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Economics education: literacy or mind framing? Evidence from a survey on the social building of trust in Portugal

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Abstract. This paper deals on the issue of whether or not studying economics has a relevant effect on molding the values and attitudes characteristic of the trust-building processes prevailing in a democratic society. Mainstream economics teaching, based on the self-interest model of rational, maximizing, individualistic representative agents, may well cause indoctrinating effects, creating or reinforcing both political conservatism and selfishness values and behaviors among economics students. This result is confirmed by most studies in relevant literature, but it may be otherwise explained by a so-called self-selection effect, suggesting that “economists are born, not made”. In this paper a contribution to this literature is made with more empirical evidence, namely the results of a survey entitled “Social Building of Trust in Portugal”, referring to a considerable diversity of samples (economics students, other students, ordinary citizens of two counties, urban and rural) and being applied in three different years: 2006, 2009 and 2012.

Keywords. Economics education; indoctrination or self-selection effects; political conservatism and selfishness of economists; trust; social and political values and behaviors; Portugal

JEL. A13; A29; Z13

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1. Introduction

The main purpose of this paper is to research whether or not studying economics has a relevant effect on molding the social and political values and attitudes characteristic of the trust-building processes that tend to prevail in a democratic society.

There are a great number of studies comparing the values, preferences, attitudes and behaviors of economists with those of other professionals or the general public at large. A significant, albeit not exhaustive list of empirical exercises of this kind should include Marwell and Ames (1981), Frey (1986), Carter and Irons (1991), Frank et al (1996), Laband and Beil (1999), Frank and Schultze (2000), Frey and Meier (2003), Haucap and Just (2004), Kirchgässner (2005), Cipriani et al. (2009), Bauman and Rose (2011), and Hole (2013). For a recent and detailed summary of this literature see Hellmich (2012).

It was long ago emphasized by Stigler (1959) that mainstream economics, based on the so-called *self-interest model* of rational, maximizing, individualistic representative agents (*homo oeconomicus*), has obvious implicit, and in certain cases even explicit indoctrinating practical effects (Kirchgässner 2014). A good example of this, also from Stigler (1984), refers to the active principle of the so-called *economist as a preacher*.

The potential effects of economics indoctrination are twofold. Firstly, it can create a tendency to become more politically “conservative”, at least in the sense of preferring private versus public forms of regulation, i.e., prices and ability-cum- willingness to pay over common fairness mechanisms in providing scarce and basic goods and services (Kearl et al. 1979; Kahneman et al. 1986; Caplan 2002; Gandal et al. 2004; Kirchgässner 2005). This tendency is reinforced by the use of overly mathematical methods, which, according to Rubinstein (2006), encourage students to lean towards profit maximization instead of caring with the welfare of workers in his experience. Secondly, it can lead to acting more selfishly, at least in the sense of having an increased disposition to free-ride, defect and not cooperate with others (Meier and Frey 2004; Frey and Meyer 2004, 2005).

For an interesting discussion about fairness and the assumptions of economics see Kahneman et al. (1986). A reflection on altruism and economics is made by Simon (1993) and a careful analysis of the necessity and possible effects of *economic ethics*, i.e., “ethics instruction in an economic context” is produced by Konow (2014). These are very important issues, considering the relevant role that professional economists play in several domains

of our societies, which became even more crucial after the enormous economic, social and political effects of the recent financial and economic crisis, as stated by, among many others, Colander et al (2009), Lawson (2009), McDonald (2009), Kirman (2010) and Li and Wang (2013).

It is also worth noting that the *self-interest/homo oeconomicus* model and the neo-classical practices based on it, by effect of the so called Economic Imperialism, “ranges far beyond its field of origin in micro-economics into the disciplines of political science and macro-sociology and is growing in importance even in cultural sciences and micro-sociology (Lazear 2000). The boom of public choice-theory in political science is only one vivid example” (Hellmich 2012: 3). The preferences, attitudes and behavior consequences of this kind of *theoretical export* should in the future be taken into account and tested, when making comparisons between students of economics and students of those other disciplines.

In fact, up to our days the majority of comparative empirical exercises uses samples of economics students and other students, not exposed to economics teaching and, as a general balance, it appears to be reasonably well documented that economics students and professionals tend to show an above average self-interested behavior in free-rider experiments, ultimatum bargaining games, surveys on charitable giving and Prisoner’s Dilemma contexts.

The empirical evidence appears to support the prevalence of the so-called “self-selection” hypothesis (economists are born, nature commands) over the “indoctrination” hypothesis (economists are made and nurtured along their education), which may in a certain sense proceed to excuse the *dismal science*, i.e., economists were generally already selfish (and maybe politically conservative) before being economists (and economics students), and so it is natural that they behave selfishly in surveys, games, experiments and the real life, coherently with their natural traits and the theoretical norms they were attracted to study.

On the other hand, a critical view of this literature is exposed in Lanteri (2008), calling these exercises and its conclusions a “moral trial” of economists, pointing to its methodological limitations and questioning its dichotomy:

“From high school onwards, there are a plurality of explanations that may capture the observed differences in behavior between economists and non-economists: some economists may be selfish and self-select into the discipline; upon joining its ranks, some may adjust their decisions to those of the stereotypical economist; systematic exposure to the concepts of self-interest and trade-offs may make those concepts especially salient and

therefore more likely to characterize one's framing of a situation; and, over time, the repeated exposure to the focus on material individual incentives may induce the expectation that other people are greedy or the belief that fairness need not be a major concern. These explanations are not mutually exclusive and it may very well be the case that different explanations are appropriate for the behavior observed in different experimental tasks and for economists of different seniority" (Lanteri 2008: 19).

Another important qualification worth mention, when assessing the differences between economists and non-economists, is the necessity to investigate whether gender, age and income effects exist and how much they are statistically significant. The empirical evidence is far from completely clear, but a tendency appears to emerge suggesting that male, younger and high income economists are more conservative and tend to behave more selfishly and cooperate less.

In this paper a contribution to this literature is made with more empirical evidence, namely the results of a survey about the social building of trust in Portugal. The strongest aspects of this survey are likely the diversity of samples covered (economics students, other students, ordinary citizens of two counties, one urban and one rural) and the different years in which it was applied: 2006, 2009 and 2012.

The paper is structured as follows. In the next section the main empirical results of the relevant literature are summed up. In section 3 the survey is described, with a synthesis of the questionnaire, the details of its implementation and a description of the different samples. Section 4 presents and discusses the main results obtained and section 5 summarizes and concludes.

2. Review of previous studies

There are mainly three kinds of empirical exercises within this literature, namely surveys by questionnaire, laboratory (or game) experiments and real life (or field) experiments. In this section a chronological presentation of several studies is made, in order to highlight the main differences in economists' values, attitudes and behaviors, confronted with those characteristic of other citizens.

In one of the first exercises, of the survey type, Scott and Rothman (1975) concluded that an introductory economics course tends to make students of this discipline more conservative, confirming the prediction of Stigler (1959). Their results were obtained from a

41-item social opinion questionnaire answered by 175 students at Carnegie-Mellon University, and pointed also to other interesting trends, namely that, *ceteris paribus*, the older the student, the more conservative he is likely to be, that the college experience is a liberalizing one, and that the females are more liberalized by the college environment than are males.

In what is considered the first laboratory experiment of this literature, Marwell and Ames (1981) concluded that, in a Free-Rider Experiment, first-year graduate students in economics contribute an average of less than half the amount donated to a public fund by students of other disciplines (20% versus 41%). They also asked questions about “fairness” and noted:

“There was surprising unanimity of thought [among everyone except the econ grad students] regarding what was considered fair... [In contrast, m]ore than one-third of the economists either refused to answer the question regarding what is fair, or gave very complex, uncodable responses. It seems that the meaning of ‘fairness’ in this context was somewhat alien for this group. Those who did respond were much more likely to say that little or no contribution [to the group exchange] was ‘fair’. In addition, the economics graduate students were about half as likely as other subjects to indicate that they were ‘concerned with fairness’ in making their investment decision” (Marwell and Ames 1981: 308-309).

In an two-person Ultimatum Bargaining Game, conducted by Carter and Irons (1991), in which one person (the Proposer) suggests a division of \$10 between him/herself and a second person (the Responder), on average economics students propose, and also tend to accept, smaller amounts, and the authors argue that “economists are born, not made”.

In a Prisoner’s Dilemma Game Experiment, Frank, Gilovich and Regan (1993) found that economics majors defect significantly more often (60 percent) than non-majors (30 percent), and the probability of an economist to defect is almost 0.17 higher than for a non-economist, which allowed the authors to conclude that the results appear to support the learning hypotheses as defined by Marwell and Ames (1981).

In a further attempt to assess whether training in economics inhibits cooperation in social dilemmas, Frank, Gilovich and Regan (1993) conducted two questionnaires, one for testing free riding in charitable giving and time spent in volunteer activities, and the other testing honesty. The results of the first, on charitable giving, supported the hypotheses that economists are more likely to free ride, but the second does not, i.e., economists spent as much time as others in volunteer activities.

Frey, Pommerehne and Gygi (1993) conducted a survey on the views about the fairness of market systems and other allocation mechanisms (as “first-come, first-served” or “a public body”) among three different groups. The first group consisted of a random telephone-book selection from the general population, the second was a group of students in introductory economics classes at three different universities in Germany and Switzerland, and the third group consisted of advanced economics students. They concluded that economics students are significantly more inclined to prefer the “willingness to pay” criterion (while around two thirds of the students rejected allocation by the market-system in these situations, five sixths of the general public did). However, the authors did not find much difference between first-year and advanced economics students, rejecting the indoctrination hypothesis.

In a Real-World (Lost Letter) Experiment, Yezer, Goldfarb and Poppen (1996) contradicted previous results, noticing that economics students return significantly more letters containing money (18 of the 32 “lost” letters, or 56 percent), and so, they are substantially more honest than students of other disciplines, who returned only 10 in 32 “lost” letters, or 31 percent.

On the other hand, after conducting an Experimental Solidarity Game, Selten and Ockenfels (1998) concluded that economists give significantly less than non-economists. But Laband and Bail (1999), comparing the incidence of “cheating” on their Association dues, found that professional economists are significantly more honest/cooperative than professional political scientists and sociologists (see also Bail and Laband 1997).

In an Experiment on Corruption, led by Frank and Schulze (2000), economics students are significantly more prone to corruption than other students, but first-year students behave no differently than older students, confirming the self-selection hypothesis favored by Frey et al. (1993). However, Nijhawan and Ellis (2003) did not observe high school students preparing for a business career to be significantly more “conservative” than their peer students who do not have this specific interest in business. And Haucap and Just (2004), replicating the study of Frey et al. (1993), detected a significant indoctrination effect among main-stage economics students, but a much weaker one among their peers on the business-track.

In one of the most representative and widely cited field experiments in this literature, Meier and Frey (2004), observing the Actual (Real Life) Behavior of students with respect to anonymously donating money to a charitable fund, concluded that the willingness to behave pro-socially is lower for economics and business students. They also claimed that

the greater selfishness of economics students was due to self-selection, and not to economic education.

After conducting a survey amongst undergraduate students on the conflict between profit maximization and the welfare of workers who would be fired to achieve it, Rubinstein (2006) concluded that economics students show a much stronger inclination to maximize profit than students of other disciplines (mathematics, law, philosophy and business administration), and observed that this tendency is reinforced when a mathematical formula is used in enunciating the question.

Also using a survey exercise, inquiring freshmen and senior students of economics and sociology, and after exposing them to different hypothetical distributive situations, Favarelli (2007) concluded that sociology students are more concerned with equality than economic students. He has also noticed that an indoctrination effect exists, as senior students of economics prefer efficient resource allocation while freshman students prefer the equal distribution of resources.

In Cipriani, Lubian and Zago (2009) a survey among a large group of undergraduate students of different disciplines was carried out, in order to assess the effects of the study of economics on the perception of the fairness and efficiency of the market mechanism. They concluded that there are significant differences between economics students and the others, suggesting the presence of both a selection bias against the market system in non-economics students and an indoctrination effect in economics students, i.e., "it appears that orthodox microeconomics teaching encourage students to emphasize efficiency considerations in value judgment".

In a dictatorship game to test the effect of learning on people's fairness, Cappelen, Sørensen and Tungodden (2010) detected the existence of a learning effect, by an increase in the number of participants among second-year and fourth-year students of economics and business administration, who offered nothing to their opponent.

Wang, Malhotra and Murnighan (2011) assessed the potential effects of economics teaching on greed, with three studies using multiple methods and reaching the following conclusions: i) "economics majors and students who had taken multiple economics courses kept more money in a money allocation task (the Dictator Game)"; ii) "economics education was associated with more positive attitudes towards greed and towards one's greedy behavior"; iii) "a short statement on the societal benefits of self-interest led to more positive ratings of greed's moral acceptability, even for non-economic students".

Following the well-known work of Frey and Meier (2003) about the relative (lack of) generosity of economics students, Bauman and Rose (2011) studied administrative data on donations to social programs by students at the University of Washington. They concluded “that there is a selection effect for economics majors, who are less likely to donate than other students, and that there is an indoctrination effect for non-majors but not for majors”.

In the most recent contribution to this literature (to our knowledge), Hole (2013) studied “how do economists differ from others in distributive situations?” by means of a careful dictatorship experiment with a production phase and a communication phase run with first-year economics and engineering students. She concluded that the economics students put relatively little weight in fairness considerations and bias the conception of fairness in favor of themselves, while engineering students put relatively bigger weight in fairness considerations and show integrity. She also found that economics students are more conservative (“libertarians”, in her taxonomy) than engineering students (who are more “liberal egalitarians”, in her own words).

To sum up, on the whole we are left with a mixture of contradictory evidence, yet still pointing mainly to conservatism and selfish behavior associated to the study of economics, regardless of that being due to self-selection (economists are born) or to an indoctrination (economists are made) effect.

3. A survey about the social building of trust in Portugal

Our contribution in this paper is supported by a somewhat different kind of empirical evidence, namely the results of a broad survey entitled “Social Building of Trust in Portugal”. This survey consisted of a detailed questionnaire that came to be filled by four groups. Two of them are the ones initially inquired, in 2006: the first corresponds to 312 inhabitants of two parishes (one urban and one rural), both mainly composed by old people, henceforth this group being here designated as “commoners”; the second is composed by 376 students of economics and business, from ISEG (School of Economics and Management – University of Lisbon), henceforth named “economists”. Three years later, in 2009, a third group was inquired: 361 students from other scientific areas considerably apart from economics (architecture, health technologies and music), henceforth named “other students”. This third group was included in a second stage of the research, mostly in order to check and disentangle the possible effects of the considerable age-disequilibrium between “economists” and non-economists initially participant. Still later on, in 2012, a fourth group was also inquired, composed of a new set of 650 economics students, again from ISEG, University of Lisbon, studying at both graduation and post-graduation (Master) levels. The inclusion of this fourth group allowed us to test the

permanence of traits identified as specifically correspondent to economists, simultaneously confronting attitudes previous to the occurrence of the present economic crisis with those emerging subsequently to it.

Personal interviews were made to all respondents, in order to explain and better control the answers to 50 questions concerning various political, economic, social and cultural dimensions of trust and behavior in general. As a matter of fact, this is a much more detailed survey than the well-known World Value Survey. There is no gender bias in either of the groups, but a strong age bias is present, with considerably aged non-academic people and of course rather young “economists” and other students. Globally considered, there is an undesirable lack of middle-aged people in the sample that is only partially compensated by the fact that a considerable segment of Master students, in the fourth group inquired, belongs to intermediary age cohorts.

4. The indoctrinating effects of teaching economics

We will now discuss the most important results regarding the potential indoctrinating effects of teaching economics, in which concerns values, attitudes and social and political behavior at large, as far as these four groups are concerned. Results are presented in figures only, aiming at easiness of reading and economy of space, but the correspondent numbers are available under request.

Starting with two political variables, “Vote in last parliamentary elections” and “Self-image in political (left/right) terms” (Figures 1 and 2), we can easily conclude that economics students are more right-wing leaning (to the center-right, PSD¹, and right, CDS², sections of the spectrum of Portuguese political system), both in actual vote and concerning self-image. Notice that both “economists” and other students have a vote orientation less focused on what might be named the “Big Center” (PS + PSD), indeed considerably more prone to “extreme”, or “radical” options, but whereas “economists” lean to the right, other students lean to the left or choose not to answer. Moreover, the right-wing leaning of “economists” has clearly grown from 2006 to 2012, both in terms of vote and of self-perception.

< Figure 1 here >

¹ Partido Social Democrata – Social Democrat Party, which is a relatively conservative party, despite the name.

² Centro Democrático Social – Social and Democratic Centre, which is clearly a conservative party.

Figure 1 – Vote in last parliamentary elections

< Figure 2 here >

Figure 2 – Self-image in political (left/right) terms

Regarding students progression along the graduation process, a trend is also identifiable for the diminishing importance of “right” and the growing weight of “center”. This is quite easily detectable comparing first and second years. The “left” exhibits a crescent tendency, which is however obliterated in the third year. As to Master students, a significantly different group as to aspects of life-cycle and professional integration, the decreasing tendency of the “right” and the growing trend for “left” are both confirmed.

< Figure 3 here >

Figure 3 – Self-image in political (left/right) terms – Economists 2012, year

Still concerning political self-perception in left-right terms, it is also worth noting that a gender bias is perceptible within “economists”, with female respondents more inclined to choose not to answer and/or more prone to the center, whereas male respondents are simultaneously more assertive and more “radical”.

< Figure 4 here >

Figure 4 – Self-image in political (left/right) terms – Economists 2012, gender

A clear bias is easily perceptible regarding income distribution as well: in lower levels, comparatively bigger inclinations are detectable to not answering and also to a left perception. Both the center and the right grow proportionately in wealthier segments, with the center having a maximum in 3000-5000 euros echelon and the right in the group of “more than 5000 euros”. Non respondents are also significantly less important in wealthier segments: 8-9 per cent, vis-à-vis 18-26 per cent in poorer echelons.

< Figure 5 here >

Figure 5 – Self-image in political (left/right) terms – Economists 2012, income

The third variable considered in this study is the opinion of respondents concerning the desirable regulation of the economy (Figure 6) and, as we might expect, “economists” are clearly much more pro-market. However, interestingly enough the other students are much more pro-state and less pro-market; indeed, even less pro-market than commoners (relatively old people). The generic pattern of answers is valid for “economists” both in 2006 and in 2012, setting them quite apart from the remaining population: they are comparatively free-marketer and anti-state, yet still with these characteristics being significantly attenuated in the last inquiry, which ought to be considered in perspective, taking into account the possible effects of economic crisis, namely including public rescuing of private banks after 2008. Also worth noting is the fact that all groups of students show an importantly lesser inclination for third-sector than commoners.

< Figure 6 here >

Figure 6 – Desirable regulation of the economy

Regarding progression along the graduation process, it is worth noting that pro-market and anti-state leanings grow considerably from the first to the second year, this tendency being partially reverted in the third year, and more fully so in the Master level. If taken globally, the Master group exhibits tendencies rather close to the ones of first year students, both being in bigger vicinity with commoners and other students. Yet still, even these comparatively moderate economists are clearly more pro-market and anti-state than the remaining population.

< Figure 7 here >

Figure 7 – Desirable regulation of the economy - Economists 2012, years

A gender bias is equally perceptible within “economists”, with male respondents much more pro-market than women. As a matter of fact, these are simultaneously more pro-state and also more inclined to avoid answering. Men, however, lean more to rely on the third sector.

< Figure 8 here >

Figure 8 – Desirable regulation of the economy - Economists 2012, gender

An important bias is also easily detectable regarding income distribution. From the first to the third level of income a non-stop growth of pro-market inclinations is apparent, on parallel with diminishing pro-state attitudes. Also the third sector suffers decline. These tendencies are however contradicted in the level of higher income, with both pro-state and pro-third sector exhibiting important recoveries: more than fully for the third sector, only partially regarding the state.

< Figure 9 here >

Figure 9 – Desirable regulation of the economy - Economists 2012, income

Concerning the importance acknowledged to collective national problems, the single most important trait to be highlighted is the fact that all categories of students systematically tend to recognize a lesser importance to those than what is admitted by commoners. This is very likely an element to be considered in close relationship with an age-bias: young people simply tend to have a more care-free attitude vis-à-vis national problems. There are no significant differences to be noticed between economist and other students, except for the fact that the economists inquired in 2012, with an important segment of older (Master) students, exhibit an intermediate pattern.

< Figure 10 here >

Figure 10 – What degree of importance do you acknowledge to collective national problems?

In a clear-cut difference with the patterns identified for the previous question, if we consider now the interest regarding politics the most important trait to be noticed is the fact that, whereas other students declare an average interest that is considerably below the level of commoners, economists on their turn exhibit a comparatively high percentage of those answering “full” or “some”. The total sum of these categories is 65.8 per cent in 2006, furthermore growing to attain 70.6 per cent in 2012, as opposed to 46.2 for commoners and 22.1 for other students. In the opposite extreme, those answering “none” drop from values close to 28 per cent referring to commoners and other students, to roughly 6 per cent for economists in both years. This trend of answers by economics students has a clear contrast, and worth being emboldened, with the importance recognized to national problems (previous question, Figure 10), which may suggest the existence among economists of a largely spanned strictly utilitarian interest in politics: a bigger-than-average appetite for politics that still is not the outcome of some genuine concern for the *res publica*, rather likely stems from a persuasion of higher chances for obtaining a bigger payoff in correlate activities, probably supplemented by a more or less subliminal notion of being also more-than-average gifted for political positions (see also comments on Figure 15). This high inclination by economists to political life ought to be considered in close connection with a tendency by political agents to growingly reproduce mental devices and rhetorical resources originally from the realm of economics, and with a possible cumulative circular causation: inasmuch politics are “colonized” by an economics-inspired variety of *modus operandi*, the more economists understandably find politics attractive, and reciprocally their abundance in political circles tends to further induce the ways of thinking and the ways of doing into mimic models from economics.

< Figure 11 here >

Figure 11 – Interest regarding politics

It is important to notice that the interest in politics grows along the graduation process, slowly during graduation, more clearly considering the Master: the aggregate of “full” and “some” is close to 67 per cent in the first two years, 71 in the third year, almost 76 in Master students.

< Figure 12 here >

Figure 12 – Interest regarding politics - Economists 2012, year

This variable has also a clear gender bias, and an income bias as well. Male-respondents produce 77 per cent of answers corresponding to “full” and/or “some”, whereas the total of these categories is close to 64 for women. Regarding income, the aggregate of “full” and “some” is close to 72 per cent in the two groups below 3000 euros, growing to roughly 75 per cent in the 3000-5000 euros echelon and close to 80 per cent in the levels above 5000 euros.

< Figure 13 here >

Figure 13 – Interest regarding politics - Economists 2012, gender

< Figure 14 here >

Figure 14 – Interest regarding politics - Economists 2012, income

Answers to the question “How do you assess the real influence of Portuguese citizens in the course of political events in Portugal?” also exhibit interesting patterns, with the aggregate of “full” and “some” categories going from 40.5 in other students and 44.3 per cent in commoners to 47.4 in 2006 economists and 48.8 in 2012 economists. This variable ought to be confronted with the importance acknowledged to collective national problems (Figure 10) and the interest in politics (Figure 11). Economists have no bigger-than-average interest in national problems, but they exhibit a higher interest in politics because they have utilitarian motives for that, among other things because they very probably deem to be more qualified than common citizens, and also out of the fact of having a deeply embedded persuasion of being somehow capable of effectively exerting influence in the course of events.

< Figure 15 here >

Figure 15 – Assessment of the influence of citizens in the course of political events

The next variable indicates a possible significant age effect: students, mostly correspondent to young people, on average claim to in general “expect the worst” significantly less than commoners. Indeed, this last group, mostly composed of aged people, overwhelmingly declares to expect the worst: 80 per cent, against values between 50 and 60 per cent for all students. Another important element is the fact that economists are considerably more prone to trust than all the other groups: 19.7 per cent for commoners and 23.3 per cent for other students, against values close to 31 per cent for economists, in both years. It’s important to notice that this evidence may be prima facie interpreted as contrary to the self-interest model of indoctrination implicit in mainstream economics, but we should also consider with more detail the real meaning referred by respondents to “trust”, which very likely comes mostly associated with feelings and notions stemming out of self-reliance. Economists may well be considered to be not so much a trust-prone group, rather mostly inclined to self-reliance, indeed considerably more self-reliant than other students: see Figure 16. This interpretation seems fully consistent, for instance, with the bigger persuasion of a significant influence of citizens in the course of political events, as previously noticed (see Figure 15).

< Figure 16 here >

Figure 16 – Trust or distrust others in general

The tendency to declare trusting others has a growing trend accompanying the graduation process, with “expect the worst” consistently falling from 63 to roughly 48 per cent, whereas “trust” grows from 24 per cent to 42.2 per cent. There are, however, no perceptible biases regarding either gender or income levels.

< Figure 17 here >

Figure 17 – Trust or distrust others in general - Economists 2012, year

There is also strong empirical evidence of more selfish behavior by economics students that is consistent with most of previous literature results. In fact, their answers are more

supportive of the legitimacy of: free-riding in social benefits (Figure 18), tax avoidance (Figure 19) and throwing garbage in the street (Figure 20).

Regarding the legitimacy recognized to free-riding in social benefits, economists are clearly more indulgent than other categories: the aggregate values of “full”, “some” and “low” are 41.7 per cent and 36.8 per cent in 2006 and 2012 economists, respectively, to be compared with 19.4 for commoners and 30.7 per cent for other students. Besides the factor associated with studying economics, an age element is probably present in this case, inducing other students to occupy an intermediate position.

< Figure 18 here >

Figure 18 – Legitimacy of free-riding in social benefits

Concerning the legitimacy acknowledged to tax avoidance, economists exhibit a pattern that clearly sets them aside everybody else. Whereas commoners have an aggregate of 8 per cent for “full” and “some” legitimacy, and other students score 8.3 per cent for the same categories, economists answer with 14.4 and 14.9 per cent, in 2006 and 2012, respectively. In this case, therefore, the divisive factor of studying economics seems to emerge even more strongly than in the previous question.

< Figure 19 here >

Figure 19 – Legitimacy of tax avoidance

As to the alleged legitimacy of throwing garbage in the street, again economists form a different cluster, aggregate values of “full”, “some” and “low” producing 26.3 per cent in 2006 respondents, furthermore growing to 31.5 per cent in 2012. Commoners, in a strong contrast, score only 3.4 per cent, whereas other students occupy an intermediate position, with 17.4 per cent. Referring this intermediate position of other students to an age factor seems however problematic, given the fact that 2012 economists include (Master) older students, and yet still they are even more tolerant vis-à-vis an obviously anti-social behavior.

< Figure 20 here >

Figure 20 – Anti-social behavior: legitimacy of throwing garbage in the street

The last variable is again a good indicator that age is probably, but not surely, an important element that may in some cases overwhelm the presumable indoctrination effects of studying economics: indeed, a significant proportion of both economics students and other students recognize some legitimacy in free-riding in public transports, much probably a typically defiant attitude of youngsters, more than a strictly selfish or anti-social behavior. However, partially contradicting that trend, older 2012 economists are even more free-riding inclined than those of 2006: aggregate values of “full”, “some” and “low” legitimacy are 8 per cent for commoners, with other students scoring 51.5 per cent, much closer to economists, who in 2006 score 56.5 per cent. Yet still, older 2012 economists are even more tolerant, with 57.9 per cent (Figure 21).

< Figure 21 here >

Figure 21 – Legitimacy of free-riding in public transports

5. Conclusions

The main purpose of this paper is to provide a contribution for the large literature on the possible indoctrinating effects of economics teaching, adding some empirical evidence collected from a survey on the social building of trust in Portugal.

Eleven variables were used in order to assess social and political behavior of four samples with particular characteristics and inquired in different moments: 376 initial economics students, 312 commoners, mostly elderly, 361 students of other disciplines and finally 650 additional economics students. Some of these variables refer to more than one figure, depending on the existence of a clear bias in answers according to gender, year in the graduation process and levels of income, or the lack of such bias.

This enquiry allows the conclusion that economics students are in political terms generally more right-wing leaning, both in actual vote and self-image, and have a more pro-market set of beliefs, as expected. In these cases we probably face also the existence of an age-factor inducing less “center” inclination amongst youth, along with bigger importance of

both political “extremes”, but economics apparently propitiates the right-wing in political orientations, whereas other academic courses correspond to a bigger weight of left-wing in political choices. It also propitiates a clear pro-market attitude, as opposed to what happens with strongly pro-statist “other students”.

Other variables were subsequently considered, namely the importance acknowledged to collective national problems, the interest in politics, and also the perceived influence of citizens in political events. Broadly speaking, economics students show no bigger interest in public affairs than other citizens, yet still they consistently tend to perceive the existence of a considerable influence of citizens over the course of politics, which very likely contributes to a bigger-than-average interest in politics by these students. This is a trend very likely correlate with the growing prevalence in political discourse of mental dispositions and rhetorical devices that are originally from economics, and is probably also accompanied by a markedly utilitarian approach by economist to this group of subject-matters. If confirmed, these patterns may also be something worth examining with more attention, namely regarding the prevalence of strictly utilitarian attitudes and indeed the possibility of crescent inclination towards free-riding amidst political agents.

Economics students are also officially more inclined than average people to declare having trust on others in general, which is an aspect to be considered potentially in contradiction with the self-interest model of indoctrination by mainstream economics, but they also tend to have a clearly more selfish behavior in strictly free-riding problems (abusive claim of social benefits, tax avoidance, throwing garbage in the streets, free-ride in public transports), which is rather consistent with most of the previous literature results. This fact suggests a hypothesis for explanation of that officially “confident” attitude by economists as indeed being mostly an expression of self-reliance: the kind of belief in the virtues of self-help that obviously youth propitiates and economics very much tends to reinforce.

As a matter of fact, in some of these cases we are probably facing the dominance of an age factor, as opposed to strict indoctrination effects, namely concerning the generalized morally conservative and pessimistic attitudes prevalent among the elderly (“expect the worst” rather than trusting in others and “not breaking the rules”), versus a “radical”, risk-loving behavior among youngsters (trust in others “whatever may come”, and acknowledge legitimacy to free-riding in public transports: “we will manage to get away with it”). Therefore, it is imperative to recognize that inclination for free-riding and risk-love are entangled in most of these questions, producing a quite peculiar blend: notice especially the fact that other students systematically occupy an intermediate position between common citizens and economics students in the cases of items regarding measurement of declared trust on others and inclination for free-riding.

As opposed to that, however, in the cases of more directly political issues other students diverge from common citizens in the opposite direction of the economists' path: they are more oriented towards the left-wing and coherently lean to a bigger state-intervention in the economy, but they also have an average interest in politics lesser than even the one of commoners. This aspect seems to confirm the tendency already mentioned for the political life to growingly mimic the mental devices and rhetorical resources of economics, which may be even further reinforced by the fact that in many of these items the income upper-strata, male as opposed to female-respondents, and also finalists as opposed to freshmen, apparently feel both more at ease in and more inclined to matters political.

Finally, it is important to be conscious of the limitations of the variety of studies such as ours. First of all, the difficulty of in-depth testing the "self-selection" versus "indoctrination" hypotheses (self-selection assuming "natural-born-economists", indoctrination the idea that "economists are made"), or in other terms of carrying on with the classic discussion of "nature-versus-nurture". In order to check this aspect we used the method of comparing results in successive years of the graduation process, with tendencies clearly identifiable as to certain items, but not in most cases. Secondly, the usual problems of survey results in general are obviously also present in this one: do people mean what they say? Do people do what they mean?

It was partly in order to overcome these limitations that we decided to extend our initial research, namely producing the 2012 version of the enquiry. Regardless of many reasonable doubts possibly still remaining, one aspect unquestionably stands as particularly clear: the remarkable coherence exhibited by the economists' pattern of answers. As a matter of fact, globally considered, the economics students form a well-defined cluster, easily susceptible of being distinguished from all other respondents, be them elderly people or other students. That is no doubt a noticeable trait, furthermore taking into account that separating 2012 from 2006 we had the emergence of an extremely important economic crisis, with severe repercussions in many aspects of Portuguese society. In most cases, however, this fact seems to have contributed for the reinforcement of the economists' group of idiosyncrasies, rather than for its attenuation.

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Appendix: Figures

Figure 1 – Vote in last parliamentary elections

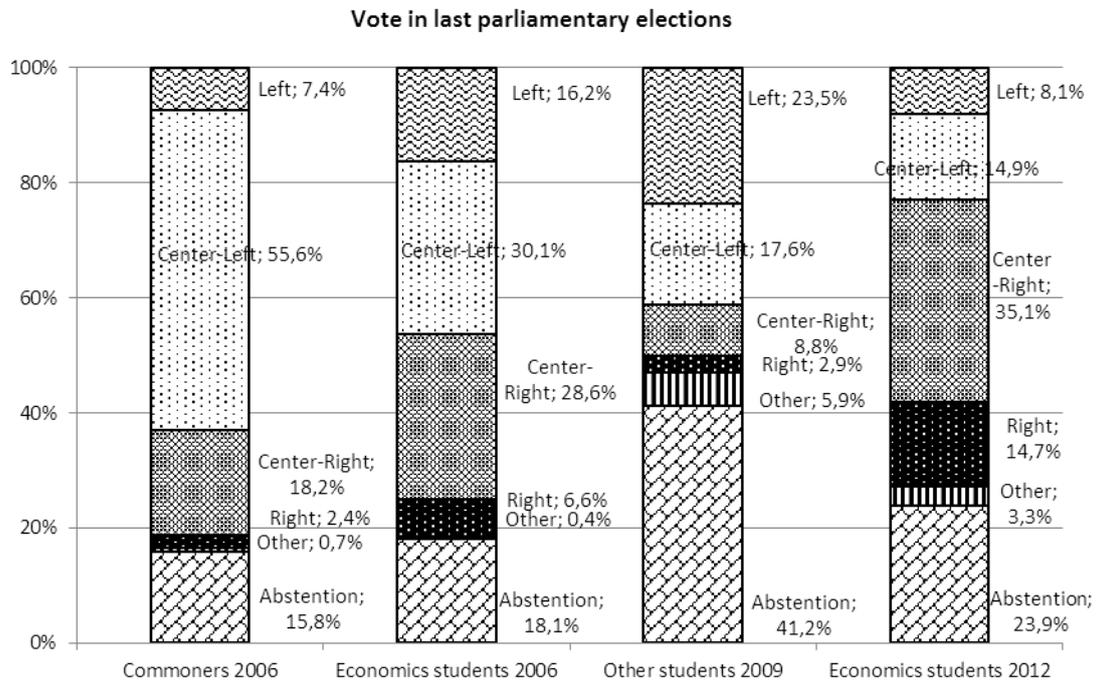


Figure 2 – Self-image in political (left/right) terms

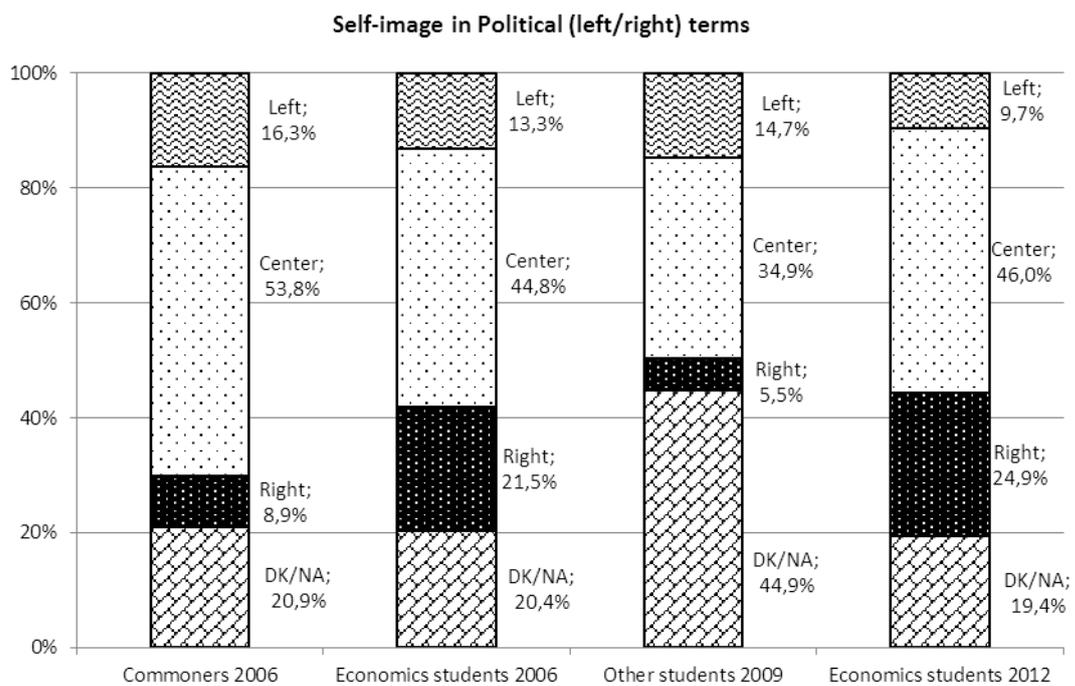


Figure 3 – Self-image in political (left/right) terms – Economists 2012, year

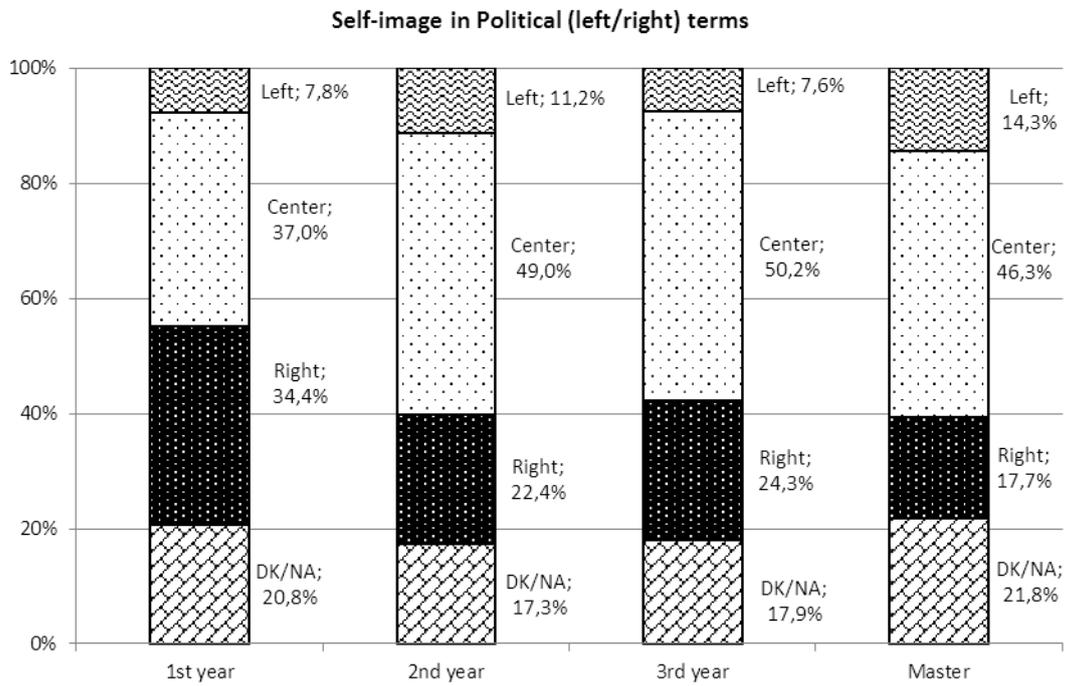


Figure 4 – Self-image in political (left/right) terms – Economists 2012, gender

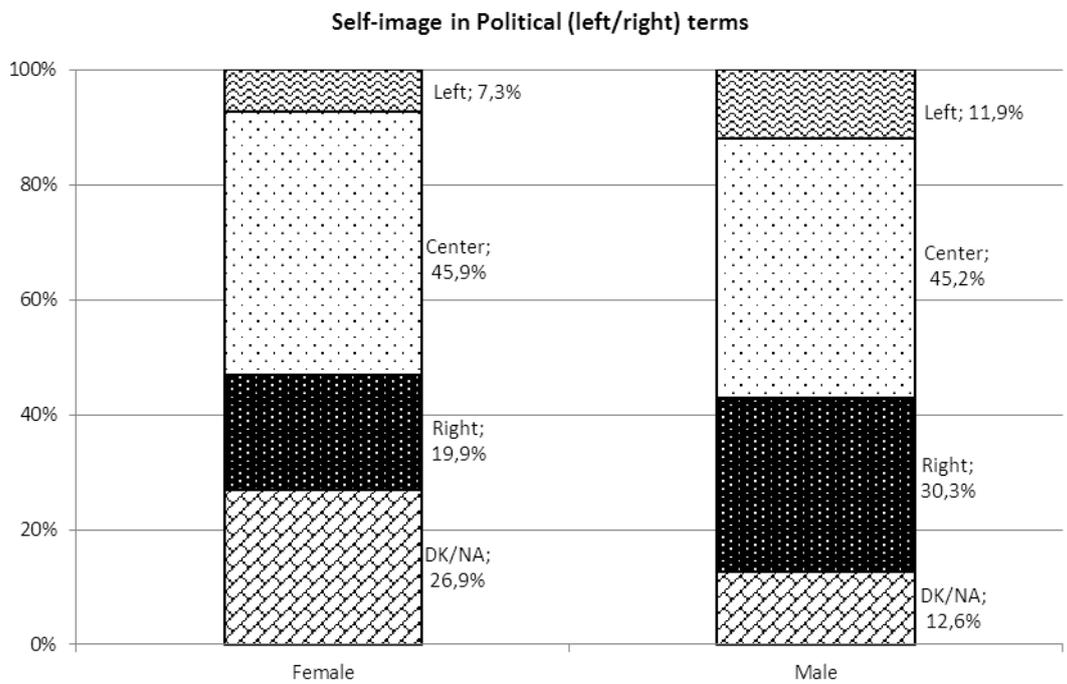


Figure 5 – Self-image in political (left/right) terms – Economists 2012, income

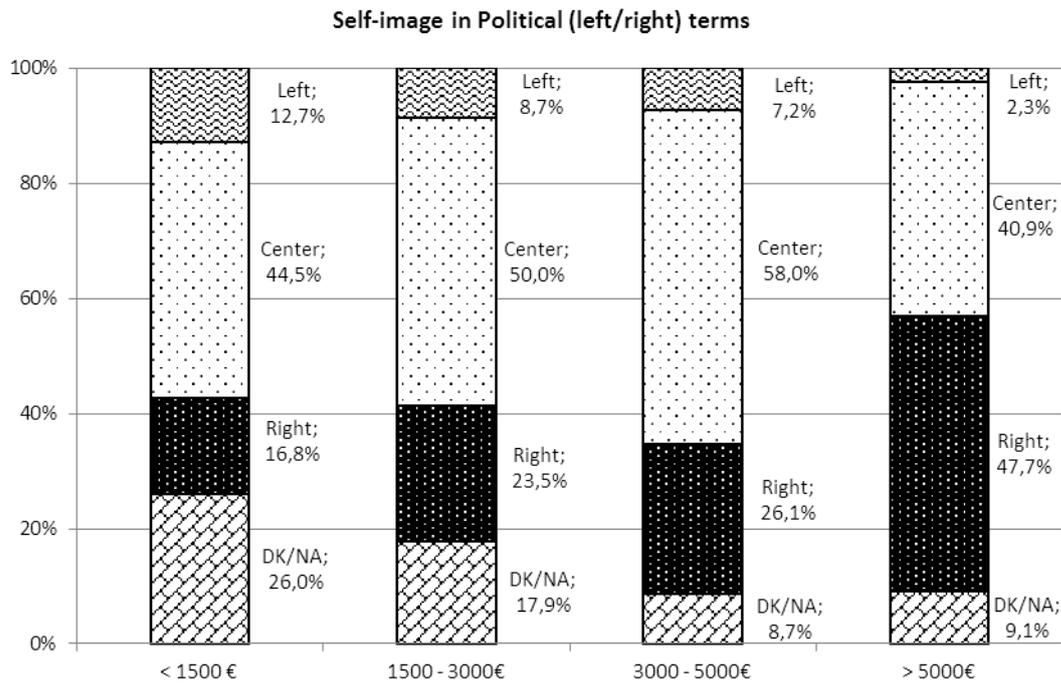


Figure 6 – Desirable regulation of the economy

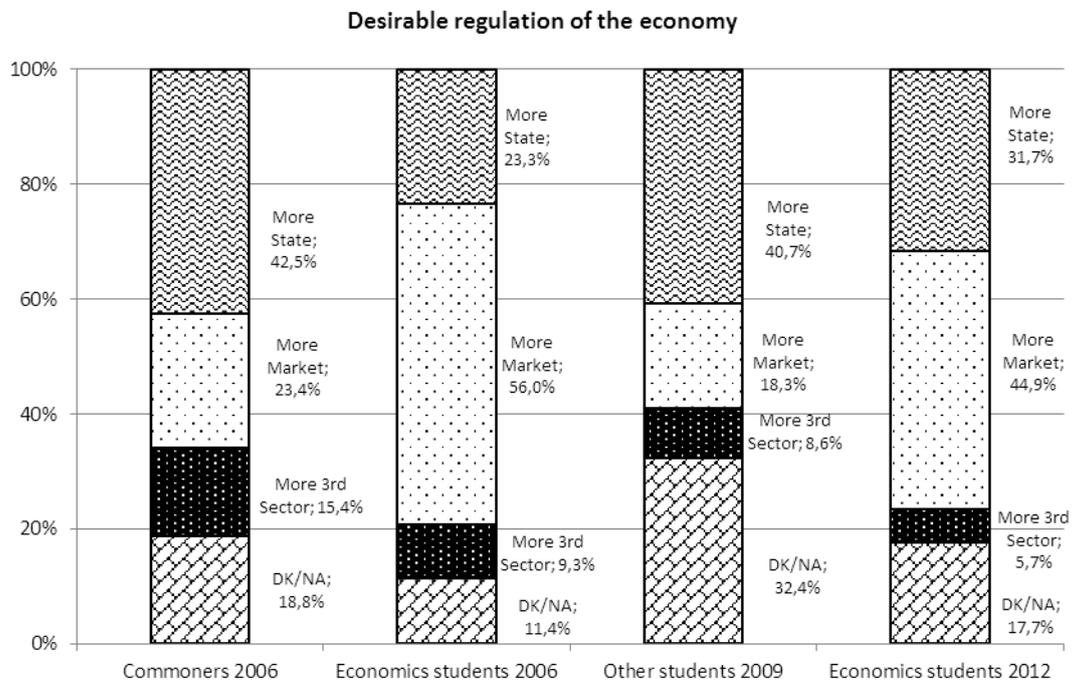


Figure 7 – Desirable regulation of the economy - Economists 2012, years

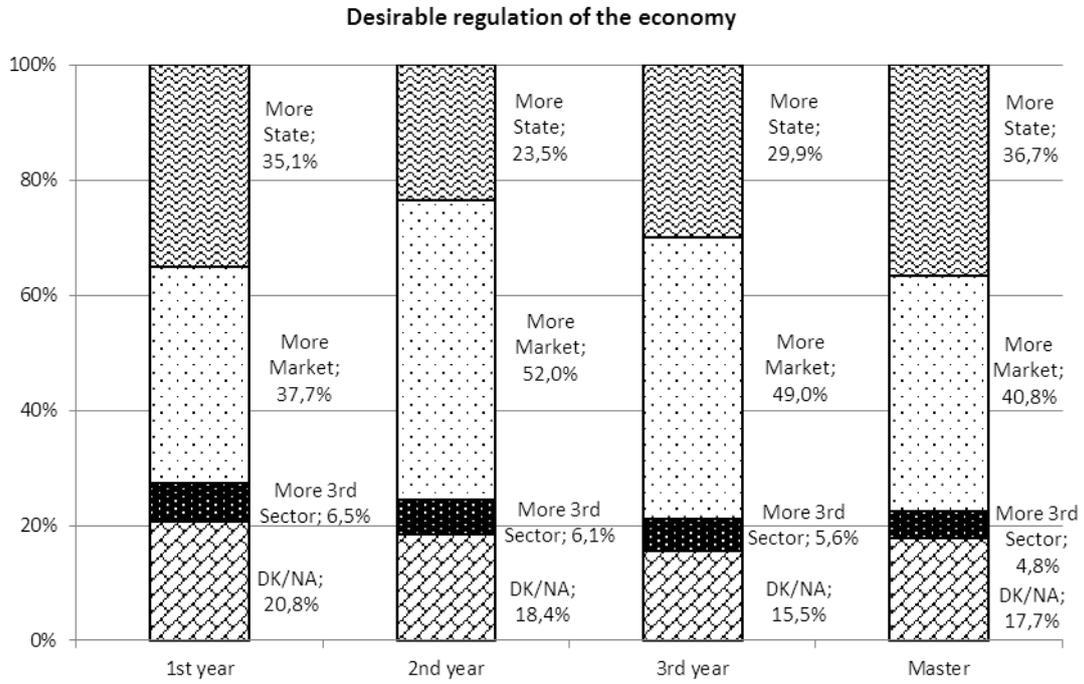


Figure 8 – Desirable regulation of the economy - Economists 2012, gender

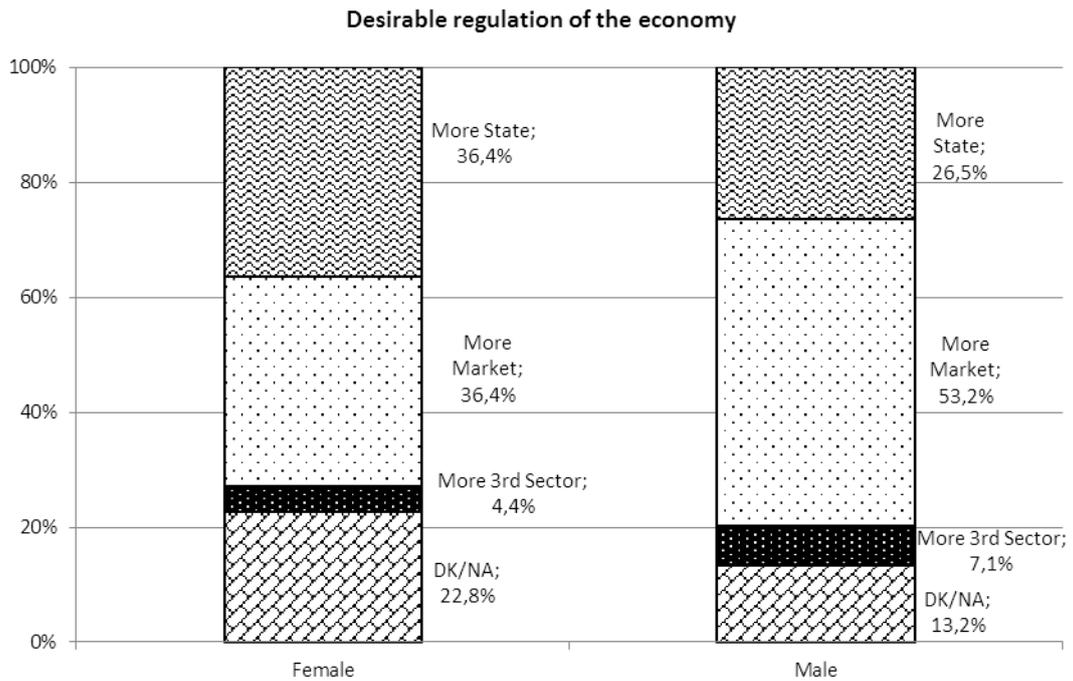


Figure 9 – Desirable regulation of the economy - Economists 2012, income

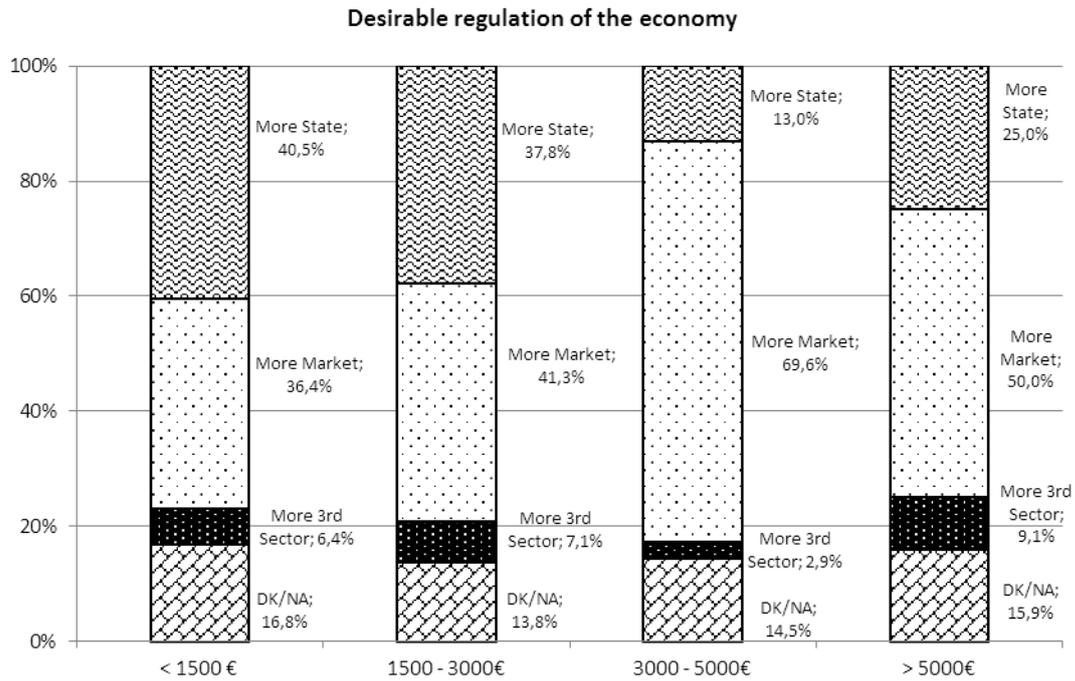


Figure 10 – What degree of importance do you acknowledge to collective national problems?

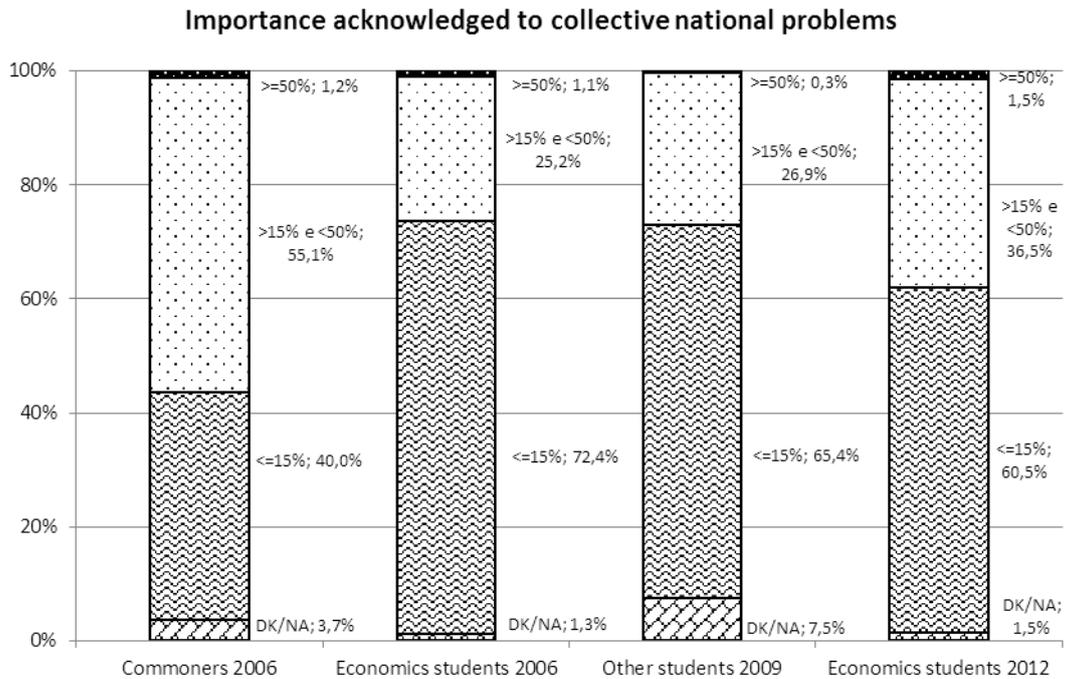


Figure 11 – Interest regarding politics

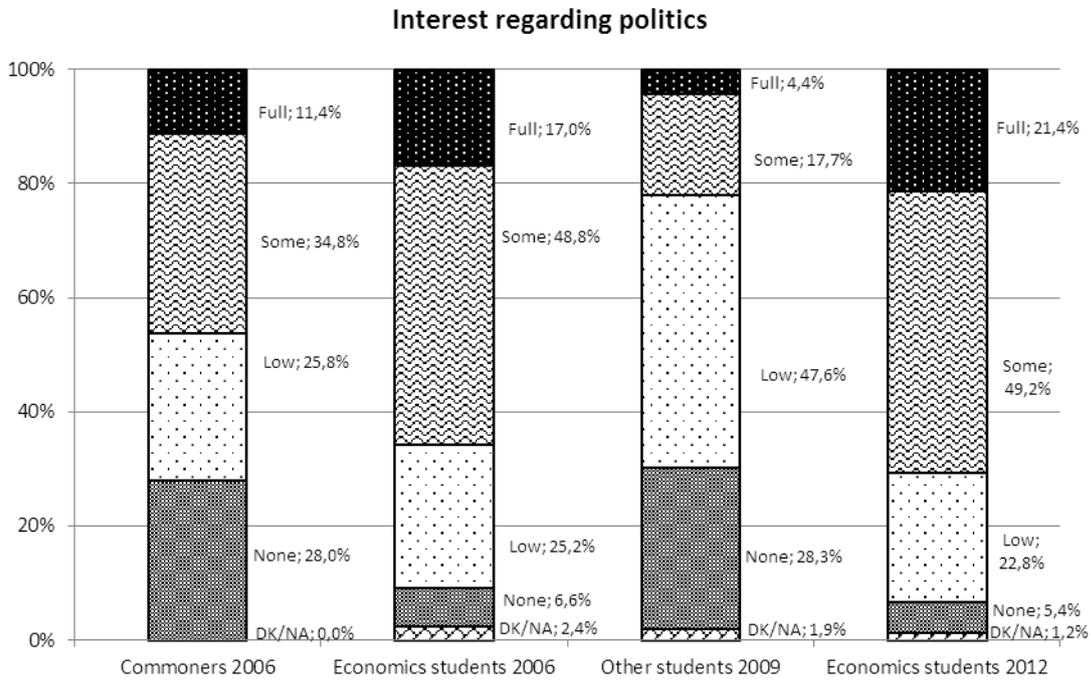


Figure 12 – Interest regarding politics - Economists 2012, year

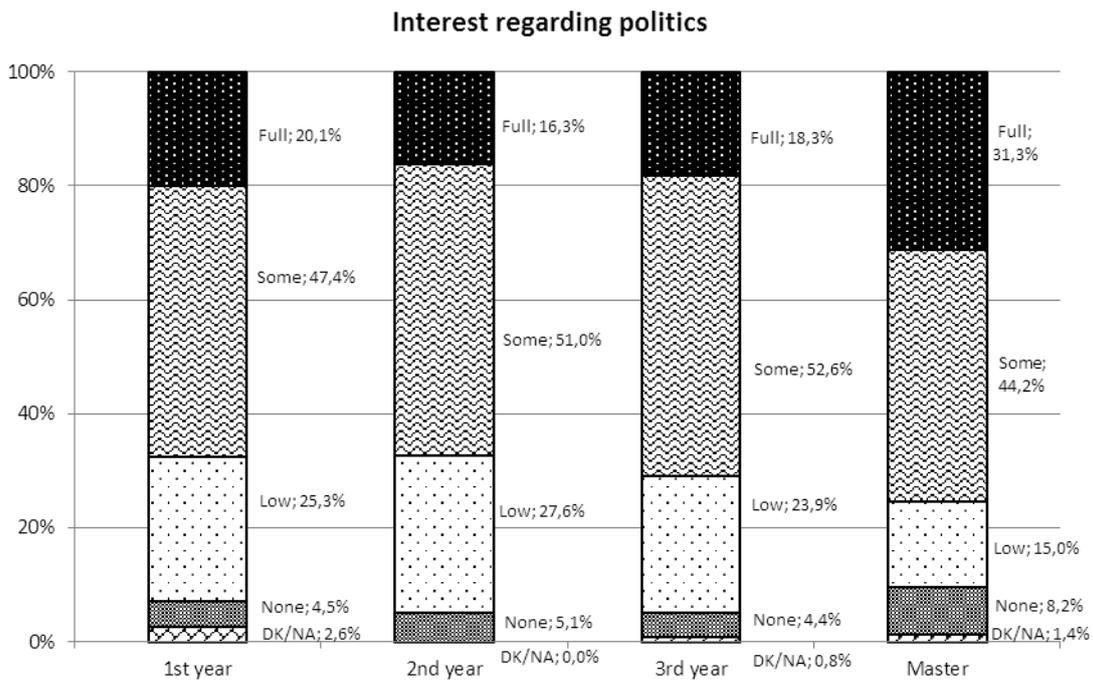


Figure 13 – Interest regarding politics - Economists 2012, gender

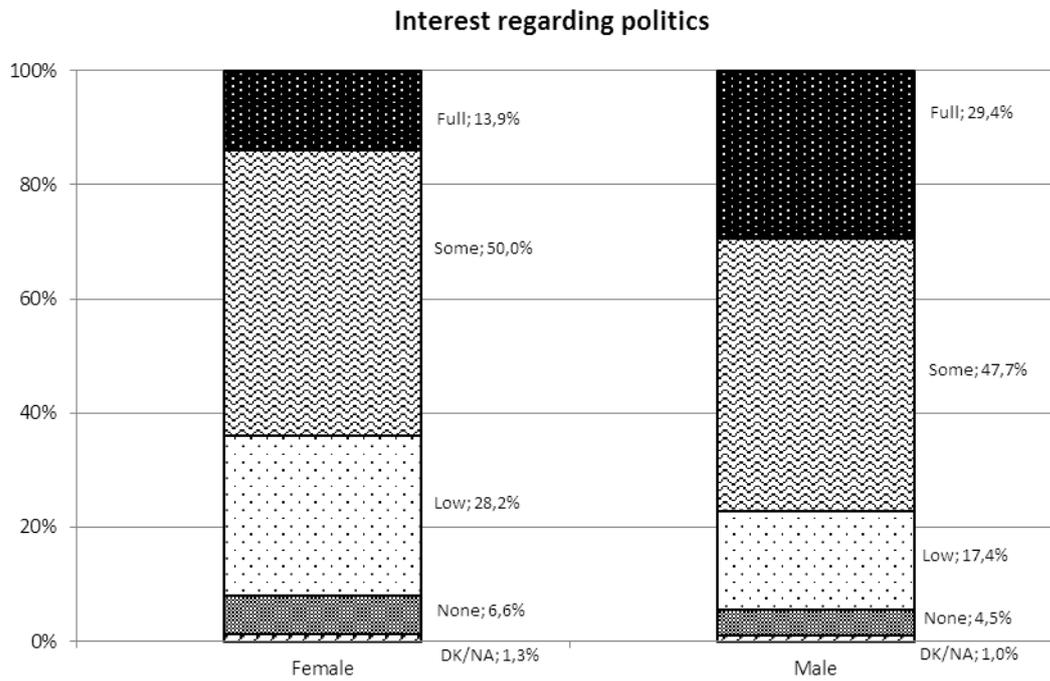


Figure 14 – Interest regarding politics - Economists 2012, income

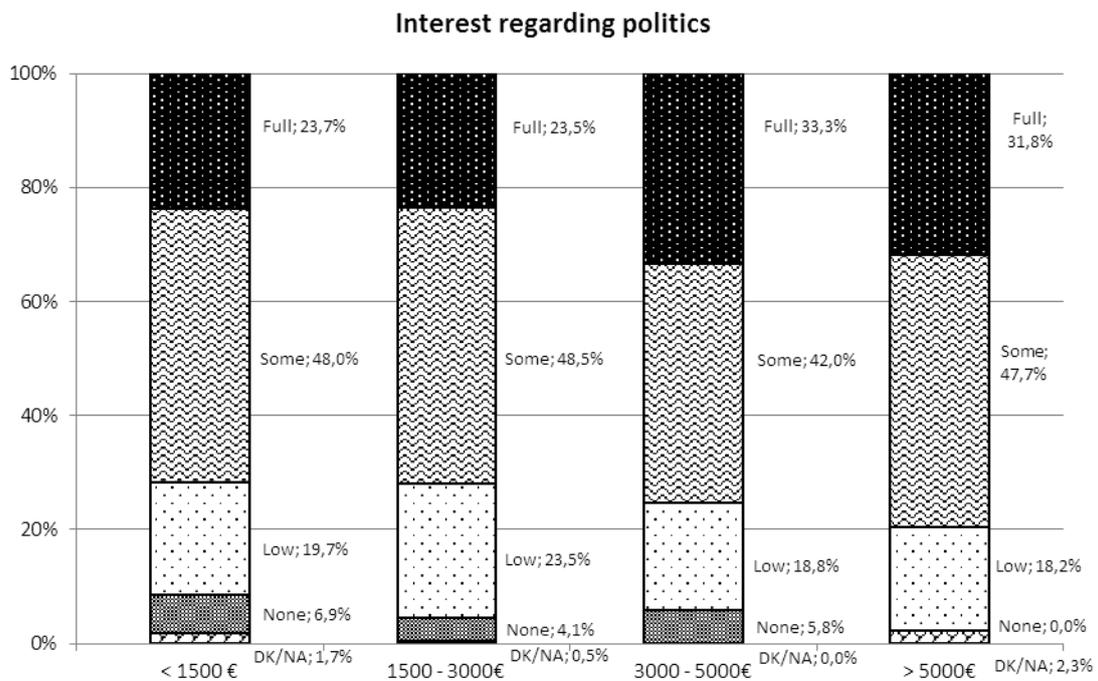


Figure 15 – Assessment of the influence of citizens in the course of political events

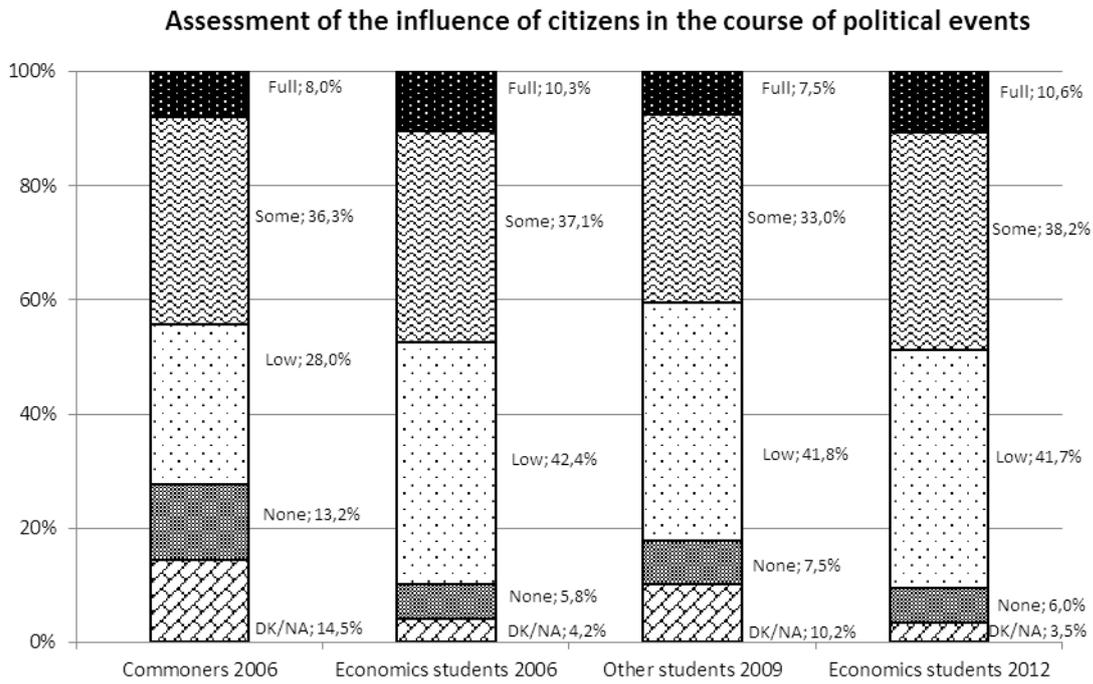


Figure 16 – Trust or distrust others in general

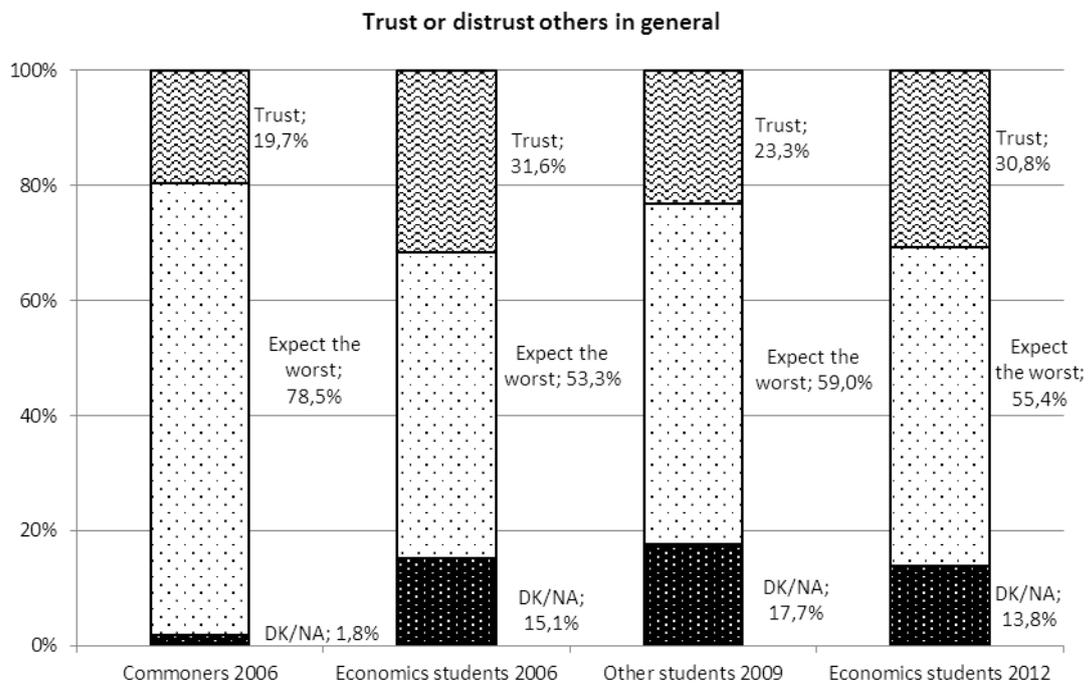


Figure 17 – Trust or distrust others in general - Economists 2012, year

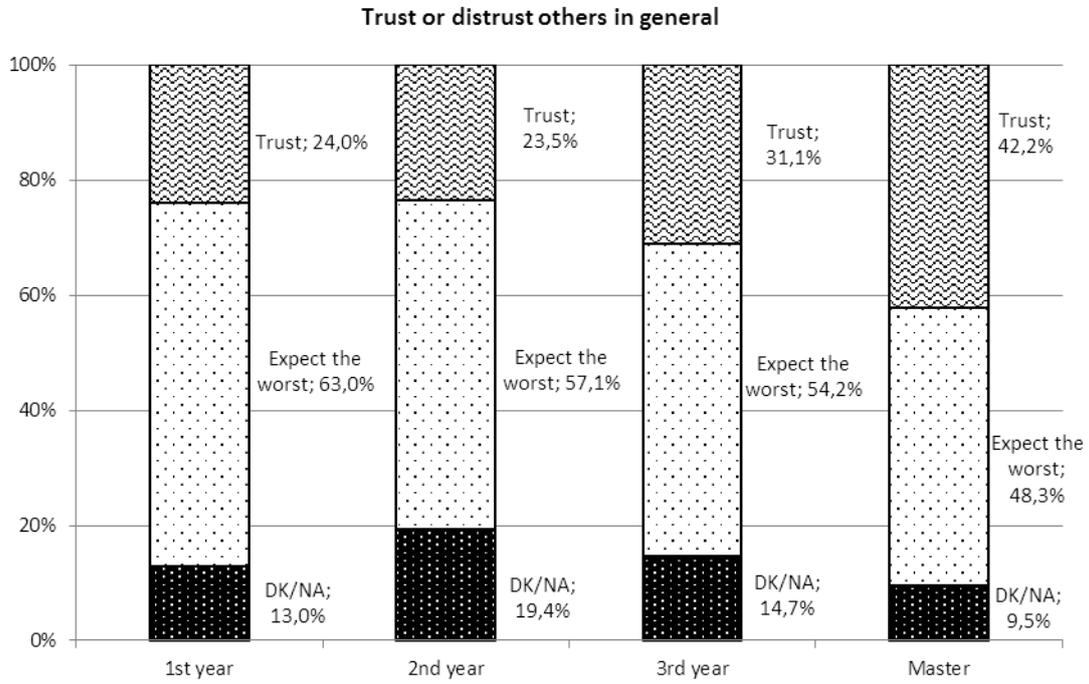


Figure 18 – Legitimacy of free-riding in social benefits

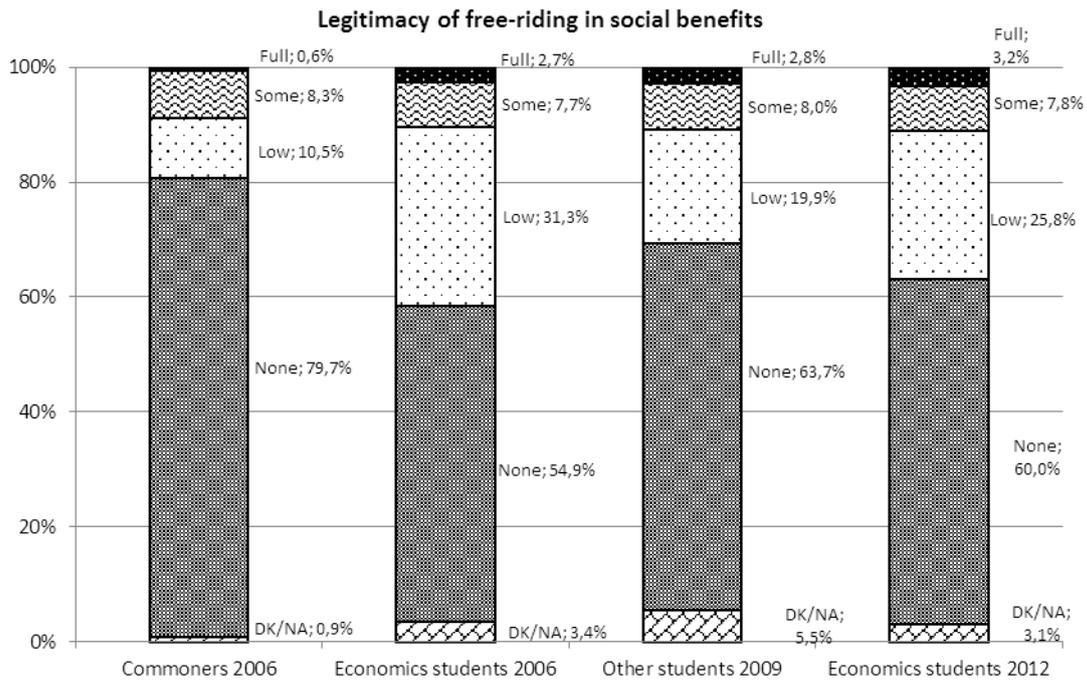


Figure 19 – Legitimacy of tax avoidance

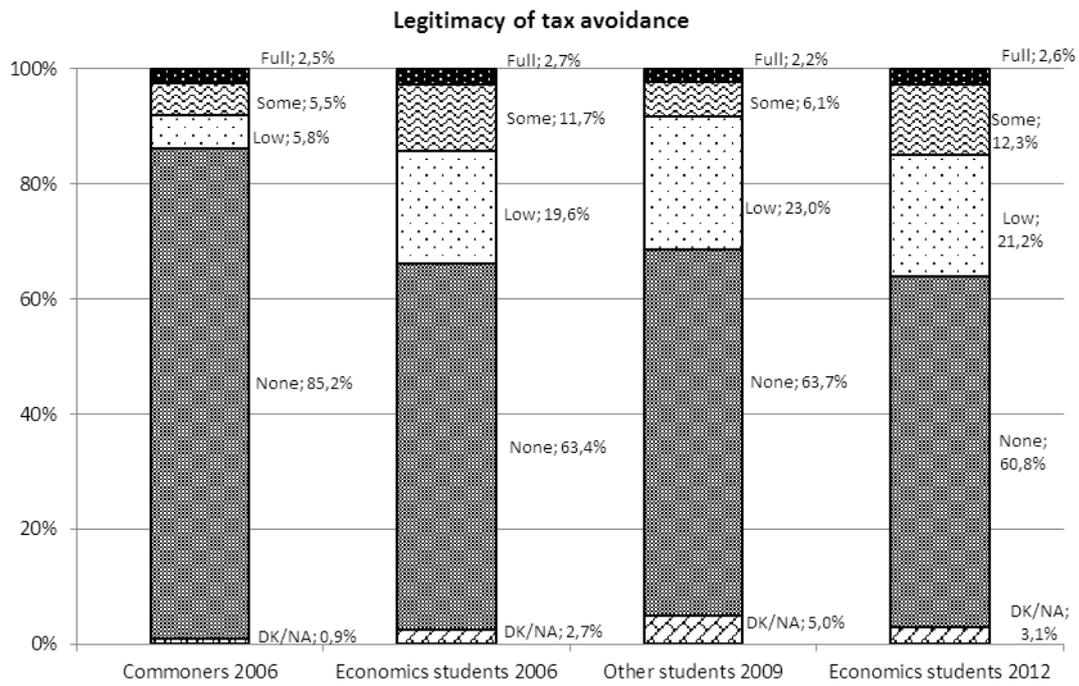


Figure 20 – Anti-social behavior: legitimacy of throwing garbage in the street

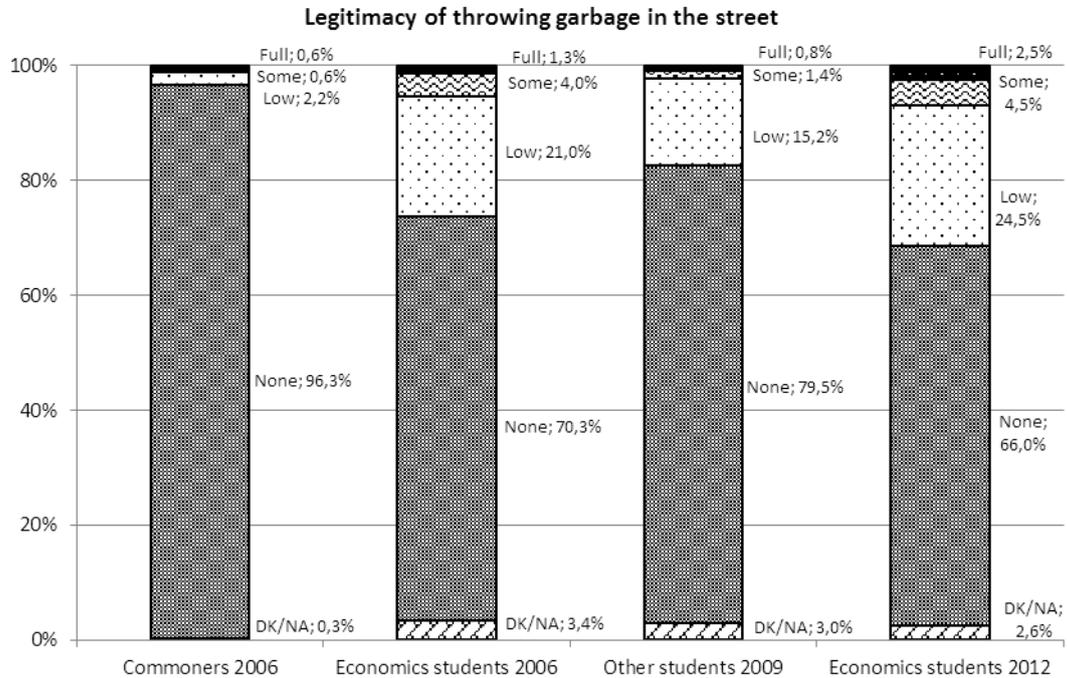


Figure 21 – Legitimacy of free-riding in public transports

