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Implementing a Bike Ambassador Program on the UMD Campus

STUDENTS

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Abstract

Cycling has become an increasingly popular mode of transportation on college campuses, as it facilitates a more sustainable commute and reduces travel costs. However, the increase in cycling has also made it clear that many students are unaware of the rules, which has led to an increase in traffic incidents.

This report analyzes the problem elements: information asymmetries between campus and students about cycling, negative externalities due to avoidable accidents caused by cyclists, and the ever-changing cycling culture on campus.

The report suggests a bike ambassador program and examines three essential program aspects: its purpose, funding sources, and ambassador activities. The program's purpose would be to promote bike safety, increase ridership responsibility, and advocate for improved cycling infrastructure. Potential funding sources include the Pepsi Enhancement Fund, Launch UMD, and UMD Sustainability grants could help sustain the program. Among ambassador duties, mentorship of cyclists, training cyclists, advocacy, and holding informational events would be the most effective.

Introduction

According to the University of Maryland's Department of Transportation Services, in the 2023-2024 school year, the number of privately registered bikes, e-bikes, e-scooters, and Veo shared rentals is almost 4,250. This is a significant increase from the previous school year, in which the total number of privately registered devices was approximately 1,750 (UMD Department of Transportation Services, n.d.).

These numbers indicate that the campus hosts a growing cycling community, which raises safety concerns. Terps For Bike Lanes, a student group, believes a bike ambassador program can address information asymmetries, negative externalities, and the campus cycling culture to promote bike safety. The authors of this report have conducted research and spoke with relevant stakeholders to examine the feasibility and potential impact of such a program.

A literature review revealed insights into the cycling and pedestrian experience on college campuses, helping to better our understanding of how a bike ambassador program would operate and the challenges it would address. The major themes include negative externalities, the complexity of cycling culture, and information asymmetries.

The report includes a data supplement that is essential to understanding the cycling environment at UMD. It includes a brief explanation of the data collection strategy and analysis, as well as the criteria developed during the research process.

The three recommendations inform our client, Terps For Bike Lanes, of potential steps for developing an effective program. These steps include defining program purpose, creating funds for program use, and developing activities for both members and ambassadors. The recommendations consider the criteria developed during the brainstorming stage of the research process.

Literature Review

Negative Externalities

In the absence of effective information-sharing campaigns, negative externalities such as traffic, collisions, and traffic violations are an obstacle to public safety. This section analyzes these externalities in the context of the City of College Park, Maryland, and other US college campuses.

According to a 2016 report on existing transportation infrastructure, College Park has a limited street network. U.S. Route 1 is the sole north-south thoroughfare across the city. The remaining street network consists of many dead-ends. Furthermore, College Park has large blocks of property that force travelers to take the same main roads, creating traffic congestion. The eight point-loaded intersections along Route 1 also pose a traffic problem as many travelers attempt to make turns into smaller road networks (Kittelson & Associates, Inc, 2016.). Significant traffic congestion in College Park results in traffic collisions, especially for cyclists who must share the roadways with motorists.

Traffic collisions involving cyclists are a common occurrence on American college campuses. The Clemson University campus had a total of 21 pedestrian and nine bicycle crashes between 2001 and 2008 (2009). Approximately 73 percent of these incidents happened on clear days and 53 percent happened early in the work week. The high frequency of crashes during good weather and weekdays suggests more cyclists and more commuter traffic. The study also notes that crashes often occurred because motorists and pedestrians failed to yield (Dobbs, 2009).

Another study analyzed crashes at the University of California, Berkeley; the University of California, Los Angeles; and California State University, Sacramento. It surveyed students, faculty, staff, and non-affiliated individuals. The 5,167 respondents reported 662 crashes across the three campuses. Over half of these crashes occurred while the respondent was cycling, contributing to a high crash rate of 23.1 crashes per 100 respondents. A significant percentage of the bicycle crashes also happened in roadways, intersections, and multi-paths. Most of the bicycle collisions were with vehicles and inanimate objects, especially when the cyclists didn’t pay attention to their surroundings (Grembeck et al., 2014).

In both studies, the inability to yield and pay attention to surroundings indicates that motorists, cyclists, and pedestrians lack bike safety education necessary to prevent injury.

In addition to injuries, traffic accidents introduce the risk of mortality among college students. Turner, Leno, and Keller examined this risk factor by developing a pilot study on the leading causes of morality for college students in the US (2013). While this study doesn't reflect College Park data, it creates a bigger picture of the potential negative externalities that communities may face. The study surveyed 157 four-year member colleges of the American College Health Association with a focus on 18 to 24-year-olds. The results reveal that accidental injury was the leading cause of mortality among college students with a mortality rate of 10.80 per 100,000. Within the category of accidental injury, non-alcohol-related vehicular collisions had the highest mortality rate (3.51 per 100,000) (Turner, 2013). While it's uncertain whether this category includes pedestrians, cyclists, and motorists who lacked road safety education, the potential of harm is worth noting.

It's also important to note that traffic violations that cause collisions can be due to location, as shown in a pilot study on the effectiveness of the Bulls Walk and Bike Week Campaign at the University of South Florida, Tampa (2013). An analysis of pedestrian and cyclist traffic revealed that certain sites at the University of South Florida campus are more prone to certain types of behavior. Prior to implementing the campaign, behaviors such as crossing on a red signal, riding without a helmet or bike lights, and riding against traffic were more prominent at some sites than others. The study suggests that pedestrian and bicyclist behavior is influenced by the environment, a vital factor to consider when assessing bike safety on the UMD campus (Zhang et al., 2013). While traffic may be an inevitable aspect of campus life, a bike ambassador program should be able to successfully prevent such externalities.

Complex Cycling Cultures

Bike ambassador programs and cycling culture are inherently complex due to the diverse array of cycling practices and programs across different universities and cities. Each institution fosters its own cycling community, shaped by factors such as campus layout, local infrastructure, and student demographics ("Strategies for Engaging Community"). Implementing a bike ambassador program at the University of Maryland requires careful consideration of these variables to ensure its effectiveness, though challenges will arise in navigating these variables (University of Maryland Transportation Services, 2023).

UMD has cultivated a distinct cycling culture, supported by policies, regulations, and resources administered by the Department of Transportation. The resources include six bike repair stations equipped with tools for basic maintenance, six air pumps, long-term bike storage facilities, and covered parking areas, as outlined on the Department's website. An interactive campus map offers a "bike view" option, showing the locations of these amenities for cyclists' convenience ("Bike Resources," n.d.).

UMD has established specific bike safety guidelines, also on the Department's website, covering proper parking, operation, and adherence to traffic regulations. Cyclists are encouraged to give other riders sufficient space, maintain predictable movements, use designated roadways, and comply with traffic laws. Special instructions for nighttime cycling emphasize the importance of bike lights and reflective or brightly colored clothing for enhanced visibility (University of Maryland Transportation Services, 2023).

Because UMD has its own set of regulations, comparing it to other universities presents challenges. For example, a report from ScienceDirect focused on the Mawson Lakes Campus of the University of South Australia highlights the role of physical elements in shaping travelers' experiences, emphasizing the campus's pedestrian-unfriendly layout and inadequate cycling facilities. Some of Mawson Lakes Campus is pedestrian-friendly, but the rest of the campus lacks coherence due to car parking and roadways that prioritize vehicles. Cycling facilities are minimal, with few cyclists observed and inadequate bike parking areas. Vastly more space is devoted to car parking rather than bike parking, and the campus design reinforces motor vehicle use as the norm, marginalizing cyclists. The authors recommend addressing safety concerns and improving infrastructure, but the unique conditions at Mawson Lakes raise doubts about the applicability of their suggestions to UMD (Bonham and Koth, 2010).

Similarly, a report on the University of Massachusetts, Amherst outlines its progress in becoming a "bicycle-friendly university" with references to key achievements and areas for improvement. The report highlights significant advancements such as a bike share program, bike parking policy, bike-friendly dormitories, provision of on- and off-road cycling facilities, installation of "share the road" signs, hosting annual cyclocross tournaments, offering bike rental services, and establishing a bike co-op. However, the report also identifies areas that need additional effort to fully meet the required standards. Recommendations focus on expanding outreach, enhancing campus cycling infrastructure and experiences, advancing educational campaigns, promoting increased cycling participation, and enforcing safety regulations (Small, 2012). Given the difference in size, location, and cycling cultures between UMass

Amherst and UMD, it remains uncertain whether these policies would have the same impact at UMD.

The complexity of cycling culture underscores the challenge of implementing a bicycle ambassador program at UMD. While guides and strategic plans developed from experiences at other universities (i.e., the University of Malta's Green Travel Plan) provide valuable insights, their applicability to UMD may vary. The University of Malta has unique geographic, cultural, and infrastructure factors that may not directly align with UMD, especially considering it is in a different continent (Papantoniou et al., 2020).

Additionally, the Better Bike Share Partnership's guide, aimed at cities, community groups, and advocates, emphasizes the importance of reducing financial and physical barriers to increase access to mobility. It suggests fostering in-person interactions among cyclists, providing education and empowerment initiatives, and promoting awareness and support for bike share programs. However, the guide's examples focus on European, American, or Canadian cities, which may not directly translate to the distinct cycling culture at UMD ("Strategies for Engaging Community"). Therefore, while these resources offer valuable insights, UMD may require its tailored strategies for the successful implementation of cycling initiatives.

Information Asymmetry

When analyzing the reasons behind commuters' failures to follow safety laws and procedures, it is important to consider how information asymmetries between the rule makers and commuters cause collisions; a commuter can't effectively follow the rules if they're not aware of them. Information asymmetries are when one group has more information than another on a subject; in this case, the university has more information on cyclist and pedestrian safety regulations on campus than cyclists (Merriam-Webster, n.d.). By discovering why these asymmetries exist, we can better understand how to address this issue through an information campaign.

The Department of Transportation Services' webpage displays the information cyclists need to bike on and around campus. The webpage links users to the regulations for both operating and parking bikes. It also details basic safety actions cyclists should perform, such as leaving three feet between the biker and a nearby vehicle, moving predictably, riding on the road and stopping at traffic lights and stop signs (University, 2023). The webpage also includes behaviors required by law for cycling at night: the bike needs front and back lights, and reflective clothing is recommended (University, 2023). Clearly, the university has

the necessary information about bike safety, so why is there an information asymmetry on campus?

To understand why information asymmetries exist, it's important to know why students don't seek out available information about bike safety on campus. In a study using the social norms approach and self-determination theory, researchers investigated why college students used or didn't use bike lanes, as well as students' attitudes to following bike safety rules (Grayson, et al, 2019). Looking at student use of bike lanes, the study found that even when there were bike lanes in all directions, 26.5 percent of cyclists used the lanes, while 72.95 percent used the sidewalk (Grayson, et al, 2019). When no bike lanes were present, 95 percent biked on the sidewalk rather than the road (Grayson, et al, 2019). When there were three bike lanes for four directions, 91.51 percent of students rode on the sidewalks rather than in the bike lanes (Grayson, et al, 2019).

The study notes that information campaigns should address this lack of bike lane use directly because so many students didn't use them. Additionally, researchers found that 89 percent of students observed disregarded bicycling safety rules overall, meaning that students knowingly or unknowingly chose not to follow the campus safety regulations (Grayson, et al, 2019). They posit several theories as to why students behave this way. Students, observing their peers, would rather follow others' actions than use their own knowledge. Additionally, students might not have enough information to empower them to use the bicycle lanes safely, which leads them to avoid using the lanes (Grayson, et al, 2019). Students often don't follow the rules because of social pressure. Due to these issues, the need for greater information sharing to avoid information asymmetries becomes clear.

Personal perception of rules also plays a role in why cyclists don't know cycling rules of the road. Information campaigns can help. A survey at the University of Southern Florida, Tampa observed how different users acted while using the road and found that most students either walked or cycled, but seemed unaware of who had the right-of-way while (Zhang, et al, 2013). Seventy percent of drivers believed they should always yield to pedestrians and cyclists, but only about 11 percent of pedestrians and 7 percent of cyclists believed the same thing (Zhang, et al, 2013).

This is a major issue, because road users who are unaware of correct road use is a sign of an information asymmetry. Different groups on campus seem to be unaware of how to safely use the road. However, the implementation of an information campaign changed the number of people who understood the rules,

with the number bicyclists understanding the rules going from 6.64 percent to 12.88 percent (Zhang, et al, 2013).

Findings and Discussion

Bike-Related Collisions and Injuries

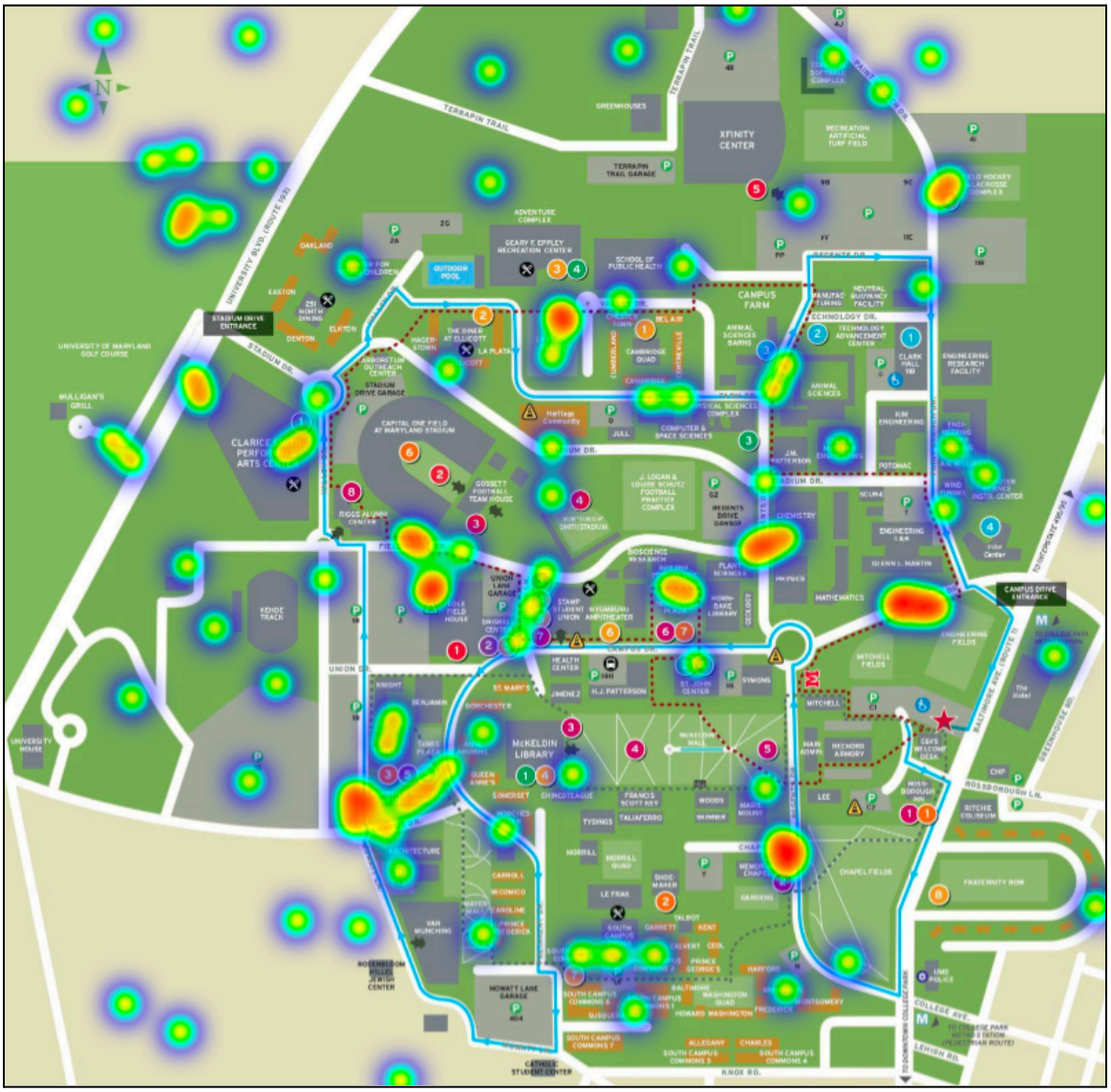
To record bike accidents on the UMD campus, an accident reporting form allows students to report factors involved in their collision. Figure 1 is a heat map illustrating 156 reports, showing areas with the greatest number of reports.

To use the form, reporters choose where the collision occurred, with high density areas like Regents Drive, Stadium Drive, and Campus Drive being the most active (making up 13.59 percent, 13.59 percent, and 10.68 percent of reports, respectively) (University, n.d). Reporters can also write in a location (making up 38.83 percent of reports) (University, n.d). The form then asks if the report is for an actual collision or a close call, an important distinction that located where injuries are happening, as well as areas with poor pedestrian safety (University, n.d). The report also asks for the date and time of day. Certain areas of campus can become more dangerous during the day, due to increased traffic, or at night due to decreased visibility (University, n.d).

The form also records the transportation mode, which is key to determining the types of transportation most often involved in campus incidents (University, n.d). The form also records how many people were involved and the transportation mode they were using, because those metrics can scale the magnitude of the accident (University, n.d).

The form also includes sections for approximate speed to judge if the incident was due to speeding (University, n.d). Finally, the form asks if the report was filed by a bystander or someone involved in the incident (University, n.d). Without this data, there’s no way to know if those directly involved know about the crash report form (University, n.d).

Figure 1 Heat map of transportation incident reports on the UMD campus



Source: (University, n.d)

Sustainability Metrics

UMD tracks negative externalities in the form of greenhouse gas (GHG) emissions and related social costs through a voluntary GHG emissions inventory (Hightower, 2024). The inventory collects information on Scope 1, 2, and 3 emissions. Scope 1 emissions are produced directly by an organization, while Scope 2 and 3 emissions are produced indirectly (*Scope 3 Inventory Guidance | US EPA*, 2024). For example, campus fleet emissions and sustainable purchases are considered Scope 1 and 2 emissions. Meanwhile, emissions from student,

staff, and faculty commuters in single-occupancy vehicles (SOV) are considered Scope 3 emissions.

As an alternative to vehicle commuting, biking's impact on campus emissions isn't measured. If it were, the university would likely find a larger impact from distance commuters switching to cycling when compared to local commuters. However, local commuters are more likely to adopt biking (distances less than two miles) (Hightower, 2024).

UMD also purchases carbon offsets to reduce the impact of the net GHG emissions. Offset purchases include 100 percent of all undergraduate student commuting. This is done through the remainder of the Sustainability Fund.

For reference, MTCO2e refers to the metric tons of carbon dioxide equivalent and is a common unit used by the Environmental Protection Agency (*Pollution Prevention Greenhouse Gas (GHG) Calculator Guidance*, 2014).

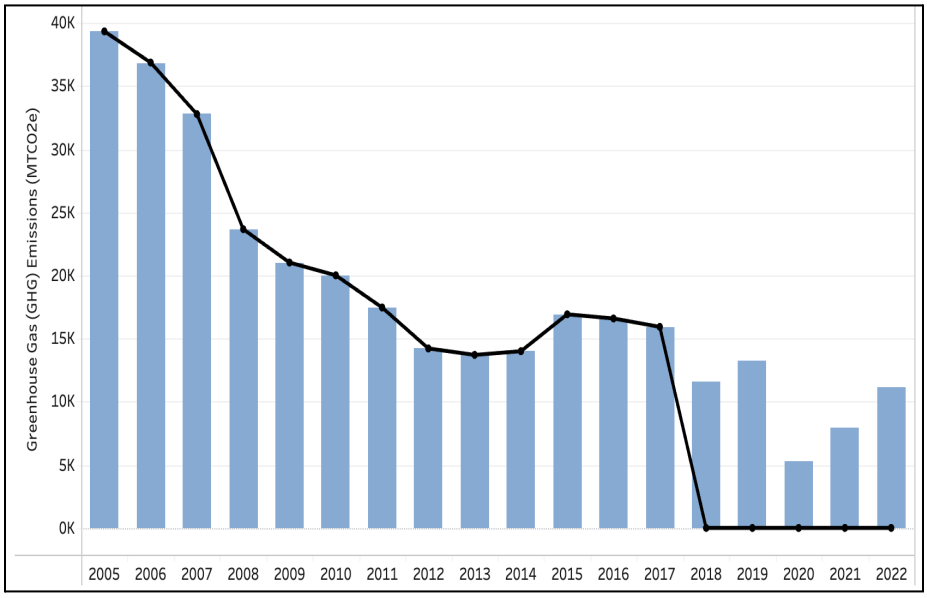
In 2022, the university produced 179,695 MTCO2e, the equivalent of 42,768 gasoline-powered vehicles in one year (*Greenhouse Gas Equivalencies Calculator | US EPA*, 2024). After purchasing carbon offsets, the university was able to reduce emissions to 147,115 MTCO2e or 3.120 MTCO2e per person (*Carbon Neutrality | Office of Sustainability*, n.d.). The reduction is equivalent to GHG emissions produced by 35,014 gasoline-powered vehicles in one year (*Greenhouse Gas Equivalencies Calculator | US EPA*, 2024). The purchase of carbon offsets can help reduce the emissions-based impact of 7,754 gasoline-powered vehicles on the UMD campus.

Considering that there's no information on the impact of biking on campus emissions, and the university-purchased carbon offsets, it's not easy to determine the direct sustainability impact of bikes.

Information from the UMD Office of Sustainability and UMD DOTS provide more information on campus emissions and bike use. Figures 2 and 3 show the overall decline in GHG emissions (MTCO2e) produced by undergraduate students, staff, and faculty at UMD.

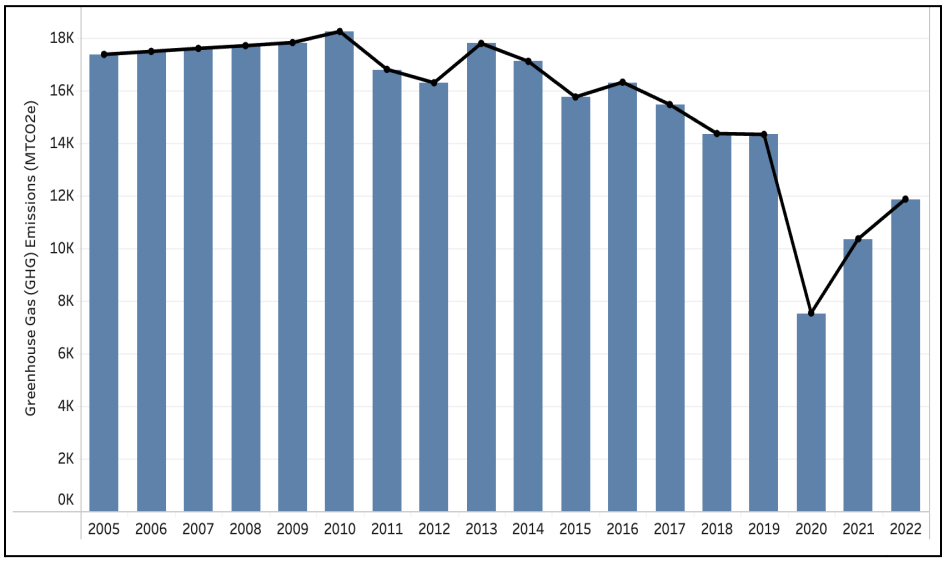
Figure 4 visualizes an overall increase in all new privately registered devices (bikes, e-bikes, e-scooters, and Veo shared rentals). It also identifies a decrease in the number of new privately registered bicycles from the 2022-23 school year to the 2023-24 school year (from 1250 devices to 1000 devices).

Figure 2 The decline in GHG emissions from undergraduate student commuting



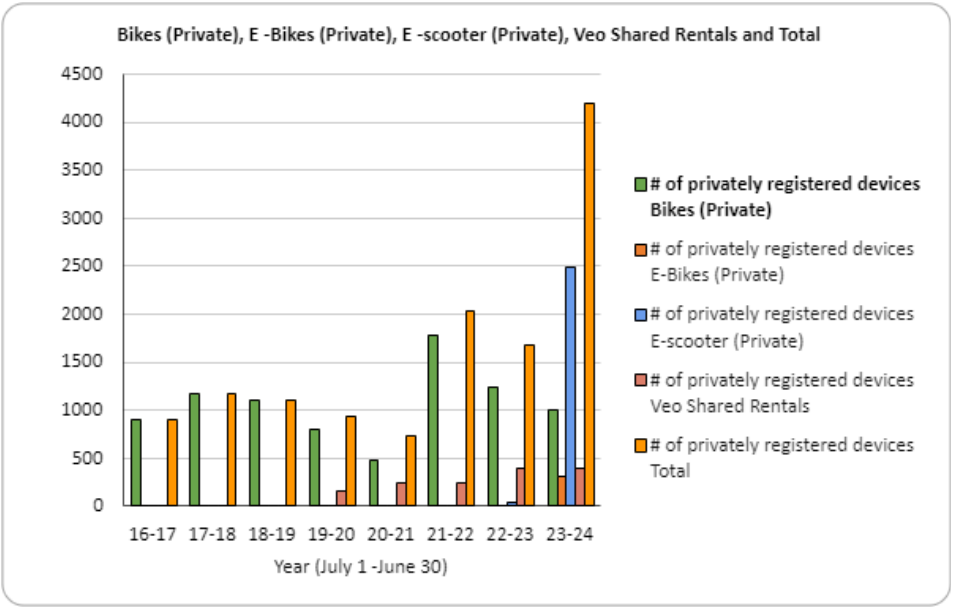
Source: (*Carbon Neutrality | Office of Sustainability*, n.d.).

Figure 3 The decline in GHG emissions from faculty and staff commuting



Source: (*Carbon Neutrality | Office of Sustainability*, n.d.).

Figure 4 Year-to-year comparison of new registrants



Source: (UMD Department of Transportation Services, n.d.).

A bike ambassador program can encourage students, staff, and faculty to switch their vehicle commute to a bike one. As a result, there will likely be an increase of new registrants of privately registered bikes for the next school year (see Figure 3). There may also be a decrease in SOV commutes, associated emissions, and the social cost of carbon, the the long-term damage, in dollars, from a ton of CO2 emissions in one year (*The Social Cost of Carbon | Climate Change | US EPA*, 2017).

Existing Funding

If a bike ambassador program is implemented, Terps for Bike Lanes must consider its operational costs. Funding obstacles can be considered a negative externality because implementing the program can indirectly impact the student community. According to the University of Maryland Student Government Association (SGA), funding for clubs and activities comes from the student activities fee ($40 for full-time students, $20 for part-time students). The fees are directly allocated to offices and organizations such as the Student Organization Resource Center (SORC) and SGA. Once a student group is formally recognized by SGA, it can receive two types of funding: monthly allocations and emergency funding (*The SGA Funding Process*, n.d.).

Along with SGA funding, there are other funding opportunities available on campus. Sustainability Fund Grants offer $2,000 - $665,000 per award to innovative proposals that improve environmental operations and cultivate student

involvement. Sustainability Mini Grants offer $1,000 - $2,000 per award to smaller proposals (*UMD Sustainability Grants | SustainableUMD*, n.d.).

The second opportunity is the Pepsi Enhancement Fund, which offers $2,000 per award for proposals that help create campus communities and support the schools' academic vision (*Pepsi Enhancement Fund*, 2024).

Terps for Bike Lanes can also hold fundraisers. Earlier this year, the student group raised $300 for SafeStride, a pedestrian safety campaign (Marks, 2024). The group can also raise funds through Launch UMD, a crowdfunding campaign that has raised between $2,000 - $75,000 in the past (*Launch UMD*, n.d.). If the group hosts events, it can receive funding from the SEE (Student Entertainment Events) Review Board (*FUNDING | seeumd*, 2024).

Bike Ambassador Programs at Other US Universities

Bike ambassador programs vary across different universities, responding to each institution's unique cycling culture, infrastructure, and demographics ("Strategies for Engaging Community", n.d.). There are several bike programs at other universities that Terps For Bike Lanes could take inspiration from. At the University of California, Irvine the BikeUCI Ambassador program is a volunteer initiative that promotes cycling, fosters safe practices, mentors new riders, and builds friendships in the cycling community. To become an ambassador, students complete an online application and engage in various roles and activities including becoming certified bike educators, assisting in Bike Festival Activities, handing out safety gear, and more. BikeUCI also has a points system that allows ambassadors to earn points by attending programs, taking Bike League classes, and volunteering at events. These points enable them to progress through the ranks, which are bronze, silver, gold, and platinum ("bikeUCI", n.d.).

The Carolina Bicycle Coalition at the University of North Carolina, Chapel Hill (UNC) doesn't appear to be entirely active, but the website and Facebook has information about its activities. The group's advocates for improved cycling infrastructure and safety on campus, similar to the goals of Terps for Bike Lanes ("Chapter 5", n.d.). Past events include roundtable discussions on bike equity in collaboration with UNC's diversity committee, participation in town meetings advocating for cycling infrastructure, educational sessions on alternative transportation, and partnerships with local bike repair shops offering free tune-ups. Another important event is Cyclicious, an annual celebration where students, staff, and faculty gather, mingle, and connect. The event features free

bike checks, registration services, and giveaways such as bike lights, waterproof seat covers, and more (“Carolina Bicycle Coalition”, 2014).

Other programs engage their members or ambassadors in activities. For instance, Indiana University operates a bike mentor program where any student, faculty, or staff member can request a bike mentor. These mentors assist individuals in finding the best cycling routes, ensuring their bikes are in good condition, riding alongside, and addressing any questions they may have. Mentors work closely with mentees to help them achieve their biking goals, whether commuting, grocery shopping, or exploring nearby trails. Mentors offer expertise in planning routes and navigating traffic, making them reliable sources of information (“Transportation Demand Management”, n.d.).

UMD Cycling Culture

The University of Maryland has its own cycling culture. The Diamondback, which covers a variety of transportation-related topics on campus, has highlighted the need for bike lanes on campus, which Terps for Bike Lanes has advocated for. Many cyclists have emphasized the importance of bike lanes, citing safety as a primary concern. In December, DOTS delayed seeking funding for building the next phase of planned bike lanes, claiming they needed more time to evaluate feasibility (Byrne, 2023). A temporary bike lane has been set up on the sidewalk adjacent to Campus Drive. It’s clear that advocating for proper infrastructure is important to many cyclists at UMD.

Another part of UMD’s cycling culture is safety. There has been an increase in micro-mobility vehicles use, making sidewalks and roads to be more crowded and unsafe. This has also caused increased traffic, which has already been an issue for a long time (Byrne, 2024). The Purple Line has added to this situation. There is a concern that the bike lane intersection near the Purple Line at University Boulevard and Campus Drive is potentially dangerous. The path will direct bicyclists across the Purple Line tracks at a 20-degree angle, which could cause bike wheels to get stuck in the track’s groove, which could lead to collisions and injuries (Byrne, 2024). A bike ambassador program should prioritize campus safety.

Effective Information Campaigns

When designing a bike ambassador program, it’s important to consider how information will be distributed to ensure successful student awareness. The following campaign could be a useful model for Terps for Bike Lanes to consider.

The University of South Florida, Tampa and the Florida Department of Transportation ran a before-and-after study of their program to inform students about pedestrian and bike safety (Zhang, et al, 2013). The program, “USF Bulls Walk and Bike Campaign,” created and distributed informational (Zhang, et al, 2013). The one-month long program during the fall semester, targeted newly admitted students, returning students, and others. The fall semester had other events that increased student engagement on campus overall (Zhang, et al, 2013). The campaign sponsored a student parade around campus, as well as a bike ride (Zhang, et al, 2013). After this event, there were safety lectures and distribution of informational materials.

The before-and-after study showed an increase in safety near places where the information events were held, in addition to an increase in knowledge of pedestrian and bike safety rules among the students surveyed, from 6.64 percent to 12.88 percent (Zhang, et al, 2013).

Recommendations

Program Purpose

When devising the purpose for a bike ambassador program, Terps for Bike Lanes should consider three key aspects: promoting bike safety, promoting responsible ridership and ownership, and advocating for improved cycling infrastructure. These goals have been chosen because of their feasibility, efficiency and effectiveness, robustness and improvability, sustainability, and equity.

By promoting bike safety, the program could meaningfully address safety issues on campus due to students being unaware of the campus's rules. Many students ride bikes, whether they are campus- or student-owned. The program can make direct contact with students through fliers and informational sessions, as well as events that highlight how to be a responsible rider. The group could sponsor information campaigns like the one on University of Florida campus, and can also use smaller events (Zhang, et al, 2013).

Promoting responsible ridership and ownership is important for the ambassador program as biking is popular on campus. Promoting student ridership will likely increase bike registrations and bikeshare rides, which will result in a larger target audience and secure the program's longevity. Responsibility comes with learning, so promoting safe bike use will lead to that responsibility (Zhang, et al, 2013).

Advocating for improved cycling infrastructure is important; even as bike safety and ridership improve, it's meaningless if dangerous areas don't improve. The accident reporting form shows the most dangerous locations on campus, and this data can be used to advocate for infrastructure changes that benefit cyclists (University, n.d).

Program Purpose	Specification
Promoting Bicycle Safety	Informing students of campus regulations
Increase Bicycle Ridership	Improving awareness of responsible ridership
Advocating for Improved Cycling Infrastructure	Making unsafe campus areas safer for cyclers.

Finding Funding

Funding from the Student Government Association could meet the financial costs of a bike ambassador program. However, if additional funding is necessary, Terps for Bike Lanes have other opportunities available to student groups through the university. Four potential sources could support operational feasibility, efficiency and effectiveness, robustness and improvability, sustainability, and equity.

The Pepsi Enhancement Fund aids student-led programs that produce communities, encourage service, and support the academic mission (*Pepsi Enhancement Fund*, 2024). The application encourages groups to evaluate and develop durable and effective programming.

Launch UMD, the university's crowdfunding platform, has effectively raised money for a diverse range of student groups on campus. Unlike the other options, Launch UMD has flexible funding targets and will allow Terps for Bike Lanes to reach a wider audience (*Launch UMD*, n.d.).

The Sustainability Fund Grants and the Sustainability Mini Grants have different funding amounts, but both can help Terps for Bike Lanes advocate for the environmental impact of biking and generate student engagement.

Terps for Bike Lanes has opportunities to improve the program and reinforce equity in information-sharing with the support of the Office of Sustainability and Student Government Association (*UMD Sustainability Grants | SustainableUMD*, n.d.). Funding from the SEE Review Board, while helpful for event-planning, isn't recommended because it doesn't provide long-term program funding (*FUNDING | Seeumd*, 2024).

	Award Per Proposal	Deadline
Pepsi Enhancement Fund	$2,000	March 15
Launch UMD	~ $2,500 - $10,000 (Suggested range)	Depends
Sustainability Fund Grants	$2,000 - $665,000	Oct. 15 or Jan. 15
Sustainability Mini Grants	$1,000 - $2,000	Sept. 1 - April 30

Ambassador Duties and Activities

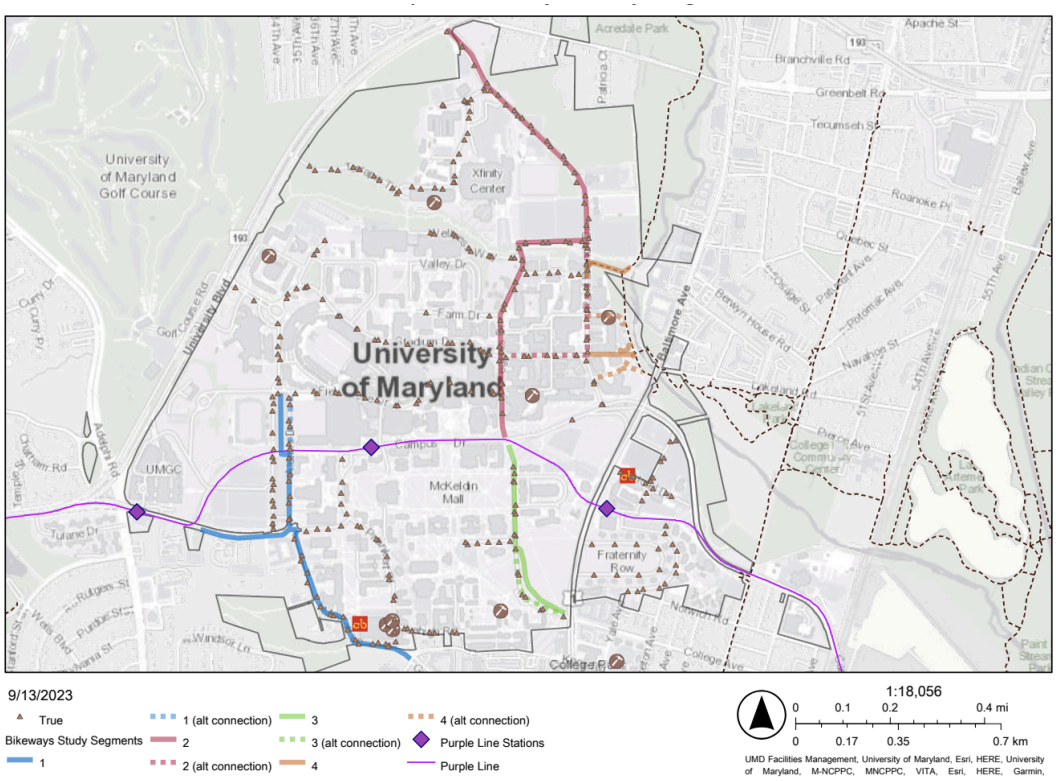
Bike ambassador programs can be broad and there are a variety of activities that members can participate in.

Ambassadors should engage in mentorship through a bike mentorship program. UMD students could request a bike mentor who would be responsible for helping them achieve their biking goals—learning how to commute, getting comfortable cycling on- and off-campus, or using nearby trails. The mentors would be experts at planning stress-free routes, bike safety practices, and dealing with traffic and construction on campus. As experienced cyclists, ambassadors would be well-suited for these duties. Indiana University has successfully run a mentorship program, and UMD could use it for inspiration ("Transportation Demand Management", n.d.). The program would create a peer-to-peer support system that fosters a sense of community among cyclists, enhancing the overall biking culture on campus.

Bike ambassadors could also offer training covering safety, bike maintenance, and campus cycling rules. Bike ambassadors themselves should be trained to ensure they're properly educated on cycling at UMD. Once they received this training, ambassadors would be able to teach others and help educate the campus community. The University of California, Irvine's bike ambassador program gives ambassadors the opportunity to take smart cycling classes (and become certified) and LCI seminars, which are run by the League of American Bicyclists ("bikeUCI", n.d.). The UMD bike ambassadors could take similar training programs and become certified, which would aid them in their ambassador duties.

Bike ambassadors could also engage in advocacy to improve bike infrastructure on campus. The lack of bike lanes is a pressing issue for many cyclists, and Terps for Bike Lanes has advocated for their construction. The new bike lane locations can serve as advocacy hotspots for other issues such as bike lane expansion, proper bike parking facilities, and intersection safety improvements (Byrne, 2024). Advocacy may require collaboration with local authorities and stakeholders. The Carolina Bicycle Coalition at UNC Chapel Hill often engaged in advocacy, and they frequently attended town council meetings, created petitions, and provided feedback on campus infrastructure developments ("Caroline Bicycle Coalition", 2014).

Figure 5 UMD Campus Bikeways Study Segments



Source: (*Bikeways Project*, n.d.)

Figure 5 shows the bikeways study segments (bike lanes) for the Campus Bikeways Project, a planning initiative to redesign street networks in College Park (*Copy of 2024 Proposal - Bikeways Segment 2B - Student Facilities Fund*, 2024). The UMD collision reporting form indicates a high frequency in high density areas like Regents Drive, Stadium Drive, and Campus Drive (University, n.d).

Figure 5 indicates that the study segments are mainly on these roads (*Bikeways Project*, n.d.). Once these bike lanes are complete, ambassadors might be assigned shifts on each bike lane with the responsibility of sharing appropriate information and assisting other cyclists. They could wear apparel that identifies them as ambassadors and use the lanes as key locations to distribute informational fliers.

A bike ambassador program should meet regularly along with educational and volunteer events. Regular weekly or monthly meetings could be a platform for bike ambassadors to come together, discuss ongoing initiatives, and plan future

activities. This would promote collaboration, encourage the exchange of ideas, and ensure all ambassadors stayed properly informed.

In addition, holding educational events would allow bike ambassadors to raise awareness about cycling-related issues, promote bike and pedestrian safety practices, and provide information to the campus community. These events could include workshops on bike maintenance, seminars on bike safety, and discussions about biking initiatives (“bikeUCI”, n.d.). Volunteer events would provide bike ambassadors with a chance to contribute to improving the cycling community. For example, the University of California, Irvine holds tabling events, attending the health and wellness fair, cycling demos, and more (“bikeUCI”, n.d.). UMD already hosts student cycling events, and integrating these with the bike ambassador program would further enhance their impact. Ambassadors could play an active role in organizing and promoting these events, ensuring higher participation and engagement.

By volunteering their time and energy, bike ambassadors could raise awareness of the program and make a tangible difference in enhancing the cycling experience for themselves and their peers.

	Activities
Mentorship	Available through request, help reach cycling goals.
Training	Safety, maintenance, training routes, etc.
Advocacy	To improve campus cycling infrastructure
Events	General meetings, along with educational events, workshops, volunteering, etc.

Conclusion

The UMD campus is dealing with multiple cycling-related issues, including negative externalities, the complexity of cycling cultures, and information asymmetries. A bike ambassador program could play a significant role in addressing these challenges.

This report's recommendations for a bike ambassador program include defining its purpose (bike safety, ridership, and infrastructure advocacy), securing adequate funding, and implementing diverse and impactful ambassador activities.

Overall, a bike ambassador program holds the potential to enhance the cycling experience for students, faculty, and staff at UMD, contributing to a healthier and more sustainable campus environment.

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