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INTRODUCTION

The shift from quarterly to continuous of the Italian Labour Force Survey has produced many changes. One of these regards the reference time of the survey: formerly it was done in fixed weeks (one of each quarter); starting from January 2004 it is performed during all the weeks of the quarter¹. It implies important consequences in the possibility of identifying working times and working schedules more faithful to the real situation in comparison with the past. Indeed, the new survey improves the opportunity to investigate behaviours of the less stable part of employment, combining a better quality of the indicators in terms of reliability and updating.

This paper enters in a context of growing attention for the so called *working time arrangements*, which constitute an integral part of a more general process of flexibility into the labour market and about the transformation of the labour relationships. From the labour supply side, during the nineties in Italy it has established how these two elements, suitably managed, can promote an increase of the levels of participation to the labour market, in particular for women. At the same time, it allows to lengthen working careers of elderly employed in the transition to retirement².

In particular, during the last two decades the official statistic has filled a lot of the informative gaps. If the production of documents on working times appears richer, that concerning the working schedules seems less generous. The present document aims to filling some gaps regarding the latter topic.

From the gender perspective, and in particular with reference to the behaviour of female component, the analysis will be developed at first in a quantitative meaning, based on the number of hours usually worked by each employed. Afterwards, it will be adopted a qualitative perspective of analysis turned on working schedule typologies, which combine different tools of time flexibility. In the case of full-time and in the case of *part-time* we will analyze the modalities of integration between a weekly working schedule understood as "standard" with tools of hourly flexibility: work during weekend, in the evening and night³, shift work and overtime.

The aim is to define the working schedules most used by workers and associate to them the profile of main users by using multivariate analysis techniques.

WORKING TIMES

On the basis of the hours usually worked, the working time has been divided into 5 typologies:

- 1-15 hours, in order to individuate those workers who carry out a reduced number of weekly hours of work. Apart from the voluntariness, it is the case of people placed at the edge of the labour market and this is connected also with the adoption of particular working schedules.

^{*} This document solely reflects the opinions of the authors. It does not commit any responsibility of ISTAT.

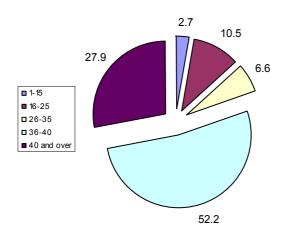
¹ For further information see: Istat, *La nuova rilevazione sulle forze di lavoro – Contenuti, metodologie, organizzazione*, Roma, 3 giugno 2004.

² Side by side, at the legislative level, it has verified the progressive adjustment to the European rules in matter of working time organization, one of the main points of the European strategy for the employment.

³ The evening work is carried out from 20 till 23 o'clock, while night work means from 23 onwards.

- 16-25 hours, time band which, more than the others, identifies part-time work. Traditionally domain of the females, the spread of the atypical works has done relevant this time band also for other components of employment.
- 26-35 hours, in order to individuate workers who usually carry out a working time longer than a part-time but shorter than a standard working time. Both males and females tend to increase the adoption of this kind of time band, due to transformations of the work relationships.
- 36-40 hours, the most used time band which identifies the most traditional working time, in particular for employee component.
- 40 hours and over, to individuate the share of employed who weekly carry out a high number of hours of work. It is the time band where is higher the gap between men and women. Moreover it is interesting to put in evidence other features of workers involved.

Graph.1 - Working times



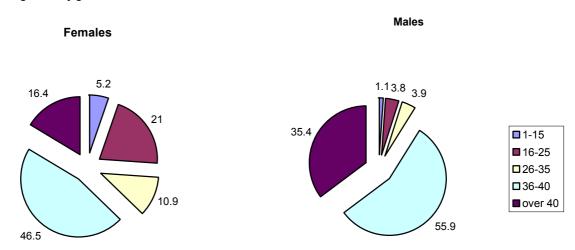
between 36 and 40 hours is only around 50% (Graph.1). It means that a share of workers substantially equivalent moves away from the traditional working time. This represents a first measure of the degree of time flexibility present on the Italian labour market. From a gender perspective it is immediate to

The first thing to point out is that the share of

employed who declare adopting a working time

From a gender perspective it is immediate to gather on the one hand the strong concentration of males in the two heaviest time bands, on the other hand a more balanced distribution of females among the different working times (Graph.2).

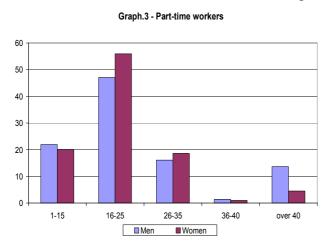
Graph.2 - Working times by gender.



Besides, which tends to characterize the two components is firstly the share of the male employed who usually work 40 hours and over (more than one of three), secondly the share of the women adopting a working time shorter than 36 hours (almost the 40% of the female employed). This is an important measure of the difference in the amount of hours usually worked between men and women in Italy.

The fact that almost the half of female employment results working less than 36 hours weekly is full of meanings. It partly represents a consequence of the choices of women about their participation to the labour market (regarding the amount of hours dedicated to the paid work activities). Partly it

incorporates the effects of the occupational segregation, which contribute to cause a marked prevalence of female labour in those industries and professions adopting shorter working times. Finally, it offer clues on which the real perception of women would be on their labour market role and how common is the belief that a reduced participation is equivalent to a full-time occupation.



As regards the employed who have declared adopting a part-time job, the distribution by gender seems quite homogeneous considering the strong prevalence of women in absolute terms.

The most adopted part-time typology is, without doubts, 16-25 hours: nearly 60% of the women and almost 50% of the men (Graph.3). Although it is the most used it does not exhaust what the graphic shows. In fact, the working time distribution shows for both sexes that 1 worker out of 5 works no more than 15 hours per week. It is easy to guess they are weak workers, often involved to cope with

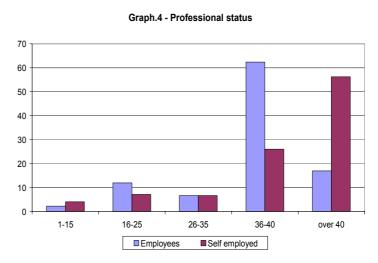
alternation of occupation and unemployment periods, barely protected and partly hidden. The average age reveals a prevalence of youths.

At last, the share of employed (about 20% with a light female prevalence) who declare to carry out a part-time but work 26-35 hours seems relevant. It is likely that the rising importance of this hybrid time-band, certainly related to the spread of atypical works and to the transformations of work relationships, shows the troubles of underemployed labour force who would be willing to work more hours if it were possible⁴.

The behaviours of the labour supply as regards to the working time are deeply different not only by gender but also from the professional status point of view. Practically, while less of two third of the employees carry out a standard working time and only the 17% weekly work 40 hours and over, among the self employed the corresponding shares are reversed, reaching respectively 26% and 56% (see Graph.4).

One of the main reasons for such different situations is due to female occupation: on the one hand the component is decidedly more represented among employees, on the other hand it is more involved in longer working time among the self employed.

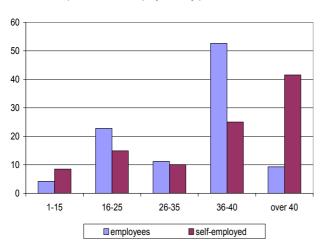
professional Inside the status and distinguishing the behaviour of the two female components, it is possible to observe that more than 50% of the employees adopt a standard working while their self employed time. colleagues are exactly the half (see graph5).



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⁴ The new Labour Force Survey quantifies in almost 1 million units the underemployed work force.

Graph.5 - Female employment by professional status



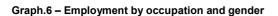
As well as the more traditional, the other typology of working time relevant for the female employees is 16-25 hours, which collects more than 20% of the workers. This is not unexpected if we think at the female predominance in using a part-time job, and at the strong feminization of economic sectors like education and care services, where working times adopted are shorter than the general average.

We find main differences among the female employed in the typology of working time 40 hours and over. Indeed, in this case the self-employed

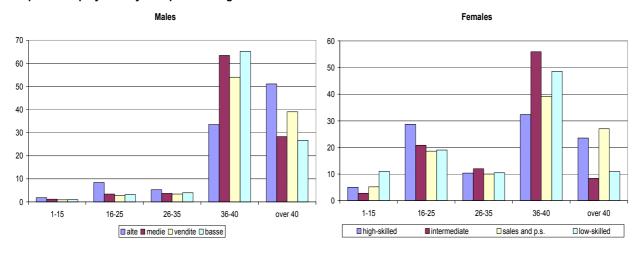
workers who usually adopt this working time are more than 40%, whereas the dependents are less than 10%.

Inside the self employed female workers we see a sort of "polarization"; dependent workers, in fact, both who adopt the longer and the shorter working times have the higher shares in the distribution. It is evident the different role carried out inside the family from this two groups of female independent workers: the former, as well as the male colleagues, working full-time in their own activities; the latter involved with the labour market in marginal way as family worker, and mainly oriented to family care.

The "civilian" employed getting from the LFS are generally classified in 8 groups based on the Classification of the Occupations adopted by ISTAT, which is attuned with the international classification ISCO-88COM. Afterwards, an aggregation in 4 professionals macro-groups has been made⁵.



of Occupations 1988-COM, Geneve, 1990.



⁵ Groups 1 and 2 *legislators, managers and professionals*, have been defined as "high-skilled" occupations; groups 3 and 4 including *technicians and clerks*, have been considered as "intermediate" occupations; groups 5 and 6 regarding *service and market sales workers, craft and related trades workers*, have been considered as "commercial" occupations because, more than the others they are connected to selling and allocation of the family services; at last, groups 7 and 8 which assemble categories professionally less qualified and which are called "low-skilled" occupations". For more information see: Istat, *Classificazione delle Professioni 2001*, Roma, 2003; I.L.O., International Standard Classification

Therefore passing to the analysis by gender and professional status, it is relevant for men the strong concentration of workers who adopt the two heaviest typologies of working time, not depending on the category of occupations. Almost in each macro-group the standard working time results the most used by men, in particular by the intermediate occupations and by the low-skilled (Graph.6).

It concerns the core of the dependent employment which contributes to this outcome in predominant proportion respect to the self-employed. Just inside these two occupational macro-groups, it notes the greater convergence between male and female behaviours regarding shares of employed which carry out the *standard* working time.

It is an exception the behaviour of the "high-skilled", where is instead the heaviest working time (40 hours and over) to be carried out by over than half of workers, while the "standard" involves only one third of them. Also in this case, a fundamental contribution to this tendency derives from the behaviour of the self-employed component; indeed, about 60% of the independent workers adopt the longest working time and not only for the "high-skilled" occupations but also for the "commercial" ones.

It is not surprisingly that a major investment in education and training expresses a greater participation to the labour market, also by the length of the working time point of view. On the contrary, what appears not expected is the considerable gap between men and women working in the high-skilled occupations who adopt the longest working time: 51% for the former, 23% for the latter. Such a phenomenon is transverse by professional status, because it characterizes both the employees and the self-employed.

The relevance of working times under 36 weekly hours, for male employment appears quite marginal in all the occupational macro-groups. Here, the behaviour of "high-skilled" occupations is marked from others for the presence of margins of time flexibility which produce a share of workers involved in short working times more than double respect to the national average.

Likewise to male employment, the female component in "intermediate" and "low-skilled" occupations are the greater users of the *standard* working time. Big differences emerge when we compare the amount of women who works usually more than 40 hours with the corresponding for men, in particular inside the occupations belonging to the "intermediate" macro-group, which witness differentiated and outlined choices of participation compared to the male component.

Concerning the female component, the typology 40 hours and over is especially used by those who have "high-skilled" and "commercial" occupations. Even if the shares are not similar to the corresponding for males, it is within these macro-groups that the female gap partly decreases.

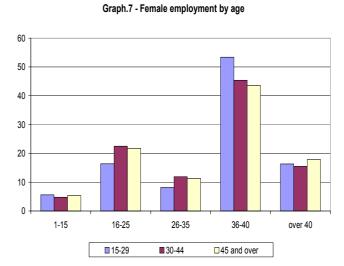
The adoption of the typology 16-25 hours that usually imply a part-time professional service, represents a meaningful point in the distribution of female working times. Apart from the macrogroup, this typology collects a relevant number of female workers, with peaks of about 30% in "high-skilled" occupations. As for the men, this outcome is due to the greater time flexibility characterizing these occupations; on the female side, the strong concentration of workers in the sector of education is joined to this factor.

The female distribution of the typology 26-35 hours reveals a transversal connotation as well. In each occupational macro-group, a consistent share of females employed who usually adopt this working time is present, and it is never lower than 10%. The fact that all macro-groups make a fair use of this typology of working time underlines not only his progressive spreading, but also inside the different categories of occupations.

At last, moreover already stressed, it is not negligible the share of women adopting the typology *1-15 hours*; and the distinction by occupation confirms the connotation of precariousness which is often implied, according to the authors. The share related to this working time, which is in average around 5%, is remarkably higher for "low-skilled" occupations, where it is largely over 10% for female employed; it is most unlikely, in such case, it depends on choices of labour supply side in order to reconcile working and family times.

In order to intercept female behaviours related to different phases of the lifecycle, data processing has been done also with regards to three classes of age: 15-29 years, 30-44 years, 45 years and over.

Graph.7 shows that the share of female employed who adopt the *standard* working time decreases when the age arises. This is due to a double effect: on one hand the new generations of workers tend to adopt on average longer working times than their elder colleagues because of lower family burdens, on the other hand the formation of new families leads to cut the amount of weekly hours dedicated to work activity after 30 years old⁶. The levels of female participation tend to be stable afterwards; the light decrease noticed for workers aged 45 years and over, indeed, is due to the behaviour of the "long term" employed. So, gender differences are rather consistent



with reference to the other working times considered and, as usual, women show a greater variability in working time distribution compared with men. An example of this is the typology 40 hours and over, where the share of the men increases with the growing age, while women are stable on relevant shares of workers, even if ever under 20%.

On the contrary, the adoption of the closest to the *part-time* typology (16-25 hours) varies for the female component according to the family burdens. In fact, the share of potential part-timers, around 15% among the young, becomes 23% for the females aged over 30 years and tends to be stable for the elders, putting in evidence a clear trade-off between working and family times.

Even if in smaller proportion, it is possible to find the same rising path in the behaviour of women adopting the typology 26-35 hours, which pass from 8% for those aged 15-29 years to 12% of elders.

About the typology 1-15 hours, at last, the band of precarious employment which it implies spans the entire life-cycle of women.

The distinction by professional status put in evidence further differences inside female employment. Among the independents when the age grows the share of whom adopt the heaviest working time arises; exactly the contrary happens among the dependents who drop the longest working time in favour of the shorter when the age is growing. Generally, while the age does not seem a variable able to affect the behaviours of the self-employed, it is possible for employees to individuate a threshold around 30 years old. Beyond this age limit, the share of women who adopt the heaviest working time tends to reduce.

The analysis by family typology considers the most common: single, lone parent, couple without children, couple with children; all the nucleus which are not part of the others are grouped in a residual group⁷.

⁶ For further information see: Dipartimento Pari Opportunità – ISTAT (2005), *La conciliazione tra lavoro e famiglia, Rapporto sulle attività svolte nel 2004*, Roma.

⁷ The **family typologies** have been defined as follow:

Single: family with only one person which is called the "reference person".

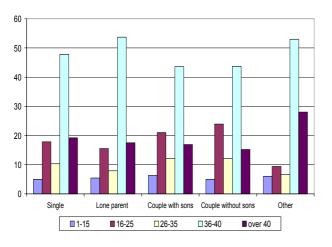
Lone parent: family composed by two and more components where are present the "reference person" and one or more "sons" but the partner of the reference person or others.

Couple without children: family composed by two components where are present the "reference person" and the "partner". Are excluded those nucleus composed by coupled without children and other components and those with there is not any component who is the partner of the "reference person".

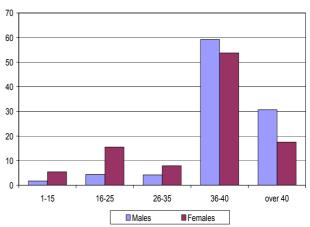
Couple with children: family composed by more than two components where are present the "reference person", the "partner" and one or more "sons".

Concerning the European strategy for the employment, the most vulnerable **family typology** is the *lone parent*. For this reason it is the main *target* of the European social policies. This is the typology most dissimilar from the others regarding working time adopted, both for men and women (Graphs 8 an 9).

Graph.9 - Lone parents employed by gender and working time



Graph.8 - Female employment by working times and family typology



Indeed, such typology seems, without doubt, the most linked to the traditional working time, showing positive disparity of 10%, in comparison with the couples with or without children. Furthermore, it results the less involved with working time 16-25 hours; It is consistent that the less use of part-time is due to the one-earner household and to the need to ensure to the family a full wage. At last, regarding the male component, the heaviest working time is the least used by this family typology, maybe because of family burdens that in this case even the men have to cope.

Women who live in couple are especially interested in adopting the typology which identifies the part-time. This is not depending on the presence of children.

Although single women show employment rates higher and unless heavy family burdens, they do not seem to adopt more demanding working times in comparison with the other colleagues who live in larger families. Looking at the data, there is a substantial uniformity in the adoption of the typology 40 hours and over among single, lone parent, and women who live in couple without children.

At the end, there is a not irrelevant share (5%) of female labour force which adopts the shortest working time. This identifies the weakest part of the employment. The analysis by the familiar typology, put in light again the transversal nature of the phenomenon, which tends to involve women in uniform way independent on their family condition.

WORKING SCHEDULES

After the analysis of working hours in a quantitative perspective, now we will focus the attention on the different ways to integrate available tools of working hours flexibility, from whom different typologies of working schedule are derived.

If on one hand the adopted typology of working schedule is an element which the worker could partially suffer, on the other hand it could come as a result of clearly defined choices regarding the participation to the labour market, previous investments in education and training, the way to share family burdens between men and women. In other terms, more flexible working time arrangements can represent for workers at the same time an obstacle and an opportunity to improve the quality of work and to reconcile working and family times.

Other typologies: residual group. It is constituted, in particular, by couples with or without children with the presence of ascendants relatives of reference person or of his/her partner.

Obviously, increasing flexibility in the labour market have determined in the meanwhile an enlargement of available working schedules.

As mentioned in the introduction, we have considered a limited number of working schedules. For employees we have distinguished 7 main typologies, for self-employed only 5, cause of absence among the independent workers of overtime and shift work. In any case, the typologies we considered take into account the 80% of italian employed (Table 1).

Table 1 -Working schedule typologies by sex and professional status (percentages)

Working schedules	Total	Men	Women	Employee	Self- employed
Full-time standard	34.5	36.0	32.2	39.7	21.3
Full-time week	21.7	23.0	19.5	16.8	34.1
Full-time week night	7.3	9.1	4.6	4.2	15.4
Full-time week night shift	5.7	6.7	4.2	7.9	
Full-time overtime	2.5	2.7	2.2	3.5	
Part-time standard	6.3	2.2	12.8	6.5	5.8
Part-time week	2.8	1.0	5.5	2.6	3.2
Other 56 schedules	19.2	19.3	19.1	18.8	20.2
Total	100.0	100.0	100.0	100.0	100.0

Source: ISTAT, Labour Force Survey, 2004

The first important information given is that by now only one third of workers declares to adopt a working schedule full-time standard with no integration. This is, without doubt, related to the fast growth of non standard contracts in italian labour market during last ten years. Anyway, the summary picture seems to describe a labour market certainly not "rigid", a situation very far from that usually perceived or defined.

Dependent workers tend to make use of full-time standard typology twice of self-employed; and this has consequences on the utilisation of other typologies of working schedule. As a matter of fact, when we put together working schedules combining a full-time standard service with hours of work during the weekend and night work the share of self-employed affected is twice of dependent workers in the first case, it's more than triple in the second.

From the gender perspective, we observe a slight prevalence of males. As we will see, differences between men and women enlarge when the burden of working schedule increases, reaching the top in the working schedules joining full-time, work on saturday or sunday, night work and shift work. Among the different typologies that integrate the full-time standard service, the work on saturday and on sunday is the most widespread: almost the 22% of employed, in fact, usually join to the

standard working time professional services during the weekend.

With reference to this working schedule, observed differences seem to ascribe not to the gender, but almost completely to the professional status. As a matter of fact, from gender perspective the differences are slightly higher on confront with the standard service. This sort of equilibrium between the two components is probably due to female predominance in saturday work and, simultaneously, to male prevalence in sunday work.

The picture is deeply different when we analyse data by professional status: the share of indipendent workers involved is twice of employees. It is important to underline that working schedule combining standard service with weekend work results the most used by self-employed. In other terms, this means that present working schedule would be considered as "standard" from an independent worker point of view.

As a whole, more of the 7% of employed usually join to a full-time standard service weekend and night work. This is one of the two harder working schedules considered, which implies clearly choices of participation to the labour market and this leads to an enlargement of the observed differences.

First, this typology of working schedule is much more common among self-employed (15%) than among employees (4%). A row measure of the wider use of this typology by independent workers comes from the female share of self-employed who adopt it; this is twice of corresponding male dependent share, a result out of proportion with common gender balances.

Second, by professional status gender differences observed are markedly deeper than working schedules previously analysed. This is clear cut both for dependent and self-employed workers.

The heaviest working schedule, which combines a full-time standard service with weekend, night and shift work, is adopted by almost the 6% of italian employed. First of all, we have to specify that the working schedule now considered is only available for employees. However, in order to maintain the comparability, the share is referred to the whole employment; when we consider only the dependent workers the share increases up to 8%.

This working schedule tends to make different gender behaviours more than the previous. The observed strong male predominance comes from different choices of participation; however this phenomenon, undoubtedly, has fed by the major flexibility of high skilled occupations and by the more intensive use of shift work of low professional levels, both these positions assume, traditionally, a clear male connotation.

Unlike general expectations, that consider it the main tool of working hours flexibility in italian labour market, the overtime is adopted by only the 2,5% of employed who declare to carry out a full-time standard service. As the last considered, also this typology of working schedule is only available for employees; when we consider only this last component the share arises of one percentage point.

The breakdown by sex confirms an expected male prevalence, but this is not as strong as in other working schedules. A possible explanation of this limited incidence of overtime could be that its utilization moves in the same direction with economic cycle; for this reason data, referred to 2004, could tend to underestimating effective significance of the tool.

As for the basic working schedule full-time standard with no integrations, in the same way the adoption of the "part-time standard" service can be considered one of working schedules used by workers. In other terms the part-time does not represent an analysis variable here, but an identification variable of the working schedule's typology.

Analysing working schedules in which the part-time is present, it is possible to observe like male predominance in harder professional services has, unavoidably, the reverse of the medal in distribution of part-time employment.

As a matter of fact, the part-time standard working schedule assumes a strong gender connotation. The share of female employed adopting it is about 13%, whereas correspondent male share is marginal.

In addition to the remarkable number of female employed using a part-time service, inside female component of employment is not negligible the share of whom usually combine a part-time service with hours of work during the weekend (5%). This phenomenon marks out both employee and self-employed component of female employment.

If we sum the two working schedules based on a part-time professional service, it's possible to establish better how different is their use from the gender perspective: on the one hand the 20% of female employed are involved, whereas on the other hand only the 3% of men adopt them.

Focusing the analysis on female component, from the distribution emerges that among female parttime employed almost half of them adopt the standard working schedule, whereas the other half joins a part-time standard service with other typologies of services. Inside this last subgroup of female employed, the most important working schedule is that which combines a part-time service with the weekend work (about the half of cases). The remaining typologies of working schedule are not relevant for female employed.

MAIN USER PROFILES OF DIFFERENT WORKING SCHEDULES

Still referring to typologies of working schedule and with an help of multivariate analysis techniques, it was possible for each considered working schedule to outline the profile of main users. To manage this statistical exercise a lot of variable were processed (see Annex 1).

With reference to the full-time standard working schedule, from the analysis of multiple correspondences emerges, firstly, a profile characterized by a clear female connotation, by a dependent employment and by permanent contracts (Table 2⁸). Most of all, it seems to being the primary tier of female employment; this feature is consistent not only with the type of contract, but also with predominance of 45 years and over with a high tenure. Such as female employment often live in couple without children and have an university degree; on consequence, this determines a large part of intermediate-high skilled occupations belonging to services sector and specially related to the Public Administration.

On the contrary, the second female emerging profile is marked by a lower occupational and contractual stability, with a predominance of employees having temporary contracts and low tenure. This outcome seems to be also related to young age of this contingent of female employed, having a lower degree of education compared to their older colleagues who use the same working schedule. The preponderance of a secondary education level brings to a lower professional skill, with occupations related to sales sector or to administrative services, traditional fields of female employment as previously observed.

On the opposite side, a measure of limited relevance for male employment assuming by the full time standard with no integrations working schedule comes from the emerging profile of farther users. They are old men with a low education level and occupations related to sales services and to constructions sector, independent workers with and without employees participating to the labour market for a long time.

Just these last features help in defining the main users profile of the working schedule joining a full-time standard service with hours of work during the weekend. Such as working schedule reveals, indeed, a strong male and independent connotation.

Among the independent workers, moreover, two different parts of traditional male employment tend to emerge. The first part expresses a sort of elder component of self-employed; it includes entrepreneurs and professionals aged 45 years and over with a high degree of education, having well established activities, in many cases with employees. The second part tends to identify, instead, the less noble component of self-employed; it includes younger and less educated men than the formers, who often have neither well established activities, nor employees. The main sector of activity is commerce, so that most of the involved occupations are related to sales.

The different professional skill and stage of the working career clearly emerge when we try to identify the main user profile of the working schedule which combines the full time standard service with weekend and night work. As a matter of facts, multiple correspondence analysis if on one hand looses the gender connotation of previous typologies, on the other it stresses the differences among main users' characteristics. Some of them having an elderly age, living in couple with children and participating to labour market for a long time with the same type of activity; some of them having instead a young age, belonging to the tertiary sector and involved in sales-related occupations, in any case with a high occupational turn-over which causes, on consequence, the prevalence of low tenures. This subgroup probably includes very different situations, unstable for the most part or seasonal, specially in case of a first job. In this framework the female component

⁸ For any further information on the application of multiple correspondence analysis please contact the authors.

Table 2 - Coordinates of the variables associated to the factors	les associat	ed to the	factors											
Coordinates							Working schedules	chedules	10					
	Full-time	me			Full-time + week		Full-time + week	+ week	Full-time +	me +	Part-time	ime		
	standard	ard	Full-time + week	+ week	+ night	jht	+ night + shift	- shift	overtime	ime	standard	ard	Part-time + week	+ week
Active Variables	Fact.1 F	Fact.2	Fact.1	Fact.2	Fact.1	Fact.2	Fact.1	Fact.2	Fact.1	Fact.2	Fact.1	Fact.2	Fact.1	Fact.2
Self employed with employees Self employed without employees		2.0064	0.7797	1.0112		0.8889					2.0517 13996		1.1272	
Collaboratore														1.1651
Permanent employee	0.181	5	0.6014	1 6006	0.533	0.532	0.1624	0.1195			0.3235	0.0524		0.3779
rixed-term employee High-skilled occupations	0.087	5		0.9506	0.7237	024.	6976.1	1.1230				0.9324		1.9104
Low-skilled occupations				1.0012		1.0778		1.0957				0.8866		0.8634
Commercial occupations		0.8061	0.7711		0.7241			0.5114		1.3551	8068.0		0.3985	
Intermediate occupations	0.512	0.552	1.1162			0.7733				0.4988	0.4696	0.5899	0.7316	0.9918
Armed Forces Other family typology					3.5237					2.2721				
Couple with children						1.2046								
Couple without children	0.516											0.4042		
Lone parent	0.626			0.6942		0.5987	0.741	0.5396	0.8697			0.7254		0.4617
Single		0.577										7000		
Other services						0707						1.2091	0.00	0.8688
Agricolture			0.6374		0 7472	1.1616		1 2812			7.757		1.9259	
Collinerce	1 116	1 1 2 0 4	1000		711.7			207.		1 625			0.00	
Manifacturing		1						0.9735		3				
Public Administration	1.201		1.5894		1.7763		0.7523	0.4853	1.0874					1.5743
Transports, Communications						0.6438				1.0747			0.7303	
High tenure		0.5661		0.8115		0.7524	0.7243		0.8779		0.9801	0.7462	1.3931	
Low tenure	0.660	0.5053		0.8777	0.5074	0.753	0.842	0.511	0.7879	0.3467	0.2975	0.5368	0.4569	
Medium tenure														
No first work First work									0.267 0.7023					
Supplementary Variables														
Female Male	0.350	0.3388	0.2331					0.4203		0.3348	0.1507	0.0918		
Center														
North									0.1571					
South		200	0	7010	7.00		1000		1000			200	0,00	
15-29 years 30-44 vears	0.721	0.5318	0.3501	0.8/01	0.62/4	0.7606	0.8685	0.6288	0.9275		0.1959	0.5931	0.3646	
45 years and over		0.3631		0.4448	0.2207	0.405	0.3591	0.2867	0.5619		0.4529		0.417	
Compulsory education	0.497	0.2824	0.3644		0.3096			0.2636	0.5387	0.6796	0.2476	0.4102	0.1634	0.3608
Secondary superior education	0 724	0.2305	0.1856	0.5144	0 9697		0 7074	0 607		0.1537	0.2397	0.2381	0.2101	0.2241
Foreign				0.7624		0.7817	0.8838						0.4893	0.8873
				0.0307		0.0371	0.0247						0.0353	0.0641
Red = negative semi-axis Blue =	Blue = positive semi-axis	ni-axis												

tends to be involved as the male is; also for this reason the statistical exercise does not reveal a gender relevance.

As previously mentioned, the heaviest working schedule joining full time standard service with weekend, night and shift work is only available for dependent workers.

In some terms, multiple correspondence analysis points out like this working schedule could represent for employee component what the former working schedule (full time standard service + weekend work) has represented for independent component of employment. Also in this case, in fact, two "pieces" of employment tend to emerge: elitist the first, most popular the second. Despite to sharing both an elderly age and permanent contracts, the first profile underlines a high degree of education and a relevant tenure obtained in tertiary sector, specially in the Public Administration; inside this picture it is not difficult to identify the figure of the public manager. The second and wider profile underlines instead a low degree of education, associated to occupations at the bottom of hierarchy; having manufacturing industry as sector of reference, this leads to machinery operators and unskilled handworkers, a component of the employment with a strong male predominance.

Also in case of other working schedule only available for dependent workers, combining a full time standard service with overtime, two profiles of main users clearly emerge. In the first, workers have features very similar to those of previous elitist component: elder employed of both sexes, with a high tenure, belonging to tertiary sector and specially to the Public Administration. What probably tends to make different the two subgroups is the type of occupation: high skilled occupations for the former, intermediate for the latter.

The profile outlined by the second factor assumes a less stable connotation and, maybe, also for this reason a feminine appearance. They are female employed having in many cases a high degree of education but often involved in clerk occupations, therefore showing a partial over-education of female employment. There is a feeling of a lower job stability than those belonging to the first profile; this is consistent with low tenures emerging for this contingent of employed, probably due to the alternation of participation and absence times into labour market. The activity sector of reference is the tertiary; inside this, the most involved branches are financial brokerage, transports and communications.

Passing over to the two typologies foreseeing a part-time professional service, multiple correspondence analysis confirms that part-time represents an employment niche almost wholly used by women.

Female employees are the most involved, with an upper secondary degree of education at minimum and permanent contracts, working in technical and administrative occupations. Inside this broad picture, however, the analysis identifies two distinct parts of female employment. The first profile shows limited investments on labour market participation and, on consequence, discontinuous presences on the activity side. From the age point of view, those aged 30-44 years seem to be the most involved component, probably the same one which bears the hardest family burdens.

The second profile assumes instead a "well off" connotation when compared to the first. This typology of female employed has a higher degree of education than the former; moreover, it stably appears active on labour market as proved by a relevant tenure. In this case, they are not only women aged 30-44 years but elder too, living in couple without children for the most part, even if family typology does not seem to represent a crucial role as regards to the choice of a part-time job. Not so clear cut, on the contrary, the main user profile appears for working schedule joining the part-time service with weekend work, the last of those identified. This typology really tends to associate very mixed situations.

Also in this case, however, with an help of factors deriving from multivariate analysis it's possible to extract two main profiles. The first points out with no gender differences the under 30 years component of employment, and this necessarily involves a limited firm tenure. Moreover, the age determines a medium-high degree of education and this drives to jobs corresponding to intermediate occupations; the reference sector of activity is the tertiary, as the most involved branches are

financial brokerage, transports and communications. Such a user description is fit for employed working in communications branch inside a larger number of call-centers.

On the second emerging profile different factors tend to have impact; they are the employee status and the permanent contract rather than age and firm tenure. The degree of education is not high and, on consequence, occupations do not need specific skills. Reference sector is still tertiary, whilst the branches involved are now public and private services. In this case, description is fit for permanent domestic workers or those take care of children and elders.

In both these last profiles, the most important and interesting feature is that citizenship variable assumes relevance and, with this, the non-italian component of employment. It appears superfluous to stress that phenomenon is as crucial as we think about perspectives of next decades.

MAIN FINDINGS

Italian labour market as a whole cannot be defined as tied, not only from working hours point of view but also from working schedules side, when we have seen only one third of employed adopt a full time standard service from monday to friday with no integrations.

Instead, one could wonder if it is correct to consider as "standard" a typology of working schedule adopted by one third of the workers which is, referring to the independent component of employment, already less relevant of other working schedules.

Italian labour market not only appears flexible enough, but the actual direction seems to drive to a further increase of working hours flexibility. When we consider the "old" Labour Force Survey, it is possible to notice during the decade 1993-2003 as the number of employed adopting a non standard service increased of 40%.

Moreover, data deriving from the LFS ad hoc module on working hours supplied for the first time in 2001 and replied in 2004 point out an increase of employed working during the so called "unsocial" hours, corresponding to weekend and night work. For this, it is consistent to think of an increasing relevance of those typologies of working schedules including these type of professional services.

In a gender perspective, the supply behaviours have highlighted from one hand the persistence of traditional differences, from the other hand the presence of relevant constraints to labour market participation on female side.

It is fully understandable, in fact, to suppose a broader supply of assistance and care services addressed to families could favour a wider labour market participation of disadvantaged families as lone parents, as well as of a part of those women who bear harder burdens outside working context.

BIBLIOGRAPHY

Blau F. (1996), Where are we in the economics of gender?, NBER, W.P. n.5664.

European Commission (2002), Employment in Europe 2002, chapter 1, Bruxelles.

European Commission (2001), *Union, solidarity and diversity for Europe, its people and its territory*, Second Report on Economic and Social Cohesion, Bruxelles.

European Commission (2001), Employment in Europe 2001, chapter 4, Bruxelles.

Gazzelloni S. (2004), *Notes on possible working time arrangements statistics development*, invited paper to Paris Group Meeting, Lisbon.

Hoffman E. and A. Mata Greenwood, (2000), *Statistics on working time arrangements: An overview of issues and some experiences*, invited paper to ECE-Eurostat-ILO Seminar on Measurement of the Quality of Employment, Geneva.

I.L.O. (2003), General Report to the Seventeenth International Conference of Labour Statisticians, Geneva.

I.L.O. (1990), International Standard Classification of Occupations 1988-COM, Geneva.

Istat (2003), Classificazione delle Attività Economiche 2002, Roma.

Istat (2002), Classificazione delle Professioni 2001, Roma.

Istat (2005), Indagine continua sulle Forze di Lavoro, Media 2004, Roma.

Istat (2004), L'organizzazione dei tempi di lavoro: la diffusione degli orari atipici, Collana Argomenti n.28, Roma.

Istat (2005), Rapporto annuale sulla situazione del Paese 2004, Roma.

Istat (2000), Rapporto annuale sulla situazione del Paese 1999, Roma.

Dipartimento Pari Opportunità – ISTAT (2005), La conciliazione tra lavoro e famiglia, Rapporto sulle attività svolte nel 2004, Roma.

Ocde (2003), Employment Outlook 2002, chapter 3, Paris.

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