

HEALTHY HILLMAN

Brown Expansion Evaluation Project Results

Most adults spend an average of 2400 hours per year at work. The work environment contains opportunities to promote health, wellbeing, and collaboration while also contributing to environmental, social, and economic sustainability.

Background

In 2008, the Brown School at Washington University in St. Louis (WUSTL) began a new program in public health, substantially increasing the number of faculty and staff. Plans for a new, innovative building to accommodate this growth soon began. Researchers at WUSTL recognized the potential for a “natural experiment,” to explore the impact of building design before and after the occupation of the new building through the Building Expansion Evaluation Project. In 2015, Hillman Hall opened adjacent to the existing buildings, Brown and Goldfarb Halls.

The Study

We studied three groups of faculty and staff at WUSTL before (Spring 2014) and after (Spring 2015) the completion of Hillman to measure physical activity, collaboration and sustainability:

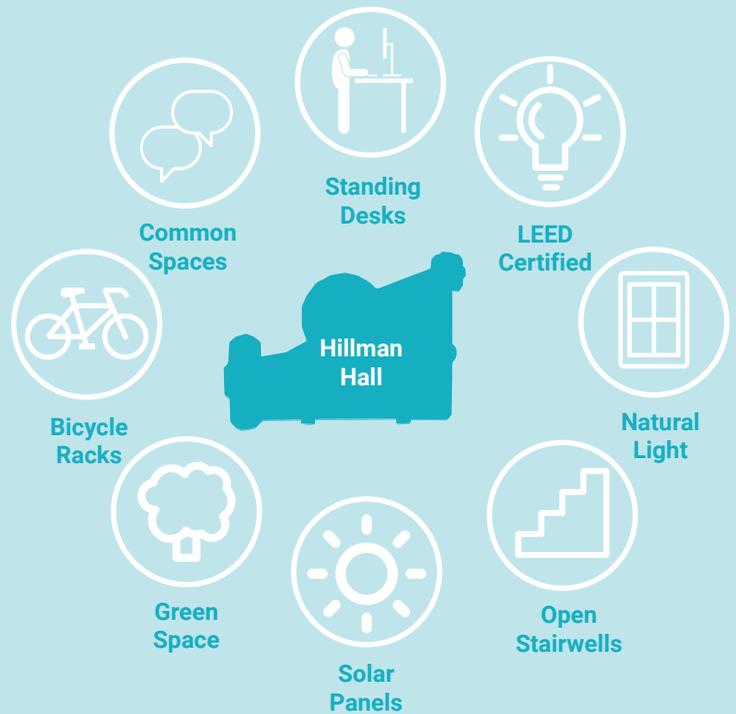
- **Movers** - People who moved into Hillman
- **Non-Movers** - People who remained in Brown or Goldfarb
- **Controls** - People who worked at Sam Fox School of Architecture and Design

A wide variety of methods were used for data collection:

- Activity Monitors
- Interviews
- Surveys
- Text Messages
- Social Network
- Observations

Hillman’s Healthy Features

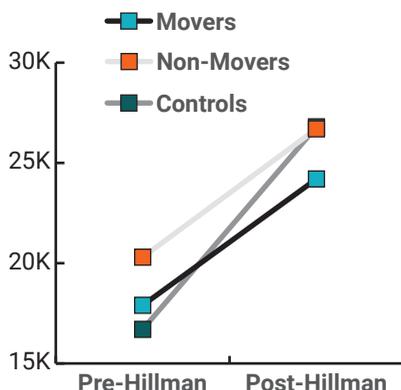
Hillman contains many features that promote physical activity, collaboration, and sustainability.



Physical Activity

Average Steps Per Week Increased in All Three Groups

Physical activity levels were consistent between accelerometer and self-reported survey data. The addition of Hillman, a new building and destination, increased steps for all groups.



“I have a stand-up desk and I have yet to put it down. That doesn’t mean I don’t sit. I love having that standing desk.”

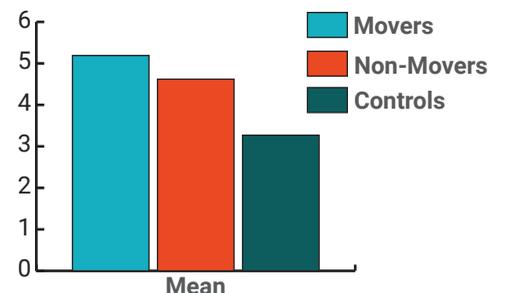
Hillman Occupants Move More

% of times moving in past hour by building.



Hillman & Brown/Goldfarb Occupants Feel More Supported to Exercise During the Workday

Movers and non-movers were more likely to feel supported than controls if they chose to exercise during the workday.

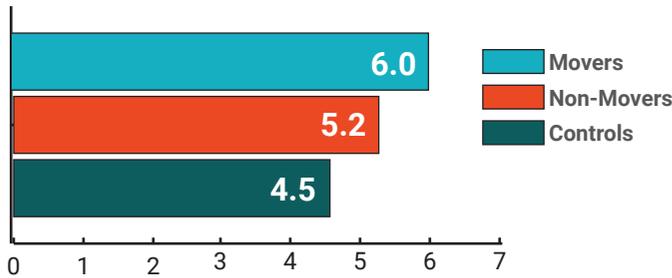


Scores range from 1-7, where 1 represents strongly disagree and 7 represents strongly agree.

Collaboration

Hillman Encourages Impromptu Meetings

Our survey showed that, on average, movers and non-movers were more likely to stop and talk to others in corridors and break areas than controls.



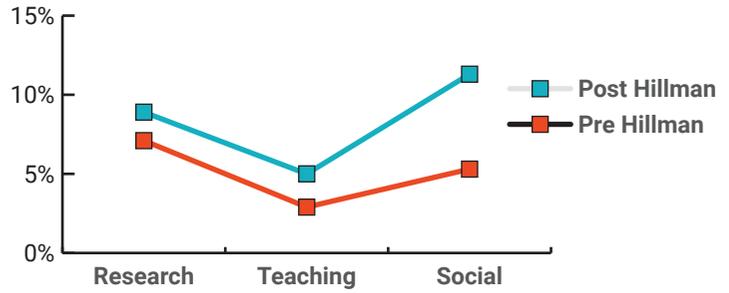
Scores range from 1-7, where 1 represents strongly disagree and 7 represents strongly agree. Mean scores are reported above.

During the interviews and focus groups, people reported more unplanned meetings or interactions since the addition of Hillman.

"We envisioned a 'water cooler' effect where people can have incidental interactions."

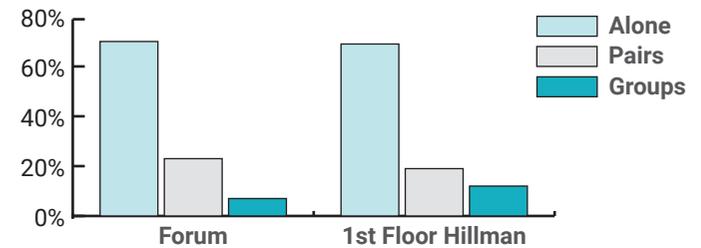
Increased Social Interactions Within Hillman

Data from the social network analysis survey showed a significant increase in research, teaching, and social interactions among Brown School faculty and staff from Pre Hillman to Post Hillman.



Use of Common Spaces

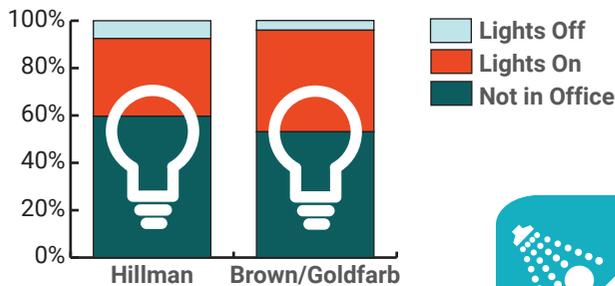
Two of the most popular places were the Forum and the 1st floor of Hillman, but the majority of use was a person alone.



Sustainability

Saving Energy in Hillman

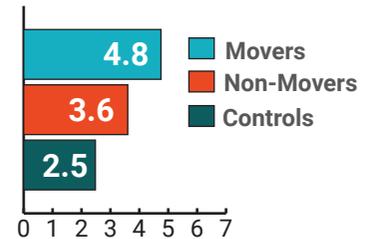
Our text message survey showed that people in Hillman were more likely to have their office lights off. This could be due to the abundant natural light in the building and the installed motion detection lights.



Places to Change

Before or After Commuting or Exercise

Movers and non-movers reported they had adequate places to change before or after exercise. This also was a benefit mentioned by those who commuted to work by walking or bicycling.



Scores range from 1-7, where 1 represents strongly disagree and 7 represents strongly agree. Mean scores are reported above.

"The showers have made a huge difference in allowing me to do non-incident physical activity. Even though I've only used it a few times, it feels really empowering, especially if you want to commute by bike."

Conclusions

The Brown Expansion Evaluation Project data suggest that Hillman created new and healthy opportunities for faculty and staff, including increased collaboration and physical activity, along with more opportunities for a sustainable work environment. However, it's difficult to determine if aspects of the building are directly related to improvements in physical activity because the control group increased physical movement as well. We hypothesize that the initiation of WashU Moves, a worksite wellness challenge, during our post-data collection period may have impacted our results. A longer term follow-up would provide more insight as the building becomes better integrated into the Brown School culture.