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ARTICLE

A review on the elasticity of unemployment duration to the potential duration of unemployment benefits

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Abstract

In this paper, I present an exhaustive literature review on the empirical work that estimated the impact of the potential duration of unemployment insurance on unemployment duration, measured in a week-to-week elasticity. For each study, I include information on data—county, period of analysis, type of database, gender, and age, estimation—estimation model, unobserved heterogeneity, and source of identification, and average effect. The range of estimates is wide: from 0.02 to 1.3 weeks for each additional week of potential duration. This review suggests that larger estimates belong to studies analyzing North America before the 1990s, Europe in more recent periods, survey data, female, older individuals, using other estimation techniques than survival analysis, or survival analysis that account for unobserved heterogeneity.

KEYWORDS

hazard models, potential duration, unemployment insurance, unobserved heterogeneity

1 | INTRODUCTION

According to job search theory, unemployment benefits affect individuals' job search behaviour by lowering the opportunity cost of being unemployed (Mortensen, 1977). This reaction increases the reservation wage of individuals, thus decreasing the number of *acceptable* jobs and, as a consequence, it increases the probability of remaining unemployed for a longer period of time (Lancaster, 1979; Nickell, 1979). To foster re-employment, unemployment benefits have a predetermined potential duration associated. The choice of the potential duration is critical for policy makers. On the one hand, a longer potential duration might lead to better employer–employee matches. On the other hand, in the presence of moral hazard, it might lead to longer unemployment spells, thus decreasing the human capital of the labor force and eventually affecting economic growth.

Since the 1980s, several authors have devoted their research to investigating the impact of the potential duration of unemployment benefits on the duration it takes a beneficiary to be re-employed. As Holmlund (2014) mentioned, it is clear that the design of unemployment insurance is relevant to explain labor market behavior, particularly the duration of unemployment, but it remains substantial uncertainty about the magnitudes of the effects. In this paper, I provide an exhaustive survey of comparable estimates and discuss whether the presented magnitudes are related to the data or empirical strategies used.

Typically in the analysis on unemployment duration, survival models are estimated to take into account both the duration dependence associated with re-employment rates and the right-censoring of part of the spells observed in the data. Two papers have already attempted to review the impact of the potential duration of unemployment insurance on the hazard (conditional transition) rate to re-employment. Atkinson and Micklewright (1991) was the first work to compare across different studies on the topic, but the authors concluded that the estimates were far from robust. Focusing on the spikes of the hazard rates at the point of benefit exhaustion, Filges et al. (2015) followed the Campbell Collaboration guidelines to produce comparable estimates. However, the authors struggled in the exercise as many of the articles that would be potentially used in the review were dropped from the analysis because they did not provide a measure of the average hazard rates.

In this paper, I revisit the literature with an exhaustive survey of the empirical evidence on the impact of the potential duration of unemployment benefits on the length of unemployment duration. By focusing on duration elasticities rather than on the impact on hazard ratios, I overcome the problem found by Filges et al. (2015). This review is then restricted to studies that provide comparable estimates, that is, studies that answer exactly the question "for each additional week of the potential duration of unemployment insurance, what is the expected change, measured in weeks, in unemployment duration?" So far, only Tatsiramos and Van Ours (2014) provided a comparison on five of these studies. This review provides a comprehensive analysis of 28 studies.

In this paper, I provide more detailed information on the country, period, data, and restrictions on each selected sample, and the indication of the estimation strategy adopted in each study, in order to make it a valuable tool for future researchers in understanding how different sample and estimation choices might lead to different results. Both Pedersen and Westergård-Nielsen (1993) and the reviews referenced above highlighted that different data and specifications lead to considerably different estimates in the literature. This paper makes a step forward in identifying which factors in these choices are related to larger magnitudes.

The remainder of the paper is structured as follows. The following section describes the paper selection process. Section 3 presents the main table that summarizes the literature. Section 4 describes the data used in each study, discussing the period, type of database, and sample restrictions. Section 5 discusses the methodologies employed, including the estimation models, with or without unobserved heterogeneity, and the source of variability used in identification. Section 6 analyzes the magnitude of the results. Finally, Section 7 concludes.

2 | PAPER SEARCH AND SELECTION PROCESS

The main goal of this review is to discuss articles that provide results in a specific way. In this section, I describe the procedure that should allow the reader to expand the review to more recent papers at any point in time.

The main source to search for papers in this literature review was *Scopus – Document Search*. This tool has two main advantages. First, it allows the user to restrict the search to papers published in journals of Economics, Econometrics, and Finance since the 1960s. Second, it allows the user to restrict the search of words to what is written either in the title, the abstract, or the keywords of the paper.

The abstract search tool of *Scopus* is essential to construct a base of papers that are closer to the goal of this literature review. In fact, in the 28 studies I included in the review, only 11 refer to both the potential duration of unemployment benefits and the unemployment duration (or equivalent synonyms) in the title. The reason is that some of them do a broader analysis of the impact of different characteristics of unemployment insurance (potential duration, benefit level, eligibility, search requirements, etc.). See, for example, Landais (2015) for an analysis of both benefit level and potential duration. If instead, one would simplify the title search for the relationship between unemployment insurance and joblessness duration (or equivalent synonyms), one would also capture papers that analyze only the impact of eligibility or recipiency of this income support, such as Ahn and Ugidos-Olazabal (1995). Alternatively, one could restrict the analysis to titles or keywords, but such strategies would either miss relevant papers or provide a wider range of articles with no estimates on the duration elasticity. Among all the journals used in the review, some of them did not provide keywords for their articles. This is something one should not ignore as two of these journals, American Economic Review and American Economic Journal: Economic Policy, usually publish widely cited articles. Both journals are currently in the top 20 of the simple impact factor of the last 10 years.

The abstract search using the filter ABS ((“potential duration” OR “entitlement period” OR “benefit duration” OR “UI duration”) AND (unemployment OR nonemployment OR jobless)) AND (LIMIT-TO (SUBJAREA, “ECON”)) provided 13 articles with a duration-to-duration elasticity, among the 63 results in *Scopus*. By relaxing the search to “ABS ((potential OR entitlement OR benefit OR ui OR insurance) AND (unemployment OR nonemployment OR jobless) AND duration) AND (LIMIT-TO (SUBJAREA, ‘ECON’))”, I found 371 articles, out of which I got seven studies with available duration-to-duration elasticities. If instead, one would perform the previous searches in the titles of the papers one would get 72 papers in the first search and 19 articles in the second search, and one would miss seven articles with available elasticities just because they do not have the word “duration” or “unemployment.”

To complement the 20 articles mentioned above, I have scanned the references mentioned by these articles to find other eight articles with available UI-to-U-duration elasticities. There are four reasons for which these articles were not previously found. First, three of them do not have

abstracts. Even though this was the reason to exclude keywords searches, the lack of abstracts was mainly a tendency of older publications, as it is confirmed by the fact that the three journals in which these articles were published have abstracts in all articles published in their most recent issues. Second, three of them do not appear on the *Scopus* database, but there is no clear evidence of why that happened. Third, one of them is a broader analysis of the labor market policies in the country of study, and therefore both the title and the abstract miss some of the keywords. Fourth and finally, one of them was instead published in a journal that was characterized under "Social Sciences", but still included in this literature review as the journal is the Journal of Comparative Economics.

It should be emphasized that although many researchers have studied the impact of the potential duration of unemployment benefits, most of them estimate hazard models without converting their estimates, using the average hazard duration in more simple models, or integrating across all individuals in more complex models, to UI-to-U-duration elasticities. Moreover, many of the articles that appear in the broader abstract search focused instead on other outcomes than unemployment duration. Some of them focused on individual outcomes such as job search behaviour, reemployment job characteristics such as wage and job stability (duration). Others focused instead on aggregate outcomes such as the unemployment rate (Chodorow-Reich et al., 2019), or even provided a broader analysis of the market externalities (Lalive et al., 2015). Alternatively, other articles are studying the unemployment duration as an outcome but instead looking at the impact of alternative welfare programs, and therefore are caught in the broader abstract search by the word "benefit".

3 | SUMMARY TABLE

Table 1 summarizes the studies in this review, organized by chronological order of publication. For each study, I include information on data, estimation, and average effect.

The information on data includes the country of study, the period of data, the type of database (administrative or survey), whether the average estimates are provided separately by gender, and finally, the age restrictions in the sample selected. Note that some studies have only analyzed some regions in the country (Holen, 1977; Landais, 2015; Lindeboom & Theeuwes, 1993), in which case, the footnote reports which regions are included in the data.

The first column of the estimation information provides the specification used. When a hazard model is estimated, it also provides the distribution considered in the case of parametric hazard models. When available, the next column indicates whether the study used the parametric (gamma) unobserved heterogeneity (Lancaster, 1979), or the nonparametric option (Heckman & Singer, 1984), in which case the number of mass points is reported. Finally, the table also provides the source of variability the authors relied on to identify the causal estimates. The source of exogenous variation is either reported as policy (P), if the authors used a policy change that modified the potential duration of the beneficiaries, space (S), prevalent across counties' borders of the United States and Austria, age (A), as the potential duration is usually defined discontinuously for different age groups, experience (E), if the potential duration varies with the previous job experience of the beneficiaries, and finally timing (T), in case of the potential duration varies by the calendar time the individual gets unemployed.

Finally, the average estimates are reported in the last column of the table. In most cases, these are point estimates but can also be presented in the form of intervals in case the study reports them as such. Katz and Meyer (1990) and Belzil (2001) simulated different variations in the potential

TABLE 1 Literature review – the impact of the potential duration of unemployment benefits on unemployment duration

Study	Country	Period	Data	Sample		Specification [a]	Unob. het [b]	Variability [c]	Avg. effect
Holen (1977)	USA [d]	1969–1970	Admin	Both	>17	OLS	No	S	0.8
Moffitt and Nicholson (1982)	USA	1976	Aurvey	Both	≥ 17	OLS	No	P, S	0.1
Moffitt (1985)	USA	1978–1983	Admin	Male	17–82	Cox PH	No	P, S	0.15
Ham and Rea Jr (1987)	Canada	1975–1980	Admin	Male	18–64	Logistic H	Three mass points	P	0.33
Katz and Meyer (1990)	USA	1978–1983	Survey	Both	20–65	Cox PH	Gamma	P, S	[0.16, 0.22]
Gritz and MaCurdy (1992)	USA	1978–1985	Survey	Male	Young	Logistic H	No	P, S	0.1
Lindeboom and Theeuwes (1993)	Netherlands [e]	1982–1984	Admin	Both	17–63	Piecewise H	Three mass points	E	1.3
Winter-Ebmer (1998)	Austria	1986–1991	Admin	Male	< 65	Weibull H	Gamma	P, S, A	0.03
Terrell and Sorm (1999)	Czech Repub.	1992–1993	Admin	Male	15–64	Weibull H	Gamma	T, E	0.38
	Czech Repub.	1992–1993	Admin	Female	15–64	Weibull H	Gamma	T, E	0.28
Bratberg and Vaage (2000)	Norway	1990–1991	Admin	Both	17–67	Cox PH	Gamma	P, E	n.s.
Card and Levine (2000)	USA	1995–1997	Admin	Both	18–65	Logistic H	No	T, S	0.08
Puhani (2000)	Poland	1994	Survey	Both	18–55	Logistic H	Two mass points	P	n.s.
Belzil (2001)	Canada	1972–1984	Admin	Male	18–25	Weibull H	Four mass points	T, E	[0.14, 0.21]
Lalive and Zweimüller (2004)	Austria	1986–1998	Admin	Both	45–54	Cox PH	No	P, S, A	0.055
Lalive et al. (2006)	Austria	1987–1991	Admin	Both	35–54	Cox PH	Two mass points	P, A, E	[0.05, 0.1]
Van Ours and Vodopivec (2006)	Slovenia	1997–2001	Admin	Male	21–50	Cox PH	No	P, E	0.19
	Slovenia	1997–2001	Admin	Female	21–50	Cox PH	No	P, E	0.58
Lalive (2007)	Austria	1987–1991	Admin	Both	46–53	RDD	No	P, S, A	0.02
Lalive (2008)	Austria	1986–1998	Admin	Male	46–53	RDD	No	P, S, A	0.09
	Austria	1986–1998	Admin	Female	46–53	RDD	No	P, S, A	0.32
Schmieder et al. (2012)	Germany	1975–2004	Admin	Both	40–43	RDD	No	P, A	0.21

(Continues)

TABLE 1 (Continued)

Study	Country	Period	Data	Sample		Specification [a]	Unob. het [b]	Variability [c]	Avg. effect
Bennmarker et al. (2013)	Sweden	1996–1999	Admin	Both	53–58	Cox PH	No	P, A	0.11
Caliendo et al. (2013)	Germany	2001–2007	Admin	Male	44–46	Logistic H	Five mass points	P, A	0.38
	Germany	2001–2007	Admin	Female	44–46	Logistic H	Five mass points	P, A	0.42
Valletta (2014)	USA	2000–2007	Survey	Both	≥ 16	Logistic H	No	P	0.15
Farber and Valletta (2015)	USA	2000–2012	Survey	Both	20–64	Normal H	No	P, S	0.06
Landais (2015)	USA [f]	1976–1984	Admin	Both	17–82	RKD	No	P, S	[0.2, 0.4]
Le Barbanchon (2016)	France	1999–2004	Admin	Both	< 50	Cox PH	No	A, E	0.2
Fackler et al. (2019)	Germany	2008–2013	Admin	Both	48–52	RDD	No	P, A	n.s.
Kyyrä and Pesola (2020)	Finland	2000–2013	Admin	Both	20–54	RDD	No	P	0.72
Lichter and Schiprowski (2021)	Germany	2001–2008	Admin	Both	45–54	DiD	No	P, A	0.02

[a] Cox PH – Cox proportional hazard model; piecewise – piecewise-constant hazard model; exponential, logistic, normal, Weibull H are parametric hazard models; RDD – regression discontinuity design; RKD – regression kink design.

[b] Unobserved heterogeneity is either parametric (gamma distributed) or nonparametric (in which case the number of mass points is indicated).

[c] P – policy; S – space; A – age; E – experience; T – timing.

[d] The sample comes from an experiment conducted in San Francisco, Boston, Phoenix, Seattle, and Minneapolis-St. Paul.

[e] Leiden only.

[f] Idaho, Louisiana, Missouri, New Mexico, Washington only.

TABLE 2 Data summary

Country	Period	Type of data	Gender	Age
Austria	1986–1998	Admin	Both	< 65
Canada	1972–1984	Admin	Male	18–64
Czech Republic	1992–1993	Admin	Both	15–64
Finland	2000–2013	Admin	Both	20–54
France	1999–2004	Admin	Both	< 50
Germany	1975–2013	Admin	Both	40–54
Netherlands	1982–1984	Admin	Both	17–63
Norway	1990–1991	Admin	Both	17–67
Poland	1994	Survey	Both	18–55
Slovenia	1997–2001	Admin	Both	21–50
Sweden	1996–1999	Admin	Both	53–58
USA	1969–2012	Both	Both	17–82

duration of the unemployment benefits, Lalive et al. (2006) obtained different estimates by age, and Landais (2015) splits the period of analysis. If the estimates are found to be nonsignificant the estimated value is not reported, but "n.s." is presented instead.

4 | OVERVIEW OF DATA

Table 2 summarizes the data for which there are estimated elasticities available.

In total, 12 countries were analyzed by the studies in this review. There is a significant emphasis in the United States (nine out of the 28 studies), but Austria and Germany, also have a reasonable share (five and four studies, respectively). The periods of study vary between 1969 and 2013, being the period between the end of the 1980s until the end of the 1990s the most studied. Very few studies cover the periods before 1978 and after the beginning of the Great Recession.

Not surprisingly, in this topic, most of the studies used administrative data. When studying unemployment benefits, it is crucial to get precise data on the length of their potential duration. When analyzing the unemployment duration as the outcome, the survey data might be important in countries where informal employment represents a larger share of the labor market. Otherwise, the administrative data will also provide more precision on the length of nonemployment duration, as the frequency of administrative records is usually higher than that of survey data. Survey data were only used for the United States and Poland.

Most of the studies included both genders in their analysis. However, it should be emphasized that no study focused solely on women, and some of the studies (5) restricted their sample to men only due to gender differences in job search behavior. The period of the analysis used in the male-only studies started, on average, roughly 12 years before than the studies that included both genders, which indicates the literature is accommodating for the increasing female labor force participation in more recent years.

The majority of the samples were truncated below at the ages of 15–20 years old, to account for working age legal requirements and for education participation. Even though these two factors have varied over time, there is no trend in the age of truncation towards higher starting ages. More variability is found at the capping age. Except for some studies that looked at particular

ages affected by specific policy changes, the range of capping ages is between 50 and 82. The main reason behind such variability is the availability of different early retirement schemes across countries.

5 | OVERVIEW OF METHODOLOGIES

Most of the studies in this review used hazard models in their empirical specifications (see Jenkins (2005) for a pedagogic overview of these types of models). As mentioned in the introduction, most of the studies focus on analyzing the transition rate to re-employment. In such a case, the usage of hazard models is crucial to account for the duration dependence that influences the hazard at different points in time. That is, the probability of exiting unemployment at a given week depends on the number of weeks the individual has been unemployed so far.

When looking at the duration of unemployment as the main outcome variable, the authors can either recur to the estimates of their hazard models and convert them to elasticities of unemployment duration, or use a linear model, as long as the amount of censored observations in the data is not too large. Otherwise, the researcher might face a problem of stock sampling, that is, having more observations of individuals that did not leave unemployment because their unemployment spells started earlier.

Holen (1977) explains in the working paper version of the article that they excluded individuals with unemployment duration longer than a spell year. Moffitt (1985) have instead benefited from the enough spacing between the interview that collected information about the start of the unemployment spells and the last interview in which most of the individuals were re-employed. Similarly, the data used by Lalive (2007, 2008) only include less than 1% of the individuals with (right-)censored unemployment spells. Schmieder et al. (2012) capped the nonemployment duration to 36 months, thus avoiding censoring bias. The authors claim that the results are robust to the choice of the cap.

For the papers using hazard models in this review, one should distinguish between semi-parametric and parametric models. In the first case, I distinguish between continuous (Cox (1972) or piecewise) and discrete (cloglog or logistic) proportional hazards (PHs). In the second case, I present the distribution assumed for unemployment duration (exponential, logistic, normal, or Weibull).

Most of the studies opted for estimating hazard models as the lack of large longitudinal datasets led to a high proportion of censored observations. Throughout time, the PHs models were the most used ones in these studies. The PH method is popular because it does not require any assumption on the baseline hazard function. The continuous version (Cox PH) is even handier as it also does not demand the hazard to be constant in each interval of time, which is required when estimating discrete PH models or piecewise-linear models. Among the parametric models, the logistic distribution is the most popular. As Jenkins and García-Serrano (2004) justify, this distribution facilitates the estimation of duration models with large datasets.

In a separate column, I indicate whether the study accounted for unobserved heterogeneity and if so, which type was used. Most of the studies, six out of 10, used a discrete distribution of mass points (Heckman & Singer, 1984). The number of mass points chosen is reported in the table. Typically, in the literature that estimates hazard models to explain the transition rate to re-employment, only two mass points are ad hoc chosen, associated with short- and long-run unemployment. Among the studies that present week-to-week elasticities, more studies used a larger number of mass points in order to improve the explanatory power of the model (see for example,

TABLE 3 Methods summary

Estimation model	Unobserved heterogeneity	Nr. studies
OLS	No	2
Cox PH	Yes (gamma)	8
Logistic H	Yes (mass points)	6
Normal H	No	1
Piecewise H	Yes (mass points)	1
Weibull H	Yes (gamma and mass points)	3
RDD	No	5
RKD	No	1
DiD	No	1

Caliendo et al. (2013)). Four studies have opted to use the gamma distribution and, actually, most of the studies that report duration elasticities has not controlled for unobserved heterogeneity on their estimates (displayed as a "no" in the respective column).

Finally, I added the last column that summarized the source of identification strategy in each study, that is, the tool that exogenously changed the potential duration of unemployed duration for at least some individuals in the data. This column shows the letter P, if the study used a policy reform, S, if the study used spacial variation, A, if the study used age variation, E, if the study used job experience variation, and finally T, if the study used timing of the benefits variation. Most of the studies relied on policy reforms. However, few were the ones that did not use any other source of variation as most of the reforms changed the thresholds of the variables that determine the potential duration of unemployment benefits. Space and age variations are the most commonly explored. For example, in the United States and in Austria, the entitlements are state- or county-specific. When studying Germany, instead, age variation should be taken into account. Finally, some other studies also used variation in timing (of the benefit request), and job experience. In the case of Terrell and Sorm (1999), the potential duration varies (discontinuously) with these two determinants.

Table 3 summarizes the methods used to obtain the estimated elasticities available.

6 | ANALYSIS OF THE ESTIMATES EFFECTS

The range of the average effect, for countries that estimated a significant impact, is widely spread and lies between 0.02 and 1.3 additional weeks of unemployment duration, for each additional week of unemployment benefits.

Only three studies found nonsignificant estimates on unemployment duration. In the case of Fackler et al. (2019), the authors used a longer period of analysis than other studies analyzing Germany for a similar age interval and the same administrative data. In fact, the study that used more similar data in terms of period of analysis presented the smallest statistically significant effect across all studies in this review (Lichter & Schiprowski, 2021). However, it should also be noted that both of these studies have not used a hazard specification to model unemployment duration neither controlled for unobserved heterogeneity. Bratberg and Vaage (2000) and Puhani (2000) studied two countries for which there are no other available estimates, but the authors suggest the absence of the effects might be explained by the persistently high level of long-term

TABLE 4 Average estimates by gender and age

	All ages	Younger individuals	Older individuals
Female	0.43	–	0.37
Male	0.22	0.14	0.24

Note: in case of range estimates, the median point was considered and in case of nonsignificant estimates, a zero was considered.

TABLE 5 Average estimates by type of models used

All models	Survival analysis without U.H.	Survival analysis with U.H.	Others
0.33	0.12	0.37	0.48

Note: only estimates with all ages and both genders were considered in this table. In the case of range estimates, the median point was considered and in the case of nonsignificant estimates, a zero was considered.

unemployment in Norway at the time of analysis, and by the long potential duration of unemployment benefits in Poland, even after the reform.

Across all the studies that reported statistically significant values, most of them indicated an estimate below 0.4. The outliers have some factors in common: either used a single source of variation, selected only specific regions in the country of study or applied alternative estimation methods. Holen (1977) only explored state variation for a few states, with no policy change, and ruled out all unemployment spells longer than one year to minimize the bias from right-censoring when estimating the OLS model. Lindeboom and Theeuwes (1993) also restricted the analysis to few regions and applied a piecewise model, which assumes a constant hazard in each interval of time (a week in this case). Finally, Kyyrä and Pesola (2020) also capped the unemployment spells to estimate the RDD model with minimized bias from right-censoring.

Among North American countries, I conclude that, before the 1990s, the estimates seemed to be larger than those reported after the 2000s. In more recent years, comparing studies with the same age range between North America and Europe, the average estimates are larger in European countries. For Austria, comparing Lalive et al. (2006) with Lalive (2007) that analyze a similar age range, we verify that later data reports higher estimates. Results for Germany are harder to compare as the papers explore different age groups.

In the few studies that reported gender-specific estimates, females presented higher values, on average, which is consistent with their generally lower attachment to the labor market. The few studies that presented estimates for young male individuals report a much smaller average estimate than the studies that focused on beneficiaries around 40 and 50 years old. Table 4 reports a summary of these averages.

Focusing on the estimation, Table 5 illustrates that studies that opt by capping their duration and using non-survival analysis methods tend to report larger estimates, and studies that use unobserved heterogeneity in their hazard models.

Four studies in the analysis highlight the point of this paper on the dependence of the estimates on data and identification. Katz and Meyer (1990) and Belzil (2001) indicated different estimates for different potential duration changes. Lalive et al. (2006) provided different estimates according to different identification strategies. Finally, Landais (2015) provided different estimates for each subperiod of analysis in the data.

7 | CONCLUSIONS

This paper presents an exhaustive literature review on the few articles that provided (converted) elasticities of responses on unemployment duration to the changes in unemployment insurance potential duration.

The main conclusion is that the results are highly dependent on the sample selected (the country of analysis, period of study, gender, and age range), the chosen estimation model (both the empirical specification and whether it accounts for unobserved heterogeneity), and the source of variability that provides exogenous changes on the potential duration of unemployment benefits to identify the average impact on unemployment duration.

Although none of the comparisons provides statistically significant differences between studies, some preliminary conclusions can be taken: estimates of week-to-week elasticities are larger for North America before the 90s, for Europe in more recent periods, for survey data, for females, for older individuals, for estimations that do not use survival analysis, or for survival analysis that account for unobserved heterogeneity.

This study should then be a valuable source for future researchers who want to estimate the potential duration of unemployment insurance on joblessness duration, as it serves as a benchmark to motive further research in a topic that is frequently the object of policy debate.

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