Tangibilizing Accommodations:
Clustering Occupations to Predict Disability Representation based on Worker Requirements

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INTRODUCTION

- Occupational Information Network (**O*NET**)
  - Currently used occupational database containing requirements for ~1,000 jobs
  - Information on occupations too broad to make personalized worker accommodations claims
- Occupational Requirements Survey (**ORS**)
  - Developed to collect job requirement information to aid worker accommodations process

METHODS

3 datasets used
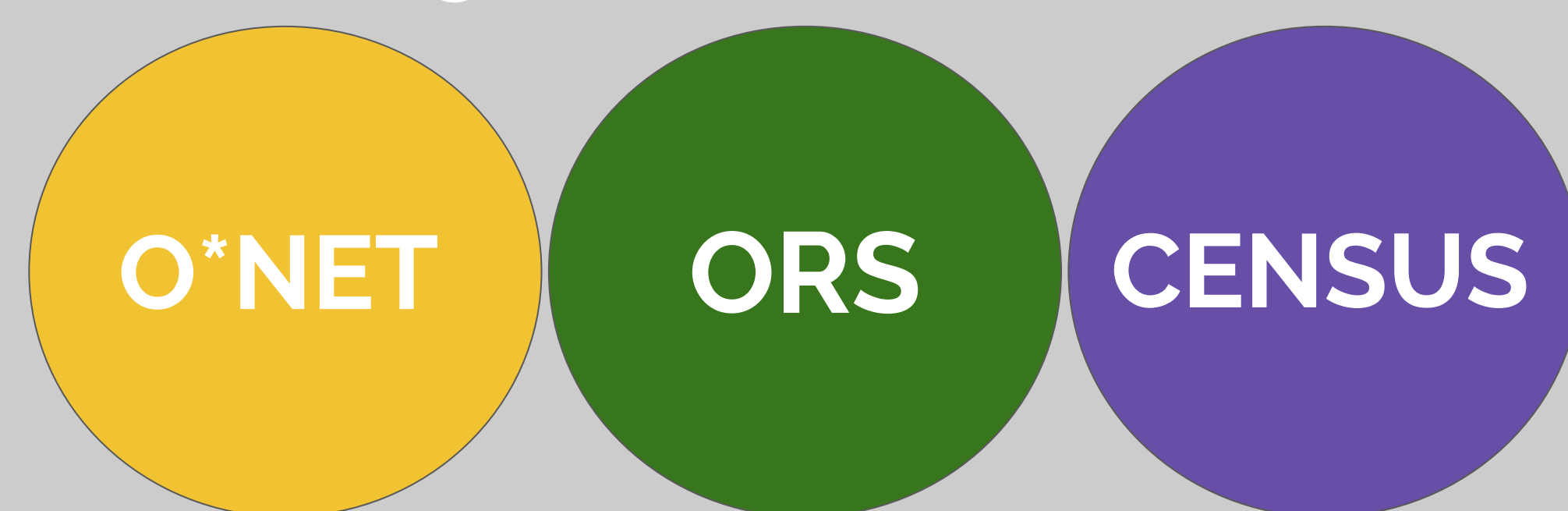
- **Measures of interest**
  - Service occupations
  - Worker requirements
  - Physical disability
 - Total of 25 occupations used in analysis

PROCEDURE

1. Datasets were provided by Bureau of Labor Statistics, Department of Labor, and Census Bureau
2. Datasets cleaned to only contain service occupations and physical requirements/disability, then merged together
3. Cluster and regression analyses conducted

Cluster of O*NET Occupations by Physical and Psychomotor Abilities
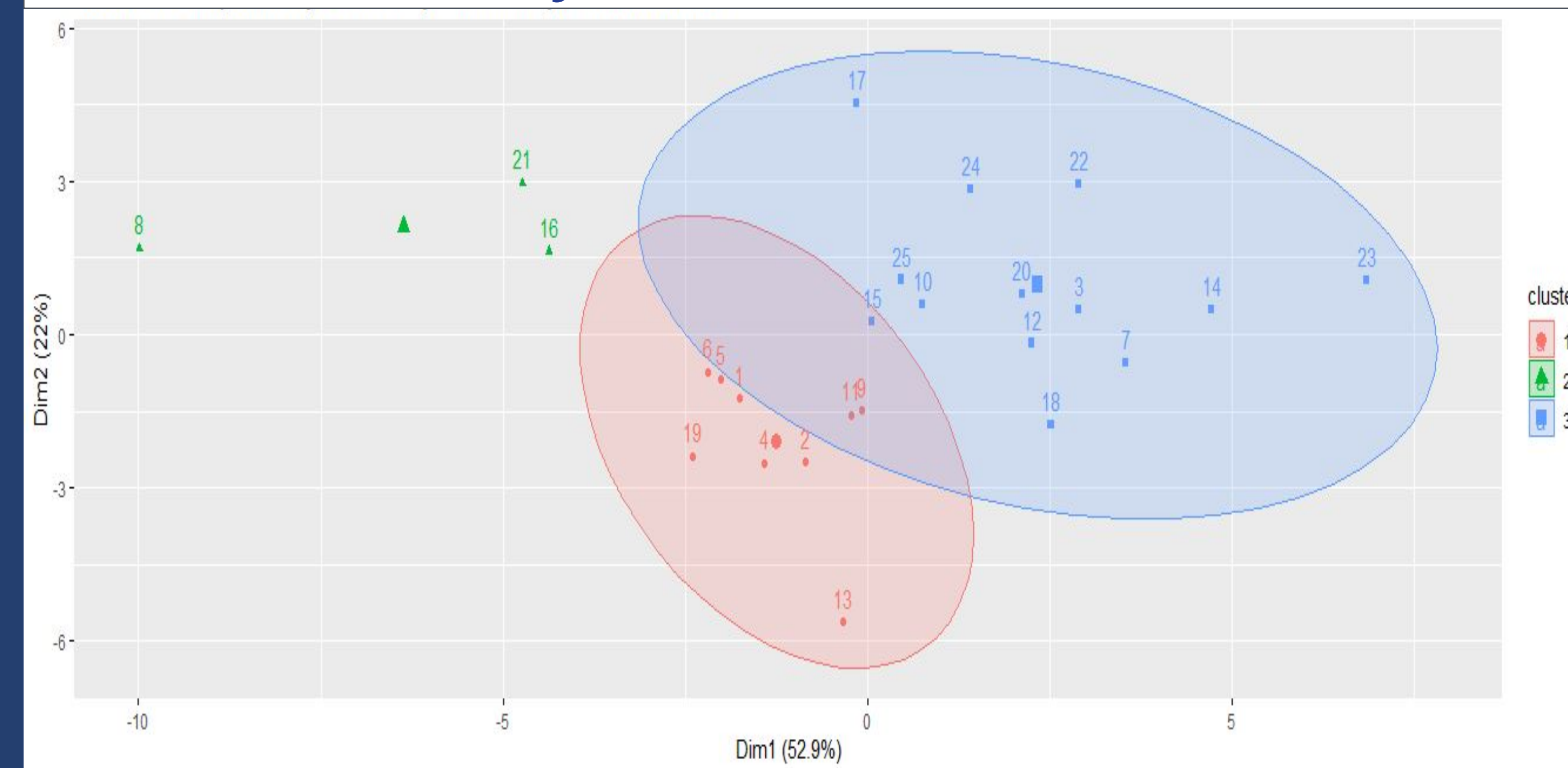
Physical worker requirements of service occupations ***do not*** predict the distribution of workers with a physical disability in service occupations

Cluster of ORS Occupations by Physical Requirements
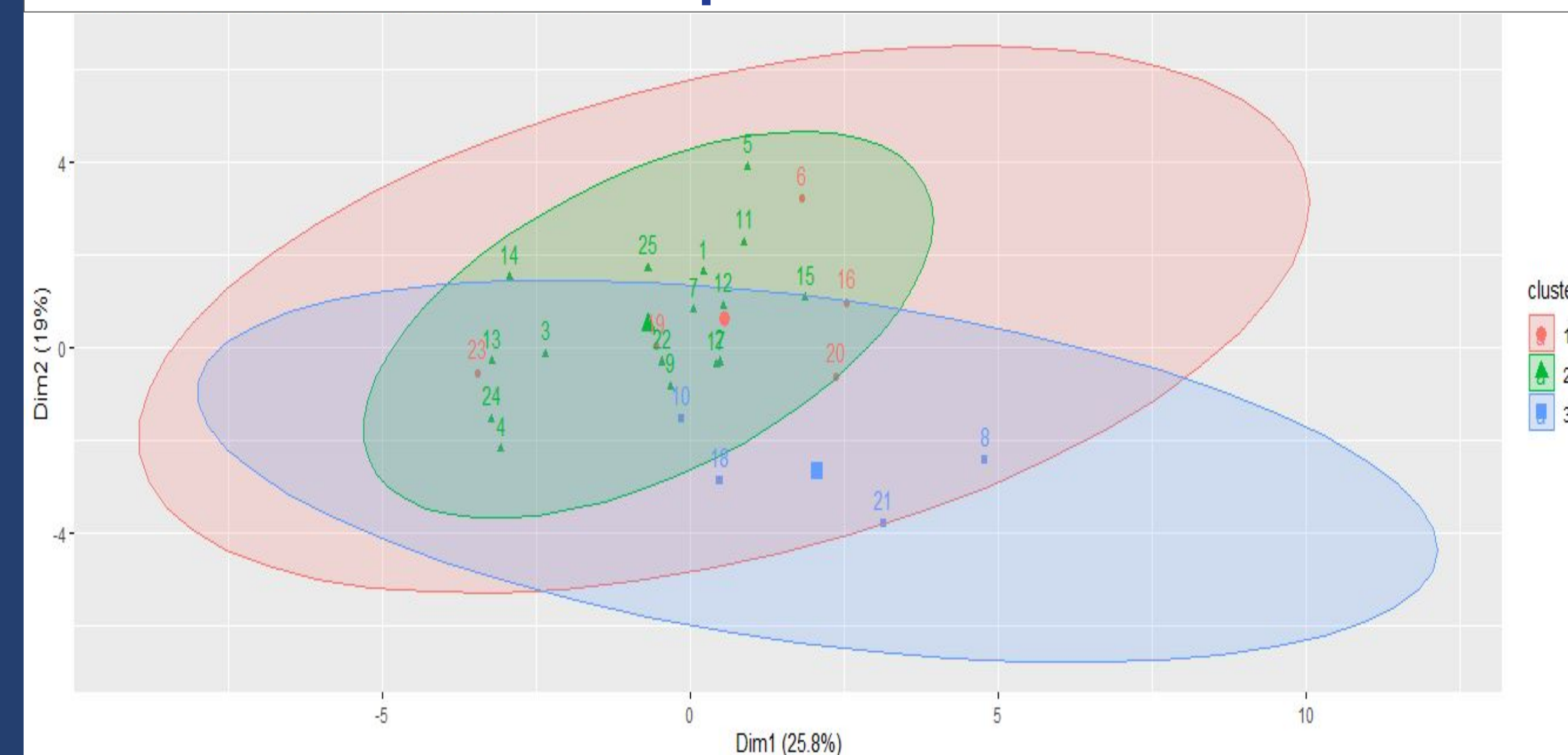
ANALYSIS AND RESULTS

K-means Cluster Analysis
O*NET Cluster:
- 3 clusters: Cluster 1 (n=9), Cluster 2 (n=3), Cluster 3 (n=13)
- Between cluster variance (56.1%)

ORS Cluster
- 3 clusters: Cluster 1 (n=5), Cluster 2 (n=16), Cluster 3 (n=4)
- Between cluster variance (33%)

Regression Analyses
- O*NET Cluster of occupations does not predict distribution of worker disability (F=2.24, p=0.1)
- ORS Cluster does not predict distribution of worker disability (F= 0.12, p=0.8)

DISCUSSION AND DIRECTIONS

- Examining similarities of occupational requirements can provide insight on how workers obtain jobs they may not meet the functional capacity for
  - Alternative explanations must exist for workers who have obtained their jobs (i.e. accommodations)
- Study limited in that it contained only 25 occupations and discrepancies may exist from using data across 3 datasets
- Future directions include clustering across major groups of occupations and utilizing compiled dataset for occupations