



Migration and Happiness Scores



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Does happiness influence migration?

- Hypotheses:
 - ▶ Countries with high emigration rates have a low happiness rating
 - ▶ Countries with high immigration rates have a high happiness rating

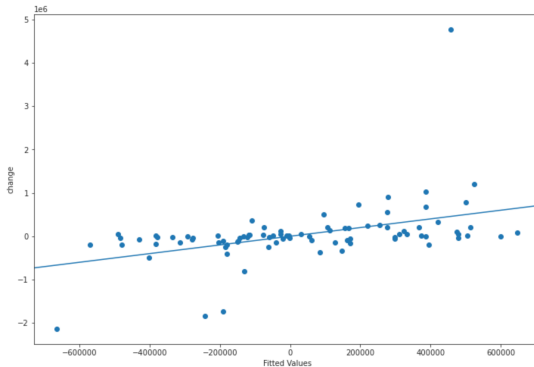
We utilised 3 separate databanks for our analysis.

- World Happiness Reports for years 2015 - 2019 Source: Gallup World Poll
- Global net migration for every 5 years between 1962 and 2017 Source: United Nations Population
- Global population for years 1960 - 2017 Source: United Nations Population Division

- Obtained data from various sources
- Merged several csv files
- Cleaned data
- Examined trends over time and country
- Checked correlations
- Conducted regression analysis
- Visualised findings in Tableau

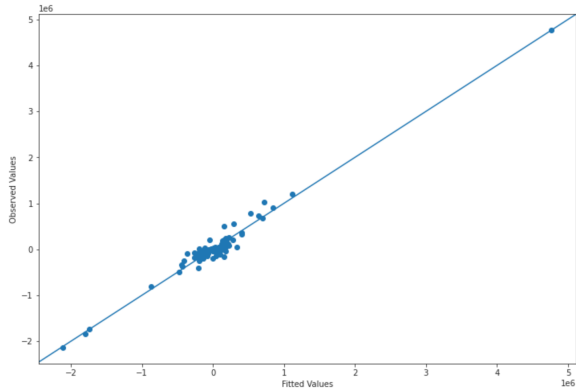
OLS Models

```
1 x=migration_income['Net Migration 2017']  
  
1 from statsmodels.graphics.api import abline_plot  
2 fig = plt.figure(figsize=(12,8))  
3 ax = fig.add_subplot(111, ylabel='change', xlabel='Fitted Values')  
4 ax.scatter(Net_2017_hap, x)  
5 y_vs_yhat = sm.OLS(Net_2017_hap, sm.add_constant(Net_2017_hap, prepend=True)).fit()  
6 fig = abline_plot(model_results=y_vs_yhat, ax=ax)
```



OLS Models

```
1 from statsmodels.graphics.api import abline_plot
2 fig = plt.figure(figsize=(12,8))
3 ax = fig.add_subplot(111, ylabel='Observed Values', xlabel='Fitted Values')
4 ax.scatter(Net_2017_hat, x)
5 y_vs_yhat = sm.OLS(Net_2017_hat, sm.add_constant(Net_2017_hat, prepend=True)).fit()
6 fig = abline_plot(model_results=y_vs_yhat, ax=ax)
```



Tableau

Conclusions

- Low positive correlation between happiness and migration
- Happiness rating and GDP explain approx. 20% of variation in migration
- Results confirm hypotheses but happiness not enough to explain migration patterns
- Other factors could have a greater influence on emigration (e.g. economic crisis, war) and choice of country to immigrate to (e.g. language, family connections, immigration policy, geographical distance)
- Some gaps in data may be due to irregular migration - could be starting point for future research

VIELEN DANK!!!
MUCHAS GRACIAS!!!
THANKS!!!

This presentation was made using \LaTeX