

Gaze Aversion: Door Placement's Effect on Classroom Attendance



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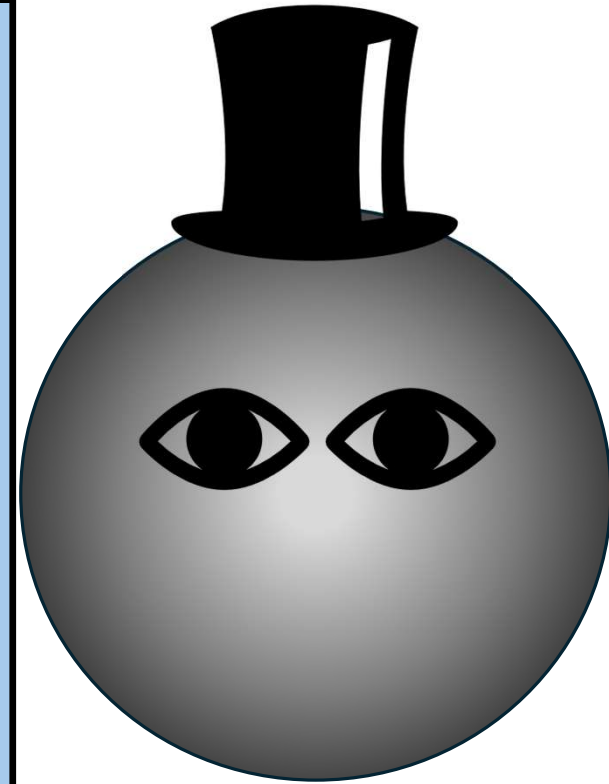
Research Question:

- Does the classroom door placement affect student attendance patterns at Central Washington University?

Motivation:

- Investigate human decision-making and an overlooked input to academic success.
- Behavior under both reputational concerns and direct observation.
- Inform community space design.

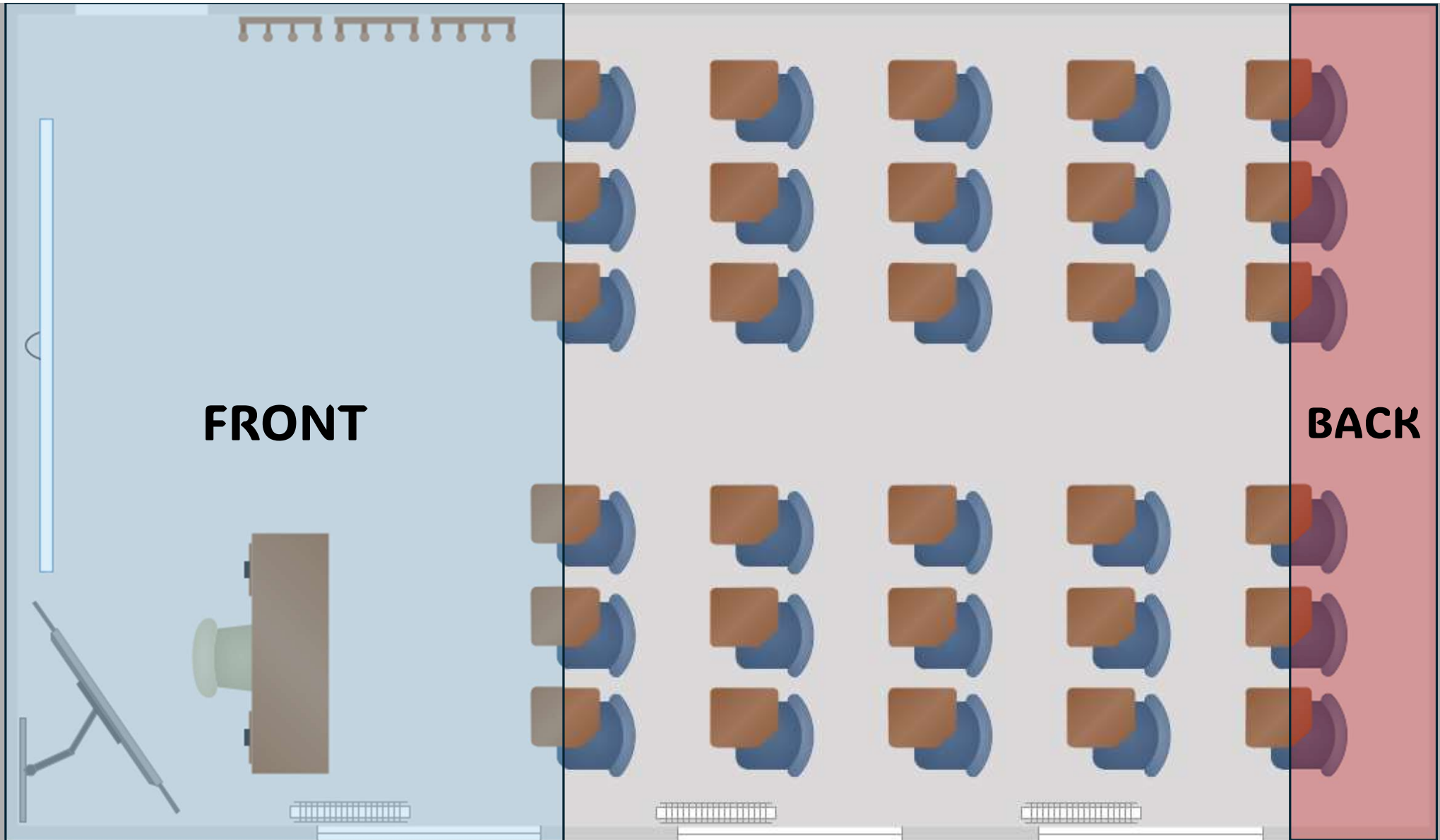
- Hypothesis: Classes with the door in the front are more likely to have a greater rate of absences than classes with the door in the back.
- Students prefer to avoid walking into the classroom late and being subjected to the judgmental eyes of their peers
- **Gaze Aversion:** *When agents are under reputational concerns, they are willing to incur a cost to avoid direct observation.*



<i>Quarter</i>	<i>Building</i>
<i>Week</i>	<i>Max Capacity</i>
<i>Day</i>	<i>Door placement</i>
<i>Time</i>	<i>Subjective Importance of Attendance</i>
<i>Course Subject</i>	<i>Attendance Mandatory</i>
<i>Course #</i>	<i>%Absent</i>
<i>Total Students</i>	<i>%Late</i>
	<i>%Excused Absent</i>

FRONT

BACK



Course 1

Course Prefix and Number:

e.g., UNIV 101

Classroom:

e.g., Samuelson 115

Total # of Students in Class Roster:

e.g., 30

Attendance Data - Day 1

Which day are you reporting attendance for?

Select a day

Was attendance mandatory on this day? (Answer "Yes" if attendance on this day was counted toward a student's overall grade, or if there was an in-class exercise (e.g., a test) that counted toward a student's grade.)

Select an answer

Total # of Students Absent:

e.g., 2

of Excused Absences:^{1, 2}

of Students Late:²

1. Excused absences include students who have contacted you ahead of time with a legitimate reason for their absence. These students should also be included in the total number of student absences.

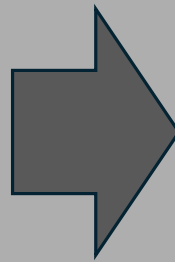
2. If you do not record excused absences and/or the number of late students, please leave the corresponding text box blank. If you **do** record these, and there were zero excused absences and/or late students, please enter "0".

Sample	Total Data	Subset w/ Late and Unexcused Data
# Observations	518	226
# Unique Courses	36	25
# Front Door Obs.	358	123
# Back Door Obs.	160	103
% Mandatory Attendance	0.45	0.42
Avg. Class Size	21.72	14.98
Mean % Absent	0.23	0.13
Mean % Unexcused	NA	0.11
Mean % Late	NA	0.04

Variable	Back Door	Front Door
<i>Mean start time</i>	9.74	11.44
<i>Mean credit amount</i>	4.12	4.78
<i>% Upper-level course</i>	82%	34%
<i>Mean class size</i>	18.29	23.25
<i>% Mandatory attendance</i>	53%	41%
<i>Mean subjective importance</i>	6.15	5.19

Balance Check

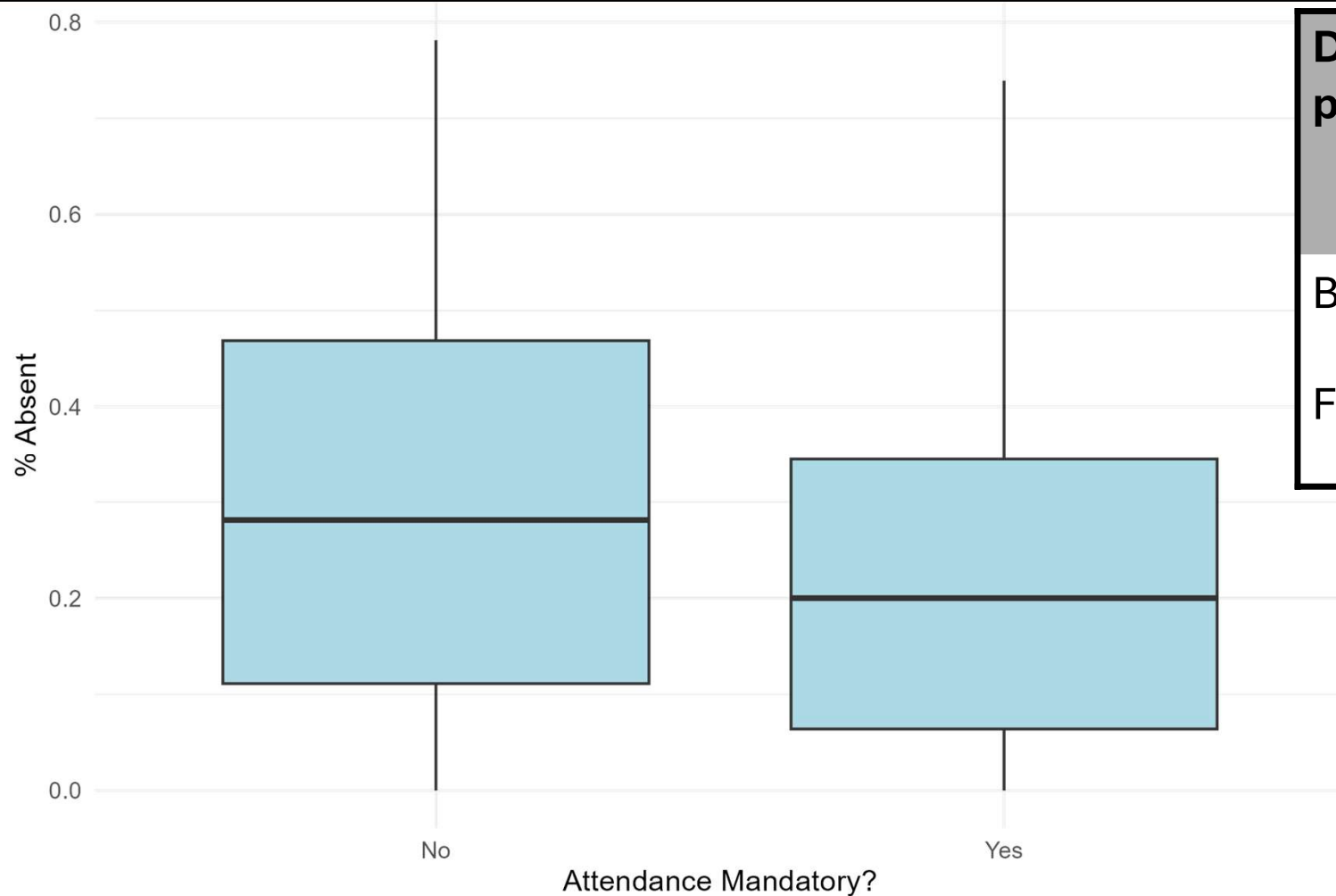
Compares the distribution of control variables across our two different door conditions



Back Door

Earlier start time
Higher course level
Smaller class size
Higher importance of attendance

% Absent by Attendance Mandatory



**Door
placement**

**%
*Mandatory
attendance***

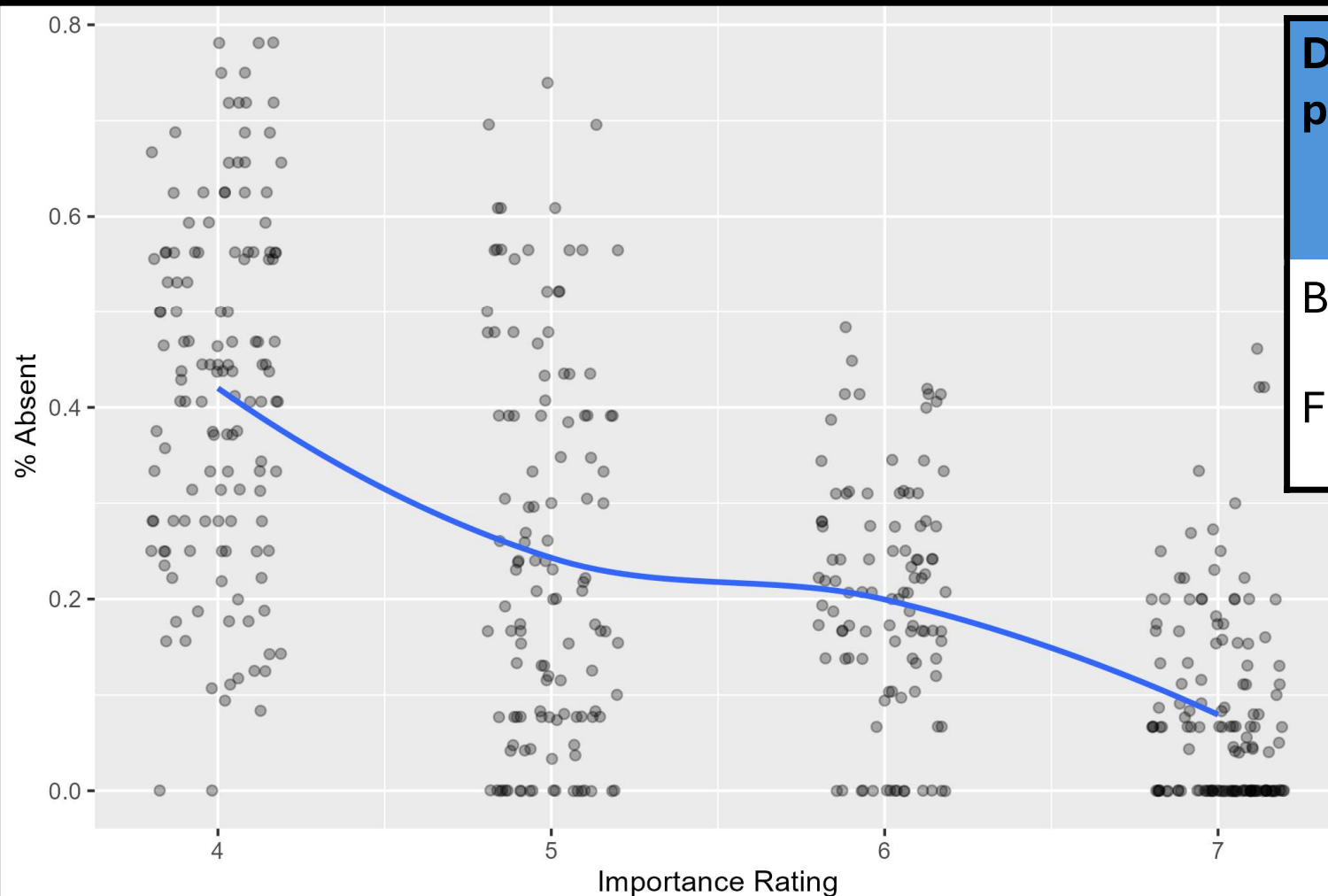
Back Door

53%

Front Door

41%

% Absent by Subjective Importance



**Door
placement**

**Mean
Subjective
Importance**

Back Door

6.15

Front Door

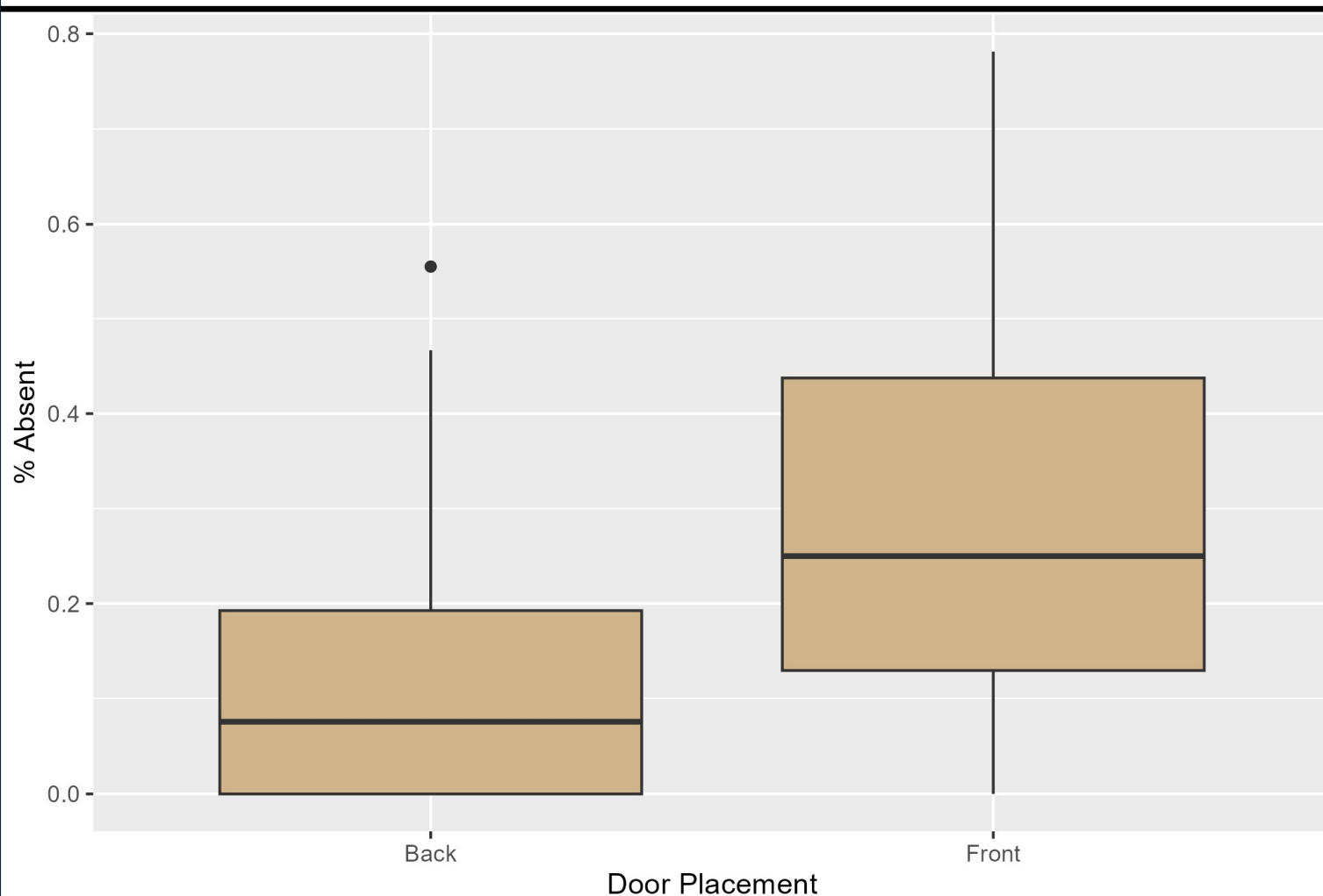
5.19

Door placement	% Mandatory attendance
Back Door	53%
Front Door	41%

Door placement	Mean Subjective Importance
Back Door	6.15
Front Door	5.19

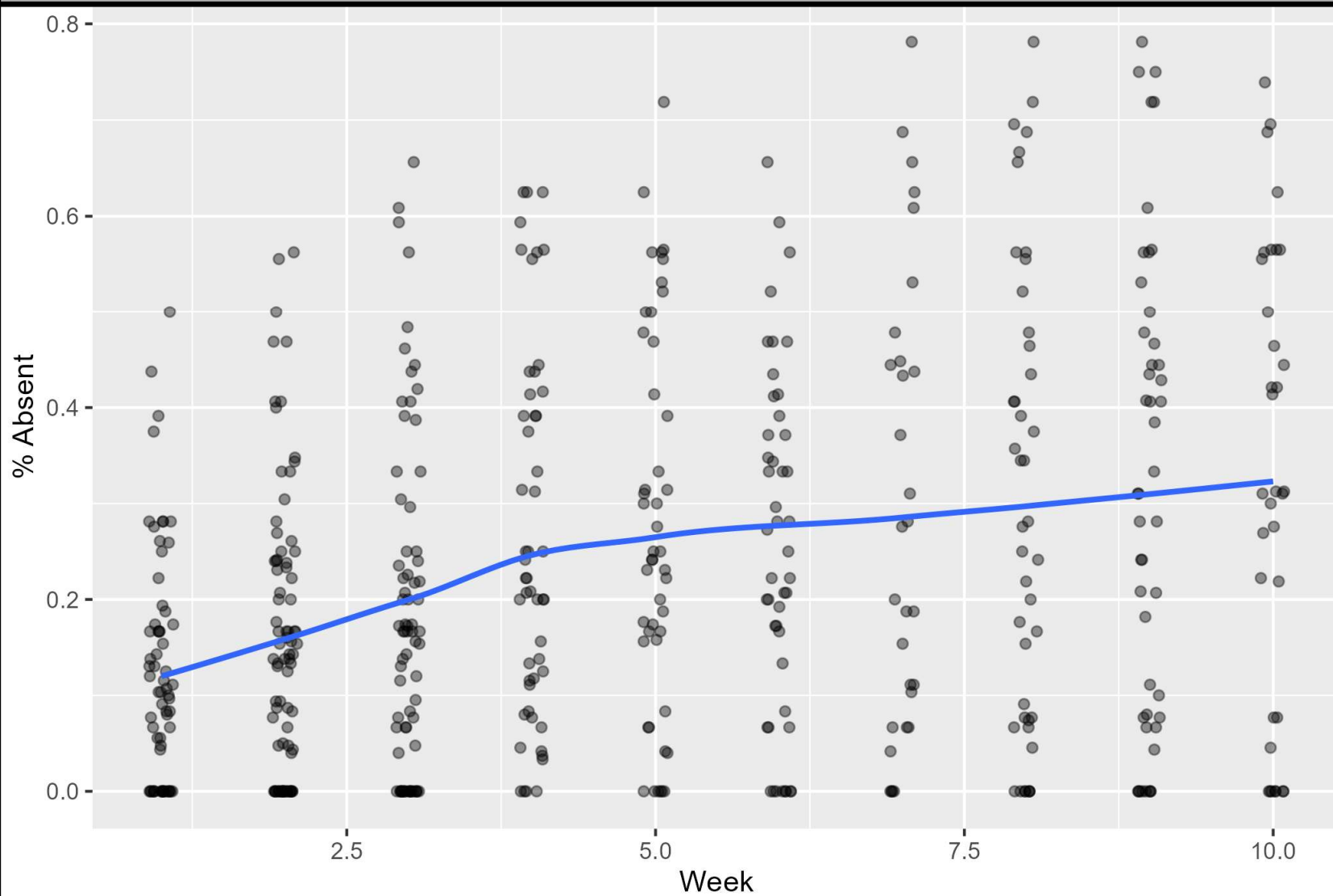
- 1) Class Importance highly influences %Absent.
- 2) Door in back samples have higher class importance

%Absent By Door Placement



Term	No Interaction	With Interaction
Back Door (vs. Front)	-0.046	-0.137*
Mandatory Attendance	-0.011	-0.068
Back Door x Mandatory Attendance	NA	0.163*
Percent Filled	-0.296	-0.417*
Upper-Level Course	-0.122	-0.139
Subjective Importance	-0.080**	-0.078**
Day, Week, and Time Controls	Yes	Yes
Observations	391	391
Number of Clusters	21	21

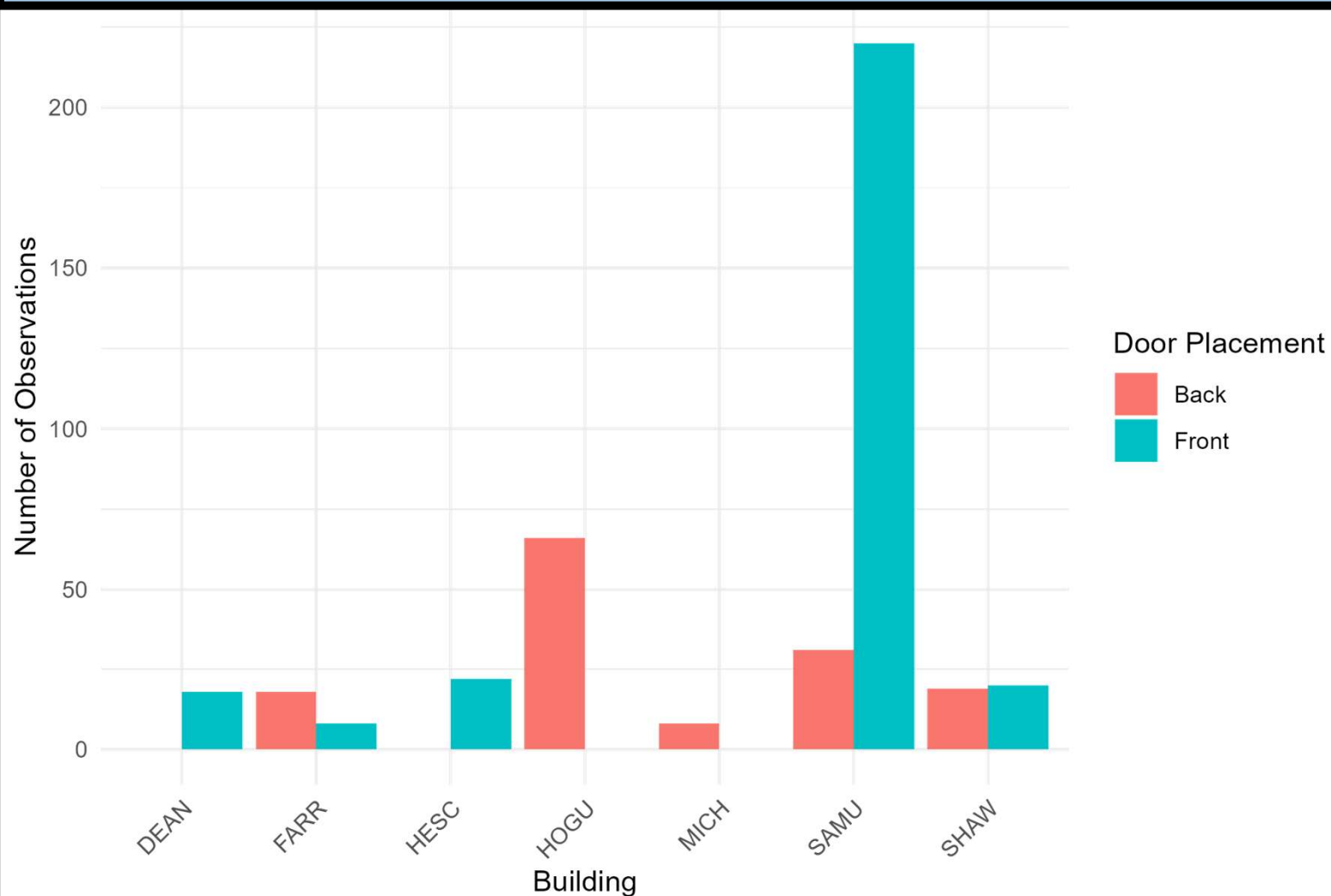
**% Absent
by the
week of
the
quarter**



Limitations

- Small sample size
- Limited scope
- Omitted Variable
- Biased measurement error
- Experimenter Demand Effect

Number of Observations by Building and Door Placement



1) Continue collecting data throughout the upcoming years

2) Publish conclusive results

3) Suggest improvements to community space design



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Thank you

