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The distribution of the tax and social security burden in Italy

2007

Istat is publishing for the first time a series of indicators concerning the tax and social security burden at the individual and household level calculated on the basis of a microsimulation model which uses information from the "Income and living conditions" survey (EU-SILC European Statistics on Income and Living Conditions)[1] *and data provided by the Revenue Agency and INPS (the National Institute of Social Security)*

As is well known, data deriving from income tax returns do not contain information on a number of income items (e.g. untaxed incomes, incomes from financial activities) and may have problems of coverage in relation to the individuals in the sample. The survey data, in turn, may be subject to withholding of information (reticence), under-reporting or inadequate representativeness of certain types of income or income recipients. The joint use of survey and administrative data enhances the advantages obtainable from the exclusive use of fiscal archives on the one hand and microsimulation techniques on the other, improving the quality of data on income.

With the help of these indicators it is possible to estimate the weight of the tax burden by various characteristics of individual and households.

Main results

Direct taxes account for 18.6 per cent of gross individual income (net of social security contributions) nationally, with significant differences according to source and income class.

The tax wedge, which consists of the sum of employees' personal income tax and social security contributions and the contributions paid by employers, is 44.5 per cent of employee labour costs. The wedge for female workers is almost three percentage points lower than for male workers.

The tax and social security burden on self-employed workers' income rises to 37.2 per cent if IRAP (the regional tax on productive activities) is included, and 33.9 per cent if it is excluded. The gap between the tax burden on self-employed females and on men is just one per cent.

Considering the tax burden on households, it can be observed that families with under-age children are characterised by lower rates, in particular couples with three or more children, for whom the rate is 13.2 per cent, against the national average of 18.6 per cent.

With an average rate of 20.9 per cent, single-person households aged 64 or under constitute the household type with the greatest tax burden on income.

Compared with other geographical areas, households resident in the South and the Islands have higher burdens for dependent members, lower average incomes and lower income tax rates.

Tax and social security burden indicators

Taking into account all sources of income, in 2007 **total individual income** for residents in Italy was less than 10,000 euros in 27.5 per cent of cases, between 10,001 and 30,000 euros in 55.3 per cent of cases, between 30,001 and 70,000 euros in 15 per cent of cases and over 70,000 euros per year in only 2.2 per cent of cases (Table 1).

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[1] See statistics in brief, *Condizioni di vita e distribuzione del reddito in Italia*, published on 29 December 2009.

Gross individual incomes from employment (net of social security contributions)[2] in 50 per cent of cases are concentrated within the income range from 15,001 to 30,000 euros per year. **Gross incomes from self-employment**, in contrast, are more dispersed compared with incomes from employment: in 35.4 per cent of cases they are less than 10,000 euros (against 22.1 per cent for employees' incomes), in 21.5 of cases they are more than 30,000 euros. **Gross incomes from pensions**, in turn, are concentrated in the lower class: 42.7 per cent are in fact below 10,000 euros per year.

Direct taxation of gross individual income is 18.6 per cent nationally, with significant differences according to income source and class, which are also the result of the role played by tax credits, differentiated according to income type and by other individual conditions of the taxpayer (Table 2). Specifically, direct taxation on income from self-employment is 17.3 per cent if only IRPEF (personal income tax) and additional regional and municipal taxes are considered, while it rises to 20.6 per cent if the estimate of only the part of IRAP (regional tax on productive activities) applied to the income from self-employment is considered. The tax burden is 19.4 per cent of income from employment and 15.7 per cent of income from pensions.
The tax burden on incomes of 10,000 euros and under is 9.3 per cent of income from self-employment, 5.6 per cent of income from employment and 3.9 per cent of income from pensions. If the IRAP component is included, incomes from self-employment show a higher percentage also in the 10,000 to 15,000 euro class. Finally, for the higher income brackets, the percentage is higher for income from employment and pensions.

Table 1 – Distribution of gross individual incomes (net of social security contributions) by income source and class – 2007 *(percentage values and in euros)*

	Employment	Self-employment	Pensions	Total incomes
Less than 10,000	22.1	35.4	42.7	27.5
10,001 – 15,000	13.8	14.7	20.7	14.9
15,001 – 30,000	49.7	28.4	30.1	40.4
30,001 – 70,000	13.2	17.3	6.0	15.0
Over 70,000	1.2	4.2	0.4	2.2
TOTAL	**100.0**	**100.0**	**100.0**	**100.0**

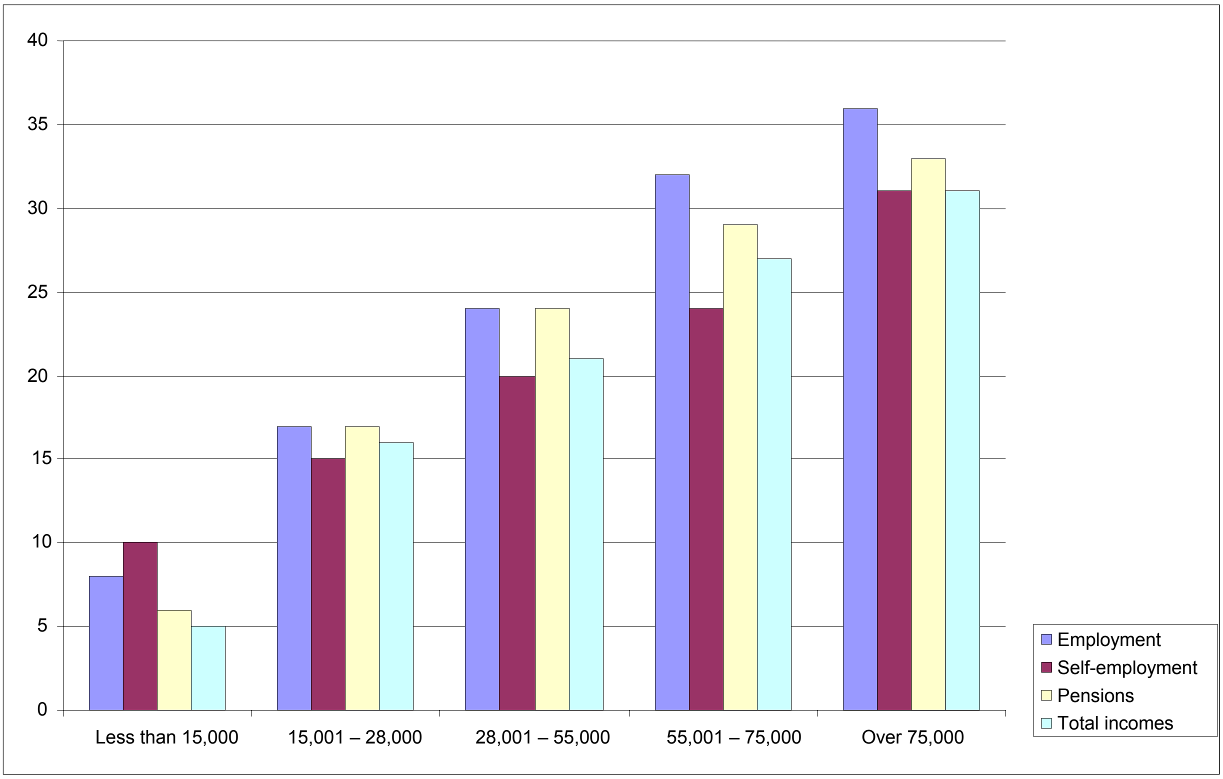
Table 2 – Percentage of income tax by income type and class – 2007 *(percentage values and in euros)*

	Employment	Self-employment		Pensions	Total incomes
		gross of IRAP	net of IRAP		
Less than 10,000	5.6	9.3	7.5	3.9	2.9
10,001 - 15,000	10.6	12.2	9.1	11.2	9.9
15,001 - 30,000	17.3	15.3	12.0	17.8	16.2
30,001 - 70,000	26.1	21.1	17.7	25.5	23.2
Over 70,000	35.4	32.2	28.4	33.6	32.1
TOTAL	**19.4**	**20.6**	**17.3**	**15.7**	**18.6**

[2] A definition of gross income is used that excludes social security contributions and corresponds to income "before tax".

For all types of income, progressive tax brackets result in a more-than-proportional increase in the **average tax rate** as income increases (Graph 1).

Graph 1 – Average tax rate by income type and income brackets – 2007 *(percentage values and in euros)*



At the same time, the actual rate depends on the type of income: the average rate above 15,000 euros is always higher for incomes from employment and from pensions. Specifically, for incomes above 28,000 euros the average rate applies to income from employment is over four percentage points higher than the income from self-employment component. In the over 55,000 euro income class the average rate of tax on incomes from pensions is three percentage points lower compared with income from employment.

A different measurement of the tax and social security burden on earned incomes is provided by the so-called **tax wedge**, i.e. the sum of personal income tax from employment, social security contributions paid by the worker and social security contributions paid by the employer, which can be compared to the taxes and social security contributions applied to income from self-employment (Table 3). The tax wedge is 44.5 per cent of employee labour costs: in the North-west it reaches 45.8 per cent, while in the South and Islands it is 42.6 per cent of labour costs. Given the structure of the labour market, where women earn lower average incomes than men, the wedge for female workers is almost three per cent lower than for male workers.

The **tax and social security burden** on incomes from self-employment reaches 37.2 per cent if IRAP (the regional tax on productive activities) is included, and is 33.9 per cent net of this component. The tax and social security burden on self-employed workers is therefore over 7 per cent lower than the wedge on incomes from employment, while the gap between the burden on female and male self-employed workers is only one percentage point. At the geographical level the tax and social security burden on self-employed income is slightly higher in the Centre (37.7 per cent).

Table 3 – Indicators of tax and social security burden on earned income by sex and geographical area – 2007
(percentage values)

	Tax wedge	Social security contributions and tax on income from self-employment (a)	
		gross of IRAP	net of IRAP
SEX			
Male	45.5	37.5	34.1
Female	42.8	36.4	33.2
GEOGRAPHICAL AREA			
North-west	45.8	37.3	34.0
North-east	44.8	37.0	33.7
Centre	44.7	37.7	34.4
South and Islands	42.6	36.8	33.4
ITALY	**44.5**	**37.2**	**33.9**

(a) Including social security contributions paid by CoCoCo workers (temporary subcontractors) and by their principals.

The tax wedge can also be defined as the percentage difference between the cost to the employer of paying for the worker's labour and the net earnings remaining to the worker. In the absence of direct taxes and social security contributions this wedge would be zero. Considering the individual characteristics of income earners from employment, **the wedge becomes larger as workers' age class and cumulative contributions increase**, from 42.7 per cent for workers aged under 35 to 46.3 per cent for employees aged between 55 and 64. From the age of 65 onwards the reduction in the social security component drastically diminishes the wedge to 30 per cent of the cost of labour (Table 4). With regard to position of employment, the tax wedge rises to 51.1 per cent of the cost of labour for executives and over 49 per cent for managers.

Table 4 – Tax wedge as a percentage of total labour costs by worker characteristics and geographical area – 2007
(percentage values)

	North-west	North-east	Centre	South and Islands	ITALY
AGE CLASS					
Under 35	44.0	43.2	42.3	40.9	42.7
35 – 44	46.2	45.2	44.4	41.8	44.6
45 – 54	46.7	46.0	46.2	44.0	45.7
55 – 64	47.7	46.1	47.2	44.7	46.3
65 or over	33.4	25.3	31.0	28.8	30.0
EDUCATION					
None, primary	44.3	43.1	41.5	38.3	41.5
Lower secondary	43.9	43.6	42.5	40.3	42.7
Upper secondary	46.1	45.2	44.7	42.9	44.8
Degree	48.9	46.9	47.7	46.4	47.5
POSITION IN EMPLOYMENT					
Executive	52.9	50.4	50.8	49.5	51.1
Manager	50.8	48.9	49.6	47.2	49.2
Clerk	45.7	44.9	45.0	43.2	44.7
Workman	43.5	43.5	42.2	40.4	42.5
EMPLOYMENT SECTOR					
Public	45.8	44.8	45.9	44.2	45.1
Private	46.0	45.1	44.5	42.1	44.7
TYPE OF CONTRACT					
Temporary job	42.4	41.0	40.8	38.8	40.5
Permanent job	46.3	45.4	45.4	43.7	45.3
HOURS OF WORK					
30 hours or more	46.5	45.5	45.4	43.4	45.3
Less than 30 hours	40.8	40.3	41.5	40.5	40.8
TOTAL	**45.8**	**44.8**	**44.7**	**42.6**	**44.5**

For permanent employees and those who work for 30 hours or more a week the burden is almost 5 per cent higher than for workers with fixed-term contracts and with reduced working hours. The weight of the various components of the tax wedge indicates that 24.7 per cent is accounted for by social security contributions paid by employers, while 19.8 per cent is split between income taxes, accounting for 13.3 per cent, and social security contributions paid by employees, accounting for 6.5 per cent (Graph 2).

Graph 2 – Components of tax wedge as percentage of total labour costs by geographical area – 2007 *(percentage values)*

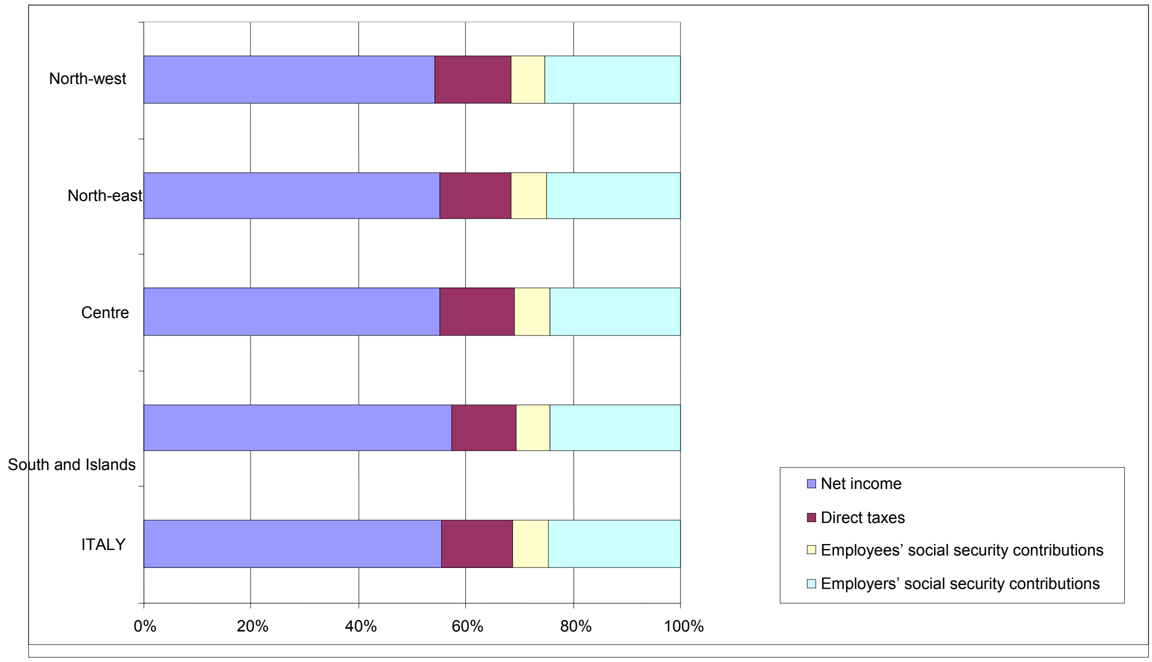


Table 5 – Percentage of taxes on income from self-employment by worker characteristics and geographical area – 2007 *(percentage values)*

	North-west	North-east	Centre	South and Islands	ITALY
SEX					
Male	21.8	21.2	22.8	18.7	21.2
Female	19.6	18.6	18.1	18.8	18.9
AGE CLASS					
Under 35	21.2	18.0	16.1	15.9	18.2
35 – 44	19.5	19.6	20.1	17.6	19.2
45 – 54	20.6	20.7	19.9	21.2	20.6
55 – 64	22.1	20.9	26.6	19.2	22.7
65 or over	27.0	25.7	28.0	21.3	26.2
EDUCATION					
None, primary	16.0	20.3	18.7	15.1	17.7
Lower secondary	17.8	17.7	22.8	16.9	18.8
Upper secondary	21.4	19.9	19.1	18.4	20.0
Degree	26.2	24.9	23.8	22.1	24.4
SELF-EMPLOYMENT					
With employees	23.8	23.2	25.2	19.5	23.1
Without employees	18.1	17.3	19.6	18.0	18.3
EMPLOYMENT SECTOR					
Public	21.9	23.0	22.8	24.0	23.1
Private	21.2	20.1	21.5	18.2	20.4
HOURS OF WORK					
30 hours or more	21.6	20.6	22.1	19.3	21.0
Less than 30 hours	17.3	16.7	17.3	13.9	16.4
TOTAL	**21.3**	**20.6**	**21.6**	**18.7**	**20.6**

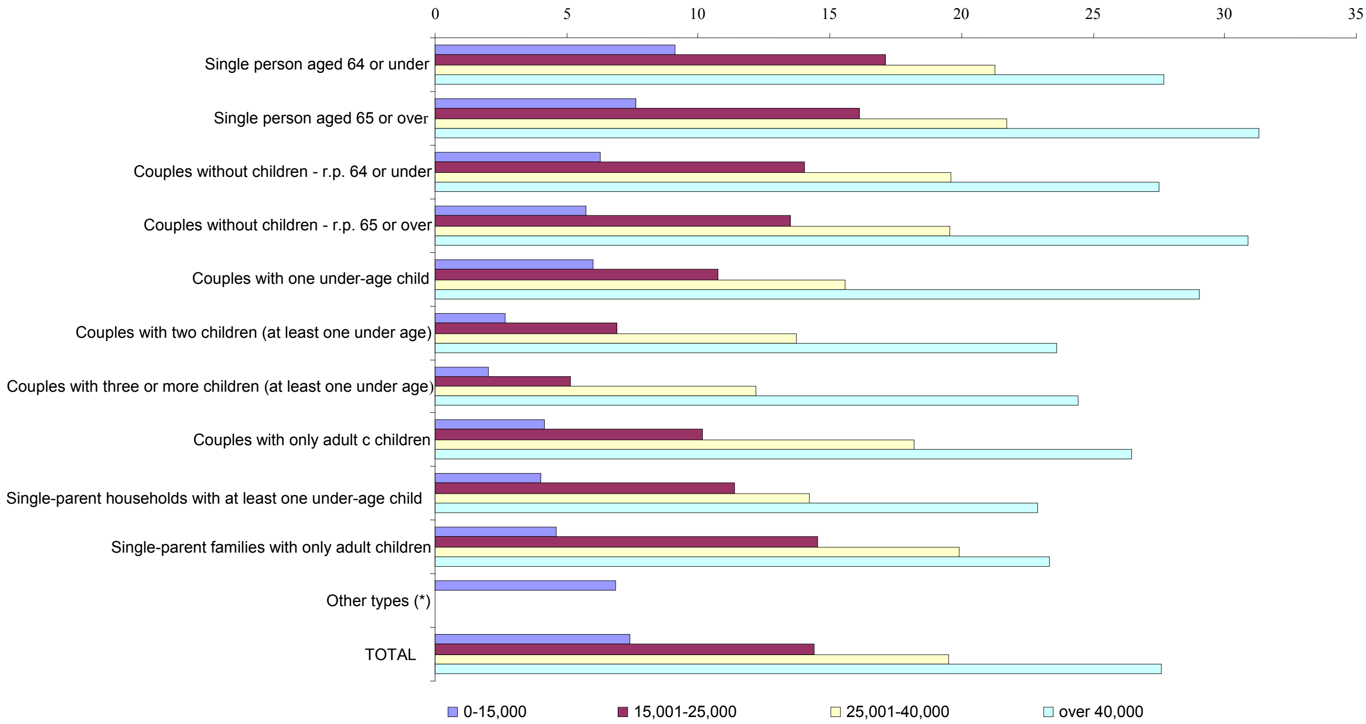
The tax burden, including direct taxes and IRAP, on income from self-employment, is one percentage point higher in the Centre (21.6 per cent) than the national average. The percentage of taxes increases with the age class of income earners from self-employment and is higher in the case of work organised with employees and for 30 hours or more per week. Conversely, the percentage of taxes is almost 5 per cent less for self-employed professionals and self-employed workers without employees who work less than 30 hours per week.

The tax burden on households

Incomes are taxed on a personal basis in Italy, with tax credits which take into account in part the taxpayer's family conditions. Nonetheless, in order to fully understand the effects of the tax burden on the material well-being and living conditions of households, the tax burden must be evaluated not so much according to individual basis as overall household income.

In 2007 the **average rate for direct taxes at the household level** was 18.6 per cent.[3] One-earner families with at least one under-age child are characterised by lower tax rates (Graph 3); specifically, couples with three or more children (at least one of whom is under age) enjoy the best tax treatment, with a rate of 13.2 per cent. They are followed by families with two or more children (at least one of whom is under age), whose tax burden is 13.3 per cent, and single-parent families (13.4 per cent).

Graph 3 – One-earner households: average rate by household type and (before tax) income bracket – 2007 *(percentage values and in euros)*



(*) Because of the small sample numbers, data for households in the category "other type" in the three income brackets over 15,000 euros are excluded from the analysis.

The fiscal advantage enjoyed by **households with under-age children** is accounted for by the greater tax credits for dependent household members and the higher probability that they receive family allowances (tax exempt). For couples with under-age children, the tax burden decreases, markedly in the first three income brackets, in proportion to the increase in the number of children. With reference to the lowest income bracket, the tax rate goes from 6 per cent for households with one under-age child to 2.7 per cent for couples with two or more children (at least one of whom is under age), falling

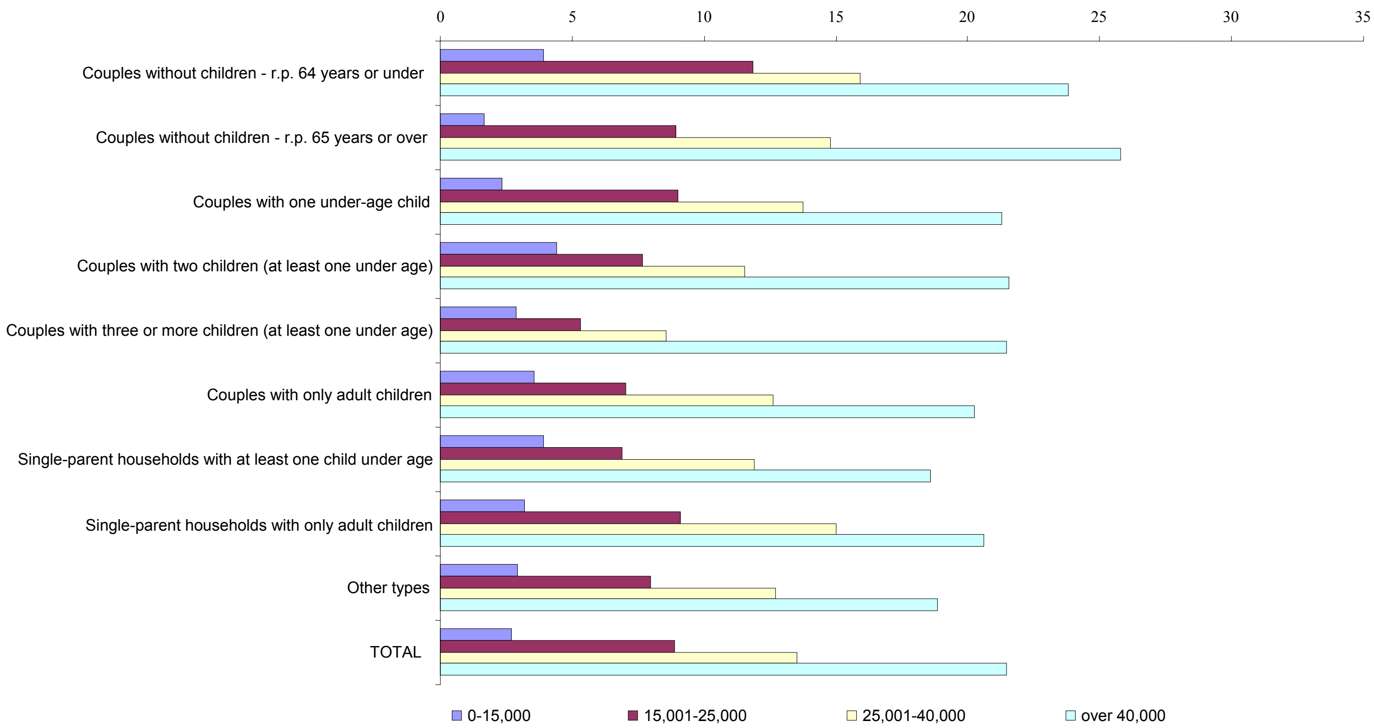
[3] The average household and individual tax rates are identical by definition as they represent the ratio between two quantities of equal value. In fact, the sum of direct taxes paid by households is identical to the sum of direct taxes paid by all individuals and the sum of household incomes coincides with the sum of individual incomes.

to 2 per cent for couples with three or more children (at least one of whom is under age). This result is a consequence of the fact that tax credits for dependent household members decrease gradually as individual income increases. The system of adjustment of family allowances also goes toward explaining the tax rate differentials in favour of households with under-age children, especially when they have low incomes.

Albeit to a lesser degree, households with two income earners also show differentials between average tax rates which indicate better tax treatment when children are present (Graph 4). The not particularly marked gap between the two groups of households, with and without children, can be accounted for by the so-called *"incapienza"* (*insufficient untaxed income*) that impacts the lower household income brackets, i.e. the fact that some taxpayers have such a low income that the tax credits are not applied..

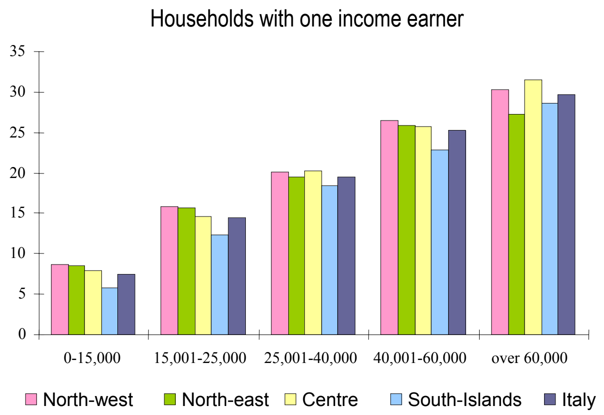
With a tax rate of 20.9 per cent, **single people aged 64 or under** constitute the household type with the largest income tax burden. The fiscal disadvantage of non-elderly single people compared with other household types remains unchanged irrespective of whether one considers the number of income earners or income brackets. Comparing tax rates for one-earner households across the household types and the income brackets, it is clear that single people are generally taxed the most, whether aged 64 or under, or older (Graph 3). For example, in the first income bracket single people aged 64 or under have a tax burden of 9.1 per cent, against 7.6 per cent for elderly single people and 6.3 per cent for couples without children. Higher taxation for single people is due to the absence of family deductions and, for the higher income class, to the progressive tax system.

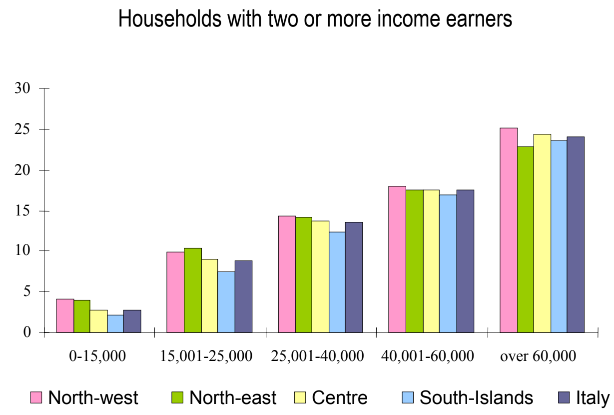
Graph 4 – Households with two or more income earners: average tax rate by household type and (before tax) income brackets – 2007 *(percentage values and in euros)*



Households in the South and the Islands have a lower direct tax burden, with a tax rate of 16 per cent, against 18.7 per cent for households in the North-east, 19.4 per cent in the Centre and 20 per cent in the North-west. The fiscal advantage enjoyed by households in the South and the Islands is present in both the single-income category and the category with two or more earners (Graph 5). This advantage regards the first four household income classes (0-60,000 euros), while for incomes of over 60,000 euros it is households in the North-east that enjoy the most favourable tax treatment.

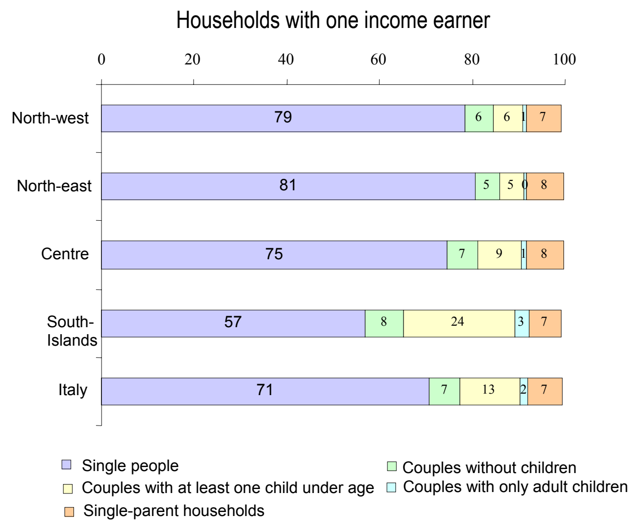
Graph 5 – Average tax rate by geographical area, (before tax) income bracket and class of income earner – 2007 *(percentage values and in euros)*

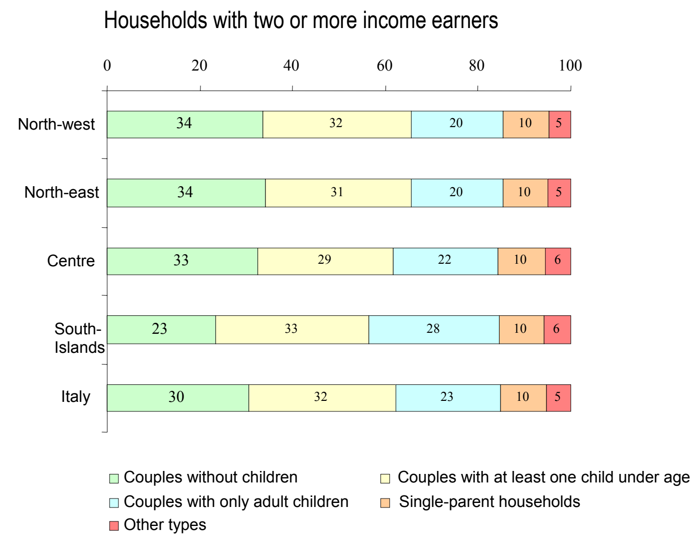




The lower tax burden on households in the South and the Islands is accounted for by the specific **household composition**, which is distinguished by a higher percentage of dependent household members per income earner (Graph 6). The burden of dependent household members is relatively higher for single-income households: 27 per cent of households in the South and the Islands consist of couples with children, compared with 15 per cent nationally. The greater household burden is also seen for households with more than one income earner, which in 61 per cent of cases are comprised by families with children, against 55 per cent nationally.

Graph 6 – Households by geographical area, class of income earner and household type – 2007 *(percentage values)*



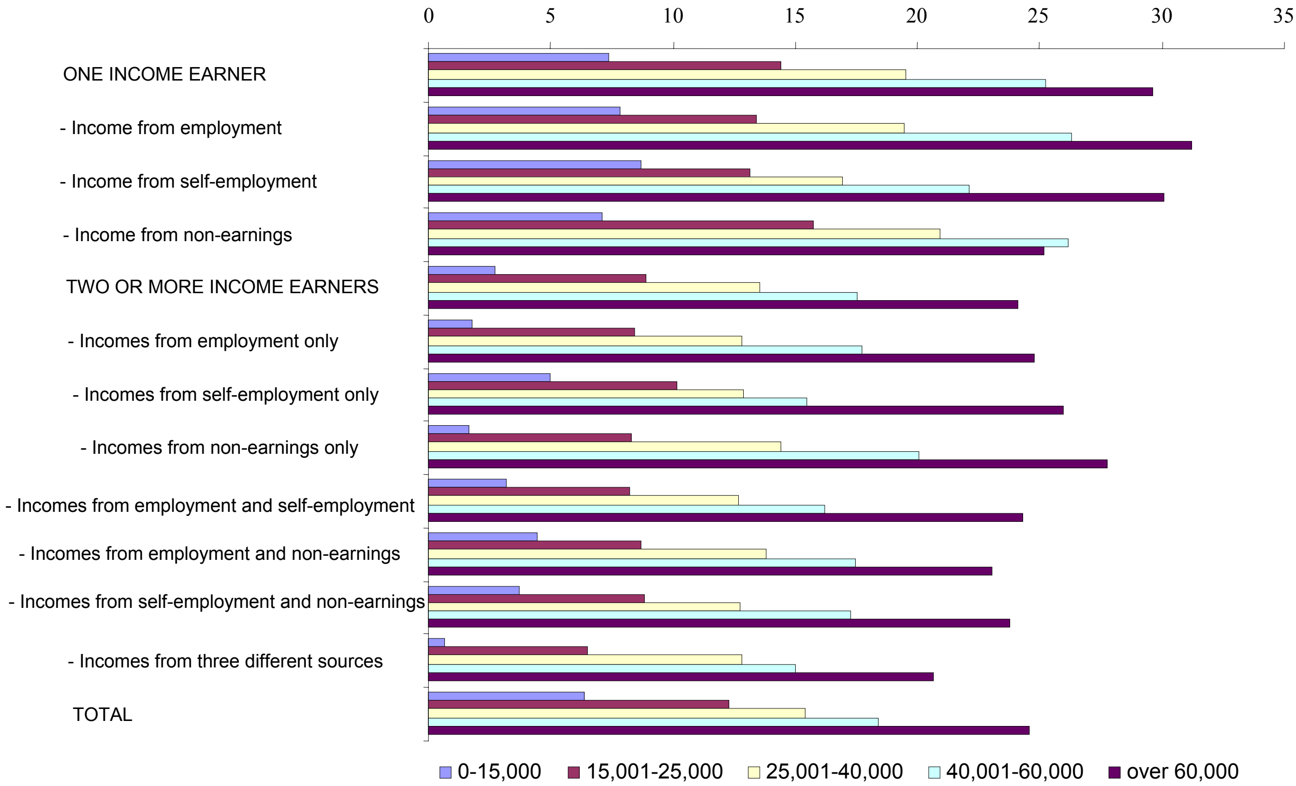


Overall, **one-earner households** have a lower tax burden, with an average tax rate of 17.8 per cent, one percentage point lower than for households with two or more earners. The lower overall tax burden on single-income households is due to the progressive tax system which applies to their lower incomes.

Nevertheless, if the two household classes are compared within the same income brackets, a diametrically opposite picture is obtained, since for each income bracket it is single-income households that have the greatest tax burden. This is due to the individual system of income taxation. Specifically, if we consider the income structure of single-income households, we notice that those households with income mainly from self-employment have comparatively higher average tax rates in the lowest income bracket (8.7 per cent). The higher burden can be attributed to the **application of**

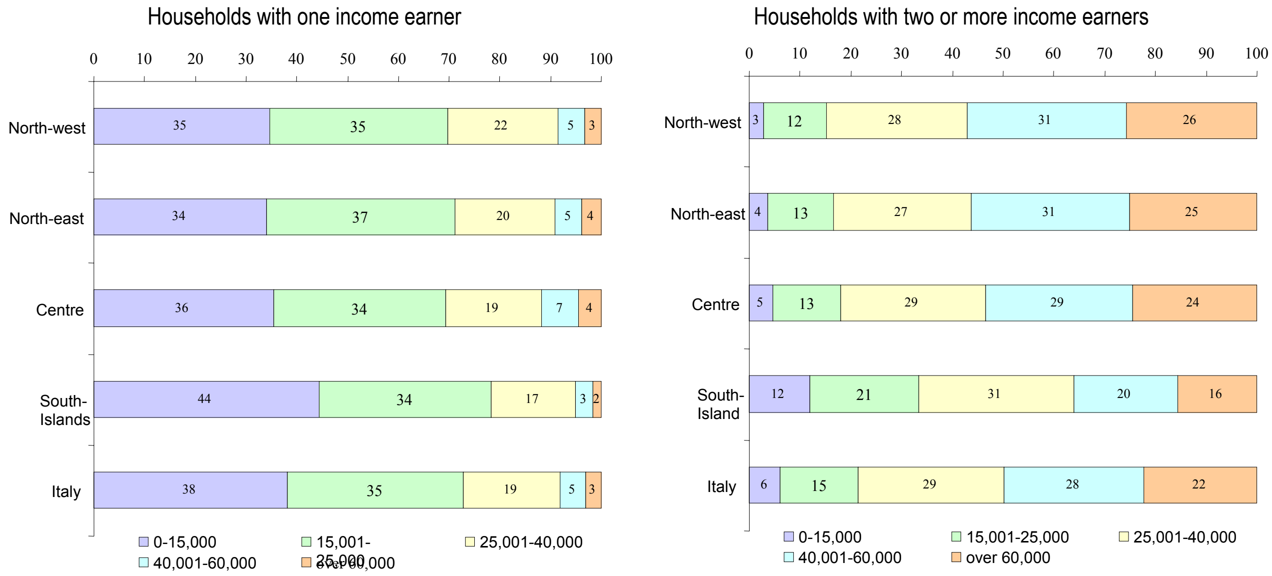
sectoral studies (most professionals, retailers, artisans etc… are induced to report a "normal" amount of taxable income, estimated by the Tax Agency on the basis of a cluster analysis of a large sample of businesses and professionals) to low incomes from self-employment and to lower deductions for income.
Households with a single recipient of non-earnings income (public transfers mainly relating to pensions, capital gains, etc.) bear the greatest tax burdens among the remaining income groups, followed closely by households with an earner of income from employment. It should be pointed out that households with non-earnings income are entitled to fewer deductions, both in terms of dependent household members – being comprised mainly by elderly single people or couples – and source of income (e.g. income from capital gains do not benefit from "family tax credits"). The income structure with at least one earner of income from self-employment is still the most heavily taxed, even when the comparison refers to households with two or more low income earners. Conversely, as a result of the individual or personal income tax system, it is households with three or more earners of income from different sources that continue to enjoy the best tax treatment in relation to more modest incomes (Graph 7).
Analysis of the household income distribution before and after tax shows that households resident in the South and the Islands fall more often within the lower income brackets, whether we consider the number of income earners or the effect of taxation (Graphs 8 and 9). Before tax, single-income households with gross annual incomes below the 15,000-euro threshold make up 44 per cent of the total, against 38 per cent nationally. After tax, the same households are even more highly concentrated within the lowest income class (52 per cent), maintaining an identical gap from the national figure (47 per cent).

Graph 7 – Average tax rate by income structure and (before tax) income bracket – 2007 *(percentage values and in euros)*

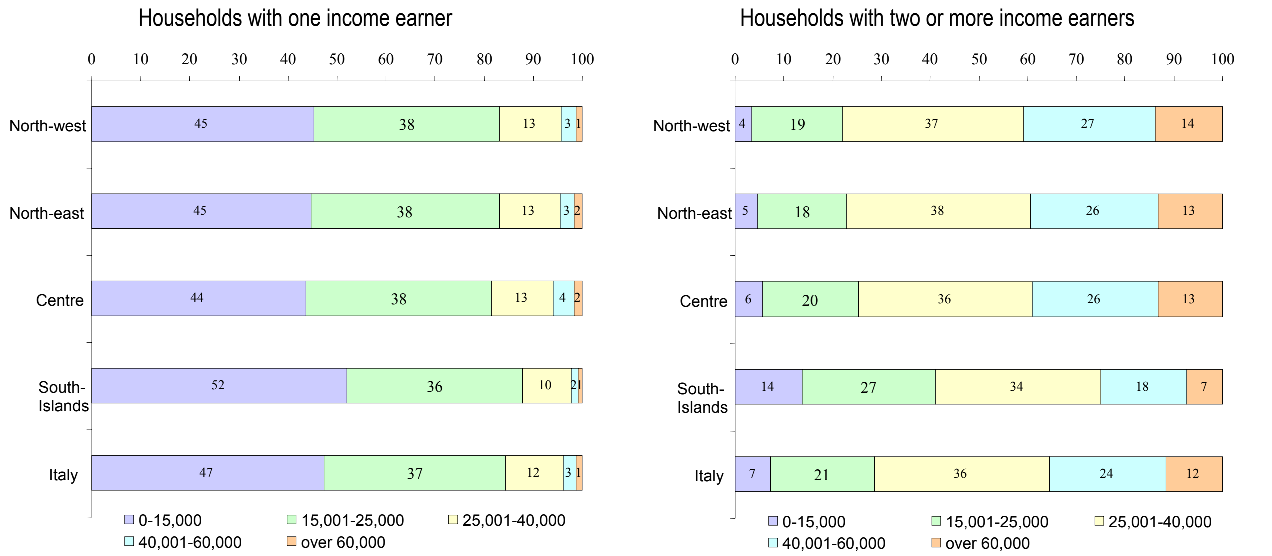


Households in the South and the Islands are equally disadvantaged, in terms both of gross and net income, when we move on to an analysis of the two or more income earners class. More often than in the other geographical area, in fact, they are placed in the lower two income brackets. Before tax, around a third of households in the South and the Islands possess an annual (gross) income of less than 25,000 euros, a percentage which is almost double that in other geographical areas. After tax, the percentage of households in the same area who have an annual (net) income of less than 25,000 euros rises to 41 per cent, showing a gap of over 15 per cent compared with other areas of the Country.

Graph 8 – Households by (before tax) income bracket, geographical area and class of income earner – 2007 *(percentage values and in euros)*



Graph 9 – Households by (after tax) income brackets, geographical area and income earner class – 2007 *(percentage values and in euros)*



A comparison between household income distribution before and after taxation by type of main income source shows that single-income households with main income from sources other than work are the most disadvantaged both economically and in terms of the tax burden (Table 6). Before taxation most have incomes below the 15,000 euro threshold, in 55 per cent of cases against a national average of 20 per cent. After taxation this figure rises to 66 per cent, against 24 per cent nationally. Therefore, after taxation, approximately 11 per cent of single-income households with a primary income from non-earnings have a worsened economic situation, moving to the lower income bracket, compared with 4 per cent of households overall.

Table 6 – Frequency distribution by (before and after tax) household income bracket and income structure – 2007
(percentage values and in euros)

INCOME STRUCTURE	Income classes					Total
	0-15,000	15,001-25,000	25,001-40,000	40,001-60,000	Over 60,000	
	Before payment of tax					
ONE INCOME EARNER	38.2	34.8	19.0	5.0	3.0	100.0
- Income from employment	18.7	42.3	29.4	7.1	2.5	100.0
- Income from self-employment	27.5	29.2	21.5	9.5	12.3	100.0
- Income from non-earnings	54.9	30.6	10.9	2.5	1.1	100.0
TWO OR MORE INCOME EARNERS	6.1	15.3	28.7	27.6	22.3	100.0
- Incomes from employment only	1.3	6.3	27.4	40.5	24.5	100.0
- Incomes from self-employment only	4.4	12.8	26.0	20.6	36.2	100.0
- Incomes from non-earnings only	17.3	33.3	30.9	12.1	6.4	100.0
- Incomes from employment and self-employment	2.2	9.2	26.1	30.2	32.3	100.0
- Incomes from employment and non earnings	3.7	14.0	30.9	29.3	22.1	100.0
- Incomes from self-employment and non-earnings	7.2	15.8	31.1	20.7	25.2	100.0
- Incomes from three different sources	0.7	4.6	19.3	28.1	47.3	100.0
TOTAL	19.6	23.5	24.6	18.1	14.2	100.0
	After payment of tax					
ONE INCOME EARNER	47.3	37.1	11.7	2.7	1.2	100.0
- Income from employment	25.5	52.8	18.4	2.5	0.8	100.0
- Income from self-employment	35.7	30.7	17.8	10.2	5.6	100.0
- Income from non-earnings	65.9	27.3	5.3	1.1	0.4	100.0
TWO OR MORE INCOME EARNERS	7.2	21.4	35.9	23.9	11.6	100.0
- Incomes from employment only	1.5	10.1	45.6	33.0	9.8	100.0
- Incomes from self-employment only	6.6	15.6	29.9	21.4	26.5	100.0
- Incomes from non-earnings	19.6	43.6	26.3	8.1	2.4	100.0
- Incomes from employment and self-employment	2.6	13.1	34.0	31.8	18.5	100.0
- Incomes from employment and non-earnings	4.4	20.4	39.6	23.6	12.0	100.0
- Incomes from self-employment and non-earnings	9.7	21.8	31.4	22.3	14.8	100.0
- Incomes from three different sources	1.4	8.4	25.9	34.0	30.3	100.0
TOTAL	**24.1**	**27.9**	**25.8**	**15.0**	**7.2**	**100.0**

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