



# Behavior Mapping Review

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## Overview

The Montgomery College Libraries have piloted extended hours at the Rockville Campus Library since Fall 2014 and at Germantown and TP/SS Campus Libraries since Spring 2015. The extended hours pilot includes the following hours of operation during the semesters:

Monday - Wednesday	8:00 AM - 10:00 PM
Thursday	8:00 AM - 8:00 PM
Friday	8:00 AM - 5:00 PM
Saturday	9:00 AM - 5:00 PM

This is a total of 71 hours of operation. During the week before and the week of mid-terms and finals the Libraries extend hours to 10:00 PM on Thursdays. This schedule has caused confusion with students, one reason being the lack of consistency. Since the inception of the pilot, evening employees have been conducting behavior mapping on the half hour starting at 7:30 PM and ending at 9:30 PM. A snapshot of this data is contained within this report as a comparison to daytime activities.

During the weeks of February 29 - March 4, 2016 and April 4 - 8, 2016, the three campus libraries participating in Extended Hours Pilot behavior mapping duplicated this effort during daytime hours. Employees observed and tallied student activity at four specific times each of the weekdays of the study periods: 10:30 AM, 11:30 AM, 12:30 PM, and 1:30 PM. Identical tally sheets and instructions were used as are employed in the continuing Extended Hours counts, resulting in data that are easily compared between the busiest and the least busy segments of the day. An explanation of the four data points for both daytime and extended hours are represented in table 1. Table 2 displays the breakdown of library gate entries by hours.

4 – data points	Daytime	Extended
Tally 1	10:30 AM	8:00 PM
Tally 2	11:30 AM	8:30 PM
Tally 3	12:30 PM	9:00 PM
Tally 4	1:30 PM	9:30 PM

Table 1 - Tally

Library Entries	Daytime	Extended
Hour 1	10-11 AM	6-7 PM
Hour 2	11-12 PM	7-8 PM
Hour 3	12-1 PM	8-9 PM
Hour 4	1-2 PM	9-10 PM

Table 2 - Patrons Entering the Libraries

Tallies were locally managed at each campus, and tally sheets were submitted to Randy Hertzler who transposed them into spreadsheets for data analysis. As with the Extended Hours spreadsheets, Gimlet data from service desks was also submitted by campus representatives, and Randy gathered gate counts from the Traf-Sys Portal and ran Access queries on the Voyager database to generate circulation numbers for Reserves and the circulating collection. All of this data was compiled and analyzed in the same fashion as that of Extended Hours.

## Goals

1. Demonstrate how students are using the campus libraries.
2. Gather more detailed information on Library users' behaviors to build upon the Libraries Ethnography Studies findings.
3. Use data to determine allocation of employee resources and to finalize Libraries' hours.

## Findings

As expected, raw numbers during the daytime were many times -- sometimes exceeding an order of magnitude -- above those recorded during the same days' 8:00 - 10:00 PM counts. However, highest-incidence activities of library patrons were remarkably similar between the daytime and evening; the same 3-4 activities accounted for 60-89% of the total activities observed at all three campuses, daytime or evening. Collectively, these were Reading & Writing, Using a Laptop, or Using a Library Computer. In a distant fourth place was Using a Hand-held Device.

Beyond sheer numbers of students, another marked contrast between day and night involved the use of library-supplied materials and staff services. Daytime use of Reserves was quite robust, compared to evening use that was almost non-existent. Regular circulating books fared somewhat better during the daytime as well, as did questions asked at the Reference and Access Service desks.

Somewhat unexpectedly, the number of library visitors was quite similar when between the week before midterm exams (Feb. 19 - March 4) and the supposedly more "typical" later week of April 4-8, particularly during the daytime; in some cases, library entries and headcounts were actually *higher* during the latter week.

## Other Activities

Seventeen standard categories were included on tally sheets, with an additional category marked simply "Other." Talliers were instructed to specify these other activities if possible, and the results were interesting and diverse. At Rockville, the most common "other" was use of a calculator, which was recorded 53 times over the two daytime weeks. Card games were also frequent, being recorded 51 times during the daytime periods. This is useful to know, as several groups of regular card-playing students have been observed creating unacceptable levels of noise and distraction for a library environment. This particular behavior -- along with eating and drinking -- may be more appropriate to another facility such as a student center or cafeteria. Other activities observed at Rockville included tutoring, drawing or doing artwork, kissing, using charging stations, using a drinking fountain, scanning -- both with desktop and the new high-res scanner, using Assistive Technology equipment, praying, using free-standing whiteboards, taking photographs, an MCTV crew filming for a project, and one student who was observed doing nothing more than sitting on a chair and staring off into space.

Germantown recorded a number of students using scanners during the daytime counts, as well as using a charging station, stapling documents, and one student who was observed simply "standing by the stairs." Takoma Park observed 11 patrons watching videos in the library during daytime hours, including a group of eight students at one time. Calculators were also seen in use numerous times over the two weeks

recorded. Other activities included using a charging station, scanning documents, stapling documents, sharpening pencils, using a library whiteboard, and simply chatting.

It should be noted that the “Other” category is seldom employed with Extended Hours Behavior Mapping, apparently because library patrons are mostly confining their activities to the predetermined 17 type of behavior listed on the tally sheets.

It is also important to note that whether instruction was occurring was noted on the tally sheets as a yes or no. Though the number of students receiving instruction at the time of the behavior mapping was not captured in the moment, the instruction coordinators at each campus collect this data. Charts reflecting the number of library instruction sessions conducted during the daytime behavior mapping can be found in Appendix A.

## Recommendations

### I. Demonstrate the Libraries’ Role in Student Success

Daytime data shows that the libraries are heavily utilized for a wide range of activities related to course work. During the peak period of the day there are typically around 300 students in the Rockville library at any given time, about 100 in the Takoma Park library, and around 75 at Germantown.

### II. Communicate to College Community

The creation of a communication showing the findings of the daytime behavior mapping and the extended hours behavior mapping is recommended. These findings will be useful to collegewide campus planning efforts and will illustrate the libraries’ role in the academy. An InsideMC entry would be highly visible and illustrates the libraries’ interest in accommodating our students based on their demonstrated behavior. A communication from the Director’s office to the college community would be appropriate for any collegewide service changes based on the information collected.

### III. Finalize Libraries’ Hours

**These are the pilot hours:**

Monday - Wednesday	8:00 AM - 10:00 PM
Thursday	8:00 AM - 8:00 PM
Friday	8:00 AM - 5:00 PM
Saturday	9:00 AM - 5:00 PM

- 71 hours of total operation.

**These are the recommended hours:**

Monday - Thursday	8:00 AM - 9:00 PM
Friday	8:00 AM - 5:00 PM
Saturday	9:00 AM - 5:00 PM

- 69 hours of total operations.

The usage, entry, and head-counts for the evenings have been almost identical over the two year study. The knowledge that the libraries are open past 8:00 PM hasn't attracted more students than it did when the pilot first started. With the largest exodus of library visitors happening between 6:00 and 7:00 PM, and a steady attrition through the remainder of the evening, shifting hours to a 9:00 PM closing time, Monday - Thursday appears to be the best means of literally meeting students where they are with our available staffing. Furthermore, standardizing evening closing times creates a more common experience for students that is easily remembered.

The Libraries have historically been open Monday - Thursday until 9:00 PM, with few complaints. This recommendation is based on years of carefully documented data that clearly identifies where the resources should be allocated. A shift to 9:00 PM shows the Libraries' commitment to utilizing college resources appropriately, providing students with a consistent library experience, and demonstrates the ability to use excellent data to make informed decisions that contribute to efficient operations.