Peoples' Willingness to Pay for Environmental Conservation in Tabriz, Iran: A Preview of Social and Economic Determinants

A research carried out by:

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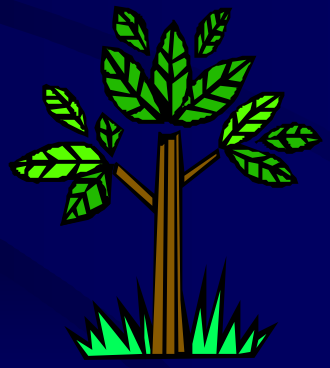
Introduction

1. Physical characteristics (the land)
2. Population
3. Climate



Iran's Map


ARMENIA
AZERBAIJAN
Caspian Sea
TURKMENISTAN
Tabrīz
Mashhad
TEHRĀN
IRAQ
Qom
Kermanshāh
Birjand
Dezfūl
Eşfahān
AFGHANISTAN
Yazd
Ahvāz
Bandar-e Khomeyni
Kerman
Shīrāz
Zāhedān
KUWAIT
Bandar-e Būshehr
PAKISTAN
Bandar-e 'Abbās
BAHRAIN
Gulf of Hormuz
SAUDI ARABIA
QATAR
UNITED ARAB EMIRATES
OMAN
Bandar Beheshtī

Map of Tabriz

Questions of the study

1. What are different types of pollution in peoples' view?
2. What are the main solutions for pollution management in their view?
3. How their social and economic characteristics influence their WTP?
4. How much people are willing to pay for environmental conservation?

Sampling population and study methods

- Systematic random sampling and a contingent valuation technique
- Filling in questionnaires

- The contingent valuation method involves directly asking people, in a survey, how much they would be willing to pay for specific environmental services. In some cases, people are asked for the amount of compensation they would be willing to accept to give up specific environmental services.

- It is called “contingent” valuation, because people are asked to state their willingness to pay, *contingent* on a specific hypothetical scenario and description of the environmental service.

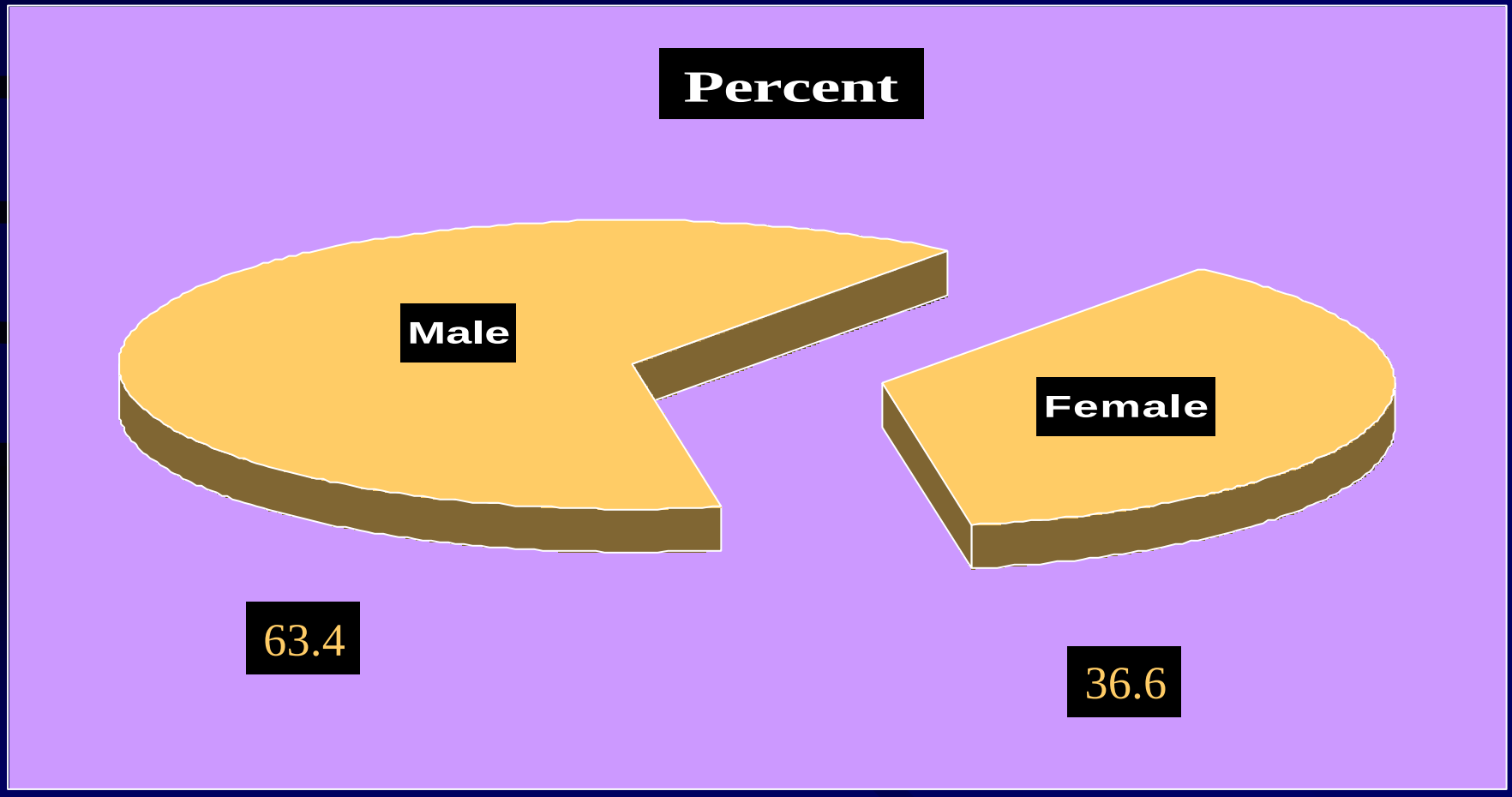
- The contingent valuation method is referred to as a “stated preference” method, because it asks people to directly state their values.

- Contingent valuation is one of the only ways to assign dollar values to non-use values of the environment—values that do not involve market purchases and may not involve direct participation.

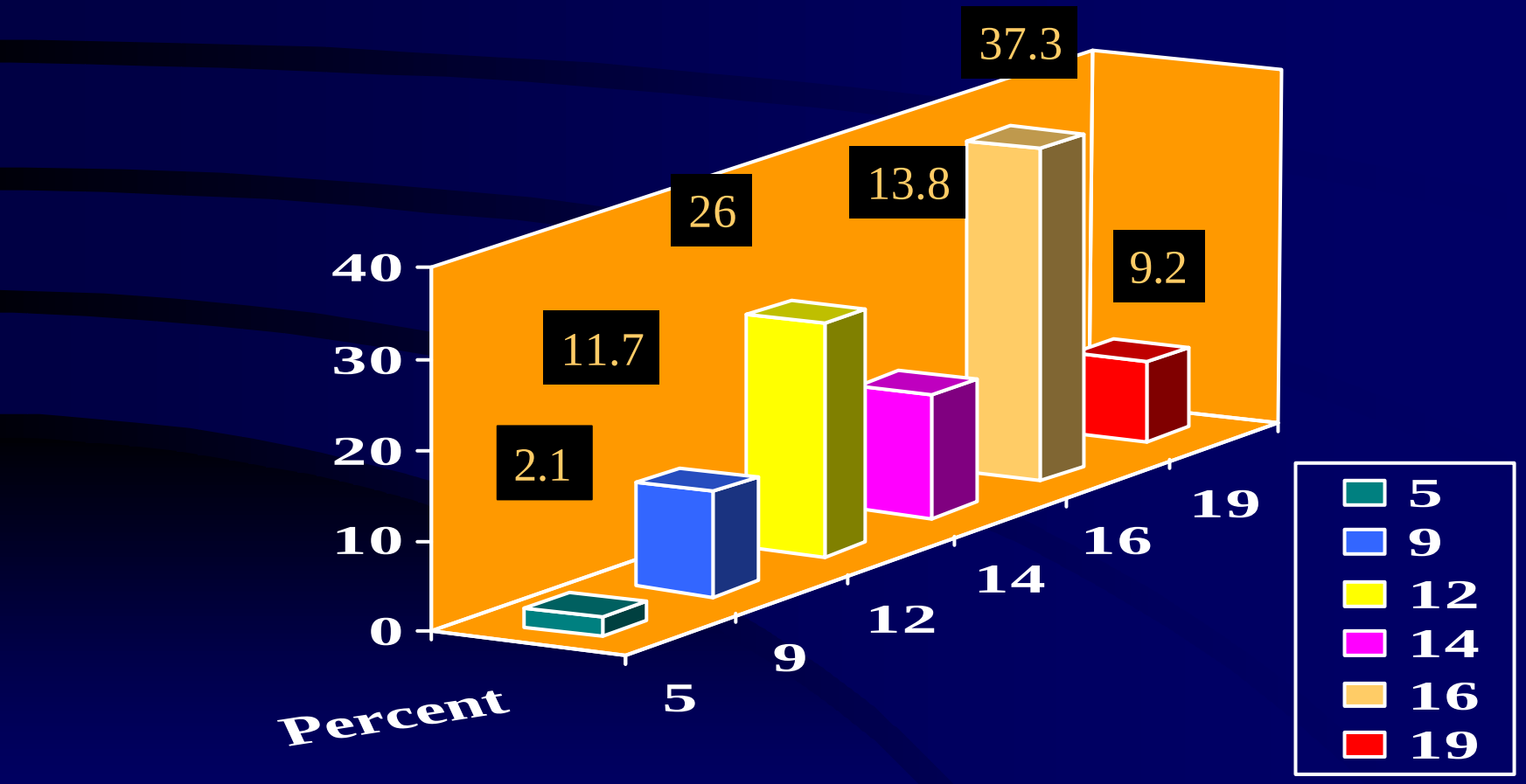
Literature Review

- Gramlich (1977)
- Cooper and Osborn (1998)
- Swallow and Woudyalew (1994)
- Carson, et al. (1998)
- Schulz and Lindsay (1990)
- Brookshire, et al.. (1976)
- Halvorsen and Salensminde (1988)
- Khorshiddoust (1994)
- Alberini, et al.. (1997)
- Breffle, et al. (1998)
- Garrod and Willis (1998)
- Altof and Greig (1977)
- FAO (2000)

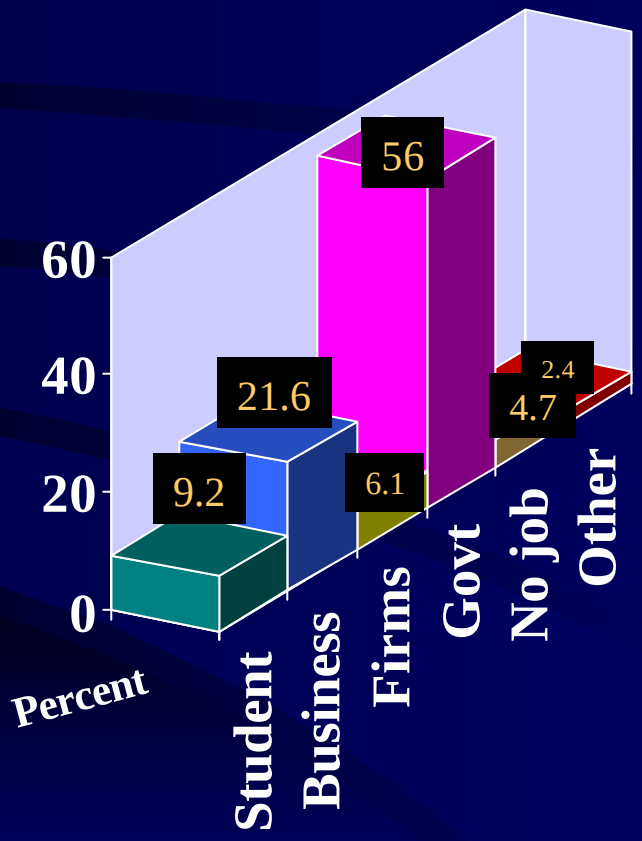
Gender Composition

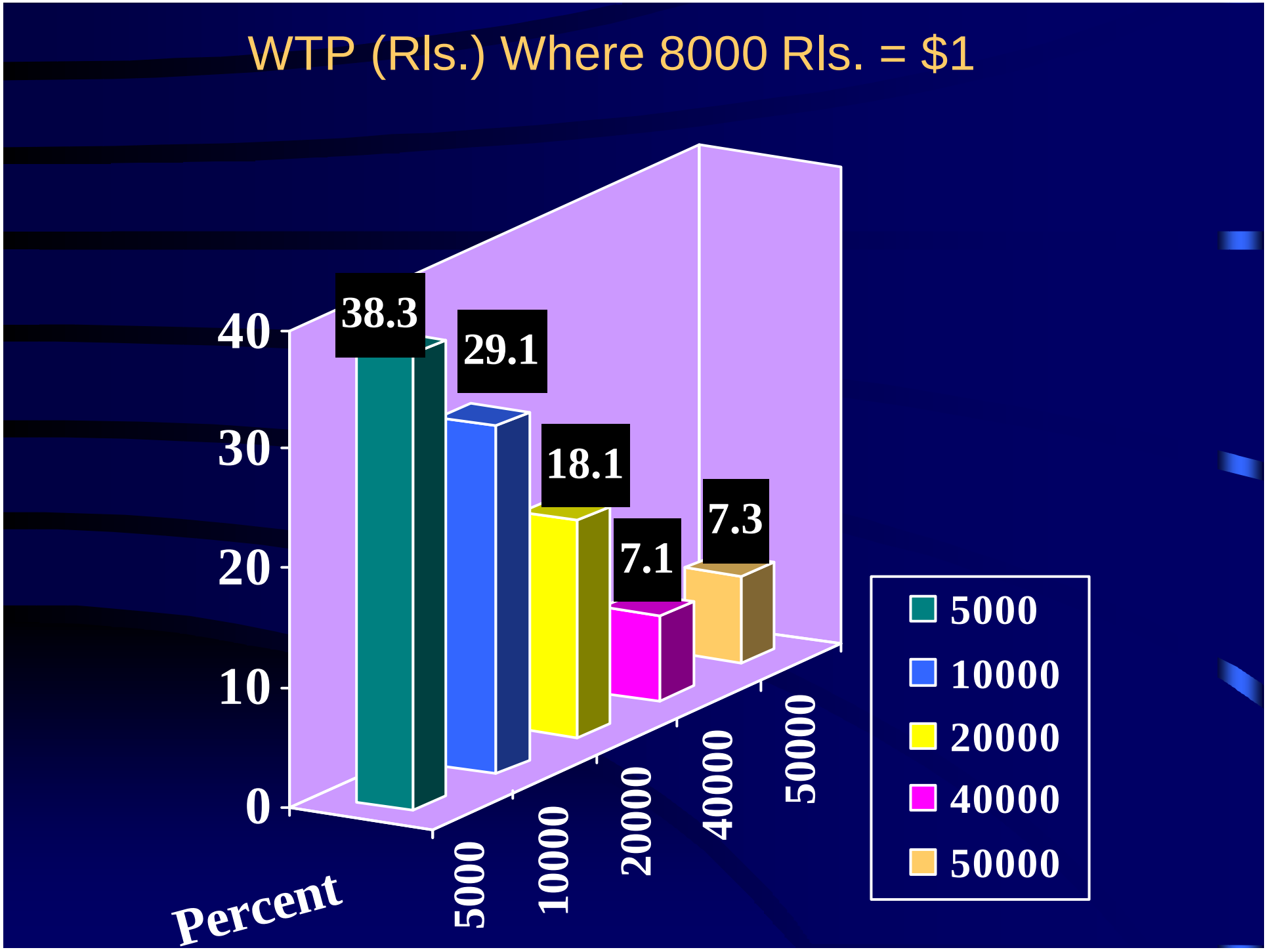


Education (Years)

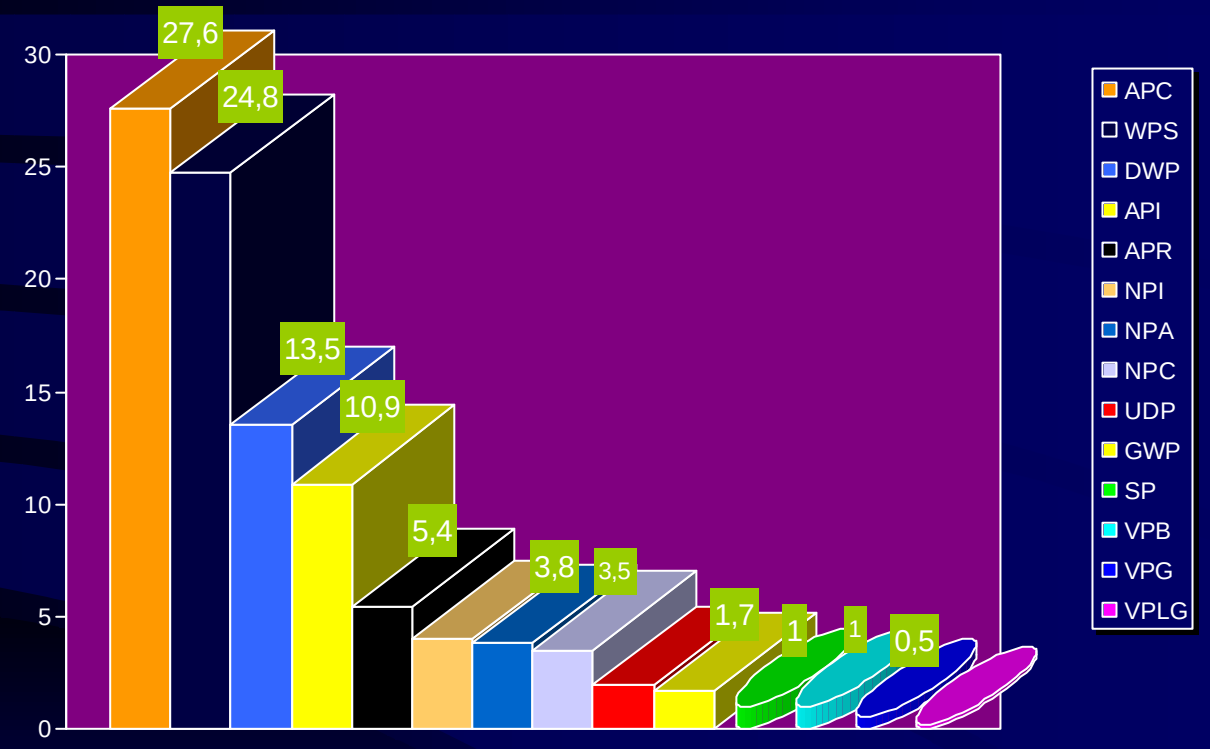


Respondents' Job




WTP (Rls.) Where 8000 Rls. = $1
38.3
29.1
18.1
7.1
7.3
40
30
20
10
0
Percent
5000
10000
20000
40000
50000
5000
10000
20000
40000
50000

Pollution Types



Pearson Correlation between variables

	WTP	Gender	Educ	Age	Job	Inc
WTP	-	0.049 (N)	0.405	0.175	-0.070 (N)	0.314
Gender	0.049 (N)	-	0.029 (N)	0.021 (N)	0.068 (N)	0.042 (N)
Educ	0.405	0.029 (N)	-	0.155	0.036 (N)	0.296
Age	0.175	0.021 (N)	0.155	-	0.134	0.437
Job	-0.070 (N)	0.068 (N)	0.036 (N)	0.134	-	0.162
Inc	0.314	0.042 (N)	0.296	0.437	0.162	-

Regression Model Summary

Model	R	R Square	Adjusted R Square
1	,405[a]	,164	,163
2	,454[b]	,206	,203
3	,469[c]	,220	,216

a Predictors: (Constant), EDUC
b Predictors: (Constant), EDUC, INCOME
c Predictors: (Constant), EDUC, INCOME, JOB
d Dependent Variable: WTP

Table on ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	17389643121,591	1	17389643121,591	112,445	,000[a]
	Residual	88459660014,297	572	154649755,270		
	Total	105849303135,888	573			
2	Regression	21773933810,414	2	10886966905,207	73,939	,000[b]
	Residual	84075369325,474	571	147242328,066		
	Total	105849303135,888	573			
3	Regression	23252730846,778	3	7750910282,259	53,489	,000[c]
	Residual	82596572289,111	570	144906267,174		
	Total	105849303135,888	573			

a- Predictors: (Constant), EDUC; b- Predictors: (Constant), EDUC, INCOME; c- Predictors: (Constant), EDUC, INCOME, JOB; **d- Dependent Variable: WTP**

Table on regression coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig
		B	Std. Error	Beta		
1	(Constant)	-9961,981	2407,349		-4,138	,000
	EDUC	1791,209	168,918	,405	10,604	,000
	INCOME					
	JOB					
2	(Constant)	-10688,743	2352,761		-4,543	,000
	EDUC	1512,553	172,552	,342	8,766	,000
	INCOME	9,625E-03	,002	,213	5,457	,000
	JOB					
3	(Constant)	-6523,838	2673,467		-2,440	,015
	EDUC	1505,678	171,192	,341	8,795	,000
	INCOME	1,052E-02	,002	,233	5,938	,000
	JOB	-1352,736	423,450	-,120	-3,195	,001

a- Dependent Variable: WTP

Results and Discussion

- The amounts of F ratio and ß (Betas) are significant in all estimations.
- The WTP is significantly correlated particularly with Education (0.405), Age (0.175), and Income (0.314).
- Highly educated people are more concerned about the environmental issues (R2 =0.405).
- Increasing age affects the people's WTP positively.
- Job has no important effect on WTP.
- Increasing income causes increased WTP.

Priority Policies for Environmental Conservation

- The Creation and reinforcement of green space
- More control on public motor vehicles and private cars
- More control on manufactures and industries
- Environmental education both in schools and universities
- Improvement of liquid and solid waste practices