


# Find Your New Home In USA



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We are an award winning immigration consulting company and we help clients who are willing to settle down in the US. Our top priority is to suggest the best location for them and we wish them to enjoy their life with a good quality. Most of our clients are from worldwide and they are generally from a medium income group.

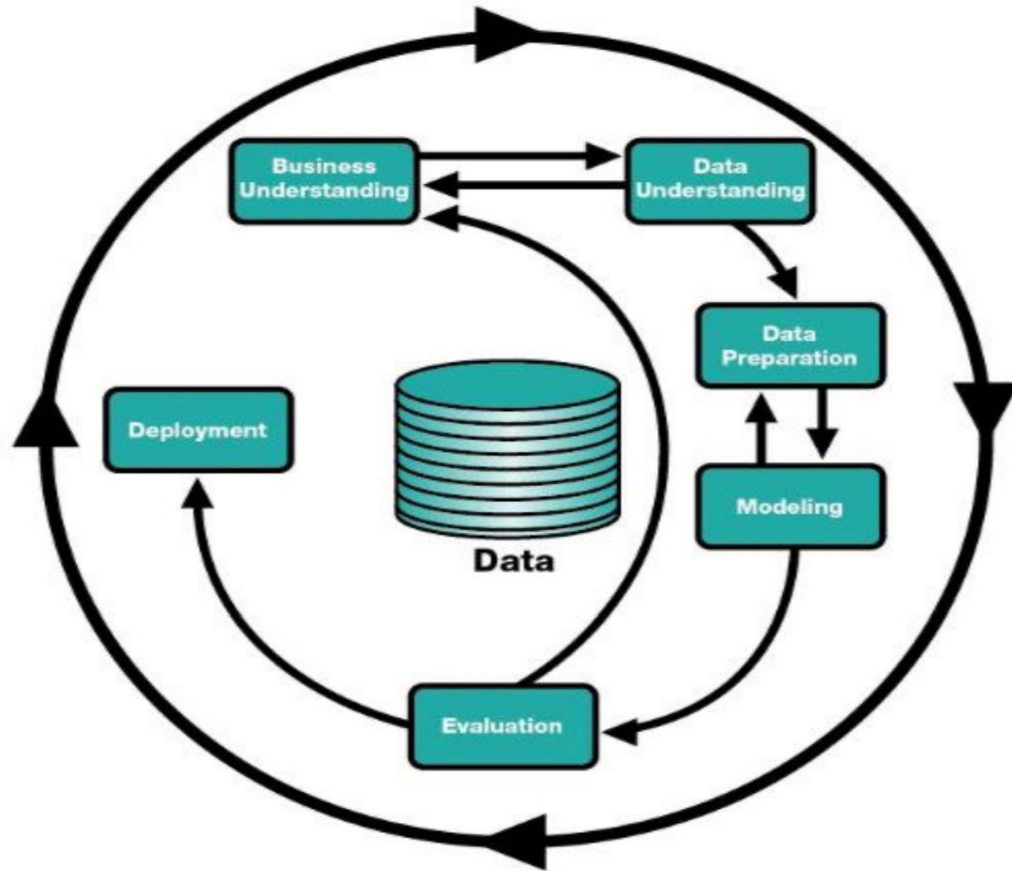
**Good quality of Life = Good Mental Health**





**BOWMAN COUNTY**  
~2 Poor Mental Health Days  
per Month

# Methodology



1. Business understanding
2. Data understanding
3. Data preparation
4. Modelling
5. Evaluation
6. Recommendation



# Baseline Factors for Quality of life in the US



## Baseline Factors

- Poor Physical Health days
  - Median household income
  - Unemployment rate
- 
- R-squared = 0.851

All our coefficients are significant.  
So we recommend taking these  
variables into consideration when  
choosing where to immigrate to, in  
the US.

<b>Dep. Variable:</b> Poor_mental_health_days_raw_value		<b>R-squared:</b> 0.851	
<b>Model:</b>	OLS	<b>Adj. R-squared:</b>	0.851
<b>Method:</b>	Least Squares	<b>F-statistic:</b>	5965.
<b>Date:</b>	Wed, 26 Feb 2020	<b>Prob (F-statistic):</b>	0.00
<b>Time:</b>	14:05:37	<b>Log-Likelihood:</b>	65.095
<b>No. Observations:</b>	3142	<b>AIC:</b>	-122.2
<b>Df Residuals:</b>	3138	<b>BIC:</b>	-97.98
<b>Df Model:</b>	3		
<b>Covariance Type:</b> nonrobust			
	<b>coef</b>	<b>std err</b>	<b>t</b> <b>P&gt; t </b> <b>[0.025</b> <b>0.975]</b>
<b>const</b>	0.5142	0.048	10.820 0.000 0.421 0.607
<b>Poor_physical_health_days_raw_value</b>	0.8521	0.009	99.116 0.000 0.835 0.869
<b>Median_household_income_raw_value</b>	3.125e-06	4.15e-07	7.529 0.000 2.31e-06 3.94e-06
<b>Unemployment_raw_value</b>	-1.8160	0.303	-5.991 0.000 -2.410 -1.222
<b>Omnibus:</b> 5.801	<b>Durbin-Watson:</b>	0.819	
<b>Prob(Omnibus):</b> 0.055	<b>Jarque-Bera (JB):</b>	6.723	
<b>Skew:</b> 0.005	<b>Prob(JB):</b>	0.0347	
<b>Kurtosis:</b> 3.226	<b>Cond. No.</b>	3.79e+06	

# Factors for Quality of Life in the US



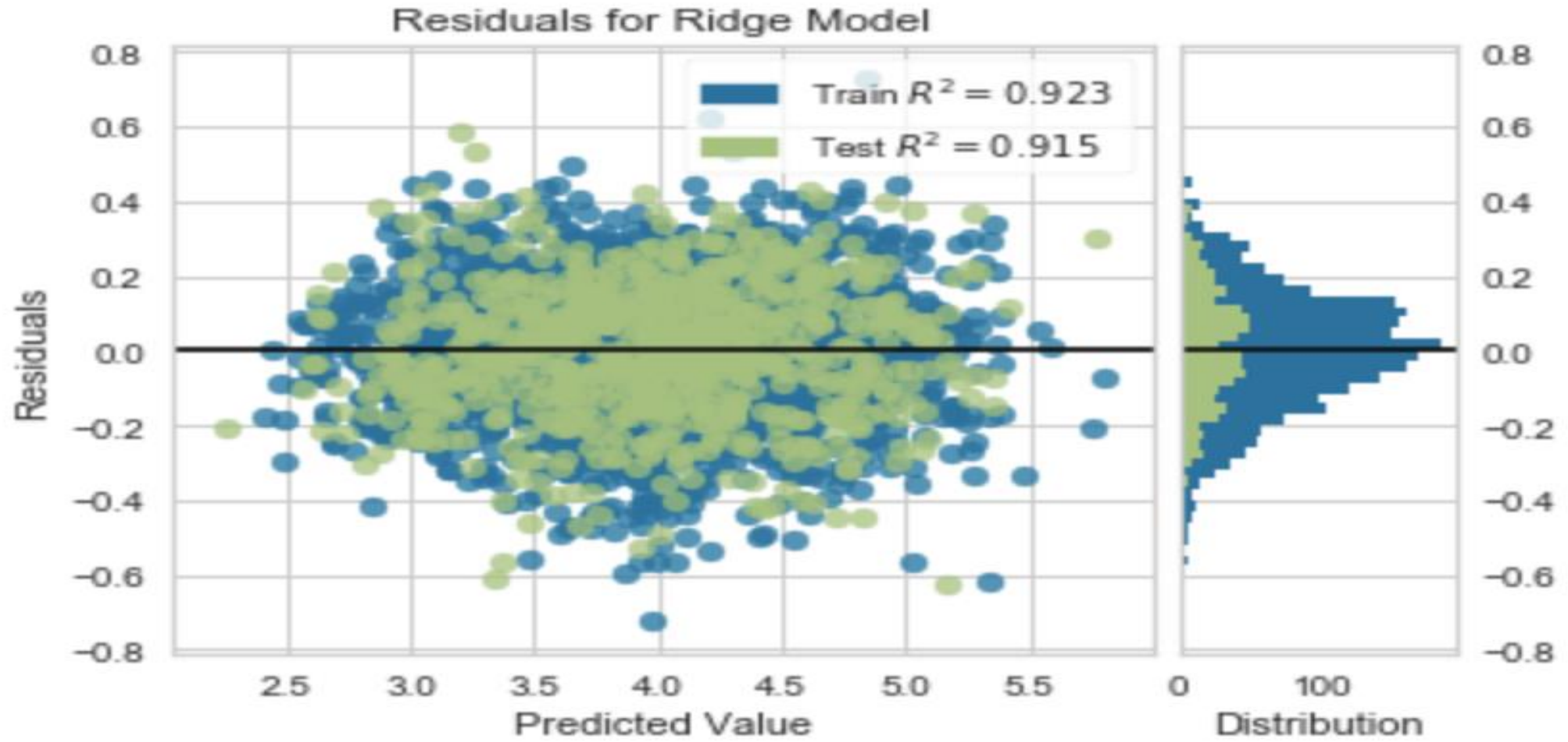
- **Theoretically,  
We want a county with:**

- \* Low Frequent\_mental\_distress
- \* Low Poor\_physical\_health\_days
- \* Low Frequent\_physical\_distress
- \* Low Poor\_or\_fair\_health
- \* Low Adult\_smoking
- \* Sufficient\_sleep
- \* Low Diabetes\_prevalence
- \* Low Children\_in\_poverty
- \* High Life\_expectancy
- \* Low Excessive\_drinking
- \* Low Food\_insecurity



- \* Low Premature\_death
- \* Medium/high Median\_household\_income
- \* Low Physical\_inactivity
- \* Low Teen\_births\_rate
- \* A good\_employment\_rate
- \* Low Drug\_overdose\_deaths
- \* Good Income\_equality

# Ridge / Lasso / Elastic Net Model



# Ridge Model



weights	variables
-0.344677	Insufficient_sleep_raw_value^2
-0.320856	Insufficient_sleep_raw_value Food_insecurity_r...
-0.312443	Poor_physical_health_days_raw_value Excessive...
-0.273512	Poor_or_fair_health_raw_value Life_expectancy...
-0.258313	Frequent_physical_distress_raw_value^2
...	...
0.266736	Poor_or_fair_health_raw_value Adult_smoking_ra...
0.340726	Insufficient_sleep_raw_value Unemployment_raw...
0.347430	Insufficient_sleep_raw_value Excessive_drinkin...
0.417395	Poor_physical_health_days_raw_value Life_expec...
0.460157	Poor_physical_health_days_raw_value



# Future work slide



- Run survey to determine endogenous driver
- Branch into new industry with strongly predictive model of Poor Mental Health Days per Month
- Run an experiment to confirm whether sleep deprivation increases life satisfaction.





THANK YOU  
Q & A