

The volume of work paid by companies, an invaluable indicator for analysing the current crisis

In Q2 2020, activity in France declined on an unprecedented scale. Over one year, output in the non-agricultural market branches dropped by 19%. By paying employees whose number of paid hours has dropped but who have not lost their jobs, the short-time working schemes announced and implemented in March 2020 have acted to a large extent as shock absorbers. Payroll employment fell by 2.7% between mid-2019 and mid-2020, significantly less than the drop in the volume of work paid by companies (-22%). Estimated from the information declared in companies' nominative social declarations, the volume of work they pay is an invaluable indicator for analysing the current crisis. Its fluctuations show that the magnitude of the fall then the rebound were very different, depending on the sector of activity and the area of the country.

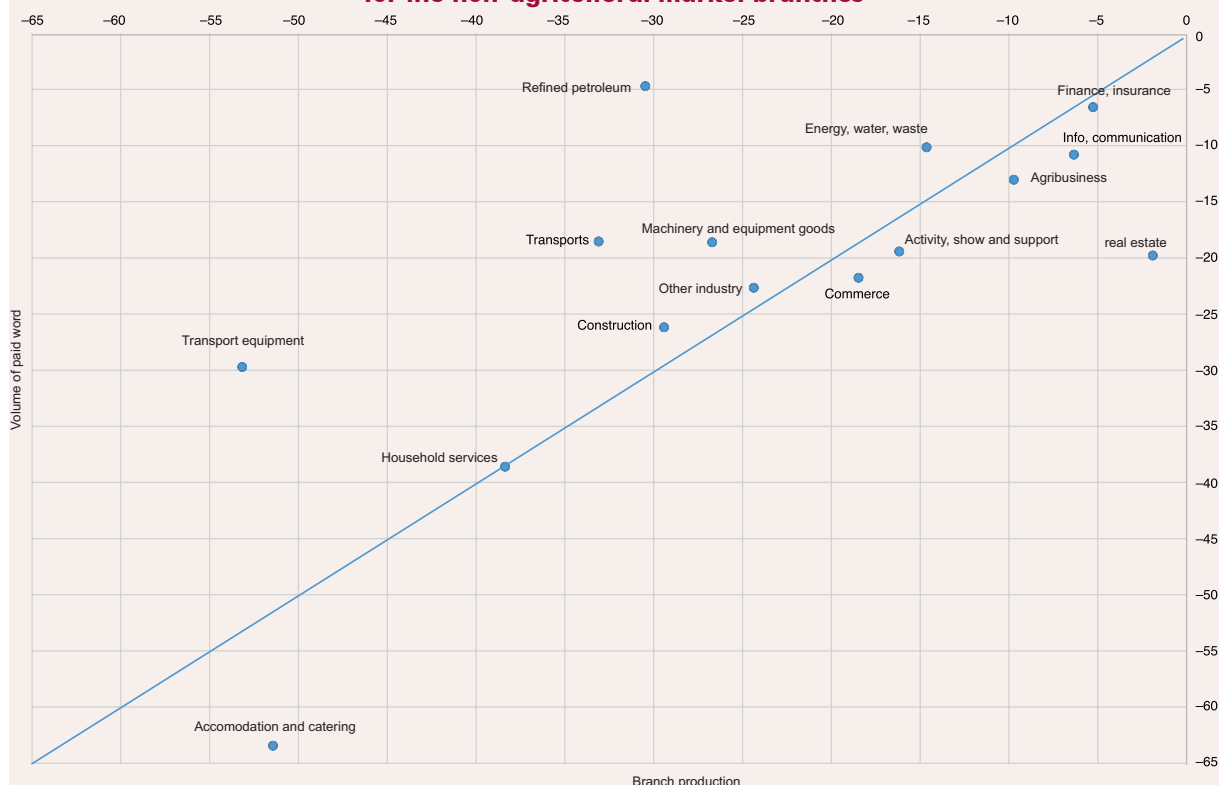
Since 2017, private companies have sent in every month their Nominative Social Declarations (DSN), a single, paperless submission to a group of bodies and administrations, which includes INSEE. Described as the last stage in processing company wages, the DSN provides information on the situation of each employee at the time they receive their pay.

Since March 2020, the information that companies have transmitted has shed light on their situation since the start of the crisis associated with the COVID-19 epidemic, especially regarding the

volume of work that they pay for each month. The volume of paid work is a major component of economic activity, although it is not measured directly (Box 1): firstly, because some absences, such as paid leave, are considered as paid work; secondly, because payment to employees may not reflect fluctuations in their productivity. However, the correlation with the activity in different branches during the current crisis appears to be strong enough (Graph 1) to analyse its impact in the light of this indicator, according to various characteristics of the employing establishments or their employees.¹

1. The fact that the volume of paid work declined less than activity in some branches may reflect an adjustment in employment via employees taking leave (considered as paid work); for the real estate branch, the opposite is true, but the work factor represents only a small proportion of the "activity" of the branch (which in national accounting includes the service provided by housing), as the two aggregates are not usually well correlated.

1 - Change (over one year) in volume of paid work and output in Q2 2020, for the non-agricultural market branches



Source: Quarterly national accounts, DSN - provisional treatment INSEE

Box

Paid activity and unpaid absences in the DSN

The estimate for the volume of paid work used in this Focus covered different sections of the DSN, in particular:

- **Volume of work entered on the employment contract.** This corresponds to the length of time that the employee should work during the month, taking into account only the weekly rest periods provided for by law (2 consecutive days per week). This section is completed using the standard figures: e.g. 151.67 hours¹ for a full-time employee, i.e. 35 hours per week (75.88 hours for a part-time employee); 21.67 days for an employee whose contract stipulates a fixed volume of work of 218 days per year. This is the volume of contractual work offered by companies.
- **Volume of paid work.** This corresponds to the length of time for which the employee is paid over the period. Notably, this includes overtime and also absences for which the employee receives pay, such as paid leave, public holidays or days allocated for reduced working time (RTT). This section is completed with a real value. Thus, an employee whose employment contract indicates 151.67 hours can be required to work between 140 and 161 hours per month, taking the calendar into consideration (i.e. depending on the number of working days in the month) and excluding considerations of overtime or flexible working time. All unpaid absences are of course deducted from these time durations and declared in the following section.
- **Duration of unpaid absence.** This corresponds to the sum, over the period under consideration, of the durations of all absences that did not give rise to payment. Unpaid leave of absence, sick leave with or without pay, periods of short-time activity are unpaid absences. Paid leave for employees in building construction, which is provided for by a paid leave fund, is declared as unpaid absence.
- **Overtime or occasional additional hours.** These correspond to extra hours worked when there is a temporary surplus of activity, requiring the employee's presence in addition to his usual working hours. For a part-time employee, these are called occasional additional hours when he works more hours than those stipulated in his employment contract.
- **Short-time working hours.** These correspond to the number of non-working hours to be compensated. When short-time working is introduced, wage-earning employees are not entitled to receive a wage but rather they receive a specific allowance that usually represents 70% of their gross hourly wage per non-working hour. The employer pays this allowance directly to the employees and is then reimbursed by the public administration. As short-time working can be a reason for suspension of the employment contract, it is declared in the DSN.

Slightly less than 10% of employment contracts declared in the DSN are contracts whose duration is expressed in days or a requirement in working days, whereas the volume of work in other contracts is expressed in hours. For the purposes of the analysis, the volumes of work in these contracts have been converted into hours by considering, according to convention, that one day is equivalent to 7 hours (different agreements produce quantitatively similar results). In addition, temporary employees have been counted in the user sector and not in their employer sector (i.e. the temporary staffing agency).

After consolidation, the different sections of the DSN are linked together using the following equations:

$$(1) \text{ volume_paid_work} = \text{volume_employment_contract} - \text{unpaid_absences} + \text{hours_overtime}$$

$$(2) \text{ unpaid_absences} = \text{hours_short-time_activity} + \text{other_absences (sick leave, etc.)}$$

Using these equations, an accounting breakdown of the volume of paid work can be produced (*Graph 2*). This breakdown shows that the contributions from the volume of the employment contract depend mainly on the number of people concerned by an employment contract, a number that has declined over the year since the health crisis began.

Next, in order to analyse the decline in activity according to the characteristics of the employees (profession, type of employment contract, age, etc.), we must switch to an individualised volume of work, using the ratio of the volume of paid work to a number of posts. As the adjustment of employment to the health crisis was on average much more intensive (decrease in volume per employee) than extensive (decrease in number of posts), the overall profile of the volume of work "per post" is similar to that of the "overall" volume but on a smaller scale (*Graph 7*). ■

1. 151.67 is the product of 35 hours (per week) and an average of 4.33 weeks per month (=52/12).

The use of short-time working cushioned the decline in activity in Q2

In Q2 2020, the volume of work paid by private sector companies fell back 22% compared to Q2 2019, after -3% in Q1. At the height of the crisis, in April 2020, the decline was as much as 33%. The relaxing of protection measures against the epidemic at the start of the summer meant that activity was able to recover in many sectors although their level remained below "normal"; thus in September 2020, the volume of paid hours remained 5% below its level in the previous year.

By compensating employees whose number of paid hours has fallen but who have not lost their jobs, the short-time working schemes decided on and implemented in March 2020 have played a major role as shock absorbers. Thus, payroll employment fell by 2.7% between mid-2019 and mid-2020, significantly less than the decline in the volume of paid work. In fact, between April and June 2020, the use of the short-time working schemes accounted for 70% of the drop in the volume of paid work over a year (Graph 2). During summer 2020, this contribution was only 50%: in addition to the overall improvement in activity, the explanation also lies in the fact that during the summer, many employees on paid holidays continued to be paid by their employer.

All in all, the decline in the volume of paid work observed from March to September 2020 corresponds to the work produced by 2.4 million full-time employees over the same period a year earlier, or 12% of the workforce of the companies concerned.

The scale of the decline then the rebound varied greatly, depending on the sectors of activity

Sectors where activity was considered as non-essential or where it was closely linked to tourism

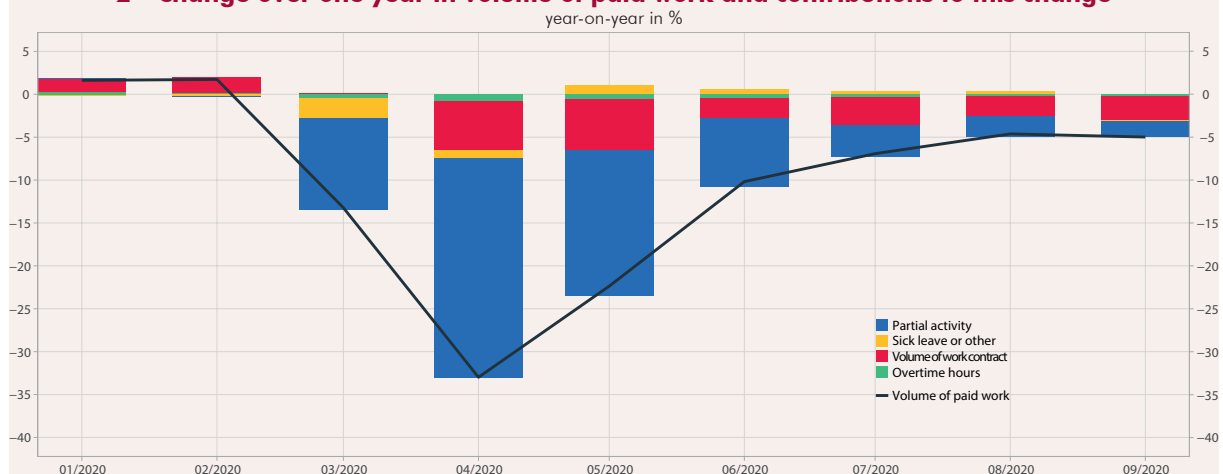
were where the volume of paid work plummeted furthest in April 2020, well below the average decline in the private sector of 33% (Graph 3). These sectors were mainly catering (-81%), accommodation (-76%), personal services (hairdressers, dry cleaners, etc.: -71%), trade and repair of automobiles (-59%), artistic activities and entertainment (-57%), air transport (-55%), travel agencies (-53%) and cinemas and music publishing (-49%). Of these sectors, only catering, accommodation, travel agencies and artistic activities and entertainment recorded a decline in their paid hourly volume, which was greater than 15% in September 2020.

Sectors where teleworking was possible during the first lockdown, such as services to businesses, financial activities or IT fell back less, on average, in April and were more dynamic than the other sectors in September.

In industry, the automobile sector stood out. Having declined more sharply than the average in April 2020 (-49% in the volume of paid work compared to April 2019), this sector took advantage of the upswing in sales of vehicles at the end of lockdown, with the result that in September 2020, the fall over one year in the volume of work paid by companies in this sector was only slightly higher than in the other sectors (-7%). In aeronautics and shipbuilding, the decline was certainly severe but less so in April 2020, however the volume of work took longer to restart: in September 2020, it was still 10% below its 2019 level.

Given the restrictions that lasted until the beginning of June, the accommodation-catering sector only began to bounce back in June 2020, or one month after the other sectors of activity (Graph 4). However, the decline over one year in the volume of paid work in this sector still stood at 19% in September.

2 - Change over one year in volume of paid work and contributions to this change



Source: DSN ; INSEE provisional treatment

Situations also varied in different areas

Like the epidemic and depending on the sectoral make-up of the productive fabric and employment in the different parts of the country, the crisis affected French departments differently in April (Focus in *Economic Outlook* of 7 May 2020). Notably, the decline in the volume of paid work was less dramatic in Brittany and more severe in Île-de-France and the departments in the east and the south of the country (*Graph 5*). In September, the variety of situations was less striking overall, especially evident in the tourism sectors, and

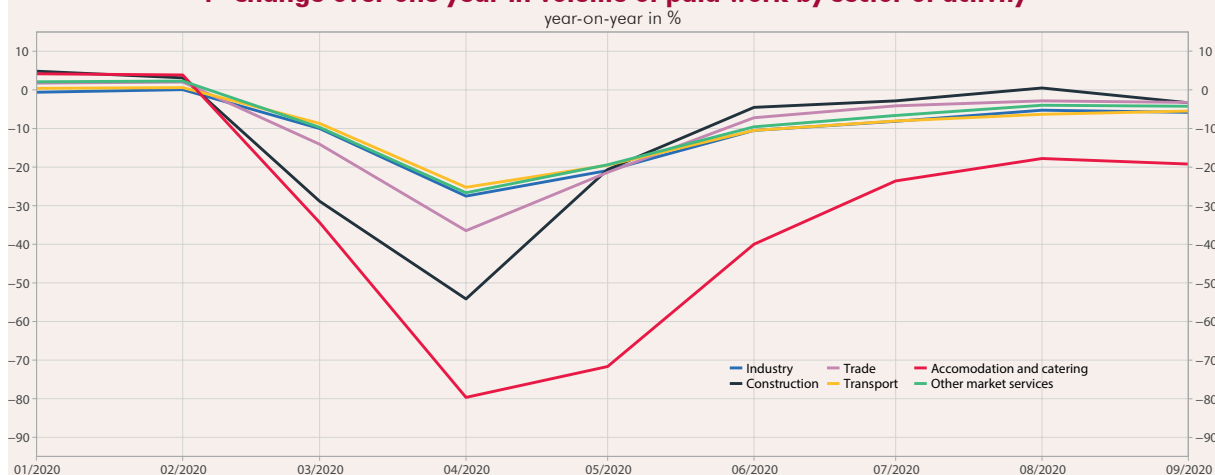
dependent on the economic orientation of the areas. The summer tourist season enabled departments that enjoyed a local or national clientele to bounce back, with a decline in the volume of work over a year in September but which was less pronounced than the average (Focus in *Economic Outlook* of 6 October 2020). However, for departments that usually host large numbers of foreign tourists, Paris in particular and the departments of Ile-de-France, also the departments of the Côte d'Azur, they maintained a below average momentum in September (*Graph 6*).

3 - Changes over one year in volume of paid work in April and September 2020



Source: DSN ; INSEE provisional treatment

4 - Change over one year in volume of paid work by sector of activity



Source: DSN ; INSEE provisional treatment

Fluctuations in the volume of paid work per post were very different, depending on the profession or the age of the employees

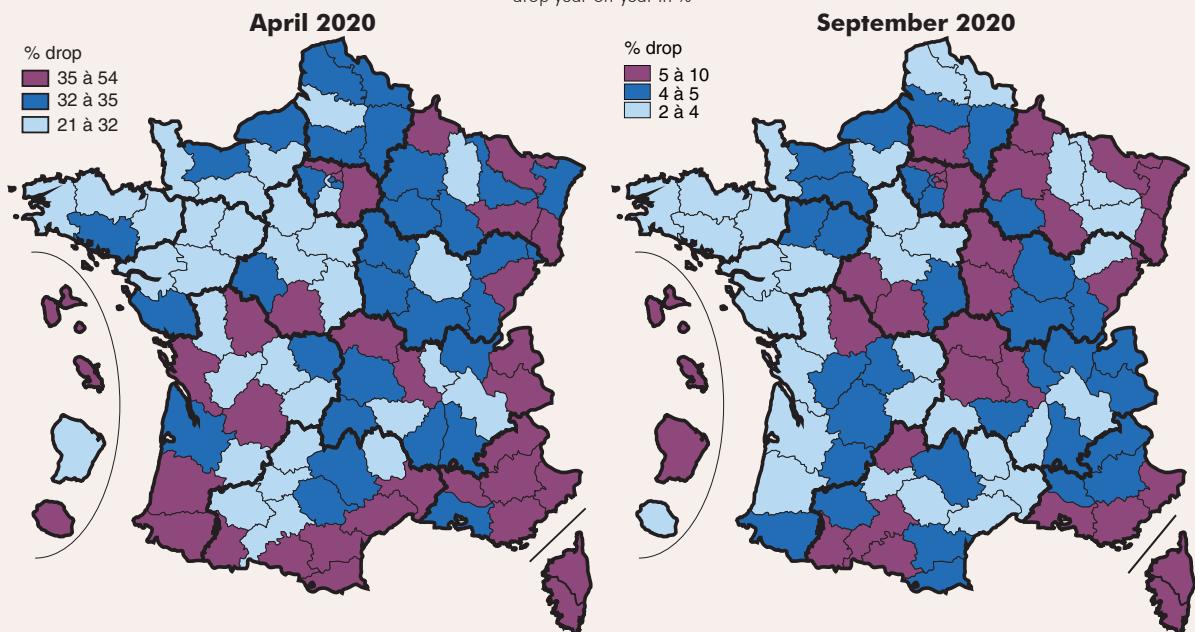
When reduced to employee level, the drop in the average volume of work per post in April for employees (−34%) and low-skilled workers (−32%; *Graph 7*) was particularly significant. For managers, the decline was smaller, as more of them were able

to use teleworking (Jauneau & Vidalenc [2020]). Intermediate occupations were in a mid-position. For all the professions, the decline over a year was later reduced, but only managers returned to their 2019 level in September 2020.

When correlated with socio-professional categories, the decline in volume worked was much greater in April for young people under 25 (−35%).

5 - Changes over one year in volume of paid work by department

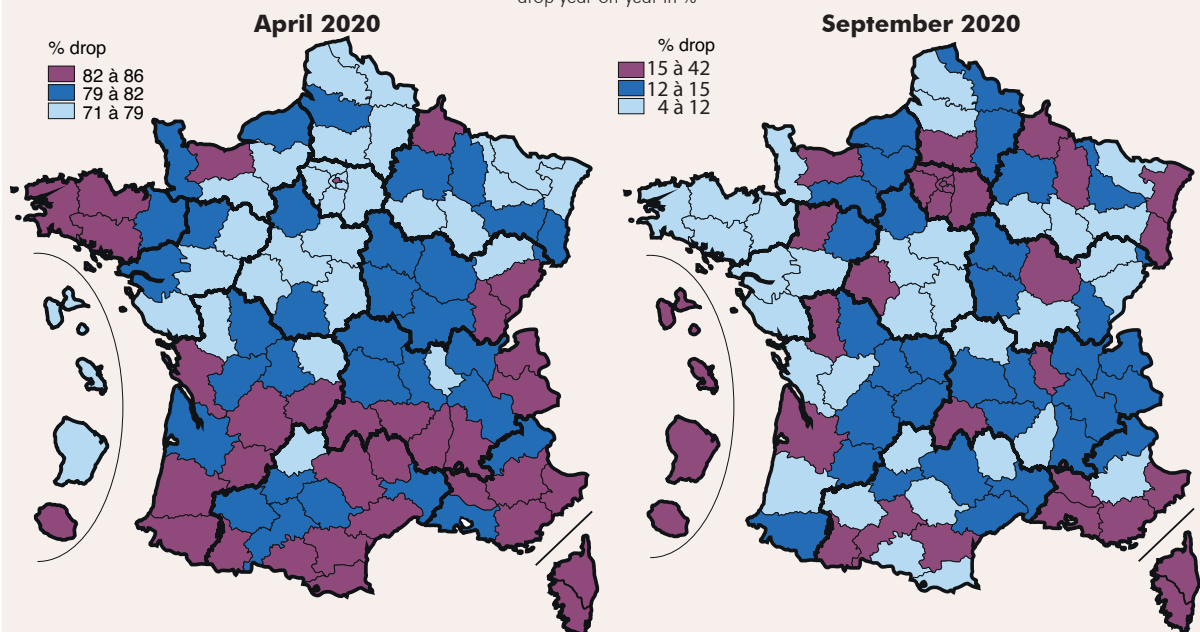
drop year-on-year in %



Source: DSN ; INSEE provisional treatment

6 - Changes over one year in volume of paid work by accommodation and catering

drop year-on-year in %



Source: DSE ; INSEE provisional treatment

French economic outlook

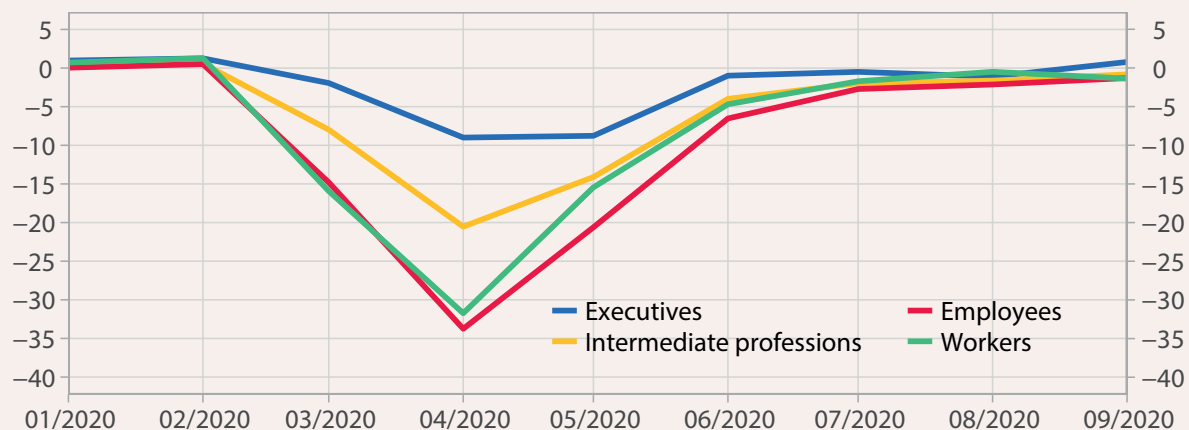
Depending on the type of employment contract, the decline in volume of work per post was similar for those with a fixed-term contract and those with an open-ended contract; it was less for those with a

temporary contract, but for them the adjustment was extensive (the number of temporary workers declined by 27% over the year between mid-2019 and mid-2020) rather than intensive. ■

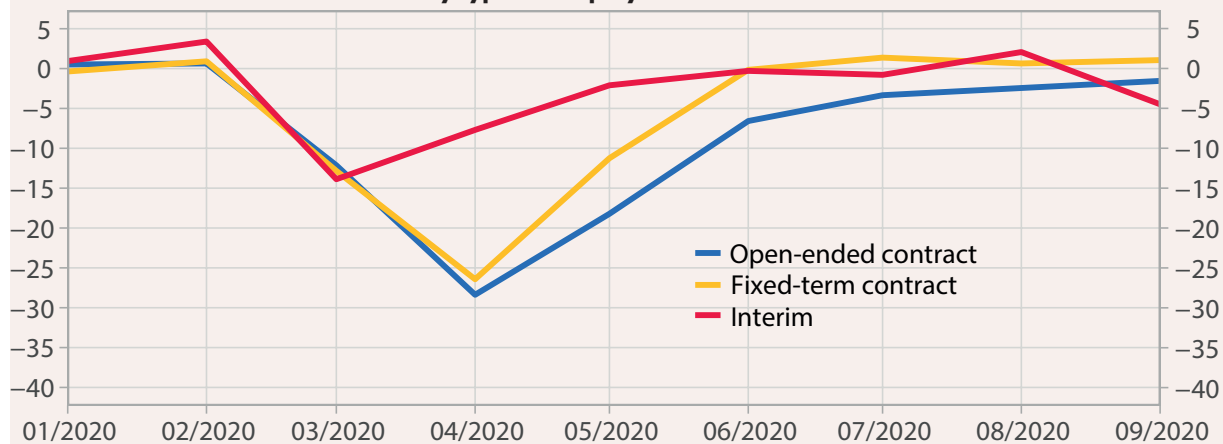
Catherine Renne ■

7 - Changes over one year in volume of paid work per post

year-on-year in %
By profession

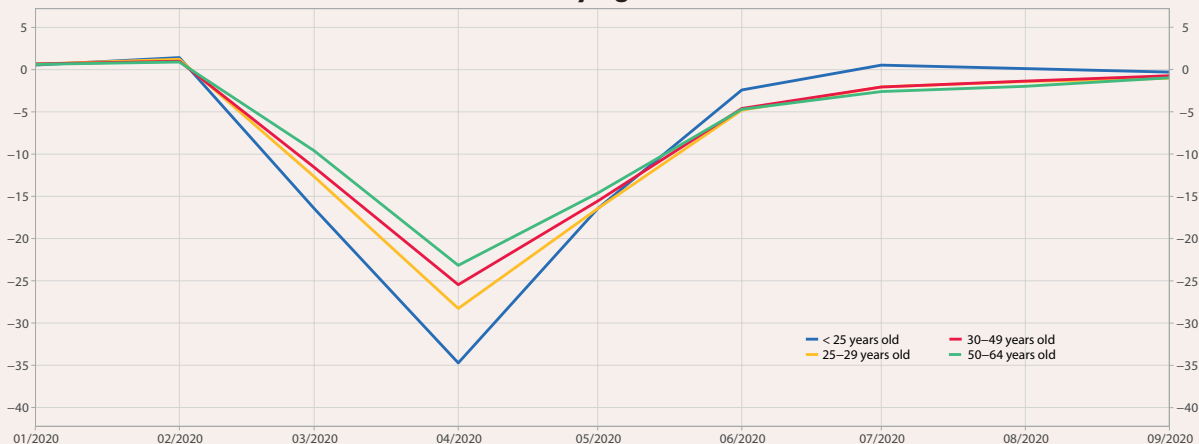


By type of employment contract



Note: for fixed-term and temporary contracts, changes in the number of paid hours per post contain major compositional effects. In 2020, the structure of the jobs for these types of contract was certainly very different from that in 2019.

By age



Source: DSN ; INSEE provisional treatment