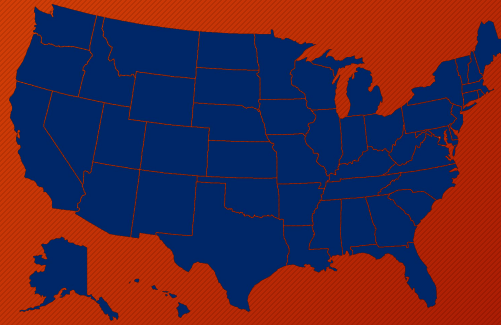# Team 4: Suicide Rates in the US 1985-2015

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Research Question

How do demographic (e.g. sex, age, generation) and socioeconomic factors (e.g. year, GDP) correlate with suicide rates in the United States?

Data Source

- Data source: Kaggle dataset derived from WHO, World Bank, UN Development Program

- Overview

year	sex	age	suicides_no	population	suicides.100k.pop	country.year	HDI.for.year	gdp_for_year....	gdp_per_capita....	generation
1985	male	05-14 years	205	17370000	1.18	United States1985	0.841	4,346,734,000,000	19693	Generation X
1985	female	05-14 years	73	16553000	0.44	United States1985	0.841	4,346,734,000,000	19693	Generation X
1986	male	05-14 years	199	17338000	1.15	United States1986	NA	4,590,155,000,000	20588	Generation X
1986	female	05-14 years	56	16517000	0.34	United States1986	NA	4,590,155,000,000	20588	Generation X
1987	male	05-14 years	199	17486000	1.14	United States1987	NA	4,870,217,000,000	21631	Generation X
1987	female	05-14 years	52	16660000	0.31	United States1987	NA	4,870,217,000,000	21631	Generation X

Data Analysis

	US	n	Mean	Sd	Min	Max
IV	Sex	186 per level(2)				
	Age	62 per level(6)				
	Generation	372				
	Year	12 per level(31)			1985	2015
	GDP	372	39,270	12,334.12	19,693	60,387
DV	Suicide rates	372	13.82	13.23	0.26	58.95

US suicide rate across all demographic groups from 1985 to 2015
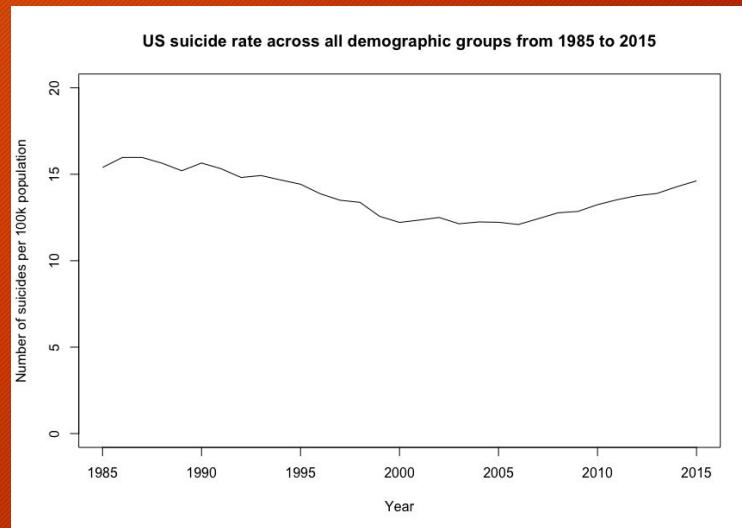
Findings

○ **In the factors that we considered for the research question, Sex and Age have a significant relationship with suicide rates. However, Year, Generation, and GDP do not.**

○ **Suicide rates in males were higher than females, and age showed a positive correlation.**
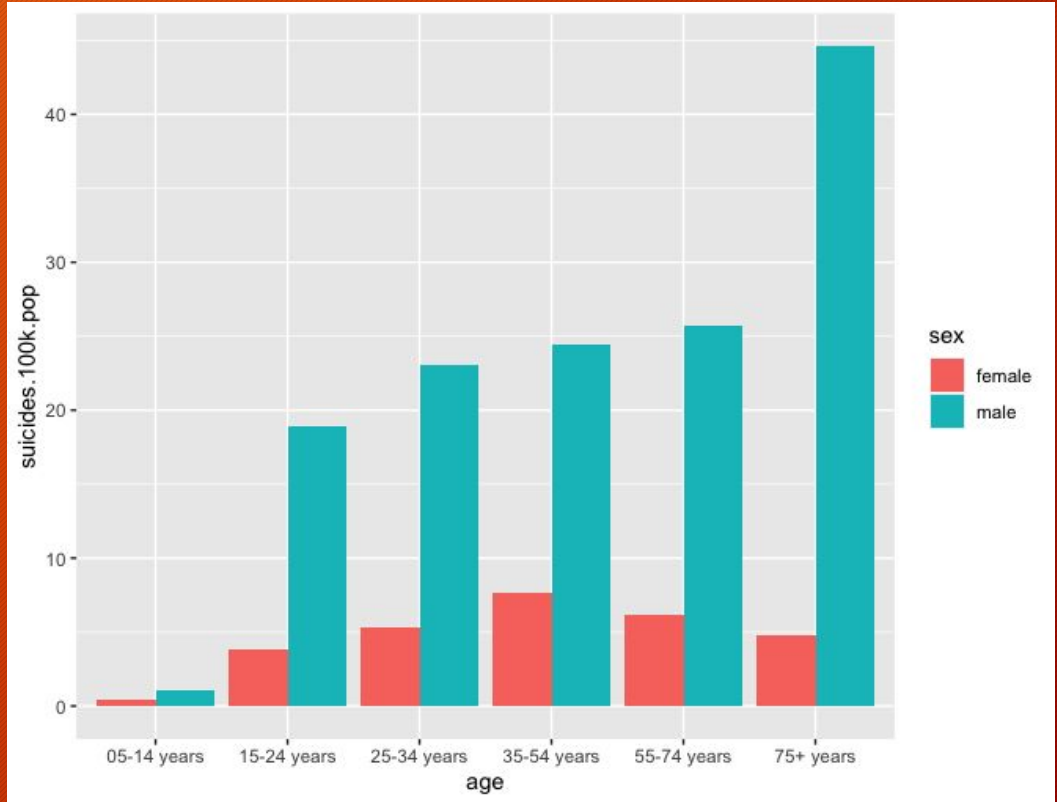
Findings

	Coefficient	T value	P value
Sex$Male	18.29	t(365) =27.58	p < .01
Age (15-24)	10.61	t(365) = 9.24	p < .01
Age (25-34)	13.44	t(365) = 11.70	p < .01
Age (35-54)	15.31	t(365) = 13.33	p < .01
Age (55-74)	15.21	t(365) = 13.24	p < .01
Age (75+)	23.95	t(365) = 20.85	p < .01

Conclusion

- The findings that certain genders (i.e. male) and older age groups are more likely to die by suicide could imply that these populations require more preventative social welfare support.

- There should be more studies done in this topic that investigate the reasons for the increased risk in suicide for men and especially older men (75+).

- It's interesting to note that the differences of suicide rates between generations are not significant, despite the growing awareness of mental health issues in the US over time.

- Our findings are limited to the United States and therefore can't be generalized to the entire world.