

Web Appendix for
*“The Contribution of Large and Small Employers to Job
Creation in Times of High and Low Unemployment”*

June 2011

This Web Appendix shows results from a number of robustness checks, as listed in the main paper. All those robustness checks — and more — can be replicated using the data provided in the Data Folder of this Web Appendix.

Size Cutoffs

Choice of size cutoffs	Correlation of $\Delta\hat{g}_{t-1,t}^{(1/2,0)}$ with ...		
	unemployment	GDP	GDP growth
$\underline{L} = 50, \bar{L} = 1,000$	-0.52 (0.003)	0.45 (0.01)	-0.24 (0.20)
$\underline{L} = 20, \bar{L} = 1,000$	-0.45 (0.01)	0.42 (0.02)	-0.19 (0.30)
$\underline{L} = 100, \bar{L} = 1,000$	-0.55 (0.001)	0.47 (0.007)	-0.27 (0.15)
$\underline{L} = 50, \bar{L} = 500$	-0.49 (0.005)	0.43 (0.02)	-0.22 (0.23)
$\underline{L} = 500, \bar{L} = 500$	-0.58 (0.001)	0.48 (0.006)	-0.30 (0.11)

p-values in parentheses.

Table 1: Unconditional correlations, BDS.

Table 1 shows the unconditional correlation between the growth differential of large vs small employers and three different cyclical indicators (the detrended unemployment rate, detrended GDP, and GDP growth) for various definitions of the “small” and “large” classes of employers. The first row in Table 1 is our benchmark and replicates the numbers in the paper. The following rows are robustness checks.

Sample Period and Detrending Method

Table 2 shows the same unconditional correlations again for two different choices of size cutoffs, this time calculated over the period 1979-2005, i.e. excluding the Great Recession. Table 3 shows

those correlations calculated over the whole sample period 1979-2009, but using a different method to detrend the growth differential $\Delta\hat{g}_{t-1,t}^{(1/2,0)}$: instead of using an HP filter with a high smoothing parameter of 90 (at annual frequency), a *linear trend constructed from the 1979-2005 subsample* (i.e. excluding the Great Recession) was used in Table 3.

Choice of size cutoffs	Correlation of $\Delta\hat{g}_{t-1,t}^{(1/2,0)}$ with ...		
	unemployment	GDP	GDP growth
$\underline{L} = 50, \bar{L} = 1,000$	-0.48 (0.01)	0.42 (0.03)	-0.27 (0.17)
$\underline{L} = 500, \bar{L} = 500$	-0.56 (0.002)	0.46 (0.01)	-0.35 (0.06)

p-values in parentheses.

Table 2: Unconditional correlations, BDS, subsample period 1979-2005.

Choice of size cutoffs	Correlation of $\Delta\hat{g}_{t-1,t}^{(1/2,0)}$ with ...		
	unemployment	GDP	GDP growth
$\underline{L} = 50, \bar{L} = 1,000$	-0.57 (0.001)	0.49 (0.006)	-0.39 (0.03)
$\underline{L} = 500, \bar{L} = 500$	-0.63 (0.0002)	0.52 (0.003)	-0.43 (0.015)

p-values in parentheses.

Table 3: Unconditional correlations, BDS, whole sample, linear detrending using subsample period 1979-2005.

Size Cutoffs: Industry Patterns

Table 4 replicates Table 3 in the main paper using the first and third terciles of the industry-specific firm size distribution as cutoffs for the small and large firm categories, respectively. As mentioned in the main paper, those numbers should be taken with caution as a large number of industry/year observations are affected by suppressed information from the original BDS data set.

TCPU	-.591 (.001)	Services	-.214 (0.247)
FIRE	-.554 (.001)	Wholesale Trade	-.259 (0.160)
Construction	-.498 (.004)	Manufacturing	-.202 (0.277)
Retail Trade	-.525 (.002)	Mining	-.117 (0.531)

p-values in parentheses.

Table 4: Industry-level correlations between average unemployment over past year and differential firm growth, BDS.

State-level Correlations

Table 5 shows the state-by-state correlation coefficients, together with *p*-values, of the large-small firm growth differential and the state-level unemployment rate. As for the industry-level analysis,

those numbers should be taken with caution as a large number of state/year observations are affected by suppressed information from BDS.

Kansas	-.481 (.004)	Vermont	-.125 (.49)
Missouri	-.445 (.009)	Idaho	-.101 (.578)
Illinois	-.394 (.023)	New Mexico	-.097 (.595)
Wisconsin	-.389 (.025)	Texas	-.095 (.601)
North Carolina	-.383 (.027)	Montana	-.076 (.677)
Minnesota	-.36 (.039)	Delaware	-.053 (.77)
Florida	-.327 (.063)	Wyoming	-.037 (.841)
Kentucky	-.322 (.067)	Alaska	-.037 (.838)
Pennsylvania	-.31 (.079)	Ohio	-.036 (.844)
Iowa	-.294 (.097)	Michigan	-.019 (.918)
Colorado	-.286 (.107)	Nevada	-.01 (.956)
Georgia	-.281 (.113)	Oregon	.072 (.689)
Arkansas	-.272 (.126)	D.C.	.075 (.674)
Alabama	-.246 (.167)	Hawaii	.078 (.663)
Utah	-.218 (.224)	Arizona	.084 (.64)
Mississippi	-.215 (.23)	Maine	.09 (.618)
Virginia	-.202 (.262)	Oklahoma	.1 (.579)
North Dakota	-.181 (.315)	Rhode Island	.109 (.543)
New Jersey	-.176 (.329)	Indiana	.122 (.497)
Tennessee	-.175 (.331)	Washington	.133 (.46)
Connecticut	-.174 (.334)	Louisiana	.133 (.457)
South Dakota	-.171 (.343)	New Hampshire	.14 (.437)
New York	-.16 (.377)	Massachusetts	.15 (.405)
California	-.156 (.389)	West Virginia	.245 (.168)

p-values in parentheses.

Table 5: State-level correlations between average unemployment over past year and differential firm growth, BDS.