# **Supplementary materials**

# Nudging freelance professionals to increase their retirement pension fund contributions

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## Additional information about the sample

In some cases, people are allowed to make a contribution lower than the minimum percentage (10%). This means that they do not freely choose how much they want to contribute because they are taking advantage of such facilitation. Specifically, some people are only required to contribute €390.00 (half of the standard minimum contribution). Those entitled to make this reduced contribution are: i) people whose income derives partly from employment and partly from self-employment; ii) people over 57 years of age; iii) people receiving other pensions in addition to the pension reserved for freelance psychologists; and iv) people who have been professionally inactive for at least six months during the fiscal year in question. The contribution is lowered to €260.00 (one-third of the minimum) for people who are below 35 years of age and have been active as freelance psychologists for fewer than three years. Finally, the contribution is reduced to €156.00 (one-fifth of the minimum) for people with an after-tax income below €1,560.00 in that fiscal year.

Special regulations apply to two other groups. People who work as freelancers in private businesses (e.g., private hospitals or clinics) that have an agreement with the national public healthcare system benefit from a mandatory employer's contribution of 14.19% of the employee's income in addition to their mandatory contribution. People who have an annual income above €100,324.00 have their contribution capped at €10,032.00 regardless of the percentage contribution they select. Together, these categories accounted for 29,426 people at t1 and 25,809 at t2.

**Table A1.** Income, age, gender, and region of people contributing to the fund split by time and contribution category. The main analyses in this paper only considered the "free to choose" category, which includes only people who were free to choose their percentage contribution (i.e., move it above the 10% default at t1 or below the 20% default at t2).

			t1		
	N	After-tax	Mean age	Gender	Region
	IN	income (€)	(SD)	(% females)	(% north)
Free to choose (10-20% contribution rate)	23,791	23,017 (13,982)	44 (9)	80.50	58.20
1/2 reduction	7,627	9,618 (12,396)	52 (14)	77.40	54.70
1/3 reduction	4,387	6,400 (5,768)	32 (2)	88.33	47.20
1/5 reduction	7,789	416 (692)	41 (10)	86.64	42.00
Fixed minimum contribution	8,430	4,226 (2,400)	43 (10)	86.56	41.00
Agreements	1,083	6,970 (10,916)	50 (8)	84.40	58.90
Fixed highest contribution	110	139,731 (59,321)	52 (9)	49.09	68.20
			t2		
	N	After-tax	A ~ ~	Gender	Region
	1N	income (€)	ncome (€)  Age (% fee		(% north)
Free to choose (10-20% contribution rate)	27,353	21,846 (15,329)	44 (9)	81.40	56.70
1/2 reduction	7,280	9,021 (11,786)	50 (14)	78.70	53.70
1/3 reduction	3,990	6,296 (5,398)	30(2)	88.02	46.40
1/5 reduction	6,256	454 (778)	40 (10)	87.32	42.50
Fixed minimum contribution	7,147	3,573 (2,420)	42 (10)	87.21	41.30
Agreements	1,041	7,277 (11,141)	50 (8)	85.21	60.40
Fixed highest contribution	95	146,861 (63,377)	53 (9)	56.84	66.30

NOTE: The number of "free to choose" people is different in this table compared to the analyses in the main text. The reason is that here are included all people who were eligible to choose their contribution either at t1 or t2. In the analyses, instead, we only considered people who were eligible to choose their contribution both at t1 and t2.

# Tax rate for freelance in Italy in 2017 (t1) and 2018 (t2)

**Table A2.** Irpef<sup>1</sup> rates for 2018<sup>1</sup> (t2) – The income of freelance psychologist was reduced by an amount equal to their contribution to the retirement fund before their Irpef rate was computed.

Income bracket	Tax rate	Amount to pay
Up to $\le 15,000.00^2$	23%	23% of income
€15,001.00 -	27%	€3,450.00 + 27% of the income above €15,000.00
€28,000.00		
€28,001.00 -	38%	€6,960.00 + 38% of the income above $€28,000.00$
€55,000.00		
€55,001.00 -	41%	€17,220.00 + 41% of the income above
€75,000.00		€55,000.00
Above €75,000.00	43%	€25,420.00 + 43% of the income above
		€75,000.00

<sup>&</sup>lt;sup>1</sup> Tax rates were the same for 2017 (t1).

# **ENPAP** communication campaign

## **Email messages:**

A first email was sent on July 5, 2018. The email was sent as a letter of ENPAP president to all free-lance psychologists in Italy and covered several topics including the new procedure to choose and communicated the rate of contribution. That section of the email reported the following message (translated from Italian to English):

## "PERSONAL AREA: NEW AGREEMENTS AND OTHER CHANGES

With the board we want to keep develop and offer useful tools for psychologists. Along these lines we were able to secure new interesting benefits for the colleagues (some specific to new members): In the Personal Area of the website www.enpap.it you can always find new agreements.

Some are exclusive offers, with greatly discounted prices compared to the baseline, check immediately and join quickly because sometimes these agreements have limited duration.

A new tool for the communication between ENPAP and its members is available in the Personal Area. We created a section dedicated to "Contacts" that you can use to get specific information about the status of your tickets and questions to ENPAP. You can also access quickly, in a way organized by topic, to a series of FAQ. You will be able to

 $<sup>^{2}</sup>$  No tax is payed when income is below €8,174.00 (no tax area).

<sup>&</sup>lt;sup>1</sup> Physical People Income Tax (in Italian: Imposta sul Reddito delle Persone Fisiche).

ask further information and clarifications directly only and to see the answers provided by our offices.

In addition, after the summer break, you will find several differences in the section of the "Income and balance communication" of the Personal Area. The changes are the result of a collaboration between ENPAP and the researchers at JDMLab, a team of faculty at the Department of Developmental Psychology and Socialization at the University of Padova, that works in the field of decision-making psychology. These innovations are aimed at making the social security mechanisms more transparent and facilitate a more adequate and conscious contribution.

Many other projects are in ongoing or awaiting a final approval from the respective government departments: We will talk about them once they are approved and ready to be implemented. All these projects require an intense preliminary work, meetings with experts, meetings with the offices, summoning, committees. These activities have costs, for ENPAP, that we had to block and stabilize for the future by redefining the mechanism for emoluments. You can find all the news at the following [LINK]."

A second email was sent on September 7, 2018. The text of the message, translated from Italian to English, was the following:

"Dear Doctor,

On October 1, 2018 will expire the deadline to communicate the income for the year 2017 in the Personal Area and it will also be the deadline for the payment of the contribution to the fund.

To access the Personal Area you need you pin (the one assigned to you is XXXXXX) or you social security number, and the password (a new password can be requested at any time using the function password request).

Once you access the webpage, from the menu "Fulfillments" click on "Income and contribution communication" and proceed to filling the communication; at the end of the procedure, you will be shown the amount you may have to pay. At this point, click on "Confirm and send" to complete the procedure.

Starting from this year, a new selector for the rate of contribution has been introduced: choosing a higher percentage it is possible to increase the amount of the future pension and obtain an immediate fiscal gain since your subjective and maternity contributions are entirely deductible. To simplify the choice of the rate of contribution during the procedure, there is a simulator of your fiscal gain.

More information about the deadline are available on the ENPAP website (www.enpap.it).

If you have already completed the communication and/or the payment of your contribution, please disregard the present message."

## **Facebook posts**

Two Facebook posts were published in the weeks approaching the time in which people had to the decide their contribution to the fund. The first post was published on August 30, 2018 and is showed in the figure below (left panel). The English translation of the post is the following:

"The procedure to communicate the income and choose the contribution rate is already online in your Personal Area on the ENPAP website.

By October 1 you will have to declare to ENPAP your income for 2017 (both before- and after-taxes) and will be able to choose how much you want to set aside for your pension. Once you are done, you will receive the computation of the amount of contribution that you must pay.

Starting with this year there are some changes. The online procedure has become easier and more intuitive, and we wanted to facilitate the choice of the subjective contribution rate by using a clearer selector.

You can choose a rate between 20% and 10% of your after-taxes income.

Choosing a higher percentage, you will increase the amount of your future pension and will obtain an immediate tax gain since the contributions (subjective and maternity) are entirely deductible.

To help you in choosing the percentage of contribution to pay, you will have the help of a simulator of the tax gain."

The second post was published on September 7, 2018 and is showed in the figure below (right panel). The English translation of the post is the following:

"The procedure to communicate the income and choose the contribution rate is online in your Personal Area of the ENPAP website.

Starting with this year the choice of the subjective contribution rate is easier thanks to the introduction of a new selector.

You can choose a rate between 20% and 10% of your after-taxes income.

Choosing a higher percentage, you will increase the amount of your future pension and will obtain an immediate tax gain since the contributions (subjective and maternity) are entirely deductible.

For more information -> [link]"



**Figure A1.** Facebook posts that ENPAP published on Facebook in advance of the changes to the website platform people use to choose their rate of contribution to the fund.

#### **Booklet:**

After the introduction of the intervention, in December 2018, ENPAP sent an end of the year email to all freelance psychologists. Attached to this email was a booklet describing in detail the type of nudge intervention that was applied to the platform and the results obtained.

Although this communication happened after the intervention described in the paper, we decided to mention it here since it is an important piece of information to show the extent to which ENPAP decided to be transparent. This is also relevant since contributions to the fund are made yearly and explaining in detail the nudge intervention could help people understand whether they wanted to change their contribution in the future or not.

The booklet was about 30-pages long and it described the three different, psychological cues employed in the nudge intervention as well as pointing out its aim and reporting the results. The booklet is in Italian and too long to be translated here. However, the authors are willing to share upon reasonable request.