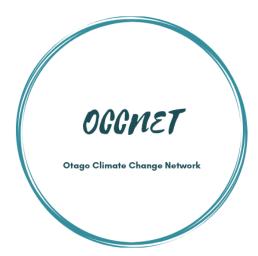


Making a difference...Has there been a difference? Data from the student measurement of rental housing accommodation standards in Dunedin

Dr Sara Walton

Department of Management

Otago Business School



## Context: MANT337 Orgs & Sustainability

- Holistic approach to business and sustainability.
- Future focus
- Assessment designed to be relevant and authentic for student engagement
  - 1. Carbon Footprint assignment
  - 2. Make a difference assignment
  - 3. Exam developing and writing a scenario for the year 2035
- 'Make a difference' WOF/energy assignment.
  - Using eco-innovation as a framework look at change.
  - Assumption that we need to change and that change is multi-dimensional.

## Eco-innovation - change

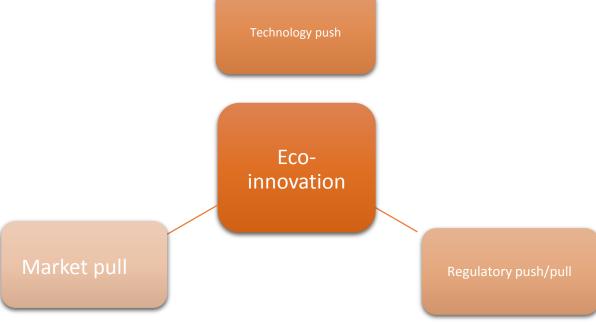
Organising framework for the assignment.

**Definition:** "Eco-innovations are all measures of relevant actors...which:

Develop new ideas, behaviour, products and processes, apply and introduce them and

Which contribute to a reduction of environmental burdens or to ecologically specified sustainability

targets" (Rennings, 2000: 322).



## Components of the assignment

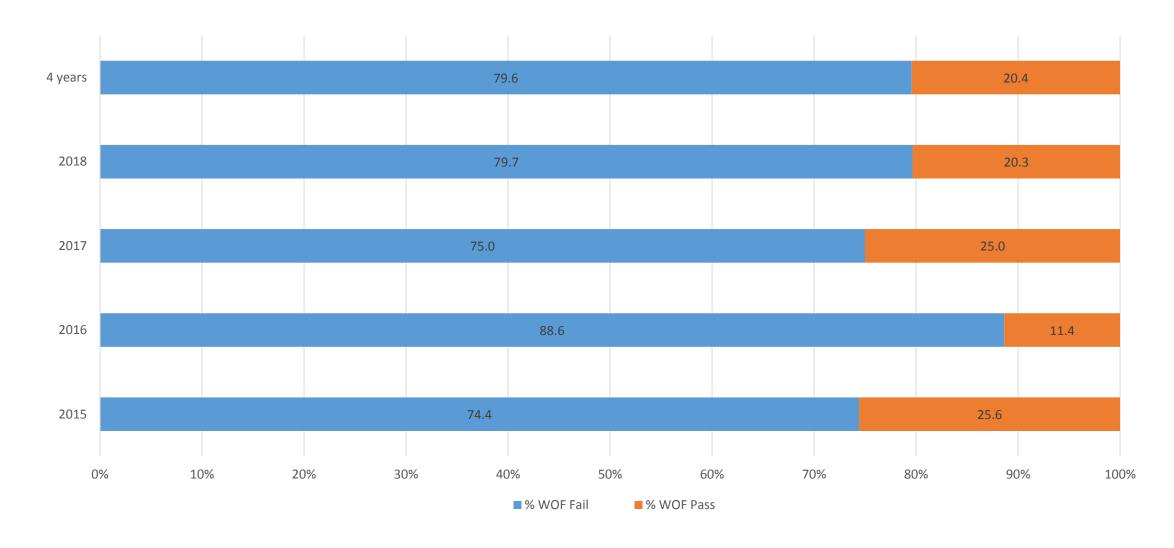
#### **MEASURE**

- Warrant of Fitness
  - Developed by Sustainable Cities Group at the Wellington School of Medicine.
  - Used by WCC and DCC
  - Series of indicators.
  - Self-assessment in this assignment.
- Ibutton temperature measurements

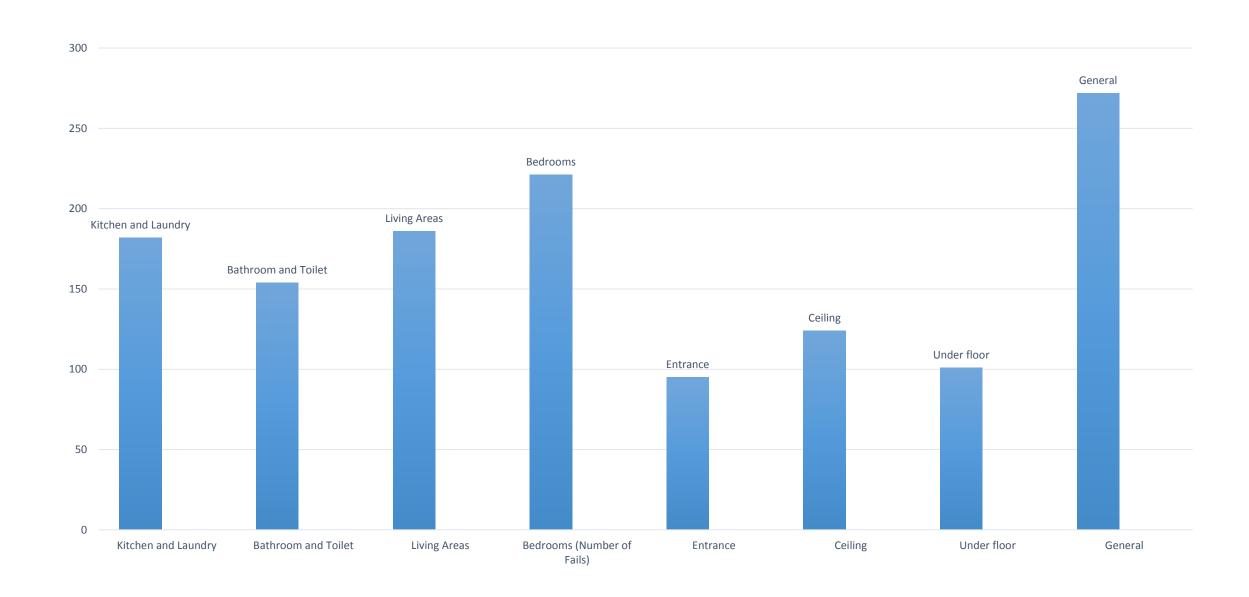
#### **ANALYSE - RECOMMENDATIONS**

- Market
  - Supply/demand
  - What is the situation in Dunedin North?
- Regulation
  - What regulation can help bring about change?
- Own energy behaviours
  - Energy cultures

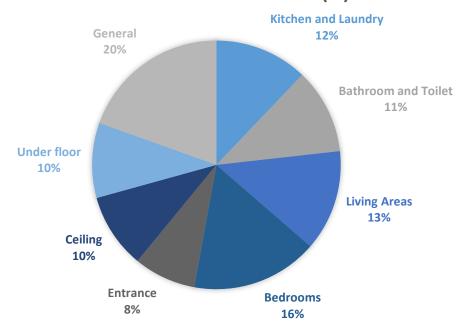
# WoF pass/fail



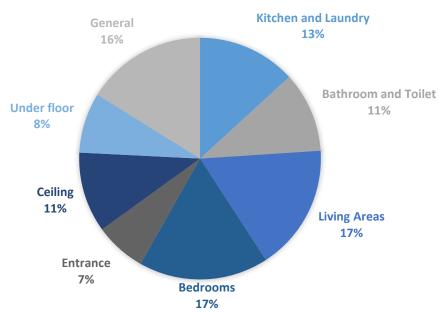
## Main causes of failures – 4 years combined



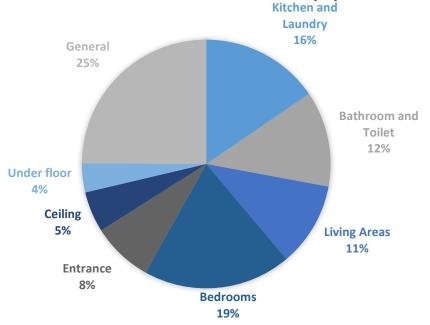
#### MAIN CAUSES OF WOF FAILURES(%)-2015



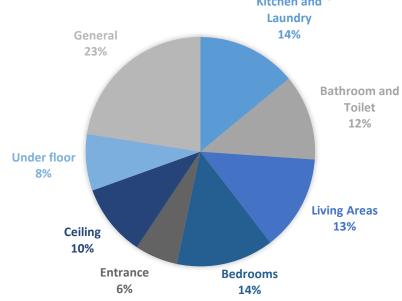
#### MAIN CAUSES OF WOF FAILURES(%)-2016



#### MAIN CAUSES OF WOF FAILURES(%)-2017 Kitchen and



#### MAIN CAUSES OF WOF FAILURES (%)-2018



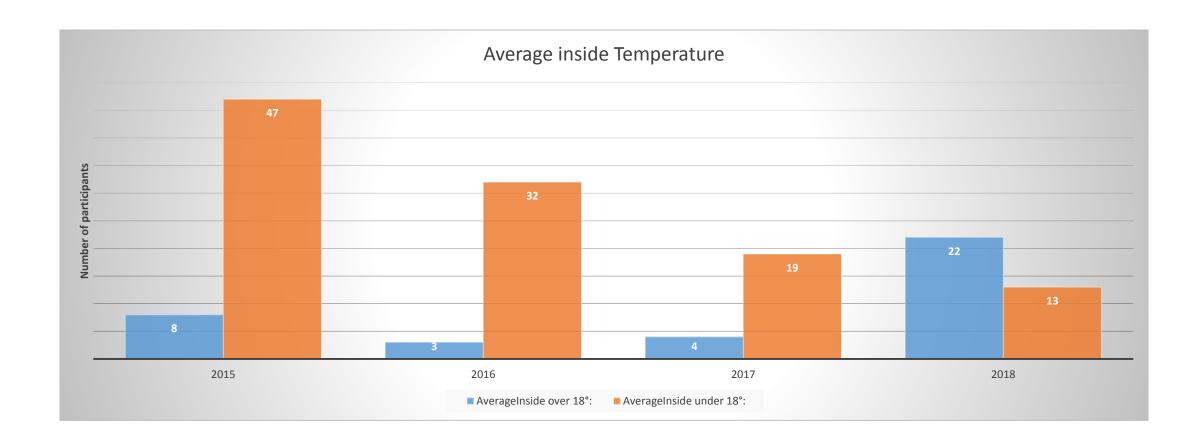
## Summary of WoF

- Many of the fails were for easily fixed items
  - Outside light
  - Hot water temperature
  - Some consulted with landlords and things were dealt with.
- Insulation often not known
  - None mentioned an insulation certificate with the lease
- Some had significant fails & landlords that had not done anything to fix the problems

## Temperatures

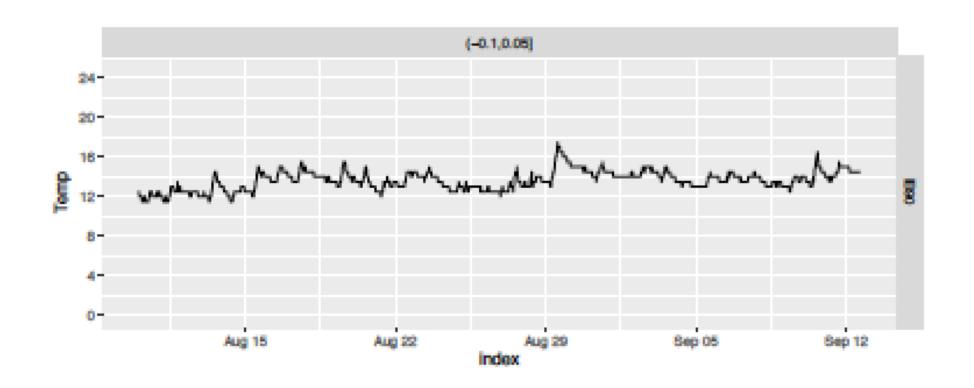
- Change in timing of the course and assignment
  - Shift from (1) Aug/Sept years 2015 & 2016
  - to (2) April/May years 2017 & 2018
- Minimum temperatures
  - 1. 2.5 both years
  - 2. 5 in 2017 and 5.5 in 2018
- Maximum temperatures
  - 1. 2015 36.5 2016 33.5
  - 2. 2017 28.5 2018 36.5

# Temperatures

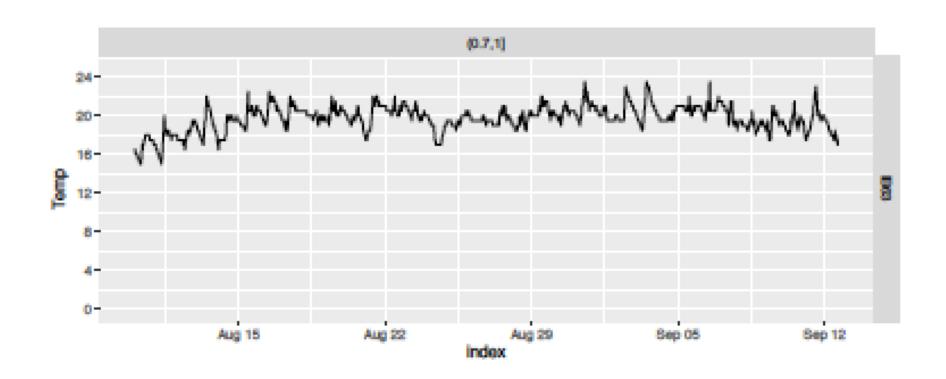


## 2016 analysis – 3 types of heating patterns

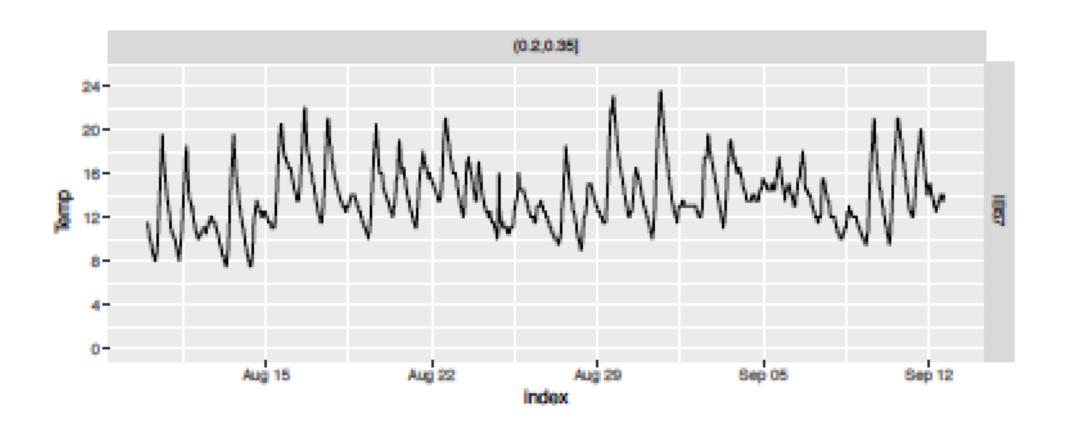
#### 1. Relatively consistently cold



### 2. Hot house

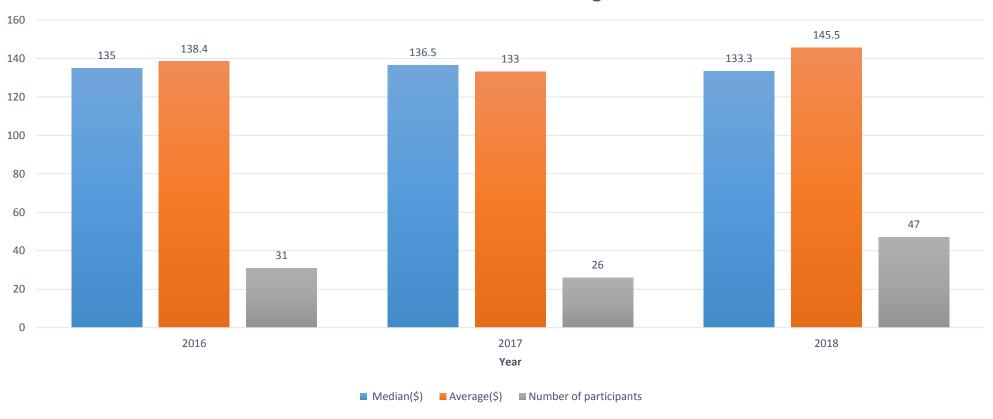


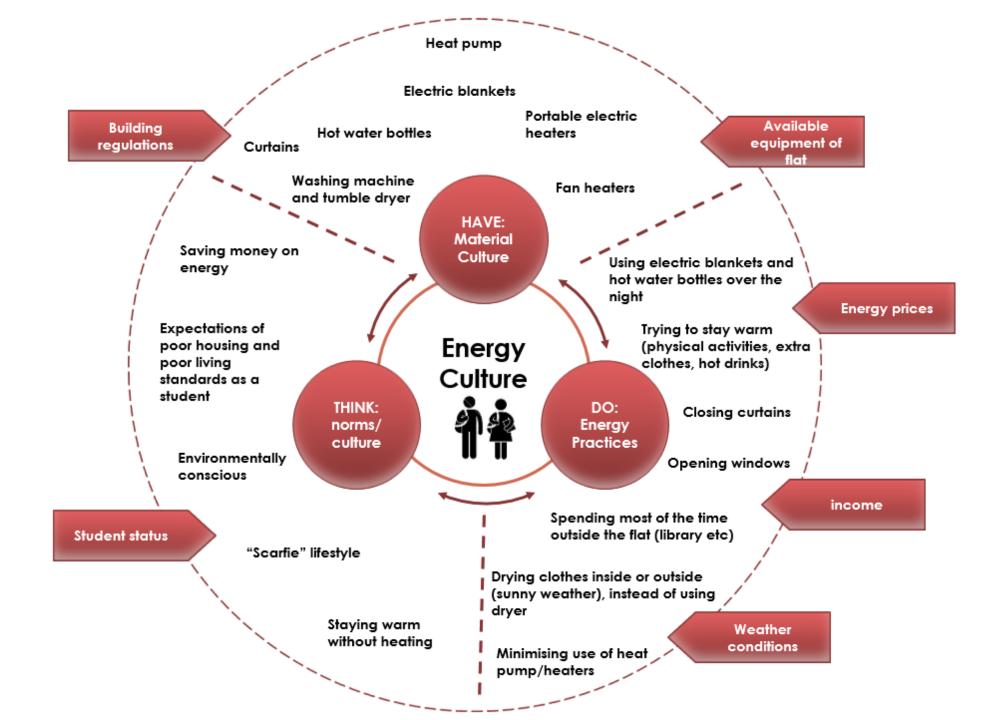
# 3. Up and down



### Rent







#### Student conclusions

#### Regulations

- Hoping that the new regulations will help with insulation.
- Most students conclude that there is a need for more regulation to help bring about change.

#### Market

- Student norms i.e. first years early signups, do not seem to be shifting.
- Often students only stay in rental house for one year so unlikely to want to bring about change.
- Students are often worried about getting their bonds back at the end of the tenancy.

#### Energy behavior

- Acknowledge that they could change this to have a warmer, healthier environment.
- Feel constrained by costs, condition of the rental and their lifestyle.
- Hour of power is important.
- Heatpumps are very common but often not powerful enough or in a good place to heat the house.

# Mouldy student flats caused by 'lifestyle not landlords'

14 Jun, 2018 9:53am © 3 minutes to read



OUSA student support manager Sage Burke says the group is providing free mould-killing solution, comprised of white vinegar and water, for students. Photo / ODT









# Students not to blame for poor flats



Opinion

1 Comment



#### Research directions

- Ambrose, A and McCarthy L (forthcoming), Taming the 'masculine pioneers'? Changing attitudes towards energy efficiency amongst private landlords and tenants in New Zealand: a case study of Dunedin, *Energy Policy*
  - Shift in landlord attitudes over the past 3-5years being amenable to insulation and low energy heat sources.
  - Driven by tenants being prepared to pay more for a warm house.
  - Argue that socio-cultural factors can disrupt norms to bring about change.
- Putting together datasets to look at the tenant perspective.