

Online Appendix to “Job Duration Over the Business
Cycle”
(Not for publication)

José Mustre-del-Río

1 Results when standard errors are clustered by job spell

Table 1 through Table 4 reproduce the main estimation results, but cluster standard errors by job spell. These tables show the significance of the main results is essentially unchanged.

2 Results with alternative definitions

Table 5 through Table 8 reproduce the main estimation results using the less restricted NLSY sample where the reason for leaving the prior job is not required. Qualitatively, the results are similar and still suggest the importance of initial conditions for understanding job duration.

Table 1. Hazard estimates

	(1)	(2)
	B95	All
u_0	0.05087 (0.033)	0.10256*** (0.034)
u_t	-0.03955 (0.078)	-0.02589 (0.094)
u_t^2	-0.00633 (0.018)	-0.01314 (0.022)
$u_0 \times u_t$	0.00923 (0.015)	-0.01791 (0.018)
Worker fixed-effects?	NO	YES
No. of obs.	199,833	199,833

Notes: u_0 denotes the unemployment rate at the time when the match begins. u_t denotes the time-varying current unemployment rate. $u_0 \times u_t$ denotes the interaction between the initial and current unemployment rate. Standard errors are clustered by job spell and appear in parentheses. Regressors not reported: cubic in experience, year fixed-effects, and indicators for race, less than high school education, some college, and college graduate (or more). +, *, **, *** indicate statistical significance at 10%, 5%, 1%, and 0.1% levels.

Table 2. Hazard estimates by pre- and post-employment status

	(1)	(2)	(3)	(4)
	NN	NE	EN	EE
u_0	0.53029*** (0.124)	-0.23980 (0.218)	-0.01570 (0.343)	0.14803* (0.077)
u_t	-0.11605 (0.231)	0.00492 (0.448)	0.23553 (0.670)	-0.02423 (0.176)
u_t^2	0.15802*** (0.058)	-0.25318** (0.119)	0.04883 (0.261)	-0.00509 (0.049)
$u_0 \times u_t$	-0.29763*** (0.061)	0.24454** (0.119)	-0.26338 (0.235)	0.00866 (0.045)
Worker fixed-effects?	YES	YES	YES	YES
No. of obs.	42,861	24,861	79,392	52,719

Notes: u_0 denotes the unemployment rate at the time when the match begins. u_t denotes the time-varying current unemployment rate. $u_0 \times u_t$ denotes the interaction between the initial and current unemployment rate. Standard errors are clustered by job spell and appear in parentheses. Column 1 restricts the estimation to spells where the individuals was previously non-employed and becomes non-employed upon match dissolution. Column 2 is estimated spells where the individuals was previously non-employed and but becomes employed in another match upon dissolution of the match in question. Column 3 restricts the estimation to spells where the individual was employed prior to the current match and becomes non-employed upon match dissolution. Column 4 only uses spells where the individual was previously employed and becomes employed in another match once the current match ends. Regressors not reported: cubic in experience, year fixed-effects, and indicators for race, less than high school education, some college, and college graduate (or more).

+, *, **, *** indicate statistical significance at 10%, 5%, 1%, and 0.1% levels.

Table 3. Hazard estimates with starting wages

	(1)	(2)
	B95	All
u_0	0.04393 (0.033)	0.07545** (0.036)
u_t	-0.01510 (0.081)	0.08598 (0.104)
u_t^2	-0.01054 (0.019)	-0.03430 (0.023)
$u_0 \times u_t$	0.00781 (0.016)	-0.01299 (0.019)
lnw_0	-0.72633*** (0.060)	-0.89063*** (0.078)
Worker fixed-effects?	NO	YES
No. of obs.	190,817	190,817

Notes: u_0 denotes the unemployment rate at the time when the match begins. u_t denotes the time-varying current unemployment rate. $u_0 \times u_t$ denotes the interaction between the initial and current unemployment rate. lnw_0 denotes the initial log real wage. Standard errors are clustered by job spell and appear in parentheses. Regressors not reported: cubic in experience, year fixed-effects, and indicators for race, less than high school education, some college, and college graduate (or more). +, *, **, *** indicate statistical significance at 10%, 5%, 1%, and 0.1% levels.

Table 4. Hazard estimates with starting wages and by pre- and post-employment status

	(1)	(2)	(3)	(4)
	NN	NE	EN	EE
u_0	0.54774*** (0.130)	-0.27729 (0.261)	0.08621 (0.077)	0.10592 (0.080)
u_t	-0.03769 (0.250)	0.30631 (0.507)	0.20223 (0.164)	0.07081 (0.193)
u_t^2	0.16242** (0.064)	-0.48500*** (0.168)	-0.01895 (0.036)	0.00713 (0.061)
$u_0 \times u_t$	-0.31147*** (0.064)	0.45546*** (0.176)	-0.03291 (0.031)	0.02776 (0.050)
$\ln w_0$	-0.39574** (0.178)	-0.57845* (0.322)	-0.90436*** (0.131)	-0.98787*** (0.169)
Worker fixed-effects?	YES	YES	YES	YES
No. of obs.	40,851	23,813	76,541	49,612

Notes: u_0 denotes the unemployment rate at the time when the match begins. u_t denotes the time-varying current unemployment rate. $u_0 \times u_t$ denotes the interaction between the initial and current unemployment rate. $\ln w_0$ denotes the initial log real wage. Standard errors are clustered by spell and appear in parentheses. Column 1 restricts the estimation to spells where the individuals was previously non-employed and becomes non-employed upon match dissolution. Column 2 is estimated spells where the individuals was previously non-employed and but becomes employed in another job upon dissolution of the current match. Column 3 restricts the estimation to spells where the individual was employed prior to the current match and becomes non-employed upon match dissolution. Column 4 only uses spells where the individual was previously employed and becomes employed in another match once the current match ends. Regressors not reported: cubic in experience, year fixed-effects, and indicators for race, less than high school education, some college, and college graduate (or more). +, *, **, *** indicate statistical significance at 10%, 5%, 1%, and 0.1% levels.

Table 5. Hazard estimates: extended sample

	(1)	(2)
	B95	All
u_0	0.03737** (0.017)	0.07123*** (0.019)
u_t	-0.02569 (0.047)	-0.00566 (0.047)
u_t^2	0.00299 (0.010)	0.00759 (0.011)
$u_0 \times u_t$	-0.00014 (0.009)	-0.01013 (0.009)
Worker fixed-effects?	NO	YES
No. of obs.	485,562	485,562

Notes: u_0 denotes the unemployment rate at the time when the match begins. u_t denotes the time-varying current unemployment rate. $u_0 \times u_t$ denotes the interaction between the initial and current unemployment rate. Regressors not reported: cubic in experience, year fixed-effects, and indicators for race, less than high school education, some college, and college graduate (or more). +, *, **, *** indicate statistical significance at 10%, 5%, 1%, and 0.1% levels.

Table 6. Hazard estimates by pre- and post-employment status: extended sample

	(1)	(2)	(3)	(4)
	NN	NE	EN	EE
u_0	0.09205* (0.050)	-0.11301** (0.055)	-0.06378 (0.074)	0.05964 (0.046)
u_t	0.04425 (0.092)	-0.05920 (0.144)	-0.09559 (0.141)	0.12248 (0.116)
u_t^2	0.03777* (0.022)	-0.03598 (0.034)	0.07375* (0.040)	-0.00779 (0.033)
$u_0 \times u_t$	-0.04352** (0.020)	0.08560*** (0.031)	0.01890 (0.034)	0.00177 (0.028)
Worker fixed-effects?	YES	YES	YES	YES
No. of obs.	144,547	97,645	142,007	101,363

Notes: u_0 denotes the unemployment rate at the time when the match begins. u_t denotes the time-varying current unemployment rate. $u_0 \times u_t$ denotes the interaction between the initial and current unemployment rate. Standard errors are clustered by job spell and appear in parentheses. Column 1 restricts the estimation to spells where the individuals was previously non-employed and becomes non-employed upon match dissolution. Column 2 is estimated spells where the individuals was previously non-employed and but becomes employed in another match upon dissolution of the match in question. Column 3 restricts the estimation to spells where the individual was employed prior to the current match and becomes non-employed upon match dissolution. Column 4 only uses spells where the individual was previously employed and becomes employed in another match once the current match ends. Regressors not reported: cubic in experience, year fixed-effects, and indicators for race, less than high school education, some college, and college graduate (or more).

+, *, **, *** indicate statistical significance at 10%, 5%, 1%, and 0.1% levels.

Table 7. Hazard estimates with starting wages: extended sample

	(1)	(2)
	B95	All
u_0	0.02510 (0.018)	0.04706** (0.020)
u_t	-0.01652 (0.050)	-0.00787 (0.051)
u_t^2	0.00045 (0.012)	0.00468 (0.012)
$u_0 \times u_t$	-0.00611 (0.008)	-0.01464 (0.010)
lnw_0	-0.62175*** (0.027)	-0.69019*** (0.035)
Worker fixed-effects?	NO	YES
No. of obs.	458,410	458,410

Notes: u_0 denotes the unemployment rate at the time when the match begins. u_t denotes the time-varying current unemployment rate. $u_0 \times u_t$ denotes the interaction between the initial and current unemployment rate. lnw_0 denotes the initial log real wage. Standard errors are clustered by job spell and appear in parentheses. Regressors not reported: cubic in experience, year fixed-effects, and indicators for race, less than high school education, some college, and college graduate (or more). +, *, **, *** indicate statistical significance at 10%, 5%, 1%, and 0.1% levels.

Table 8. Hazard estimates with starting wages and by pre- and post-employment status: extended sample

	(1)	(2)	(3)	(4)
	NN	NE	EN	EE
u_0	0.05750 (0.054)	-0.10655* (0.058)	0.06938* (0.037)	0.03322 (0.047)
u_t	0.02025 (0.092)	-0.14205 (0.157)	0.05674 (0.100)	0.12163 (0.124)
u_t^2	0.04321* (0.023)	-0.05558 (0.037)	0.02501 (0.022)	0.00000 (0.036)
$u_0 \times u_t$	-0.04508** (0.022)	0.10769*** (0.035)	-0.04187** (0.020)	0.00711 (0.030)
lnw_0	-0.52079*** (0.060)	-0.63997*** (0.098)	-0.79106*** (0.058)	-1.01005*** (0.109)
Worker fixed-effects?	YES	YES	YES	YES
No. of obs.	136,369	92,385	134,704	94,952

Notes: u_0 denotes the unemployment rate at the time when the match begins. u_t denotes the time-varying current unemployment rate. $u_0 \times u_t$ denotes the interaction between the initial and current unemployment rate. lnw_0 denotes the initial log real wage. Standard errors are clustered by spell and appear in parentheses. Column 1 restricts the estimation to spells where the individuals was previously non-employed and becomes non-employed upon match dissolution. Column 2 is estimated spells where the individuals was previously non-employed and but becomes employed in another job upon dissolution of the current match. Column 3 restricts the estimation to spells where the individual was employed prior to the current match and becomes non-employed upon match dissolution. Column 4 only uses spells where the individual was previously employed and becomes employed in another match once the current match ends. Regressors not reported: cubic in experience, year fixed-effects, and indicators for race, less than high school education, some college, and college graduate (or more). +, *, **, *** indicate statistical significance at 10%, 5%, 1%, and 0.1% levels.