

**Ramapo College of New Jersey
Shuttle Survey
Fall 2008
Faculty Working Group on Commuting¹**

Introduction

The current Local Shuttle loops from campus, to Mahwah station, Interstate Plaza, Ramsey Square, A&P, Suffern station and back to campus. It operates between 2pm and 6:50 pm on weekdays and 2:00-5:10 pm on Saturdays. The daily mall trip also drops-off at each station (leaving campus at 6:30 pm on weekdays) and picks up at 9:45/9:50 pm (weekdays; 9:45 pm Saturdays). On Sundays, it operates from 6:00-9:30 pm, and loops only from campus to Mahwah station, Suffern station and Walmart in Airmont NY. The shuttle is funded through Student Affairs; Coach USA provides a full time driver for weekdays and a part-time driver for the weekend runs. The current cost is \$45/hour. The shuttle is free to Ramapo users.

The existing schedule was set up primarily for resident students. It is not conducive to commuting by either students or faculty/staff, because it does not operate in the morning, and ceases at 6:50 pm, although classes are held until after 9 pm. Currently, faculty, staff and students report (anecdotally) that they either walk down Rt. 202, have a colleague meet/drop them at the station, or take a taxi (\$12-14 one-way).

The ACUPCC requires that the College reduce its carbon footprint to zero. One major contributing category to our carbon footprint is commuting, primarily from driving to campus. One way to reduce this impact is to provide better means of commuting by public transportation. We are 3.7 miles from the nearest station (Mahwah), and a public bus service includes stops at the College on a handful of its runs to/from NYC (but bus riders can not travel solely within NJ on this service). We undertook this survey to gauge demand for an extension of the shuttle service to meet commuter trains in the morning, to facilitate commuting by public transportation.

Because the current shuttle service currently serves both Suffern and Mahwah stations, we included both in the survey. We also added Ramsey-Rt. 17 as an option, because it is close by and was designed as a major transportation hub. However, fewer trains stop at Ramsey-Rt. 17 than at either of the other 2 stations; Suffern has marginally more trains than Mahwah. Ramsey Rt. 17 is a modern, well-lit, secure, but isolated station; Suffern and Mahwah stations are both walking distance to shops and restaurants, but tend to have limited space for waiting for trains. In heavy rain, the road under the train tracks at Suffern floods, proving problematic for train riders to walk to the shuttle because there is no pedestrian overpass.

Methods

The shuttle survey was available online from Sept. 29 through Oct. 14, 2008. It was publicized on Daily Digest, broadcast email, and posters. The intent was to have both current and potential users complete the survey; for simplicity we did not separate these respondents.

¹A mostly-faculty group reporting to the Faculty Reps to the Climate Commitment Task Force. Chair: Jackie Braun; active members (faculty/staff): Clyde Johnson, Clare Naporano, Emma Rainforth, Al Romano; Marta Vides Saade. Survey developed in consultation with Liz Joyce (Residence Life) and Sue Zhang (IR). Report prepared by Emma Rainforth.

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The Shuttle Survey asked respondents identity information (student/faculty/staff), and which station they would prefer to use (Suffern, Mahwah, Ramsey-Rt. 17). The survey then split pathways, with respondents completing the survey for the particular station they selected.

Respondents were then asked to select their arriving and departing train time at their station (Suffern, Mahwah, or Ramsey Rt. 17), for each day of the week (including weekends). Train times were prepopulated into drop-down menus. Respondents selected a time or left it blank. There was also a field for comments.

Results

Mahwah was the station preferred by most respondents (more strongly preferred by faculty / staff than by students). Suffern was by far the third choice.

Table 1: Number of respondents by demographic and destination

	Suffern	Mahwah	Ramsey Rt17	Total
Student	18	105	102	225
Faculty	8	20	13	41
Staff	4	31	7	42
Total	30	156	122	308

A qualitative review of the written comments gave the sense that respondents had more favorable views of Mahwah and Suffern than of Ramsey Rt. 17. Comparing Ramsey Rt. 17 and Mahwah, it seems to be easier to get to campus from Mahwah than Ramsey Rt 17 if there is no shuttle: taxis are probably more readily available, and one can relatively easily walk to campus (albeit there is no sidewalk).

Table 2. Average number of *rides* per day, by demographic and destination

	weekdays			weekends		
	Suffern	Mahwah	Ramsey Rt17	Suffern	Mahwah	Ramsey Rt17
Students	13.8	55.8	50.2	13.5	52	60
Faculty	7.2	20.4	7.6	0	0	0
Staff	6.8	42.8	8	2	5	2
Total per station	27.8	119	65.8	15.5	57	62
Total (all stations)			212.6			134.5

Breaking down ridership by demographic and time of day (Appendix 1), it is clear that there are several morning trains that bear the bulk of the ridership (highlighted in red in the Appendix).

Recommendation for Morning Shuttle

The data in Appendix 1 demonstrates that a morning shuttle would meet trains that typically have 6-14 riders. The 8:20 train arriving at Mahwah has a higher number of riders (27 on average), primarily staff who need to be on campus at 8:30.

Given the travel times and train schedules, the optimal morning shuttle schedule which would be able to meet the maximum number of higher-ridership trains, whilst minimizing waiting times for riders, is given below. Suffern is included in this loop, because there are buses arriving in Suffern from Route 59 that do

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not continue on to Mahwah, therefore bus commuters can also be picked up (at Suffern station) by the shuttle. The A&P mall, on Franklin Turnpike directly between the two stations, is also included on some runs, in order to delay the pick-up at Mahwah by a couple of minutes and meet a slightly later train that at Suffern; this stop would allow residential students more flexibility in their mall run which is currently limited to afternoons. The total morning shuttle schedule is 4 hours, which is half a day-shift for ShortLine drivers. The estimated number of riders is from Appendix 1; the total was calculated by assuming that train passengers will wait for the next shuttle. Estimated total mileage is 46.9 miles.

Ramapo College	(TRAIN)	Suffern Station	A&P	(TRAIN)	Mahwah Station	Ramapo College	Estimated riders
	6:55 and						
7:00	7:02	7:10	--	7:17	7:20	7:25	8.4
7:30	7:32	7:40	--	7:45	7:50	7:55	15.6
8:10	8:19	8:20	--	8:20	8:25	8:30	31.2
8:40	8:38	8:50	8:54	8:58	9:00	9:05	14.6
9:10	9:07	9:20	--	--	--	9:30	3.2
9:40	--	--	9:47	9:46	9:50	9:55	6.8
10:30		10:40	10:44	10:42	10:50	10:55	7

For the most part, the Suffern trains are southbound and the Mahwah trains are northbound.

An alternative schedule, simply between campus and Mahwah station, would have lower shuttle ridership per run; but, if some of the 8:20 train riders took the earlier train, those two shuttles (shown in blue) would be able to accommodate this peak ridership. Estimated total mileage is 52.8 miles.

Ramapo College	(TRAIN)	Mahwah Station	Ramapo College	Estimated riders
6:55		6:50	7:00	7:05 7.2
7:15		7:17	7:20	7:25 1.2
7:35		7:35	7:40	7:45 1.2
7:50	7:45 & 7:49		7:55	8:00 14.4
8:05		8:04	8:10	8:15 2.2
8:20		8:20	8:25	8:30 27.8
8:40		8:41	8:45	8:50 2.2
9:00		8:58	9:05	9:10 13.6
9:20		9:22	9:25	9:30 3.2
9:45		9:46	9:50	9:55 6.8
10:00		9:57	10:05	10:10 1.6
10:40		10:42	10:45	10:50 6