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# Is There a Gender Imbalance in the Italian Labor Market? 

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#### Abstract

Women who decide to enter the labor market should, at least in theory, have access to any profession. Actually, it is something that does not always happen and their ambitions are relegated to few jobs (i.e., teachers, nurses, cashiers,) often linked to social stereotypes characterized by low wages, tasks that are inappropriate to their educational qualifications and of course with few career prospects. All that creates a gender imbalance of individuals in the labor market known as segregation. The objective of this paper is to focus on the aforementioned issue through a qualitative and quantitative survey based on the analysis of statistical indicators compared in two years (2009 and 2020), taking into account the social variations of the time span that elapses between the two years observed. The results show that gender employment segregation has been opposed over time, but not adequately resolved by concrete policies that can counter the phenomenon under consideration. Therefore, it is not enough to increase women's employment without pursuing a path of qualitative growth in women's work.


Keywords: Italy, segregation, indexes, gender, feminization

## Introduction

"In all its activities, the Union shall aim to eliminate inequalities, and to promote equality, between men and women". This is Article 8 of the Treaty on the Functioning of the European Union. There is no doubt that achieving
gender equality is not only a matter of fairness, but it is fundamental in order to achieve the objectives of growth and employment; it is a matter of wellbeing and, above all, it is essential for a greater social cohesion.

The results of the "Global Gender Gap Report 2020", ranked by the World Economic Forum, analyzed 153 countries on their progress towards gender equality in four dimensions: participation and economic opportunities, school performance, health and survival and political representation. Italy ranks 76th out of the 153 countries, just a single step higher than its ranking in 2006. It is certainly an unsatisfactory result which has a negative impact on the social and economic fabric. In Italy, less than one woman in every two works. According to the latest ISTAT (National Statistical Institute) data (2020) the gap between the employment rate of women and men's is about $17 \%$, and in Europe only Malta has a worse percentage. The achievement of gender equality in the labor market is still a long way off.

The aim of this work is to outline the profile of Italian working women in the labor market during the period (2009-2020) under review and to identify the sectors in which there could be forms of employment gender segregation.

In the literature on employment gender, the expression horizontal segregation is used to underline an evident concentration of women's employment in a small number of sectors and professions, while vertical segregation occurs when there is discrimination between men and women as far as the Glass ceiling (workers' possibility of achieving positions of responsibility) is concerned.

## Methodology

To monitor the gender imbalance the following statistical indicators were used:

1) the coefficient of female representation (CFR). CFR is a synthetic measure of women concentration within a given sector. It can be quantified by relating women working in a specific sector and women working in all sectors, namely:

$$
C F R=\left(\frac{f_{i}}{t_{i}}\right) /\left(\frac{F}{T}\right)
$$

where $f_{i}$ represents the women working in a specific sector while $t_{i}$ represents the total number of people working in the same sector, while $F$ represents the total number of women working in all sectors and $T$ represents the total number of the people working in all sectors. If the female component is missing in the sector, this indicator assumes a value of 0 ; it assumes, instead, a value of 1 in the situation of perfect balance between the sexes. In the case of a relative prevalence of women, this indicator becomes greater than 1, and in the case of a prevalence of male employment the indicator assumes values of less than 1 .
2) the index of dissimilarity (ID): indicates the percentage of women that should be redistributed between occupations in order to get a complete and equal gender employment distribution, namely:

$$
I D=\frac{1}{2} \sum_{i}\left|\left(\frac{f_{i}}{F} \cdot 100\right)-\left(\frac{m_{i}}{M} \cdot 100\right)\right|
$$

where $f_{i}$ represents women working in a specific sector while $F$ represents the total number of women working in all sectors; $m_{i}$ represents the men working in a specific sector, while $M$ represents the total number of men working in all sectors. In the case of complete integration, this indicator is 0 ; in the case of maximum segregation, it is 100 .
3) the entropy or Shannon (H) index. It enables to evaluate the heterogeneity of the distribution, namely:

$$
H=-\sum_{i}\left(\frac{f_{i}}{F}\right) \cdot \log \left(\frac{f_{i}}{F}\right)
$$

where $f_{i}$ represents the women working in a specific sector, while $F$ represents the total number of women working in all sectors. This indicator can be normalized, thus obtaining the relative entropy index $\left(\mathrm{H}^{\prime}\right)$, by dividing it by its maximum, that is $\log \mathrm{K}$, where K represents the number of cases, i.e.:

$$
H^{\prime}=\frac{H}{\log K}
$$

The relative entropy index assumes a value of 0 in the case of minimal heterogeneity, when there is substantial gender segregation between sectors, while it assumes a value of 1 in the case of gender employment homogeneity between sectors.

The data used concern the working people in Italy. The data are the result of the surveys that ISTAT carried out in 2020 to gain the " data collection of the labor force" in the years 2009 and 2020.

## Achieved results

## Employment situation by gender

In the Italian labor market, the increase in employment $(204,000)$, recorded between 2009 and 2020, depends entirely on the positive dynamics recorded by the female component. In the period of time under observation (2009-2020), female employment in Italy increased grew by 465,000 units versus a decrease of about 261,000 thousand male jobs (see Table 1). In general, however, when a comparison is made between two or more
populations, at two different times, it is not correct to take the absolute difference as a reference measure but it is necessary to use an indicator that, disregarding the number of populations to be compared, establishes the extent of the increase or decrease suffered.

In order to make a comparison between two or more populations which are different in numerical numbers, it is necessary to calculate a rate: in this case, the average annual rate of population change. It provides the rate at which the population varies over time. The average annual rate of change has been used and adapted to the male and female working populations, since it assumes that the change is continuously updated, moment by moment. It is known that

$$
P_{t}^{o c c}=P_{0}^{o c c} \cdot e^{r t}
$$

where $P_{t}^{o c c}$ is the working population at the time $t, P_{0}^{o c c}$ is the working population at the time $0, e=2.71828 \ldots$ is the basis of Napierian logarithms, $r$ is the average annual rate of change in the working population and $t$ is the time variable. After performing statistical calculations, the average annual rate of change in the working populations is obtained, namely:

$$
r=\frac{1}{t} \cdot \ln \left(\frac{P_{t}^{o c c}}{P_{0}^{o c c}}\right)
$$

In this context, the average annual rate of change is defined as the "average employment rate" of the period (2009-2020) and expresses the working units that are added or subtracted on average during the observed time interval.

Thus, by eliminating the influence of the population number, an average female employment rate of about $4.13 \%$ (an increase in the female working population of about 4 units on average per year) compared to the even negative average annual rate of male variation of $1.62 \%$ (a decrease in the male working population of about 2 units on average per year) is found (see Table 1).

The increase in female employment is also reflected in the increase in the percentage of the female component in the total working population: in Italy, from 2009 to 2020 , this percentage rose from $40.3 \%$ to $42.0 \%$, thus leading to an increase of about two percentage points.

This increase has consequently reduced the difference in the employment imbalance between the two sexes from 19.4 to 16.0 percentage points (see Table 1).

Table 1: Working people by sex (data in thousands). Italy 2009 and 2020

| Gender | Years |  | Absolute variation | $\begin{gathered} r \\ (\%) \end{gathered}$ | Percentage values |  | Employment imbalance |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2009 | 2020 |  |  | 2009 | 2020 | 2009 | 2020 |
| Males | 13,541 | 13,280 | -261 | 1.62 | 59.7 | 58.0 |  |  |
| Females | 9,158 | 9,623 | 465 | 4.13 | 40.3 | 42.0 | 19.4 | 16.0 |
| Total | 22,699 | 22,903 | 204 | 0.75 | 100.0 | 100.0 |  |  |

Note: Personal data processing based on Istat data
Is there a real a trend towards the feminization of the Italian labor market?

A further confirmation of this perceptible employment gender difference is also visible by analyzing the individual years in the period under observation (2009-2020).

In Table 2, and represented in Figures 1 and 2, there are the data concerning the working people, broken down by sex, counted in the time span enclosed between 2009 and 2020. In addition, there are the masculinity ratios calculated at the different years constituting the period under observation (2009-2020) and obtained through the

$$
R_{m}=\frac{P_{m}^{o c c}}{P_{f}^{o c c}} \cdot 100
$$

This indicator assumes values above 100 , if there is an excess of male employment compared to the female component.

From Table 2 and Figure 1, it is deduced that, over the period considered (2009-2020), male employment shows a downward trend until 2013, when it reaches the level of 12,914 (in thousands) working people and with a decrease, compared to 2009 of $4.6 \%$. As of 2013, however, male employment tends to increase continuously, reaching, in 2019, a level of 13,488 (in thousands) working people, with an increase of $4.4 \%$. In the last year (2019-2020); however, for the well-known pandemic events, male employment has had a decline of $1.5 \%$.

Table 2: Working people (in thousands) and masculinity ratio. Italy 2009-2020

| Years | Males | Females | Masculinity <br> ratio |
| :---: | :---: | :---: | :---: |
| 2009 | 13,541 | 9,158 | 147.9 |
| 2010 | 13,375 | 9,152 | 146.1 |
| 2011 | 13,340 | 9,258 | 144.1 |
| 2012 | 13,194 | 9,372 | 140.8 |
| 2013 | 12,914 | 9,276 | 139.2 |
| 2014 | 12,945 | 9,334 | 138.7 |
| 2015 | 13,085 | 9,380 | 139.5 |
| 2016 | 13,233 | 9,525 | 138.9 |
| 2017 | 13,349 | 9,674 | 138.0 |
| 2018 | 13,447 | 9,768 | 137.7 |
| 2019 | 13,488 | 9,872 | 136.6 |
| 2020 | 13,280 | 9.623 | 138,0 |

Note: Personal data processing based on Istat data
Figure 1:


Analyzing, instead, the female employment (see Table 2 and Figure 2), it is deduced that the number of working women tends to grow with a certain regularity (except a slight decline in the years 2012 and 2013) until 2019 with an increase, compared to 2009 of $7.8 \%$. Conversely, in the last year (20192020), the decline in female employment was greater than that of men and reached $2.5 \%$.

Figure 2:
Females


Ultimately, through a comparison of absolute values between the various years, male employment is greater than female employment, but the comparison through the employment relationship between sexes, reveals that the employment relationship of masculinity decreases as time increases.

The comparison between the two sexes is observable from Table 2 and from Figure 3, which relates to the masculinity ratios. In fact, the masculinity ratios have always a value of more than 100 : for this reason, there is an excess of working males compared to the female component, but this excess decreases over time except for a small rebound in 2020.

## Figure 3:



Despite this upward trend in female employment, the labor market indicators such as activity rate, employment rate and unemployment rate ${ }^{1}$ still
${ }^{1}$ Activity rate: ratio between people in the labor force and the population over 15 years. Employment rate: ratio between working people and the population over 15 years. Unemployment rate: ratio between people seeking employment and people in the labor force.
show a disadvantaged number of women when compared to that of men. These indicators and the masculinity ratios are reported in Table 3.

The rate of female activity, which is an essential measure of the labor supply, is lower than that of men in both periods compared (2009-2020), which is a sign of a low female employment.

The masculinity ratio of the activity rate is decreasing over time, which denotes a progressive participatory gender alignment in the labor market.

Over time, the employment rate, which is an indicator of the system's capacity to use human resources, develops in the same way as the activity rate.

As a result, the unemployment rate - an indicator of the percentage of the labor force that cannot find a job because of an excess of supply (by workers) compared to demand (by companies) - is at odds with both the activity and employment rate. Despite the growth in female employment over the period under review, the female unemployment rate still shows a significant gap with the corresponding male data in the two periods compared, which highlights an evident criticality in the encounter between female demand and supply. Over time, however, there is an increasing trend of the masculinity ratio, which is the symptom of an increase in male unemployment compared to that of women.

Table 3: Indicators by sex and masculinity ratio. Italy 2009 and 2020

| Labor market indicators | Males |  | Females |  | $R_{m}$ | $R_{m}$ |
| :--- | ---: | ---: | ---: | ---: | :---: | :---: |
|  | 2009 | 2020 | 2009 | 2020 | 2009 | 2020 |
| Activity rate | 59.6 | 57.8 | 38.2 | 39.8 | 156.0 | 145.2 |
| Employment rate | 55.6 | 52.9 | 34.7 | 35.8 | 160.2 | 147.8 |
| Unemployment rate | 6.7 | 8.4 | 9.2 | 10.2 | 72.8 | 82.4 |

Note: Personal data processing based on Istat data

## Older women in the labor market?

As far as age is concerned, there is a change of the age structure of the female presence in the Italian labor market.

The greatest increase in employment has occurred in the females over 45 years of age; thus, showing a need to enter or re-enter the labor market at a more mature age because of family economic needs or to increase and maintain their independence.

As a result of this move forward in the years of the integration or reintegration of women into the labor market, there is also a clear increase in the median age ${ }^{2}$ over time, increasing by five years from 2009 to 2020.

On contrast, the confirmation of the change in the working life of women is demonstrated by the decrease in female employment in the youth

[^0]and central groups. This occurs most likely due to a delayed entry into the workplace because of different reasons such as the need of completing studies, the difficulty of finding a job or getting a job that valorizes their educational degree (see Table 4).
Table 4: Working women (in thousands) by age groups and percentage composition - 2009 and 2020

| Age group | Working women |  | Composition \% |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 2009 | 2020 | 2009 | 2020 |
| $15-24$ | 494 | 362 | 5.4 | 3.8 |
| $25-34$ | 2,217 | 1,650 | 24.2 | 17.1 |
| $35-44$ | 2,980 | 2,411 | 32.5 | 25.0 |
| $45-54$ | 2,439 | 3,025 | 26.6 | 31.4 |
| $55-64$ | 941 | 1,950 | 10.3 | 20.3 |
| $65+$ | 87 | 225 | 0.9 | 2.4 |
| Total | 9,158 | 9,623 | 100.0 | 100.0 |
| Median age | 41.3 | 46.3 |  |  |

Note: Personal data processing based on Istat data

## Better educated women in the labor market?

Table 5 shows the distribution by sex of the working people classified by educational degree in the years (2009-2020) under review.

Table 5: Working people (in thousands) by educational level -

| 2009 and 2020 | Females |  |  |  |
| :---: | ---: | ---: | ---: | ---: |
|  | Males |  | 2009 | 2020 |
| 2009 | 2020 |  |  |  |
| Elementary degree, no | 946 | 430 | 417 | 174 |
| degree | 4,796 | 4,176 | 2,265 | 2,004 |
| Junior high school degree | 5,912 | 6,151 | 4,440 | 4,447 |
| High school diploma | 5,974 |  |  |  |
| University and post- | 1,887 | 2,523 | 2,036 | 2,998 |
| graduate degree | 13,541 | 13,280 | 9,158 | 9,623 |
| Total |  |  |  |  |

Source: Istat (2020)

Starting from the same data, the percentage composition of female employment was obtained on the basis of their educational degree (see Table $6)$.

By analyzing the data in Table 6 concerning the percentage composition of female employment on the basis of their educational qualifications, it can be seen that the level of education of working women has increased.

In particular, from 2009 to 2020, there is an evident percentage increase of working women with a university and post-university degree, but, on the other hand, in the same period there is a sharp decline of working women who have a very low level of education.

This increase in the level of education has improved the composition of female employment throughout the country, which currently comprises over $77 \%$ of women having earned a High School and or university degree.

Table 6: Percentage composition - 2009 and 2020

| Table 6: Percentage composition - 2009 and 2020 |  |  |
| :---: | ---: | ---: |
| Educational level | Composition $\%$ |  |
| Elementary degree, no degree | 4.6 | 2020 |
| Junior high school degree | 24.7 | 1.8 |
| High school diploma | 48.5 | 20.8 |
| University and post-graduate degree | 22.2 | 31.2 |
| Total | 100.0 | 100.0 |

Note: Personal data processing based on Istat data
In this regard, in order to identify the presence of women in the total labor market in the various levels of education, the synthetic discrimination indicator was used, namely the female representation coefficient (CFR).

In Table 7, the female representation coefficients concerning the various educational degrees are reported in comparison in the years under observation (2009-2020).

The coefficient values of less than 1, both in jobs with a very low qualification (elementary and no degree) and in those with an average qualification, show the low presence of female employment and its decrease over time. On the contrary, in jobs with a higher degree, the coefficient value is, in 2020 , equal to 1 , which is therefore a situation of perfect balance between sexes as far as having diploma is concerned. The level of female representation coefficient of working women with a university degree is greater than 1 (1.29), which means that there is a higher and stable female presence over time.

Table 7: Coefficients of female representation - 2009 and 2020

| Educational level | 2009 | 2020 |
| :---: | :---: | :---: |
| Elementary degree, no degree | 0.76 | 0.69 |
| Junior high school degree | 0.80 | 0.77 |
| High school diploma | 1.06 | 1.00 |
| University and post-graduate degree | 1.29 | 1.29 |
| Total | 1.00 | 1.00 |

Note: Personal data processing based on Istat data

## Employed or self-employed?

Table 8 shows the distribution, by sex, of working people classified by type of employment in the years (2009-2020) in question.

| Table 8: Working people (in thousands) by type of employment |  |  |  |  |
| :---: | ---: | ---: | ---: | ---: |
| Type of | Males |  | Females |  |
| employment | 2009 | 2020 | 2009 | 2020 |
| Employed | 9,566 | 9,729 | 7,464 | 8,017 |
| Self-employed | 3,975 | 3,551 | 1,694 | 1,606 |
| Total | 13,541 | 13,280 | 9,158 | 9,623 |

Source: Istat (2020)

What can be learned is that, from 2009 to 2020, there is an increase in employed women and a decrease in female self-employment of just over one percentage point. At present, over $80 \%$ of women are employed throughout the Italy. It is very likely that this growth in female employment in the employee sector is due to the new forms of flexibility, which have found more and more room in the labor market.

Due to data in Table 8, the percentage composition of female employment according to the type of employment was obtained (see Table 9).

| Table 9: Percentage composition |  |  |
| :---: | ---: | ---: |
| Type of employment | 2009 | Composition $\%$ |
| Employed | 81.5 | 83.3 |
| Self-employed | 18.5 | 16.7 |
| Total | 100.0 | 100.0 |

Note: Personal data processing based on Istat data
By calculating the segregation indices, shown in Table 10, it is possible to make a comparison on the evolution of the type of employment in observation. Table 10 considers the female coefficient of representation and its data show that the situation has remained unchanged with regard to selfemployment ( 0.74 ) where men are the majority, while, in proportion, there are more women employed than men (CFR values above the unit).

In the period under review (2009-2020), however, the dissimilarity index decreased slightly from 10.86 in 2009 to 10.06 in 2020. This means that in 2020 approximately $10 \%$ of the female component should move from being employed to self-employment in order to achieve an equal distribution between the two types of employment for men and women. There is also a slight decline of the relative entropy index, which shows the female concentration in the two types of employment, resulting in 0.698 in 2009 and 0.664 in 2020, a small sign of the concentration of women in the same type of employment.

Table 10: Discrimination indicators - 2009 and 2020

| Type of employment | 2009 |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | $C F R$ | $I D$ | $H$ | $H^{\prime}$ |
| Employed | 1.09 | 5.43 | -0.07 |  |
| Self-employed | 0.74 | -5.43 | -0.14 |  |
| Total | 1.00 | 10.86 | 0.21 | 0.698 |
| Type of employment | $C F R$ | $I D$ | $H$ | $H^{\prime}$ |
|  | 1.08 | 5.03 | -0.07 |  |
|  | 0.74 | -5.03 | -0.13 |  |
|  | 1.00 | 10.06 | 0.20 | 0.664 |

Note: Personal data processing based on Istat data

The distinction between employed and self-employed, for both sexes, allowed to build Table 11 containing the type of occupation carried out.

Table 11: Type of occupation (in thousands) - 2009 and 2020

| Type of occupation | Males |  | Females |  |
| :---: | ---: | ---: | ---: | ---: |
|  | 2009 | 2020 | 2009 | 2020 |
| Employed |  |  |  |  |
| Manager | 335 | 257 | 128 | 126 |
| Executive | 703 | 657 | 487 | 532 |
| Employee | 3,184 | 3,326 | 4,068 | 4,487 |
| Worker | 5,226 | 5,396 | 2,683 | 2,823 |
| Trainee | 117 | 92 | 91 | 46 |
| Homeworker | 1 | 1 | 6 | 3 |
| Total | 9,566 | 9,729 | 7,463 | 8,017 |
|  |  |  |  |  |
| Entrepreneur | Self-employed |  |  |  |
| Independent professional | 205 | 207 | 54 | 58 |
| Own-account worker | 815 | 900 | 320 | 498 |
| Family helper | 2,611 | 2,216 | 885 | 782 |
| Cooperative member | 154 | 120 | 202 | 149 |
| Freelancer | 22 | 15 | 12 | 11 |
| Total | 168 | 93 | 222 | 108 |

Source: Istat (2020)
Table 11 gives the percentage composition of female employment by type of occupation (see Table 12).

In general, there is a trend in the female workforce, which is not yet fully established in the most qualified positions. As far as employed people are concerned, there are no substantial changes during the period under review (2009-2020) except in the clerical sector, which accounts for more than $50 \%$ of female employees: in 2020 the proportion of female workers increased by 1.5 percentage points, while the percentage in the apprenticeship sector was halved. In the self-employed component, however, from 2009 to 2020, the number of independent professional women increased by 12 percentage points, thus confirming, as previously seen, the percentage increase of working women with a university and postuniversity degree. On the other hand, the percentage of freelancer qualification was halved in the period under review, passing from $13 \%$ in 2009 to $6.7 \%$ in 2020.

Table 12: Percentage composition - 2009 and 2020

| Type of occupation | Composition \% |  |
| :---: | ---: | ---: |
|  | Employed |  |
| Manager | 1.7 | 2020 |
| Executive | 6.5 | 1.6 |
| Employee | 54.5 | 6.6 |
| Worker | 35.9 | 35.0 |
| Trainee | 1.2 | 0.2 |
| Homeworker | 0.1 | 0.0 |
| Total | 100.0 | 100.0 |
| Self-employed |  |  |
| Entrepreneur | 3.2 | 3.6 |
| Independent professional | 18.9 | 31.0 |
| Own-account worker | 52.2 | 48.7 |
| Family helper | 11.9 | 9.3 |
| Cooperative member | 0.7 | 0.7 |
| Freelancer | 13.0 | 6.7 |
| Total | 100.0 | 100.0 |

Note: Personal data processing based on Istat data
By analyzing the discrimination indicators (see Table 13), it is observed that the female representation coefficients, wider than the equilibrium one (CFR=1), can be found in 2020 only in executive and homebased employees as regards paid employment.

As far as self-employed workers are concerned, the types of activities that show an increase in percentage terms are the increasing activities of independent professional ( 1.14 in 2020 and 0.94 in 2009) and cooperative member ( 1.36 in 2020 and 1.18 in 2009). The activities of family helper and freelancer have a CFR greater than one but in decrease regarding 2009.

Unfortunately, in the qualifications of entrepreneur and manager, the best type of occupation of both self-employed and employed people, there are minimum values of the CFR and precisely 0.70 for entrepreneurs and 0.73 for managers. However, analyzing the temporal course, the CFR of the entrepreneur occupation remained unchanged, while the CFR of the managerial activity, passing from 2009 to 2020 , increased from 0.63 to 0.73 . These are encouraging signs that give hope.

The dissimilarity index in terms of employed people remained unchanged over time. It means that in 2020 about $22 \%$ of the female component should switch from employee activity to all other activities in order to achieve an equal distribution between all types of occupation.

This is not the case for self-employment where, over time, the dissimilarity index decreases from 17.08 in 2009 to 15.94 in 2020, which denotes a lower concentration of women.

The same applies to the relative entropy index: as for employed people, its value in 2020 is 0.540 , which is sign of an unfair distribution between the analyzed types of occupation; as for self-employed people in 2020 the value 0,720 denotes a greater division between the studied occupations but it is less than 1 , the value that should indicate the perfect distribution of women among all types of activities.

Table 13: Discrimination indicators - 2009 and 2020

| Employed |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Type of occupation | CFR |  | ID |  | H |  | $H^{\prime}$ |  |
|  | 2009 | 2020 | 2009 | 2020 | 2009 | 2020 | 2009 | 2020 |
| Manager | 0.63 | 0.73 | -0.90 | -0.54 | -0.03 | -0.03 |  |  |
| Executive | 0.93 | 0.99 | -0.41 | -0.06 | -0.08 | -0.08 |  |  |
| Employee | 1.28 | 1.27 | 10.62 | 10.89 | -0.14 | -0.14 |  |  |
| Worker | 0.77 | 0.76 | -9.34 | -10.1 | -0.16 | -0.16 |  |  |
| Trainee | 1.00 | 0.74 | 0.00 | -0.19 | -0.02 | -0.01 |  |  |
| Homeworker | 1.96 | 1.66 | 0.04 | 0.02 | 0.00 | 0.00 |  |  |
| Total | 1.00 | 1.00 | 21.31 | 21.83 | 0.43 | 0.42 | 0.553 | 0.540 |
| Self-employed |  |  |  |  |  |  |  |  |
| Type of occupation | CFR |  | ID |  | H |  | $H^{\prime}$ |  |
|  | 2009 | 2020 | 2009 | 2020 | 2009 | 2020 | 2009 | 2020 |
| Entrepreneur | 0.70 | 0.70 | -0.99 | -1.11 | -0.05 | -0.05 |  |  |
| Independent professional | 0.94 | 1.14 | -0.81 | 2.84 | -0.14 | -0.16 |  |  |
| Own-account worker | 0.85 | 0.84 | -6.73 | -6.86 | -0.15 | -0.16 |  |  |
| Family helper | 1.90 | 1.78 | 4.03 | 2.95 | -0.11 | -0.10 |  |  |
| Cooperative member | 1.18 | 1.36 | 0.08 | 0.13 | -0.02 | -0.01 |  |  |
| Freelancer | 1.90 | 1.73 | 4.44 | 2.05 | -0.12 | -0.08 |  |  |
| Total | 1.00 | 1.00 | 17.08 | 15.94 | 0.59 | 0.56 | 0.758 | 0.720 |

Note: Personal data processing based on Istat data

## Sectors of economic activity with a female prevalence

In Table 14, there is data concerning the male and female working people in the years 2009 and 2020, in the various sectors of economic activity. What can be learned in Table 15 is the percentage change, between 2009 and 2019, of female employment in the various economic sectors.

| Table 14: Activity economic sectors (in thousands) |  |  |  |  |
| :---: | ---: | ---: | ---: | ---: |
| Activity sectors | Males |  | Females |  |
|  | 2009 | 2020 | 2009 | 2020 |
| Agriculture | 593 | 679 | 244 | 233 |
| Industry | 3,470 | 3,495 | 1,250 | 1,187 |
| Construction | 1,805 | 1,255 | 112 | 103 |
| Services | 7,673 | 7,851 | 7,552 | 8,100 |
| Total | 13,541 | 13,280 | 9,158 | 9,623 |

Source: Istat (2020)
As for the percentage composition of female employment in the various economic sectors from 2009 to 2020, there was an increase only in the
services sector by almost 2 percentage points, while decreases are seen in the other sectors.

Table 15: Percentage composition

| Activity sectors | Composition \% |  |
| :---: | ---: | ---: |
|  | 2009 | 2020 |
| Agriculture | 2.7 | 2.4 |
| Industry | 13.6 | 12.3 |
| Construction | 1.2 | 1.1 |
| Services | 82.5 | 84.2 |
| Total | 100.0 | 100.0 |

Note: Personal data processing based on Istat data
Table 16 data covers the level of gender segregation in employment based on the economic sector.

It is immediately clear that in the economic sectors under observation the gender equality is very far from being reached. In the two years (20092020) compared, the female representation coefficients for the agricultural sector, industry and construction are much lower than the value of gender balance and indicate an unfavorable situation for women. In the tertiary sector, however, it is the female component that prevails, with a female representation coefficient greater than 1 in the services sector, both in 2009 (1.23) and in 2020 (1.21). Quite evidently, this situation was favored by typically feminine attitudes and skills: attention to personal relationships, ability to communicate and listen and above all the predisposition to assistance and care. The picture, in terms of female segregation between sectors, was confirmed by the dissimilarity index that remained unchanged in the two years under observation (2009-2020): in both years about $25 \%$ of women should redistribute between sectors; in particular, they should exit services and enter agriculture, industry and construction in order to equalize the male distribution. The relative entropy index, an indicator of the concentration level of female employment, also assumes critical values. The distribution of women between sectors is far from a fair distribution level as the entropy index is far from value 1 . Moreover, despite the low values of the relative entropy index, 0.415 in 2009 and 0.382 in 2020, in the last year it is still decreasing, which shows a higher concentration between the activity sectors.

Table 16: Discrimination indicators - 2009 and 2020

| Activity sectors | 2009 |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | $C F R$ | $I D$ | $H$ | $H^{\prime}$ |
| Agriculture | 0.72 | -0.86 | -0.04 |  |
| Industry | 0.66 | -5.99 | -0.12 |  |
| Construction | 0.14 | -6.06 | -0.02 |  |
| Services | 1.23 | 12.90 | -0.07 |  |
| Total | 1.00 | 25.81 | 0.25 | 0.415 |
| Activity sectors | $C F R$ | $I D$ | $H$ | $H^{\prime}$ |
|  | $C 020$ | -1.35 | -0.04 |  |
|  | 0.61 | -7.00 | -0.11 |  |
|  | 0.60 | -7.00 |  |  |
|  | 0.18 | -4.19 | -0.02 |  |
|  | 1.21 | 12.53 | -0.06 |  |
| Total | 1.00 | 25.07 | 0.23 | 0.382 |

Note: Personal data processing based on Istat data

## Conclusion

The concluding considerations lead to the assertion that the higher female employment growth found through this survey has not had a positive impact on segregation levels. However, it has been possible to observe the growth in the level of education of working women in the Italian labor market. For instance, in 2020, in occupations requiring a university degree, the value of the CFR is greater than 1 , which means a greater presence of women.

A very small number of women have managed to break through the most prestigious and best paid professions. This is the case of the increased participation of women as independent professionals in $2020(\mathrm{CFR}=1.14)$ also due to the increase in the level of education.

Conversely, few men undertook the most feminized professions, that is the services sector where, again in 2020, there is an $\mathrm{CFR}=1.21$.

On the one hand, the development of the professions linked to the services sector has fostered the impressive growth of women in the Italian labor market, thus partially filling a historical gap accumulated by the country, but, on the other hand, it turns to be a factor which can lead to higher levels of segregation.

Ultimately, increasing female employment is necessary but not sufficient to achieve equal opportunities in the workplace: a qualitative increase in female employment has to be pursued as well.

The interventions to be implemented should go in several directions: 1) first of all safeguarding the female permanence to a job through the development of suitable support services in family and care activities and also developing a true "culture" of sharing the family work load; 2) combatting employment gender segregation in relation to activity sectors and professions, trying to overcome the stereotypes regarding the choice of women's education
and career paths; but above all, company recruitment decisions must enable women to combine work and family life efficiently.

Gender equality is a right. Ensuring it must be a duty of every nation. However, this principle has not been fully understood by all countries. Unfortunately, the issue of gender equality is very articulate, complex and it cannot always be influenced. A Government can try to reduce inequalities, but there will always be elements and dynamics that do not depend on the Government intervention and, therefore, they cannot be modified at will. These are individual, personal and cultural aspects that the law cannot control, such as the will of a mother to stay at home to take care of her children rather than working elsewhere.

To be more precise, the differences observed so far shift attention to other factors, starting from the concept of work. What is evident is a disruptive (and dissociating) model that affects many women who devote themselves to work, reproductive activity and family care during their lives.

It is therefore needed transversal interventions aimed at achieving a humanized vision of work, which focuses on the person and not on tasks or roles. A vision of the world of labor as time and space of new skills: the human skills that, to be implemented, require sharing, participation, and the overcoming of hierarchical rigidities and centralizing styles of leadership. A new inclusive and sustainable sociality is at stake.

Therefore, in the future, monitoring and investigating the factors that affect the fragility of women's work will be fundamental to neutralize the gender imbalance existing in the Italian labor market.

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[^0]:    ${ }^{2}$ The median age is the value that occupies the central position and divides into two exact parts the ordered age series of the population members. It is to be preferred to the average age as its calculation is more accurate in the presence of both multiannual age groups and a large final age group.

