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The “Eye of the Hurricane” Paradox:

An Unexpected and Unequal Rise of Well-Being During the Covid-19 Lockdown in France

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Abstract

Panel data covering the French population before and after the outbreak of the Covid-19 epidemic reveal that self-reported health and well-being have improved during the lockdown in comparison to previous years. We name this counterintuitive phenomenon the “eye of the hurricane” paradox: the large majority of individuals who are not infected by the virus may be seeing their current condition in a more positive light than they normally would. There are, however, divergences across social groups that reflect socioeconomic inequalities. In particular, blue-collar workers deviate from the prevailing trend as their level of self-reported health declines over the lockdown period, Parisian residents experience a sudden drop in their subjective well-being, and people working long hours at home exhibit higher levels of stress during the quarantine.

Acknowledgements

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The “Eye of the Hurricane” Paradox:

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Introduction

In the aftermath of the earthquake that hit Japan in 2011, which led to a tsunami and the Fukushima nuclear accident, researchers compared the levels of subjective well-being of young people to those from before the disaster. They were surprised by what they found: an improvement of overall morale, instead of an expected decline (Uchida et al 2014; see also Quarantelli 1985). Similarly, through nationally representative panel data of French residents, we find that the perception of both health and well-being during the Covid-19 epidemic has improved in comparison to previous years. We name this counterintuitive phenomenon the “eye of the hurricane” paradox: the vast majority of individuals who are not infected by the virus may be seeing their general health and sense of subjective well-being in a more positive light than they normally would. There are, however, divergences across social groups that reflect socioeconomic inequalities. Particularly, manual workers deviate from the prevailing trend, as their level of self-reported health declines over the lockdown period.

Data and main indicators

Data for our analyses come from the first, second and third waves of a panel survey administered online and conducted during the lockdown from 1-8 April, 15-22 April and 29 April-6 May 2020 respectively.¹ The first survey took place exactly two weeks after the official start of the lockdown in France, which began on 17 March. Subsequent waves were carried out at two-week intervals, with the fourth and fifth waves coming after the official start of a progressive re-opening of France, which began on 11 May. During the lockdown period, schools and most shops were closed down, national and international travel was almost entirely cancelled, and individuals’ freedom to leave their homes was limited to basic necessities.

Our survey waves build on ELIPSS, a probability-based panel launched in 2012. ELIPSS currently relies on a sample of 1400 residents of mainland France that was drawn from census data collected through face-to-face interviews during the initial stage for which the acceptance rate

¹ Further information about our preliminary findings are included in two policy briefs (Recchi et al 2020 ; Ferragina et al 2020).

was greater than 25 percent. Weights have been computed to take into account design effects from the initial stage, bias due to acceptance rate during the enrollment phase, and post-stratification on the basis of gender, age, education and region.

The main indicators we delve into for this research note are respondents' self-assessment of personal 'health', a composite indicator of subjective 'well-being', and a measure of lockdown-related 'stress'. Self-assessed health is ranked on a five-point scale ranging from 'very bad' to 'very good'. To capture subjective well-being in a holistic way, we constructed an index combining panelists' responses to six different questions regarding how often they have felt 'nervous', 'low', 'relaxed', 'sad', 'happy' and 'stressed out' over the previous two-week period on a five-point scale from 'never' to 'always'. Negative feelings are inverted to enable the construction of an additive index, which was then normalized between 0 (lowest) and 1 (highest). 'Lockdown-related stress' was based on the response to the question 'Does the lockdown take a toll on you?' measured on a 0 to 10 point scale from 'not at all' to 'enormously'.

Feeling good in hard times? Diverging trends in French society

Self-reported health

Whereas between 2017 and 2019 only 11 percent of respondents declared being in very good health, this proportion has more than doubled during the lockdown, following an initial jump at the beginning and a subsequent stabilization. However, this dramatic rise was not felt uniformly across French society. This is particularly the case among blue-collar workers for whom the proportion of those feeling good or very good has declined since the lockdown began (figure 1, top-left panel). To some extent, this may be related to their exposure to risk during the epidemic, as we also find that the incidence rate of Covid-19 is higher among manual workers, reaching 11.2 percent in our latest survey (early May), as opposed to 6.2 percent in the rest of the population.² The gap in self-assessed 'good/very good' health between blue-collar workers (55 percent) on the one hand and managers and farmers (90 percent) on the other is impressive. Farmers are the occupational category that fares the best, in continuity with surveys from the two preceding years. Overall, with the remarkable

² These figures include both people who tested positive and those who believe that they suffered from Covid-19 but were not tested. Such estimates are well in line with those of epidemiological studies for France (Salje et al 2020; Magal & Webb 2020).

exception of manual workers, the rise in the level of self-reported good health is widespread and reflects the pre-existing hierarchy of working conditions among occupations.

Self-reported health is also stratified by household income (figure 1, top-right panel). Although it shrinks slightly (but not significantly) as the lockdown progresses, the gap between income groups remains relatively constant before and after the start of the lockdown. In sum, the epidemic seems to trigger health inequalities that are occupation-specific rather than income-related. Apparently, for low-income earners, health risks are concentrated among blue-collar workers. Other socioeconomic factors have an impact as well, given that good health is significantly less prevalent among the most financially vulnerable (i.e. people who say they cannot afford an unexpected €400 bill), women, older people and respondents living in smaller homes (after controlling for all other relevant variables, see Appendix). These effects have, however, remained stable over time -- notably, before and after the lockdown.

Subjective well-being

Like general health, subjective well-being scores have been on the rise since the quarantine started. The rise is constant across household income levels. Although clerks exhibit a steep upswing, the generalized increase is less marked than that for general health (bottom-left panel, figure 1). Why such uniformity across social groups when it comes to subjective well-being? From a comparative perspective, the robustness of the welfare system may be a factor (France has the highest level of social spending among OECD countries), as the state granted rather generous unemployment benefits to full-time employees who were temporarily laid off (*chomage partiel*, at least 84% of former salary) during the crisis.

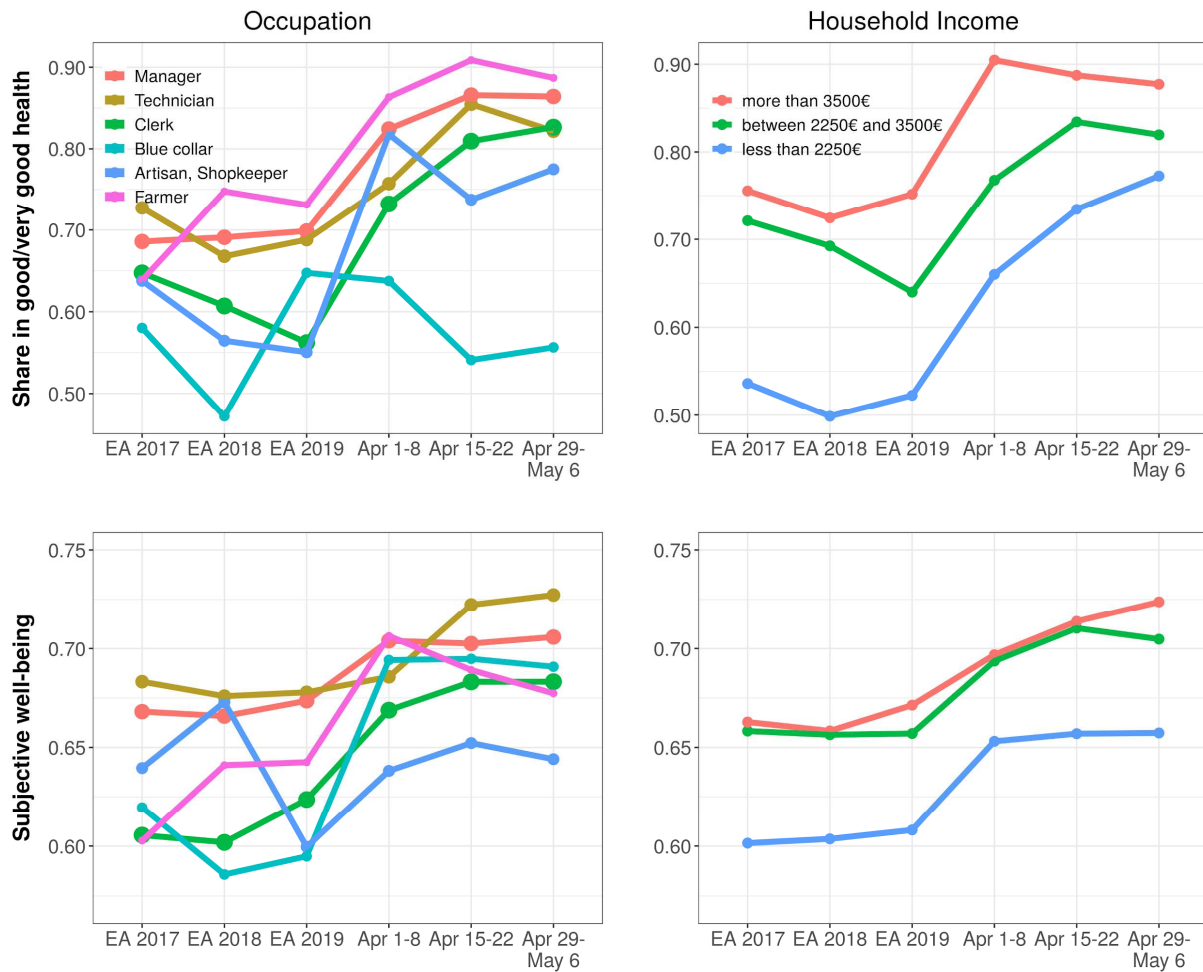


Figure 1. Changes in self-assessed health and subjective well-being from Springtime 2017 to April 2020 among mainland French residents by respondents' occupation and household income

Sources: Coping with Covid-19 – 1st, 2nd and 3rd waves (CoCo-1, 2 & 3), April 1-8, April 15-22 and April 29-May 6 2020, Annual survey 2017, 2018 et 2019, ELIPSS/CDSP. N=779.

Reading: The purple line in the top left panel shows that 90% of farmers report being in “good” or “very good” health in the latest 2020 survey. The left column plots time trends by occupation and the right column by tertiles of disposable household income. The upper row plots the share of respondents who report being in “good” or “very good” health and the lower row shows the evolution of the subjective well-being index on a 0-1 scale. This index is an average of six questions that touch upon feeling nervous, low, relaxed, sad, happy and lonely. The answers are normalized to be between 0 and 1, with 0 indicating the lowest and 1 the highest possible well-being level.

Inequalities do exist though. Subjective well-being is still significantly lower for the most financially vulnerable and for individuals living in smaller homes, once we control for all other relevant variables (as listed in the Appendix). Moreover, new regional disparities emerge during the lockdown. Controlling for the average level of subjective well-being in each survey (i.e., accounting for an overall change due to Covid-19) and the average level for each

individual (e.g. accounting for low-income survey participants or residents in Paris being less happy in general), we show in figure 2 that residents in the Paris region experienced a sizeable and significant decrease in their subjective well-being score compared to the rest of the country (the drop amounts to around 7% of the overall average). Perhaps housing constraints and the paucity of green spaces in Paris exacerbate the negative impact of the sudden disappearance of the most attractive features of *la capitale* -- its dynamic cultural, artistic and entertainment life. Without theatres, museums, cafes and street life, Paris may be more suffocating than your average French town. Under such conditions, the Simmelian *blasé* character of Parisians looks to have been shaken for once.

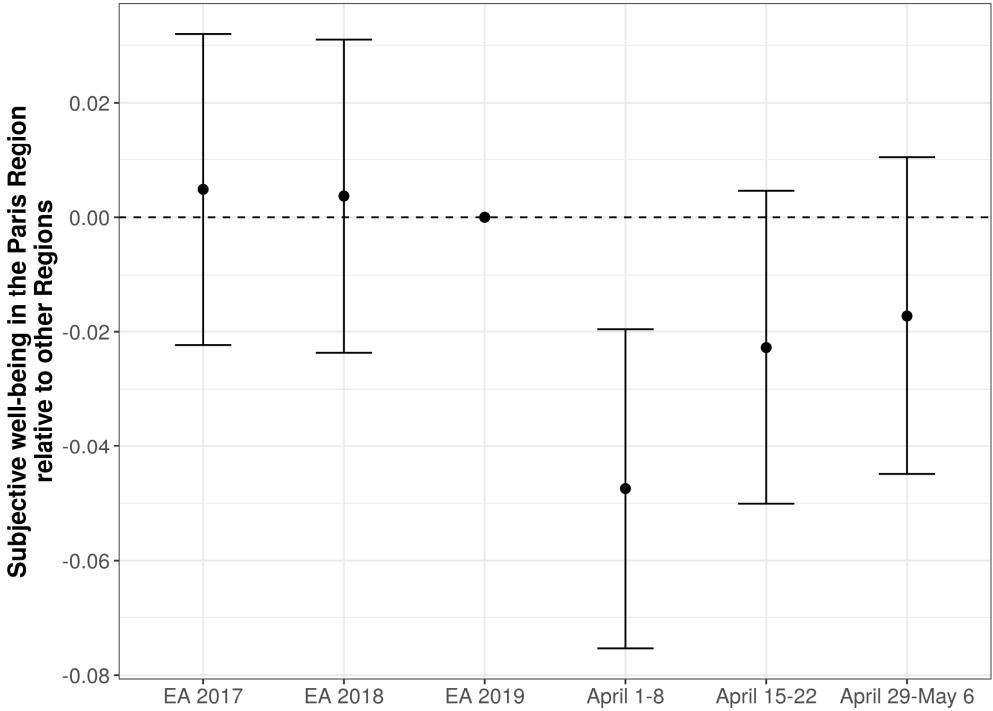


Figure 2. Subjective well-being of residents in Paris compared to average French residents from 2017 into the lockdown

Sources: Coping with Covid-19 – 1st, 2nd and 3rd waves (CoCo-1, 2 & 3), April 1-8, April 15-22 and April 29-May 6 2020, Annual survey 2017, 2018 et 2019, ELIPSS/CDSP. N=779.

Description: We regress our subjective-well being index on a set of interactions with a dummy variable equal to one if the individual resides in Paris and another for each survey wave. The figure plots the coefficients on these interactions. We fix the 2019 level (Enquête Annuelle 2019) as the reference category. We also include the whole set of individual and time dummies, thereby controlling for all time-invariant individual and regional characteristics.

Lockdown-related stress

Not surprisingly, subjective well-being is strongly associated with lockdown-related stress (“Does the lockdown take a toll on you?” on a 0-10 scale). This measure has not changed significantly over the three waves of our survey. To some extent, we find that it reflects work-hours and type of workplace (figure 3). The longer respondents’ work-hours are, the stronger the sentiment is that the quarantine exhausts them. This is especially true for those who spend long working days at home in front of their computers or answering the phone. This flies in the face of arguments praising the advantages of home-working (e.g., Bloom 2014), which may protect one from the virus but seems to entail psychological costs. Such costs are even higher for teleworkers who rarely went outside during confinement. For teleworkers who leave home only once a week or less, each additional hour of daily work means an increase of stress levels by around 4% compared to teleworkers who go out more frequently.

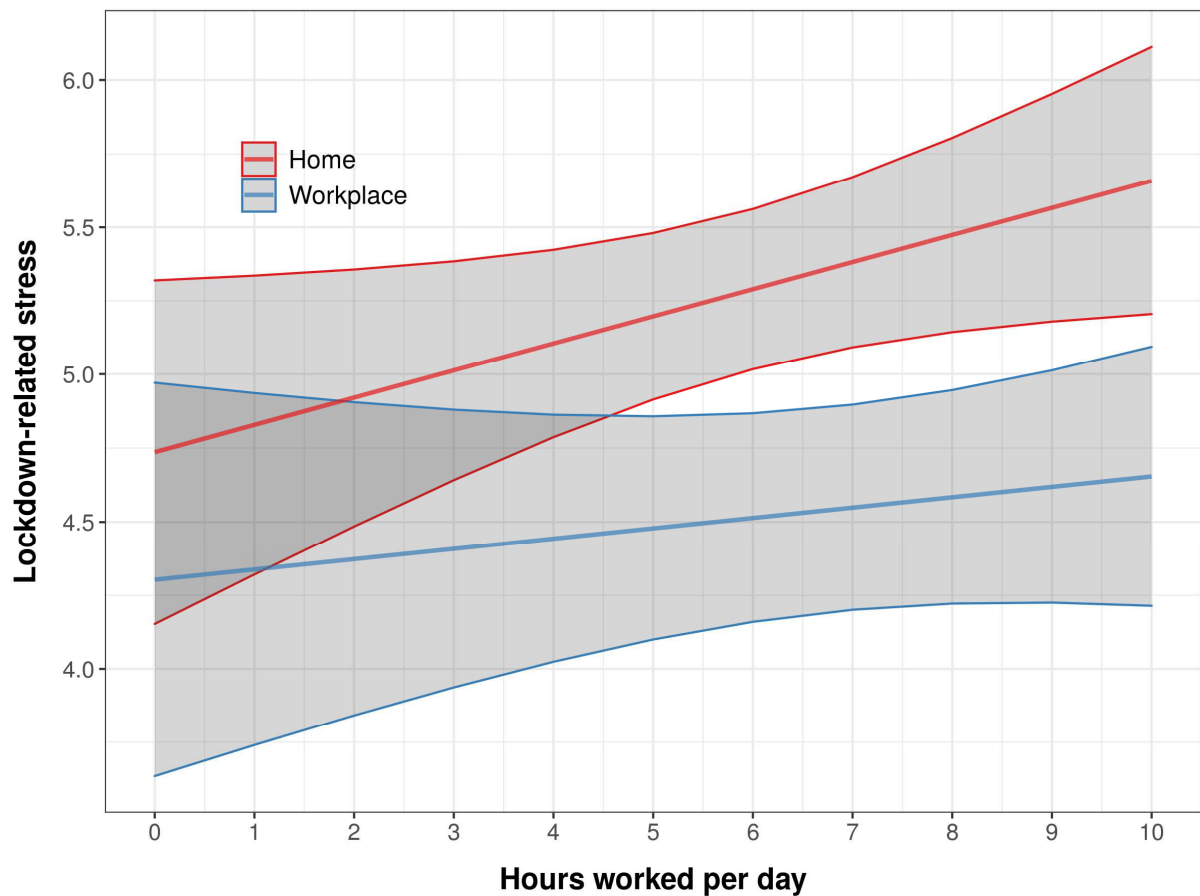


Figure 3. Changes in lockdown-related stress levels among mainland French residents by respondents' main site of work

Sources: Coping with Covid-19 – 1st, 2nd and 3rd waves (CoCo-1, 2 & 3), April 1-8, April 15-22 and April 29-May 6 2020, ELIPSS/CDSP. N=1113.

Reading: The horizontal axis indicates the average number of hours worked per day, the vertical axis the position of respondents on a 0 to 10 scale in answer to the question: "Does the lockdown take a toll on you?". The average score for people working from home 0-1 hours per day is 4.3 and for those working outside is 4.8. The number of hours worked per day was measured in brackets: 0-1 hours, 1-2 hours, ... up to 10 or more hours.

Conclusion

The Covid-19 pandemic sent shockwaves worldwide -- not only because of the disease and its death toll, but also because of the resulting lockdown and its disruption of daily life. France was no exception. Nevertheless, the majority of people did not panic. Quite the contrary, they declared feeling healthier and having a better morale than beforehand. While instances of this phenomenon - have been observed in the aftermath of other socially disruptive events, only research conducted elsewhere during the worldwide Covid-19 crisis may tell us to what extent

this may be a culturally-specific reaction. Likewise, only further survey waves once the pandemic is over will allow us to assess whether such a change is a temporary shock or the beginning of a new normal.

Despite the overall upswing, we also found inequalities that trouble the general picture. As regards self-reported health, the epidemic exacerbated health disparities between occupations, hitting the working class (*ouvriers*) the hardest. This is reflected in the proportion of people both infected by the virus and reporting being in good or very good health by occupation -- blue-collar respondents' level declined while that of all other occupations rose. As regards subjective well-being, significant deviations from the overall increase emerged for residents of Paris as opposed to the rest of France. Space-related factors seem to play a major role when it comes to psychological adjustment to such adverse conditions. This is also reflected, to some extent, in the level of self-reported stress attributed to the lockdown, which we found to be higher among those working long hours at home.

We conclude with a caveat: in this brief research note we tracked the effects of the pandemic over the first six weeks of the nationwide lockdown. Such effects were not, on the whole, too alarming but were nonetheless unequal. This does not rule out the possibility that in the long term -- depending on policy responses, macro- and meso-level contextual variations, and personal experiences of the disease -- the Covid-19 pandemic will leave multiple scars on several social groups.

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Appendix: Descriptive table of variables

	mean	sd	max	min	N
Self-assessed health 2017 : good+very good	0.62	0.48	1.00	0.00	1010
Self-assessed health 2018 : good+very good	0.61	0.49	1.00	0.00	1000
Self-assessed health 2019 : good+very good	0.61	0.49	1.00	0.00	982
Self-assessed health 2020 (early April) : good+very good	0.76	0.43	1.00	0.00	928
Self-assessed health 2017 (mid-April) : good+very good	0.80	0.40	1.00	0.00	907
Self-assessed health 2017 (early May) : good+very good	0.79	0.41	1.00	0.00	1021
Subjective well-being 2017	0.63	0.16	1.00	0.04	1010
Subjective well-being 2018	0.63	0.17	1.00	0.00	999
Subjective well-being 2019	0.64	0.16	1.00	0.00	982
Subjective well-being 2020 (early April)	0.68	0.17	1.00	0.00	929
Subjective well-being 2020 (mid-April)	0.69	0.16	1.00	0.04	908
Subjective well-being 2020 (early May)	0.69	0.17	1.00	0.00	1023
Lockdown-related stress (early April)	5.22	2.65	10.00	0.00	928
Lockdown-related stress (mid-April)	5.28	2.64	10.00	0.00	907
Lockdown-related stress (early May)	5.46	2.75	10.00	0.00	1023
Age: Below 25 years	0.06	0.24	1.00	0.00	982
Age: Between 25 and 29 years	0.02	0.15	1.00	0.00	982
Age: Between 30 and 34 years	0.05	0.21	1.00	0.00	982
Age: Between 35 and 39 years	0.14	0.35	1.00	0.00	982
Age: Between 40 and 44 years	0.07	0.26	1.00	0.00	982
Age: Between 45 and 49 years	0.11	0.32	1.00	0.00	982
Age: Between 50 and 54 years	0.08	0.27	1.00	0.00	982
Age: Between 55 and 59 years	0.11	0.31	1.00	0.00	982
Age: Between 60 and 64 years	0.08	0.27	1.00	0.00	982
Age: Between 65 and 69 years	0.11	0.31	1.00	0.00	982

Age: Above 70	0.17	0.37	1.00	0.00	982
Gender (woman)	0.48	0.50	1.00	0.00	982
Household income 2020 : < €2250	0.25	0.43	1.00	0.00	877
Household income 2020 : €2250-3500	0.49	0.50	1.00	0.00	877
Household income 2020 :> €3500	0.26	0.44	1.00	0.00	877
Manager	0.27	0.45	1.00	0.00	923
Technician	0.16	0.36	1.00	0.00	923
Clerk, white-collar employee	0.38	0.49	1.00	0.00	923
Artisan, shopkeeper	0.08	0.28	1.00	0.00	923
Blue-collar worker	0.05	0.22	1.00	0.00	923
Farmer	0.02	0.14	1.00	0.00	923
Workplace (early April): out of home only	0.40	0.49	1.00	0.00	274
Workplace (early April): also at home	0.60	0.49	1.00	0.00	274
Working hours (for those who work)	5.99	3.29	11.00	0.50	403
Frequency of going out (mid-April) : once a week or less	0.53	0.50	1.00	0.00	908
Frequency of going out (mid-April) : more than once a week	0.41	0.49	1.00	0.00	1023
Tested positive / strong symptoms of Covid-19 (early May)	0.08	0.28	1.00	0.00	1019
Financially vulnerable (incapacity to pay unexpected €400 bill)	0.10	0.31	1.00	0.00	929
Region : Paris	0.12	0.32	1.00	0.00	1023
Region : Greater Paris area	0.11	0.32	1.00	0.00	1023
Region : North	0.07	0.26	1.00	0.00	1023
Region : East	0.10	0.30	1.00	0.00	1023
Region : West	0.06	0.24	1.00	0.00	1023
Region : South-West	0.12	0.33	1.00	0.00	1023
Region : Center-East	0.16	0.37	1.00	0.00	1023
Region : South-East	0.10	0.30	1.00	0.00	1023
Home size less than 20 m ²	0.00	0.05	1.00	0.00	927
Home size between 20 and 39 m ²	0.03	0.18	1.00	0.00	927

Home size between 40 and 59 m ²	0.08	0.27	1.00	0.00	927
Home size between 60 and 79 m ²	0.18	0.39	1.00	0.00	927
Home size between 80 and 100 m ²	0.29	0.45	1.00	0.00	927
Home size more than 100 m ²	0.42	0.49	1.00	0.00	927