

Expiry of Unemployment Benefits: What Impact on Post-Unemployment Job Satisfaction?

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Abstract – This paper provides statistical information on job-seekers' satisfaction with jobs found either side of a period of unemployment. Based on an *ad hoc* survey on the paths of unemployed people on benefit (*Parcours des demandeurs d'emploi indemnisés*, 2013) – it examines whether job satisfaction differs when a job is found just before or after the expiry of benefit entitlements. The analysis first shows that elements other than remuneration and stability contribute to satisfaction with a job, and particularly its intrinsic value. Secondly, job-seekers finding a job after the expiry of entitlements are less satisfied than those who find one in the period near before the expiry of entitlements (during the month-and-a-half preceding it). Lastly, for job-seekers who had significantly reduced their consumption expenditure during their period of unemployment, satisfaction with jobs found nearing the expiry of entitlements tends to be lower than with those found well before this period.

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Reminder:

The opinions and analyses in this article are those of the author(s) and do not necessarily reflect their institution's or Insee's views.

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According to various empirical studies, the rate at which job-seekers find employment rises around the end of their benefits entitlement period (Meyer, 1990; Dormont *et al.*, 2001). This paper provides statistical information regarding this topic. In particular, it exploits the fact that the expiry of unemployment benefits entitlement causes a discontinuity in the unemployment period (Box 1 briefly describes the unemployment benefits system in France). In fact, job-seekers who find work just before or just after the end of their entitlements have similar durations of unemployment, but are not affected by the end of their entitlements in the same ways. This paper attempts to compare the satisfaction of former job-seekers with the job they find, depending on whether the job was found just before or just after the end of their benefits entitlement.

This analysis is based on a survey carried out in 2013 by *Pôle emploi*, (the French employment agency) aimed at comparing job-seekers' levels of satisfaction (using several criteria) with jobs found either side of their period of

unemployment. Satisfaction is measured using objective elements (remuneration and stability of the job found), and also subjective elements. For example, did the job-seeker find the job they were looking for or, conversely, did they accept a job as they could not find anything else? Do they like it (according to multiple criteria) or not? Is it more satisfying, in their opinion, than the job they had before the period of unemployment? This approach is in line with the prolific field of the economics of happiness (Frey & Stutzer, 2002, and, for application to the labour market, D'Addio *et al.*, 2007).

What Do We Know About the Link Between Unemployment Benefits and Unemployment Duration? A Brief Review of Theoretical and Empirical Literature

Unemployment benefits generally aim to insure people against an involuntary loss of

Box 1 – The Unemployment Insurance System in France

In 2013, the unemployment benefits scheme was governed by two rationales:

- One of insurance, which compensates, from the obligatory contributions made by employers and salaried workers, involuntarily unemployed workers who have worked, and therefore contributed, for long enough to benefit from these entitlements. The "return to work" benefit (*Allocation de retour à l'emploi, ARE*) is the main benefit paid under this system;

- A solidarity support system, which takes over from the insurance system once it has been exhausted and which is funded by the State and paid to job-seekers as long as their resources (personal or household) fall below a certain threshold. The "solidarity" benefit (*Allocation de solidarité spécifique, ASS*) is the main benefit paid by this system.

An employee is affiliated to the unemployment insurance system if he/she has worked for at least 4 months during the previous 28 months (or the last 36 months if the employee is 50 or over). In the event of loss of employment, he/she may then claim ARE for a period equal to that worked ("one day worked = one day of benefits"), and this within a limit of 24 consecutive months (36 months if the job-seeker is 50 or older). The amount of the ARE ranges between 57% and 75% of the daily reference wage (salary restated from compensation received during the employment period) and remains constant throughout the benefits period. To illustrate

this, an unemployed person who received 1,500 Euros gross per month during their previous job, could claim 950 Euros gross per month under the ARE.

Unemployment insurance also allows unemployed persons taking short-term professional work (known as "reduced activity") to combine, under certain conditions, both a wage and supplementary ARE payments. The new ARE amount is then the amount of the gross monthly allowance less 70% of the gross salary of the job (the amount being capped by the previous gross salary).

Exhaustion of ARE entitlements results in a significant decrease in the financial resources of the unemployed person, since ASS payments (which are paid only when income falls below a low threshold) are significantly lower than ARE. For example, in 2013, a couple whose monthly gross incomes were less than 1,200 Euros, would receive 470 Euros for ASS.

The French unemployment insurance system has undergone many changes since its creation. For instance, between 1986 and 2001, the unemployment benefit (called *Allocation Unique Dégressive*) was degressive (i.e. it was reduced as the period of unemployment increased, Dormont *et al.*, 2001).

Unemployment insurance in France is fairly generous compared to other advanced economies, both in terms of the amount of the benefits and the duration of entitlements, and also the conditions of eligibility (Cahuc & Carcillo, 2014).

employment. However, since its creation it has been suspected to dissuade people from returning to work. Microeconomic job search models (Pissarides, 2000) handle unemployment as a problem of matching the supply of labour with demand (due to the cost of collecting information about the nature and quality of jobs offered and the candidates, the geographical distances between jobs offered and sought, etc.). They show that unemployed persons are looking for jobs as long as the wage offered is lower than their reservation wage, the minimum wage below which they will refuse an offer of employment.

In these models, unemployment benefits have a dual effect on the duration of unemployment and the quality of jobs found. Firstly, they give job-seekers the means to better explore the labour market, and they improve the match between supply and demand, e.g. by giving job-seekers time to find the job they prefer and in which they would be most productive, which in turn benefits the community (Marimon & Zilibotti, 1999). However, they also raise reservation wages, and all the more so when they are generous, creating a moral hazard which is likely to induce job-seekers to delay their return to work for increased leisure consumption (Lalive *et al.*, 2011). Furthermore, by extending the duration of benefits, they can have adverse effects and even hamper the chances of job-seekers finding a job, by reducing their human capital and sending negative signals to employers regarding their employability. These models account for the rise in the unemployment exit rate around the expiry of entitlements, which sharply lowers the reservation wage (Mortensen, 1986).

The empirical literature includes a number of elements describing the existence of a surge in job-seekers finding jobs as they come towards the end of their benefit entitlements. Such peaks have been observed, for example, in the United States (Meyer, 1990), in Europe (Røed & Zhang, 2003) and in France (Dormont *et al.*, 2001, who study the effect of the degressive benefits that were in use at the time on the duration of unemployment, based on administrative data which is also used in this study). These peaks are undoubtedly overestimated when based on administrative data, as many job-seekers appear to unsubscribe from lists when their benefits entitlement ends, because they effectively become inactive (they no longer actively search for a job), or because they see no point in staying registered (Card

et al., 2007b). These types of peaks are sometimes interpreted as evidence that job-seekers increase the intensity of their search in the run-up to the end of their entitlements. They may also be a sign that job-seekers are resigning themselves to accepting jobs they would not have accepted when they were receiving benefits.

Furthermore, Le Barbanchon *et al.* (2017), based on administrative data, conclude that an increase in the maximum duration of benefits does not increase the reservation wage, i.e. it does not lead job-seekers to demand better paid jobs, contrary to what the theory predicts. Moreover, many empirical studies conclude that extending the duration of unemployment benefits or raising them increases the duration of unemployment, especially for women and seniors (for example, Lalive *et al.*, 2006, and Lalive, 2008, in Austria, Kyyrä & Ollikainen, 2008, in Finland, and Røed & Zhang, 2003, in Norway).

However, the conclusions of the empirical literature on the existence of a disincentivising effect of unemployment benefits on returning to work are more ambiguous (Le Barbanchon 2016; Schmieder *et al.*, 2016). Two parameters of unemployment benefits were particularly thoroughly studied: the maximum duration of entitlements and the amount of the benefits.

Tatsiramos (2009) concluded in a study on Europe that, while a long maximum benefits entitlement period prolongs the length of unemployment, it has a positive effect on the duration and stability of the job found after the period of unemployment. In the same vein, Caliendo *et al.* (2013), exploiting an age-related discontinuity in the duration of benefits in Germany, observed that jobs found just after the expiry of entitlements were less stable when job-seekers had shorter periods of benefits entitlement. They concluded that jobs found around the end of benefit entitlements were often taken for lack of finding a better job. Centeno and Novo (2006), using quantile regression, found that more generous unemployment benefits tend to favour better wages and the length of employment found. Nekoei and Weber (2017), exploiting an age-related discontinuity in Austria, noted that increasing the maximum duration of unemployment benefits increases the wages of the subsequent job. But it also tends to reduce wages by prolonging the duration of unemployment, meaning that

the effect of the maximum duration of benefits entitlement on wage levels is indeterminate.

A contrario, many empirical studies have failed to establish a positive effect of the duration of benefits entitlement on the duration or remuneration of employment found after the period of unemployment. For Addison and Blackburn (2000), the increase in unemployment benefits in the United States had very little effect on the pay of the subsequent job. Belzil (2001), based on duration models in Canada, and Card *et al.* (2007a), using a discontinuity in the duration of benefits entitlement in Austria, found modest and even negative effects of increased benefits on the stability of subsequent employment. Similarly, van Ours and Vodopivec (2006, 2008) concluded from natural experiments in Slovenia that when the duration of benefits entitlement is reduced, return to work is faster without any deterioration in the duration or the remuneration of the subsequent job. Le Barbanchon (2016), using a discontinuity in the duration of benefits entitlement in France, observed that the duration of unemployment increased with the duration of benefits, without the stability of the subsequent job being improved.

However, these studies look at the quality of the subsequent job only by its duration (type of employment contract) and the salary level at the time of hiring, which is reductive. Other considerations are involved when choosing a job, such as one's interest in it, its career prospects, the sector, the commute distance and

the working conditions. Akerlof *et al.* (1988) conclude that nonpecuniary rewards are just as important as remuneration for job satisfaction. The criteria used here to assess jobs are broad and both objective (duration of employment and wage) and subjective (interest in the job, feelings of downgrading, opinion on working conditions, etc.).

Descriptive Statistics

The Less-Skilled Unemployed Tend More Often to Leave Unemployment Near the End of Their Benefits Entitlement

The survey on the paths of unemployed people on benefit (*Parcours des demandeurs d'emploi indemnisés*, 2013) includes 4,057 unemployed who finally reported finding a job since the beginning of their unemployment period, i.e. nearly $\frac{3}{4}$ of the sample, and 1,443 who were still unemployed (see *infra*, Table A, Box 2; the data are described in Box 2). In the rest of the paper, we focused on the 4,057 surveyed job-seekers who found a job, unless otherwise stated. 812 job-seekers became self-employed (independent status), i.e. 20% of the respondents who found a job.¹ More than half of the unemployed in the survey had 2 years of benefits entitlement (730 days, the maximum for

1. This figure is most likely overestimated due to the use of the quota method for sampling, which implies that the descriptive statistics do not completely accurately describe the population under study.

Box 2 – The Survey on the Paths of Unemployed People on Benefit (*Parcours des demandeurs d'emploi indemnisés*)

Survey sampling

The study is based on the survey *Parcours des demandeurs d'emploi indemnisés*, conducted by *Pôle emploi* in October 2013, among job-seekers claiming benefits (see Online complement C1). The study population includes all job-seekers in categories A, B or C^(a) in France, registered with *Pôle emploi* between July 2012 and February 2013, and having worked at least 6 months during the 28 months preceding their registration for unemployment. They have all received ARE benefits. It excludes:

- Job-seekers aged 50 or over who have a maximum benefit period one year longer than other job-seekers;
- Job-seekers affiliated with specific benefits schemes, in particular artists (intermittent entertainers) and temporary workers;

- Job-seekers who worked less than 6 months before registering with *Pôle emploi*: on the one hand, it seemed to us that an objective judgement on the quality of a job could hardly be established over a period of less than 6 months; on the other hand, job-seekers who have worked less than 4 months before registering with *Pôle emploi* are not eligible for unemployment benefits, and therefore not eligible for our study.

The survey was conducted among 5,500 job-seekers. The sampling system was designed in such a way that it over-represents job-seekers exiting for work near the

(a) Job-seekers who had to search for a job pro-actively and were unemployed (Category A), or who engaged in short-term work ("reduced activity") for less than 78 hours (Category B) or for 78 hours or more (Category C), during the month in question.



Box 2 – (contd.)

end of their entitlements, of which there were few in the population studied (only 2.5%). Unless otherwise stated the period nearing the end of entitlements is, by convention in this study, the one-and-a-half month period prior to the end date.

The survey population is the FNA (Fichier national des allocataires), a database collected by *Pôle emploi* listing all benefits payment periods for each job-seeker registered with *Pôle emploi*. This database provides a wealth of information on the socio-demographic characteristics of the unemployed: age, sex, education level, nationality, amount and maximum possible duration of benefits etc. The FNA probably covers almost all eligible job-seekers, who have a financial interest in registering with *Pôle emploi*. However, it does not include accurate information about the dates of resumption of employment, because job-seekers often forget to update their applications. Exiting (*respectively* staying on) the *Pôle emploi* lists does not necessarily imply that the job-seeker has found a job (*respectively* or is still unemployed). However, as a first approximation it would seem credible to assume that unemployed people who exit the lists of *Pôle emploi* for a given period of time when they could have claimed

benefits, have probably and to a large extent returned to paid work during that time. Furthermore, our sampling strategy is based on the assumption that unemployed people receiving benefits who exit the lists of *Pôle emploi*, by convention, for a period of at least 45 days when they could be claiming ARE, have usually returned to work. Sampling is based on this hypothesis, which has been empirically validated (Table A).

The survey included:

- 3,000 eligible job-seekers who had been delisted (for at least 45 days), at the latest one-and-a-half months prior to the theoretical end date of their entitlement to benefits ("well before the end of entitlement");
- 1,000 eligible job-seekers who had been delisted (for at least 45 days) during the one-and-a-half months prior to the end date ("nearing the end of their entitlements"), and;
- 1,500 still on the lists when their entitlements expired.

The sample was obtained using the quota method in each of the three groups of job-seekers, applying quotas by crossing the age group, sex and management or non-management status.

Table A
Sampling of the Survey *Parcours des demandeurs d'emploi indemnisés*

Number of job-seekers interviewed who...	Situation regarding <i>Pôle emploi</i>			Total
	First delisting (for at least 45 days)...		Not delisted before the end of entitlements	
	... well before the end of entitlements	... nearing the end of entitlements		
... found a job	2,549	770	738	4,057
... did not find a job	451	230	762	1,443
Proportion not finding a job (%)	15.0	23.0	50.8	26.2
Total	3,000	1,000	1,500	5,500

NB: Nearing the end of entitlements is defined as a month-and-a-half before the end of entitlements at the earliest.

Reading note: the survey asked 3,000 job-seekers registered with *Pôle emploi* but who had been delisted for at least 45 days (while being eligible for ARE at the time), at the latest a month-and-a-half before the end of their unemployment benefit entitlements. Of these, 2,549 found a job and 451 (15%) did not.

Coverage: All respondents (whether or not they found a job), 5,500 observations.

Sources: *Pôle emploi*, survey *Parcours des demandeurs d'emploi indemnisés* and the database *Fichier national des allocataires* (FNA).

Then during the survey, job-seekers were specifically asked whether or not they had returned to work (excluding "reduced activity"^(b)), and if so on what date, or if they had not found a job. By combining this information with the FNA, we could determine whether job-seekers found a job either before, just before, or after their entitlements expired, or if they were still looking for work or no longer looking for work.

The Questions Asked to the Respondents

The survey was conducted by telephone and included around forty questions, mostly qualitative, on the job search behaviour adopted, on finding employment and, if applicable, on the nature of the job found, etc. (see online complement). For example, respondents were asked whether or not the job they found was the one they were looking for, or if they just took it because

nothing else was available. Each respondent who found a job was also asked to specify whether their satisfaction with the job was greater / equal to or less than with the job they had before the period of unemployment according to several satisfaction criteria (professional expectations, interest in the job, working conditions, commute time, level of remuneration, under-qualification, addressed by three questions relating to the number of years of education, the qualifications and the work experience required for the job). Furthermore, two specific questions in the survey asked each respondent to give a score, on a scale of 1 to 10, for the job found after unemployment, and then for the job they had before their period of unemployment.

(b) Job-seekers may indeed have paid work while being registered with *Pôle emploi* ("reduced activity").

unemployed persons under the age of 50). There are also local maxima in the duration of benefits entitlement at 6, 12 and 18 months (about 5%).

The surveyed population is fairly young (one-third under twenty-five) and the education level is fairly low (one third hold a diploma below or equal to the level of a professional or vocational certificate). In almost half the cases, unemployment registration followed the end of a fixed-term contract. In the survey, the period of unemployment is more often a short-lived step. One third of the job-seekers were registered for less than 6 months. The peaks in the duration of unemployment at 6, 12 and especially 24 months (Figure C2-I, Online complement C2) can be explained in part by the sampling method. Indeed, the survey overestimates the number of job-seekers leaving unemployment towards the end of their entitlement, and the majority of job-seekers registered with *Pôle emploi* were entitled to a maximum of 6, 12 or 24 months of benefits.

Job-seekers who returned to employment nearing or after the end of their entitlements were more likely to be low-skilled people, women with children, residents of sensitive urban areas (ZUS), people with short entitlement periods and often on so called “reduced activity”

– a situation combining some employment and unemployment benefits (Table C2-1, Online complement C2). They are less often young or unemployed due to the end of a fixed-term contract. When found after the expiry of entitlements, jobs tended to be more often fixed-term and/or part-time jobs

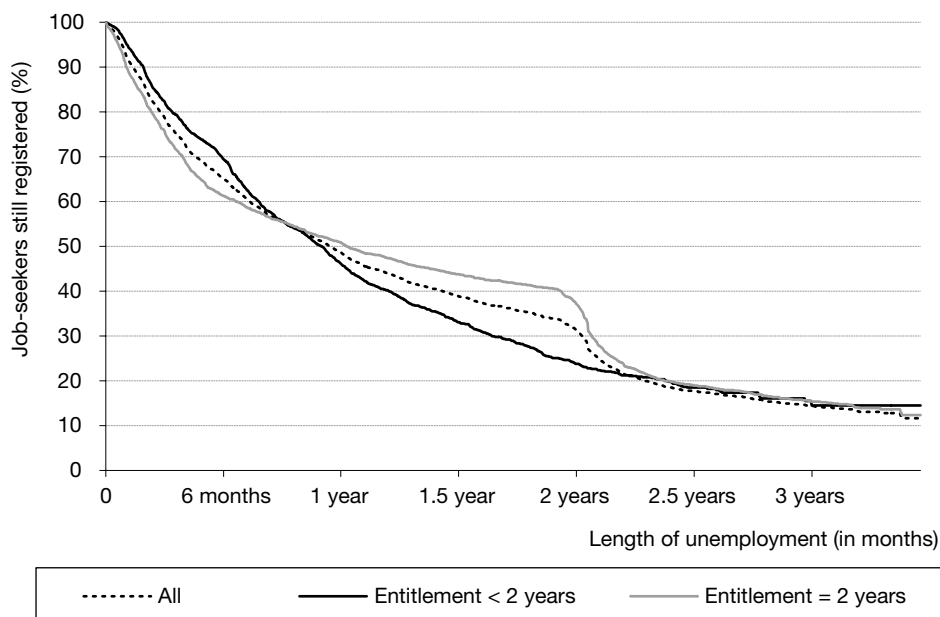
The Rate of Return to Work Rises Around the End of Entitlements

Figure I shows the unemployment survival function estimated using the Kaplan-Meier method.² The survival function shows a rise in the unemployment exit rate for jobs found after the expiry of entitlements (the exit rate tends to increase 24 months after registration of unemployment, i.e. on expiry of the maximum benefits period of more than half of the job-seekers in the sample). This effect is even more pronounced if one restricts oneself only to job-seekers with 2 years of entitlements, whereas it is not observed for those with entitlement periods strictly less than 2 years.

The magnitude of the peak is overestimated due to the sampling method, which over-represents

2. Non-parametric estimation of a survival function to account for censored data.

Figure I
Unemployment Survival Function Estimated Using the Kaplan-Meier Method



Reading note: After 6 months of unemployment, 67% of job-seekers in the survey are still unemployed.
Coverage: All respondents (whether or not they found a job), 5,500 observations.
Sources: *Pôle emploi*, survey *Parcours des demandeurs d'emploi indemnisés*.

job-seekers who have returned to work in the run-up to the end of their entitlements. However, we still observe a peak when we replicate the analysis using a more appropriate source on exits from unemployment (the *Sortants du chômage* survey), conducted by the Dares and *Pôle emploi* (Figure C2-II, Online complement C2).

The peak of the survival function is more pronounced for women with one or more children, job-seekers who admit to having taken a job by default, and job-seekers reporting a decrease in wages. It is also stronger for those who rate the post-unemployment job lower than their pre-unemployment job, and it is much weaker when job-seekers report that they did not decrease their consumption expenditure while unemployed. All this suggests that a return to work on the expiry of entitlements produces low job satisfaction and is motivated by financial reasons.

Opinions on post-unemployment jobs

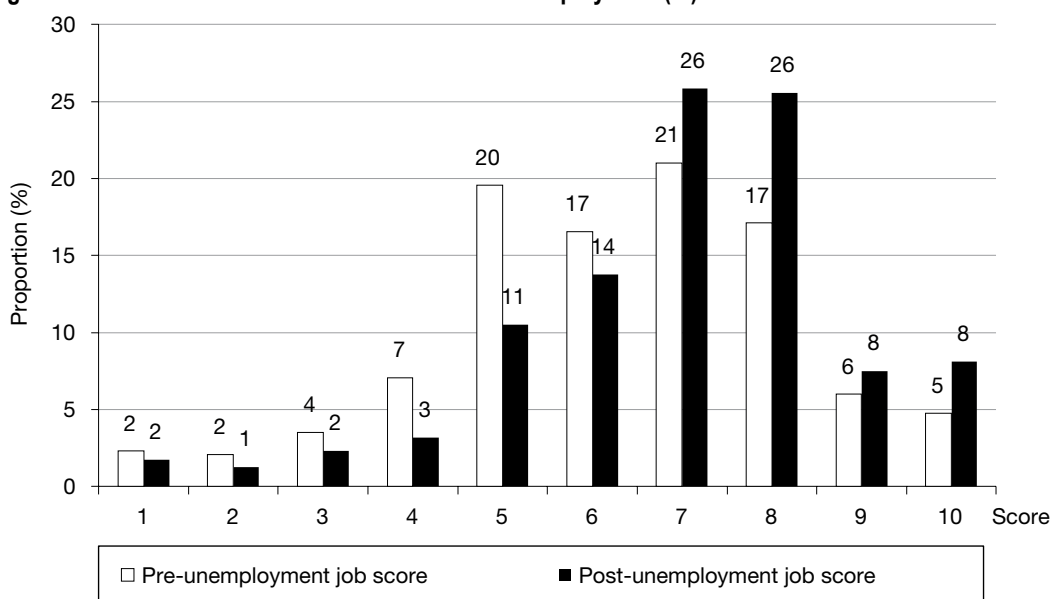
On a scale of 1 to 10, the most commonly assigned score for employment in general is 7 (Figure II). Respondents gave pre-unemployment jobs an average score of 6.29 and a median score of 6. For post-unemployment jobs, the average score was 6.95, median 7.

On average, job-seekers gave higher scores to jobs found after unemployment than to the ones they had before (difference in scores is +0.7, Table 1). Half of the job-seekers gave a higher score to the post-unemployment job than to the one they had before. However, scores are higher when the job is found well before the expiry of entitlements (+0.9), lower (+0.6) when it is found near the expiry of entitlements, and null when found afterwards.

On average, 24% of jobs found well before the expiry of entitlements were given a lower score than the previous job, compared to 37% of jobs found after the expiry of entitlements (Table 2). Jobs found after the expiry of entitlements were often less well paid (compared to pre-unemployment jobs) than those found before the expiry of entitlements. A third were taken for lack of other possible jobs, compared to 13% when the job was found well before the expiry of entitlements.

Table 2 suggests that the nearer we get to the expiry of entitlements, the less valued the job is, the more often it is taken by default, and the less well paid it is than the pre-unemployment job, and the more often the job-seekers declare that they have sharply reduced their consumption expenditure while unemployed.

Figure II
Histogram of Scores Given to Jobs Before and After Unemployment (%)



Reading note: a score of 7 was given to pre-unemployment jobs by 21% of the job-seekers, and to post-unemployment jobs by 26%.
Coverage: Job-seekers having found a job, 4,057 observations.
Sources: *Pôle emploi*, survey *Parcours des demandeurs d'emploi indemnisés*.

Table 1
Appraisal of Jobs After and Before Unemployment

Comparison between job after and job before the unemployment period	Return to employment in relation to the expiry of entitlements...			Total
	... well before	... nearing	... after	
Average difference in scores for post and pre-unemployment jobs	+0.86	+0.63	+0.02	+0.66
Proportion of post-unemployment jobs with a lower score (%)	24.2	26.0	37.1	26.9
Proportion of post-unemployment jobs with a higher score (%)	55.0	51.2	42.3	51.9
Proportion of post-unemployment jobs with the same score (%)	20.8	22.9	20.6	21.1
Proportion of post-unemployment jobs (%)...				
... which match expectations less well	18.2	26.0	33.5	22.4
... are less interesting	17.3	20.4	29.4	20.1
... with lower working conditions	14.6	18.3	21.7	16.6
... farther away	37.1	38.8	39.4	37.9
... less well paid	39.1	42.6	56.5	42.9
... under-qualified (education)	17.7	20.4	28.2	20.1
... under-qualified (qualifications)	20.5	25.2	32.0	23.5
... under-qualified (experience)	21.1	29.4	33.5	24.9
... taken by default	13.0	20.5	31.7	17.8
Number of job-seekers	2,549	770	738	4,057
Proportion of job-seekers (%)	62.8	19.0	18.2	100.0

Note: Nearing the expiry of entitlements is defined as a month-and-a-half before the end of entitlements at the earliest.
 Reading note: on average, the difference in job scores after and before unemployment is +0.86 when the job is found well before the end of entitlements, +0.63 nearing the end of entitlements and 0.02 after the end of entitlements.
 Coverage: Job-seekers finding a job, 4,057 observations.
 Sources: *Pôle emploi*, survey *Parcours des demandeurs d'emploi indemnisé*.

Table 2
Post-Unemployment Job Satisfaction Depending on the Period in Relation to the Expiry of Entitlements

Return to employment in relation to the expiry of entitlements	Average of the difference in scores	Job taken due to lack of alternatives (%)	Wage drop (%)	Consumption down sharply (%)	Number of respondents
After	+0.02	31.6	57.7	56.5	738
During the 15 days before	+0.45	23.3	48.8	44.7	322
Between 16 days and 1 month before	+0.74	17.6	52.5	41.6	238
Between 1 and 2 months before	+0.78	19.7	46.0	39.3	239
Between 3 and 6 months before	+0.66	19.0	40.3	36.3	347
Between 7 and 12 months before	+0.88	13.3	38.4	34.4	503
Between 13 and 18 months before	+0.93	13.6	40.6	40.4	463
Between 19 and 21 months before	+0.69	12.0	38.2	39.0	498
Between 22 and 24 months before	+1.00	9.7	32.2	43.4	709
Total	+0.66	17.8	43.3	42.9	4,057

Note: The period before the expiry of entitlements is expressed in the number of days of compensation, and not of unemployment, the concepts being slightly different.
 Reading note: on average, the difference in scores between jobs after and before unemployment is +0.02 when the job is found after the expiry of entitlements. In 31.6% of cases, this job is resumed in the absence of others, and in 57.7% of cases it is less well paid than the job held before unemployment. 56.5% of the 738 unemployed people reported having significantly reduced their consumption levels during their period of unemployment.
 Coverage: Job-seekers finding a job, 4,057 observations.
 Sources: *Pôle emploi*, survey *Parcours des demandeurs d'emploi indemnisés*.

The Econometric Model

Fixed Effects Model

In this paper, the job satisfaction survey is based on a linear fixed effects panel data model, the linear *within* model (Box 3).

The model includes fixed effects, which enable us to correct the estimation of parameters with potential endogeneity biases arising from heterogeneity fixed over time (here, during the period of unemployment), unobserved (or even unobservable) and correlated with the explanatory variables, including the date of return to work. For example, job-seekers with the

lowest motivation may be less likely to give the job they hold a high score³ and may also stay on benefits a longer length of time, delaying their return to work to enjoy family life or leisure. If this hypothesis is true, jobs found around the expiry of entitlements may be less favourably rated than the others, not because they were found at this time in particular, but because the individuals concerned tend to view work itself less favourably than the others.

3. The survey included a question about the job search period. 5% of respondents said that they had started looking for a job only at the end of their unemployed period, and these job-seekers gave lower scores to pre-unemployment jobs than the other job-seekers, on average.

Box 3 – The *Within* Linear Model

We are looking to explain the evolution of a resulting variable y_{it} (score, salary, stability and job satisfaction) for individual i in period t ($t = 0$ for the period before the unemployment, $t = 1$ for the period after unemployment). When the result variable y_{it} is the score for the job held during period t , it takes a unit value of between 1 and 10; when y_{it} is a qualitative salary variable, it takes the value 0 in period 0, and 1 / 0 / -1 in period 1, depending on whether the job found in period 1 was better, as well or less well paid than the one in period 0; lastly, when y_{it} is a variable showing the stability of the job held in period t , it takes the value 1 for a permanent contract and 0 for a fixed-term contract.

The explanatory variables are divided into two groups. Most of them are observed both for jobs before and after unemployment. However, six explanatory variables (those describing the period of unemployment) are observed only for the period of unemployment preceding employment in $t = 1$, and not for the period of unemployment preceding employment in $t = 0$, mostly because, for more than half of the respondents, the unemployment period considered in the survey is the only period of unemployment they experienced. These variables are: the daily amount of benefits, the maximum duration of benefits, the duration of unemployment, the reason for registration for benefits, the period left in regards to the end of entitlement, the quarter in which employment was resumed.

The variable y_{it} is modelled by the equation:

$$E(y_{it} / x_{i0}, x_{i1}, w_{i0}, w_{i1}, \lambda_i) = \lambda_i + x_{it}'\beta + w_{it}'\gamma \quad i = 1 \dots n, t \in \{0, 1\}$$

x_{it} denotes the vector of k explanatory variables, the value of which is known for individual i in period t , β denotes the vector of k parameters. w_{it} denotes the vector of the six explanatory variables, the value of which is only known for individual i in period 1. They take the value 0 for the pre-unemployment job (period 0) and take their observed value for the post-unemployment job (period 1).

They act as “treatment” variables to study the effects of unemployment on the differences in satisfaction with jobs either side of a period of unemployment. γ represents the vector of the parameters associated with these six explanatory variables. λ_i is a “fixed effect” specific to individual i , a term denoting an unobserved individual heterogeneity that is not expected to change over time and potentially correlated with the explanatory variables x_{it} and w_{it} .

In this formulation, periods 0 and 1 do not correspond to successive calendar dates, but refer to the employment episodes each side of the period of unemployment: 0 for the pre-unemployment period and 1 for the post-unemployment period.

The fixed effect is removed by subtraction (Wooldridge, 2002):

$$E(y_{i1} - y_{i0} / x_{i0}, x_{i1}, w_{i0}, w_{i1}, \lambda_i) = (x_{i1}' - x_{i0}')\beta + w_{i1}'\gamma \quad i = 1 \dots n.$$

The model is estimated by linear regression of the difference in the values of y_{it} for the two jobs on the difference between x_{it} and w_{it} for the two jobs. It can be shown that estimation of the parameters is based solely on individuals who experienced a change in the related variable between the two dates of the survey. Furthermore, the model can only estimate the effect of explanatory variables that evolve over time. In this paper, the inference of the model is based on White's variance-covariance matrix (White, 1980), which is robust to heteroscedasticity.

The parameter β is interpreted as the average variation in the score attributed to the job due to the fact that it has the characteristic x_j (or following a 1% increase in x_j , when x_j is expressed in logarithm) relative to the reference category, the other explanatory variables remaining constant.

To be more precise, the model presented here is a *first difference* panel data model. The *within* model consists in conducting an Ordinary Least Squares regression of $y_{it} - \bar{y}_i$ over $x_{it} - \bar{x}_i$ (Wooldridge, 2002). When there are two periods, the *within* and *first difference* estimators are identical (but the estimation of standard deviations differs).

The fixed effects model overcomes this kind of bias. If a job-seeker has a low appetite for work, this individual characteristic may show up in his assessment of both the pre-unemployment job and the post-unemployment job, but not in the difference between the two.

Choosing the *Within* Model

The *within* estimator is more suitable for continuous dependent variables, which is not the case for our dependent variable, the score assigned to a job, which takes integer values between 1 and 10. A fixed effects ordered *logit* model (Baetschmann *et al.*, 2015, Online complement C3) is theoretically more suitable. However, we have chosen to base our empirical analysis on the *within* model. There are three arguments in support of this choice: 1) the *within* model appears more robust because it is based on less stringent assumptions than the *logit* model (which postulates that the error term follows a logistic distribution); 2) the interpretation of the β parameters is easy; 3) the results of a *within* model are very similar to those of a fixed effects ordered *logit* model (see Table 3). Using Monte Carlo methods, Riedl and Geishecker (2014) concluded that the *within* model leads to relative estimates of parameters (estimated parameter ratios) which are very close to those of the fixed effects *logit* model, which backs up this choice. To facilitate comparisons between the models, we always prefer estimations using a *within* model, even when the dependent variable only takes two or three different integer values.

Moreover, the *within* model implicitly postulates a strong hypothesis of cardinal scale, since it takes into account the difference between scores, whereas the fixed effects *logit* model is only based on the less demanding hypothesis of the ordinal scale (it only takes into account the ranking of the scores, i.e. the order on the value scale, and not the differences between them). However, the results remain more or less the same if we apply the *within* model to the dependent variable which takes the value 1 (respectively 0, -1) if the score of the job found is strictly higher (respectively equal, strictly lower) than that of the pre-unemployment job, a dependent variable which is now based only on a rank.

However, Our Empirical Strategy Fails to Establish Causal Relationships

Many endogeneity biases still remain, that cannot be corrected by the *within* model. Firstly,

the model does not take into account individual heterogeneity that varies over time and is correlated with duration of unemployment (such as the loss of human capital caused by long periods of unemployment). Furthermore, the proximity of the end of the entitlement period is probably correlated with unobservable determinants of the difference in satisfaction between the pre and post-unemployment jobs. For example, an unemployed person, previously employed in a technological sector specific to a given activity and a given enterprise, will have both difficulties in finding a job (she will be more likely to return to employment around the end of his entitlements) and will probably be less satisfied with his new job (because the new job is unlikely to be as well qualified as the previous one).

Lastly, the panel was constituted retrospectively, collecting the opinions of the respondents on satisfaction with present and past jobs at the same time. This method has the advantage, compared to repeated interrogation (e.g. every year), of making satisfaction easier to interpret, as it encourages the respondents to judge their new job by comparing it with the old one. It postulates that respondents are able to rank, in terms of interest, the jobs they have held (ordinal satisfaction). Repeated measures of satisfaction may be more difficult to interpret as the psychological motivations for evaluating a job “absolutely” (without necessarily comparing it to any other) are probably very heterogeneous. However, the main problem with retrospective information is that it imperfectly measures opinions regarding a job, firstly due to poor memory of past jobs, and secondly because an opinion about a past job corresponds to an average satisfaction level assessed *a posteriori*, while an opinion on a current job will reflect the satisfaction level at the start of the period of employment.

All these remaining biases preclude a causal interpretation of the results. In particular, this study is not able to infer causal relationships between the maximum duration of unemployment benefits and satisfaction with the jobs held.

Job-seekers Who Find a Job After the End of Their Entitlements Are Less Satisfied of It Than Those Who Find One Just Before Expiry of Entitlements

The results of the estimation of the different models are shown in Table 3. The 2nd and

5th columns correspond to the explanatory models of the score given to the job (*within* model in the 2nd, fixed effects ordered *logit* model (Baetschmann *et al.*, 2015) in the 5th). The 3rd column corresponds to a *within* model for the type of employment contract associated with the job (a dummy variable equal to 1 if the job held in period t is permanent, 0 if it is fixed-term). The 4th column shows the results of the *within* model regressing a dummy equal to 0 in period 0, and 1 (respectively 0, -1) in period 1, depending on whether the job found is better (respectively equally, worse) paid than the pre-unemployment job.

Since the job search theory emphasises the duration in days preceding the expiry of entitlements, during which the job-seeker is supposed to modify his/her job-seeking behaviour, we have chosen to model the duration of unemployment benefits in terms of the number of days of benefits consumed. This differs slightly from the number of days of unemployment⁴.

Job Satisfaction Does Not Depend Solely on Wage

We first investigated whether job satisfaction was only influenced by its pecuniary rewards (pay, stability), or whether other factors could be involved. In other words, is the share of the score not explained by these characteristics only “noise”, or can it indicate something else as well? To investigate this, we then considered the share of the score not explained by the pecuniary and objective characteristics of the job (measured by the residual of the regression of the score on these characteristics). This residual was then regressed on the other satisfaction variables of a job in the survey. We can then conclude that finding a job that matches expectations, that is considered interesting and to have good working conditions, significantly increases the score given to a job, with the pecuniary and objective characteristics remaining the same. The time of the commute required to get to work does not affect the score.

This result suggests that the way in which jobs are assessed is not influenced solely in terms of pecuniary rewards. This would appear to back up our strategy of assessing job satisfaction using a numerical score and qualitative questions, and not only security and pecuniary rewards.

Determinants of Satisfaction With the Subsequent Job

Here we will focus on the regression of the score given to the job (Table 3). Since the results obtained by the *within* model are very close to those obtained using the fixed effects ordered *logit* model, we will only comment on the results of the *within* model.

The intercept (interpreted as a time effect for the period after unemployment) is equal to 3.1, which shows that post-unemployment jobs are, on average, more valued by the “reference” individual (for whom all variables are equal to the reference terms) than those occupied before unemployment. Firstly, returning to work may have boosted the respondent’s morale (Krueger & Mueller, 2012), which may skew the score in favour of the job found, and all the more so when the period of unemployment was a long one. Secondly, the young, accounting for the majority in our sample, often start their professional careers with temporary, under-qualified and un-fulfilling jobs (Nauze-Fichet & Tomasini, 2002).

To capture the impact of the economic conditions, the model includes, as an explanatory variable, the unemployment rate (ILO methodology) at the beginning and at the end of the period of unemployment. We can observe that a higher unemployment rate at the end of the unemployed period than at the beginning significantly increases the job’s score.

Job satisfaction is also found to increase when the job-seeker becomes a self-employed, starting his own business. The job’s score increases in average by 1.7 point, consistent with the results of Benz and Frey (2008). It also increases when the job found is better paid than the previous one (increase in the score of 0.6) and when it is a permanent job (results also found by Davoine & Erhel, 2008, and D’Addio *et al.*, 2007). Jobs in administration are better scored (increase of 0.4 in the score), especially among women (consistent with D’Addio *et al.*, 2007), while jobs in establishments with 10 to 49 employees are perceived as being less fulfilling (drop of the score of 0.2).

The higher the amount of unemployment benefits, and therefore the higher the wage of the

4. For example, benefits payments usually begin after a period of 7 days of unemployment.

Table 3
Estimation of the Models for the Job's Score, Type of Contract and Wage

Explanatory variables	Score (<i>within</i>)		Permanent contract (<i>within</i>)		Wage (<i>within</i>)		Score (fixed effects ordered <i>logit</i> model)	
	Estimation	Standard error	Estimation	Standard error	Estimation	Standard error	Estimation	Standard error
Intercept (after unemployment)	3.143***	1.073	-0.656***	0.187	0.729**	0.338	3.417***	1.275
Quarter employment was resumed								
1 st quarter	-0.121	0.101	-0.013	0.019	0.023	0.034	-0.134	0.131
2 nd quarter	0.062	0.287	0.04	0.051	0.066	0.095	-0.231	0.327
3 rd quarter	0.011	0.109	-0.003	0.019	-0.015	0.035	-0.010	0.139
4 th quarter	Ref.		Ref.		Ref.		Ref.	
Unemployment rate	0.624**	0.273	0.004	0.048	-0.053	0.087	0.659	0.344
Independent	1.73***	0.126	-	-	-0.201***	0.043	2.304***	0.193
Permanent contract	0.223**	0.097	-	-	0.155***	0.031	0.301***	0.115
Fixed-term contract	Ref.		-	-	Ref.		Ref.	
Part-time job	-0.264***	0.098	-	-	-0.3***	0.030	-0.262**	0.116
End of Fixed-term Contract	-0.091	0.176	0.899	0.031	0.197***	0.057	-0.085	0.226
Conventional termination	0.775***	0.159	-0.051	0.030	0.113**	0.050	0.899***	0.202
Other termination	0.376***	0.162	0.049	0.030	0.121**	0.050	0.323	0.198
Economic redundancy	Ref.		Ref.		Ref.		Ref.	
Duration of employment (in days, logs)	0.135***	0.031	-	-	0.028***	0.010	0.164***	0.039
Agriculture	0.183	0.252	-0.067	0.035	0.076	0.070	0.213	0.275
Construction and public works	-0.058	0.138	0.02	0.025	0.083	0.045	-0.15	0.175
Industry	-0.111	0.124	0.048**	0.021	0.097**	0.038	-0.045	0.137
Retail	-0.34***	0.086	0.028	0.016	-0.005	0.027	-0.288***	0.100
Administration	0.363***	0.113	-0.064***	0.019	0.05	0.036	0.414***	0.125
Other services	Ref.		Ref.		Ref.		Ref.	
Size of establishment								
1 to 9 employees	-0.039	0.089	-0.109***	0.016	-0.144***	0.029	-0.018	0.103
10 to 49 employees	-0.2**	0.088	0.000	0.016	-0.095***	0.028	-0.183	0.101
50 to 199 employees	-0.083	0.093	0.005	0.018	-0.113***	0.031	-0.036	0.109
200 or more employees	Ref.		Ref.		Ref.		Ref.	
Higher wage	0.587***	0.050	-	-	-	-	0.702***	0.058
Unemployment benefit per day (in Euros, logs)	-0.293***	0.076	0.053***	0.014	-0.308***	0.024	-0.272***	0.102
Maximum duration of benefits (in days, logs)	-0.317	0.165	-0.051	0.028	0.077	0.053	-0.374	0.196
Duration of unemployment (in days, logs)	0.09	0.079	0.052***	0.013	0.012	0.027	0.121	0.106
Exit to work in relation to the end of entitlements								
after	-1.144***	0.301	-0.278***	0.053	-0.295***	0.098	-1.24***	0.369
1 month before	-0.693**	0.286	-0.022	0.052	-0.162	0.095	-0.795**	0.363
between 2 and 3 months before	-0.615**	0.308	-0.067	0.055	-0.072	0.098	-0.824**	0.375
between 4 and 6 months before	-0.425	0.300	-0.139***	0.054	-0.1	0.099	-0.529	0.360
between 7 and 12 months before	-0.416	0.216	0.018	0.042	-0.038	0.073	-0.419	0.290
between 13 and 18 months before	-0.231	0.191	0.044	0.038	-0.103	0.067	-0.217	0.249
between 19 and 22 months before	-0.252	0.157	0.033	0.031	-0.008	0.055	-0.345	0.203
between 23 and 24 months before	Ref.		Ref.		Ref.		Ref.	
Adjusted R ²	0.17		0.52		0.17		0.20 ^(a)	
Number of observations	3,197		1,860		3,363		8,320	

(a) McFadden's R².

Note: ** significant at 5 %, *** at 1 %. The 2nd, 3rd and 4th columns show the *within* regression of the score given to jobs (2nd column), whether or not the job found is a permanent contract (3rd column) and the fact that a job found after unemployment is better paid than the job before unemployment (4th column). The 5th column shows the results of the fixed effects ordered *logit* regression (Baetschmann *et al.*, 2015) for the job scores. The variables associated with employment contracts, part-time work, the duration of employment and wage are not included in the permanent contract model as they are potentially endogenous. Standard errors are estimated using White's method (using the cluster-robust variance method for the fixed effects ordered *logit* model). The period before the expiry of benefits is expressed in the number of days of benefit and not of unemployment, the concepts being slightly different. The observations used to estimate the models are those for which the dependent variable is different for jobs found before and after benefits have expired. Reading note: Compared to a job found 23 or 24 eligible months before the expiry of entitlements, a job found after the expiry of entitlements is given a score, all else being equal, 1.144 points lower (within model). Similarly, the probability of finding a permanent job is reduced by 27.8% and the probability of obtaining a better paid job is 29.5% lower.

Coverage: Job-seekers finding a job, 4,057 observations.

Sources: Pôle emploi, survey *Parcours des demandeurs d'emploi indemnisés* ; Insee, *Labour Force Survey* for the unemployment rate.

previous job, the lower post-unemployment jobs are valued. This result can no doubt be explained only by a scarcity of available jobs as one progresses up the scale of values. Job-seekers with the best job experience have previously held the most interesting jobs, are more demanding, and therefore probably have a lower chance of finding a more satisfying job (in their eyes).

The Effect of Returning to Employment Nearing the Expiry of Entitlements

Table 4 confirms that personal satisfaction with post-unemployment jobs deteriorates as job seekers experience longer periods of unemployment. Dissatisfaction is statistically significant and of great magnitude when jobs are taken just before and, above all, after the entitlements have expired. Compared to jobs found between 23 and 24 months before the expiry of entitlements, the drop in score averages between 0.6 and 0.7 when a job is found during the 3 months preceding the expiry of entitlements, and 1.1 when it is found after the entitlements have expired (dissatisfaction is then nearly twice as strong as for a drop in wages). Furthermore, jobs found after the expiry of entitlements are more often fixed-term contracts and lower-paid, *ceteris paribus*.

These results remain valid all other things equal, and especially wage and type of work contract. The negative opinions on jobs found around the expiry of entitlements are not only due to their precarious nature. Jobs found after the expiry of entitlements are, in fact, judged to correspond less to the job-seekers' job expectations, are less interesting and more likely to entail poorer working conditions than those found before entitlements end (see Table 4). They are also more often taken for lack of another alternative, especially for financial reasons. While 50% of job-seekers taking a job which did not meet their expectations well before the end of their entitlements stated that the reason was money problems, 59% invoked this reason when they resumed employment towards the end of their entitlements, and 75% after their entitlements have expired. However, we should again clarify that these results do not enable us to state that increases in the duration of benefits improve satisfaction with jobs found around the expiry of entitlements.

In order to study professional de-skilling, it is preferable to remove the wage from the

analysis, because wages partly depend on the jobs' qualification. We notice that jobs found after the end of entitlements are more often under-qualified (in terms of education level, professional experience and qualifications), which would suggest that wage drops of jobs found after the expiry of entitlements are due to the fact that they are under-qualified for the individual.

We also observe that job-seekers leaving unemployment after the expiry of their entitlements accumulate several types of problems. Despite receiving unemployment benefits, they declare more often significant drops in their consumption expenditure (Table 4). Likewise, they state more frequently that their job applications are often rejected,⁵ a result which is not observed when leaving unemployment near the expiry of entitlements.

However, these results may be partly explained, on the one hand, by the unemployed unequal job search effort during their period of unemployment and, on the other hand, by a drop in human capital or negative employability signalling (signal theory) caused by increasingly longer periods of unemployment. Longer periods of unemployment are likely to lead to a loss of skills, preventing the job-seeker from applying for a job at the same quality as the one they had before. Empirical methods have recently validated this theory in the United States (Kroft *et al.*, 2013).

But, these results remain valid if the model includes (together or separately) the job-seeker's opinion as to whether the period of unemployment made him lose, at least in part:

- Know-how and working methods (including knowledge of computer tools);
- Work habits (respect for schedules, management, contacts within the world of work, etc.);
- Or if the job-seeker considers that his or her duration of unemployment has reduced their chances of finding a job. In the survey, these 3 variables are assessed using 3 levels: yes a lot (coded 2 in the model), yes a little (coded 1), not at all (coded 0). Nevertheless, these variables are likely to be endogenous (job-seekers

5. The application rejection frequency variable is endogenous (recursive causality with the duration of unemployment and, therefore, leaving unemployment after the expiry of entitlements). The regression in Table 5 is therefore only indicative.

Table 4
Job Satisfaction and Unemployment Exit to Work in Relation to the Expiry of Entitlements

Dependent variables	Explanatory variables				
	Exit to work in relation to the end of entitlements ...				
	... well before	... in the month-and-a-half before		... after	
		Estimation	Standard error	Estimation	Standard error
<i>Within model</i>					
Score	Ref.	-0.180	0.135	-0.646***	0.161
Matches expectations	Ref.	-0.096**	0.04	-0.176***	0.045
Interest	Ref.	-0.011	0.039	-0.145***	0.045
Working conditions	Ref.	-0.08**	0.038	-0.116***	0.044
Commute time	Ref.	-0.048	0.043	0.032	0.05
Matches skills (education) ^(a)	Ref.	-0.011	0.035	-0.11***	0.04
Matches skills (qualifications) ^(a)	Ref.	-0.049	0.039	-0.112**	0.044
Matches skills (experience) ^(a)	Ref.	-0.069	0.04	-0.11**	0.045
Matches skills ^(a)	Ref.	-0.123	0.096	-0.332***	0.107
Increase in wage ^(a)	Ref.	-0.098**	0.044	-0.235***	0.049
<i>Logit model^(b)</i>					
Job taken as nothing else available	Ref.	0.338**	0.17	0.802***	0.176
Decrease in consumption	Ref.	0.088	0.099	0.291***	0.108
Application often rejected	Ref.	0.162	0.109	0.494***	0.118
Steps to change jobs	Ref.	0.176	0.109	0.406***	0.117

(a) The wage is not included in the corresponding model.

(b) Polytomic ordered *logit* for the first three variables of the sub-array, which take three different values depending on the intensity of the response (not at all, a little, a lot), dichotomous *logit* for the fourth.

Note: ** significant at 5 %, *** at 1 %. *Within* and *logit* models regressing each of the explanatory variables considered on leaving the unemployment, with respect to the expiry of entitlements, and the explanatory variables (not shown in the table). A job matches the skill set if it requires the same level of education, the same qualifications or the same work experience to be performed, as the job held before unemployment. Standard errors are estimated using White's method.

Reading note: all else being equal, the score given to the job is 0.18 lower (difference not significantly different from 0) when it is found during the month-and-a-half preceding the expiry of entitlements, and by 0.646 when is found after the expiry of entitlements, rather than a month and a half before the expiry of entitlements at the latest.

Coverage: Job-seekers finding a job, 4,057 observations.

Sources: *Pôle emploi*, survey *Parcours des demandeurs d'emploi indemnisés*.

with job they dislike may be more inclined to consider that their period of unemployment has made them lose some of their human capital, or has induced negative employability signalling).

Satisfaction With Jobs Found Around the Expiry of Entitlements Seems to Depend on the Financial Resources of the Job-Seeker

To mitigate the effects of endogeneity of the explanatory variables, it may be interesting to compare job-seekers leaving unemployment just before or just after the end of their benefit entitlements. Indeed, since these individuals have left unemployment at similar times, it is plausible to assume that they will suffer similar reductions in job offers as their unemployed period lengthens (either due to a loss of human capital or negative employability signaling).

However, we observe smaller decreases in satisfaction (for post-unemployment jobs compared to pre-unemployment jobs) when employment is found near the expiry of entitlements (at least a month-and-a-half before), rather than afterwards. Compared to jobs found in the run-up to the expiry of entitlements, jobs found after the expiry of entitlements are significantly lower rated, considered to be less interesting, less qualified, less well paid and are less frequently with permanent contracts. They are more frequently taken by default and the person has more often made attempts to change jobs. Conversely, they do not correspond less to the expectations of the job-seeker, nor do they expose him or her to lower working conditions or longer commute times (cf. Tables 3 and 4). These results could be interpreted as the fact that searching for employment without unemployment benefits restricts choice for job-seekers.

To investigate this finding, we included a term in the model for the interaction between the

date of resumption of employment compared to the expiry of entitlements, and the reduction in consumption expenditure experienced during unemployment (Table 5). For jobs found close to the expiry of entitlements, the drop in satisfaction is greater when respondents declare that they have significantly reduced their consumption expenditure: jobs are significantly less well rated, deemed to be less interesting, less qualified and farther away from the job-seeker's expectations.

But for jobs found after the expiry of entitlements, dissatisfaction is statistically identical whether the respondents reduced their consumption strongly during the period of unemployment or whether they did not. Among job-seekers who found a job in the run-up to the end of their entitlements, this dissatisfaction is not statistically different from that of other job-seekers who had greatly reduced their consumption, but it is stronger than for those who had only slightly reduced their consumption.

These results suggest that satisfaction with the job found around the expiry of unemployment benefit entitlements depends on the financial resources of the job-seeker. When returning to work as the expiry of entitlements approaches, job-seekers seem to rate jobs lower when the financial sacrifices they made during their period of unemployment were high. Furthermore, jobs

taken during the run-up to the expiry of entitlements seems to fall into two categories: default jobs when unemployment has significantly reduced the agent's consumption expenditure, satisfactory jobs when job-seekers were under fewer financial constraints.

* *
*

Three conclusions can be drawn from this study. Firstly, elements other than pay and stability contribute to job satisfaction, intrinsic value in particular. Secondly, the expiry of entitlement to benefits seems to create a discontinuity in satisfaction with post-unemployment jobs. Jobs found after entitlements have ended are less well paid and more often short-term than when found during the month-and-a-half before the expiry of entitlements. At the same remuneration and stability levels, they are also scored far lower, considered to be less interesting and often represent a demotion for the respondent. They are usually taken by default, mainly for financial reasons, and individuals are more likely to leave them for another job. Lastly, satisfaction with jobs found as entitlements are coming to an end seems to significantly depend on the sacrifices made in terms of consumption: jobs tend to be scored lower when the latter is high.

Table 5
Job Satisfaction depending on Entitlements' Expiry and the Decrease in Consumption During Unemployment

Dependent variables	Explanatory variables					
	Exit to employment in relation to the end of entitlements...					
	... well before		... in the month-and-a-half before		... after	
	Decrease in consumption		Decrease in consumption		Decrease in consumption	
	Weak	Large	Weak	Large	Weak	Large
Score	Ref.	-0.198 (0.104)	0.012 (0.162)	-0.527*** (0.177)	-0.628*** (0.19)	-0.767*** (0.201)
Matches expectations	Ref.	-0.091*** (0.031)	-0.072 (0.048)	-0.206*** (0.053)	-0.205*** (0.058)	-0.233*** (0.054)
Interest	Ref.	-0.09*** (0.03)	-0.008 (0.046)	-0.099** (0.05)	-0.168*** (0.057)	-0.207*** (0.052)
Matches skills ^(a)	Ref.	-0.212*** (0.074)	-0.149 (0.117)	-0.301** (0.123)	-0.439*** (0.136)	-0.449*** (0.125)

(a) the salary variable is not included in the corresponding model.

Note: ** significant at 5%, *** at 1%. Estimation of parameters and standard errors (in parentheses). *Within* models regressing each of the four dependent variables considered on the exit of unemployment in relation to the expiry of entitlements crossed with the drop in consumption, and the explanatory variables (not shown in the table). A job matches the skill set if it requires the same level of education, the same qualifications and the same work experience as the job held before unemployment. Standard errors are estimated using White's method.

Reading note: All else being equal, the score for jobs found well before the end of entitlements is 0.198 lower when consumer spending has been sharply reduced during unemployment compared to a small reduction, but this difference is not statistically significant.

Coverage: Job-seekers finding a job, 4,057 observations.

Sources: Pôle emploi, survey *Parcours des demandeurs d'emploi indemnisés*.

These results, however, only establish correlations and cannot be interpreted as causal relationships. By themselves, they do not enable us to state that an increase in the maximum duration of benefits would lead to an increase in satisfaction with post-unemployment jobs. It would then be useful to replicate the analysis focusing on the discontinuity encountered around the age of 50, which impacts the

maximum duration of unemployment benefits provided for by the legislation (job-seekers over the age of 50 are eligible for an extra year of benefits). This approach would have the disadvantage of being limited in scope to a specific population, and the results might not be able to be generalised; it would nevertheless allow a more rigorous identification strategy (see Le Barbanchon *et al.*, 2017). □

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