Internet Appendix for "Firm Age, Investment Opportunities, and Job Creation"

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ABSTRACT

Section I of the Internet Appendix presents results from various robustness tests, while Section II additional details on tables that are included in the main body of the paper.

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Section I of the Internet Appendix presents results from various robustness tests, while Section II additional details on tables that are included in the main body of the paper. Specifically, Table IAI repeats the analysis in Table III using the overlapping sample (2000 to 2007). [1] The results produced from this larger sample are similar to those using the non-overlapping sample, with a larger difference between the coefficients for the youngest and oldest firms. The coefficient measuring the effect of local income growth on startup job creation, estimated in column (5), is 0.286, which implies that a one standard deviation increase in income growth will bring 619 new jobs in startups in the nontradable section per CZ. The effect for firms over 6 years old is statistically indistinguishable from zero.

In Table IAII we show that the results are similar when we weight the regressions by CZ-level population and CZ-level total employment . The results continue to be unchanged when we use alternative scaling for net employment creation, namely, scaling by lagged total employment (i.e., as of $t-2$) in the nontradable sector in each CZ, shown in Panel A of Table IAIII, and scaling by pooled average employment in the sector in the CZ over the years in the sample, shown in Panel B of Table IAIII).

We further find in Table IAV and IAVI that the results are robust to using Census Division fixed effects, as well as estimating the regressions with state-by-year fixed effects.[2] This helps mitigate concerns that we are picking up general regional trends in startup creation rates or in the dynamism of existing firms.

Table IAIV decomposes net job creation into its components: gross job creation and gross job destruction. It shows that our net job creation results are a reflection of high gross job destruction combined with even higher gross job creation. Tables IAV and IAVI explore alternative fixed effects specifications.

In Table IAVII we explore the fact that China's ascension to most-favored nation status

[1] Clustering at the CZ level should largely account for the correlation in standard errors due to the overlapping nature of the sample (we have to measure employment creation over two-year periods because of the way the QWI data are organized). Nonetheless, our main sample only uses non-overlapping observations to avoid this problem.

[2] There are nine Census divisions in the U.S. See `https://www.census.gov/geo/maps-data/maps/pdfs/reference/us_regdiv.pdf`.

in the World Trade Organization in 2000 induced a sharp drop in U.S. manufacturing employment, especially in low-skilled, low-wage industries (Pierce and Schott (2012)). This drop in turn induced geographic variation in employment responses depending on the degree to which a region was exposed to the sectors that were hit hardest by Chinese import penetration (Autor, Dorn, and Hanson (2013)).

This suggests an alternative "Import Bartik" that is constructed in the same fashion as our main instrument (shown in equation (2)), except that we replace the change in nationwide employment by industry with the change in import penetration in each industry. The import penetration measure is constructed as net imports (total imports minus total exports) over total U.S. shipments for each four-digit NAICS manufacturing sub-sector in each year. Results from this extension are reported in Table IAVII. The F-statistic for the first-stage regression is approximately 25, indicating that import penetration is also a powerful way to generate meaningful variation in manufacturing employment and to shock local income. The remaining columns echo the responsiveness by age category shown in the main analysis, both qualitatively and quantitatively.

In Table IAVIII we explore regressions that control for the availability of local credit. Panel A of Table IAVIII repeats our main regressions but includes a measure of local deposits, while Panel B includes a control for the total amount of credit to small businesses in the CZ.

Finally, in Section II, Tables IAIX-IAXII provides additional details from regressions included in the main body of the paper.

Appendix I. Robustness Checks

Table IAI
Job Creation and Local Income Shocks: Overlapping Sample from 2000 to 2007

This table reports regressions of net employment creation at the CZ level on local income growth. We run regressions for the aggregate change in employment and for the change in employment in four age categories (startups, 2-3, 4-5, and 6+ years old). Observations are at the CZ-year-firm age level. The dependent variable is the net change in employment in the nontradable sector (NAICS2 = 44, 45, 72) over the previous two years created in firms of each age category. This variable is scaled by total nontradable employment in the CZ as of 2000. Income growth is the two-year growth in total wages and salaries in the CZ. We instrument for this variable using the Bartik manufacturing shock, which interacts changes in nationwide employment in the manufacturing sector with the preexisting manufacturing composition in a CZ. The analysis is performed on an overlapping sample of 2000 to 2007. Column (1) reports the first-stage regression of income growth on the Bartik instrument. Column (2) is the OLS regression of the net employment change in the CZ on local income growth, and column (3) is the 2SLS regression with instrumented income growth. Columns (4) to (11) perform similar regressions as columns (2) and (3) for firms of different ages. Control variables come from the 2000 Census and the Bureau of Labor Statistics. All regressions include year fixed effects. t-statistics are shown in parentheses and standard errors are clustered by CZ. *, **, and *** denote statistical significance at the 10%, 5%, and 1% level, respectively.

		Aggregate		0-1 year-olds		2-3 year-olds		4-5 year-olds		6+ year-olds	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
	1st Stage	OLS	IV	OLS	IV	OLS	IV	OLS	IV	OLS	IV
Manuf. Employment Bartik	1.033***										
	(7.825)										
Income Growth		0.211**	0.176	0.112***	0.286***	-0.002	-0.078***	0.001	-0.011	0.100	-0.021
		(2.176)	(1.603)	(6.335)	(4.823)	(-0.251)	(-3.560)	(0.149)	(-0.660)	(1.341)	(-0.187)
ln(Total Laborforce)	-0.128***	-0.032**	-0.037*	0.016*	0.038***	-0.007**	-0.017***	-0.001	-0.002	-0.040***	-0.056***
	(-8.913)	(-2.517)	(-1.903)	(1.791)	(3.302)	(-2.153)	(-4.272)	(-0.306)	(-0.767)	(-3.262)	(-2.902)
% Highschool Edu	-0.597***	-0.181	-0.190	0.769***	0.813***	-0.102***	-0.122***	-0.068**	-0.071**	-0.780***	-0.811***
	(-2.776)	(-1.175)	(-1.236)	(5.374)	(5.982)	(-2.758)	(-2.994)	(-2.284)	(-2.385)	(-6.051)	(-6.195)
ln(Total CZ Wages)	0.115***	0.031***	0.035**	-0.012	-0.032***	0.006**	0.015***	0.000	0.002	0.036***	0.051***
	(9.068)	(2.720)	(2.029)	(-1.490)	(-3.060)	(2.075)	(4.150)	(0.058)	(0.586)	(3.344)	(2.924)
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	4,018	4,018	4,018	4,018	4,018	4,018	4,018	4,018	4,018	4,018	4,018
R^2	0.227	0.114	0.113	0.144	0.025	0.022		0.033	0.029	0.069	0.057
F-Statistics	61.23										

Table IAII
Job Creation and Local Income Shocks: Weighted Regressions

This table reports regressions of net employment creation at the CZ level on local income growth. Both the OLS and the 2SLS regressions are weighted by the total population in the CZ as of 2000 (Panel A) and total employment in the CZ (Panel B). Regressions mimic those in Table III in the paper. The dependent variable is the net change in employment in the nontradable sector (NAICS2 = 44, 45, 72) over the previous two years created in firms of each age category. Income growth is the two-year growth in total wages and salaries in the CZ. We instrument for this variable using the Bartik manufacturing shock. The analysis is performed on a "non-overlapping" sample of years 2001, 2003, 2005, and 2007. Columns (4) to (11) perform similar regressions as columns (2) and (3) for firms of different ages. Control variables come from the 2000 Census and the Bureau of Labor Statistics. All regressions include year fixed effects. t-statistics are shown in parentheses and standard errors are clustered by CZ. *, **, and *** denote statistical significance at the 10%, 5%, and 1% level, respectively.

Panel A: Weighted by CZ population in 2000

		Aggregate		0-1 year-olds		2-3 year-olds		4-5 year-olds		6+ year-olds	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
	1st Stage	OLS	IV	OLS	IV	OLS	IV	OLS	IV	OLS	IV
Manuf. Employment Bartik	1.213***										
	(8.377)										
Income Growth		0.290**	0.313***	0.116***	0.276***	0.004	-0.031	0.000	-0.014	0.170*	0.083
		(2.583)	(3.166)	(7.401)	(5.406)	(0.359)	(-1.170)	(0.007)	(-0.812)	(1.885)	(0.846)
ln(Total Laborforce)	-0.113***	-0.034*	-0.031*	0.013*	0.032***	-0.005	-0.009**	-0.001	-0.003	-0.041***	-0.051***
	(-6.012)	(-1.962)	(-1.727)	(1.677)	(3.328)	(-1.380)	(-2.045)	(-0.411)	(-0.917)	(-2.687)	(-2.936)
% Highschool Edu	-0.741***	-0.128	-0.120	0.693***	0.750***	-0.090**	-0.102**	-0.005	-0.010	-0.727***	-0.758***
	(-3.470)	(-0.778)	(-0.753)	(5.103)	(5.824)	(-1.988)	(-2.212)	(-0.156)	(-0.314)	(-5.587)	(-5.688)
ln(Total CZ Wages)	0.101***	0.032**	0.030*	-0.009	-0.026***	0.004	0.008*	0.000	0.002	0.037***	0.046***
	(6.290)	(2.100)	(1.844)	(-1.268)	(-2.984)	(1.313)	(1.955)	(0.134)	(0.701)	(2.725)	(2.926)
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	2,044	2,044	2,044	2,044	2,044	2,044	2,044	2,044	2,044	2,044	2,044
R^2	0.252	0.139	0.139	0.149	0.037	0.010		0.039	0.033	0.098	0.092
F-Statistics	70.17										

	Panel B: Weighted by local employment in 2000										
		Aggregate		0-1 year-olds		2-3 year-olds		4-5 year-olds		6+ year-olds	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
	1st Stage	OLS	IV	OLS	IV	OLS	IV	OLS	IV	OLS	IV
Manuf. Employment Bartik	1.218***										
	(8.373)										
Income Growth		0.289**	0.313***	0.116***	0.276***	0.004	-0.031	-0.000	-0.015	0.169*	0.083
		(2.561)	(3.171)	(7.393)	(5.430)	(0.345)	(-1.173)	(-0.002)	(-0.834)	(1.869)	(0.847)
ln(Total Laborforce)	-0.113***	-0.034**	-0.031*	0.013*	0.032***	-0.005	-0.009**	-0.001	-0.003	-0.041***	-0.052***
	(-5.976)	(-1.968)	(-1.735)	(1.697)	(3.346)	(-1.396)	(-2.061)	(-0.419)	(-0.935)	(-2.693)	(-2.946)
% Highschool Edu	-0.747***	-0.132	-0.123	0.691***	0.748***	-0.089**	-0.101**	-0.004	-0.009	-0.730***	-0.761***
	(-3.490)	(-0.800)	(-0.774)	(5.103)	(5.827)	(-1.973)	(-2.198)	(-0.129)	(-0.291)	(-5.596)	(-5.697)
ln(Total CZ Wages)	0.101***	0.032**	0.030*	-0.009	-0.026***	0.004	0.008**	0.000	0.002	0.037***	0.046***
	(6.253)	(2.105)	(1.853)	(-1.286)	(-2.999)	(1.329)	(1.970)	(0.142)	(0.719)	(2.730)	(2.936)
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	2,044	2,044	2,044	2,044	2,044	2,044	2,044	2,044	2,044	2,044	2,044
R^2	0.251	0.140	0.139	0.149	0.037	0.010	-0.008	0.039	0.033	0.098	0.092
F-Statistics	70.11										

Table IAIII
Job Creation and Local Income Shocks: Different Scaling of Net Employment

This table reports regressions of net employment creation at the CZ level on local income growth. Regressions mimic those in Table III in the paper. The dependent variable is the net change in employment in the nontradable sector (NAICS2 = 44, 45, 72) over the previous two years created in firms of each age category. This variable is scaled by total nontradable employment in the CZ lagged by two years (Panel A) and by the average total nontradable employment in the CZ between 2000 and 2007 (Panel B). Income growth is the two-year growth in total wages and salaries in the CZ. We instrument for this variable using the Bartik manufacturing shock. The analysis is performed on a "non-overlapping" sample of years 2001, 2003, 2005, and 2007. Control variables come from the 2000 Census and the Bureau of Labor Statistics. All regressions include year fixed effects. t-statistics are shown in parentheses and standard errors are clustered by CZ. *, **, and *** denote statistical significance at the 10%, 5%, and 1% level, respectively.

Panel A: Job Creation Scaled by Lagged 2-Year CZ Nontradable Employment

		Aggregate		0-1 year-olds		2-3 year-olds		4-5 year-olds		6+ year-olds	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
	1st Stage	OLS	IV	OLS	IV	OLS	IV	OLS	IV	OLS	IV
Manuf. Employment Bartik	1.146***										
	(8.392)										
Income Growth		0.289***	0.288***	0.109***	0.257***	0.006	-0.034	0.001	-0.009	0.173**	0.074
		(2.931)	(2.717)	(7.643)	(4.823)	(0.603)	(-1.199)	(0.090)	(-0.484)	(2.151)	(0.704)
ln(Total Laborforce)	-0.119***	-0.028*	-0.028	0.014*	0.033***	-0.004	-0.009**	-0.001	-0.002	-0.037***	-0.049***
	(-6.786)	(-1.740)	(-1.489)	(1.926)	(3.259)	(-1.375)	(-2.053)	(-0.560)	(-0.799)	(-2.687)	(-2.665)
% Highschool Edu	-0.657***	-0.049	-0.049	0.756***	0.797***	-0.095**	-0.106**	-0.015	-0.018	-0.695***	-0.722***
	(-3.181)	(-0.317)	(-0.326)	(5.823)	(6.302)	(-2.130)	(-2.330)	(-0.468)	(-0.547)	(-5.343)	(-5.516)
ln(Total CZ Wages)	0.106***	0.027*	0.027	-0.011	-0.027***	0.004	0.008**	0.001	0.002	0.033***	0.044***
	(7.047)	(1.878)	(1.590)	(-1.599)	(-3.005)	(1.305)	(1.970)	(0.307)	(0.614)	(2.741)	(2.671)
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	2,044	2,044	2,044	2,044	2,044	2,044	2,044	2,044	2,044	2,044	2,044
R^2	0.269	0.131	0.131	0.140	0.045	0.011		0.038	0.036	0.098	0.091
F-Statistics	70.43										

	Panel B: Job Creation Scaled by Average CZ Nontradable Employment between 2000 and 2007										
		Aggregate		0-1 year-olds		2-3 year-olds		4-5 year-olds		6+ year-olds	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
	1st Stage	OLS	IV	OLS	IV	OLS	IV	OLS	IV	OLS	IV
Manuf. Employment Bartik	1.146***										
	(8.392)										
Income Growth		0.291***	0.276***	0.080***	0.230***	0.012	-0.025	0.005	-0.005	0.194***	0.076
		(3.016)	(2.721)	(3.966)	(4.541)	(1.519)	(-0.914)	(1.028)	(-0.278)	(2.646)	(0.752)
ln(Total Laborforce)	-0.119***	-0.028*	-0.030*	0.010	0.029***	-0.004	-0.008*	-0.001	-0.002	-0.034***	-0.049***
	(-6.786)	(-1.791)	(-1.650)	(1.378)	(2.936)	(-1.203)	(-1.823)	(-0.397)	(-0.698)	(-2.732)	(-2.745)
% Highschool Edu	-0.657***	-0.054	-0.059	0.754***	0.796***	-0.091**	-0.102**	-0.020	-0.023	-0.697***	-0.730***
	(-3.181)	(-0.363)	(-0.396)	(5.984)	(6.520)	(-2.073)	(-2.259)	(-0.628)	(-0.712)	(-5.452)	(-5.629)
ln(Total CZ Wages)	0.106***	0.027*	0.029*	-0.007	-0.024***	0.003	0.007*	0.000	0.001	0.031***	0.044***
	(7.047)	(1.924)	(1.745)	(-1.083)	(-2.710)	(1.138)	(1.753)	(0.156)	(0.528)	(2.785)	(2.748)
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	2,044	2,044	2,044	2,044	2,044	2,044	2,044	2,044	2,044	2,044	2,044
R^2	0.269	0.134	0.134	0.122	0.014	0.011		0.034	0.031	0.101	0.091
F-Statistics	70.43										

Table IAIV
Hires and Separations

This table reports regressions of gross hires and separations at the CZ level on local income growth. We construct gross job creation and destruction over two-year periods by adding quarterly hires and separations from the LEHD QWI data set for four firm age categories (startups, 2-3, 4-5, and 6+ years old). Observations are at the CZ-year-firm age level. All employment variables are for the nontradable sector (NAICS2 = 44, 45, 72), and they are scaled by total nontradable employment in the CZ as of 2000. Income growth is two-year growth in total wages and salaries in the CZ. We instrument for this variable using the Bartik manufacturing shock. The analysis is performed on a "non-overlapping" sample of years 2001, 2003, 2005, and 2007. Column (1) reports the first-stage regression of income growth on the Bartik instrument. Column (2) is the OLS regression of the net employment change in the CZ on local income growth, and column (3) is the 2SLS regression with instrumented income growth. Columns (4) to (11) perform similar regressions as columns (2) and (3) for firms of different ages. All regressions include year fixed effects and control variables extracted from the 2000 Census and the Bureau of Labor Statistics that mimic those in Table III. t-statistics are shown in parentheses and standard errors are clustered by CZ. *, **, and *** denote statistical significance at the 10%, 5%, and 1% level, respectively.

		Aggregate		0-1 year-olds		2-3 year-olds		4-5 year-olds		6+ year-olds	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
	1st Stage	OLS	IV	OLS	IV	OLS	IV	OLS	IV	OLS	IV
Panel A: Gross Job Creation											
Manuf. Employment Bartik	1.157***										
	(8.470)										
Income Growth		0.459***	1.985***	0.090***	0.282***	0.058***	0.231***	0.043***	0.270***	0.267***	1.199***
		(6.867)	(6.176)	(5.494)	(4.567)	(5.360)	(4.867)	(5.273)	(4.754)	(6.864)	(6.098)
Panel B: Gross Job Destruction											
Manuf. Employment Bartik	1.157***										
	(8.470)										
Income Growth		0.413***	1.868***	0.066***	0.179***	0.058***	0.216***	0.040***	0.234***	0.248***	1.235***
		(6.263)	(6.250)	(5.440)	(3.804)	(5.305)	(4.705)	(4.545)	(5.173)	(6.062)	(6.240)
Panel C: Net Job Creation											
Manuf. Employment Bartik	1.157***										
	(8.470)										
Income Growth		0.046***	0.118**	0.024***	0.103***	-0.000	0.015	0.003	0.036	0.019**	-0.036
		(4.519)	(2.178)	(3.921)	(3.807)	(-0.020)	(1.020)	(0.936)	(1.324)	(2.569)	(-1.370)
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	2,032	2,032	2,032	2,032	2,032	2,032	2,032	2,032	2,032	2,032	2,032
F-Statistics	71.74										

Table IAV
Job Creation and Local Income Shocks: Fixed Effects Specification

This table reports regressions of net employment creation at the CZ level on local income growth. They mimic the regressions in Table III of the paper, but add Census division fixed effects. The dependent variable is the net change in employment in the nontradable sector (NAICS2 = 44, 45, 72) over the previous two years created in firms of each age category. This variable is scaled by total nontradable employment in the CZ as of 2000. Income growth is the two-year growth in total wages and salaries in the CZ. We instrument for this variable using the Bartik manufacturing shock. The analysis is performed on a "non-overlapping" sample of years 2001, 2003, 2005, and 2007. Control variables come from the 2000 Census and the Bureau of Labor Statistics. All regressions include year fixed effects. t-statistics are shown in parentheses and standard errors are clustered by CZ. *, **, and *** denote statistical significance at the 10%, 5%, and 1% level, respectively.

		Aggregate		0-1 year-olds		2-3 year-olds		4-5 year-olds		6+ year-olds	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
	1st Stage	OLS	IV	OLS	IV	OLS	IV	OLS	IV	OLS	IV
Manuf. Employment Bartik	0.646***										
	(4.994)										
Income Growth		0.254**	0.050	0.087***	0.190**	0.007	-0.084	0.005	0.009	0.153*	-0.081
		(2.446)	(0.244)	(6.810)	(1.969)	(0.569)	(-1.639)	(0.564)	(0.246)	(1.757)	(-0.410)
ln(Total Laborforce)	-0.109***	-0.025	-0.048	0.017*	0.028**	-0.005	-0.015**	0.000	0.001	-0.037**	-0.063**
	(-6.221)	(-1.562)	(-1.640)	(1.943)	(2.075)	(-1.300)	(-2.171)	(0.101)	(0.159)	(-2.533)	(-2.283)
% Highschool Edu	-0.521**	0.142	0.063	0.877***	0.918***	-0.141**	-0.177***	-0.081**	-0.080*	-0.535***	-0.624***
	(-2.313)	(0.675)	(0.266)	(4.962)	(5.258)	(-2.450)	(-2.733)	(-1.983)	(-1.850)	(-3.284)	(-3.248)
ln(Total CZ Wages)	0.101***	0.025*	0.046*	-0.013	-0.023*	0.004	0.014**	-0.001	-0.001	0.034***	0.059**
	(6.692)	(1.714)	(1.709)	(-1.620)	(-1.851)	(1.235)	(2.108)	(-0.357)	(-0.294)	(2.602)	(2.277)
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Census Div FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	2,044	2,044	2,044	2,044	2,044	2,044	2,044	2,044	2,044	2,044	2,044
R^2	0.340	0.149	0.125	0.201	0.164	0.017		0.050	0.050	0.102	0.067
F-Statistics	24.94										

Table IAVI
Job Creation and Local Income Shocks: Controlling for Local Trends with State-by-Year FE

This table reports regressions of net employment creation at the CZ level on local income growth. They mimic the regressions in Table III of the paper, but add state×year fixed effects. The dependent variable is the net change in employment in the nontradable sector (NAICS2= 44, 45 and 72) over the previous two years created in firms of each age category. This variable is scaled by total nontradable employment in the CZ as of 2000. Income growth is the two-year growth in total wages and salaries in the CZ. We instrument for this variable using the Bartik manufacturing shock. The analysis is performed on a "non-overlapping" sample of years 2001, 2003, 2005 and 2007. All regressions include year fixed effects. t-statistics are shown in parentheses and standard errors are clustered by CZ. *, **, and *** denote statistical significance at the 10%, 5%, and 1% level, respectively.

		Aggregate		0-1 year-olds		2-3 year-olds		4-5 year-olds		6+ year-olds	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
	1st Stage	OLS	IV	OLS	IV	OLS	IV	OLS	IV	OLS	IV
Manuf. Employment Bartik	0.747***										
	(7.032)										
Income Growth		0.263**	0.306*	0.094***	0.428***	-0.000	-0.069*	-0.000	-0.031	0.170*	-0.022
		(2.267)	(1.886)	(6.129)	(4.705)	(-0.042)	(-1.767)	(-0.041)	(-0.987)	(1.737)	(-0.141)
State×Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	2,044	2,044	2,044	2,044	2,044	2,044	2,044	2,044	2,044	2,044	2,044
R^2	0.458	0.269	0.268	0.313		0.147	0.101	0.165	0.148	0.227	0.208
F-Statistics	49.45										

Table IAVII
Job Creation and Local Income Shocks: Import Penetration as the Instrument

This table performs the same analysis as Table III using a different instrument for the local income growth, namely, a measure of local import penetration. Import, export, and total shipments data at the four-digit NAICS level from Peter Schott's webpage `http://faculty.som.yale.edu/peterschott/sub_international.htm`. This table reports regressions of net employment creation at the CZ level on local income growth. Regressions are run for the aggregate change in employment and for the change in employment in each of the 4 different age categories. Observations are at the CZ-year-firm age level. The dependent variable is the net change in employment in the nontradable sector (NAICS2 = 44, 45, 72) over the previous two years created in firms of each age category. This variable is scaled by total nontradable employment in the CZ as of 2000. Income growth is the two-year growth in total wages and salaries in the CZ. We instrument for this variable using an interaction of changes in import penetration by four-digit NAICS manufacturing sector with the preexisting manufacturing composition in a CZ. The analysis is performed on a "non-overlapping" sample of years 2001, 2003, 2005, and 2007. Column (1) reports the first-stage regression of income growth on the Import Bartik instrument. Column (2) is the OLS regression of the net employment change in the CZ on local income growth, and column (3) is the 2SLS regression with instrumented income growth. Columns (4) to (11) perform similar regressions as column (2) and (3) for the net change in employment in firms of different ages. Control variables come from the 2000 Census and the Bureau of Labor Statistics. All regressions include year fixed effects. t-statistics are shown in parentheses. Standard errors are clustered by CZ. *, **, and *** denote statistical significance at the 10%, 5%, and 1% level, respectively.

		Aggregate		0-1 year-olds		2-3 year-olds		4-5 year-olds		6+ year-olds	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
	1st Stage	OLS	IV	OLS	IV	OLS	IV	OLS	IV	OLS	IV
Import Bartik	1.057***										
	(5.514)										
Income Growth		0.300***	0.324**	0.119***	0.368***	0.006	-0.080**	0.000	-0.016	0.175**	0.052
		(2.953)	(2.106)	(7.333)	(4.297)	(0.557)	(-1.980)	(0.054)	(-0.495)	(2.147)	(0.357)
ln(Total Laborforce)	-0.121***	-0.031*	-0.028	0.011	0.042***	-0.004	-0.015**	-0.001	-0.003	-0.037***	-0.053**
	(-6.833)	(-1.907)	(-1.177)	(1.385)	(3.105)	(-1.195)	(-2.473)	(-0.307)	(-0.597)	(-2.604)	(-2.278)
% Highschool Edu	-0.443**	-0.083	-0.077	0.730***	0.800***	-0.089*	-0.113**	-0.011	-0.015	-0.714***	-0.749***
	(-2.130)	(-0.516)	(-0.484)	(5.205)	(5.801)	(-1.904)	(-2.201)	(-0.318)	(-0.450)	(-5.381)	(-5.452)
ln(Total CZ Wages)	0.108***	0.030**	0.027	-0.007	-0.035***	0.003	0.013**	0.000	0.002	0.034***	0.047**
	(7.090)	(2.048)	(1.257)	(-1.036)	(-2.883)	(1.132)	(2.400)	(0.042)	(0.464)	(2.655)	(2.272)
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	2,044	2,044	2,044	2,044	2,044	2,044	2,044	2,044	2,044	2,044	2,044
R^2	0.248	0.135	0.135	0.141		0.009		0.035	0.028	0.095	0.084
F-Statistics	30.4										

Table IAVIII
Job Creation and Local Income Shocks: Controlling for Local Deposits and Credit to Small Businesses

This table reports regressions of net employment creation at the CZ level on local income growth. Panel A includes controls for CZ-level deposit growth and Panel B controls for growth in CZ-level small business loans. We run regressions for the aggregate change in employment and for the change in employment in four age categories (startups, 2-3, 4-5, and 6+ years old). Observations are at the CZ-year-firm age level. The dependent variable is the net change in employment in the nontradable sector (NAICS2 = 44, 45, 72) over the previous two years created in firms of each age category. This variable is scaled by total nontradable employment in the CZ as of 2000. Income growth is the two-year growth in total wages and salaries in the CZ. We instrument for this variable using the Bartik manufacturing shock, which interacts changes in nationwide employment in the manufacturing sector with the preexisting manufacturing composition in a CZ. The analysis is performed on a "non-overlapping" sample of years 2001, 2003, 2005, and 2007. Column (1) reports the first-stage regression of income growth on the Bartik instrument. Column (2) is the OLS regression of the net employment change in the CZ on local income growth, and column (3) is the 2SLS regression with instrumented income growth. Columns (4) to (11) perform similar regressions as columns (2) and (3) for firms of different ages. Panel B performs the same analysis as Panel A on an overlapping sample of 2000 to 2007. CZ-level deposit growth comes from the FDIC and growth in small business loans is from CRA data. Control variables come from the 2000 Census and the Bureau of Labor Statistics. All regressions include year fixed effects. t-statistics are shown in parentheses and standard errors are clustered by CZ. *, **, and *** denote statistical significance at the 10%, 5%, and 1% level, respectively.

Panel A: Controlling for local deposit growth

		Aggregate		0-1 year-olds		2-3 year-olds		4-5 year-olds		6+ year-olds	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
	1st Stage	OLS	IV	OLS	IV	OLS	IV	OLS	IV	OLS	IV
Manuf. Employment Bartik	1.127***										
	(8.361)										
Income Growth		0.293***	0.296***	0.115***	0.271***	0.006	-0.035	0.001	-0.011	0.171**	0.070
		(2.899)	(2.797)	(7.422)	(4.890)	(0.585)	(-1.204)	(0.102)	(-0.538)	(2.093)	(0.666)
ln(Total Laborforce)	-0.114***	-0.029*	-0.028	0.012	0.031***	-0.004	-0.009*	-0.001	-0.002	-0.036**	-0.048**
	(-6.566)	(-1.822)	(-1.505)	(1.527)	(2.998)	(-1.233)	(-1.951)	(-0.349)	(-0.695)	(-2.557)	(-2.571)
% Highschool Edu	-0.661***	-0.092	-0.091	0.726***	0.772***	-0.089*	-0.101**	-0.010	-0.013	-0.720***	-0.749***
	(-3.271)	(-0.573)	(-0.581)	(5.210)	(5.728)	(-1.895)	(-2.090)	(-0.307)	(-0.403)	(-5.408)	(-5.581)
ln(Total CZ Wages)	0.101***	0.027*	0.027	-0.009	-0.025***	0.004	0.008*	0.000	0.001	0.032***	0.043**
	(6.786)	(1.949)	(1.593)	(-1.195)	(-2.725)	(1.174)	(1.871)	(0.091)	(0.500)	(2.594)	(2.554)
Local Deposit Growth	0.023**	0.015*	0.015**	0.007**	0.003	-0.001	0.000	-0.001	-0.000	0.010	0.012**
	(2.279)	(1.893)	(2.270)	(2.129)	(1.311)	(-0.580)	(0.091)	(-0.896)	(-0.432)	(1.598)	(2.152)
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	2,044	2,044	2,044	2,044	2,044	2,044	2,044	2,044	2,044	2,044	2,044
R^2	0.277	0.138	0.138	0.145	0.050	0.009	-0.014	0.035	0.032	0.097	0.089
F-Statistics	69.91										

Panel B: Controlling for local small business loan growth											
		Aggregate		0-1 year-olds		2-3 year-olds		4-5 year-olds		6+ year-olds	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
	1st Stage	OLS	IV	OLS	IV	OLS	IV	OLS	IV	OLS	IV
Manuf. Employment Bartik	1.101***										
	(8.680)										
Income Growth		0.301***	0.310***	0.115***	0.273***	0.007	-0.035	0.003	-0.006	0.177**	0.077
		(2.955)	(2.796)	(7.309)	(4.789)	(0.635)	(-1.166)	(0.413)	(-0.311)	(2.152)	(0.696)
ln(Total Laborforce)	-0.114***	-0.031*	-0.030	0.011	0.030***	-0.004	-0.009*	-0.001	-0.002	-0.038***	-0.049***
	(-6.265)	(-1.906)	(-1.597)	(1.445)	(2.938)	(-1.180)	(-1.941)	(-0.439)	(-0.654)	(-2.603)	(-2.649)
% Highschool Edu	-0.598***	-0.081	-0.079	0.714***	0.751***	-0.077*	-0.086*	-0.015	-0.017	-0.705***	-0.728***
	(-2.995)	(-0.502)	(-0.502)	(5.247)	(5.724)	(-1.746)	(-1.932)	(-0.460)	(-0.520)	(-5.426)	(-5.543)
ln(Total CZ Wages)	0.102***	0.030**	0.029*	-0.007	-0.024***	0.003	0.008*	0.000	0.001	0.034***	0.044***
	(6.569)	(2.045)	(1.697)	(-1.066)	(-2.646)	(1.093)	(1.845)	(0.145)	(0.440)	(2.651)	(2.640)
Local Small Business Loan Growth	0.012**	-0.001	-0.001	0.001	-0.001	0.000	0.001	-0.002**	-0.001**	-0.000	0.001
	(2.143)	(-0.299)	(-0.274)	(0.646)	(-0.583)	(0.215)	(0.768)	(-2.356)	(-2.113)	(-0.103)	(0.338)
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	2,044	2,044	2,044	2,044	2,044	2,044	2,044	2,044	2,044	2,044	2,044
R^2	0.278	0.135	0.135	0.142	0.044	0.010	-0.014	0.041	0.039	0.096	0.089
F-Statistics	75.34										

Appendix II. Supplementary Detailed Regressions

Table IAIX
Job Creation and Local Income Shocks: Reduced Form

This table reports regressions of net employment creation at the CZ level on the national change in manufacturing employment at the sub-sector level weighted by the local region's exposure to that sub-sector (Manufacturing Employment Bartik). We run regressions for the aggregate change in employment and for the change in employment in four age categories (startups, 2-3, 4-5, and 6+ years old). Observations are at the CZ-year-firm age level. The dependent variable is the net change in employment in the nontradable sector (NAICS2 = 44, 45, 72) over the previous two years created in firms of each age category. This variable is scaled by total nontradable employment in the CZ as of 2000. The analysis is performed on a continuous version of the Bartik variable using non-overlapping samples in years 2001, 2003, 2005, and 2007. T-statistics in parentheses are based on standard errors clustered at the CZ level. *, **, and *** denote statistical significance at the 10%, 5%, and 1% level, respectively.

	Aggregate	0-1 yrs	2-3 years	4-5 years	6+ years
	(1)	(2)	(3)	(4)	(5)
	OLS	OLS	OLS	OLS	OLS
Manuf. Employment Bartik	0.351***	0.313***	-0.040	-0.013	0.090
	(2.610)	(4.205)	(-1.236)	(-0.559)	(0.732)
ln(Total Laborforce)	-0.067***	-0.002	-0.005*	-0.001	-0.059***
	(-5.385)	(-0.252)	(-1.716)	(-0.377)	(-5.551)
% Highschool Edu	-0.283	0.594***	-0.078	-0.007	-0.793***
	(-1.423)	(3.949)	(-1.604)	(-0.191)	(-5.237)
ln(Total CZ Wages)	0.062***	0.004	0.004	0.000	0.053***
	(5.534)	(0.555)	(1.626)	(0.096)	(5.546)
Year FE	Yes	Yes	Yes	Yes	Yes
Observations	2,044	2,044	2,044	2,044	2,044
R^2	0.080	0.099	0.009	0.035	0.073

Table IAX
Startup Job Creation and Job Resilience—Results by Year

This table reports the share of employment of four cohorts of new firms (between 2000 and 2003) and asks how many jobs remain after 2 or 4 years in those firms. The table shows the number of employees in these cohorts of firms at the time that they are started, 2 years later, and 4 years later. Employment is scaled by the total employment in each CZ as of 2000. The sample includes only firms until 2003 because that is the last year that we can track firms for a full four years. T-statistics for the difference between high and low shock areas are shown in parentheses on the last line of each panel.

	Job creation from startups	Jobs remaining after 2 years	Jobs remaining after 4 years
Panel A: 2000 Cohort			
Low Bartik Area	4.81%	3.88%	3.50%
Medium Bartik Area	5.50%	4.43%	3.83%
High Bartik Area	5.25%	4.37%	3.86%
High Bartik−Low Bartik	0.44%	0.49%*	0.36%
t-statistics	(1.32)	(1.68)	(1.32)
Low ΔIncome Area	4.51%	3.64%	3.21%
Medium ΔIncome Area	4.98%	4.12%	3.62%
High ΔIncome Area	6.06%	4.91%	4.36%
High ΔIncome−Low ΔIncome	1.55%***	1.27%***	1.15%***
t-statistics	(5.19)	(5.37)	(5.31)
Panel B: 2001 Cohort			
Low Bartik Area	3.94%	3.54%	3.10%
Medium Bartik Area	4.63%	4.03%	3.51%
High Bartik Area	4.98%	4.34%	3.82%
High Bartik−Low Bartik	1.04%***	0.81%***	0.71%***
t-statistics	(4.36)	(3.58)	(3.27)
Low ΔIncome Area	3.99%	3.52%	3.09%
Medium ΔIncome Area	4.52%	3.91%	3.37%
High ΔIncome Area	5.06%	4.49%	3.96%
High ΔIncome−Low ΔIncome	1.07%***	0.97%***	0.87%***
t-statistics	(4.33)	(4.12)	(3.91)

	Job creation from startups	Jobs remaining after 2 years	Jobs remaining after 4 years
Panel C: 2002 Cohort			
Low Bartik Area	3.48%	3.07%	2.68%
Medium Bartik Area	4.53%	4.01%	3.43%
High Bartik Area	4.98%	4.47%	3.97%
High Bartik−Low Bartik	1.50%***	1.39%***	1.29%***
t-statistics	(6.63)	(6.54)	(6.13)
Low ΔIncome Area	4.03%	3.71%	3.21%
Medium ΔIncome Area	4.13%	3.66%	3.13%
High ΔIncome Area	4.83%	4.18%	3.72%
High ΔIncome−Low ΔIncome	0.80%***	0.47%**	0.51%**
t-statistics	(3.29)	(2.08)	(2.30)
Panel D: 2003 Cohort			
Low Bartik Area	3.66%	3.02%	2.56%
Medium Bartik Area	4.77%	4.06%	3.48%
High Bartik Area	5.06%	4.34%	3.84%
High Bartik−Low Bartik	1.40%***	1.32%***	1.28%***
t-statistics	(5.89)	(6.51)	(6.70)
Low ΔIncome Area	4.27%	3.68%	3.16%
Medium ΔIncome Area	4.32%	3.53%	3.11%
High ΔIncome Area	4.91%	4.22%	3.61%
High ΔIncome−Low ΔIncome	0.64%***	0.54%**	0.45%**
t-statistics	(2.65)	(2.55)	(2.32)

Table IAXI
Job Creation and Local Income Shocks: All Industries–Comparison of QWI and BDS Data

This table reports regressions of net employment creation at the CZ and MSA level on local income growth. The dependent variable is the net change in employment in all sectors over the previous two years in firms of each age category. This variable is scaled by total nontradable employment in the region (CZ in Panel A, MSA in Panels B and C) as of 2000. Income growth is the two-year growth in total wages and salaries in the region (CZ in Panel A, MSA in Panels B and C). We instrument for this variable using the Bartik manufacturing shock, which interacts changes in nationwide employment in the manufacturing sector with the preexisting manufacturing composition in an area. All panels use a "non-overlapping" sample of years 2001, 2003, 2005, and 2007. Column (1) reports the first-stage regression of income growth on the manufacturing employment instrument. Column (2) is the OLS regression of the net employment change on local income growth, and column (3) is the 2SLS regression with instrumented income growth. Columns (4) to (11) perform similar regressions as columns (2) and (3) for firms of different ages. Control variables come from the 2000 Census and the Bureau of Labor Statistics. All regressions include year fixed effects. t-statistics are shown in parentheses and standard errors are clustered by CZ in Panel A and by MSA in Panel B and C. *, **, and *** denote statistical significance at the 10%, 5%, and 1% level, respectively.

	Panel A: CZ-Level, QWI Data, Nonoverlapping Sample (01, 03, 05, 07)										
		Aggregate		0-1 year-olds		2-3 year-olds		4-5 year-olds		6+ year-olds	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
	1st Stage	OLS	IV	OLS	IV	OLS	IV	OLS	IV	OLS	IV
Manuf. Employment Bartik	1.124***										
	(8.506)										
Income Growth		0.383***	0.456***	0.162***	0.394***	0.015	-0.061**	0.005	-0.027	0.202***	0.149*
		(4.126)	(4.965)	(6.559)	(7.664)	(1.647)	(-2.294)	(0.684)	(-1.431)	(3.212)	(1.719)
ln(Total Laborforce)	-0.120***	-0.029*	-0.020	0.001	0.030***	-0.001	-0.010**	-0.002	-0.006*	-0.028**	-0.035**
	(-6.895)	(-1.861)	(-1.261)	(0.168)	(2.934)	(-0.303)	(-2.234)	(-0.698)	(-1.775)	(-2.234)	(-2.307)
% Highschool Edu	-0.715***	0.030	0.056	0.465***	0.546***	-0.039	-0.065	-0.017	-0.028	-0.379***	-0.398***
	(-3.480)	(0.198)	(0.386)	(3.193)	(4.083)	(-0.971)	(-1.434)	(-0.482)	(-0.762)	(-3.271)	(-3.363)
ln(Total CZ Wages)	0.107***	0.026*	0.017	-0.002	-0.028***	0.001	0.010**	0.001	0.005*	0.025**	0.031**
	(7.168)	(1.837)	(1.220)	(-0.258)	(-3.005)	(0.529)	(2.351)	(0.682)	(1.758)	(2.239)	(2.280)
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	2,079	2,079	2,079	2,079	2,079	2,079	2,079	2,079	2,079	2,079	2,079
R^2	0.268	0.197	0.192	0.139		0.011	-0.093	0.023		0.109	0.106
F-Statistics	72.35										

Panel B: MSA-Level, QWI Data, Nonoverlapping Sample (01, 03, 05, 07)

		Aggregate		0-1 year-olds		2-3 year-olds		4-5 year-olds		6+ year-olds	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
	1st Stage	OLS	IV	OLS	IV	OLS	IV	OLS	IV	OLS	IV
Manuf. Employment Bartik	1.655***										
	(8.565)										
Income Growth		0.644***	0.805***	0.165***	0.342***	0.029***	0.034	0.019*	0.012	0.431***	0.416***
		(15.253)	(9.923)	(5.658)	(5.927)	(5.462)	(1.465)	(1.762)	(0.710)	(11.583)	(7.412)
ln(Total Laborforce)	-0.068***	0.001	0.011	-0.008	0.003	-0.002	-0.002	-0.003	-0.004	0.014	0.013
	(-4.333)	(0.061)	(1.126)	(-1.087)	(0.468)	(-0.846)	(-0.668)	(-1.362)	(-1.531)	(1.548)	(1.366)
% Highschool Edu	-1.227***	-0.151	0.003	-0.356**	-0.185	0.088*	0.092	0.030	0.024	0.086	0.072
	(-5.003)	(-0.795)	(0.017)	(-2.000)	(-1.119)	(1.710)	(1.628)	(0.679)	(0.481)	(0.596)	(0.477)
ln(Total CZ Wages)	0.059***	-0.003	-0.012	0.005	-0.005	0.002	0.002	0.003	0.003	-0.013	-0.012
	(4.153)	(-0.316)	(-1.393)	(0.847)	(-0.752)	(0.966)	(0.766)	(1.336)	(1.461)	(-1.619)	(-1.426)
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1,386	1,386	1,386	1,386	1,386	1,386	1,386	1,386	1,386	1,386	1,386
R^2	0.308	0.358	0.341	0.079	0.009	0.027	0.027	0.039	0.038	0.201	0.201
F-Statistics	73.36										

Panel C: MSA-Level, BDS Data, Nonoverlapping Sample (01, 03, 05, 07)

		Aggregate		0-1 year-olds		2-3 year-olds		4-5 year-olds		6+ year-olds	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
	1st Stage	OLS	IV	OLS	IV	OLS	IV	OLS	IV	OLS	IV
Manuf. Employment Bartik	1.729***										
	(8.674)										
Income Growth		0.645***	1.247***	0.222***	0.408***	0.003	-0.004	0.004	-0.005	0.415***	0.848***
		(6.164)	(8.058)	(6.512)	(11.339)	(0.694)	(-0.282)	(1.087)	(-0.434)	(5.420)	(5.581)
ln(Total Laborforce)	-0.071***	-0.042***	-0.005	0.004	0.015**	-0.004*	-0.004**	0.000	-0.000	-0.042***	-0.015
	(-4.035)	(-2.853)	(-0.276)	(0.527)	(2.179)	(-1.876)	(-2.045)	(0.073)	(-0.288)	(-3.216)	(-0.985)
% Highschool Edu	-1.195***	-0.324	0.235	0.013	0.187	-0.018	-0.026	-0.020	-0.029	-0.299	0.103
	(-4.613)	(-0.929)	(0.742)	(0.086)	(1.438)	(-0.435)	(-0.599)	(-0.646)	(-0.899)	(-1.139)	(0.382)
ln(Total CZ Wages)	0.064***	0.039***	0.003	-0.003	-0.014**	0.004**	0.004**	0.000	0.001	0.038***	0.012
	(3.938)	(2.938)	(0.184)	(-0.495)	(-2.216)	(1.973)	(2.136)	(0.023)	(0.398)	(3.265)	(0.891)
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1,384	1,384	1,384	1,384	1,384	1,384	1,384	1,384	1,384	1,384	1,384
R^2	0.299	0.162	0.083	0.271	0.096	0.042	0.041	0.034	0.029	0.110	0.064
F-Statistics	75.24										

Table IAXII
Job Creation and Local Income Shocks: Firm Age by Firm Size—Detail

This table reports regressions of net employment creation at the MSA level on local income growth (this is a detailed version of Table XII). Regressions are run for the aggregate change in employment in each of the four different age categories and three size categories. Panel A focuses on the firms with fewer than 20 employees, Panel B analyzes the firms with 20 to 100 employees while Panel C focuses on larger firms with more than 100 employees. The dependent variable is the net change in employment in all sectors over the previous two years created in firms of each age-size category. This variable is scaled by total nontradable employment in the MSA as of 2000. Income growth is the two-year growth in total wages and salaries in the MSA. We instrument for this variable using the Bartik manufacturing shock, which interacts changes in nationwide employment in the manufacturing sector with the preexisting manufacturing composition in the MSA. The analysis is performed on a "non-overlapping" sample of years 2001, 2003, 2005, and 2007. In each panel, Column (1) reports the first-stage regression of income growth on the Bartik instrument. Column (2) is the OLS regression of the net employment change in the MSA on local income growth, and column (3) is the 2SLS regression with instrumented income growth. Columns (4) to (11) perform similar regressions as columns (2) and (3) for firms of different ages. Control variables come from the 2000 Census and the Bureau of Labor Statistics. All regressions include year fixed effects. t-statistics are shown in parentheses and standard errors are clustered by MSA. *, **, and *** denote statistical significance at the 10%, 5%, and 1% level, respectively.

	Panel A: Employee<20, Non-overlapping Sample (01, 03, 05, 07)										
		Aggregate		0-1 year-olds		2-3 year-olds		4-5 year-olds		6+ year-olds	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
	1st Stage	OLS	IV	OLS	IV	OLS	IV	OLS	IV	OLS	IV
Manuf. Employment Bartik	1.729***										
	(8.674)										
Income Growth		0.120***	0.152***	0.173***	0.314***	-0.031***	-0.059***	-0.010***	-0.031***	-0.011***	-0.073***
		(6.145)	(8.519)	(6.506)	(10.070)	(-5.686)	(-5.340)	(-4.008)	(-4.555)	(-2.825)	(-5.900)
ln(Total Laborforce)	-0.071***	-0.000	0.002	-0.002	0.006	-0.000	-0.002	0.000	-0.001	0.002	-0.002
	(-4.035)	(-0.140)	(0.764)	(-0.471)	(1.196)	(-0.147)	(-1.117)	(0.388)	(-0.908)	(1.021)	(-0.829)
% Highschool Edu	-1.195***	0.099*	0.128***	0.106	0.237**	0.012	-0.013	0.016	-0.003	-0.035	-0.092**
	(-4.613)	(1.862)	(2.692)	(0.847)	(2.199)	(0.327)	(-0.370)	(0.890)	(-0.197)	(-0.803)	(-2.187)
ln(Total CZ Wages)	0.064***	-0.001	-0.003	-0.001	-0.010**	0.001	0.002	-0.000	0.001	-0.000	0.004*
	(3.938)	(-0.458)	(-1.302)	(-0.306)	(-2.008)	(0.473)	(1.496)	(-0.108)	(1.276)	(-0.018)	(1.814)
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1,384	1,384	1,384	1,384	1,384	1,384	1,384	1,384	1,384	1,384	1,384
R^2	0.299	0.268	0.252	0.312	0.147	0.108	0.056	0.066		0.120	
F-Statistics	75.24										

Panel B: Employee between 20 and 100, Non-overlapping Sample (01, 03, 05, 07)

		Aggregate		0-1 year-olds		2-3 year-olds		4-5 year-olds		6+ year-olds	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
	1st Stage	OLS	IV	OLS	IV	OLS	IV	OLS	IV	OLS	IV
Manuf. Employment Bartik	1.729***										
	(8.674)										
Income Growth		0.117***	0.181***	0.040***	0.079***	0.025***	0.034***	0.008***	0.016	0.043***	0.053***
		(5.829)	(7.116)	(5.817)	(6.759)	(4.921)	(3.223)	(2.623)	(1.481)	(4.207)	(3.033)
ln(Total Laborforce)	-0.071***	-0.011***	-0.007**	0.005**	0.007***	-0.005***	-0.005***	0.000	0.001	-0.011***	-0.010***
	(-4.035)	(-3.453)	(-2.166)	(2.314)	(3.367)	(-3.342)	(-2.945)	(0.280)	(0.640)	(-4.399)	(-4.149)
% Highschool Edu	-1.195***	-0.154**	-0.094	-0.047	-0.012	-0.048	-0.040	0.020	0.027	-0.079	-0.070
	(-4.613)	(-2.501)	(-1.604)	(-1.231)	(-0.320)	(-1.497)	(-1.255)	(0.602)	(0.820)	(-1.532)	(-1.351)
ln(Total CZ Wages)	0.064***	0.009***	0.005	-0.002	-0.005**	0.003**	0.003**	-0.001	-0.001	0.008***	0.007***
	(3.938)	(3.005)	(1.629)	(-1.202)	(-2.318)	(2.446)	(2.038)	(-0.525)	(-0.883)	(3.483)	(3.201)
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1,384	1,384	1,384	1,384	1,384	1,384	1,384	1,384	1,384	1,384	1,384
R^2	0.299	0.145	0.112	0.209	0.141	0.112	0.108	0.033	0.029	0.072	0.070
F-Statistics	75.24										

Panel C: Employee>100, Non-overlapping Sample (01, 03, 05, 07)

		Aggregate		0-1 year-olds		2-3 year-olds		4-5 year-olds		6+ year-olds	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
	1st Stage	OLS	IV	OLS	IV	OLS	IV	OLS	IV	OLS	IV
Manuf. Employment Bartik	1.729***										
	(8.674)										
Income Growth		0.408***	0.914***	0.008**	0.015***	0.009***	0.021***	0.007**	0.010	0.384***	0.868***
		(5.447)	(6.300)	(2.404)	(2.807)	(3.037)	(2.831)	(2.359)	(1.523)	(5.372)	(5.976)
ln(Total Laborforce)	-0.071***	-0.031**	0.001	0.001	0.002*	0.002	0.002**	-0.001	-0.000	-0.033***	-0.003
	(-4.035)	(-2.464)	(0.040)	(1.364)	(1.840)	(1.513)	(2.053)	(-0.648)	(-0.387)	(-2.663)	(-0.193)
% Highschool Edu	-1.195***	-0.269	0.201	-0.045*	-0.039*	0.017	0.027	-0.056***	-0.053**	-0.185	0.265
	(-4.613)	(-0.921)	(0.708)	(-1.898)	(-1.785)	(0.616)	(1.052)	(-2.645)	(-2.518)	(-0.644)	(0.936)
ln(Total CZ Wages)	0.064***	0.031***	0.001	0.001	0.000	-0.001	-0.001	0.001	0.000	0.030***	0.001
	(3.938)	(2.758)	(0.050)	(0.871)	(0.307)	(-0.545)	(-1.167)	(0.829)	(0.541)	(2.720)	(0.085)
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1,384	1,384	1,384	1,384	1,384	1,384	1,384	1,384	1,384	1,384	1,384
R^2	0.299	0.113	0.048	0.203	0.197	0.081	0.070	0.029	0.028	0.105	0.045
F-Statistics	75.24										

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