Somerville Saferide Shuttle Assessment

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Executive Summary

This report provides a comprehensive assessment of the Somerville Saferide Shuttle pilot program, based on ridership data, user feedback and a broader qualitative impact assessment. The main conclusion of the report is that the Somerville Saferide Shuttle is a high-impact line: (a) it exhibits good ridership, (b) it exhibits distributed ridership and effectively serves the off-campus graduate community, (c) it is valued by its users, (c) it provides significant benefits to its users, as compared to alternative available transportation options, (d) it addresses critical safety concerns around campus, and (e) it is a strategic tool for MIT to address the growing housing issue around campus. The two main recommendations are: the continuation of the Somerville Saferide Shuttle in the academic year 2014-2015 on a permanent basis and the engagement in a comprehensive assessment of the MIT Shuttle System to maximize impact while minimize costs.

Introduction

The MIT Saferide System aims to provide safe, efficient and reliable transportation at night within and around the MIT campus. It comprises four shuttles: Boston East, Boston West, Cambridge East and Cambridge West. Its operation is motivated by the inability of the MBTA system to meet MIT students' unique needs. A fifth line, the Somerville Saferide Shuttle, was tested over the Fall of 2013, with the objective of serving off-campus graduate students. This report provides an assessment of this shuttle in order to inform its continuation, modification, or termination.

History

The Graduate Student Council's (GSC) involvement with MIT shuttle line development dates back to the winter of 2011, shortly following the acquisition and analysis of confidential graduate student residential address data from the MIT Institutional Research section of the Office of the Provost. Though significant partnership between MIT Transportation and the GSC Housing and Community Affairs (HCA) committee existed prior to this date, it wasn’t until the creation of graduate residential heat maps that student leaders began to uncover an apparent disparity between where students lived and where existing transportation options served. This initial heat map (Figure 1) is overlaid with the 2011 MIT Shuttle pathways to demonstrate the gaps in MIT service that existed at the time.
In addition to MIT’s service offerings, local MBTA transportation options were investigated to understand the larger environment of options available to graduate students living off-campus (Figure 2).

In addition to identifying a potential transportation need, there were a large number of parallel student life topics being discussed within the institute and at the level of MIT’s academic council. Starting in 2009, the affordability and accessibility of off-campus housing had gained prominence as this single factor was creating significant upward pressure on the Cost of Living estimate and subsequent stipend recommendation. This issue has only grown in prominence and was the motivating factor behind the recent creation and report from the Graduate Student Housing Working Group, chaired by former Chancellor Phil Clay. At the time, it was believed that new shuttle options accessing more affordable portions of Cambridge and Somerville could prove to be a powerful lever in helping to address the inflating cost and decreasing accessibility of housing near MIT.

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1 Overlaid blue lines indicate routes of MIT shuttle service as of winter 2011.
2 Excluded from this analysis were T-stops due to the fact that these locations did not coincide with underserved residences.
In addition to supporting MIT’s efforts in improving transportation and controlling costs faced by community members a new shuttle line also addressed a growing issue of crime and safety in the city of Cambridge. In 2010, MIT students witnessed or lived next to a variety of high-profile criminal activity and traffic accidents (50 breaking and enterings, 6 assaults, 15 harassments, 10 hit-and-runs, and 1 death) which brought to the fore the topic of perception of safety at the Institute. The various thrusts proposed were improved lighting and an additional safety officer for MIT’s Northwest Campus and new late-night bus lines for the other two thirds of graduate students (approximately 4,300) that lived off campus. The former tasks have been completed and are working effectively for MIT’s on-campus groups in the Northwest and the off-campus bus line project has been in progress since the Spring of 2012.

The bus line project began with a student-led analysis that culminated in an initial report delivered to the MIT Committee for Transportation and Parking in April of 2012. The analysis's goals were to provide a data-driven approach to developing optimized shuttle lines using existing x-y residential data, geocoded street information, existing transportation hub locations, and distance minimization algorithms. The result of the analysis was to recommend an improved Somerville shuttle line that maximized service to the largest number of underserved students living in East Cambridge and Somerville. This recommendation was then iterated upon with the committee over the next year and resulted in the eventual trial launch of a Somerville bus line in September 2013.

![Figure 3: Optimized shuttle line with stops presented in the 2012 presentation to the MIT Committee for Transportation and Parking and adopted for trial in the Fall of 2013](image)

**Report Objectives**

The objective of this report is to assess the value of the recently implemented Somerville Saferide Shuttle pilot by providing an analysis of the ridership data, a compilation of qualitative user feedback and a broader assessment of the Shuttle’s impact. Results from the analyses will be combined to formulate recommendations for the MIT Committee for Transportation and Parking to consider when making a final decision on the continuance, modification, or terminate of the service.
Ridership Data Analysis

Ridership data were provided by the MIT Department of Facilities. This section shows the main conclusions of the ridership data analysis.

Average Boardings per Shuttle

Figure 1 shows the average boardings per shuttle in December for each Saferide line\(^3\). Note, first, that the ridership of the Somerville Shuttle is in the same order of magnitude as the four other shuttles and very close to the ridership of Cambridge East and Boston West Shuttles. Note, moreover, that the Somerville Shuttle is the first shuttle that does not serve student dorms. As a consequence, it does not have as many stops with concentrated demand. Finally, the ridership from Somerville Shuttle does not come from the diversion of existing ridership (e.g., from Cambridge East). Instead, it is serving a new community that was previously not served. Overall, ridership has increased by 18\% between Sep-Dec 2013 and Sep-Dec 2012, and by 44\% between Dec 2012 and Dec 2013 (see Figure 5).

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\(^3\) The number of boardings per shuttle is obtained by dividing the average number of daily riders by the number of services per day.

\(^4\) The month of December was chosen as it enables the fairest comparison. It eliminates “learning effects” and considers the period when the Somerville Shuttle was available on the MIT App.
**Number of Passengers in Shuttle**

This section shows how the shuttles are used, *i.e.*, from where and to where passengers tend to use them. We compute the number of passengers per stop on each shuttle, equal to the difference between the number of boardings (*i.e.*, number of people who get on) and the number of alightings (*i.e.*, number of people who get off) at each stop⁵. Figures 6, 7 and 8 show the results for the Somerville Saferide Shuttle (Figure 6), the Cambridge East and West Saferide Shuttles (Figure 7) and the Boston East and Boston West (Figure 8).

![Graph of Somerville Saferide Shuttle in December 2013](image)

**Figure 6:** Average number of passengers per stop in the Somerville Saferide Shuttle in December 2013

![Graphs of Cambridge East and Cambridge West Saferide Shuttles in December 2013](image)

**Figure 7:** Average number of passengers per stop in the Cambridge Saferide Shuttles in December 2013

![Graphs of Boston East and Boston West Saferide Shuttles in December 2013](image)

**Figure 8:** Average number of passengers per stop in the Boston Saferide Shuttles in December 2013

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⁵ The alighting data have been adjusted so the total number of boardings and alightings are equal.
These figures show striking differences between the Somerville and Boston shuttles, on the one hand, and the Cambridge shuttles, on the other. For Somerville and Boston, the average number of passengers in the shuttles is roughly the same throughout the lines. In other words, ridership is distributed along the entire line. In contrast, most of the ridership in Cambridge East and Cambridge West is concentrated around very few stops (the graduate and undergraduate dorms and East campus). This does not imply that the service is not valuable outside, but rather that the Somerville shuttle is the only shuttle that effectively serves the off-campus graduate student community in the Cambridge/Somerville area.

Figure 9 provides a second representation of the distribution of ridership across the Somerville and Cambridge Shuttles. Note that, on the one hand, the Somerville Shuttle travels with a roughly constant number of passengers throughout the line. In contrast, the Cambridge East and Cambridge West Shuttles are very well used around campus, but travel almost empty on average in their off-campus portions.

![Map of Somerville and Cambridge shuttle routes and ridership distribution](image)

**Figure 9: Somerville (l) and Cambridge (r) Saferide Shuttle average utilization in December 2013**

**Passenger-Miles Analysis**

Figure 10 compares the average passenger-miles per shuttle across the Saferide shuttle lines. The passenger-miles measure (defined as the product of the number of passengers and the distance traveled) considers not only the number of passengers, but also for how long they use the service. This metric is the most widely used for comparing transportation services as the service provided to every passenger increases with the distance that the service is used for.

Note that the Somerville exhibits the second highest passenger-miles across the Saferide shuttles. It carries 9.97 passenger-miles on average. Only Boston East exhibits larger average passenger-miles. In contrast, Boston West, Cambridge West and Cambridge exhibit significantly smaller passenger-miles. This is consistent with the previous observation that ridership on Cambridge East and Cambridge West is concentrated around campus, i.e., distances traveled are much smaller than for the Somerville Shuttle.
Ridership Increase Pattern

Figures 11 and 12 compare the ridership trend over the Fall of 2013 for Somerville and more mature services (Cambridge West and Boston East). Note that the use of the Somerville Shuttle has continuously and significantly increased over the course of the pilot program. This is explained by an important increase in awareness among the community that translates in a ridership increase⁶. This might also suggest that higher ridership might be unlocked if the Shuttle becomes permanent.

The trend also shows that service is most valuable during winter months. This might be useful to inform future planning and scheduling. In particular, service to graduate communities over IAP might be critical, as a large majority of graduate students stay on-campus during IAP and weather conditions make the Shuttle service most important in January.

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⁶ As will be discussed, service improvements also contribute to the increase in ridership.
⁷ The ridership data of December is normalized to reflect that the service stops after December 23.
Data Validity

There are two main issues that raise questions on the validity of the data reported:

- The number of boardings does not match with the number of alightings (average difference of 71%).
- Several misreporting of boardings and alightings were observed by GSC Transportation Subcommittee chairs (see Appendix II)

Though some drivers accurately report the number of boardings and alightings, some drivers do not. As a result, the figures presented in this section are subject to errors and uncertainties. This is a critical concern since there might be differences in driver report practices across the different lines due to factors such as different reporting schemes or different level of driver experience. These reliability issues with the data collected motivate efforts to encourage accurate reporting of boardings and alightings by the drivers. This would, in turn, provide more reliable insights on ridership.

Ridership Analysis Conclusions

The main conclusion of this analysis is that the Somerville Saferide Shuttle Pilot Program exhibits very large and distributed ridership:

- The Somerville Saferide Shuttle has a similar number of boardings per service as the Boston West and Cambridge East shuttles.
- The Somerville Saferide Shuttle exhibits the second highest average passenger-miles per service across all five lines (most widely use ridership metric to evaluate the performance of transportation systems).
- The data shows that the ridership of the Somerville Shuttle is still increasing as awareness and level of service increase.

These positive results are remarkable considering that: (1) there were major issues with service reliability (see next section), (2) the shuttle was new and the awareness among users was still increasing, (3) the shuttle does not stop in any of the dorms where most of the student population is concentrated, and (4) the frequency of the service was lower than for the other lines.
Feedback Analysis

The GSC Transportation Subcommittee received and compiled extensive user feedback. The responses were classified into five main categories: service reliability, awareness, shuttle characteristics, route suggestions, and other comments. The compilation of the feedback is provided in Appendix I.

The main conclusions of the analysis are the following:

• All the responses acknowledge the value of this shuttle for the MIT community and asked for the continuation of the service.
• Service reliability: The service seems to have faced major reliability issues (e.g., shuttles did not appear on time, did not appear at all or did not pick up students). This is a major concern regarding the evaluation of the line. Larry Brutti confirmed that there were problems to hire one driver for the line, which caused major reliability problems to the service.
• Shuttle information and awareness: Multiple students asked for more information about the shuttle (e.g., routing, schedule, etc.) and suggested increased publicity to increase the awareness. Many suggested that the Shuttle information be available on the MIT Application. These issues were addressed over the course of the program: increased marketing efforts were carried out by the MIT Department of Facilities and the GSC and the Shuttle was added to the MIT App.
• Shuttle characteristics: Some students asked if the shuttle could be equipped with bike racks. This is particularly important since a large percentage of the community served by the Somerville Shuttle choose to bike to campus in the morning. As a consequence, they cannot use the shuttle at night unless they have a way to transport their bike back. Other students asked if the shuttles could be equipped with space to carry baby stroller to allow families with kids to use the service too.
• Route suggestions: Some students also submitted feedback about the route (intermediate stops and changes in the route). The GSC Transportation Subcommittee will consider them in future work, with the objective of improving service to the MIT Community as a whole. Some comments also pointed out the potential benefits of extending hours of operations.

Impact Assessment

This section discusses the impact of the Somerville Shuttle on the MIT off-campus community. Note, first, that the ridership analysis and feedback compilation presented above show that the Somerville Shuttle exhibits large and distributed ridership and that users value the added service. This suggests that the Somerville Shuttle does, in fact, provide valuable improvements to the existing Saferide System. However, ridership data do not capture other critical dimensions of service impact, including: (a) the marginal value of service, (b) the impact on safety and (c) the dynamic impacts on housing.
Marginal Value of Service

The marginal value that any transportation service provides to any rider depends on alternative available transportation options. As previously discussed, the Somerville Shuttle is the first MIT Shuttle that effectively serves the off-campus community in Cambridge and Somerville. In turn, it is used by many people living far away from campus (e.g., in Inman Square and Union Square). This community has few public transportation alternatives, especially at night (see Figure 2) and on weekends. Moreover, the benefits associated with the availability of public transportation are larger for students living in these remote areas than for students living on-campus, closer to campus or in places where public transportation options (e.g., MBTA Bus 1) are available. In turn, the marginal value of service that the Somerville Shuttle provides to each rider is significant.

Safety Assessment

The main objective of the MIT Saferide Shuttle System is to provide safe transportation to the MIT community. MIT is unfortunately not located in a crime-free area. Figure 13 shows how safety varies from one area to another in the city of Cambridge – the darker blue areas correspond to the safer zones. Unfortunately, no data from Somerville is available, but it is believed that the Union Square area would correspond to a light blue zone. The map is overlaid with the route of the Somerville Saferide Shuttle. Note that the Shuttle does serve the low-safety areas in Cambridge. This, combined with the observation that ridership is distributed along the whole line, suggests that the Somerville Saferide Shuttle addresses the most critical safety concerns around the MIT campus. Most important, it is the only Shuttle that effectively serves the areas facing the most significant safety concerns.

Figure 13: Safety assessment in Cambridge (Source: City of Cambridge)
Dynamic Impact on Housing

The MIT campus experiences continuous changes and improvements. In particular, the Kendall Square area has been subject to dramatic developments over the past ten years. As a result, off-campus housing prices have been subject to above-inflation growth rates and housing availability in Cambridge has reached record-low levels. At the same time, on-campus housing has not been able to scale up to meet increasing demand over the past decades. This imposes an important financial burden on the Institute, which is undertaking important investments on its own to improve the availability and affordability of housing to its graduate students⁸.

In fact, improving transportation is an important lever to address the growing issue of housing availability. The recent report of the Graduate Student Housing Working Group underscores that “Transportation is an important part of the graduate housing puzzle” and that “If larger numbers of MIT graduate students are driven to live farther from campus, then improving transportation will become critical”⁹.

In this respect, the Somerville Shuttle does represent a unique opportunity for MIT to address the growing concerns of housing availability and housing affordability. The combination of rising demand for housing and declining supply of affordable housing is likely to lead increasing numbers of MIT graduate students move further away from campus¹⁰. This Shuttle enables MIT to make areas of cheaper and more available housing more attractive to MIT students. Note that this is a lever that is uniquely available to the Institute, as any improvement in public transportation access to any area would lead to more rapid increases in housing prices in the area.

A Note on Cost-Effectiveness

Note, importantly, that the implementation costs of all Saferide Shuttles are identical. Therefore, the cost-effectiveness of any Shuttle depends only on the marginal impact it provides to the MIT community.

The cost of the Somerville / Cambridge East / Cambridge West subsystem increases by 33% when the Somerville Saferide Shuttle is running. Over the entire period from September to December, ridership has increased by 30% between 2012 and 2013, as a result of the implementation of the Somerville Saferide Shuttle. Moreover, ridership has increased by 44% between December 2012 and December 2013. As previously mentioned, this shows that the Somerville Saferide Shuttle addresses otherwise unserved demand and does not rely on the diversion of existing traffic.

Therefore, the Somerville Saferide Shuttle does provide a cost-effective service improvement to the MIT Saferide System. First, the increase in ridership exceeds the increase in costs. Moreover, the discussion presented in this section shows that the impact that the Somerville Saferide Shuttle provides to each rider is significant, thus contributing strongly to the cost-effectiveness of the added service.

⁸ “Report to the Provost of the Graduate Student Housing Working Group”, chaired by Prof. Clay
⁹ ibid.
¹⁰ ibid.
Conclusion

Beyond ridership, the Somerville Shuttle is a high-impact line.

- It provides significant improvements to available transportation options for the off-campus graduate community.
- It addresses critical safety issues around campus by providing the first effective service to the areas subject to the most significant safety concerns.
- It is an important lever for MIT to address the growing issue of graduate housing around campus.

Concluding Remarks

This report provides a comprehensive assessment of the Somerville Saferide Shuttle pilot program, based on (a) ridership data, (b) user feedback and (c) a broader qualitative impact assessment. The main findings are summarized below:

- The Somerville Saferide Shuttle was designed and optimized based on residential data provided by MIT Institutional Research.
- The Somerville Saferide Shuttle exhibits good ridership: it has a number of boardings comparable to the other lines and the second highest average passenger-miles.
- The Somerville Saferide Shuttle exhibits distributed ridership: it is the first line that effectively serves the off-campus graduate student community.
- The Somerville Saferide Shuttle provides a service that is valued by its users.
- User feedback enable the identification of potential service improvements that can easily unlock higher ridership.
- More broadly, the Somerville Saferide Shuttle is a high-impact line: (a) it provides significant benefits to its users, as compared to alternative available transportation options, (b) it addresses critical safety concerns around campus and (c) it is a strategic tool for MIT to address the growing housing issue around campus.

The results provided in this report lead to the following conclusions:

- Ridership data, user feedback and impact assessment justify the continuation of the Somerville Saferide Shuttle in the academic year 2014-2015 on a permanent basis. Winter service (including IAP) appears most important.
- Ongoing efforts to improve the MIT Shuttle System should be continued and extended, to maximize impact while minimize costs. The availability of residential data, user feedback and ridership data provides a unique opportunity to engage in a comprehensive assessment of the Saferide System and to evaluate improvement options. Continuous interactions between the GSC and the MIT Transportation & Parking Committee are encouraged. The creation of an MIT Transportation Subcommittee is recommended.
- The issues of transportation, parking and housing exhibit important interdependencies and should be more tightly integrated.
Appendix I: Feedback Compilation

This appendix presents a compilation of the feedback received by GSC classified in five main categories: service reliability, awareness, shuttle characteristics, route suggestions, and other comments.

Service Reliability

Dear GSC - a point of feedback on the Somerville shuttle: last week several friends and I tried separately to use the shuttle to get rides from Union back to campus. In each case we aimed to arrive ~5 minutes early only to watch the shuttle driving away early. The shuttles will have better ridership if they stick to their scheduled times (i.e., waiting at stops if necessary). Perhaps the route times need to be recalculated.

I think this shuttle is a great and necessary addition, but here is some feedback:
* There should be a Kendall T bus stop—at least after midnight. Even though there is a stop at Vassar @ Main St that's near Kendall, one can't really plan ahead because the nextbus timing is off and there is nowhere to wait inside (away from the cold).
* The "stop addresses" are very vague. Obviously, if this stops being temporary signs will be placed—but it's hard to catch the shuttle when you don't know where to wait. Latitude, longitude coordinates for google maps would be useful. Also, the addresses on the map and the address the driver mentioned are different (building 46/48 on the map, building 39 according to the driver).

Thanks!

Hey!
I love the idea of a Somerville Saferide! I have used it only a few times because the timing is a bit off. Many times I wait at the building 48 Vassar street stop and it does not come and I have to call. They always come when I call, but it takes a while. I also would love for it do make its way down Hampshire street because I and many of my friends live right on or right off Hampshire, but I am not sure if that would be too traffic-y or not. Just a thought. One last thing, any plans of making it run in the mornings? I would love to take it to MIT between the hours of 6:00 and 9:00 am. Sorry this is so short and scattered!

Thanks for all you do!

Hello,
I had a problem with the Somerville shuttle tonight. I waited at pickup location #12 (Vassar St / Bldg 48) for the 1:12 am shuttle. When it arrived, the bus driver told me that he was on his last trip, and was going directly to park the bus. I asked if he was dropping me off at the student center for the next driver, and he said no, there were no more buses tonight, and asked me to get off in the middle of the road at the corner of Vassar and Mass Ave. It was a cold walk home! Do you know why the bus service ended early tonight?

Hi,
Is the Inman Square shuttle still running? I waited between 9:30 and 10:05 PM right opposite the Stata Center on Vassar Street this evening, but there was no shuttle.

To whom it may concern,
The shuttle line going to Inman square is really practical however I have some reservations concerning the pilot program: the shuttle currently runs too erratically to be practical to get to Inman Square and other points:
1. it doesn't actually stop at Inman square, rather it stops at Cambridge & prospect.
2. it runs not often enough, so ridership number will not reflect actual potential riders should there be a more regular schedule (takes 20mn to walk from Stata to Inman square, shuttle arrives every 30 or so mn, so mean wait time is approx equal to mean walking time, favoring the choice to walk, bike, or otherwise not take the shuttle).
3. The mit app on the iPhone does not display this route, so
a) riders don't know about it, and/or
b) riders cannot known how long they will need to wait / whether it is advantageous to wait for the next shuttle
Thus, if the riderships number from this program are to serve as a measure of its use then we should give this shuttle line a real shot by improving its visibility, delivering on its promised route, and making it more practical than walking.

Thank you for creating this shuttle line! It is much needed and extremely convenient!
The only thing that prevents me from using it every day is the lack of schedule consistency. The shuttle has been over 20 minutes late and 5 minutes early in the times I have tried to take it. This schedule
(http://web.mit.edu/facilities/transportation/shuttles/schedules/Saferide_Somerville2013.pdf) needs to be updated to more accurately reflect the shuttle times. Or, even better, real-time tracking needs to be implemented. I understand that tracking might be expensive to implement for a pilot program but I think a lot fewer people use the shuttle simply because they can't rely on its schedule. Having a real-time tracker would certainly fix that.

We faced a great trouble finding this bus service.
We were three people standing in front of 48, Vassar Street on Friday starting from 6.15 pm to 6.45 pm as the bus timing was 6.30 pm in the evening but unfortunately we could not find any bus passing through that route during this time. One tech shuttle passed through that route but did not stop by that bus stop. We were highly disappointed and forced to take a difficult route to reach our destination.

**Awareness**
Hi guys, this is amazing, thanks for making the effort!
I have a question, I see there's a stop in Cambridge St and Prospect but I don't see any time for the stop. Any ideas?

Hi,
Is the Inman Square shuttle still running? I waited between 9:30 and 10:05 PM right opposite the Stata Center on Vassar Street this evening, but there was no shuttle.

Hello,
I would like to suggest that an ad be made for this new shuttle line. Maybe on MIT's website or The Tech or the infinite display. A lot of people don't know about this shuttle and it would be sad to see this go away next year. Not everyone takes time to read the off-campus newsletter and it looks like that is the only place this shuttle has been introduced.

To whom it may concern,
The shuttle line going to Inman square is really practical however I have some reservations concerning the pilot program: the shuttle currently runs too erratically to be practical to get to Inman Square and other points:
1. it doesn't actually stop at Inman square, rather it stops at Cambridge & prospect.
2. it runs not often enough, so ridership number will not reflect actual potential riders should there be a more regular schedule (takes 20mn to walk from Stata to Inman square, shuttle arrives every 30 or so mn, so mean wait time is approx equal to mean walking time, favoring the choice to walk, bike, or otherwise not take the shuttle).
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Thus, if the riderships number from this program are to serve as a measure of its use then we should give this shuttle line a real shot by improving its visibility, delivering on its promised route, and making it more practical than walking.
Hi!
Great to hear about the Somerville shuttle. Can you add route and time info to the MIT android app? The other shuttles and safe rides are there, but Somerville is not. Thanks!

Thanks! Especially for the heads up about NextBus. I used it today and it is fantastic!
One small suggestion is that on this map
(http://web.mit.edu/facilities/transportation/shuttles/schedules/Saferide_Somerville2013.pdf) marker #1 is in the wrong place. The first time I waited where the marker is (corner of Mass Ave and Vassar) and the shuttle never came.
The other thing is to publicize the NextBus tracking system more. It's so great - you all should definitely talk it up!
Finally, (before I knew about NextBus) it's hard to google "MIT Somerville Shuttle" and find useful information. My searches just result in ODGE or GSC news articles. Even to pull up the shuttle map, I have to look through old GSC Anno's to find the link. If there's a way to improve the SEO of this shuttle, it would be helpful for people who want to try it out.
Keep up the good work!

Thank you for creating this shuttle line! It is much needed and extremely convenient!
The only thing that prevents me from using it every day is the lack of schedule consistency. The shuttle has been over 20 minutes late and 5 minutes early in the times I have tried to take it. This schedule
(http://web.mit.edu/facilities/transportation/shuttles/schedules/Saferide_Somerville2013.pdf) needs to be updated to more accurately reflect the shuttle times. Or, even better, real-time tracking needs to be implemented. I understand that tracking might be expensive to implement for a pilot program but I think a lot fewer people use the shuttle simply because they can't rely on its schedule. Having a real-time tracker would certainly fix that.

I have heard about the Somerville shuttle, which sounds like a good idea.
Two recommendations though:
1. It will be great if the Somerville shuttle’s whereabouts can be tracked through MIT Mobile, just like other operational shuttles. It can be difficult not knowing whether the shuttle will arrive in 5 or 30 minutes. Most important use of the tracking device is knowing that the shuttle is operational at all.
2. It may be best to extend the reach of the shuttle up to Beacon/Washington, or closer to Porter Square where some MIT students live. In addition, since Cambridge Saferide East already services Eastern Cambridge, it may be best to have less stops there and more stops in Somerville and one in Kendall, the regions which the shuttle should focus on.

Hi! I cannot view the shuttle route or schedule. I’m very interested in taking this bus. Thanks!!

Hi, is this going to be added to the MIT app so I can see when it arrives at the stop near me?
Thanks! I’m really happy about this btw, greatly improves my life and commute from Union square.

Hi Transportation committee,
Could you direct me to route/schedule information for the new Imman Square, Union Square and East Cambridge Shuttle? I would love start using it but I can't find anything on the MIT Parking & Transportation website and this line is not indicated under Daytime Shuttles on the MIT Mobile app.

Hello,
I am an MIT employee and heard from my boss about the new pilot shuttle service from Inman and Union square to MIT. I live in Inman and would love to obtain more information about this. Could you send any information to me?

Shuttle Characteristics
Hi HCA,
I currently live somewhere in the hinterlands of Allston beyond ZBT, it can take 30-45 minutes to come to school via the MBTA, so I bike most of the time. In winter I’ve been a little hesitant about biking at night, and have found the Saferide to ZBT and then walk to be very convenient. However this leaves me with the issue of coming back into MIT in the morning. It would be SO AWESOME if the Saferide shuttles had bike racks on the front, or otherwise allowed bikes on.

Hello,
I wanted to send a few comments about the new Somerville shuttle line. I live in between Union and Inman Squares, close to the shuttle route, but have found that it has not been convenient to use on a regular basis.
My main mode of transport is bicycle, like many other students who live in Somerville. Those of us who have chosen to live in the area did so knowing the transportation constraints that exist, and have made other arrangements for travel. During good weather, bicycle is by far the fastest and most convenient way to reach campus. As we approach winter and colder weather, however, I have found myself wishing that there was another alternative. MBTA bus service to the area is irregular, and not a reliable means of transport.
The Somerville shuttle is a fantastic idea. That being said, however, I believe that running only in the evening constrains the number of students who are able to rely on the service. For those of us who rely on bicycles as a main mode of transport, the use of the shuttle is constrained due to the lack of bicycle accommodation. Since the shuttle does not run during the morning, I must rely on bicycle transport to reach campus, and thus cannot leave my bicycle on campus overnight.
As a potential user, I would suggest that I would be more likely to use the service if an option was available during the morning peak (perhaps 8-11am) as well, or if it were possible to take my bicycle on the shuttle so that I have means to reach campus in the morning.
Thank you for your work on this issue. I believe that the service has a lot of potential and could be an important service for MIT students and providing increasing access to affordable housing.

GSC HCA Monthly Meeting:
The representative of Westgate and Tang mentioned that it would be very helpful if the shuttle was equipped to carry a baby stroller.

Route Suggestions
Dear GSC Transportation Subcommittee,
Thank you for providing a new saferide route in Somerville.
Recently I started to use saferide system 2 to 3 times per week. In fact, after I get out of the bus at Union Square ([5]: Prospect St / Somerville Ave), I still have to walk for >20 mins to reach my home, which is located in Summer Street. I also took the bus tonight, but the weather is getting colder and darker. I am even concerned that should I keep using this saferide when the real winter comes.
Hence, I sincerely hope the route of Somerville saferide could be slightly changed.
As I know, a lot of students live close to Porter Square, so it would be very appreciated if the bus route can come to this area. Here is my advice.
First, usually the bus turns right from Broadway to Prospect St. and keeps going all the way until it reach Somerville Ave, the Union Square.
However, I hope it could first turn left on Beacon St. and then turn right on Park St.. Then, it can still turn right on Somerville Ave to go back to Union Square.
Or, the bus can even keep going up to Central St., and then turn right on Summer St. In this way, it can still go back to Union Square from Summer St.
Second, I think you may want to delete the right part of the route ([8], [9], [10], and [11]) because it actually repeated the same route as the Cambridge East saferide.
If GSC Transportation can make changes and improvements, it would be very appreciated.

Hi,
Thank you for setting up the Somerville shuttle. It would be great if it went through Union Square, possibly on Somerville Avenue towards Porter Square or up Summer street, rather than leaving students close to the Dunkin Donuts (stop 5), which is quite a walk from Union square and the
residential area, and also somewhat a gloomy place and not very convenient for anything, mostly a busy and not very safe crossroad (especially at night), just as seems to be the full 5-6-7-8 leg. I would also claim that there isn't much on Prospect from 4-5 neither.

Why not going up on Beacon street from Inman Square to reach Porter Square and then riding back to Union Square via Somerville Avenue, and finally down Cambridge Street? This would probably be more convenient for a lot of students and also maybe a safer commute, while including nice stops to Shaws, Porter Square, Market Basket, Union Square, etc.

Thank you very much for your efforts

I think this shuttle is a great and necessary addition, but here is some feedback:
* There should be a Kendall T bus stop—at least after midnight. Even though there is a stop at Vassar @ Main St that's near Kendall, one can't really plan ahead because the nextbus timing is off and there is nowhere to wait inside (away from the cold).
* The "stop addresses" are very vague. Obviously, if this stops being temporary signs will be placed—but it's hard to catch the shuttle when you don't know where to wait. Latitude, longitude coordinates for google maps would be useful. Also, the addresses on the map and the address the driver mentioned are different (building 46/48 on the map, building 39 according to the driver).

Thanks!

Daytime service would be very valuable, even if only partial. Most of the time I have wanted to use the shuttle has been to get items to and from campus that I cannot bike with, during business hours. Even starting the shuttle a couple hours earlier, like at 4pm, would be helpful.

Hey!
I love the idea of a Somerville Saferide! I have used it only a few times because the timing is a bit off. Many times I wait at the building 48 Vassar street stop and it does not come and I have to call. They always come when I call, but it takes a while. I also would love for it do make its way down Hampshire street because I and many of my friends live right on or right off Hampshire, but I am not sure if that would be too traffic-y or not. Just a thought. One last thing, any plans of making it run in the mornings? I would love to take it to MIT between the hours of 6:00 and 9:00 am

Sorry this is so short and scattered!

Thanks for all you do!

Greetings!
A few of my friends all would like an additional stop at intersection between Third Street and Cambridge Street, so I would just like to submit that opinion! It's for both Summerville and east Cambridge.

I have heard about the Somerville shuttle, which sounds like a good idea.
Two recommendations though:
1. It will be great if the Somerville shuttle’s whereabouts can be tracked through MIT Mobile, just like other operational shuttles. It can be difficult not knowing whether the shuttle will arrive in 5 or 30 minutes. Most important use of the tracking device is knowing that the shuttle is operational at all.
2. It may be best to extend the reach of the shuttle up to Beacon/Washington, or closer to Porter Square where some MIT students live. In addition, since Cambridge Saferide East already services Eastern Cambridge, it may be best to have less stops there and more stops in Somerville and one in Kendall, the regions which the shuttle should focus on.

Other Comments
One comment:
You might want to consider making this a November - April thing, rather than year round. I’ve notice ridership increase significantly since the weather got bad. I do really like it as an option but don't need it every day.

Dear GSC,
Just read the Q&A email on Somerville Saferide. I want to express my deep gratitude to all your efforts making it possible. I live close to Inman Sq, with some other friends and this shuttle is a perfect commute tool for us during the night, especially when the snow season is coming. I wish the shuttle line could be formally approved ASAP.

Many thanks,

Hi GSC Transportation Sub-committee,
I was very excited to hear about the Somerville Saferide as I live in Inman/Union and getting home in the winter is tough. However, the pilot timing is sub-optimal because winter doesn't really start until spring semester. It would be really great if the pilot could continue until at least March. I'm sure a lot of people will be grateful when the snow starts falling in earnest.

Hey!
I love the idea of a Somerville Saferide! I have used it only a few times because the timing is a bit off. Many times I wait at the building 48 Vassar street stop and it does not come and I have to call. They always come when I call, but it takes a while. I also would love for it do make its way down Hampshire street because I and many of my friends live right on or right off Hampshire, but I am not sure if that would be too traffic-y or not. Just a thought. One last thing, any plans of making it run in the mornings? I would love to take it to MIT between the hours of 6:00 and 9:00 am
Sorry this is so short and scattered!
Thanks for all you do!

Hello,
I wanted to provide some feedback on the shuttle service to Somerville. I think it's great that this shuttle exists, and I hope it's getting good ridership. I think the trial method is a bit flawed though. I
probably won’t ride the shuttle until it’s too cold, wet, icy, and snowy out to get to and from school on my bike. That won’t happen until next semester (maybe). I don’t know how many others think the same way as I do, but I worry that if the shuttle isn’t seeing a lot of ridership, MIT will discontinue the service just when it could be very useful (during the winter). I know a lot of MIT students ride bikes to campus, and I imagine that a lot fewer of them ride bikes in the winter. So I would just caution against drawing conclusions about ridership based on a time when the weather allows for easy bike commutes.

I recently read the Q&A and wanted to make some comments about the shuttle line. I live close to Union Sq. and find the shuttle to be extremely useful... especially since direct bus lines (85, CT2) going to that area only operate on weekdays and stop running around 7:30pm. However, I do want to point out that I have really only been using it when the weather makes biking unpleasant. For this trial period, that is not too often. I have lived in Union Sq for 3 previous winters and always find that biking becomes unreasonable for me for most of winter (Jan-Mar). If the shuttle is operating during this period I would probably use it most days. I hope you take into consideration when deciding to continue the line that the ridership will almost certain increase drastically in the winter. I would request that you at least continue the trial into the Spring term before permanently removing the line.

Hi,
I have a comment about the Somerville shuttle I wanted to share. I live close to one of the shuttle stops, however I bike to school while the weather is still good. This semester the weather has been great so I’m still able to bike to school and therefore not using the shuttle. I anticipate that the weather next semester is going to be much worse than this semester so I will make use of the shuttle more often than I have this semester. I’m sure you guys are already aware of this but I just wanted to be clear about the fact that I am extremely happy that this shuttle exists and is a transportation option, even though I haven't used it very often this semester. I hope it continues beyond this semester!

To whom it may concern,
The shuttle line going to Inman square is really practical however I have some reservations concerning the pilot program: the shuttle currently runs too erratically to be practical to get to Inman Square and other points:
1. it doesn’t actually stop at Inman square, rather it stops at Cambridge & prospect.
2. it runs not often enough, so ridership number will not reflect actual potential riders should there be a more regular schedule (takes 20mn to walk from Stata to Inman square, shuttle arrives every 30 or so mn, so mean wait time is approx equal to mean walking time, favoring the choice to walk, bike, or otherwise not take the shuttle).
3. The mit app on the iPhone does not display this route, so
   a) riders don’t know about it, and/or
   b) riders cannot known how long they will need to wait / whether it is advantageous to wait for the next shuttle
Thus, if the riderships number from this program are to serve as a measure of its use then we should give this shuttle line a real shot by improving its visibility, delivering on its promised route, and making it more practical than walking.

**Appendix II: Boardings and Alightings Data**

This appendix presents a data validity study carried out by the GSC Transportation Subcommittee from 1/28/2014 to 2/1/2014 to analyze the validity of the boardings and alightings data reported by shuttle drivers. It shows that the ridership data is not fully reliable.

Shuttle line: Cambridge West
When: 1/28/2014, 7:09pm

None of the alightings were reported from E40 to Putnam Ave / Magazine Street. According to the bus device, there were 35 passengers on the shuttle at the arrival at E40 (instead of the 14 passengers counted), and that number increased till 42 on 84 Massachusetts Avenue (instead of 13 passengers taking into account that 7 new passengers boarded but there were 8 alightings). None of the later alightings (mostly between Burton House and Simmon Hall) were reported.

Shuttle line: Cambridge East

When: 1/29/2014, 6:23pm

None of the boardings or alightings from E40 to 84 Massachusetts Ave was reported. The bus device indicated 0 passengers in total when 5 students were riding the shuttle.

Shuttle line: Cambridge West

When: 1/30/2014, 9:54pm

The report of boardings and alightings was imprecise. At Kendall Square, the device indicated a total of 100 boardings and 90 alightings, i.e., 10 passengers in the shuttle, but there were only 7 of them. The driver did not report a boarding at E40, nor an alighting at Media Lab, nor 2 alightings and 5 boardings at 84 Massachusetts Ave, nor 2 boardings at McCormick, or 1 alighting at Burton House. At New House, the driver reported 6 alightings (instead of 5), and at Tang he reported 1 more alighting (instead of 3) to reflect the fact that there were only three passengers left in the shuttle.

Shuttle line: Cambridge West

When: 2/1/2014, 9:14pm

The driver reported all the alightings and boardings from Putnam Ave / Magazine Street to Kendall Square T.