PROJECT: THE IMPACT OF SYRIAN REFUGEES ON FEAR OF CRIME IN TURKEY

Summary: The forced migration of individuals and groups in the world has increased substantially amid extensive regional and international conflicts. A prime example is the continuing civil war in Syria, during which Turkey has become the host country for more Syrian refugees than any other country in the region. Research on fear of crime has focused mainly on fear of crime in general rather than on fear of crime being committed by specific groups of individuals with a shared identity. The current study used survey data to investigate the extent to which the general crime fear among Turkish citizens differs from their fear that Syrian refugees in the country may commit a crime.

Step 1: Formulating the Research Questions

1) Do Turkish people's perceptions of Syrian refugees influence their levels of fear of crime when controlling for their individual characteristics?
2) Does the crime fear in general differ from people's fear of crime by Syrian refugees?

Step 2: Research Design and Data Collection

To explore the relationship between the Syrian refugees in Turkey and Turkish citizens' fear of crime, data were drawn from a convenience sample of Turkish citizens living in different provinces of the country. I developed and designed the survey questionnaire and administered it through surveymonkey.com. The survey had 25 questions about Turkish citizens' views about and attitudes toward the Syrian refugees, their fear of crime, and their perception of safety. For data collection I used my Twitter account and shared the surveymonkey.com link with my more than 35,000 followers.

Variables and Measurements

The study used six variables drawn from multiple items on the survey and eight variables from individual items on the survey.

The study used **two dependent variables**: (1) fear of crime likely to be committed by a Syrian refugee and (2) general fear of crime.

The study examined **12 independent variables**—three perceptual variables and nine variables related to the effects of different factors on both types of fear of crime (i.e., fear of refugee crime and general fear of crime

Perceptual variables:

(1) perception of a Syrian refugee,

(2) perceived effect of the Syrian refugees on the economy,

(3) perceived security risk of refugees.

Demographics and fear of crime variables:

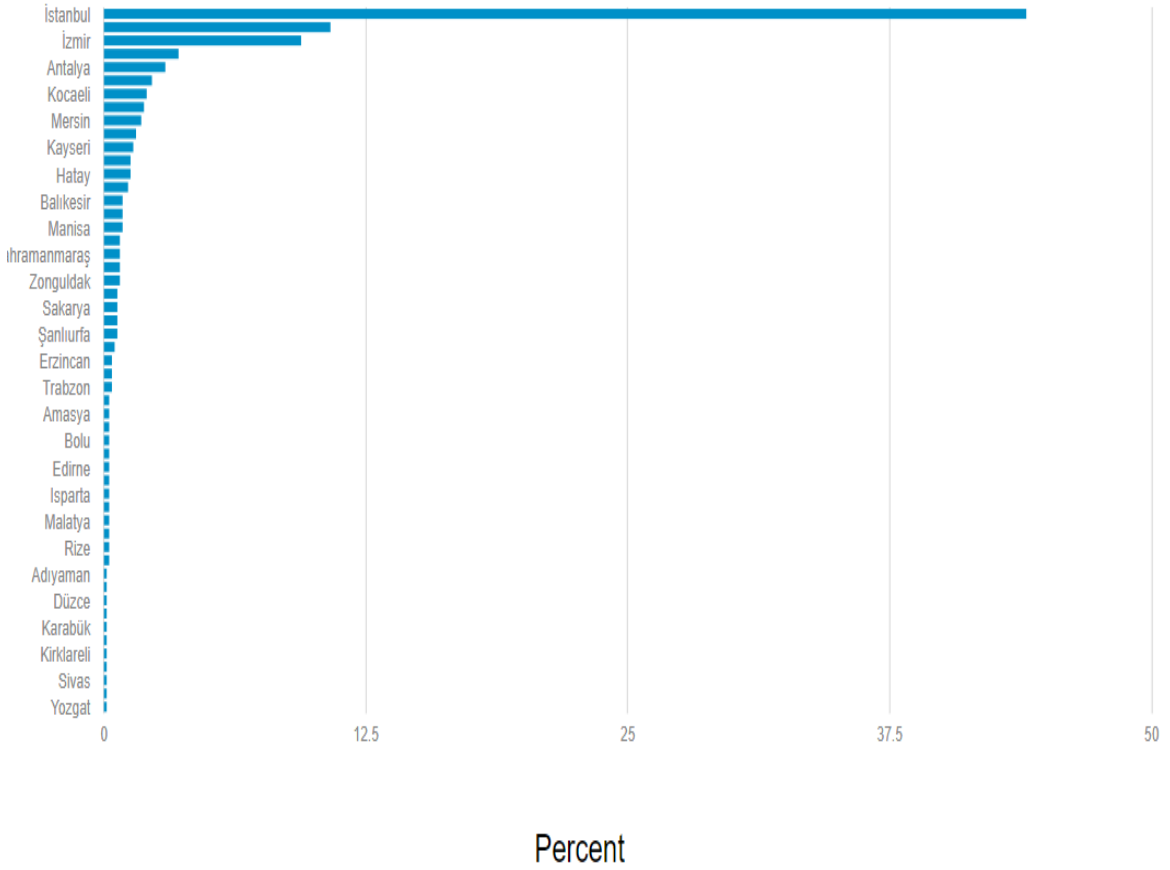
(1) ethnic diversity, (2) religiosity, (3) education, (4) age, (5) gender, (6) unemployment, (7) marital status, (8) encounters with Syrian refugees in neighborhood, (9) encounters with the refugees in city.

Below are the descriptive statistics for the data

22 of 22 Fields · Cell Viewer · 18 records displayed

Record	Name	Field Category	Min	Max	Median	Std. Dev.	Percent Missing	Unique Values	Mean
1	Age	Numeric	1	5	3	1.077606	0	5	3.438931
2	Education	Numeric	1	6	4	0.790124	0	6	3.965649
3	FoGeneralCrime	Numeric	1.043216	5.216079	3.123008	1.399947	0	122	3.202697
4	FoSyrianCrime	Numeric	1.043771	5.218856	4.175085	1.367332	0	121	3.640064
5	IL_KODU	Numeric	1	81	34	14.730646	0	53	30.215013
6	PR_ID_NEW	Numeric	1	53	25	10.629537	0	53	22.319338
7	Religiosity	Numeric	1	3	2	0.676677	0	3	2.104326
8	ResponID_new	Numeric	1	823	410.5	238.91881	0	786	412.314249
9	SyrianEncounterCity	Numeric	2	5	4	0.859723	0.127226	5	4.187261
10	SyrianEncounterNeighborhood	Numeric	1	5	4	1.134435	0	5	3.517812
11	econoconcernsqrd	Numeric	1.258814	31.470337	31.470337	7.530668	0	67	25.635847
12	ethnicdummy	Numeric	0	1	1	0.353642	0	2	0.85369
13	married	Numeric	0	1	1	0.492994	0	2	0.585242
14	newsex	Numeric	0	1	0	0.48732	0	2	0.386768
15	relationalDiscomfort	Numeric	1.068412	4.273646	3.554941	0.812604	0	41	3.406301
16	secrisksqrd	Numeric	1.087406	27.185146	27.185146	6.768994	0	51	22.784485
17	unemployed	Numeric	0	1	0	0.466517	0	2	0.319338

The data mostly came from the larger and populous cities of Turkey.



Report for Linear Model Weighted_regression_FOSC

Basic Summary

Call:

lm(formula = FoSyrianCrime ~ relationalDiscomfort + econoconcernsqrd + secrisksqrd + SyrianEncounterNeighborhood + SyrianEncounterCity + Age + Education + Religiosity+ newsex + married + ethnicdummy + unemployed, data = the.data, weights = survey_weight)

Residuals:

Min	1Q	Median	3Q	Max
-2.8322	-0.3894	0.0921	0.4058	3.0259

Coefficients:

	Estimate	Std. Error	t value	Pr(>|t|)	
(Intercept)	-0.253570	0.296359	-0.8556	0.39247	
relationalDiscomfort	0.559744	0.059120	9.4679	< 2.2e-16	***
econoconcernsqrd	0.014464	0.005532	2.6144	0.00911	**
secrisksqrd	0.062179	0.007096	8.7624	< 2.2e-16	***
SyrianEncounterNeighborhood	0.133459	0.035486	3.7609	0.00018	***
SyrianEncounterCity	0.076370	0.046446	1.6443	0.10053	
Age	-0.124987	0.030219	-4.1360	4e-05	***
Education	-0.008136	0.043622	-0.1865	0.8521	
Religiosity	0.073462	0.052023	1.4121	0.15832	
newsex	0.235500	0.067851	3.4708	0.00055	***
married	-0.023151	0.078733	-0.2940	0.7688	
ethnicdummy	-0.411045	0.088041	-4.6688	3.57e-06	***
unemployed	-0.008846	0.080738	-0.1096	0.91278	

Significance codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.65089 on 772 degrees of freedom

Multiple R-squared: 0.5432, Adjusted R-Squared: 0.5361

F-statistic: 76.51 on 12 and 772 degrees of freedom (DF), p-value < 2.2e-16

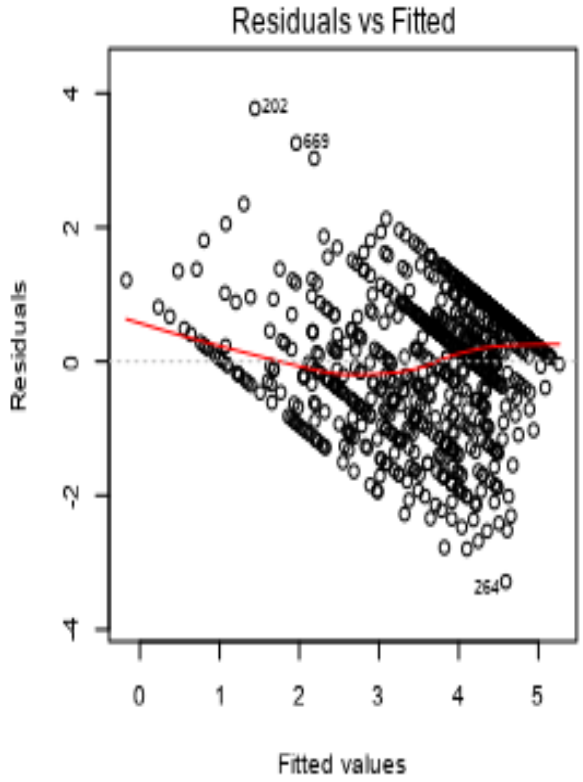
Type II ANOVA Analysis

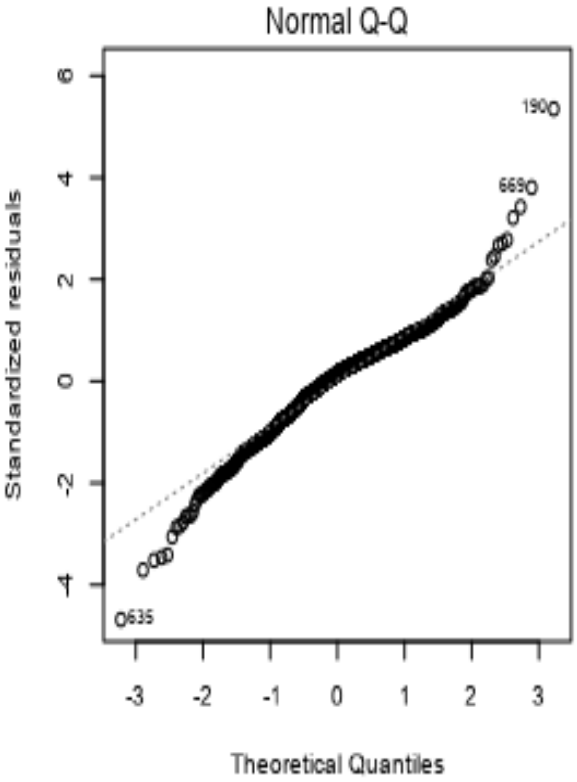
Response: FoSyrianCrime

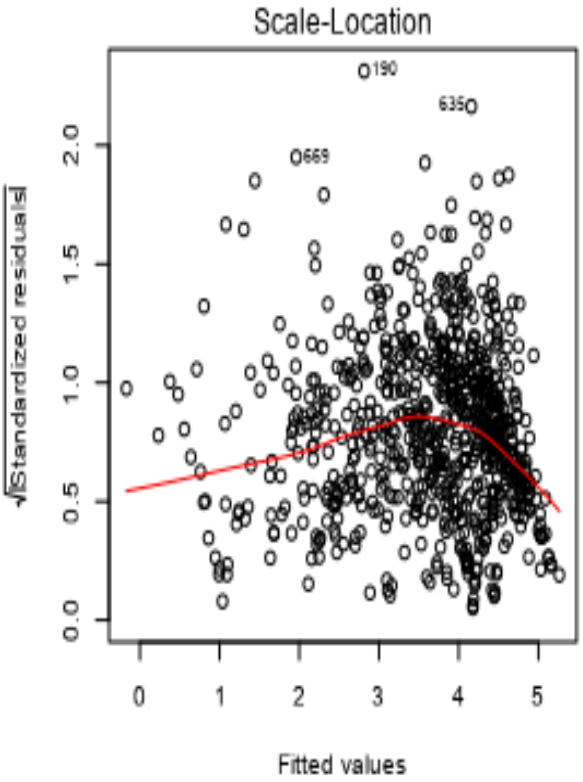
	Sum Sq	DF	F value	Pr(>F)	
relationalDiscomfort	37.98	1	89.64	< 2.2e-16	***
econoconcernsqrd	2.9	1	6.84	0.00911	**
secrisksqrd	32.53	1	76.78	< 2.2e-16	***
SyrianEncounterNeighborhood	5.99	1	14.14	0.00018	***
SyrianEncounterCity	1.15	1	2.7	0.10053	
Age	7.25	1	17.11	4e-05	***
Education	0.01	1	0.03	0.8521	
Religiosity	0.84	1	1.99	0.15832	
newsex	5.1	1	12.05	0.00055	***
married	0.04	1	0.09	0.7688	
ethnicdummy	9.23	1	21.8	3.57e-06	***
unemployed	0.01	1	0.01	0.91278	
Residuals	327.06	772			

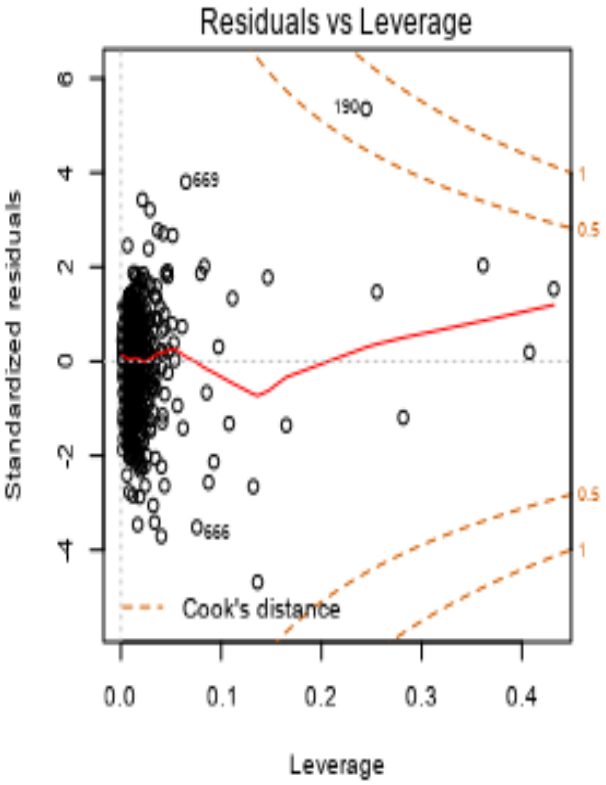
Significance codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Basic Diagnostic Plots


Residuals vs Fitted
Residuals
Fitted values
202
669
264


Normal Q-Q
Standardized residuals
Theoretical Quantiles
190
669
635


Scale-Location
√|Standardized residuals|
Fitted values
190
635
669


Residuals vs Leverage
Standardized residuals
Leverage
190
669
666
Cook's distance
1
0.5
0.5
1

Report for Linear Model Weighted_regression_FOGC

Basic Summary

Call:

lm(formula = FoGeneralCrime ~ relationalDiscomfort + econoconcernsqrd + secrisksqrd + SyrianEncounterNeighborhood + SyrianEncounterCity + Age + Education + Religiosity+ newsex + married + ethnicdummy + unemployed, data = the.data, weights = survey_weight)

Residuals:

Min	1Q	Median	3Q	Max
-4.74758	-0.51442	0.00493	0.49079	3.22929

Coefficients:

	Estimate	Std. Error	t value	Pr(>|t|)
(Intercept)	-0.22445	0.358740	-0.6257	0.53172
relationalDiscomfort	0.52725	0.071565	7.3675	4.47e-13***
econoconcernsqrd	-0.01394	0.006697	-2.0821	0.03766*
secrisksqrd	0.06114	0.008590	7.1173	2.51e-12***
SyrianEncounterNeighborhood	0.19905	0.042955	4.6338	4.21e-06***
SyrianEncounterCity	0.07923	0.056222	1.4093	0.15915
Age	-0.16566	0.036580	-4.5285	1e-05***
Education	-0.01994	0.052804	-0.3776	0.70586
Religiosity	0.12295	0.062974	1.9524	0.05125.
newsex	0.39346	0.082133	4.7905	1.99e-06***
married	-0.04460	0.095306	-0.4680	0.63991
ethnicdummy	-0.09591	0.106573	-0.9000	0.36842
unemployed	-0.10417	0.097733	-1.0659	0.2868

Significance codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.78789 on 772 degrees of freedom

Multiple R-squared: 0.4053, Adjusted R-Squared: 0.3961

F-statistic: 43.85 on 12 and 772 degrees of freedom (DF), p-value < 2.2e-16

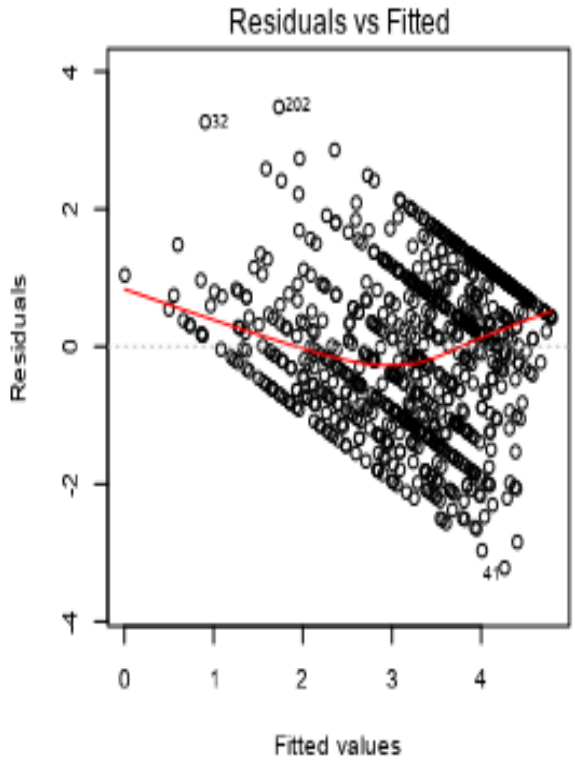
Type II ANOVA Analysis

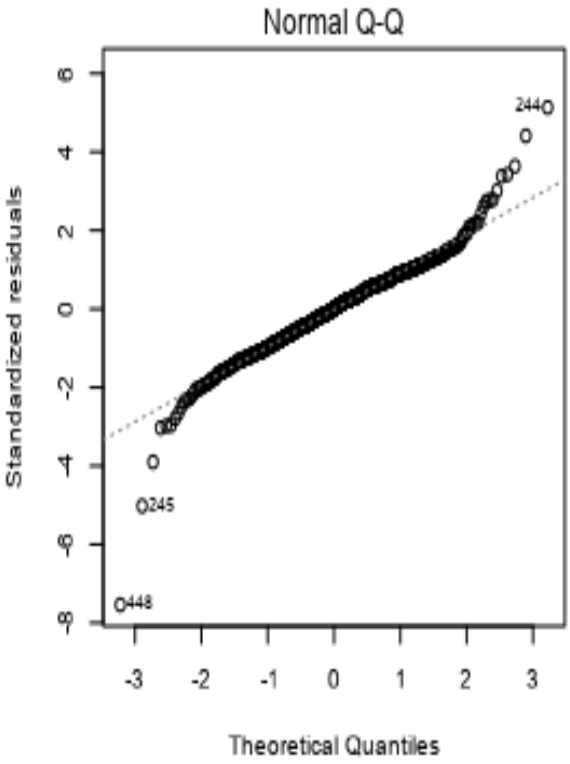
Response: FoGeneralCrime

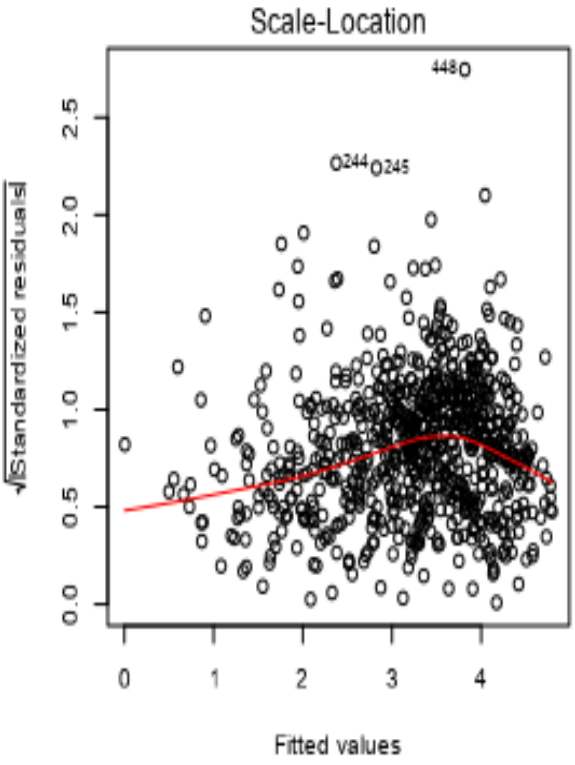
	Sum Sq	DF	F value	Pr(>F)
relationalDiscomfort	33.7	1	54.28	4.47e-13***
econoconcernsqrd	2.69	1	4.34	0.03766*
secrisksqrd	31.45	1	50.66	2.51e-12***
SyrianEncounterNeighborhood	13.33	1	21.47	4.21e-06***
SyrianEncounterCity	1.23	1	1.99	0.15915
Age	12.73	1	20.51	1e-05***
Education	0.09	1	0.14	0.70586
Religiosity	2.37	1	3.81	0.05125.
newsex	14.25	1	22.95	1.99e-06***
married	0.14	1	0.22	0.63991
ethnicdummy	0.5	1	0.81	0.36842
unemployed	0.71	1	1.14	0.2868
Residuals	479.24	772		

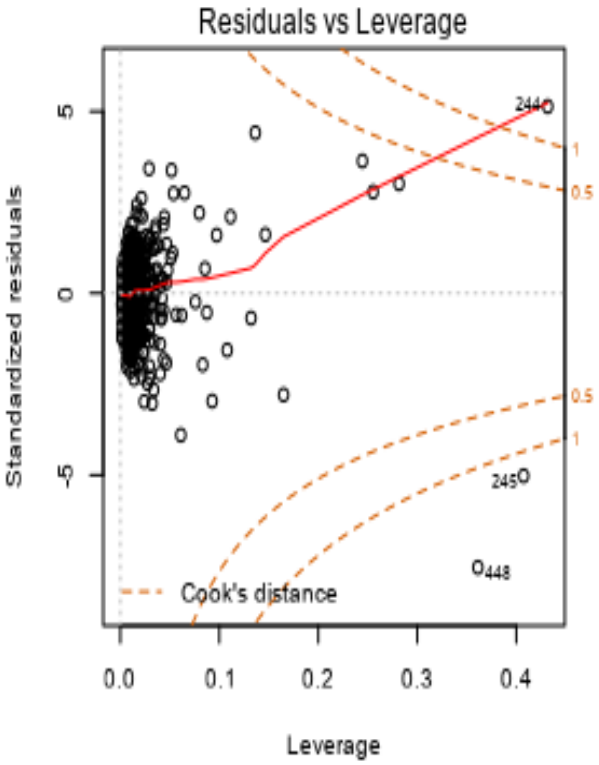
Significance codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Basic Diagnostic Plots


Residuals vs Fitted
Residuals
Fitted values
32
202
41


Normal Q-Q
Standardized residuals
Theoretical Quantiles
244
245
448


Scale-Location
√|Standardized residuals|
Fitted values
448
244
245


Residuals vs Leverage
Standardized residuals
Leverage
Cook's distance
244
245
448
1
0.5
0.5
1

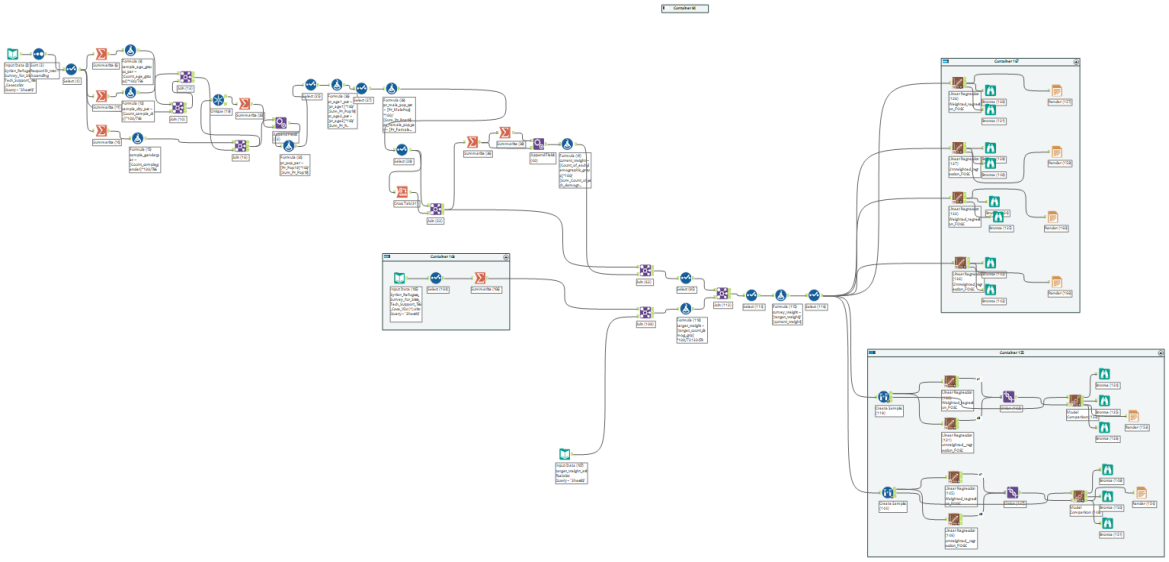
CONCLUSION: In both models, the independent variables "perceived security risk" and "concern on the economy" were expected to show a linear relationship to the two dependent variables (i.e., general fear of crime and fear of refugee crime). To validate this assumption, the squared measures of the two independent variables were added to the models. Table 3 shows the results of the multiple regression analyses for general fear of crime and fear of refugee crime.

The models were weighted on population, gender, and age categories. In our statistical inference for regression, we treated our data as grouped into clusters (53 provinces) to prevent our models from overstating estimator precision, with regression model errors independent across clusters but correlated within clusters.

Overall, both models were statistically significant; however, compared to the general-fear-of-crime model, the fear-of-refugee-crime model explained more of the variance between the model and the actual data. In addition, the effect of ethnicity differs between the two models because the variable had a negative significant effect on fear of refugee crime but not on general fear of crime, and Turkish respondents reported significantly lower levels of fear-of-refugee-crime than others. The findings relate to the second research question in our study because of the differences between the two types of fear.

The five other variables—relational discomfort, perceived risk, encounters with Syrians in neighborhoods, age, and gender—had a significant positive impact on fear of crime across both models. These findings answer our first research question in that people's perceptions of the refugees influence their levels of fear of crime. Participants who (1) were uncomfortable in their relations with Syrian refugees, (2) perceived the refugees as risky, and (3) encountered Syrians in their neighborhoods reported higher levels of fear regardless of the type of fear. Female respondents also had higher levels of both types of fear as did those in younger age groups.

Below is the Alteryx workflow for the analyses.



PREPARED BY: KADIR AKYUZ