

HOUSEHOLD GENDER EQUALITY DURING COVID-19

by Matt Ranalletta



DATA COLLECTION



GLOBAL SURVEY

Facebook, World Bank, UN Women,
Equal Measure 2030, Ladysmith

**Gender Equality + COVID-19's impact,
July 2020**

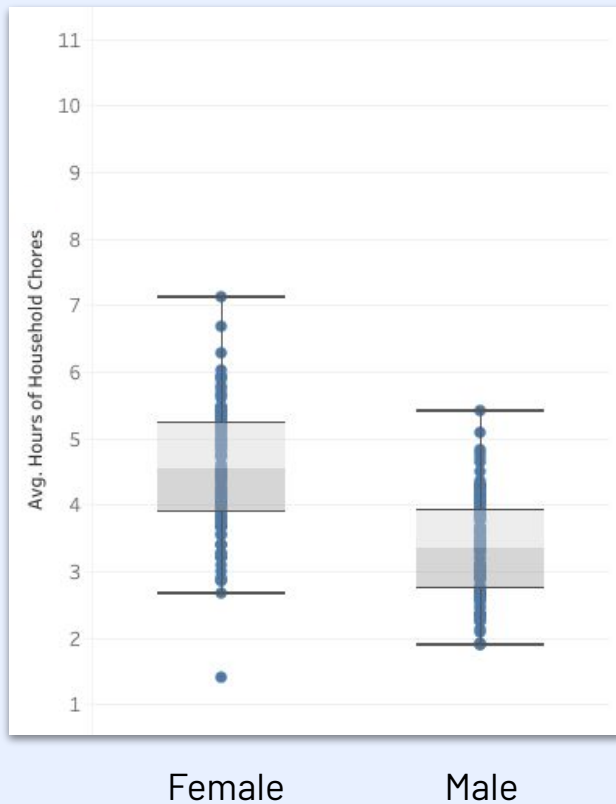


COVID-19 CASES

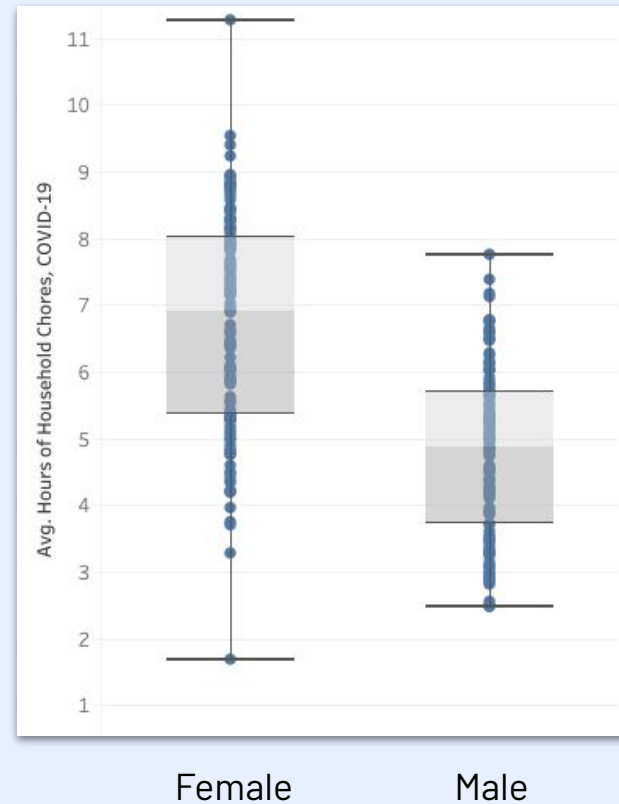
Our World in Data,
Johns Hopkins University

**Per capita cases and deaths,
through July 2020**

**Pre-Pandemic
Reported Housework by Gender**



**July 2020
Reported Housework by Gender**



“COVID-19 HARDSHIP”

1

School canceled or reduced

2

Migrated to different geographical area

3

Difficulty accessing medical supplies

4

Longer wait time for medical care

5

Lost a job

6

Lost access to public transit

7

Unable to seek medical care

8

Isolated or following quarantine order

REGRESSION PROCESS

Cleaning and
pre-processing

STEP 1

Feature Engineering

STEP 3

Metrics and
Visualization

STEP 5

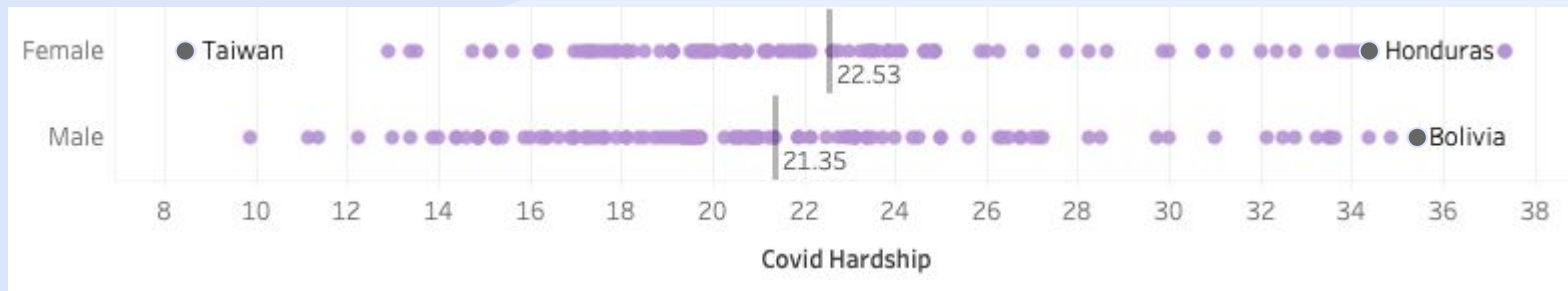
STEP 2

Standardization and
Regularization

STEP 4

Final Model Selection





3.71

**Root Means
Square Error**



FEATURE IMPORTANCE

| POSITIVE CORRELATION with "COVID-19 Hardship" | NEGATIVE CORRELATION with "COVID-19 Hardship" |
|--|---|
| Country in the Americas (+2.55) | Living alone (-1.72) |
| More likely to have internet access (+2.01) | Higher Human Development Index (-0.71) |
| COVID-19 cases per capita (+0.99) | COVID-19 deaths per capita (-0.57) |
| More likely to say you have an unsafe home (+0.95) | "Men and women should have equal opportunities" (-0.50) |
| Country in Sub-Saharan Africa (+0.88) | Population of country (-0.15) |

(And of course, being female)

FUTURE WORK

FUTURE CASES AND SURVEYS

Updated model based on new survey
and COVID-19 case data

EXPLORE USE CASES FOR EQUALITY & EQUITY IN PUBLIC HEALTH

Focus on workplace or other
economic effects of the pandemic or
of other common ailments



THANKS!

Questions?

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