Thermal Comfort

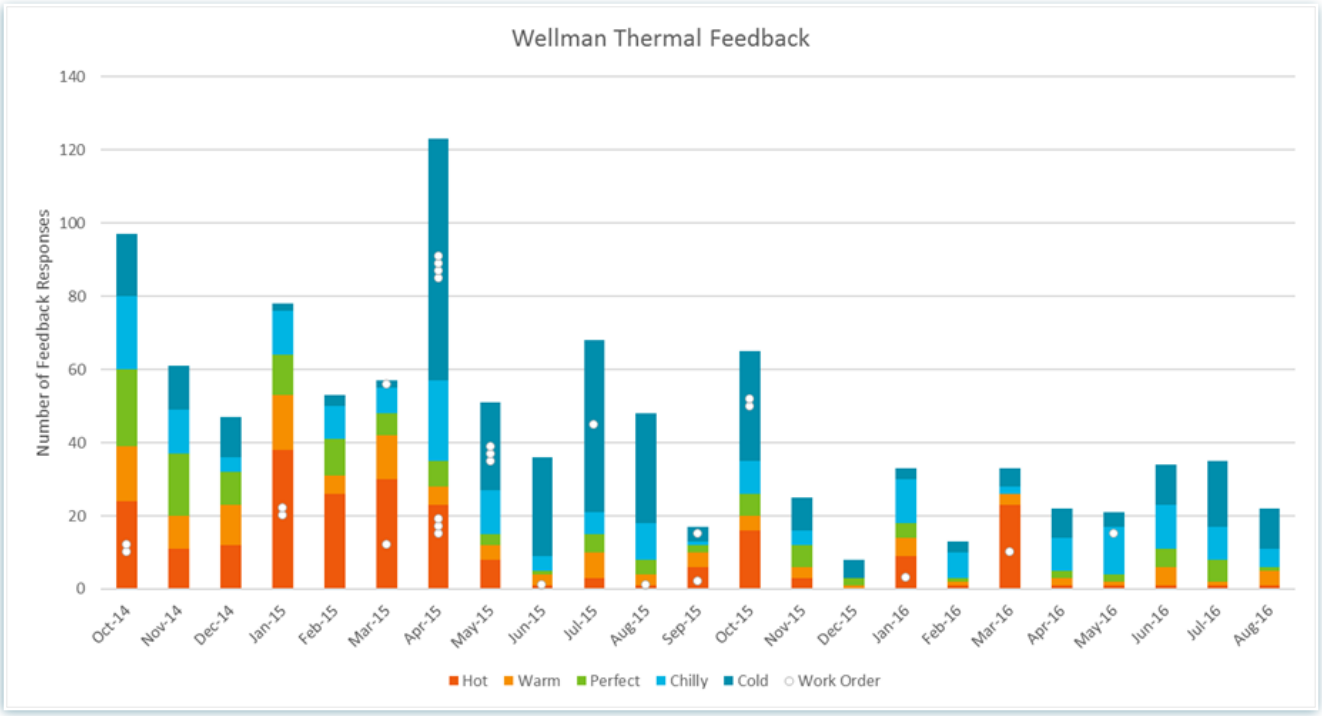
STATISTICS FROM JANUARY 2015 - AUGUST 2016

MORE THAN
800
RESPONSES FROM THERMOOSTAT

UP TO
30%
MORE FEEDBACK THAN OTHER CLASSROOMS

TOTAL OF
24
WORK ORDERS WITH OVER $9,000 TOTAL COST

WELLMAN HALL



Above is a graph of TherMOOstat feedback, broken down by feedback type: hot, warm, perfect, chilly or cold. The bars are overlaid with work orders, the position of the dots correspond to the type of work order, i.e. hot or cold calls.

TherMOOstat gives a voice to students, staff and faculty wanting to share information on how their space feels. The Energy Conservation Office uses this information to identify comfort issues and energy inefficiencies across campus. We read every submission, and the more feedback we receive the more we are able to understand campus buildings.

You can submit feedback via two forms of TherMOOstat: a widget on the my.ucdavis.edu portal, and a web application available at thermoostat.ucdavis.edu.There are five thermal comfort responses: hot, warm, perfect, chilly and cold.

TherMOOstat has received over 12,000 responses since it's inception in late September of 2014. Over time, we've noticed that a high volume of feedback comes from classroom buildings throughout campus. Wellman Hall has received 1,050 responses.

An Analysis of the Feedback

98% of TherMOOstat users say they use the app when they're uncomfortable.

The Energy Conservation Office has been keeping a watchful eye on Wellman, as it's one of our top buildings for TherMOOstat feedback. We cross-reference incoming TherMOOstat feedback with Siemens data, and previous thermal feedback, to determine the severity of the issue and the actions we will take. We typically only adjust set points in Siemens if we see an issue with the system. If we can't address an issue via changing set points, we may open a work order on behalf of a TherMOOstat user and communicate with them as the work order progresses.

In Wellman, we have been tracking feedback from 32 rooms. We

- look for patterns in the feedback (i.e. consistently hot or cold)
- verify that the room is meeting its set points (at the time of receiving the feedback)
- monitor rooms over time (alongside incoming work orders)

We also track comments that users submit with their thermal feedback, some are featured in the column on the right. These comments provide additional context to the thermal comfort feedback, such as stuffiness and poor airflow to the amount of layers needed to keep warm.

To address the volume of thermal feedback from Wellman Hall, we attempted to adjust the Siemens programming for the HVAC system. The methods and results of this test are in the presentation titled: Wellman Hall, a test with airflow based on TherMOOstat feedback.

TherMOOstat Comments

"WHY IS IT SO HOT IN WELLMAN 6?! I CAN'T FOCUS IN CLASS BECAUSE I CAN'T BREATHE CAUSE IT'S SO HOT!!!"

February 2015

"Hey, it is freezing in Wellman 233 to the point where students are bringing jackets. Please **stop making a blizzard in there.**"

April 2015

"Wellman 6 is probably the **stuffiest and most humid lecture hall on campus.** There's poor airflow and it's either too warm and stuffy or too cold."

November 2015

"Wellman 26 is always **too warm and very stuffy.** It's not hot enough to make you sweat, but it is overly warm which **makes me drowsy.**"

March 2016