

# Why study abroad?

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## What was the task?

- Perform a small applied econometric study
- Collect appropriate data: conducting a survey or from the internet
- Perform appropriate econometrics
- Finalize through a presentation and a report

# Why this topic?

- Interesting for us
- Captivating for people with different interests

## Who answered?

- People that study abroad
- Male and Female
- Range of age:

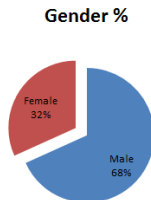
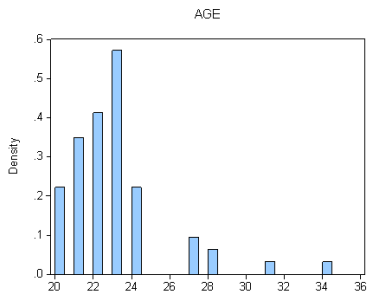


Figure: Range of age

# What were our expectations?

Table: Our Expectations

	<b>Effect</b>
Gender	+
Age	+
Number of foreign languages	?
Level of english	?
Exchange program	-
Travel	-
Girlfriend/Boyfriend	+
Resume	+
Friends abroad	+
Weather	+
Reputation	+
Education	-

## First Model

$$Y = \beta_0 + \beta_1 \cdot AGE + \beta_2 \cdot ECH + \beta_3 \cdot ECON + \beta_4 \cdot EDUC + \beta_5 \cdot FA + \beta_6 \cdot GB \\ + \beta_7 \cdot GEN + \beta_8 \cdot JSC + \beta_9 \cdot JYC + \beta_{10} \cdot LEVEL + \beta_{11} \cdot NLNG \\ + \beta_{12} \cdot RENAME + \beta_{13} \cdot RESUME + \beta_{14} \cdot TRAV + \beta_{15} \cdot WTX$$

## First Model - Results

	Coefficient	Std. Error	t-Statistic	Prob.
C	-5.118731	3.091190	-1.655909	0.1047
AGE	0.190347	0.081055	2.348357	0.0233
ECH	0.497886	0.439706	1.132316	0.2635
ECON	-0.006459	0.382130	-0.016902	0.9866
EDUC	-0.254569	0.448501	-0.567600	0.5731
FA	1.173056	1.037005	1.131196	0.2640
GB	-0.195535	0.395258	-0.494703	0.6232
GEN	-0.117191	0.387923	-0.302098	0.7640
JSC	0.390060	0.459064	0.849685	0.4000
JYC	-0.337955	0.506823	-0.666810	0.5083
LEVEL	-0.033367	0.113776	-0.293268	0.7707
NLNG	0.153361	0.217776	0.704213	0.4849
RENAME	0.176444	0.555031	0.317899	0.7520
RESUME	0.441970	0.699556	0.631787	0.5307
TRAV	1.623492	1.145303	1.417522	0.1632
WTX	-0.235446	0.446919	-0.526820	0.6009
R-squared	0.175489	Mean dependent var		2.475410
Adjusted R-squared	-0.099348	S.D. dependent var		1.205633
S.E. of regression	1.264104	Akaike info criterion		3.526983
Sum squared resid	71.90817	Schwarz criterion		4.080655
Log likelihood	-91.57299	Hannan-Quinn criter.		3.743972
F-statistic	0.638520	Durbin-Watson stat		2.392266
Prob(F-statistic)	0.827043			

Figure: Estimation output first model

## First Model - Results

$$\begin{aligned}\hat{Y} = & -5.12 + 0.19 \cdot AGE + 0.5 \cdot ECH - 0.01 \cdot ECON - 0.26 \cdot EDUC \\ & + 1.17 \cdot FA - 0.2 \cdot GB - 0.12 \cdot GEN + 0.39 \cdot JSC - 0.34 \cdot JYC \\ & - 0.03 \cdot LEVEL + 0.15 \cdot NLNG + 0.18 \cdot RENAME \\ & + 0.44 \cdot RESUME + 1.62 \cdot TRAV - 0.24 \cdot WTX\end{aligned}$$



# First Model - Comparison Results

Table: Our Expectations

	Effect	
Gender	+	-
Age	+	+
Number of foreign languages	?	+
Level of english	?	-
Exchange program	-	+
Travel	-	+
Girlfriend/Boyfriend	+	-
Resume	+	+
Friends abroad	+	+
Weather	+	-
Reputation	+	+
Education	-	-

## Second Model

$$Y = \beta_0 + \beta_1 \cdot AGE + \beta_2 \cdot ECH + \beta_3 \cdot JSC + \beta_4 \cdot JYC + \beta_5 \cdot RESUME \\ + \beta_6 \cdot TRAV + \beta_7 \cdot FA + \beta_8 \cdot LEVEL + \beta_9 \cdot WTX + \beta_{10} \cdot NLNG$$

## Second Model - Result

	Coefficient	Std. Error	t-Statistic	Prob.
C	-5.167249	2.907131	-1.777440	0.0816
AGE	0.196526	0.076785	2.559431	0.0136
ECH	0.430717	0.393565	1.094398	0.2790
JSC	0.414223	0.426034	0.972278	0.3356
JYC	-0.355318	0.469309	-0.757108	0.4525
RESUME	0.493377	0.611903	0.806299	0.4239
TRAV	1.394191	1.037094	1.344326	0.1849
FA	1.128818	0.961414	1.174123	0.2459
LEVEL	-0.031109	0.107173	-0.290266	0.7728
WTX	-0.276099	0.381842	-0.723073	0.4730
NLNG	0.141917	0.189006	0.750864	0.4563
R-squared	0.161442	Mean dependent var		2.475410
Adjusted R-squared	-0.006269	S.D. dependent var		1.205633
S.E. of regression	1.209407	Akaike info criterion		3.379942
Sum squared resid	73.13324	Schwarz criterion		3.760591
Log likelihood	-92.08823	Hannan-Quinn criter.		3.529122
F-statistic	0.962618	Durbin-Watson stat		2.291371
Prob(F-statistic)	0.486823			

Figure: Estimation output second model

# Wald Test

Wald Test:  
Equation: EQ02

Test Statistic	Value	df	Probability
F-statistic	0.261227	(8, 45)	0.9751
Chi-square	2.089814	8	0.9781

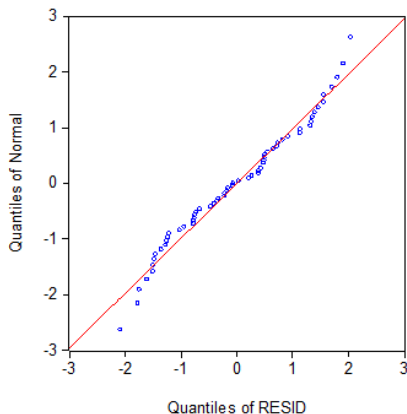
Null Hypothesis Summary:

Normalized Restriction (= 0)	Value	Std. Err.
C(4)	-0.006459	0.382130
C(5)	-0.254569	0.448501
C(7)	-0.195535	0.395258
C(8)	-0.117191	0.387923
C(11)	-0.033367	0.113776
C(13)	0.176444	0.555031
C(14)	0.441970	0.699556
C(16)	-0.235446	0.446919

Restrictions are linear in coefficients.

Figure: Wald Test

## Improvement of the model



**Figure:** Quantile-quantile plot of the Residual against the normal distribution

# Conclusion

- The highest impact: Friends abroad, Travel
- "Travel" has a positive influence in real
- more subjects for the survey
- Improve the model

Thank you for your attention!