounted rate in a non-campus garage. Students were parking at the campus's BioPark garage, but as a result of the expansion of the BioPark complex, the parking program needed to be discontinued. This prompted the need to relocate 300 vehicles. Parking on campus wasn't an option, given the limited space, so university officials negotiated a discounted rate at a Baltimore-owned garage. Only 35 vehicles parked there, which caused campus demand for parking to increase.


After studying the issue, officials realized the lack of parking was based on negative perceptions of specific areas around campus in the city. Meetings with the student government association and other stakeholders led to the creation of a walking tour program to address the students' concerns and educate parkers about the quickest and safest travel routes to and from the garage while walking across campus. The program's purpose was to, ideally, change their perceptions and consider the garage as a parking alternative.

The program worked. While initially only 85 students participated, word spread in time, and the city-owned garage now regularly sees 300 vehicles in it, along with additional student vehicles parked at a similarly discounted location nearby. Another stakeholder that benefited from the partnership was the merchants of the Lexington Market as the tours include the market area, which has led to an increase in its foot traffic.

"We were pleased with the program's success," says Robert Milner, CAPP, MS, director of parking and transportation services at the university and co-chair of IPI's Safety and Security Committee. "We feel like we took a team approach to involving stakeholders and helping them see the area in a different light." He hopes to include the tours as part of the university's onboarding process for new employees, and tours may be expanded to the BioPark.

## Wayfinding to Reduce Anxiety

Convenient parking when tied to efficient wayfinding and transitions to other amenities can help reduce anxiety when a short car ride is the start of a long travel day into unfamiliar surroundings. Airports are challenged to provide parking options for



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### UNIVERSITY TOURS FACT SHEET

**PURPOSE:**  
The University Tours resulted from the need to get students to park at a discounted semester rate at a non-University parking garage.

**GOAL:**  
To educate our new and returning students that, for the most part, the urban environment is safe; detail what the Lexington Market can offer them; and show how to walk around the city in a safer manner. Additionally, we want our students to understand they need to be more aware of their environment. This includes educating them to not leave items in their cars and not text while walking and informing them to better secure their property and be alert of their surroundings.

We propose taking the incoming students on a tour of the campus and the bordering areas and exposing them to the business sections of the campus; recommending paths of travel where our police and security are assigned; and ending the tour at Lexington Market and introducing them to the diverse food choices the market has to offer. We hope the tours will help students understand what safety measures they should exercise, remove the perception that the campus is full of people of bad character, and show the positives the campus area has to offer.

Besides the above goal, the University also thought it was important to build a "community" for faculty, staff, and students. This includes community engagement of the westside, a goal contained in the University's Strategic Plan.

**SOLUTION:**  
Educate our first-year students about how to protect themselves from being victimized and expose them to what it is like on an urban open campus. The University has students who come from rural environments and often have never been exposed to more densely populated areas that are more prone to homelessness, panhandlers, or large groups of people loitering — all aspects of urban living that are realities surrounding Lexington Market. These experiences, which were foreign to many of our students before being in an urban environment, can make them feel unsafe.

**BACKGROUND:**  
Three-hundred (300) students had been parking at our UM BioPark garage at a rate of \$175 per semester. As the BioPark complex grew with new tenants and new buildings, it always was understood that the student discount program would be discontinued to make spaces available when needed. Those 300 students would then have to park back on campus at the regular student rate of \$5 per day.

Due to the shortage of UMB parking spaces because of current demand, the parking department negotiated the same rate at a city-owned garage located at the northeast section of the campus community. Although Lexington Market is connected to this garage, the perception of this area leaves it to be less desirable for the campus community to travel.

After the new relocated parking program was communicated, implemented, and approved by the University Student Government Association (USGA) in 2014, only 35 students chose to park there, causing on-campus parking demand to increase. In addition, other students who signed up for the program would return to the parking office requesting refunds after parking for only a few days. This increased demand resulted in complaints from all parkers as they were being redirected to other UMB garages due to garages filling up.

While Parking and Public Safety responded and addressed every comment/complaint received, very few had any substance, meaning the majority were perception-based.

A meeting (campus walk) took place with Public Safety, Parking, and the vice president of the USGA in which the area the students travel from this garage was walked. During this meeting, it was determined the students more than likely were not taking the preferred travel path to the various campus schools/buildings. Also, during this walk, one of the lieutenants pointed out safety points and provided information from his previous job with the Baltimore Police Department.

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**DEVELOPMENT OF PROGRAM:**  
A group meeting was held with Parking, Public Safety, Communications, the USGA vice president, and the general manager and marketing manager of Lexington Market. The concept was developed. Lexington Market was brought in as a University partner, as it wanted to increase student/staff traffic to its vendor stalls and offered its meeting room for a meeting with students after each tour. Lexington Market also has alerted its security personnel to be conscious of students walking in the area.

It also was agreed at this meeting to develop a second, separate tour for the student parking garage located on the northwest section of the campus community.

The program was communicated through Academic Affairs and the USGA, and tour dates were set up. This planning phase took approximately two months.

**ACTUAL TOURS:**  
The first couple of tours only had a few participants, but as the tours went on, the word spread. Communications was able to bring in a champion from Academic Affairs, and we were able to present the program at meetings with Academic and Admissions deans. Once these two groups of deans heard about the program, it took off, resulting in many individual meetings with the various schools, and some schools are making the tour mandatory, with the tour part of their orientations or "Welcome" days.

As an interesting side note, due to Public Safety networking with the International Students coordinator, not only are the tours mandatory for these students, but Public Safety has their officers taking cultural sensitivity classes from the International Students program. In addition, we are sensitive that some students might come from countries where public safety officials have a different role than our public safety officers at UMB — so we have been sure to educate students that we are here to help. UMB Police officers also are educated on how to handle foreign students based on various cultures.

The tours consist of two groups starting from the two points (Market Center Garage and Lexington Street Garage) at the same time, with Public Safety personnel pointing out the best travel routes based on how the area is patrolled and Parking personnel answering parking questions and providing additional information. Both groups then meet up at our Plaza Park, and from there the tour proceeds as one group. Again, Public Safety personnel point out the best travel routes based on how the area is patrolled and Parking personnel answer parking questions and provide additional information. It is here where area food options are pointed out to the students as well.

The larger tour group then meets at Lexington Market, where the marketing manager takes the students on a quick tour of the market and points out the various vendors. Public Safety and Parking personnel point out their favorite vendors as well. The market tour ends at a big meeting room on the second level of the market, and pizza and sandwiches are provided to the students. Students then sit with Public Safety, Parking, and the marketing manager, who answer any questions they might have. At the end, Lexington Market provides each student with a goodie bag that includes items from a few of the market vendors and a \$5 gift card to be used at any market vendor. The gift card is trackable, so the market can find out which vendors are popular among students.

It should be noted that at the last tour it was decided to invite representatives from the Downtown Partnership to sit and eat with students. This gave the Downtown Partnership the chance to educate students on their Downtown Business Guides and Clean Sweep Ambassadors Programs/Resources, which are available to students.

**RESULTS:**  
Before the University Tours program was implemented, there were only 85 students parking at the discounted parking location. There are now 300 students parking at the discounted parking location as well as an increase in the number of students parking at another discounted parking location directly across the street. In addition, Lexington Market has seen an increase in the number of students patronizing its vendor stalls and the surveys sent out after each tour have remained positive.

**WHAT'S NEXT?**  
We are in communication with Human Resource Services to possibly include the tours as part of the onboarding process for all new personnel. Requests have been made to expand the tour to include the BioPark section of campus.

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The University of Maryland, Baltimore County developed a series of tours to familiarize students, faculty, and staff with popular travel routes and parking options to lessen anxiety about transportation.

customers, who, in many instances, are anxious about flight delays and arriving at their final destinations. The Houston airports—William P. Hobby (HOU) and George Bush Intercontinental (IAH)—made several changes to help mitigate anxiety, says Pearl Hurd, parking analyst for the airports.

LED lights above parking spaces turn red or green depending on occupancy, valet parking services are offered, kiosks were installed to provide shuttle information, and routes were changed to improve efficiency and reduce travel times. Updated restrooms even take advantage of new technologies to make the experience easier and more convenient for travelers.

“It’s all for the purpose of not only reducing stress, but adding the wow factor into the travel experience,” Hurd says. “Our goal is to celebrate the experience of flying.”

### Harnessing Technology to Reduce Anxiety

Parking and transportation professionals have several ways to make parking a less stressful experience for their customers. Effective signage helps customers locate parking as they arrive. Ongoing advances in technology provide more options than ever before when combined with customer education, and the rise of smartphone apps and GPS-enabled navigation offer faster access to options that customers may not have otherwise discovered. Combined, these elements can provide valuable information to improve parking operations and make for happier customers. As important, parking professionals can harness the power of the technology to enhance efficiencies.

“It’s still all about the numbers and the statistics, the workflow, the traffic flow, because that transcends into a calmer customer experience, a more inviting customer experience,” says Allan Witten, sales director for ParkHelp. The company provides parking and mobility solutions that include guidance, signage, and software. Witten is also a member of IPI’s Safety and Security Committee. “From a wayfinding aspect, the embrace of that technology has increased because it’s visual-based, and the user doesn’t really have to do much other than look around because it’s all visual and it helps with the parker’s experience,” he says.

McKelley welcomes these advances.


“Anything that helps to reduce uncertainty has the potential to reduce anxiety,” he says. “Signs that let people know how many spots are available or that clearly direct a driver to navigate through a ramp can

### The Houston Airports developed strategies to help people find parking more easily and lessen parking anxiety. They recently explained what’s worked:

The Houston Airports (HAS) have taken several steps towards reducing and addressing parking customer anxiety. HAS rerouted, reviewed, analyzed, and made changes to routes to make them more efficient. Also, kiosks were recently installed to help streamline processes for routing ecopark shuttle buses to and from the airport terminals and surface lots. Customers tend to have a dynamic interest in timing of parking shuttles that may affect their flights. HAS also expanded parking capacity, including valet parking options, along with increasing travel routes and destinations at both William P. Hobby (HOU) Airport and George Bush Intercontinental (IAH) Airport.

HAS continues to make general improvements to parking infrastructure, technology, and smart systems in an effort to make our passengers happy. Such improvements include, but are not limited, to the following:

- Red/green light parking indicators (space guidance system technology) give passengers higher visibility on where to find a parking space.
- Conducted time-studies to improve shuttle routes in and out of terminals.
- Utilized technology to share real-time information on screens for waiting travelers.
- Improved directional signage and wayfinding for travelers entering and exiting the terminal.
- Implemented new wayfinding technology atfly2houston.com to share the shortest path to your destination within the airport.
- Improved dining experiences provide a more relaxed atmosphere for those who choose to arrive early for flights, including the best in local cuisine, and a James Beard Award-winning restaurant.
- Adapting new technology for maintenance and care of airport restrooms, not only to reduce stress, but also to amp up the “wow” factor of the travel experience.

reduce uncertainty about a parking situation. Educating someone how to park in narrow spots can reduce anxiety in a parking lot.” 

### Notes

1. Rasmussen, C., Knapp, T. J., & Garner, L. (2000). Driving-induced stress in urban college students. *Perceptual and Motor Skills*, 90(2), 437-443.
2. Reimer, B., Mehler, B., & Coughlin, J. F. (2016). Reductions in self-reported stress and anticipatory heart rate with the use of a semi-automated parallel parking system. *Applied Ergonomics*, 52120-127.

\*IPI’s Safety and Security Committee contributed to this article.



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