

## How can have an influence to be a housewife on women's fiscal awareness? The case of Spain

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**Título:** ¿En que medida puede influir “ser ama de casa” en la conciencia fiscal de las mujeres? El caso de España.

**Resumen:** Los autores analizan la conciencia fiscal de los ciudadanos españoles sobre el sistema fiscal. Se utiliza un cuestionario que explora los factores determinantes del sistema: conocimiento y aceptación del fraude, uso de prestaciones sociales y la satisfacción y la confianza en las instituciones. Se construye una tabla de contingencia y se estudia su significación estadística mediante el Coeficiente  $V$  de Cramer, modelos de regresión logística binaria, multinomial y regresión ordinaria. Como covariables se tomaron el nivel educativo y la situación laboral, demostrando la falta de significación estadística del género en la conciencia fiscal. Si existen diferencias significativas entre hombres y el grupo amas de casa. Estas muestran niveles más bajos de conciencia fiscal, un menor conocimiento del sistema, mayor aceptación del fraude menor confianza en las administraciones y hacia sus conciudadanos.

**Palabras clave:** conciencia fiscal; trabajo y cuidados no remunerado, conciencia fiscal y género, fraude fiscal.

**Abstract:** The authors analyze the Spanish fiscal awareness through citizens' perception on the tax system. A questionnaire is used for exploring the most influential factors: knowledge of the system, acceptance of fraud, use of social benefits without adequate compensation, and satisfaction and confidence in institutions.

Once the contingency table is built and the strength of the statistical significance is analyzed - by Cramer's  $V$  coefficient - binary logistic regression models, multinomial logistic regression and ordinal regression are applied. Educational level and employment status were taken as covariates, demonstrating the lack of statistical significance of gender in tax awareness.

There are significant differences between men, women and the group of housewives. These women show lower levels of fiscal awareness, a greater lack of knowledge about the system, more acceptance of fraud, more dissatisfaction with administrations and further distrust towards their fellow citizens.

**Key words:** unpaid work, fiscal awareness, housewives, gender, fiscal fraud.

### Introduction

Awareness is a human attribute, our phenomenal experience of the world and the immediate. It tells us which things are right and wrong. And we use moral reasoning to judge them. The difference between what is said and what is done is the difference between moral reasoning and moral action. People with a better moral reasoning ability will supposedly present a better awareness: those who know the most will exhibit a better behavior.

Within the tax field, values *-wirkungen-* are key aspects to awareness, as they shape the legal principles being the foundations of tax law. Fiscal awareness is made up by the attitudes and conducts of taxpayers when it comes to complying with tax authorities (Tipke, 2002).

Previous studies have focused on tax morale, usually associated with the degree of acceptance or tolerance to tax fraud. The first research on tax morale was conducted in the Cologne School of Tax Psychology with Schmolders (1960) in the lead; and from the economic approach, the authors to be highlighted are Allingham and Sandmo (1972); Becker (1968), and Arrow (1970). Afterwards, research started studying other aspects, such as the *psychosocial factors* of tax conducts: Pommerehne and Weck-Hannemann (1996); Alm, McClelland and Schulze (1999); Feld and Tyran (2002); Feld and Frey (2002); Frey and Meier (2004); Alm and Torgler

(2006); Frey and Torgler (2006); Kirchler et al. (2008), and Alm and Gómez (2008)<sup>1</sup>, among others.

There are many factors that may have an impact on tax morale: cultural factors, institutional factors, trust in the system, sociological factors, and even globalization (Bravo, Castro and Gutierrez, 2011)

On the other hand, the gender impact on fiscal awareness has also been studied, and the main conclusion is that women taxpayers present higher levels of tax compliance than men do (Jackson and Milliron, 1986; Richardson and Sawyer, 2001; Torgler and Schneider, 2009).

Porcano (1988), Mason and Calvin (1984), Wenzel (2006) and Jackson and Milliron (1986) show that gender influences tax compliance, stating that single men are less willing to pay tax. Other works suggest that women are more compliant than men in general (Tittle, 1980), which may allow us to think that women present higher levels of tax compliance as well. Jackson and Milliron, 1986; Mason and Calvin, 1984; Porcano, 1988; Vogel, 1994, and Kinsey and Grasmick, 1993, also support that men exhibit lower levels of compliance than women do.

When studying the gender differences in tax attitude changes influenced by better tax knowledge, Fallan (1999) affirms that male students are more exposed to tax knowledge in a way that makes them reconsider more easily their attitudes towards their own tax evasion, i.e. tax ethics, than their female peers. Male students get a significantly

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<sup>1</sup> Most of those works are based on the World Value Survey (WVS) and the European Value Survey (EVS) gather citizens' values and acceptance of fraud at an international level, the Spanish Center of Sociological Research (CIS<sup>1</sup>) is in charge of doing so in Spain on a yearly basis.

stricter attitude towards their own tax evasion. On the other hand, female students are more exposed to tax knowledge in a way that makes them reconsider their attitude towards other people's tax evasion than their male peers, i.e. they get a significantly stricter attitude towards others' tax evasion. Improved tax knowledge significantly changed both male and female students' attitude towards the fairness of the tax system, i.e. they considered the tax system fairer. Implications for ethical behavior of taxpayers are highlighted.

Andreoni and Vesterlund (2001), along with Eckel and Grossman (2001), reckon that gender has an impact on conducts such as charitable giving, negotiations and household decision making, and suggest that women show higher levels of tax awareness. Martinez-Vazquez and Torgler (2009) also report on significantly higher levels of tax morale and compliance in women than men in most cases.

However, there are other works providing new considerations to this respect (Hite, 1997; Richardson and Sawyer, 2001; Alarcón et al., 2012). They deduce that the gender gap is reducing due to women's independence. In other words, the differences in the behavior of both genders are fewer in the generation of nontraditional women. Focusing on the interaction between gender and education, Hite (1997) concludes that women with university studies tend to be more tolerant to noncompliance than women with no university studies. On the contrary, men are less likely to be tolerant to tax evasion when they have higher levels of educational attainment. However, Alarcón et al. (2012) show that Spanish women are more tolerant to tax noncompliance, except for those belonging to the upper income brackets.

The impact of education on tax compliance is not clear either. According to Fallan (1999) the pre-test-post-test quasi-experiment using students from different backgrounds shows that tax knowledge has a significant impact on the perceived tax fairness. Tax knowledge contributes to a fairer attitude towards taxation and higher compliance levels. Christensen et al. (1994) point out that tax education, information and clarification on tax matters will help to judge the system as fair.

In this paper, we support the existence of a positive relationship between tax education and fiscal awareness in line with the arguments given by Spicer and Lundstedt (1976), Kirchler (1998), Blumenthal and Christian (2004), and Wenzel (2006).

We understand *fiscal awareness* as the individual perception of each citizen, regarding the fiscal ethics and tax morale of the society in which they live (Tipke, 2002) which leads him to voluntarily meeting their tax obligations.

From a wider perspective, fiscal awareness is defined as the individual behavior when tackling tax obligations. Fiscal awareness is the individual perception of each citizen with respect to fiscal ethics and with respect to the fiscal morale of the society in which he or she lives. Fiscal awareness requires some degree of reflexive knowledge on behalf of the citizen. This knowledge concerns both the public revenues (how the state obtains its resources from the citizens) and

the public expenses (how the state spends its revenues in benefit of the citizens). Fiscal awareness, therefore, contains psycho-social components (trust and satisfaction with the system), values that pertain to the moral domain, as well as technical components related to the objects and subjects involved in the fiscal process (Alarcón et al., 2008, Alarcón et al., 2012).

Fiscal awareness is made up by (a) ethical factors, every individual's values and principles regarding taxes; (b) psychosocial factors, satisfaction with the efficiency of Administrations when applying tax revenues, and trust in fiscal administrations, among others; and (c) technical factors of knowledge on the tax system and demographic determinants. Someone presenting high tax awareness will pay their taxes voluntarily regardless of what their neighbours do and what the collective moral of the group considers that should be done, and regardless of the individual's possibilities to commit tax fraud. Fiscal awareness is based on the individual's identification with their own particular values. On the other hand, tax morale is the correlation between individual values and socially-accepted values. Therefore, tax compliance involves both fiscal awareness and tax morale, as it can depend on either taxpayers' internal factors (values and/or knowledge) or rules (law, social norms and/or ideology, etc.).

Fiscal Awareness, as the awareness is, is a dynamic phenomenon that is in a constant feedback process where psychosocial factors play a vital role (Lyon and Woodward, 2004).

Acceptance of fiscal fraud is the negative definition of fiscal awareness as well as tax morale. In other words, tax fraud tolerance is the clearest expression of a low fiscal awareness that fosters the development of a low fiscal morale in the community where individuals with low fiscal awareness live in. This is why the most immediate way to measure fiscal awareness or morale is getting to know the individuals' attitude towards fiscal fraud. This is the parameter used in this study, and the most used one in the literature on fiscal morale, even though this concept cannot be identified, and even though its validity is discussed due to the multidimensional nature of fiscal awareness and tax morale (Alm and Torgler, 2006)

### Objectives of this study

Our goal is to ascertain the influence of some factors, such as tax knowledge or the relationship between taxpayers and tax administrations, on the Spanish tax awareness. Additionally, we aim at explaining the way how some socio-demographic variables, such as educational attainment or labor status, modify the citizens' perception of the tax system. And finally, the last question is to determine whether there are significant differences between men and women, regarding the perception of tax fairness, perception of fraud, or the trust on government and fellow citizens.

The general starting assumption is that Spanish men and women may be different when it comes to determining the values shaping tax awareness and the tax knowledge (Bailey, 2000).

And we, specifically, suppose that:

- 1.- Tax awareness and the concept of tax fairness are influenced by the knowledge of the tax system and the experience with tax administrations.
- 2.- Tax awareness is also influenced by socio-demographic variables, such as gender, educational attainment and labor status.
- 3.- Women, traditionally excluded from the public sphere – which involves labor and tax obligations-, and specially housewives, show lower levels of tax awareness and trust on the public administrations, and are more dissatisfied with public services, as they are not direct users because they have been relegated to the domestic sphere.

Section 2 presents the methodology of the study. Section 3 shows the results, which reveal that women's view of the fairness of the Spanish tax system is more negative, especially in the group of housewives

The results are discussed in section 4, linking the perception of the tax system with the housewives' traditional shift away from the educational system and tax obligations. It is possible to conclude, section 5, that the relationship between gender and the perceived tax fairness is an artifact of the mediatory role played by socio-demographic variables (Sánchez Meca & Velandrino, 1992).

## Method

### Participants

The population under study is the people residing on the national territory, this is, 32,440,321 people, according to the Padrón Continuo 2005 (Instituto Nacional de Estadística; National Institute of Statistics)

A probability multistage sample stratified by gender was used, selecting an independent sample within all the 17 autonomous communities.

Questionnaires totaled 1,500, and the proportion of gender and age was kept. As to age, respondents were from 25, age when it is feasible for people to declare their income, to 60 years old, with or without studies. Out of the total of women, 29.6% are housewives. Of this share, 18% have no studies; 48.5% have primary education; 22.6% have secondary education studies, and 10.5% have completed university studies.

### Procedure

A questionnaire was designed to analyze the Spanish citizens' opinions on diverse aspects related to tax awareness.

In order to test the differences in the answers given to the survey by men and women, the contingency table was built and the statistical significance analyzed by the Pearson's chi squared for a 5% level significance, and the strength of the relationship between the two variables was estimated by Cramer's  $V$  coefficient (Table 1).

The proportionality between sexes and ages has been maintained in the 1,500 questionnaires, which have been addressed to subjects aged between 25 and 60.

### Results

Table 1 presents the Cramer's  $V$  coefficients for the relationship between gender and each one of the items of the questionnaire about tax awareness.

The columns 'Women' and 'Housewives' present the Cramer's  $V$  coefficients between gender and each one of the questions.

We are dealing with those variables having a significant impact, however weak it may be, on gender differences. The focus is on the group of housewives and the variables controlled are the ones related to the level of educational attainment and the labor status. We use educational attainment and labor status as covariables (Table 2). Ordinal variables based on gender (Table 3).

And gender as the main predictor variable (Table 4).

In order to control the possible impact of some socio-demographic variables on the significant relationships found between men and women, or housewives, the multinomial logistic regression model and ordinal regression model were applied to the survey items when the question was dichotomous with more than two unordered categories or with more than two ordered categories, respectively. Educational attainment and labor status are used as covariables (Serrano & Ato, 1984).

### On the Tax System

According to the respondents' answers, the concept of justice held by the Spanish is based on the idea of progressiveness, and not on the principles of equality or generality. We do not find any significant difference between men and women in relation to their educational level or labor status. Among the housewives, this percentage is even higher (61.5% of housewives and 58.7% of the total of women).

**Table 1.** Summary table showing the results of the chi-squared tests applied to every survey question based on gender.

|                                                                                                                        | Men versus ... |                   |
|------------------------------------------------------------------------------------------------------------------------|----------------|-------------------|
|                                                                                                                        | Women          | Housewives        |
| <i>Q5</i> : In your opinion, what is tax fairness?                                                                     |                |                   |
| - The rich pay more taxes                                                                                              | .016           | .018              |
| - All citizens pay taxes                                                                                               | .013           | .003              |
| - Citizens with the same ability to pay must pay the same amount of taxes                                              | .009           | .024              |
| <i>Q6</i> : Assess how fair is our current tax system                                                                  | .085*          | .114*             |
| <i>Q7</i> : Which tax would you suppress?                                                                              | .163***        | .181***           |
| <i>Q10</i> : Are you willing to pay fewer taxes in return of losing some social services?                              |                |                   |
| - Education                                                                                                            | .027           | .058              |
| - Health Service                                                                                                       | .017           | .006              |
| - Pensions                                                                                                             | .020           | .066*             |
| - Citizen Security                                                                                                     | .045           | .037              |
| - You are not willing to pay less in return of the privatization or reduction of public services                       | .021           | .017              |
| <i>Q8</i> : Do you know the norms of the taxes you pay?                                                                | .082*          | .097*             |
| <i>Q9</i> : Do you know the standard VAT rate?                                                                         | .160***        | .200***           |
| <i>Q11A</i> : Which is the administration in charge of collecting the land value tax?                                  | .078*          | .066              |
| <i>Q11B</i> : Which is the administration in charge of collecting the property tax and the inheritance and gift taxes? | .164***        | .179***           |
| <i>Q11C</i> : Which is the administration in charge of collecting the corporate tax?                                   | .195***        | .221***           |
| <i>Q14</i> : Which is the tax that is more expensive in Spain than in other European countries? <sup>b</sup>           |                |                   |
| - Personal Income Tax                                                                                                  | .006           | .061              |
| - VAT                                                                                                                  | .040           | .042              |
| - Corporate Tax                                                                                                        | .124***        | .069*             |
| - None of them                                                                                                         | .068**         | .050              |
|                                                                                                                        | .093***        | .093**            |
| <i>Q19A</i> : Satisfaction with the central administration                                                             | .132***        | .136***           |
| <i>Q19B</i> : Satisfaction with the administration of the autonomous community                                         | .080*          | .111*             |
| <i>Q19C</i> : Satisfaction with the local administration                                                               | .054           | .087              |
| <i>Q13A</i> : Contribution to reducing poverty                                                                         | .119***        | .096 <sup>a</sup> |
| <i>Q13B</i> : Contribution to increasing everyone's life standards                                                     | .123***        | .147***           |
| <i>Q13C</i> : Contribution to favoring the rich                                                                        | .087*          | .129***           |
| <i>Q15</i> : Tax fraud is justified when...                                                                            | .070           | .105 <sup>a</sup> |
| <i>Q16</i> : Which of these two conducts is more reprehensible?                                                        | .075*          | .091*             |
| <i>Q17</i> : Effectiveness of authorities fighting fraud                                                               | .051           | .057              |
| <i>Q18</i> : When fighting fraud, what is more effective?                                                              | .063           | .086              |

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ . <sup>a</sup> $p = .06$ .

**Table 2.** Results from the ordinal regression analyses with gender as the main predictor variable, and educational attainment level and labor status as covariables.

| Dependent variable                                                  | $b_1$ | $SE(b_1)$ | Wald's Statistic | $p$  | $R^2$ |
|---------------------------------------------------------------------|-------|-----------|------------------|------|-------|
| <i>Q6</i> . Value of tax fairness                                   | -.005 | .068      | .006             | .938 | .016  |
| <i>Q8</i> . Extent of tax knowledge                                 | .118  | .101      | 1.381            | .240 | .066  |
| <i>Q19A</i> . Satisfaction with central administration              | -.005 | .065      | .005             | .942 | .004  |
| <i>Q19B</i> . Satisfaction with autonomous community administration | -.098 | .065      | 2.292            | .130 | .002  |
| <i>Q19C</i> . Satisfaction with local administration                | .072  | .068      | 1.124            | .289 | .012  |
| <i>Q13A</i> . Contribution to reducing poverty                      | .157  | .072      | 4.759            | .029 | .008  |
| <i>Q13B</i> . Contribution to increasing quality of life            | .225  | .067      | 11.338           | .001 | .010  |
| <i>Q13C</i> . Contribution for the rich                             | -.064 | .070      | .838             | .360 | .026  |
| <i>Q17</i> . Effectiveness of administrations fighting fraud        | -.027 | .067      | .160             | .689 | .004  |

$b_1$ : regression coefficient of gender once the influence of educational attainment and labor status are controlled.  $SE(b_1)$ : standard error of  $b_1$ . Wald's statistic: statistic to test the statistical significance of gender on the outcome variable.  $p$ : probability level for the Wald's statistic.  $R^2$ : Nagelkerke's pseudo-R squared index to reflect the proportion of variance accounted for by the three predictors on the outcome variable.

**Table 3.** Choice probabilities estimated by the ordinal regression models for all the four answer categories of the ordinal dependent variables based on gender, once the influence of the educational attainment level and labor status have been reduced.

| Dependent variable                                                      | Gender | 1    | 2    | 3    | 4    |
|-------------------------------------------------------------------------|--------|------|------|------|------|
| Q6 Value of tax fairness <sup>a</sup>                                   | Men    | .304 | .417 | .197 | .082 |
|                                                                         | Women  | .329 | .407 | .187 | .077 |
| Q8 Extent of tax knowledge <sup>b</sup>                                 | Men    | .222 | .105 | .467 | .206 |
|                                                                         | Women  | .283 | .117 | .438 | .161 |
| Q19A Satisfaction with central administration <sup>c</sup>              | Men    | .285 | .336 | .257 | .122 |
|                                                                         | Women  | .281 | .336 | .259 | .123 |
| Q19B Satisfaction with autonomous community administration <sup>c</sup> | Men    | .269 | .378 | .268 | .085 |
|                                                                         | Women  | .238 | .383 | .286 | .093 |
| Q19C Satisfaction with local administration <sup>c</sup>                | Men    | .301 | .405 | .230 | .064 |
|                                                                         | Women  | .341 | .390 | .210 | .058 |
| Q13A Contribution to reducing poverty <sup>d</sup>                      | Men    | .360 | .377 | .181 | .081 |
|                                                                         | Women  | .428 | .348 | .155 | .068 |
| Q13B Contribution to increasing quality of life <sup>d</sup>            | Men    | .252 | .382 | .248 | .117 |
|                                                                         | Women  | .334 | .362 | .209 | .094 |
| Q13C Contribution to the rich <sup>d</sup>                              | Men    | .216 | .176 | .269 | .339 |
|                                                                         | Women  | .193 | .161 | .259 | .386 |
| Q17 Effectiveness of authorities fighting fraude                        | Men    | .384 | .189 | .073 | .032 |
|                                                                         | Women  | .382 | .187 | .072 | .031 |

<sup>a</sup> Categories are: 1, totally unfair; 2, little fair; 3, fair; 4, very fair.

<sup>b</sup> Categories are: 1, I have no knowledge; 2, my knowledge is inadequate; 3, my knowledge is acceptable; 4, my knowledge is good.

<sup>c</sup> Categories are: 1, totally dissatisfied; 2, little satisfied; 3, satisfied; 4, very satisfied.

<sup>d</sup> Categories are: 1, not at all; 2, barely; 3, to a fair extent; 4, to a large extent.

<sup>e</sup> Categories are: 1, not effective at all; 2, little effective; 3, effective; 4, very effective.

**Table 4.** Results of the binary logistic regression analysis with gender as the main predictor variable and the educational attainment and labor status as covariables

| Dependent variable                            | $b_1$ | $SE(b_1)$ | Wald's Statistic | $p$   | $R^2$ |
|-----------------------------------------------|-------|-----------|------------------|-------|-------|
| Q9 Do you know the standard VAT rate?         | -.369 | .134      | 7.600            | .006  | .089  |
| Q11A Land value tax collecting administration | -.185 | .109      | 2.856            | .091  | .027  |
| Q11B Property tax collecting administration   | -.467 | .118      | 15.739           | <.001 | .081  |
| Q11C Corporate tax collecting administration  | -.184 | .115      | 2.552            | .110  | .063  |
| Q16 Most reprehensible conduct                | .059  | .115      | .265             | .607  | .064  |

Respondents give a low score –they chose 2 out of the four alternatives–, to the fairness of the tax system. Although there are significant differences between the scores given by men and women, the association coefficient is weak [ $\chi^2(4) = 10.933, p = .027$ ; Cramer's  $V = .085$ ], and vanishes when age and labor status (“employed”, “retired/pensioner”, and “others”) are controlled in an ordinal regression analysis (Table 2).

Results exhibit that women have a slightly more negative perception of the fairness of the tax system in Spain. This perception is worse in the group of housewives, where the first level, *totally unfair*, increases, whereas the third one decreases. Therefore, the relationship found between gender

and perceived tax fairness is an artifact of the mediatory role played by the socio-demographic variables.

However, later surveys convey that women's assessment is significantly more negative than that of men, with a higher association coefficient in the group of housewives. The effects of the economic crisis may be the cause of this increase in the negative perception of the tax system that both men and women have (Centro de Investigaciones Sociológicas; Centre for Sociological Research, 2011; Instituto de Estudios Fiscales. Institute of Fiscal Studies, 2012)

Discrepancies about which taxes should be suppressed are statistically significant from the gender perspective (Table 5).

**Table 5.** Tax to be suppressed based on gender.

| Q7. Tax you would suppress if you were a legislator  | Total | Gender |       | Housewives |
|------------------------------------------------------|-------|--------|-------|------------|
|                                                      |       | Men    | Women |            |
| Personal Income Tax                                  | 12.5  | 12.2   | 12.7  | 15.8       |
| Inheritance Tax                                      | 33.7  | 39.9   | 27.8  | 24.6       |
| Consumption-related taxes (VAT, special taxes, etc.) | 35.3  | 29.7   | 40.5  | 40.8       |
| None of them                                         | 14.8  | 16.0   | 13.6  | 12.3       |
| DK                                                   | 3.8   | 2.2    | 5.3   | 6.6        |
| Total                                                | 1500  | 730    | 770   | 228        |

These differences between sexes remain significant: [ $\chi^2(4) = 39.809, p < .001$ ; Cramer's  $V = .163$ ], and increase when comparing men and housewives: [ $\chi^2(4) = 31.471, p < .001$ ; Cramer's  $V = .181$ ], even when the variables of educational attainment [ $\chi^2(3) = 17.614, p < .001$ ] and labor status [ $\chi^2(3) = 19.732, p < .001$ ] are controlled.

On the other hand, both men and women are not willing to reduce taxes at the expense of the privatization or suppression of social services. The differences found are not significant, except for pension privatization, which is significantly higher in the group of housewives (7.5%) than in the group of men (4.1) [ $\chi^2(1) = 4.171, p = .041$ ; Cramer's  $V = .066$ ].

**On fiscal awareness**

Tax awareness is based on citizens' tax knowledge (Table 6) and their experience with the system, and it is then displayed by means of the trust on the tax administrations, and materialized in the extent of satisfaction with the use and distribution of the revenues collected.

Regarding VAT there is a broad general knowledge. Women, especially housewives, are the most unfamiliar with VAT (see Table 7).

**Table 6.** Knowledge on the rules of the main taxes based on gender.

| Q8. Do you know the rules of the main taxes? | Total | Gender |       | Housewives |
|----------------------------------------------|-------|--------|-------|------------|
|                                              |       | Men    | Women |            |
| My knowledge is good                         | 18.3  | 20.7   | 16.0  | 15.4       |
| My knowledge is acceptable                   | 45.4  | 46.6   | 44.3  | 42.5       |
| My knowledge is inadequate                   | 11.1  | 10.3   | 11.8  | 10.5       |
| I have no knowledge                          | 25.3  | 22.5   | 27.9  | 31.6       |
| Total                                        | 1500  | 730    | 770   | 228        |

**Table 7.** Knowledge on VAT based on gender.

| Q9. Which is the standard VAT rate? | Total | Gender |       | Housewives |
|-------------------------------------|-------|--------|-------|------------|
|                                     |       | Men    | Women |            |
| 16%                                 | 76.2  | 82.1   | 70.6  | 66.2       |
| 12%                                 | 4.4   | 4.2    | 4.5   | 5.3        |
| 7%                                  | 7.1   | 6.6    | 7.5   | 7.5        |
| DK                                  | 12.3  | 7.1    | 17.3  | 21.1       |
| Total                               | 1500  | 730    | 770   | 228        |

This lack of knowledge still exists when controlling respondent's educational attainment and labor status (Table 4).

Additionally, respondents do not know which administration is in charge of collecting which taxes (Table 8).

**Table 8.** Knowledge on which administration collects which taxes based on gender.

| Q11. Which administration collects the following taxes? | Total | Gender |       | Housewives |
|---------------------------------------------------------|-------|--------|-------|------------|
|                                                         |       | Men    | Women |            |
| <b>(A) Land value tax:</b>                              |       |        |       |            |
| Central administration                                  | 16.6  | 15.9   | 17.3  | 17.5       |
| Autonomous community administration                     | 14.8  | 13.8   | 15.7  | 13.2       |
| Local administration                                    | 52.5  | 56.3   | 49.0  | 50.4       |
| DK                                                      | 16.1  | 14.0   | 18.1  | 18.9       |
| <b>(B) Property tax and Inheritance and Gift taxes:</b> |       |        |       |            |
| Central administration                                  |       |        |       |            |
| Autonomous community administration                     | 30.1  | 28.8   | 31.3  | 33.8       |
| Local administration                                    | 32.6  | 40.0   | 25.6  | 20.6       |
| DK                                                      | 7.1   | 6.7    | 7.5   | 8.8        |
|                                                         | 30.2  | 24.5   | 35.6  | 36.8       |
| <b>(C) Corporate tax:</b>                               |       |        |       |            |
| Central administration                                  | 35.3  | 39.2   | 31.6  | 25.4       |
| Autonomous community administration                     | 16.1  | 21.5   | 11.0  | 10.1       |
| Local administration                                    | 6.9   | 5.2    | 8.4   | 11.0       |
| DK                                                      | 41.7  | 34.1   | 49.0  | 53.5       |
| Total                                                   | 1500  | 730    | 770   | 228        |

### On the Perception of the Tax System: Acceptance of Fiscal Fraud

Half the respondents affirmed that tax fraud is never justified (53.6%). Of all reasons justifying fraud, the most frequently selected one was “the wealthiest people do not pay what they should” (23.9%). In other studies, like those by CIS, we find similar answers to this question: more than 80% of the population does not justify tax fraud and this trend keeps up in 2008 and 2009 (this percentage heightens up to 84% in 2011).

Women are less strict when it comes to judging fraud: just 47.4% think tax fraud is wrong under every circumstance. Actually, when classifying the answers to this question in a dichotomous way, a statistically significant difference is found between men and housewives [ $\chi^2(1) = 3.847, p = .050$ ; Cramer's  $V = .063$ ].

Women give a lower score to the effectiveness of the central administration and are more dissatisfied with its system (Table 9), even when socio-demographic variables are controlled (Prieto, Sanzo and Suarez, 2006)

**Table 9.** Level of satisfaction with administrations based on gender.

| Q19 Level of satisfaction with public administrations based on gender | Total | Gender |       | Housewives |
|-----------------------------------------------------------------------|-------|--------|-------|------------|
|                                                                       |       | Men    | Women |            |
| <b>(A) Central administration:</b>                                    |       |        |       |            |
| Value 1 = Totally dissatisfied                                        | 34.7  | 30.8   | 38.3  | 44.7       |
| 2                                                                     | 41.1  | 39.6   | 42.5  | 35.5       |
| 3                                                                     | 17.4  | 21.0   | 14.0  | 15.4       |
| Value 4 = Very satisfied                                              | 5.1   | 6.8    | 3.4   | 3.1        |
| DK                                                                    | 1.8   | 1.8    | 1.8   | 1.3        |
| Mean                                                                  | 1.9   | 2.0    | 1.8   | 1.8        |
| <b>(B) Autonomous Community administration:</b>                       |       |        |       |            |
| Value 1 = Totally dissatisfied                                        | 29.9  | 30.0   | 29.9  | 33.8       |
| 2                                                                     | 40.0  | 37.8   | 42.1  | 41.2       |
| 3                                                                     | 18.6  | 21.0   | 16.4  | 13.2       |
| Value 4 = Very satisfied                                              | 6.1   | 6.8    | 5.5   | 4.4        |
| DK                                                                    | 5.3   | 4.4    | 6.2   | 7.5        |
| Mean                                                                  | 2.0   | 2.0    | 2.0   | 1.9        |
| <b>(C) Local Administration:</b>                                      |       |        |       |            |
| Value 1 = Totally dissatisfied                                        | 41.3  | 38.8   | 43.6  | 46.9       |
| 2                                                                     | 31.3  | 33.2   | 29.6  | 24.6       |
| 3                                                                     | 17.0  | 17.3   | 16.8  | 18.0       |
| Value 4 = Very satisfied                                              | 8.1   | 8.6    | 7.5   | 7.9        |
| DK                                                                    | 2.3   | 2.2    | 2.5   | 2.6        |
| Mean                                                                  | 2.3   | 2.2    | 2.5   | 1.9        |
| Total                                                                 | 1500  | 730    | 770   | 228        |

As regards to solidarity, trust and responsibility, results show some differences between men and women. Men think social services contribute to reducing poverty and allow the population to enhance the quality of life. This trend is reversed when assessing the benefits for the upper classes (Table 10).

On the contrary, housewives think that taxes favor the upper classes and their perspective of the aims of taxation is negative.

As an indirect manner for measuring respondents' tax awareness, they were asked to say which of these conducts was more reprehensible: *somebody failing to pay €6,000 to the Treasury or you being stolen €100*.

This question operates as a way of control for the other fraud-related items and aims at determining the extent to which individual interests override the general one.

### Discussion

To sum up, respondents show a noticeable lack of knowledge of the Spanish tax system, which leads to little or inadequate tax awareness. However, this is more clearly noticed in the group of housewives, although there are no significant differences in some cases.

It is of symbolic significance that men and women think that tax fairness is based on the rich paying more taxes, which supports the idea of a progressive justice where the state must not only equally distribute the revenues, but also use it effectively for the benefit of all citizens. On the other hand, the ideas of equality and generality, which are included in other answers, such as *everybody should pay or the same amount should be paid by those having the same ability to pay*, obtain lower percentages.

**Table 10.** Level of contribution of social services based on gender.

| Extent of the contribution of social services to ... | Total | Gender |       | Housewives |
|------------------------------------------------------|-------|--------|-------|------------|
|                                                      |       | Men    | Women |            |
| (A) reducing poverty:                                |       |        |       |            |
| Value 1 = Not at all                                 | 38.0  | 35.5   | 40.4  | 41.2       |
| 2                                                    | 34.7  | 32.6   | 36.6  | 35.5       |
| 3                                                    | 16.2  | 18.2   | 14.3  | 13.2       |
| Value 4 = To a large extent                          | 7.1   | 9.7    | 4.7   | 5.3        |
| DK                                                   | 4.0   | 4.0    | 4.0   | 4.8        |
| Mean                                                 | 1.9   | 2.0    | 1.8   | 1.8        |
| (B) increasing quality of life:                      |       |        |       |            |
| Value 1 = Not at all                                 | 28.4  | 25.5   | 31.2  | 36.0       |
| 2                                                    | 36.1  | 33.6   | 38.4  | 35.5       |
| 3                                                    | 21.9  | 25.5   | 18.6  | 14.5       |
| Value 4 = To a large extent                          | 10.2  | 12.5   | 8.1   | 8.8        |
| DK                                                   | 3.4   | 3.0    | 3.8   | 5.3        |
| Mean                                                 | 2.1   | 2.3    | 2.0   | 2.0        |
| (C) favoring the rich:                               |       |        |       |            |
| Value 1 = Not at all                                 | 19.3  | 20.0   | 18.6  | 16.7       |
| 2                                                    | 15.9  | 18.9   | 13.1  | 10.5       |
| 3                                                    | 25.0  | 23.6   | 26.4  | 22.4       |
| Value 4 = To a large extent                          | 34.4  | 32.6   | 36.1  | 42.5       |
| DK                                                   | 5.4   | 4.9    | 5.8   | 7.9        |
| Mean                                                 | 2.8   | 2.7    | 2.9   | 3.0        |
| Total                                                | 1500  | 730    | 770   | 228        |

**Table 11.** Most reprehensible conduct based on gender

| Q16. Which of these two conducts is more reprehensible? | Total | Gender |       | Housewives |
|---------------------------------------------------------|-------|--------|-------|------------|
|                                                         |       | Men    | Women |            |
| Someone failing to pay €6,000 to the Treasury           | 49.3  | 53.0   | 45.8  | 43.4       |
| You being stolen €100                                   | 43.5  | 41.0   | 46.0  | 46.9       |
| DK                                                      | 7.1   | 6.0    | 8.2   | 9.6        |
| Total                                                   | 1500  | 730    | 770   | 228        |

Regarding the perception of the tax system, our results point out that solidarity and the sense of duty have a weaker impact on tax awareness than the taxpayers' perception of and satisfaction with the quality of the public sector and satisfaction do.

As it was previously pointed out, satisfaction and confidence depend upon the perceived usefulness of taxes and the effectiveness of their distribution.

Regarding the trust on autonomous communities, which are closer to the citizen, the relationship between satisfaction and gender was statistically significant when controlling the educational attainment, but it was no longer significant when controlling the labor status. It is interesting that housewives are the most dissatisfied with all administrations (Contreras & Plaza, 2010).

When discussing which taxes should be suppressed, men are prompt to select the inheritance tax, while women would remove consumption-related taxes, probably due to their relation with the domestic, and hence, "feminine" sphere (Pravadelli, 2010).

Men seem to know slightly more about taxes than women do. Gender does not have a significant relationship with the extent of tax knowledge, but the level of educational attainment does. The higher the level of educational attain-

ment, the wider the knowledge of the tax system. The same occurs with the labor status.

Additionally, men show a better understanding of VAT. One out of three housewives admits they do not know the system rules, and one out of four does not know the standard VAT rate. This difference continues even when educational attainment and labor status are controlled.

Men and women have different extents of knowledge on which administration collects which taxes. While men and women know which administration collects the land value tax in a similar proportion, men have a wider knowledge about the administrations collecting the property tax, and the inheritance and gift taxes. As to the corporate tax, men and women are equally successful, as they know the central administration is in charge of collecting this tax.

There is a noticeable lack of knowledge on the Spanish tax burden compared to other countries, and two out of three housewives do not answer.

When it comes to justifying tax fraud, housewives are more flexible: just 48.5% thinks it is wrong under every circumstance. Actually, when classifying the answers to this question in a dichotomous manner, a statistically significant difference between men and housewives is found.

The survey reveals that men present higher levels of awareness of the public good than women do. To the question *which of these conducts is more reprehensible: somebody failing to pay €6,000 to the Treasury or you being stolen €100?*, more than half the respondents chose the first option. This proves higher levels of awareness in men than women, but this difference is no longer significant when educational attainment and labor status are controlled.

## Conclusions

The knowledge on rules and tax-collecting authorities as well as the comparison of the tax burden with nearby countries and the level of satisfaction with the use of taxes provide an estimate of the citizen's perception of the system, the administrations and the perceived usefulness of taxes.

In the light of results, after having analyzed the statistical significance of the association between the survey items and the socio-demographic variables, it is possible to conclude that the starting assumptions of our study are corroborated.

There are differences regarding tax awareness between men and women, both in tax knowledge and perceived tax fairness. There are also different assessments of the effectiveness of administrations when managing taxes, as women are more dissatisfied with the way taxes are distributed.

However, when these differences are subjected to more complex analyses, and some variables, such as the educational attainment or the labor status, are controlled, these differences are no longer significant, which leads us to conclude that there are no gender differences in the tax awareness of the Spanish citizens.

But when the group of housewives is analyzed, these differences get statistically significant, and it is possible to ascertain that they present lower levels of tax awareness and trust on public administrations, and are more dissatisfied with public services.

There are no noticeable differences between men and women when assessing the extent of trust on the different

public administrations. A possible reason could be that women exclusively devote themselves to domestic tasks in a quite large share of the Spanish population, especially in the older people groups. This is why what occurs in the public sphere is unimportant for these women (Andreoni & Vesterlund, 2001).

Since this study proves the lack of adequate knowledge on taxation, it is possible to affirm that it is necessary to design educational programs to enhance this knowledge, and perform public policies promoting the inclusion of housewives into the public sphere. This would heighten the levels of tax awareness and contribute to gain full citizenship (Sevilla, Giménez & Fernández, 2010).

Previous research explains this lack of knowledge takes place due to the existing distance between Spanish citizens and these issues, as they have lived far from tax-collecting systems and have been unaware of the benefits of taxation for a long period of time.

This lack of public involvement is present in both men and women owing to Franco's dictatorship (1939-1976) but it is more obvious in women, as they were slowly included in the public sphere after the restoration of democracy.

We consider this lack of public involvement —of housewives mainly— leads to citizenship deficits at all levels due to the traditional absence of women in the relationships between administrations and women.

Therefore, citizens' opinions, preferences and attitudes in specific spheres of taxation should be taken into account by public authorities when designing the tax system and norms, focusing specially on immigrants (Timonen & Doyle, 2010).

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## References

- Absalón, C., & Andurza, C. (2012). Modelos de micro simulación para el análisis de las políticas públicas [Microsimulation models for the analysis of public policies]. *Gestión y Política Pública*, 21, 87-106.
- Alarcón, G., Beyaert, A. and De Pablos, L. (2012). Fiscal awareness: a study of female versus male attitudes towards tax fraud in Spain. In M. Pickhardt and A. Prinz (Eds.), *Tax Evasion and the Shadow Economy*, 45-53. Northampton, MA: Edward Elgar Publishing Company.
- Alarcón, G., Quiñones, E. y Martínez, A. (2008). Mujer y conciencia fiscal. *Crónica Tributaria*, 127, 9-25.
- Allingham, M. G., & Sandmo A. (1972). Income tax evasion: A theoretical analysis. *Journal of Public Economics*, 1, 323-328.
- Alm, J., & Gomez, J. L. (2008). Social Capital and Tax Morale in Spain. *Economic Analysis and Policy (EAP)*, 38(1), 73-87.
- Alm, J., & Torgler, B. (2006). Cultural differences and tax morale in the United States and in Europe. *Journal of Economic Psychology*, 27, 224-246.
- Alm, J., McClelland, G. H., & Schulze, W. D. (1999). Changing the Social Norm of Tax Compliance by Voting. *Kyklos*, 52 (2), 141-171.
- Andreoni, J., & Vesterlund, L. (2001). Which Is the Fair Sex? Gender Differences in Altruism. *Quarterly Journal of Economics*, 116, 293-31.
- Arrow, K. (1970). Political and Economic Evaluation of Social Effects and Externalities. In J. Margolis (Ed), *The Analysis of Public Output* (pp. 1-31). Research. UMI: National Bureau of Economic Research.
- Bailey, L. (2000). Bridging Home and Work in the Transition to Motherhood: A Discursive Study. *European Journal of Women's Studies*, 7, 53-70.
- Becker, G. (1968). Crime and punishment: An economic approach. *Journal of Political Economy*, 76, 169-217.
- Blumenthal, M., & Christian, C. (2004). Tax preparers. En H. H. Aaron & J. Selmrod (Eds.), *The crisis in tax administration*, 201-299. Washington: Brookings Institution Press.
- Bravo, H., Castro, J. C., & Gutiérrez, M. A. (2011). Evaluación de una política fiscal para determinar el nivel óptimo de la inversión en los servicios de agua potable, alcantarillado y saneamiento [Evaluation of fiscal policy to determine the optimal level of investment in the drinking water and wastewater]. *Gestión y Política Pública*, 20 (1), 63-95.

- Christensen, A., Wehrich, S. G., & Gerbing, M. D. (1994). The Impact of Education on Perceptions of Tax Fairness. *Advances in Taxation. Journal of Applied Psychology*, 6, 63-94.
- Contreras, D., & Plaza, G. (2010). Cultural Factors in Women's Labor Force Participation in Chile. *Feminist Economics*, 16(2), 27 – 46.
- Cowen, T. (2001). *The Great Stagnation: How America Ate All The Low-Hanging Fruit of Modern History, Got Sick, and Will (Eventually) Feel Better*. London, England: A Penguin Special from Dutton.
- Eckel, C., & Grossman, Ph. (2001). Chivalry and Solidarity in Ultimatum Games. *Economic Inquiry*, 39, 171-88.
- Fallan, L. (1999). Gender Exposure to Tax Knowledge, and Attitudes Towards Taxation and Experimental Approach. *Journal of Business Ethics*, 18, 173–184.
- Feld, L. P., & Frey, B. S. (2007). Tax Compliance as the Result of a Psychological Tax Contract: The Role of Incentives and Responsive Regulation. *Law & Policy*, 29(1), 102-120.
- Feld, L. P., & Tyran, J. R. (2002). Tax Evasion and Voting: An Experimental Analysis. *Kyklos*, 55, 197–221.
- Frey, B. S., & Meier, S. (2004). Pro-social behavior in a natural setting. *Journal of Economic Behavior & Organization*, 54, 65-68.
- Frey, B. S., & Torgler, B. (2007). Tax Morale and Conditional Cooperation. *Journal of Comparative Economics*, 35(1), 136-159
- Hite, D. (1997). Information and Bargaining in Markets for Environmental Quality. *Land Economics*, 73(3), 303-316. Retrieved from <http://ideas.repec.org/s/uwp/landec.html>
- Jackson, B., & Milliron, V. (1986). Tax compliance research: findings, problems, and prospects. *Journal of Accounting Literature*, 5, 125–166.
- Kinsey, K., & Grasmick, H. (1993). Framing Justice: Taxpayer's Evaluations of Personal Tax Burdens. *Law and Society Review*, 25, 4, 845-874.
- Kirchler, E. (1998). Differential representations of taxes: Analysis of free associations and judgments of five employment groups. *Journal of Socio-Economics*, 27 (1), 117-131.
- Kirchler, E., Hoelzl, E., & Wahl, I. (2008). Enforced versus voluntary tax compliance: The “slippery slope” framework. *Journal of Economic Psychology*, 29, 210–225.
- Lyon, D., & Woodward, A. (2004). Gender and Time at the Top: Cultural Constructions of Time in High-Level Careers and Homes. *European Journal of Women's Studies*, 11(2), 205–221.
- Martínez-Vázquez, J., & Torgler, B. (2009). The evolution of tax morale in modern Spain. *Journal of Economic Issues*, 43(1), 1-11.
- Mason, R., & Calvin, L. (1984). Public Confidence and Admitted Tax Evasion. *National Tax Journal*, 37(4), 489-96.
- Pommerehne, W. W., & Weck-Hannemann, H. (1996). Tax rates, tax administration and income tax evasion in Switzerland. *Public Choice*, 88(1/2), 161-170.
- Porcano, Th. (1988). Correlates of tax evasion. *Journal of Economic Psychology*, 9 (1), 47-67.
- Pravadelli, V. (2010). Women and Gender Studies, Italian Style. *European Journal of Women's Studies*, 17, 61-67.
- Prieto, J., Sanzo M. J., & Suárez, J. (2006). Análisis económico de la actitud hacia el fraude fiscal en España [Economic analysis of the attitude towards tax evasion in Spain]. *Hacienda Pública Española*, 177, 107-128.
- Richardson, A., & Sawyer, M. (2001). A Taxonomy of the Tax Compliance Literature. Further Findings, Problems and Prospects. *Australian Tax Forum*, 16, 137-320.
- Sánchez-Meca, J., & Veladrino, A. P. (1992). Presentación del Dossier [Presentation of the dossier]. *Anales de Psicología*, 8, 1-2.
- Schmolders, G. (1960). Survey Research in Public Finance: A Behavioral Approach to Fiscal Theory. *Public Finance*, 25, 300-306.
- Serrano, J.M., & Ato, M. (1984). Una interpretación geométrica de los estadísticos uni y multivariados [A geometric interpretation of statistical univariate and multivariate]. *Anales de Psicología*, 1, 225-263.
- Sevilla, A., Giménez, J. I., & Fernández, C. (2010). Gender roles and the division of unpaid work in Spanish households. *Feminist Economics*, 14, 137-184.
- Sobral, J., Arce, R., & Prieto, A. (1994). *Manual de Psicología Jurídica*. Barcelona, España: Paidós.
- Spicer, M. W., & Lundstedt, S. B. (1976). Understanding tax evasion. *Public Finance/Finances Publiques*, 31, 295-305.
- Timonen, V., & Doyle, M. (2010). Migrant Care Workers' Relationships with Care Recipients, Colleagues and Employers. *European Journal of Women's Studies*, 17, 25-41.
- Tipke, K. (2002). *Moral tributaria del Estado y de los contribuyentes*. Madrid, España: Marcial Pons.
- Tittle, Ch. (1980). *Sanctions and Social Deviance: The Question of Deterrence*. New York: Praeger.
- Torgler, B., & Schneider, F. (2009). The Impact of Tax Morale and Institutional Quality on the Shadow Economy. *Journal of Economic Psychology*, 30, 228-245.
- Vogel, J. (1994). Taxation and Public Opinion in Sweden: An Interpretation of Recent Survey Data. *National Tax Journal*, 27, 499-513.
- Wenzel, M. (2006). The Impact of Outcome Orientation and Justice Concerns on Tax Compliance: The Role of Taxpayers' Identity. *Journal of Applied Psychology*, 87, 629-645.

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