

**Web Appendix for “Business Volatility, Job Destruction, and Unemployment”**

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**1. The Cross-Industry Relationship between Unemployment Inflows and Job  
Destruction**

Figures W1 and W2 show that time-averaged unemployment inflow rates tend to be higher for industries with higher job destruction rates. For example, Figure W1 says that a difference of 100 basis points in the average quarterly job destruction rate corresponds to a difference of 21 basis points in the average monthly unemployment inflow rate. While Figures W1 and W2 contain few data points, and the between-industry relationship is potentially confounded by omitted factors, the pattern displayed in these figures is quite consistent with the low frequency within-industry relationship documented in the main text. We think the evidence in the main text is more informative and powerful, because it relies on much larger samples and it reflects controls for industry fixed effects.

**2. Robustness Checks on Table 3 Estimates**

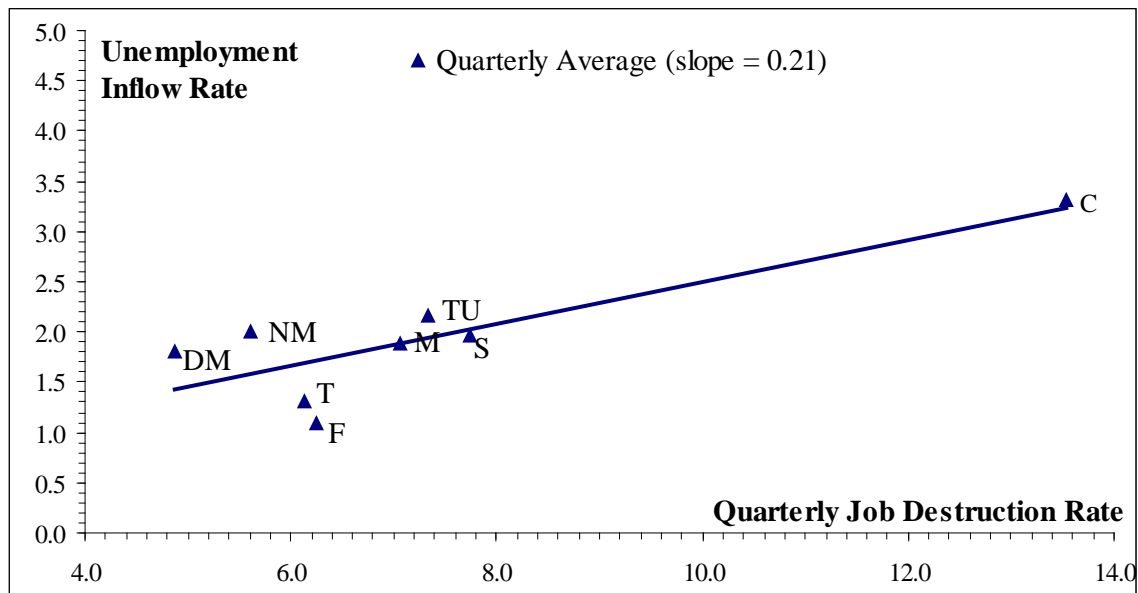
Table W1 shows how the results in Table 3 are affected by certain sample restrictions and by the inclusion or omission of controls for time effects. As in the main text, all specifications include controls for industry effects.

Panel A excludes the BED-CPS observation for the construction industry in the early 1990s, readily seen to be a large outlier in Figure 9. Panels B and C exclude all construction industry observations from the BED-CPS sample. Panel B includes time

effects, and Panel C does not. Panel D includes all observations in the BED-CPS sample but omits time effects.

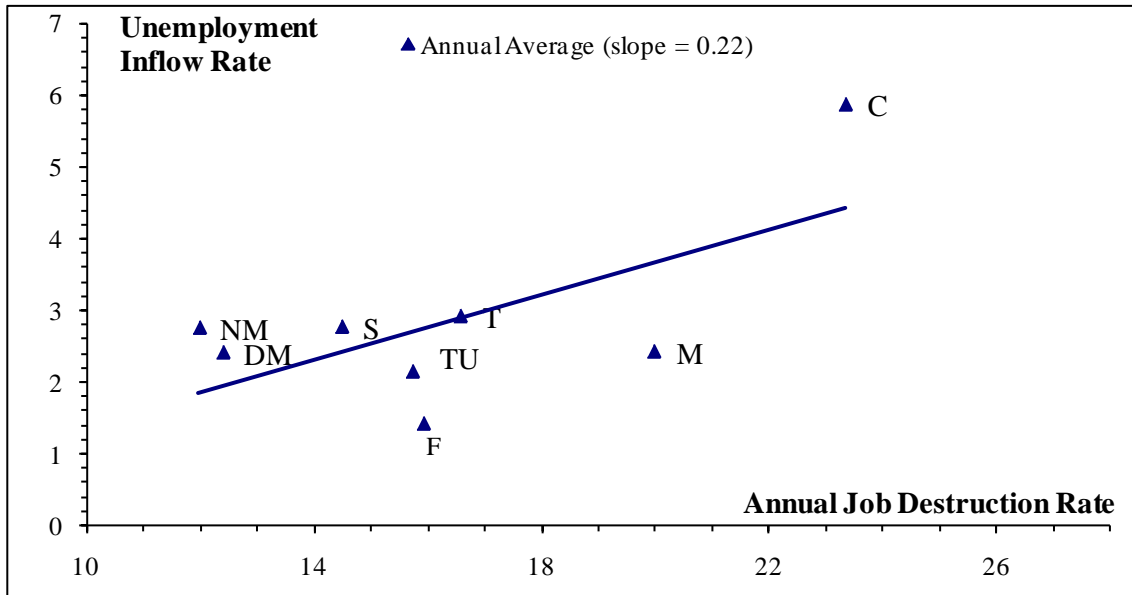
Panel E excludes the LBD-CPS observations for FIRE in 1992 and earlier years. As discussed in footnote 6 of the main text, the LBD data for FIRE are likely of lower quality prior to 1992. Panels F and G exclude construction industry observations from the LBD-CPS sample. Panel F includes times effects, and Panel G does not.

**Figure W1. Job Destruction and Unemployment Inflows by Major Industry Group, Averages of Quarterly Data, 1990-2005**



*Note:* Data points are monthly unemployment inflow rates from the CPS and quarterly job destruction rates from the BED averaged over 1990Q2–2005Q1 and plotted for 8 major industry groups: Mining (M), Construction (C), Durable Manufacturing (DM), Nondurable Manufacturing (NM), Transportation & Utilities (TU), Trade (T), FIRE (F), and Services (S). The solid line the fitted relationship in an OLS regression of the unemployment inflow rate on the job destruction rate, using the time-averaged data.

**Figure W2. Job Destruction and Unemployment Inflows by Major Industry Group, Averages of Annual Data, 1977-2005**



*Note:* Data points are monthly unemployment inflow rates from the CPS and annual job destruction rates from the LBD averaged over 1977-2005 and plotted for 8 major industry groups: Mining (M), Construction (C), Durable Manufacturing (DM), Nondurable Manufacturing (NM), Transportation & Utilities (TU), Trade (T), FIRE (F), and Services (S). The solid line the fitted relationship in an OLS regression of the unemployment inflow rate on the job destruction rate, using the time-averaged data.

**Table W1: Table 3 Robustness Checks: Restricted Samples and Time Effects**

**Dependent Variable: Unemployment Inflows (Average of Monthly Rates)**

*(a) BED and CPS Three-Year Averages,  
Excluding the Construction Industry in the Early 1990s,  
Time Effects Included, N=39*

Independent Variables	(1)	(2)	(3)
$JD_{it}$	0.263 (0.096)		
$JD_{it} / Cont$		0.249 (0.178)	
$JD_{it} / Exit$		0.312 (0.483)	
$JR_{it}$			0.150 (0.037)
R-Squared	0.935	0.935	0.942
Within R-Squared	0.246	0.247	0.325

*(b) BED and CPS Three-Year Averages,  
Excluding All Construction Industry Observations,  
Time Effects Included, N=35*

Independent Variables	(1)	(2)	(3)
$JD_{it}$	0.070 (0.197)		
$JD_{it} / Cont$		0.079 (0.232)	
$JD_{it} / Exit$		0.033 (0.470)	
$JR_{it}$			0.104 (0.121)
R-Squared	0.889	0.889	0.894
Within R-Squared	0.01	0.01	0.052

(c) *BED and CPS Three-Year Averages,  
Excluding All Construction Industry Observations,  
Time Effects Omitted, N=35*

Independent Variables	(1)	(2)	(3)
$JD_{it}$	0.279 (0.089)		
$JD_{it} / Cont$		0.157 (0.220)	
$JD_{it} / Exit$		0.606 (0.427)	
$JR_{it}$			0.166 (0.049)
R-Squared	0.788	0.792	0.791
Within R-Squared	0.303	0.319	0.314

(d) *BED and CPS Three-Year Averages,  
All Industries, Time Effects Omitted, N=40*

Independent Variables	(1)	(2)	(3)
$JD_{it}$	0.323 (0.040)		
$JD_{it} / Cont$		0.269 (0.176)	
$JD_{it} / Exit$		0.483 (0.449)	
$JR_{it}$			0.186 (0.034)
R-Squared	0.916	0.916	0.911
Within R-Squared	0.608	0.609	0.589

(e) LBD and CPS Three-Year Averages,  
 Excluding Observations for FIRE in 1992 and Earlier,  
 Time Effects Included, N=75

Independent Variables	(1)	(2)	(3)	(4)	(5)
$JD_{it}$	0.103 (0.023)				
$JD_{it} / Cont$		0.095 (0.033)			
$JD_{it} / Exit$		0.119 (0.075)			
$JR_{it}$			0.082 (0.020)		
$\sigma_{it}(Vol)$				0.068 (0.016)	
$\sigma_{it}(Disp)$					0.066 (0.016)
R-Squared	0.954	0.954	0.955	0.952	0.954
Within R-squared	0.268	0.268	0.279	0.232	0.264

(f) LBD and CPS Three-Year Averages,  
 Excluding Construction Industry Observations,  
 Time Effects Included, N=70

Independent Variables	(1)	(2)	(3)	(4)	(5)
$JD_{it}$	0.071 (0.017)				
$JD_{it} / Cont$		0.051 (0.029)			
$JD_{it} / Exit$		0.106 (0.052)			
$JR_{it}$			0.027 (0.014)		
$\sigma_{it}(Vol)$				0.027 (0.014)	
$\sigma_{it}(Disp)$					0.022 (0.010)
R-Squared	0.895	0.900	0.890	0.869	0.871
Within R-squared	0.240	0.250	0.062	0.054	0.071

(g) LBD and CPS Three-Year Averages,  
 Excluding Construction Industry Observations  
 Time Effects Omitted, N=70

Independent Variables	(1)	(2)	(3)	(4)	(5)
$JD_{it}$	0.110 (0.024)				
$JD_{it} /Cont$		0.130 (0.042)			
$JD_{it} /Exit$		0.070 (0.061)			
$JR_{it}$			0.091 (0.017)		
$\sigma_{it}(Vol)$				0.071 (0.017)	
$\sigma_{it}(Disp)$					0.066 (0.014)
R-Squared	0.598	0.600	0.675	0.624	0.625
Within R-squared	0.210	0.214	0.302	0.262	0.263

Note: The table reports estimated slope coefficients in regressions of the unemployment inflow rate on the indicated measures. All regressions include industry fixed effects. Robust standard errors reported in parentheses.