Online Appendix

When Work Disappears: Manufacturing Decline and the Falling Marriage Market Value of Young Men

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Table A1: Mean and Percentiles of Decadal Growth in Import Penetration, Overall and Gender-Specific Measures

	Δ Import Penetration		
	1990-2014	1990-2000	2000-2014
	(1)	(2)	(3)
	I. Overall Shock		
Mean	1.07	0.95	1.15
	(0.71)	(0.61)	(0.77)
P25	0.64	0.54	0.73
P50	0.92	0.89	1.01
P75	1.30	1.22	1.30
P75-P25	0.66	0.68	0.57
	II. Male Industry Shock		
Mean	0.63	0.56	0.69
	(0.40)	(0.33)	(0.43)
P25	0.38	0.35	0.40
P50	0.58	0.53	0.62
P75	0.80	0.73	0.80
P75-P25	0.42	0.38	0.41
	III. Female Industry Shock		
Mean	0.43	0.39	0.46
	(0.35)	(0.31)	(0.38)
P25	0.23	0.21	0.25
P50	0.35	0.34	0.37
P75	0.50	0.48	0.52
P75-P25	0.27	0.27	0.27

Notes: N=1444 (722 commuting zones x 2 time periods) in column 1, N=722 in columns 2 and 3. Observations are weighted by start of period commuting zone share of national population.

Table A2: Estimated Impact of Manufacturing Trade Shock on Employment, 1970-2014: OLS and 2SLS Estimates. Dependent Variable: Change in Percentage of Population Age 18-39 Employed in Manufacturing

	I. OLS and 2SLS, 1990-2014							
	1990-2000				1990-2014			
	OLS		2SLS		OLS		2SLS	
	(1)		(2)		(3)		(4)	
Δ Import Penetration	-0.65	*	-2.12	**	-1.29	**	-1.58	**
	(0.26)		(0.43)		(0.13)		(0.16)	
2SLS First Stage Estimate			0.73	**			0.81	**
			(0.09)				(0.04)	
	II. 2SLS Stacked, 1990-2014							
	(5)		(6)		(7)		(8)	
Δ Import Penetration	-1.64	**	-1.05	**	-0.91	**	-1.06	**
	(0.14)		(0.15)		(0.15)		(0.17)	
Census Division Dummies	Yes		Yes		Yes		Yes	
Manufacturing Emp Share$_{-1}$			Yes		Yes		Yes	
Occupational Composition$_{-1}$					Yes		Yes	
Population Composition$_{-1}$							Yes	
2SLS First Stage Estimate	0.83	**	0.68	**	0.65	**	0.64	**
	(0.04)		(0.06)		(0.05)		(0.06)	
	III. Reduced Form OLS, 1970-2014							
	Pre-Periods				Exposure Periods			
	1970-1980		1980-1990		1990-2000		2000-2014	
	(9)		(10)		(11)		(12)	
Δ Predicted Import	1.69	**	0.21		-1.09	**	-0.70	**
Penetration 1990-2014	(0.36)		(0.33)		(0.30)		(0.10)	

Notes: N=722 in panels I and III, N=1444 (722 commuting zones x 2 time periods) in panel II. All models in panel II comprise a dummy for the 2000-2014 period. Occupational composition controls in columns 7-8 comprise the start-of-period indices of employment in routine occupations and of employment in offshorable occupations as defined in Autor and Dorn (2013). Population controls in column 8 comprise the start-of-period shares of commuting zone population that are Hispanic, black, Asian, other race, foreign born, and college educated, as well as the fraction of women who are employed. The models in panel III regress the outcome on the instrument for decadal growth in Import Penetration during the 1990-2014 period and initial Census manufacturing employment shares. All regressions are weighted by the product of period length and CZ population share, and standard errors are clustered on state. ~ $p \leq 0.10$, * $p \leq 0.05$, ** $p \leq 0.01$.

Table A3: Estimated Impact of Manufacturing Trade Shock on Employment, Earnings and Idleness by Gender, 1990-2014: 2SLS Estimates. Dependent Variables: Change in Percentage of Population Age 18-39 that is Employed, Unemployed or Non-Employed, Change in Annual Earnings of Population Age 18-39 by Percentile of the Earnings Distribution (in 2015$); Change in Percentage of Young Adults Age 18-25 that is Employed, Not Employed but in School, or Neither Employed nor in School

	A. Emp Status Age 18-39			*B. Annual Earnings Age 18-39*			*C. Idleness Age 18-25*		
	Emp	Unemp	NILF	P25	P50	P75	Emp	in School	Neither
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
					I. Males				
					Overall Trade Shock				
Δ Import Penetration	-1.54 **	0.55 **	0.98 **	-830 **	-1,279 **	-2,041 **	-1.50 **	0.72 **	0.79 **
	(0.29)	(0.15)	(0.20)	(222)	(286)	(443)	(0.38)	(0.26)	(0.29)
					Male Industry vs Female Industry Shock				
Δ Import Penetration	-3.06 **	1.09 **	1.97 **	-2,304 **	-3,737 **	-6,254 **	-3.11 **	1.97 **	1.14
× (Male Ind Share)	(0.79)	(0.38)	(0.57)	(634)	(1041)	(1295)	(1.06)	(0.69)	(0.71)
Δ Import Penetration	0.19	-0.06	-0.13	848	1,518 ~	2,753 *	0.32	-0.71	0.38
× (Female Emp	(0.61)	(0.25)	(0.53)	(609)	(887)	(1099)	(0.81)	(0.55)	(0.55)
Mean Outcome Var	-3.00	0.65	2.35	-2,134	-2,533	-1,308	-3.89	2.47	1.42
Level in 1990	82.33	6.42	11.25	8,011	26,000	45,771	70.53	17.95	11.52
					II. Females				
					Overall Trade Shock				
Δ Import Penetration	-0.88 *	0.36 **	0.53 ~	-158 ~	-834 **	-1,194 **	-0.87 ~	0.74 **	0.13
	(0.35)	(0.11)	(0.31)	(84)	(291)	(252)	(0.45)	(0.28)	(0.31)
					Male Industry vs Female Industry Shock				
Δ Import Penetration	0.08	0.71 *	-0.78	-88	-792	-2,569 **	0.05	1.41 ~	-1.46 *
× (Male Ind Share)	(0.84)	(0.29)	(0.71)	(232)	(697)	(527)	(1.06)	(0.82)	(0.64)
Δ Import Penetration	-1.97 **	-0.04	2.01 **	-238	-881 ~	369	-1.91 *	-0.03	1.94 **
× (Female Emp	(0.74)	(0.23)	(0.70)	(220)	(504)	(513)	(0.93)	(0.80)	(0.65)
Mean Outcome Var	-0.26	0.62	-0.36	-241	-407	1,183	-1.06	2.72	-1.67
Level in 1990	67.69	5.20	27.12	1,086	12,624	28,282	62.83	17.09	20.09

Notes: N=1444 (722 CZ x 2 time periods). All regressions include the full set of control variables from Table 1, are weighted by the product of period length and CZ population share, and standard errors are clustered on state. ~ $p \leq 0.10$, * $p \leq 0.05$, ** $p \leq 0.01$.

Table A4: Estimated Impact of Manufacturing Trade Shock on Cumulative Mortality by Gender 1990-2015: 2SLS Estimates. Dependent Var: Male or Female Cumulative Mortality per 100k Population Age 20-39 by Cause of Death

	Total		D&A Poison		HIV		Homicide		Suicide		Accident		All Other
	(1)		(2)		(3)		(4)		(5)		(6)		(7)
						I. Male Mortality							
						Overall Trade Shock							
Δ Import Penetration	87.4	**	26.0	**	25.3	*	16.8	~	-1.1		9.0		11.3
	(34.0)		(9.1)		(12.4)		(9.3)		(5.1)		(11.4)		(11.3)
						Male Industry vs Female Industry Shock							
Δ Import Penetration ×	242.2	**	83.7	**	92.6	**	116.5	**	-14.3		-62.1	~	25.9
(Male Ind Share)	(89.2)		(30.6)		(29.2)		(29.1)		(14.4)		(36.9)		(34.5)
Δ Import Penetration ×	-87.5		-39.2		-50.6	*	-95.6	**	13.7		89.3	*	-5.2
(Female Emp Share)	(79.3)		(25.5)		(21.3)		(31.2)		(12.5)		(40.9)		(30.9)
						II. Female Mortality							
						Overall Trade Shock							
Δ Import Penetration	23.0	~	6.5	*	3.7		2.8	*	1.3		5.1		3.6
	(13.6)		(3.0)		(5.3)		(1.3)		(1.1)		(3.9)		(6.8)
						Male Industry vs Female Industry Shock							
Δ Import Penetration ×	52.5		23.4	**	26.1	*	13.5	**	-4.4		-21.9	~	15.9
(Male Ind Share)	(43.6)		(8.4)		(13.1)		(4.1)		(4.6)		(11.8)		(25.7)
Δ Import Penetration ×	-10.4		-12.5		-21.5	~	-9.2	~	7.7	~	35.4	*	-10.3
(Female Emp Share)	(46.1)		(9.4)		(11.0)		(4.9)		(4.2)		(15.5)		(25.4)

Notes: N=1444 (722 CZ x 2 time periods). All regressions include the full set of control variables from Panel B of Table 2. All models are weighted by the product of period length and CZ population share, and standard errors are clustered on state. ~ $p \leq 0.10$, * $p \leq 0.05$, ** $p \leq 0.01$.

Table A5: Comparing Estimated Impacts of Manufacturing Trade Shocks on Non-Hispanic White Versus Full Population (2SLS Estimates): Employment and Earnings among Adults Age 18-39, Marital Status of Women and Mothers Age 18-39, and Poverty Status and Household Structure among Children Age 0-17. Dependent Var: Change in Gender Differential in Employment Rate and Median Earnings, Change in Percentage of Married Women and Unmarried Mothers, Change in Percentage of Children in Poor and Single-Headed Households

	Gender Gap in		*Martial Status*		*Children in HH*	
	Employment	Median Earnings	% Women Married	% Mothers Unmarried	<Poverty Line	Single-Headed
	(1)	(2)	(3)	(4)	(5)	(6)
			I. Outcomes for Non-Hispanic Whites			
			Overall Trade Shock			
Δ Import Penetration	-0.48 ~	-781 *	-1.24 **	0.52 *	0.59 **	0.40 **
	(0.27)	(366)	(0.36)	(0.26)	(0.21)	(0.11)
			Male Industry vs Female Industry Shock			
Δ Import Penetration	-3.09 **	-3,975 **	-4.13 **	3.26 **	1.35 *	1.17 **
× (Male Ind Share)	(0.86)	(824)	(0.70)	(0.64)	(0.60)	(0.28)
Δ Import Penetration	2.50 **	2,855 **	2.06 **	-2.61 **	-0.29	-0.49 ~
× (Female Emp	(0.68)	(830)	(0.54)	(0.85)	(0.57)	(0.30)
Mean Outcome Var	-3.06	-2,446	-7.11	5.44	1.65	1.28
Level in 1990	14.60	15,734	56.73	16.95	17.99	11.92
			II. Outcomes for Full Population			
			Overall Trade Shock			
Δ Import Penetration	-0.65 *	-445 *	-0.95 **	0.52 ~	0.61 *	0.30 **
	(0.26)	(191)	(0.30)	(0.31)	(0.26)	(0.11)
			Male Industry vs Female Industry Shock			
Δ Import Penetration	-3.13 **	-2,945 **	-3.57 **	3.28 **	2.13 **	1.43 **
× (Male Ind Share)	(0.78)	(593)	(0.62)	(0.73)	(0.70)	(0.32)
Δ Import Penetration	2.17 **	2,400 **	2.03 **	-2.62 **	-1.12	-0.98 *
× (Female Emp	(0.65)	(630)	(0.55)	(0.85)	(0.82)	(0.42)
Mean Outcome Var	-2.74	-2,126	-6.92	6.56	1.65	1.79
Level in 1990	14.64	13,376	53.05	23.98	17.99	16.82

Notes: N=1444 (722 CZ x 2 time periods). Panel II reproduces results from Tables 1 and 3. All regressions include the full set of control variables from Table 1. All models are weighted by the product of period length and CZ population share, and standard errors are clustered on state. ~ $p \leq 0.10$, * $p \leq 0.05$, ** $p \leq 0.01$.