

Labour market

The data needed to reconstruct the historical evolution of the labour market in Italy come from a selection of different sources, ranging from total surveys and sample surveys to administrative sources.

The oldest source is the General population and housing census that, thanks to information on the labour force in different economic sectors, allows for an overview of the profound changes that Italy has undergone over the past 150 years, despite an initial uncertainty in the methodology and definitions used. Since the second half of last century, the information available has been greatly enriched by the *Rilevazione sulle forze di lavoro* (Labour Force Survey); since its inception in 1952 this survey has played a major role in the analysis of the employment situation in Italy, thus becoming an essential cognitive tool for policy makers, the media and citizens.

Over the years, this survey has been renewed several times to take account of changes in the labour market and the growing needs for information expressed both nationally and internationally. Some revisions, deriving from the need to harmonize the survey within the European Union (EU), have affected specific aspects (such as the questionnaire or the procedure of grossing up data), while others have changed the overall system of surveying. The time series presented here, whilst requiring some caution in interpretation, cover the period of time between 1959-2010.

National Accounts also produce employment estimates since the 1950s, however, due to the vast changes that have occurred over time the different sections of the series are not comparable and it is not, therefore, possible to use it as an overview of the long-term evolution of employment in Italy. Data presented here are consistent for the period 1970-2009, the last period when a data reconstruction of the survey was carried out.

Further information available on the labour market can be drawn from two surveys: the administrative *Rilevazione sulle retribuzioni contrattuali* (Surveys on contractual wages) and the *Rilevazione sui conflitti di lavoro* (Survey about labour disputes).

Data on contractual wages are available since 1926; data on labour disputes (number, workers involved and hours not worked) since 1948. The latter survey was however suspended in 2010 in view of the complete revision of the survey system.

Active population in General population censuses

Since the first General population census in 1861, the main variables regarding working activity the have been surveyed .

This early attention to professional activity on the one hand has allowed to obtain data covering the entire history since Italian unification; however, particular caution is needed when comparing data over time because of the many changes that have taken place in the methods and classifications referenced.¹

The first census made no distinction between employed and unemployed, but merely collected information on the overall situation that was only later called active population excluded persons seeking employment . In fact, the initial goal was merely to detect the professions carried out, while other information such as that relating to the professional status, now widely used in the analysis of the labour market, was only introduced in later periods.

Determining the profession, however, was made difficult by the fact that respondents, then as now, often described their profession with generic names, such as workers or employees, resulting in the inability to unambiguously attribute it to a job classification.²

¹ To understand more about the methodological and organisational evolution of the General census process please refer to the "Population" chapter 2.

² On the occasion of the first Census in the Kingdom of Italy, the working activity was revealed through one single question about "conditions and profession" where one was asked to specify if work was carried out in the role of "master" or "boy", an attribute that actually is not applicable to all forms of work.

Employed and unemployed were considered as a single aggregate until 1971, despite the fact that the various census rounds brought the introduction of more in-depth questioning. In 1901 Census, unemployed were asked to indicate the duration and the cause of their status (illness or other reasons). In 1911, the questions regarding professional status were enriched, with the possibility to note the status of "well-off, retired, student, at home, convicted, hospitalised" on an individual form, a classification that anticipated that currently used for inactive population. In 1921 the unemployed, beside providing information on their last employment, had to add the term "unemployed" in brackets. In 1931 respondents were explicitly asked for the first time if they were unemployed and specific questions on the "professional category of the institution or company where the person was employed" were added (an approximation of the current "sector of economic activity") and on their professional status with *ad hoc* classifications for those employed in industry, in commerce, in public and private office, and for those in the agricultural sector.

Data derived from the oldest censuses are not only affected by the lack of accuracy in the definitions of reference, but also by the absence, until 1901, of an age limit in the question on employment and professional status.

In the first two census, data on professional status were disseminated with reference to the entire population aged zero and over, in some cases broken down by specific age groups (for example, 1871 population by profession distinguished a subset of people aged less than 15). Subsequently, the data were calculated and disseminated only in relation to individuals aged 9 and over (9 years and 40 days in 1901). It was not until 1911 that a minimum age was set to answer the question on the employment status, which was set at 10 years old and remained unchanged in all subsequent censuses up to that of 1961³.

In 1936, the active population included the population aged 10 years and over; on that occasion, in fact, the following definition was adopted: «Active population includes those who took part in the census aged ten and over, undertaking a profession, art or craft, therefore, assistants to the breadwinner or any other household member. Conscripts are also included according to the occupation carried out before the call-up. Persons registered by the census who are not included in a professional status (such as pensioners, landowners, the well-offs) or those who do not indicate the professional status or are waiting for their first job are excluded.» Regarding the distinction between employed and unemployed in 1936 census the question on unemployment was again removed, while a refined analysis of the economic sector was made: the professional category was substituted by the line of business of the company, firm, corporation, institution where the respondent is or was employed, which is very close to the current wording of the economic activity sector.

In 1951, despite the absence of a question aimed to single out jobseekers, the definition of active population excluded persons seeking employment for the first time was explicitly referred to the unemployed and to different categories of workers who are temporarily unemployable: «Active population is comprised of respondents aged 10 and over who carry out a profession, art or craft. Unemployed, soldiers, hospital bound patients temporarily in places of care or assistance, detained prisoners waiting for trial or those sentenced to less than 5 years and internees are included in the active population; for all of these groups, the last carried out occupational activity was considered, respectively, before unemployment, military service, recovery in hospital, detention, internment.» Within the census household form, for the unemployed and for other persons in non-professional status, the last profession carried out had to be indicated⁴.

A question on persons in non-professional status⁵ (except children aged less than six) was also included for the first time in the household form.

In a specific question posed to people in non-professional status envisaged the response "looking for first job" appeared for the first time in 1961. By the same census, the age limit for those who were seeking

³ We can observe that in the different editions of the census over the years there is not perfect coherence between the age limit used to define the population of working age (as later used in publications) and the presence of any filters to the question about profession. In the Census of 1936, the question on employment was made to everyone, while the data disseminated regarding the working population took into consideration only persons aged 10 and over; equally, in the Census of 1971, the question was made to people aged 10 and over while the working population only referred to those aged 14 and over.

⁴ Moreover, since 1951, 27 working positions have been listed relating to businessmen and freelancers, managers and employees, sole traders, long-term contracted employees, helpers. The classification of economic activity in the first census of the Italian Republic included a good 491 categories regrouped into 48 classes, 49 subclasses and 10 branches.

⁵ As already mentioned, in several previous censuses (1911 and 1921) there had already been a question to better understand the total number of people in non-working conditions.

first employment was raised to 14 years, while it remained 10 years for the employed and unemployed⁶, although there was no explicit indication within the survey form about this.

By 1971 Census, the threshold of minimum age for membership both to the share of employed and that of jobseekers was moved to 14 years, although the question in the questionnaire on profession was still open to all those aged 10 and over. The questions on employment status and work have been included in the single individual sheets and the ways to respond to the employment status (employee and self employed) and non-professional status (student, looking for first job, housewife, etc.) have been pre-coded. However the question on the professional status allowed for an open answer and was addressed to both employed and unemployed. Always through a question with an open answer, respondents were also asked to specify the main activity of the establishment, office, body shop, etc., where the job was carried out.

Since 1981, employment status has not been derived from questions on the profession but, for the first time, a question was addressed only to people aged 14 and over on the "status declared" with pre-coded answers, in order to identify separately employed, unemployed and people looking for their first job, as well as the different categories of inactive persons⁷. In order to increase comparability with Istat Labour Force Survey, the question about professional status has also been addressed with precise reference to the week preceding the census date, abandoning the implicit criteria of usual condition used in all previous censuses.

In the 1991 Census, in order to be able to provide more accurate data about professions, two separate questions were formulated, one on the type of work, the other on the main activities or duties performed, with the aim of identifying emerging occupations and more generally, all professions starting from the contents of the work.

As part of the 2001 Census, the detection of active population has undergone profound changes from the previous round. The minimum age for joining the labour force was risen to 15 years and this age is still in force. Moreover, to keep in line with the International Recommendation from the Unecce (United Nations Economic Commission for Europe) there have also been changes to the labour force survey. Employed were defined as those who, have completed at least one hour of work (paid) during the reference week of the survey; domestic help is included; jobseekers were defined as those who, have carried out active research for work in the 4 weeks before the week of reference and are available for work (or to commence an autonomous activity) within the next 2 weeks. The application of the "One hour criterion" to calculate the employment rate and the methodology adopted to identify jobseekers means that there cannot be a full comparison with 1991 Census data and previous censuses. With regard to the information collected, the number of variables related to work has significantly increased compared to ten years ago thanks to the inclusion of questions designed to quantify the spread of phenomena such as part-time work and fixed-term contracts.⁸

Following EU legislation, specific definitions and classifications that do not differ significantly from those already applied in 2001 have been required also for the next Housing and Population Census (2011). However, some questions regarding the activity carried out will be reintroduced also for persons seeking new jobs who were not included in 2001 mainly because of the high number of non-response emerged in researches carried out before the census. In line with international law, open-ended questions on professional status and economic activity were, however, entirely eliminated.

The time series shown in the tables describe the evolution of the active population (employed, jobseekers and persons looking for first job) and active population excluded persons seeking employment for the first time (employed and jobseekers) from the first general population census. Until 1961 the reconstruction carried out by D'Agata (1965) for the two aggregates was used relating to the population aged 10 and over⁹. With regard to activity rates for the same period, these were obtained by comparing active population, calculated by D'Agata, to an estimate of the population aged 10 and over, obtained by

⁶ Since 1961, active population has included other categories of respondents aged 10 and over, who were temporarily unable to perform their previous profession, art or craft, amongst whom: soldiers (drafted, volunteers and recalled), those in hospital temporarily in care and assistance centres, those in prison waiting for trial or condemned to a sentence of less than 5 years. Amongst the religious and those in the clergy, only those who carried out a civil activity or those involved in running ecclesiastical organisations were considered as part of the active population (while in the previous census, all those taking part in religion on a full-time basis were included in the active population).

⁷ It should be noted that those who were due for call-up have been included into the population in non-professional status, while by 1971 census they were counted with population in professional or non-professional status based on their conditions before call-up.

⁸ In 2001, a codification of a sample of statistics regarding profession and economic activity took place after the survey. The publication of 2001 data was limited to information on the 10 large groups of the international International Standard Classification of Occupation Isco 88 and to a revision of the sections of the Classification of economic activities - Ateco 1991.

⁹ See D'Agata C. 1965. *Composizione della popolazione secondo l'attività lavorativa* (Composition of the population according to working activity) in the Central Statistical Institute. *Sviluppo della popolazione italiana dal 1861 al 1961* (Italian population development from 1861 to 1961). Rome: Central Statistical Institute. (*Annali di statistica* - Statistics annals, series VIII vol. 17).

applying the incidence of age cohort 10 and over, as estimated by Vitali (1970)¹⁰ to total resident population. The same procedure was adopted for the calculation of rates of activity at the regional level. For subsequent years, however, census data are directly referred to.

Warnings for time series comparisons

- 1891 and 1941 censuses were not carried out due to respectively financial-organisational problems and to the war. .
- 1936 Census was carried out following the Royal Decree-Law No. 1503/1930 (6th November 1930), subsequently converted into Law No. 1839/1930 (27th December 1930) which, in addition to holding the Seventh Census of 1931, has determined that further rounds were to be held every five years rather than every ten years. Since 1951, censuses have again been conducted with ten-year intervals.
- Until 1961, estimates for active population and active population excluded persons seeking employment for the first time by sector of economic activity, have been calculated according to the reconstruction carried out by D'Agata (1965). With regard to activity rates, these were obtained by an estimate of the population aged 10 and over, calculated by Vitali (1970). For subsequent years census data as reported in official publications were directly referred to .
- As envisaged in census definitions, albeit with some differences between the various categories, persons temporarily unfit to work have been included in the active population until 1971.
- In 1971, the status of employed and/or unemployed was inferred from the question relating to the profession carried out addressed to all persons aged 10 and over.
- For the period 1971-1991, active population refers to persons aged 14 and over, since 2001 to those aged 15 and over.
- In 1981, the employment status was included for the first time into a self-contained closed-ended question referring to a specific week (the week preceding the date of the census); however, it was the same respondent who answered without being guided by precise definitional criteria.
- In 2001, employed people were defined as those who had completed at least one hour of work (paid) during the reference week of the survey; domestic help was included (even if unpaid) jobseekers were defined as have carried out active research for work in the 4 weeks before the week of reference and are available for work (or to commence an autonomous activity) within the next 2 weeks.

The Labour Force Survey

Right since its first edition, the *Rilevazione sulle forze di lavoro* (Labour Force Survey - LFS) has accompanied the unfolding of the debate on the measurement and analysis of participation in work in Italy; today it represents the main source of statistics on this issue.

The survey provides a huge amount of information, ranging from employed persons and jobseekers to the profession carried out, the branch of economic activity, the hours worked, the type and duration of contracts and the training, thus allowing to reconstruct the main dynamics of the economic sector of the Country. The reference universe is resident population, net of permanent cohabiting groups (religious institutions, barracks etc.) and persons normally living overseas. Thanks to refinements and successive revisions over the years, the survey gradually allowed to obtain the main estimates with increasingly higher territorial detail and timeliness. Provisional results are currently disseminated on a monthly basis, while final data (both national and regional) are published quarterly; provincial data are disseminated annually.

The first nationwide survey was conducted in September 1952, under the impulse of the Parliamentary enquiry committee on unemployment¹¹. Since 1954, the survey has become annual and since April 1959 quarterly, which it maintained until the end of 2003, when it became a continuous survey after 2004.

¹⁰ See Vitali O.. 1970. *Aspetti dello sviluppo economico italiano alla luce della ricostruzione della popolazione attiva* (Aspects of Italian economic development in the light of the reconstruction of the active population). Rome La Sapienza University.

The survey was conducted through paper questionnaire and direct interview with the households. These were randomly drawn from population registers and interviewed by surveyors chosen from the municipalities according to the method and timeframe established by Istat. The sample was carried out in two stages (municipalities and households), with stratification of the common demographic size. Since 1959, the plan was to rotate the selected households in each cycle, that is, only a part of the sample households was renovated, while a part was reinter viewed in several successive quarters. Thus, as at present, the sample of households followed the pattern of rotation of the type "2-(2)-2", whereby each household is interviewed for two consecutive quarters, temporarily released from the sample for two quarters and is again interviewed for the next two quarters, to exit then definitively from the survey.

In 1977, in a climate marked by social turmoil and significant changes that have affected the behaviour of the labour market and production methods, the survey has undergone a major restructuring that aimed to better understand some grey areas of the labour market, such as "irregular" employment or "discouraged" unemployment¹².

Until 1980 the quarterly sample size was about 1,400 Municipalities and 90,000 households; from then on, many regions, which at that time had established *Work Observatories*, began to ask Istat for extensions to the samples, in order to obtain reliable estimates also at provincial level for major aggregates of interest. The Institute therefore revised the sampling plan by increasing the sample size and redefining its allocation between the planned territorial domains (provinces, regions and geographical areas), to ensure compliance with predetermined expected level of errors in local estimates. These extensions have led to the sample size of 1990 growing to about 2,000 Municipalities and 140,000 households per quarter.

Subsequently, from July 1990 to October 1992, a further review of the survey was conducted mainly centred on the content, in line with EU legislation entered into force, and led to the adoption of a new questionnaire and new definitions regarding the concepts of employment and unemployment.¹³

In 1999, Istat began a study that in 2004 led to the current structure of the Labour Force Survey. This revision was made necessary by the new European regulation¹⁴ aimed at harmonizing the survey across EU

member countries. It involved a major overhaul of important aspects of the sample design and introduced significant innovations on both the content and definitions as well as the technical and organizational aspects¹⁵. In order to study the impact of the changes introduced on the results of the survey, this was conducted during 2003 and the first quarter of 2004 using in parallel the old and the new methodology, until the latter had definitively replaced the previous.

The 2004 system attributes the survey a continuous feature. The interviews which were previously referred to a single week per quarter passed to a collection of information held in all weeks of the year, with a sample of over 300,000 households distributed in about 1,300 Italian Municipalities (a total of about 800 thousand individuals)¹⁶.

In the new Labour Force Survey every household is subject to a cycle of four interviews. The interviews are all conducted with the aid of an electronic questionnaire, and some of it is face-to-face, some by phone. More specifically, since 2004 a mixed Capi-Cati (Computer assisted personal interviewing - Computer assisted telephone interviewing) survey technique has been used ; in general, the first interview is carried out with a Capi technician, while the following are carried out by telephone (Cati)¹⁷.

¹¹ Istat had already tried a survey with reduced territorial level. Benedetto Barberi, at the time Director general at Istat led the implementation of the survey, to which Giuseppe Pompili, Professor of Calculus of probability at the University of Rome also gave an important contribution, collaborating on the overall survey design and more generally, to the updating of the Institute on themes of sampling and estimates.

¹² See Favero G., Trivellato U.. 2000. *Il lavoro attraverso gli 'Annali'. Dalle preoccupazioni sociali alla misura della partecipazione e dei comportamenti nel mercato del lavoro* (Employment in the 'Annals'. From social concern to the level of participation and behaviour in the labour market). In *Statistica ufficiale e storia d'Italia: gli 'Annali di statistica' dal 1871 al 1997 (Official Statistics and the history of Italy: the 'Annals of statistics' from 1871 to 1997)*. Rome: Istat. (*Annali di statistica* (Statistics annals), series X, vol. 21).

¹³ Regulation (Ec) no. 3711/1991 by the Council (16th December 1991) regarding the organisation of an annual sample survey on the labour force in the European Community, to be carried out in springtime.

¹⁴ Regulation (Ec) no. 577/1998 by the Council (09th March 1998) regarding the organisation of a sample survey on the labour force in the Community able to supply quarterly and annual results through a survey of statistics gathered from a sample of households or individuals resident in the economic territory of the single Member States of the European Union, with the inclusion of *ad hoc* modules in the LFS questionnaire. Regulation (Ec) no. 1991/2002 by the European Council and Parliament (08th October 2002) amending the preceding 1998 regulation and setting a deadline for the adoption of a continuous labour force survey in all member Countries.

¹⁵ For further information please refer to: Istat. 2006. *La Rilevazione sulle Forze di lavoro: contenuti, metodologie, organizzazione* (The Labour Force Survey: contents, methodology, organisation). Rome: Istat. (*Metodi e norme* (Methods and regulations), no. 32) and Istat. 2005. *Studio del disegno campionario per la nuova rilevazione continua sulle Forze di Lavoro* (Study on the sample design for the new continuous labour force survey). Rome: Istat. (Contributi (Contributions), no. 6).

¹⁶ The observation unit is the de facto household, the reference universe is the resident population, net of permanent cohabiting groups (religious institutions, barracks etc.) and persons normally living abroad, while the main unit of analysis is represented by individuals.

¹⁷ There are exceptions to this approach whereby some first interviews are carried out by Cati (to households who have a telephone number and in particular times of the year) and interviews after the first can also be carried out by Capi (to foreigners and households without telephone). In

From the fourth quarter of 2003 to the end of October 2009, Capi interviews were entrusted to a network of professional surveyors directly managed and monitored by Istat. Since November 2009, however, these interviews have been entrusted to an outside firm, as had already been the practice for those carried out by telephone.

The new survey also incorporates important new features in terms of content and introduces new insights on standard and non-standard employment, on individual, family and social factors that contribute to determine the different work participation of the population, occupational mobility and changing professions.

The tables show data from 1959, the first year in which systematic information was available, to 2015 and regard the professional status, employment, unemployment and activity rates, employed by sector of economic activity, employment type and working time. In most cases the information is divided by sex, age groups and geographical areas.

On the occasion of this publication, Istat releases, the new back-calculated time series for 1977-1992 which are made consistent with data of the following years.

Warnings for time series comparisons

- Since 1964, the reference population, which for every year is the resident population, net of permanent cohabiting groups (religious institutions, barracks, etc.) also excludes persons normally living abroad.
- From 1977 onwards data may differ from the previously published. This is due: for 1977-1992 to figures resulting from computations on survey microdata or time series back-calculations; from 1993 to 2003, to a new time series back-calculation which took into account also intercensal population revisions; from 2004 to 2014 to the revision of the population in the intercensal and post-censal period. In particular, till 2001 data were consistent with the revised intercensal population time series; in the period 2002-2014 data were consistent with the Statistical back-calculated population time series.
- Until 1992 employed, unemployed and labour force included (if they were not back-calculated) people aged 14; since 1993 only people aged 15 or more.
- The definitions of employed persons and jobseekers (unemployed) undergo changes over the years that affect the comparability of estimates. The main changes are outlined below. Employed persons, until 2003, include persons who, to the question about their professional status (employed, unemployed, student, housewife, etc.): said they were employed ("declared employed"); or, while not having declared themselves employed, have made one or more hours of work during the reference week ("other employed").

Those absent from work are considered employed or not employed depending on the status declared.

Since early 2004, the declared status has no longer been taken into consideration and employed persons aged 15 and over are defined by: have completed at least one hour of work (paid) during the reference week of the survey; domestic help is included (even if unpaid) while conscripts are excluded (or those who perform the alternative civilian service); or, despite not having worked during the reference week, they have a job from which to derive an income. Therefore, they are to be considered employed those employees who are absent from work or (or *Cassa Integrazione Guadagni CIG* - Temporary state redundancy funds) for a period less than or equal to 3 months, or who, despite being absent for a period exceeding 3 months, continue to receive at least 50% of salary from the employer; workers on compulsory maternity leave; workers off sick, self-employed persons who whilst being absent from work still have a business or professional activity; unpaid domestic help absent for a period not exceeding 3 months.

The definition of *jobseekers* until 2003 excludes persons unfit to work and includes persons who: have not worked in the week referred to; declare to be seeking work; have carried out at least one active research for work in the 4 weeks before the interview; are available for work within the next 2 weeks.

Since 2004, the declared status is no longer considered and jobseekers are unemployed persons aged between 15 and 74 who during the reference week of the survey have not

worked, or have a job from which they were absent and that: during the reference week of the survey have not worked, and do not have a job from which they were absent and that: have carried out active research for work in the 4 weeks before the week of reference and are available for work (or to commence an autonomous activity) within the next 2 weeks; will begin to work within 3 months from the week of reference and they would be available to work (or to commence an autonomous activity) within the next 2 weeks if it were possible to begin work earlier.

The estimation of labour input in the economic national accounts

In the national accounts framework¹⁸ employment is expressed in terms of persons employed, jobs, hours actually worked and full time equivalent units (FTEUs). It is intended to measure exhaustively the labour input underlying the income produced by the economic system in the reference period. The strict link between labour input and the output of production activities causes a difference between employment as measured by national accounts and by surveys on enterprises or households, in particular the Labour Force survey. The latter measures resident persons working in the country or abroad, while it doesn't cover foreign people working in the country. On the contrary in the context of national accounts, domestic employment refers to all resident and non resident persons working in resident production units¹⁹. Differences in definitions lead to a discrepancy between the data detected by the Labour Force survey and the estimation of domestic employment in the national accounts. Nevertheless different estimates are caused not only by definitional aspects but also by calculation methods used by national accountants based on the integration of the survey with other statistical and administrative sources on employment in order to obtain an exhaustive estimate of declared and undeclared labour input, the latter being that not directly observable in statistical surveys on enterprises or in administrative archives.

The series on labour input disseminated in 2014 result from a general revision carried out to implement the new handbook on economic national accounts ESA2010. In this context the revision of employment data was due to the development of a new estimation methodology and to the inclusion among the sources of a new set of administrative archives annually available for statistical purposes starting from reference year 2011. The new set of source of information on employment is obtained through a statistical process of integration, validation and correction of microdata on workers and production units; this process aims at checking consistency among information on the same person or production unit in different sources. In addition to microdata, aggregate data are used in order to estimate labour input provided by segments of employment for which microdata are not available (mainly foreigners illegally present in the country and some parts of undeclared jobs). In particular the calculation of the four measures of labour input is organized in the following steps.

- Exhaustive estimation of the number of persons employed and jobs by industries, institutional sector, status in employment (employees and self-employed) and kind of job (declared or undeclared). Estimates are obtained integrating: last census results, administrative archives on social contributions, population register, list of foreigners with a permission to stay in the country, statistical registers implemented by Istat, including LEED-type (Linked Employers Employee Database), surveys on enterprises and public and private institutions, Labour Force survey integrated with administrative files and other minor sources²⁰. The sources used make estimates consistent with the statistically estimated population elaborated by Istat subsequently the Population census 2011²¹.
- Estimation of the total amount of hours actually worked obtained multiplying jobs by per capita values of hours worked elaborated from the integrated database of Labour Force survey and administrative archives. Per capita values are calculated by status in employment kind of job (declared or undeclared) and characteristics of the production units (industry, dimension, legal status), taking sample dimension in each domain into account.

¹⁸ For details on this source see: [National Accounts](#)

¹⁹ In addition domestic employment includes conscripts and people in employment living in cohabitation. These are excluded from the Labour Force survey even though they take part in the production process.

²⁰ See ["I nuovi conti nazionali in Sec 2010 – Innovazioni e ricostruzione delle serie storiche \(1995-2013\)"](#) . For a wider explanation on integration of labour Force survey and administrative archives see [AA.VV., \(2015\) "Soluzioni metodologiche per l'utilizzo integrato delle fonti statistiche per le stime dell'occupazione", Istat Working Papers, N.19](#)

²¹ Estimates on labor input are consistent with [New series of estimates on the resident population at NUTS-2 level for the 1/1/2002-1/1/2014 period](#).

- Estimation of FTEUs calculated by industry, obtained dividing the total amount of hours worked by the average number of hours worked by a person employed in a full-time job. The full-time per capita equals the normal hours worked by employees as defined in National Contracts while it equals that resulting from Labour force survey integrated with administrative archives for self-employed and for all undeclared jobs.

For the years from 2010 backwards, time series on labour input have been recalculated using a backcasting method which assumed as constraints the general tendencies of the previous series based on ESA95, the number of domestic employment estimated for the reference year 1991 (the last year for which population census has been directly included in the national accounts estimates) and the number of declared jobs estimated for the reference year 2001. No constraint has been assumed in the recalculation process with respect to distribution of employment by industry expressed in ATECO2007, since time series based on ESA95 were derived from sources expressed in Ateco2002. The total amount of hours worked was then calculated multiplying new series on jobs by per capita values of hours worked recalculated using their annual dynamics in the previous series. Finally FTEUs have been estimated using the ratio between them and jobs in the ESA95 series, thus accounting for all those factors that influenced their trend such as the amount of the wage supplementation fund used by enterprises, the evolution of part-time jobs, the incidence of secondary jobs.

The tables present both series in ESA95 and those disseminated from september 2014, updated and recalculated having 2011 as a benchmark year according to the rules set by EU Regulation n. 549 dated 21 may 2013 on the new System of National and Regional Accounts (ESA 2010). Consistently with the new series of national accounts, labour input estimates based on ESA2010, not only include a quantification of labour used to carry out illegal activities, but they also include the new list of units classified as General Government according to the new criteria indicated by ESA2010 handbook.

Warnings for time series comparisons

- The recent revision of the estimates of economic aggregates and labour input at the national level based on ESA 2010, whose first results have been disseminated in September 2014, has entailed the backward realignment of the series up to 1995. These series are presently available for the 1995-2015 period;²²
- Time series of national accounts and labour input based on ESA95 were subjected to an extraordinary revision in 2011, in compliance with the European program of transition to the new classification of economic activities NACE Rev.2. The series consistent with this revision, available for the 1970-2013 period, have been used for the completion of the historical time series of the main economic aggregates including labour input from 1861 to 2013 within the Bank of Italy-Istat reconstruction (see the section of the same name), but are not reported in the sections dedicated to the labour market, to the sequence of accounts and to national economic aggregates, which display the series based on ESA95 expressed in terms of NACE Rev.1.1 from 1970 to the last available year;
- The general revision of national accounts aggregates and labor input performed in 1999, in order to comply with the ESA95 guidelines, entailed the backward realignment of the series up to 1970. These series, expressed in terms of NACE Rev.1.1, are presently available for the 1970-2010 period;
- The recent revision of the estimates of economic aggregates and labour input at the territorial level based on ESA 2010, whose first results have been disseminated in December 2014, has entailed the backward realignment of the series up to 1995. These series are presently available for the 1995-2014 period. They comply with the methodological innovations introduced in the national accounts and with all the innovation introduced by SEC 2010 specifically for regional accounts²³;
- Regional accounts figures (including labour input) relating to the 1995-2014 period are not comparable with figures broken down at territorial level relating to the 1980-1995 period, previously reconstructed by Istat and Svimez (Association for the development of industry in

²² Methodological changes in national accounts estimates related to ESA 2010 are described at the following link: <http://www.istat.it/en/archive/131989>.

²³ Methodological changes in regional accounts estimates related to ESA 2010 are described at the following link: <http://www.istat.it/en/archive/174771>.

Southern Italy) on the basis of ESA95. Therefore two values are presented for the year 1995, each consistent with the respective reference series.

Contractual wages

Istat has started collecting data on wages and salaries as established by contracts and collective bargaining agreements, both at national and provincial level, since its early years²⁴.

The first survey covered the agricultural sector, was limited to the wages of adventitious workers, and was completed in 1926, while the regular and periodic survey on wages began in 1947²⁵. For the industrial sector, though, in 1929 an *ad hoc* survey began on minimum contractual wages in some sectors for some specific professional status. This survey continued until 1938 in the seven most important Italian cities, among them Milan, Turin, Genoa and Rome. After the war the survey was resumed on a monthly basis and was extended to the sectors of transport and trade, as well as to categories of civil servants of the State (now part of the Ministries).

The *Rilevazione sulle retribuzioni contrattuali* (Survey on contractual wages) provides information on agreed wages and salaries as set by the *Contratti collettivi nazionali di lavoro* – Ccnl (National Collective Labour Agreements).

Data on contractual wages refer to a collective agreement with workers, which is fixed for the period chosen as a base, characterized by a breakdown by category (workers, employees, managers) and level of contractual status and remains unchanged until a new base is adopted.

The survey takes into account the wage of general and continuous nature specified in collective agreements, usually including: basic pay, length of service (generally fixed in 8 year periods in contracts where length of service is calculated), additional monthly pays and other disbursements paid only in certain periods of the year. Occasional bonuses are excluded as are overtime, fees established by integrated or decentralised company bargaining and amounts paid in arrears and single payments (for the survey including all taxes and extras, though, the annual salaries included these last two amounts).

For private sector agreements, the main source is represented by trade associations and the trade unions; for agreements for the public authority, however, the respondents addressed by Istat are the *Agenzia per la rappresentanza negoziale delle pubbliche amministrazioni* – Aran (Agency for collective bargaining of Public Authorities and the State general accounting department). The agreements are updated at the time of their renewal.

It is a monthly survey currently based on a sample of 75 agreements out of about 270 existing Ccnl. In the agricultural and construction sectors, the provincial agreement is considered together with the national agreement; this agreement envisages a compensation component that is part and parcel of the contract. For each sector of economic activity, the contracts considered in the survey are the most representative and take precedence over others in the same field to which, although with time lags, generally the same economic improvements apply. In the weighting system, therefore, all the employees in each sector are entirely attributed to the "leading agreement" of the same sector.

The *Rilevazione sulle retribuzioni contrattuali* (survey on contractual wages) is characterized by the rapidity with which agreements are accepted, implemented and made available to users (on average 28 days from the date of the month of publication of the index produced).

The survey is not a panel in the traditional sense, but the agreements observed, that represent the unit of analysis, remain largely the same over time, even if the sample can be changed during the periodic renewal of the base, necessary in order to maintain a high capacity to represent the wage situation. As for contractual wages, the updating of the database allows, among other things, to take account of the changes involved in the distribution of employees, to update the different elements that help to determine the value of gross pay and duration of the contract work, and to improve the coverage of the investigation.

On the occasion of the renewal of the base, then, the main steps are defined and updated which allow the calculation of the total wages for the survey.

A first series of index numbers of contractual wages was drawn up after the war with base 1938 = 1. The first update took place in early 1968 with the change to the base 1966 = 100. The new base, which remained valid until the end of 1975, introduced time indicators for the first time, differing completely from the previous one which provided a measure of changes only regarding the contractual wages earned by employee.

²⁴ See Istat, *Cinquanta anni di attività 1926-1976* (Fifty years of activity, 1926-1976), Rome, 1977.

²⁵ Istat, *Annali di Statistica* (Statistics annals), Series VI, Vol. 36, 1936.

In January 1976, Istat replaced the previous series with the base 1975 = 100 by implementing the methodological suggestions made by a special study Commission²⁶; one of the most important innovation regarded the inclusion of wage increases for length of service among the elements of pay, so that the survey was no longer called *Indice delle retribuzioni minime contrattuali* (Index of contractual minimum wages). This base has been valid until it has been replaced by one that set the year 1982 as its reference point.

The next update (1990 = 100) was the last which took the annual average as a reference. Soon after, in fact, an amendment was introduced, which is still valid and puts the last month of the year as the base of reference, since the indicator does not have seasonal components. The last four updates of the series 1995, 2000, 2005 and 2010²⁷ have therefore December as a starting point. The reference period of the last two rebasing has been selected in line with those established by Regulation (Ec) no. 1165/1998 of the Council (19th May 1998) on short-term statistics, and subsequent implementation and amendments to regulations. However, it should be remembered that the index of contractual wages has purely national characteristics and is not included among those provided by this Regulation.

The operation of changing the reference base index also provides an opportunity to review and update all contracts included in the monitoring, expanding the inquiry to new areas of negotiation, not considered previously, and excluding some whose relevance in terms of employment to which they apply may be considered marginal. An important innovation introduced by the December 2000 = 100 base, focused on the exclusion of public managers from the index calculation, in order to provide greater comparability between the private sectors and general government.

For the last two series, December 2005 = 100 and December 2010 = 100, all contracts have undergone slight variations.

The tables shown refer to the time series of gross annual values from 1926 to 2010 for certain professional groups and certain sectors of economic activity, as well as those relating to the index numbers of gross hourly wage agreements for the years 1955 to 2015.

Warnings for time series comparisons

- The data reported in the tables are all related to the base currently in force: December 2010=100. Over time, the bases of the survey were as follows: 1938=1; 1966=100; 1975=100, 1982=100; 1990=100; December 1995=100; December 2000=100; December 2005 = 100.
- Since base 1966=100, time indicators have been introduced.
- Since base 1975=100, the calculation of length of service has been included amongst the payroll items.
- Starting from base December 1995=100, the annual value has been abandoned as a reference point.
- Starting from base December 2000=100, public managers have been excluded from the index calculation.
- In base December 2005=100, compared to the previous editions, the classification of contract types has been slightly reworded to take account of the changes occurred in the new classification of economic activities Ateco 2007. For industry, the main changes concern various movements: the agreement regarding tobacco-monopolies has moved into "general government"; media and publishing agreements (first in the "industry") have entered the "private service sector", more specifically in the new grouping "information services and communications" and the agreement "waste management and disposal" has joined the group "industry", coming from the "private services".
- In the service sector of the market ("private services"), in addition to the changes already highlighted, the agreements regulating helicopter pilots and postal services, which together regulate the work of about 2,000 employees are excluded. Agreements relating to professional studios and private security services that are the more representative in terms of quantity of

²⁶ Central Statistics Institute 1979. *I numeri indici delle retribuzioni contrattuali. Base 1975 = 100* (Index numbers in contractual wages. Base 1975=100). Rome: Istat. *Collana Metodi e norme* (Methods and regulations), no. 17.

²⁷ See Istat. 1997. *I numeri indici delle retribuzioni contrattuali. Le nuove serie in base dicembre 1995=100* (Index numbers in contractual wages. The new base series December 1995=100) Rome: Istat. (Collana Informazioni n. 32); Istat 2003. *Retribuzioni contrattuali. Nuova base dicembre 2000=100* (Contractual wages. New base December 2000=100). Rome: Istat; Istat. 2009. *I numeri indici delle retribuzioni contrattuali: le nuove serie in base dicembre 2005=100* (Index numbers in contractual wages. The new base series December 2005=100). Istat. 2013. *Index numbers in contractual wages. The new base series December 2010*. Rome: Istat (*Note informative*, 9 aprile 2013). http://www.istat.it/files/2013/05/Nota_informativa2.pdf?title=Retribuzioni+contrattuali+-+24%2Fmag%2F2013+-+Nota+informativa.pdf.

employment (respectively 220,000 and 49,000 employees) and cover sectors excluded in the past from the field of observation in the survey, are instead included.

- In the public sector, beside the inclusion of the aforementioned contract for monopolies, top managers in the fire brigades are included, while employees of institutions of *Alta formazione e specializzazione artistica e musicale* - Afam (higher education and specializations in art and music) are treated as belonging to an independent contracting sector.
- On the base December 2010=100, the classification of contract types was slightly changed. Referring to private sector, the agreement of the administration of sea and coastal water transport has been added, but in all the number of contracts it decreased due to the merging of different agreements: "*manufacture of food products and beverages*" that includes the specific section of manufacture of refined oils and fats; "*Gas and water distribution*" that is the union of the production and distribution of gas (municipal and private concerns) agreement and collection, purification and distribution of water (municipal and private concerns) agreement; "*shipping , road transport freight and logistics*" that is the union of freight transport by road agreement and storage activities agreement.
- Data on annual contractual gross wages of some professional categories contain some breaks in series due to the different allowance weights.

Labour disputes

The *Rilevazione sui conflitti di lavoro* (Survey on labour disputes) was launched by Istat with the Ministry of the Interiors in the month of November 1948. It was a total survey carried out on a monthly basis with police headquarters in the role of intermediaries. They were, in fact, entrusted with the task of compiling and transmitting the survey models, one for each dispute.

Initially, the investigation was limited to strikes arising from labour disputes, i.e. disputes between employers and work suppliers, skipping all conflicts arising from other causes (general strikes against high prices, disputes on the right to housing, etc.). Strikes with duration less than one working day were also excluded, unless the interruptions were carried out over two or more days. A first important change was introduced in 1955, when all labour disputes, regardless of their duration, began to be surveyed. On that occasion, survey models were renewed to adapt to the changing needs of the time.

Since 1970, due to the growing and non-negligible importance of labour disputes, both from a socio-economic and political point of view, Istat developed a second survey model with which it began to gather information on those conflicts not arising from labour relationships. In 1976, the two models were unified.

The latest innovation dates back to January 1998, when a new model with the information necessary to facilitate proper compilation was sent to all police headquarters.

Since March 2010 the collection of this information has been suspended in view of an overall review of the data production process that will also benefit from the results of business surveys.

The time series shown here concerns the number of conflicts and workers involved, and the number of hours not worked, in the period ranging from 1949 to 2009.