



All About Coffee:

Exploring Digital Data on Coffee Using Computational Methods

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Research Questions

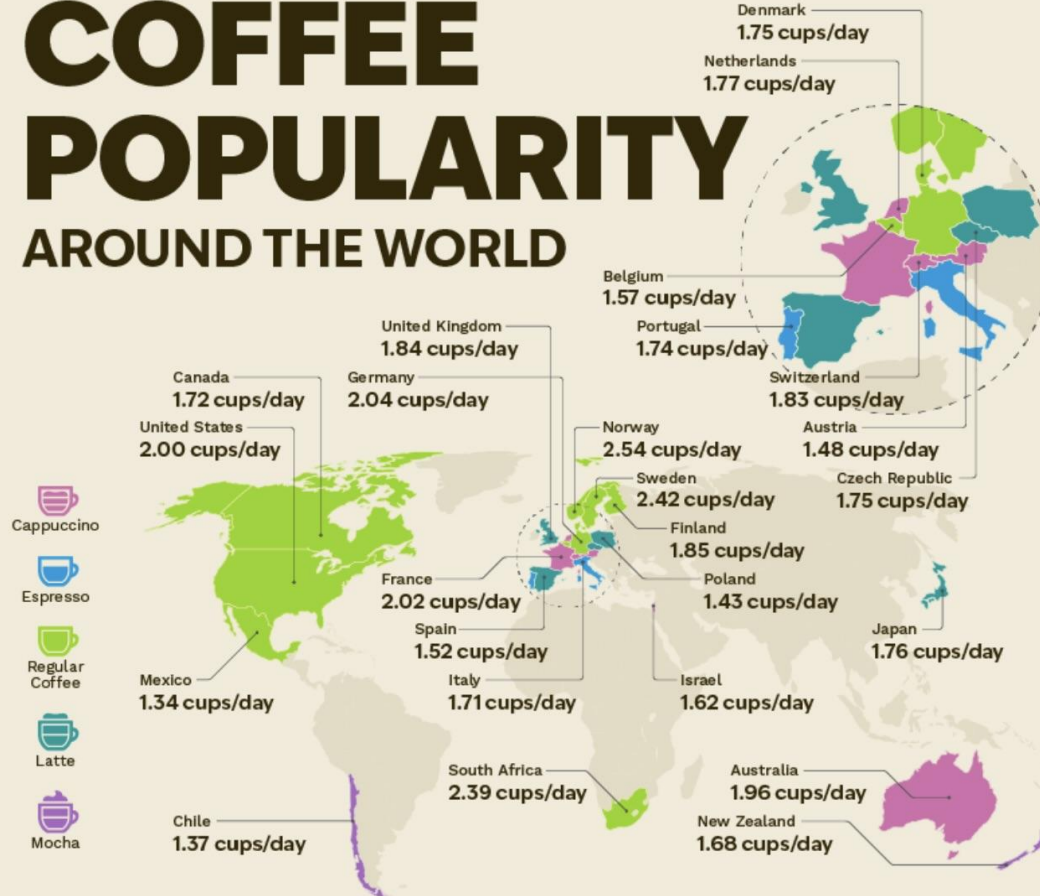
- How are people discussing coffee on different social media platforms?
- What other information can we gather about the US coffee industry?

Overview & Data

- Reddit Discussion
- Twitter Discussion
- Coffee Industry

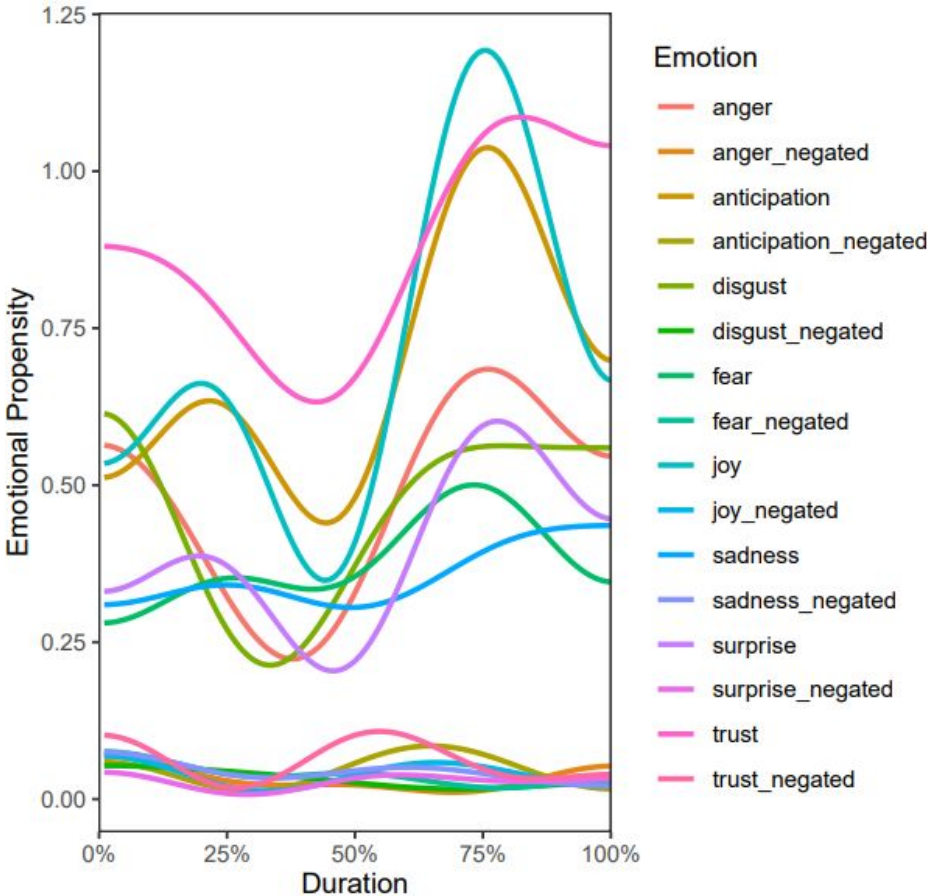


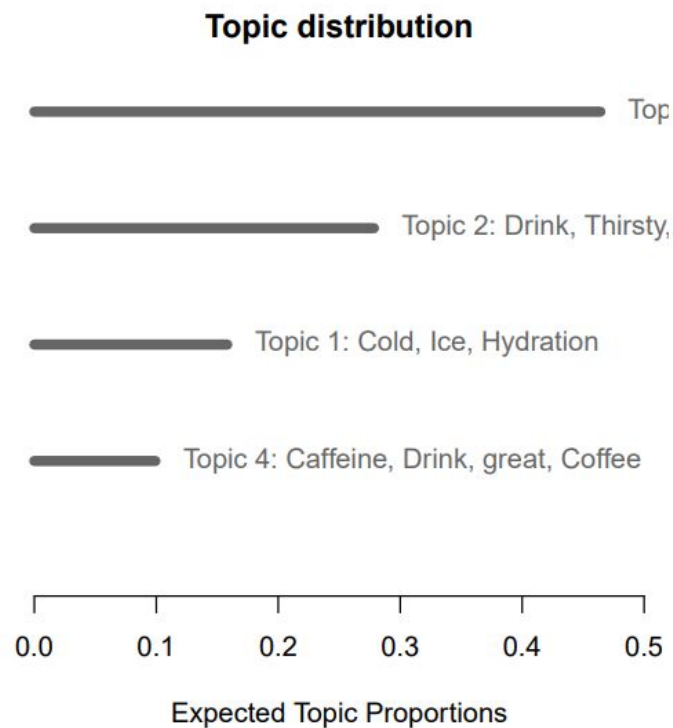
COFFEE POPULARITY AROUND THE WORLD

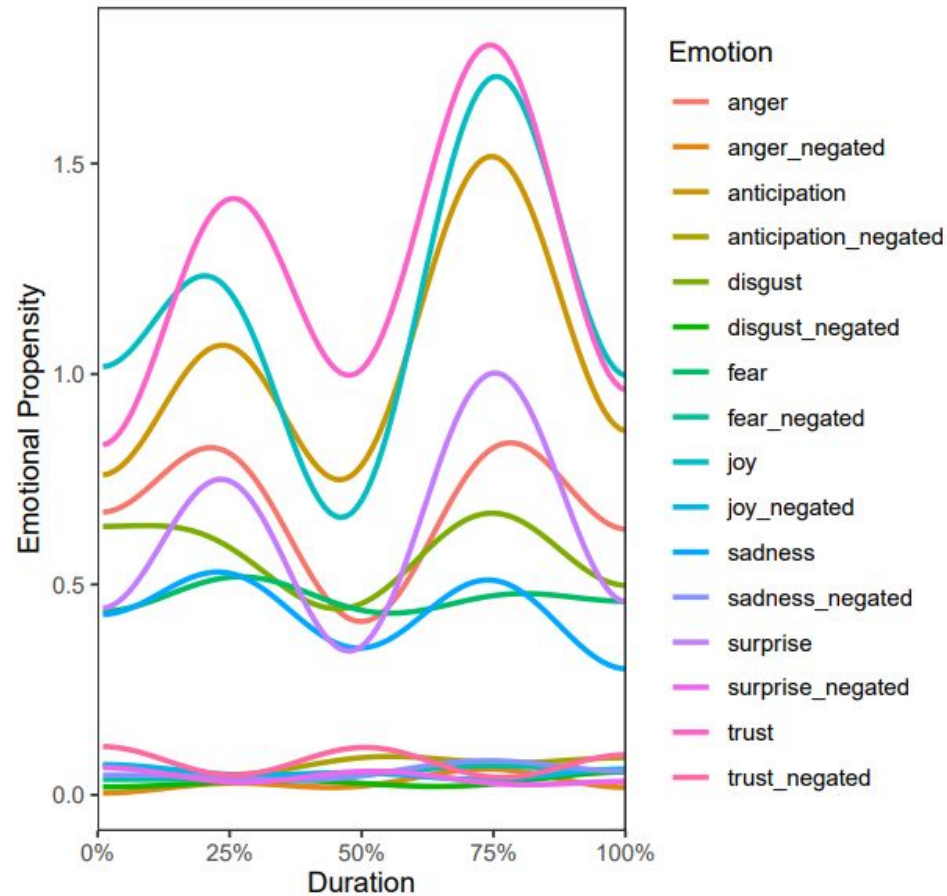


Based on Preferred Coffee Type and Number of Cups Drunk per Day, According To Survey Responses From Over 2,000 People

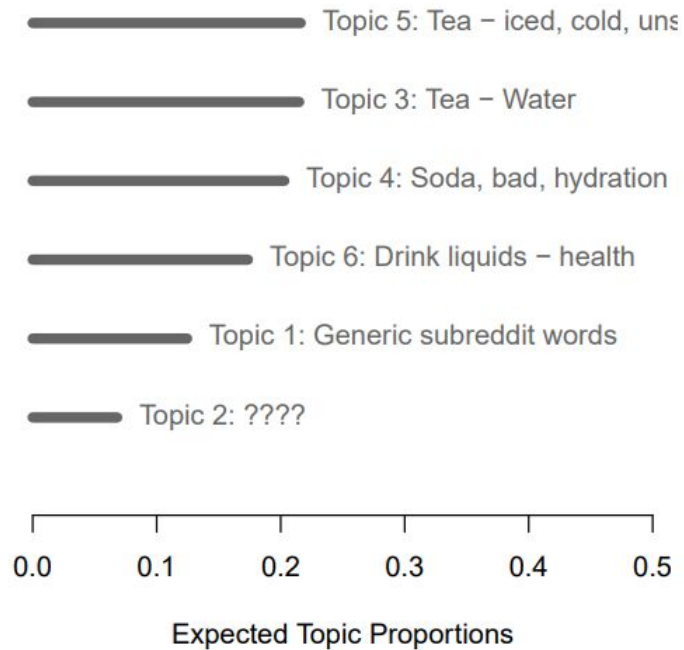
r/HydroHomies - Coffee



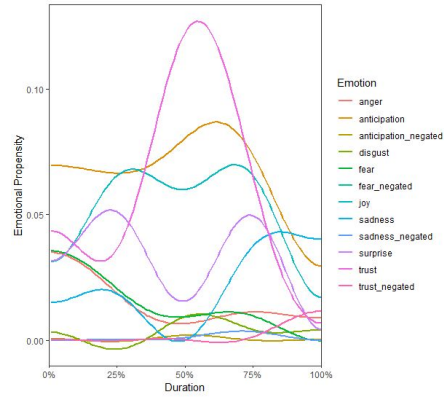




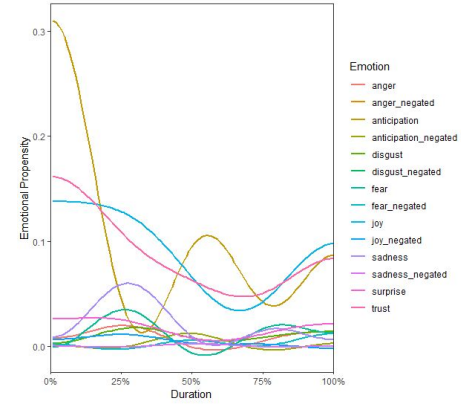
Topic distribution



#coffeebreak tweets

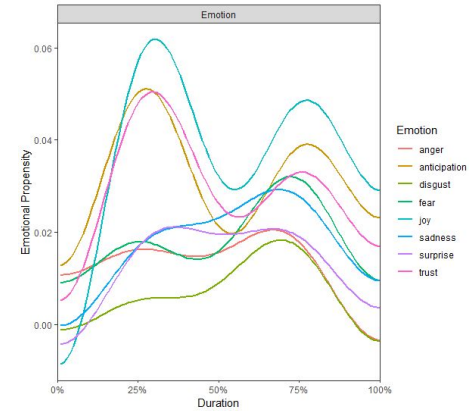
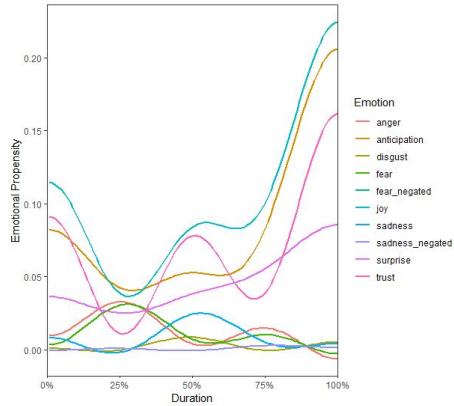


#teatime tweets



Individuals

Businesses



#coffeebreak tweets

coffeebreak

Individuals

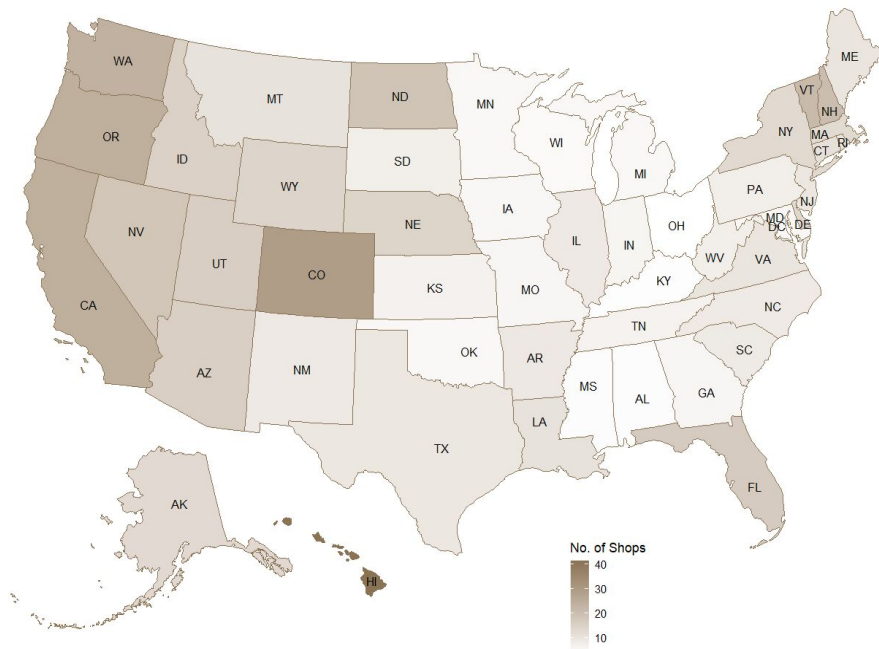
Businesses

#teatime tweets

A word cloud for the word 'tea'. The word 'tea' is the largest and most prominent, written vertically on the left side. Other words include 'believe', 'things', 'organic', 'mug', 'recipe', 'looking', 'black', 'large', 'mother', 'will', 'small', 'one', 'these', 'get', 'body', 'classic', 'pot', 'green', 'tea', 'like', 'movies', 'and', 'MMM', 'did', 'great', 'good', 'afternoon', 'heres', 'ink', 'make', 'day', 'tealover', 'next', 'take', 'design', 'gardenia', 'chinnasty', 'breakfast', 'can', 'vanity', 'happy', 'health', 'spot', 'teas', 'teaparty', 'best', 'learn', 'the', 'standard', 'you', 'post', 'know', 'am', 'follow', 'you', 'book', 'etsy', 'and', 'aplos', 'drinkeat', 'win', 'friends', 'starbucks', 'CUP', 'its', 'work', 'coffee', 'vintage', 'bread', 'check', 'this', 'teas', 'and', 'books', 'tealovers', 'teatime', 'afternoontea', 'tower', 'heart'. The words are arranged in a circular pattern around the central word 'tea'.

Coffee Industry

Number of Coffee Shops in the US
Per 100k People



Coffee Industry

	Mean Hours of Full-time Workers			
	Model 1	Model 2	Model 3	Model 4
Shops per	-0.13 (0.10)		-0.12 (0.11)	-0.36 (0.60)
Average		-2.07 (1.71)	-1.75 (1.73)	-2.94 (3.32)
Shops * Avg				0.10 (0.25)
Intercept	45.29 *** (1.41)	48.56 *** (4.03)	49.14 *** (4.05)	51.91 *** (7.76)
N	47	47	47	47
R2	0.04	0.03	0.06	0.06

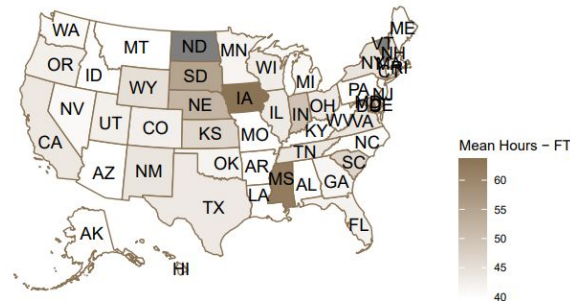
*** p < 0.001; ** p < 0.01; * p < 0.05.

	Mean Hours of Part-Time Workers			
	Model 1	Model 2	Model 3	Model 4
Shops per	0.02 (0.05)		0.02 (0.05)	-0.03 (0.27)
Average		0.31 (0.75)	0.27 (0.77)	0.04 (1.53)
Shops * Avg				0.02 (0.11)
Intercept	18.31 *** (0.64)	17.85 *** (1.76)	17.73 *** (1.80)	18.24 *** (3.56)
N	50	50	50	50
R2	0.00	0.00	0.01	0.01

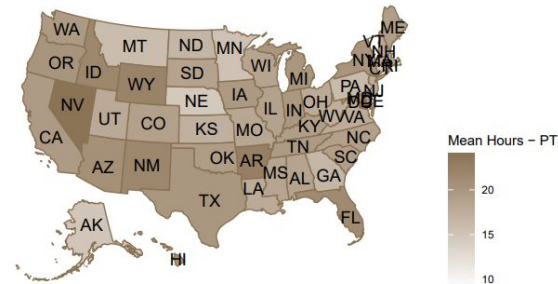
*** p < 0.001; ** p < 0.01; * p < 0.05.

Source: American Community Survey 2019 (ACS)

Mean Hours Worked Per Week of Full-Time Coffee Workers



Mean Hours Worked Per Week of Part-Time Coffee Workers

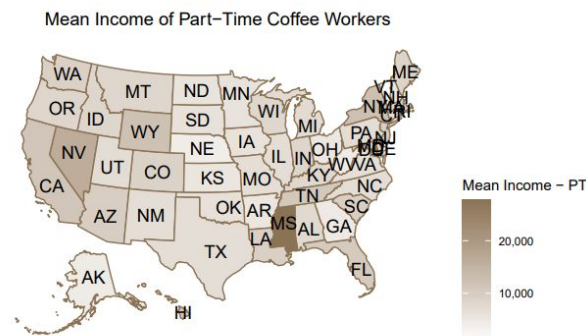
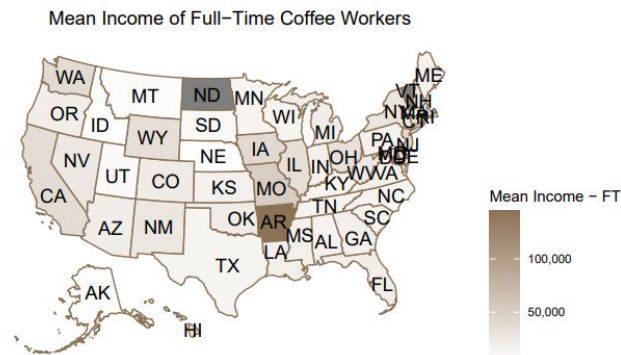


Coffee Industry

	Mean Income of Full-time Workers			
	Model 1	Model 2	Model 3	Model 4
Shops per	82.41 (404.38)		95.46 (414.58)	-2592.02 (2315.91)
Average		-1027.49 (6656.57)	-1289.28 (6823.13)	-14260.84 (12927.77)
Shops * Avg				1127.24 (955.84)
Intercept	23649.77 (5519.18)	26963.53 (15677.33)	26479.99 (15983.49)	56754.79 (30203.37)
N	47	47	47	47
R2	0.00	0.00	0.00	0.03
*** p < 0.001; ** p < 0.01; * p < 0.05.				

Mean Income of Part-Time Workers				
	Model 1	Model 2	Model 3	Model 4
Shops per	46.69		33.60	61.00
	(73.95)		(74.29)	(421.52)
Average		1582.76	1504.62	1641.83
		(1192.40)	(1214.76)	(2412.46)
Shops * Avg				-11.56
				(174.98)
Intercept	7447.06	4368.96	4152.57	3833.01
	(1030.69)	(2786.65)	(2850.49)	(5629.41)
N	50	50	50	50
R2	0.01	0.04	0.04	0.04

*** p < 0.001; ** p < 0.01; * p < 0.05.



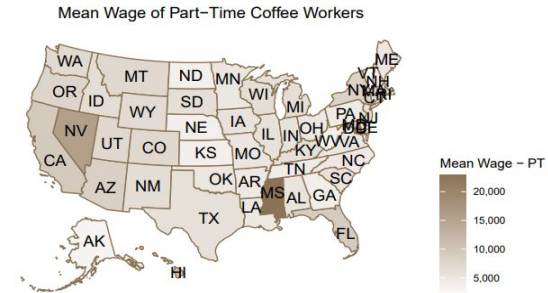
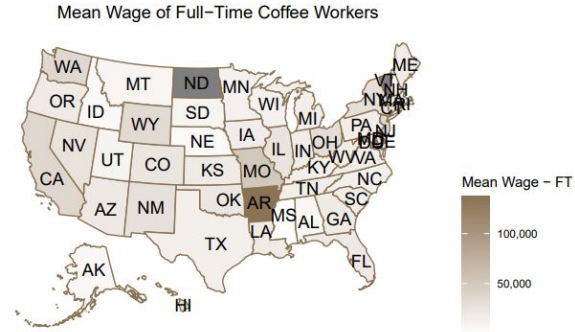
Coffee Industry

Mean Wage of Full-Time Workers				
	Model 1	Model 2	Model 3	Model 4
Shops per 100k	201.49		179.76	-2528.26
	-394.02		-403.64	-2252.24
Average Price of Coffee		2639.01	2146.03	-10924.69
		-6491.7	-6643.19	-12572.36
Shops * Avg Price				1135.86
				-929.56
Intercept	19569.86 ***	15769.45	14858.91	45365.14
	-5377.81	-15289.03	-15561.97	-29373.01
N	47	47	47	47
R2	0.01	0	0.01	0.04

*** p < 0.001; ** p < 0.01; * p < 0.05.

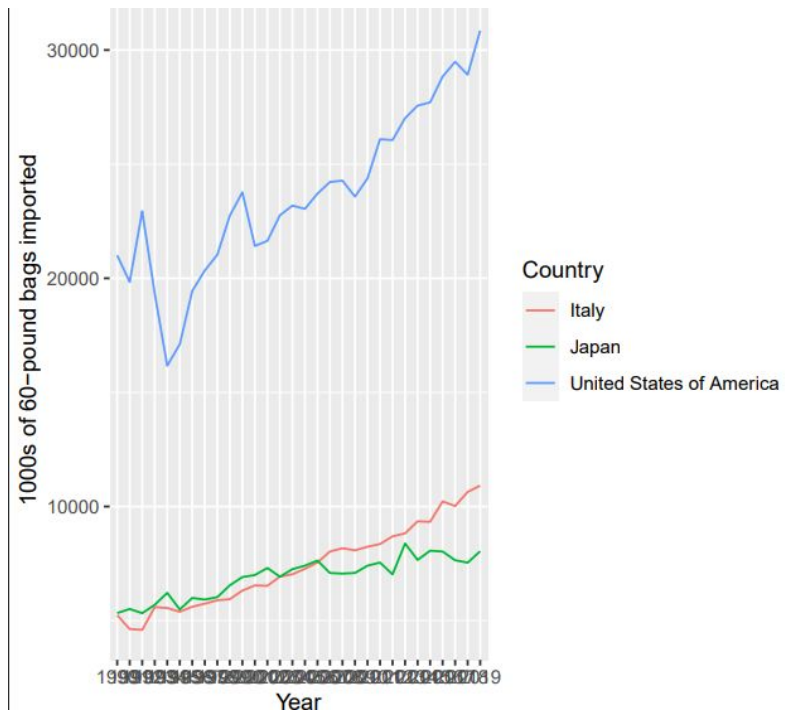
Mean Wage of Part-Time Workers				
	Model 1	Model 2	Model 3	Model 4
Shops per	77.29		72.92	-48.80
	(61.53)		(62.66)	(355.07)
Average		671.69	502.09	-107.29
		(1017.89)	(1024.58)	(2032.18)
Shops * Avg				51.35
				(147.40)
Intercept	5306.44	4676.74	4207.07	5626.25
	(857.66)	(2378.82)	(2404.21)	(4742.03)
N	50	50	50	50
R2	0.03	0.01	0.04	0.04

*** p < 0.001; ** p < 0.01; * p < 0.05.

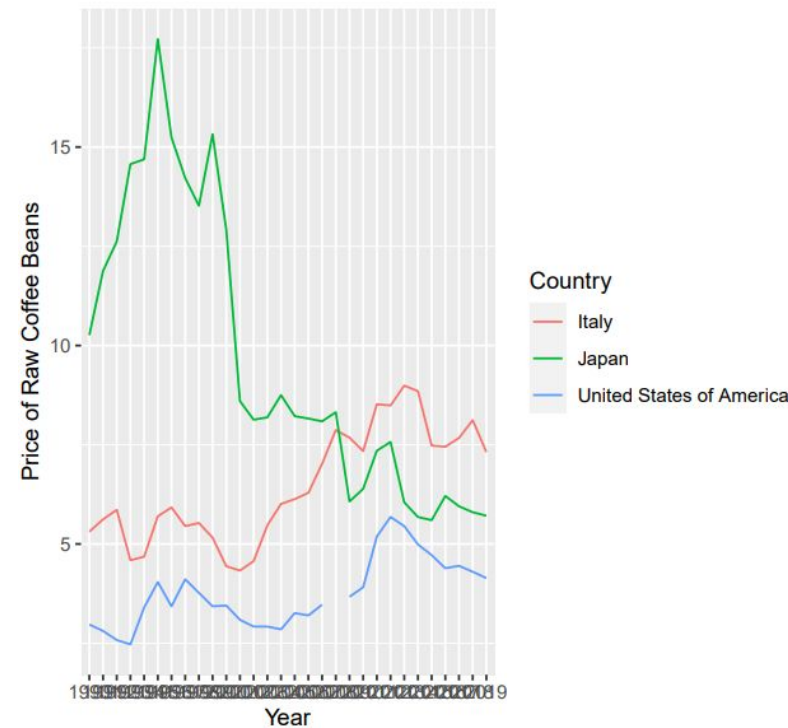


Coffee Industry

Coffee Imports by Country



Raw Coffee Bean Price by Country



Conclusions/Reflections



- Obstacles and limitations
- Reddit & Twitter
- Various methods
- Final workshop thoughts