# EXPLORING WORLD HAPPINESS

Andrew Ingrassia

# EXPLORING WORLD HAPPINESS

**Tools Used**

Python, Pandas, Numpy, Seaborn, Plotly, Matplotlib, Scipy, sykit-learn, statsmodels, geopandas, Tableau

**Goal**

To assess the relative impact of the 6 key variables measured in the World Happiness Report.

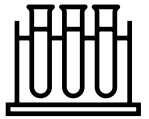
**Data Source**

World Happiness Report
+
Datahub

# SKILLS DEMONSTRATED

Data Cleaning/Wrangling

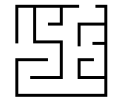
Principal Component Analysis



Statistical Testing

Linear Regression Modeling

Time Series Analysis



Exploratory Data Analysis

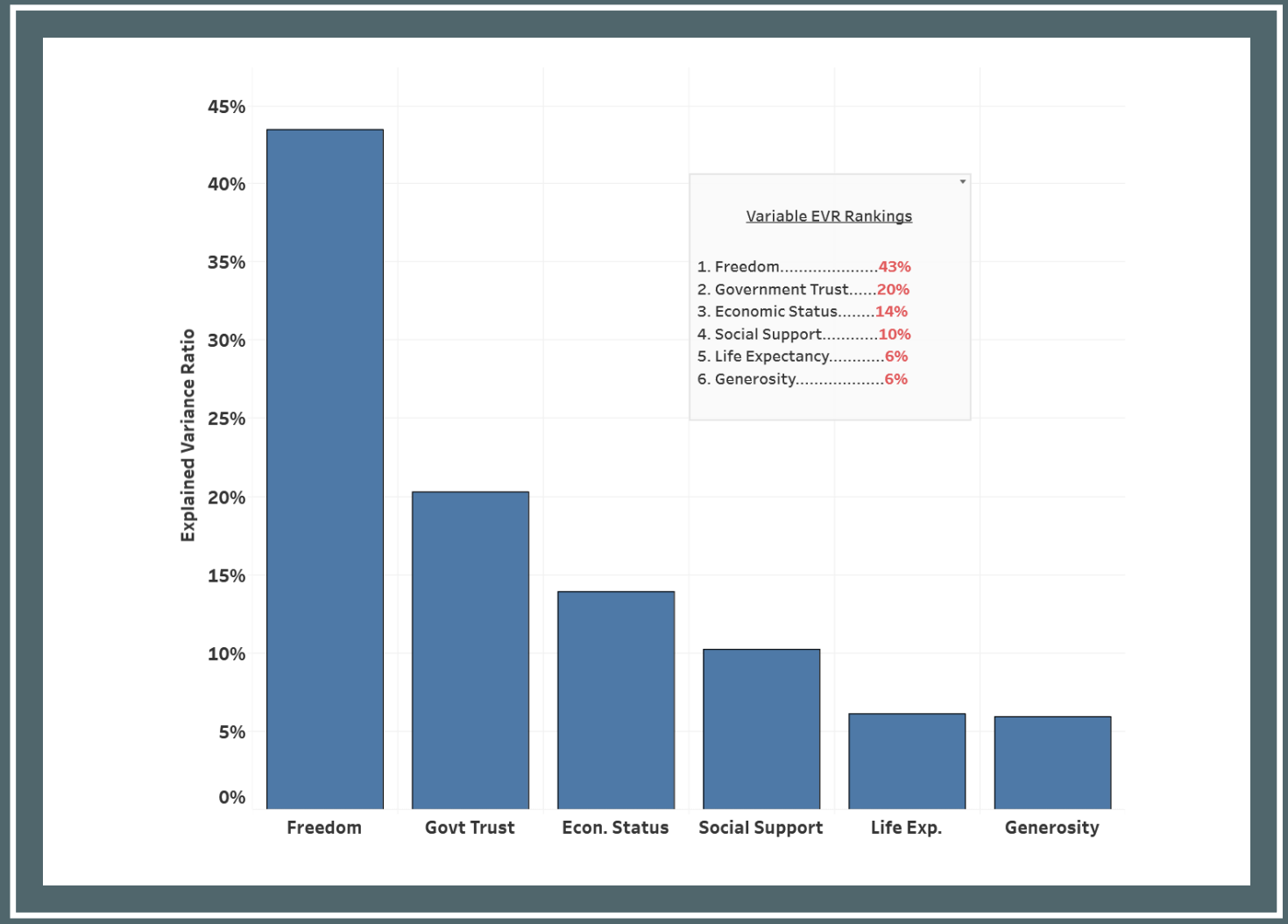
Storytelling with Tableau

Feature Engineering

Machine Learning

# KEY TAKEAWAY #1

With an explained variance ratio of 43%, "Freedom" appears to be far and away the most impactful variable.

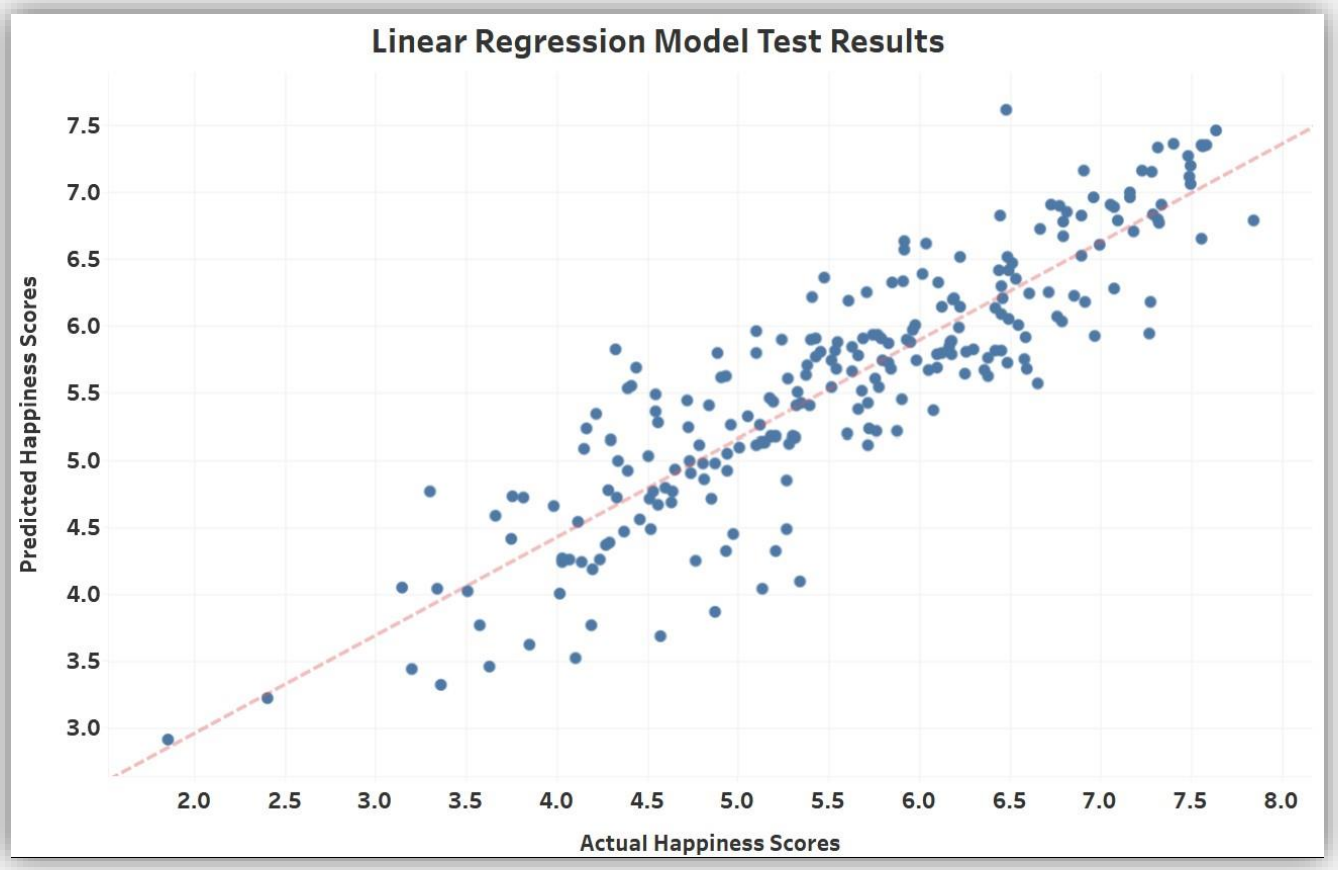


# KEY TAKEAWAY #2

**MSE** = 0.28

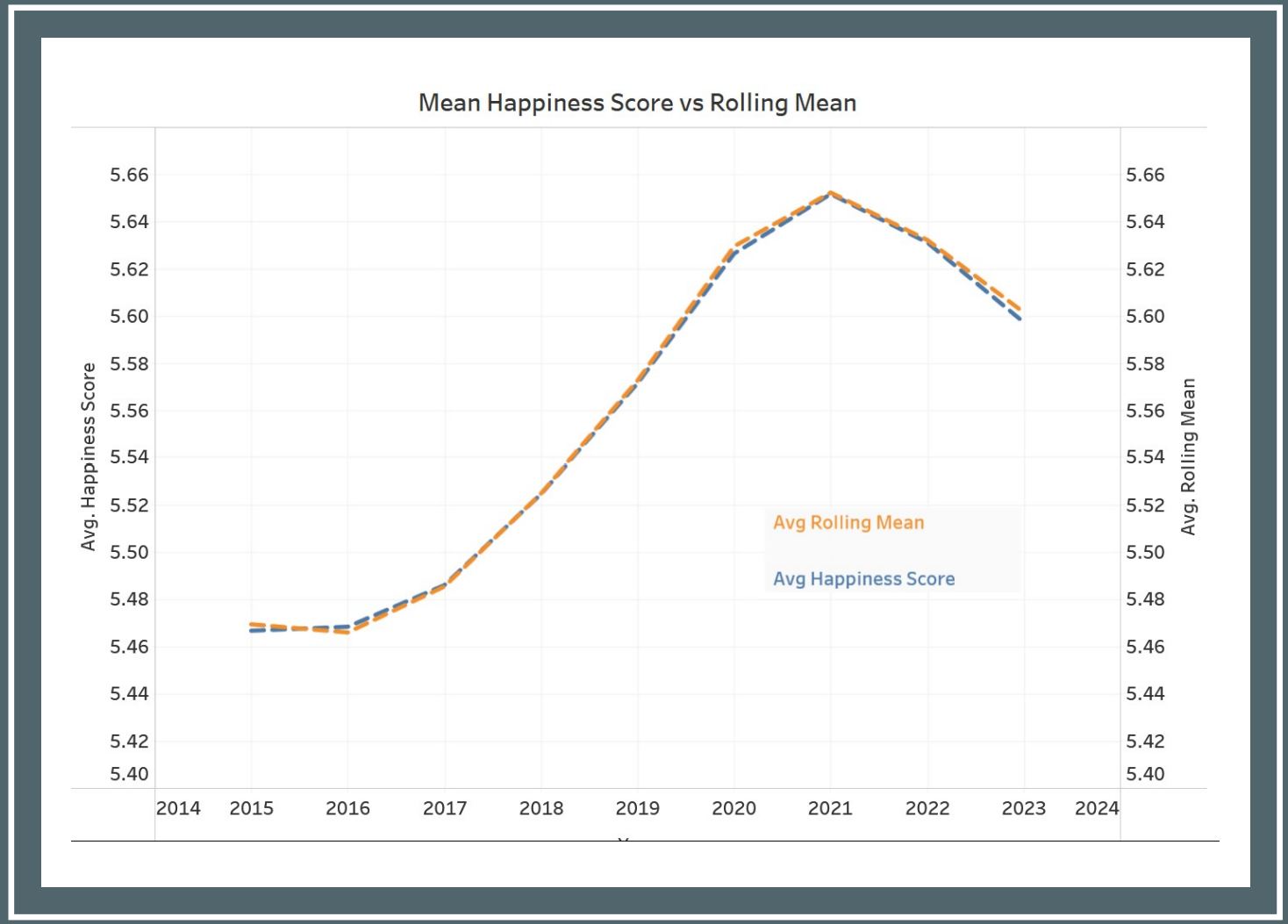
**R2 Score** = 0.78

The **MSE** and **R2 Score** together highlight that the linear regression model effectively captures a substantial portion of the variability in happiness scores.



# KEY TAKEAWAY #3

- Consistency between average happiness scores and average rolling means over time indicates a significant degree of stability in happiness scores.
- This suggests that my previous findings were not the result of random fluctuations.



# PROJECT LINKS

GitHub
Repository

Tableau
Storyboard

# THANK YOU!

Andrew Ingrassia

ingrassia.andrew@yahoo.com