



# **High-Income countries & Happiness-** an investigation...

-TEAM DATA SURFERS  
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# Context

## Global Happiness Index

- Global Happiness Index is a **comprehensive survey instrument** that assesses happiness, wellbeing, and aspects of sustainability and resilience.
- It is a **happiness measure** based on survey data that is used in the **World Happiness Report**.
  - The respondents are asked to rate their happiness on a scale of 0 to 10 in the survey.
  - This year marks the 10th anniversary of the World Happiness Report

## Context

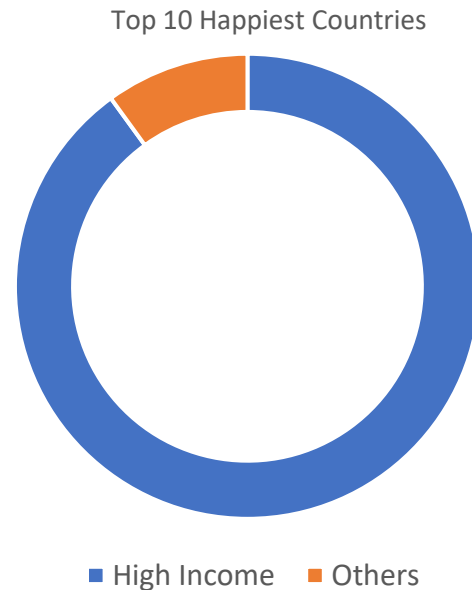
### High Income countries

- The **World Bank** classifies income classes that categorise economies into **high-income**, upper middle-income, lower middle-income, and low-income countries.

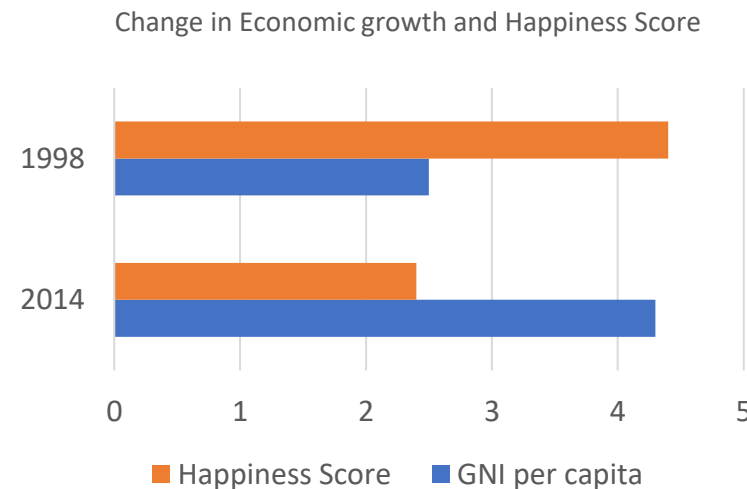
GNI per capita	Classification
< \$1,025	Low-income
between \$1,026 and \$3,995	Lower middle-income countries
between \$3,996 and \$12,375	Upper middle-income countries
<b>\$12,376 or more</b>	<b>High-income countries</b>

# Do high income countries tend to be happier than other countries?

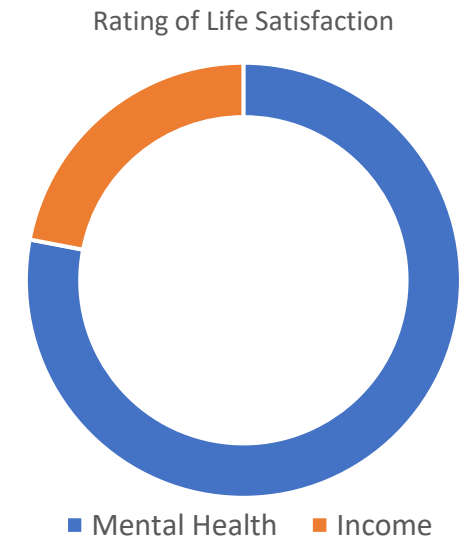
Some facts....



In 2021, **90% countries** in the Top 10 Global Happiness Rank were High income



In the US, despite steady economic growth from 1998-2014, there was a **4% decline in Happiness Score**



Within High-income countries, 78% people related **Mental Health with life satisfaction** rather than Income in 2022



## Dataset description

**Assumptions:** The data used is at the country level so we are assuming that individual opinions contributed to forming the opinions of that country.

**Sources of data:**

- World Bank data
- OECD Library
- World Happiness Report (publication of the Sustainable Development Solutions Network, powered by the Gallup World Poll data)
- **Dataset:** 154-156 observations and 10-20 variables
- **Time Period:** 2018-2021

**Data Cleaning:** Reshaping of existing data, subsetting, combining various fields from different files, etc was done before plotting



# Factors affecting Happiness score



**GDP per capita**



**Healthy life expectancy**



**Freedom**



**Education**



**Generosity**



**Social support**



**Perceptions of corruption**

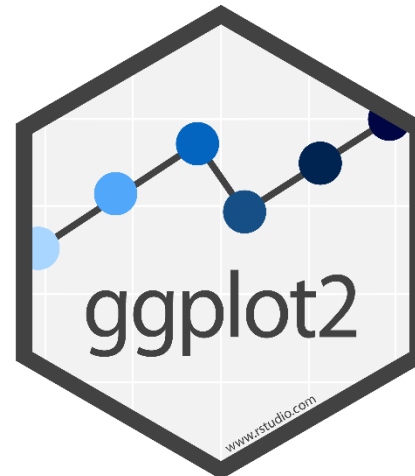
# OBJECTIVES

- **Identify High Income** countries from the given data pool and compare every aspect with other countries.
- Discover trends of Happiness Score and income level of countries regarding each of the aspects- **Finance, Family Aspect, Freedom, Education and Health.**

## SCOPE OF WORK

- **Some aspects** for discovering trends of Global Happiness were not taken up such as feeling of a dystopia within the country, Disaster Risk, Generosity, etc.

# Data Visualization App: R-studio & ShinyApp





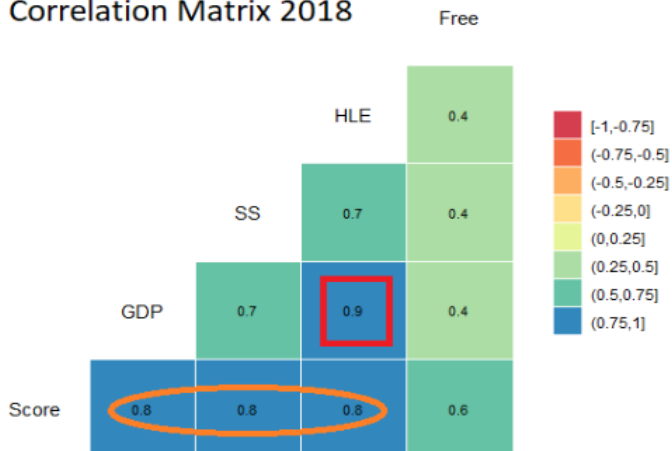
# Do higher income countries tend to be happier?

shinythemes/css/yeti.min.css

Happiness World Correlation Matix GDP Social Support Freedom Health Life Expectancy

**Correlation matrix among Happiness Score (Score), Freedom (Free), Healthy Life Expectancy (HLE), GDP and Social Support (SS)**

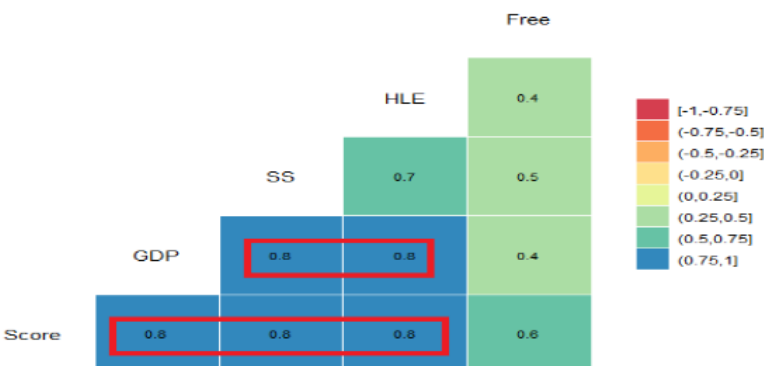
Correlation Matrix 2018



Correlation Matrix 2019



Correlation Matrix 2020



Correlation Matrix 2021



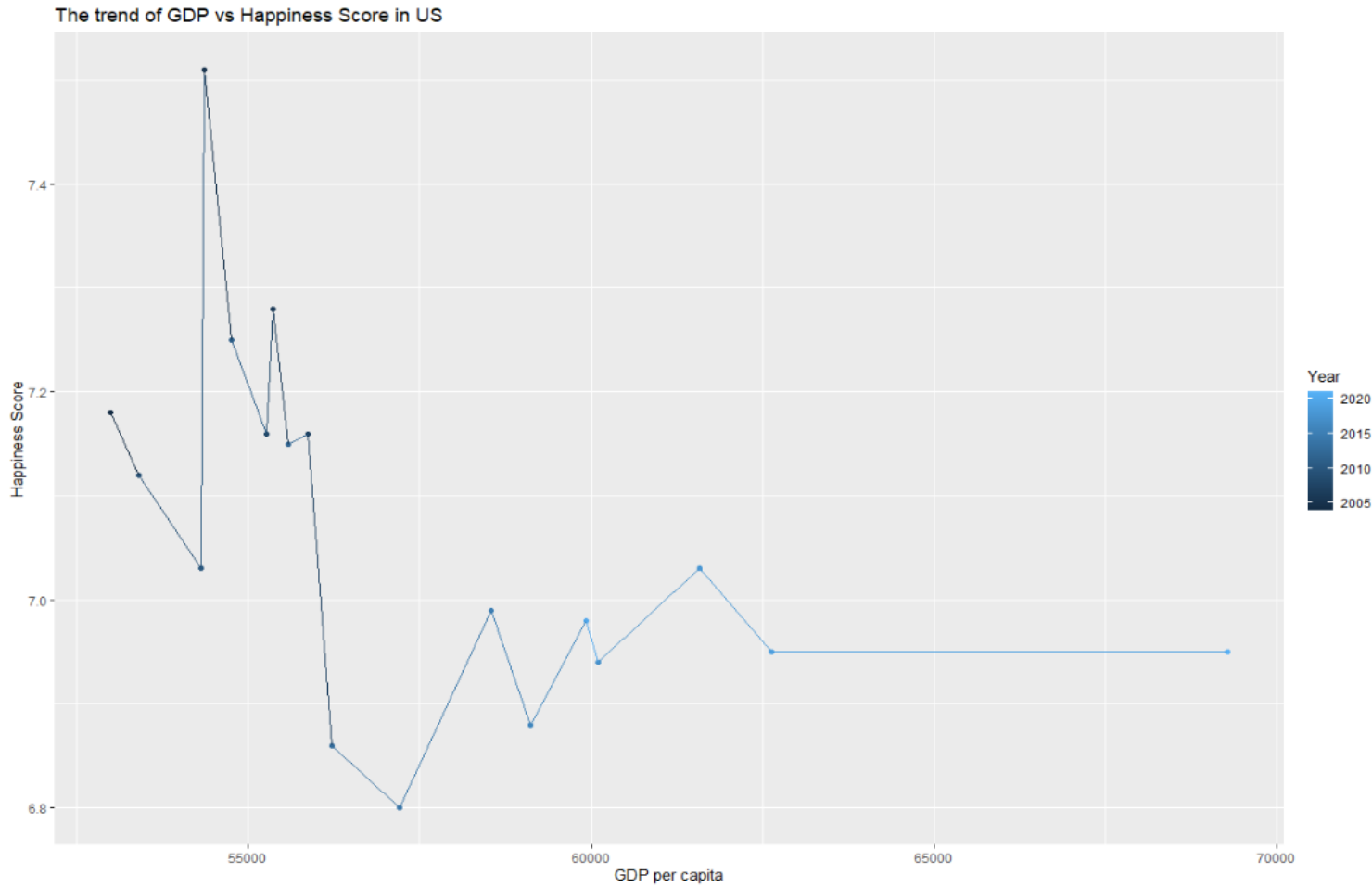
# Do higher income countries tend to be happier?

shinythemes/css/yeti.min.css

Select

US GDP vs Happiness Score

## US happiness score vs GDP shows a declining trend



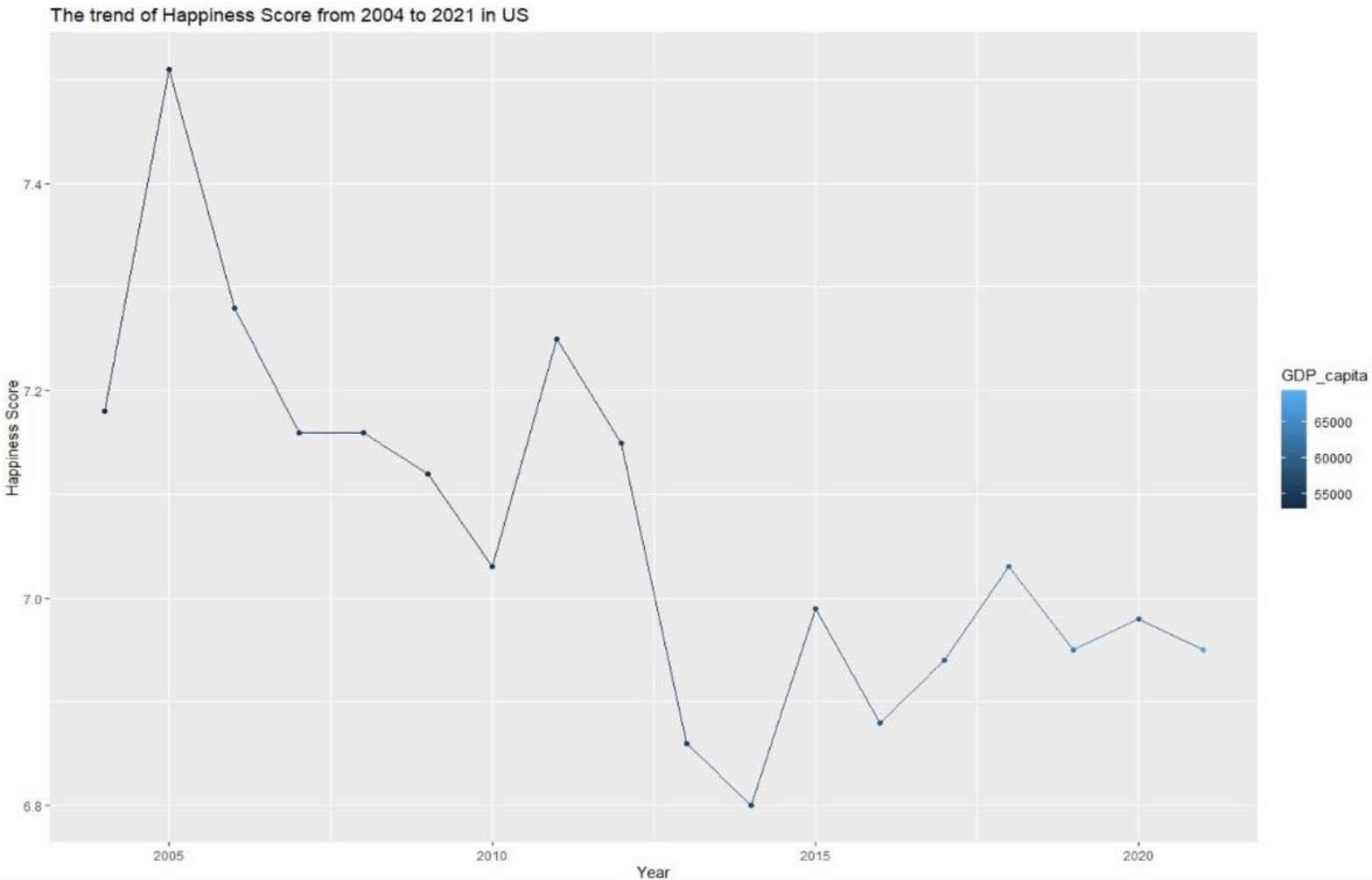
# Do higher income countries tend to be happier?

shinythemes/css/yeti.min.css

Select

US Happines from 2004 to 2021

## US happiness score changed by years



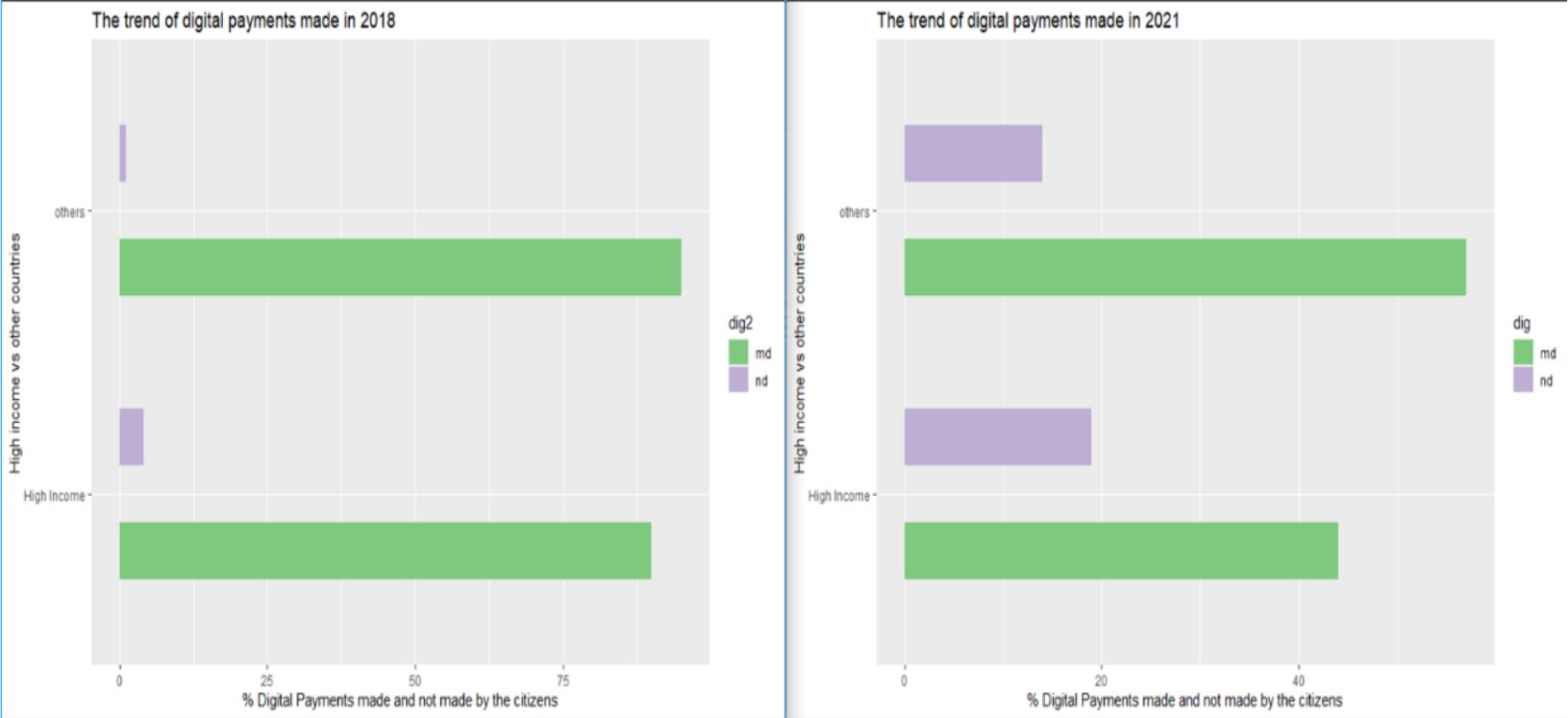
# Do higher income countries tend to be happier?

shinythemes/css/yeti.min.css

Select

Digital Payment of High Income and other countries

## Share of account owners using digital payment has increased after pandemic, signalling-hightened technology use which is an aftereffect of increased GDP



# Do higher income countries tend to be happier?

shinythemes/css/yeti.min.css

Select

High Income Countries trend of Happiness Score

US GDP vs Happiness Score

US Happines from 2004 to 2021

Digital Payment of High Income and other countries

High Income Countries trend of Happiness Score

## With time the happiness score has increased for HI countries



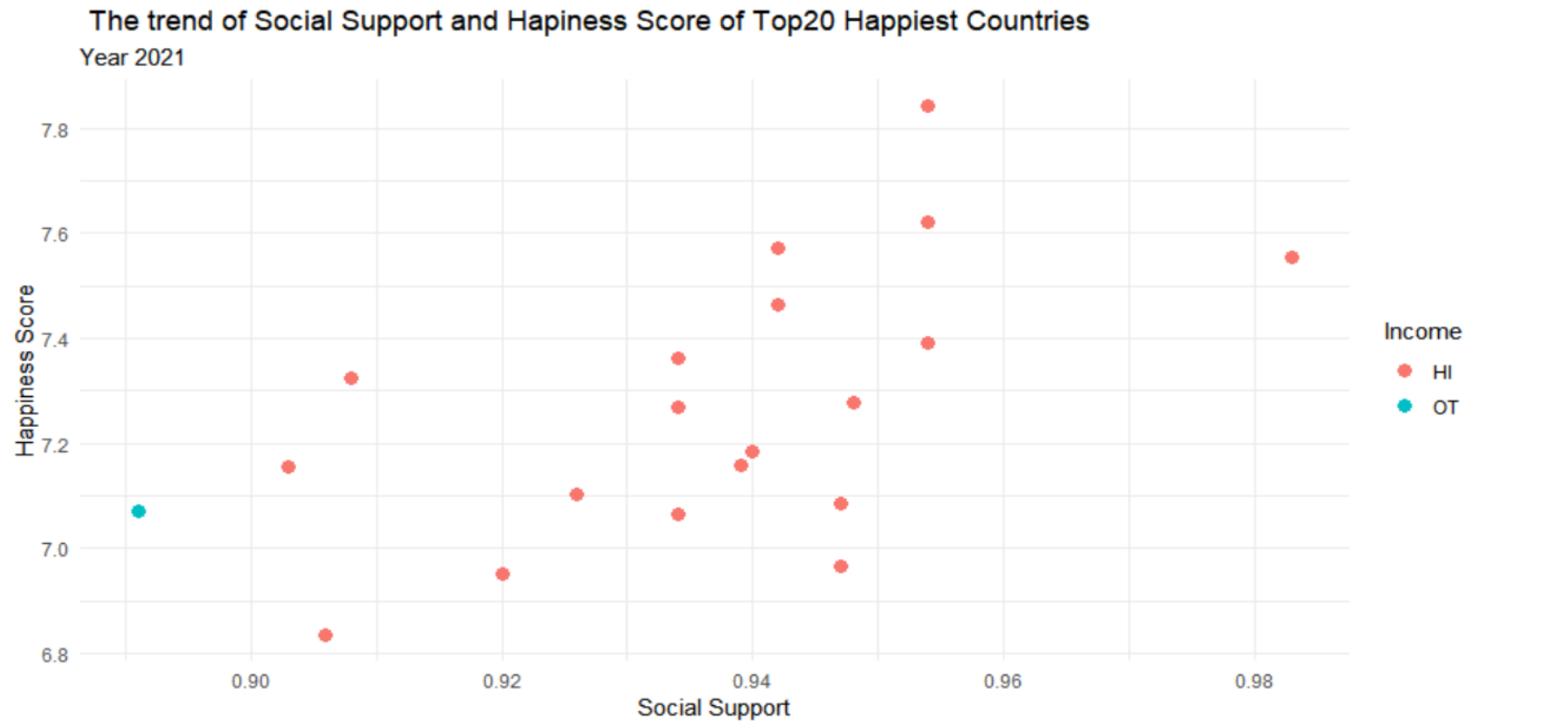
# Do higher income countries tend to be happier?

shinythemes/css/yeti.min.css

Select

Social Support in Year 2021

Costa Rica (OT) is one of the low income countries that joined Top 20 Happiest countries list despite low social support score.



# Do higher income countries tend to be happier?

shinythemes/css/yeti.min.css

Happiness

World

Correlation Matix

GDP

Social Support

Freedom

Health Life Expectancy

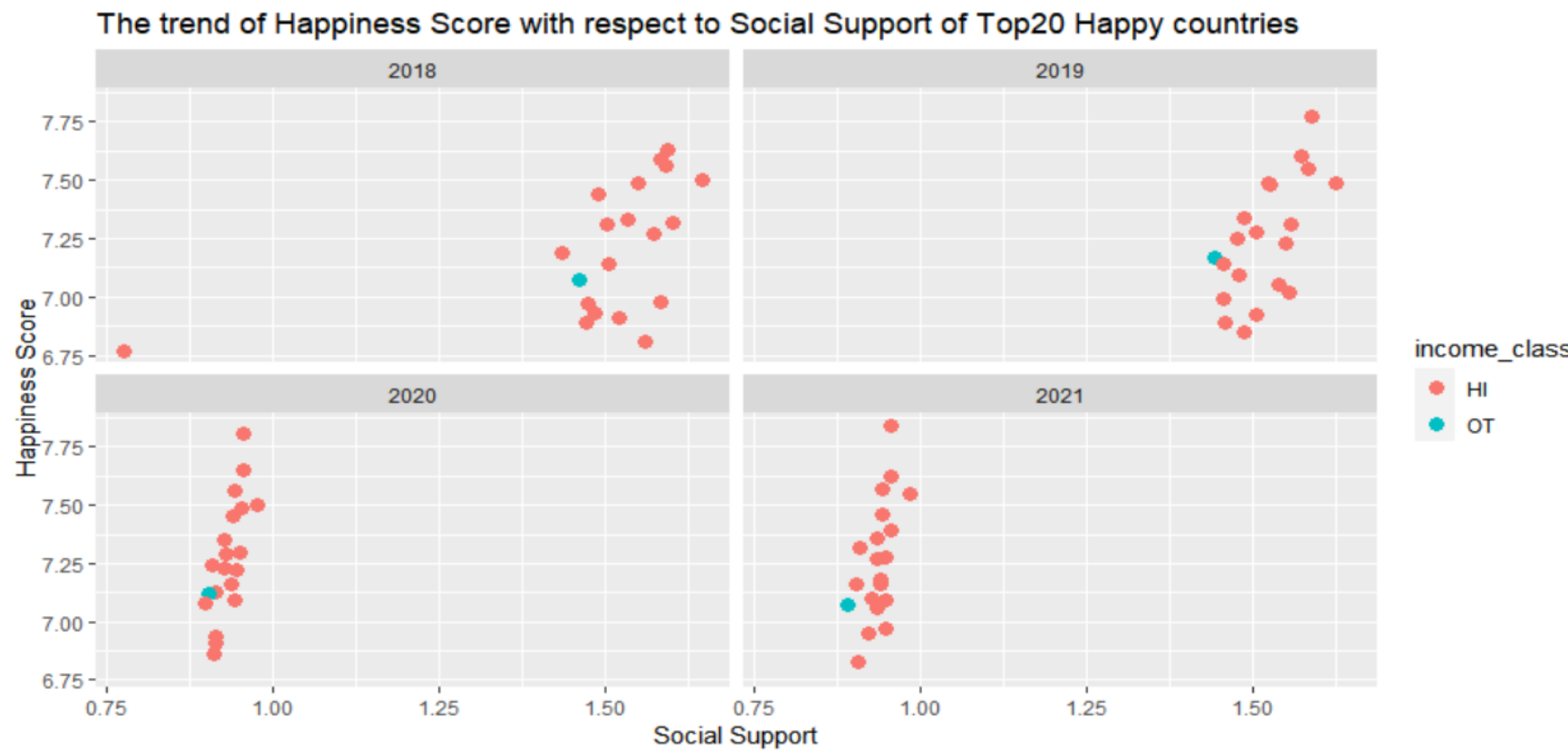
Select

Social Support Comparision From 2018 to 2021

Social Support in Year 2021

Social Support Comparision From 2018 to 2021

Year 2018 & 2019 has higher value of social support as compared to Year 2020 & 2021.



# Do higher income countries tend to be happier?

shinythemes/css/yeti.min.css

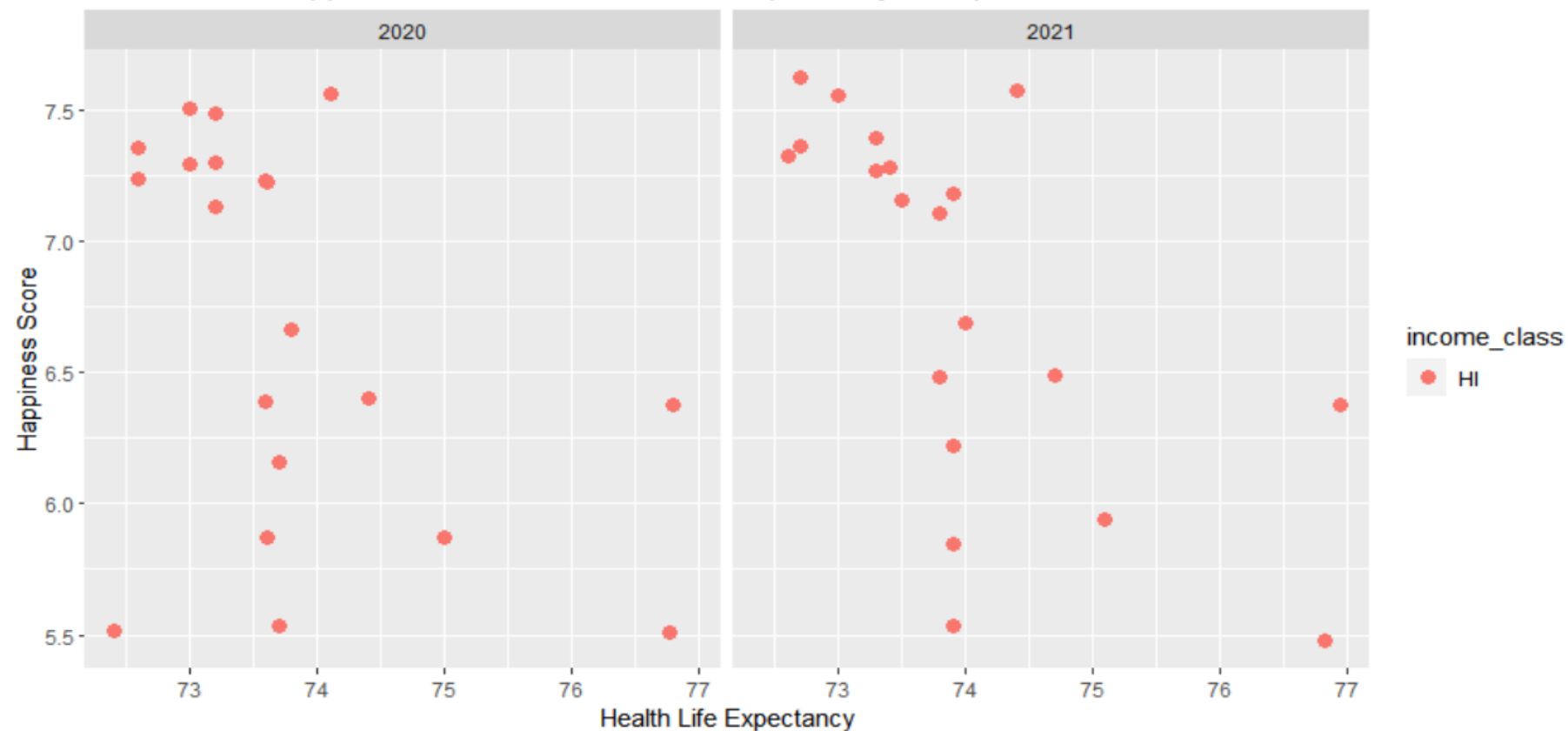
Happiness World Correlation Matix GDP Social Support Freedom Health Life Expectancy

Select

Healthy Life Expectancy Comparison between 2020 and 2021

Year 2020 & 2021 show similar trends and have no such differences.

The trend of Happiness Score with Health Life Expectancy of Top20 Healthiest countries





# Do higher income countries tend to be happier?

shinythemes/css/yeti.min.css

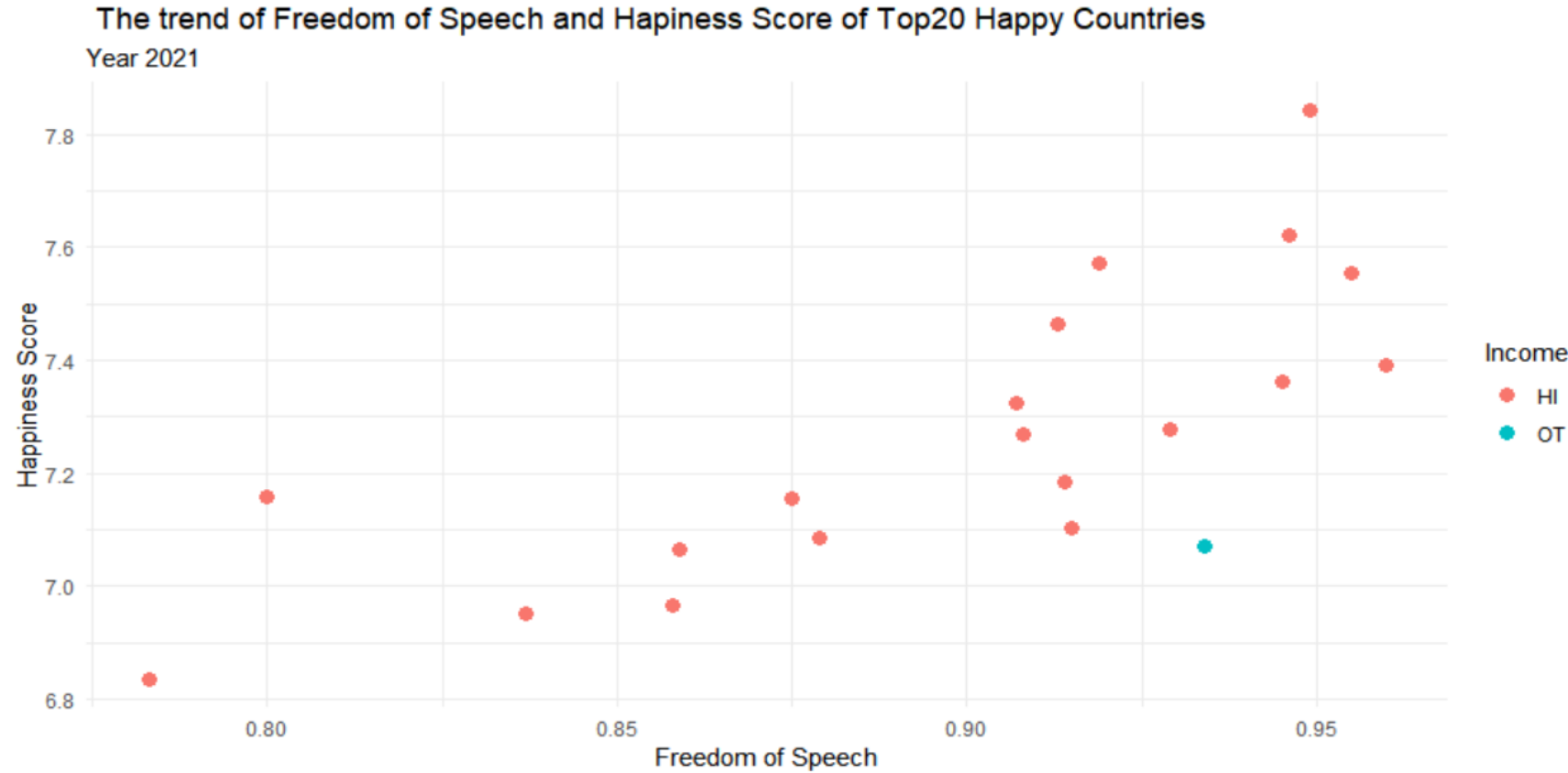
Select

Freedom of Choice in Year 2021

Freedom of Choice in Year 2021

Freedom of Choice Comparision From 2018 to 2021

In 2021, Costa Rica (OT) being a low income country but comes in Top20 Happiest countries as it has a good Freedom of Speech Score.



# Do higher income countries tend to be happier?

shinythemes/css/yeti.min.css

Happiness

World

Correlation Matix

GDP

Social Support

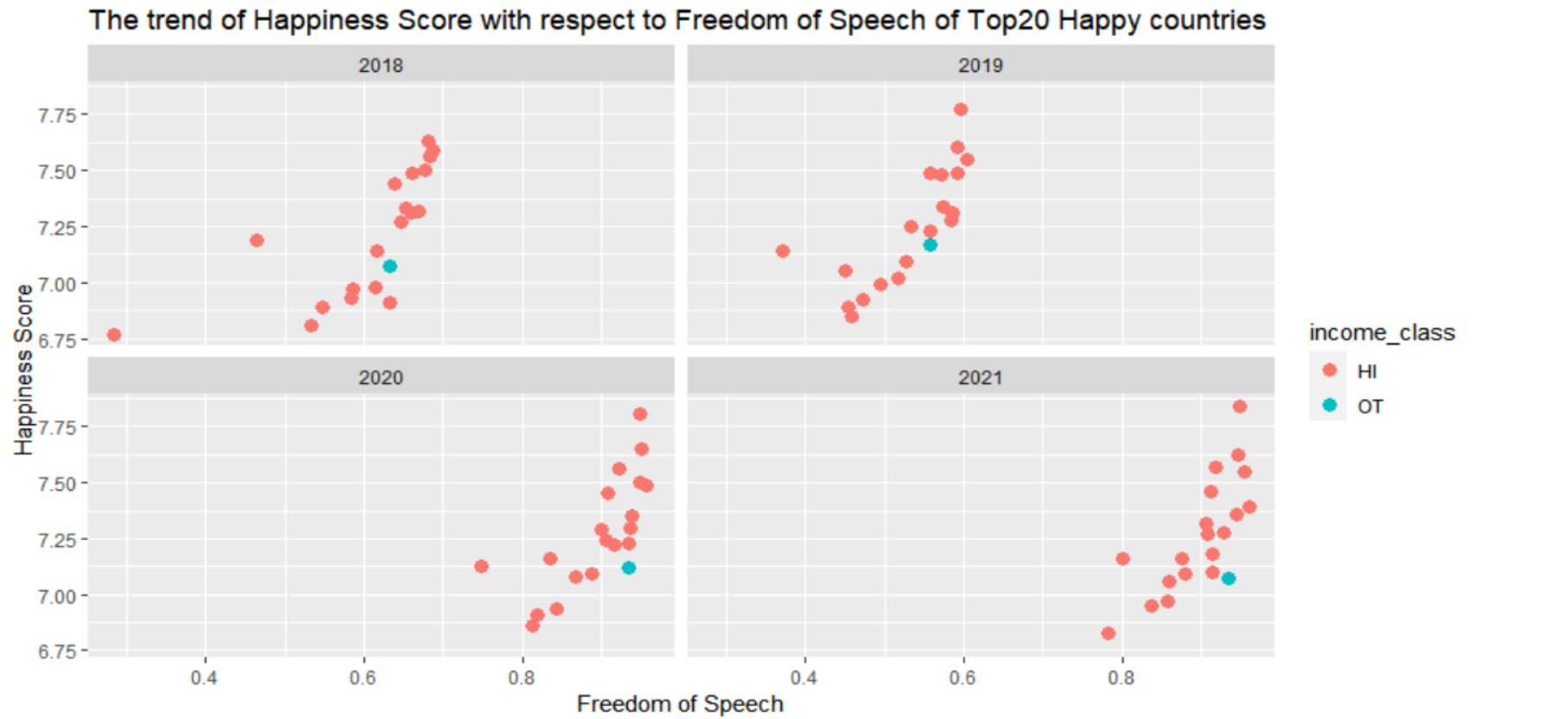
Freedom

Health Life Expectancy

Select

Freedom of Choice Comparision From 2018 to 2021

Year 2020 & 2021 has higher value in Freedom of Speech as compared to Year 2018 & 2019, reason we believe is covid.



# CALL OF ACTION

## On part of **INDIVIDUALS:**

- Seeking out Social Support
- Financial literacy
- Take part in gov building
- Taking care of mental health

## On part of **GOVERNMENT:**

- Making Social Support accessible to all
- Education –equal opportunities
- Lower Crime Rate
- Work - Life – Balance  
(4 Weekday + 3 Weekend)
- National Health System



# Conclusion

- **Income** and happiness also tend to go together within countries and across time.
- Countries where people **feel free** to choose and control their lives tend to be countries where people are happier.
- **Social Support** and Happiness also tend to go together within countries and across time.
- **Costa Rica** is one of the low income countries that comes in Top 20 Happiest country despite low social score.
- All the countries with highest **Health Life Expectancy** are High Income countries

# Afterthoughts...

- As an economy growth is typically not shared equally. Unless **redistributive mechanisms** stand in the way.
- Disproportionate increase in per capita income – The rich get richer, and inequality widens.
- Hence, such increases in income inequality → **cancel out** → positive effects of economic growth on well-being.

## Easterlin Paradox !!!

Named after economist Richard Easterlin, who first observed a puzzling phenomenon. Between 1946 and 1970, the U.S. witnessed remarkable economic expansion. And yet surveys failed to show any upsurge in happiness throughout this period of post-war boom.



# REFERENCES:



**Thank You!**

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<https://www.google.com/url?sa=i&url=https%3A%2F%2Frstudio.github.io%2Frsconnect%2F&psig=AOvVaw0RUnW7Oakk0kRkpHJ58Rd8&ust=1667011988957000&source=images&cd=vfe&ved=0CA4Q3YkBahcKEwjYqsf9YH7AhUAAAAAHQAAAAAQAw>

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<https://rstudio.github.io/rsconnect/>

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```

123   } paste('Year 2020 & 2021 show similar trends and have no such differences.')
124 }
125 }}
126
127
128 output$hle_img = renderImage({
129   if(input$hle=='Healthy Life Expectancy Comparision between 2020 and 2021'){
130     list(src = "HLE.png",width = "90%",
131         height = 750)}
132   },deleteFile=FALSE)
133 }
134
135
136 shinyApp(ui = ui, server = server)
130:7 server(input, output, session)

```

Console Deploy x Markers x Background Jobs x  
 D:/ar  
 Preparing to deploy application...Error: HTTP 402  
 POST https://api.shinyapps.io/v1/applications/  
 You have reached the maximum number of applications allowed for this account.  
 Execution halted

