Initiated in the spring 2016 at Bern Dibner Library, NYU Tandon School of Engineering, occupancy counts were taken in public spaces several times a day, every day, providing up-to-date information on space utilization. This study reports on how the data was used to determine short-term and long-term trends and assess the effectiveness of some library services.

**Introduction**

An observational method was utilized. Using a Qualtrics form and detailed floor plans of the 3rd and 4th floors, student employees recorded occupancy numbers 4 to 5 times a day throughout the library. Public areas in the library were categorized into zones - silent study, conversational study, and collaborative study. Available number of seats and types of furniture were noted. The resulting data allowed for analysis of occupancy in the context of space, time, patron behavior, services, and employee performance.

**Methodology**

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**Floor Plans – 4th Floor**

**ZONES**
- Silent Study
- Conversational Study
- Collaborative Study

**SEATING # BY ZONE**

**Results & Outcomes**

**Most Popular**
- Monday – Thursday
- 1 pm – 5 pm
- 8 weeks Oct – Nov (excluding finals)
- 3rd floor
- Single study rooms
- Computer seating (not in lab)

**Underutilized**
- Group study rooms
- Snack Lounge
- Computer lab
- All evenings
- Fridays & Saturday
- Snack Lounge
- Computer lab
- High Chairs

**Charts - Sample**

Occupancy Monday – Thursday 5pm Fall 2017

**Discussion**

The observational process here described is cost effective, reproducible, easily implemented, and maintained.

The data enables multifaceted analysis in different contexts providing insights in areas where the connection is not immediately apparent. One can use it alone, or in conjunction with other tools for assessment.

The data is pertinent to discussions on the nature and direction of the library, revealing trends useful in making long-term and short-term decisions. It can also assist in service optimizations.

**Next Step**

4th Floor Motion Detectors

- Green – study spaces are available
- Yellow – less than ½ are available
- Red – study spaces are almost full

- Motion detectors available for carrel seating
- Automatic Occupancy Count – more precise assessment
- App identifying seating space – coming soon, right now available on monitors at entrance
- Addressing Safety Concerns – already reporting library activity after hours
- Thermal detectors for study rooms and larger areas – being developed