

# GLOBE Leadership and Society Surveys

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**Explore the GLOBE**

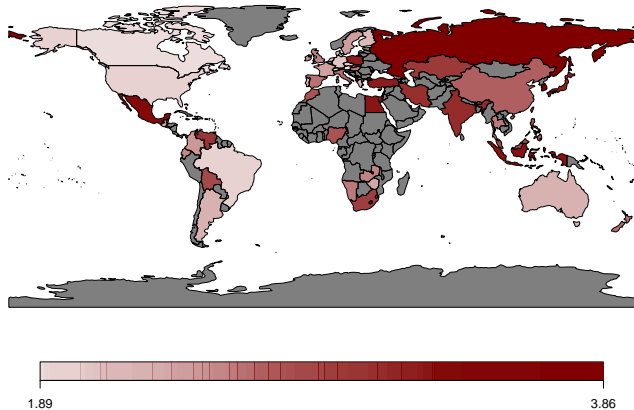
STATS 140XP · Fall 2021

# Introducing the Data

- GLOBE (Global Leadership & Organizational Behavior Effectiveness)
  - Goal: Identify the relationships between various leadership and societal characteristics
  - Over 17,000 middle managers, 62 cultures
  - Leadership survey from 1 (negative) to 7 (positive)
  - Societal survey varied depending on the question
    - Did not end up affecting our analysis
- Outside source: ISO Codes from Wikipedia
  - Uniform identifiers for countries for visualization purposes

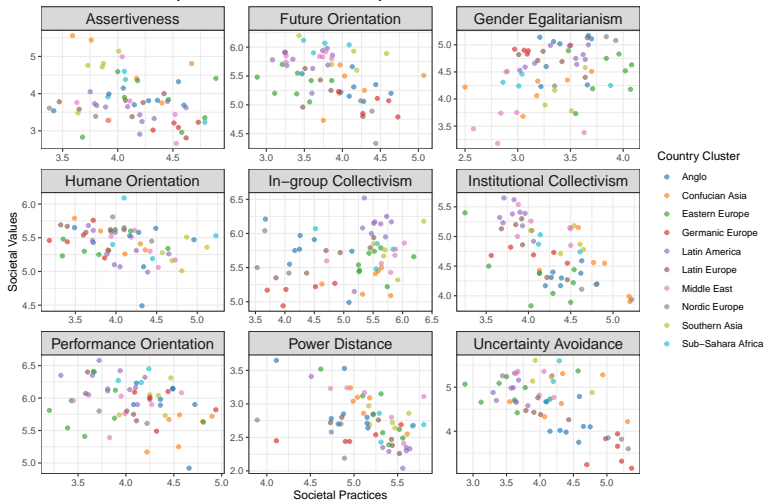
# Exploratory Data Analysis

Autocratic Levels by Country



# Exploratory Data Analysis

Values vs. Practices by Cultural Dimension and Country Cluster



Note: Countries with missing country clusters were excluded.

- ① Which characteristics or traits do countries tend to group together when determining “good” leadership values?
  - Which countries have similar perceptions of these leadership values?
- ② Do societal practices and societal values align?
  - If they do not, which practices and values deviate most significantly?

GLOBE  
Leadership  
and Society  
Surveys

**Explore the  
GLOBE**

Introducing  
the Data

**Analysis**

Conclusions

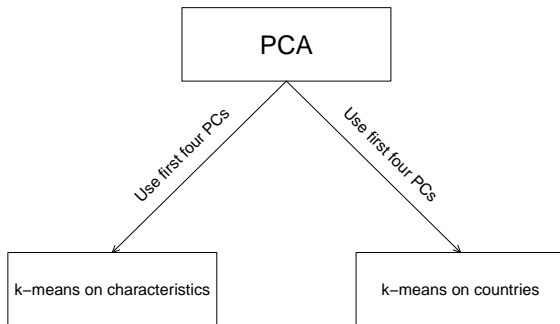
# Analysis

# Leadership Clusters: Methodology

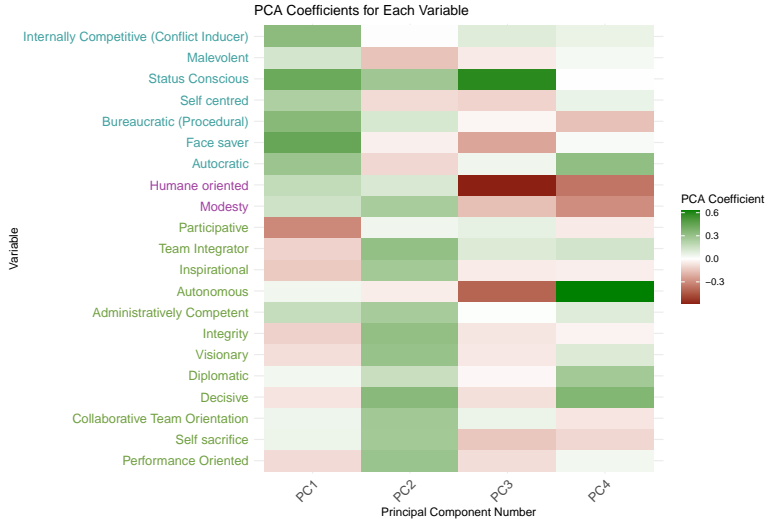
- ① Remove second-order factor analysis variables (difficult for interpretation)
- ② Perform PCA on the remaining numeric variables
- ③ Perform *k*-means clustering on the first four principal components for both characteristics and countries
  - Choose first four PCs because they explain around 80% of the variation



## Methodology for Leadership Analysis



# Leadership Clusters: Characteristics

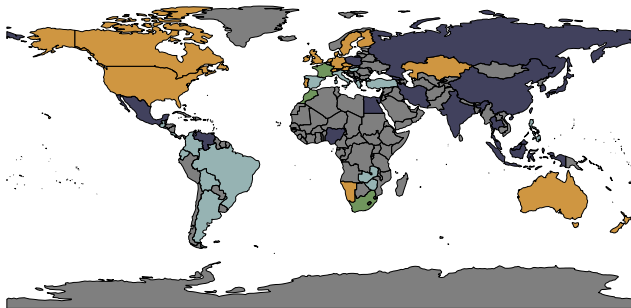


# Leadership Clusters: Characteristics

- ① Internally competitive, malevolent, status conscious, self-centred, bureaucratic, face saver, autocratic
  - Negative characteristics
- ② Humane-oriented, modesty
  - Distinctly different group of two
- ③ Participative, team integrator, inspirational, autonomous, administratively competent, integrity, visionary, diplomatic, decisive, collaborative team orientation, self-sacrifice, performance-oriented
  - Positive characteristics

# Leadership Clusters: Countries

K-Means Clustering ( $k = 4$ ) on the First Four Principal Components

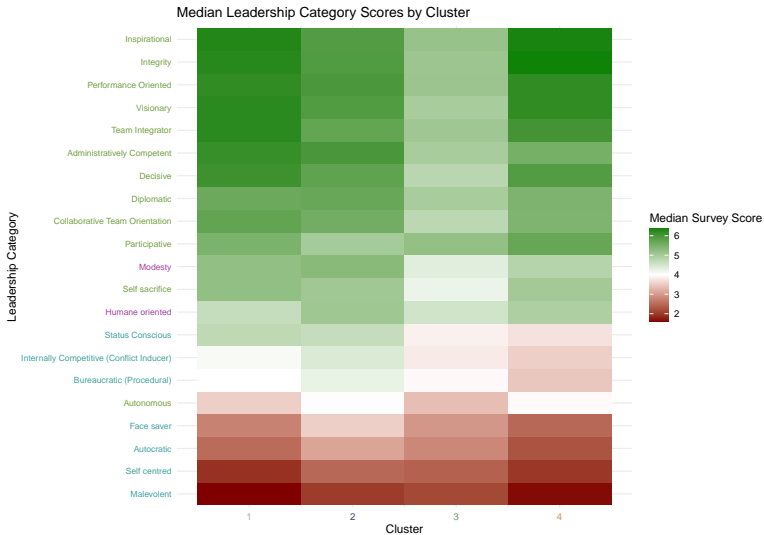


*Note: East, West Germany in the same cluster. South Africa colored by Black sample (rather than the White sample)*

# Leadership Clusters: Countries

- **Light Blue:** Latin America, Mediterranean
- **Dark Blue:** Asia
- **Green:** No specific regionality
- **Gold:** Western and Northern Europe, Anglo

# Leadership Clusters



# Societal Values vs. Practices: Methodology

For each cultural dimension:

- Simple linear regression model:  $y = \beta_0 + \beta_1 x$
- $t$ -test:  $H_0 : \beta_1 = 0$  versus  $H_1 : \beta_1 \neq 0$
- Bonferroni Correction
  - Change significance threshold from  $\alpha = 0.05$  to  $\alpha = \frac{0.05}{9} \approx 0.0056$

# Societal Values vs. Practices: Findings

Table 1: Results of Simple Linear Regression by Cultural Dimension

Cultural Dimension	Coefficient Value	p-value
Uncertainty Avoidance	-0.6199	0.0000
Institutional Collectivism	-0.5251	0.0000
Power Distance	-0.4991	0.0006
Future Orientation	-0.4725	0.0009
Humane Orientation	-0.5944	0.0116
Gender Egalitarianism	0.2437	0.0124
Performance Orientation	-0.3459	0.0268
Assertiveness	-0.1507	0.0414
In-group Collectivism	0.4393	0.0991



# Conclusions

- Characteristics clustered largely on negative or positive connotations
  - Exceptions: Humane oriented, modesty
- Countries clustered heavily on geographic region
  - Exceptions: Green cluster

# Societal Values vs. Practices

- Practices do not align
  - Correlations often negative
- Consider how this might affect policy implementation

- Investigate how other indices (e.g., freedom index, happiness index, government approval ratings) explain groupings for leadership values
- Potential causes behind inverse relationship between societal values and practices
  - Are people valuing certain things *because* they aren't present in the society?
- Expand the survey to more countries to see if regional trends/clusters remain

- Only 62 cultures observed
- Some countries split
  - Germany: East vs. West (possibly related to Berlin Wall)
  - South Africa: White vs. Black (possibly related to Apartheid)
- Data appears to be from 15+ years ago
  - Potentially outdated information
  - May consider a resurvey
- Unsure of how second-order factor analysis performed
- No “official” codebook—just found the survey questions