

# On-line Appendix to Men, Women, and Machines: How Trade Impacts Gender Inequality

September 2013

## **Abstract**

This Appendix, not intended for publication contains the data description, summary statistics, and additional results referred to in our paper.

## **A Firm Level Data and Cleaning Procedure**

### **A.1 Variable Description**

-Output: Manufacturing plants: Value of production priced at "factory price" (ENESTyC). - Labor: Average number of workers (ENESTyC). - Materials: Expenditure in materials (ENESTyC) - Capital: Value of Total Assets (ENESTyC). - Foreign: Dummy equal 1 if the capital owned by foreign investors is more than 10% (ENESTyC). -Exporter: Dummy equal 1 if firm sells to foreign markets (ENESTyC).

### **A.2 Cleaning Procedure**

The following establishments were removed:

1. Establishments that report zero or missing values for Output, Materials, Average employment and/or Total Assets. This means removing a total of 216 firm in 1992 and 640 in 2001.
2. Establishments fully or partially owned by the government.
3. In order to make more comparable the surveyed samples in 1992 and 2001, we remove establishments in sector 3511 "Basic Petrochemicals" and sector 3530 "Oil refinery" because these sectors were only included in the 2001 survey.
4. In addition, the main variables are winsorized at the tails. The key variables are the real value of output, the real value of materials expenditure, the real value of total assets and the average number of workers. We replace values in the lower and upper 1% tails with values at the 1st and 99th percentiles, respectively.

### **A.3 Price Index**

Ideally, for output, materials and capital we would need data on physical quantities rather than values. Unfortunately this data is not available in the ENESTyC survey hence, in order to approximate quantities and express all monetary variables in real terms we use industry wide price index deflators.

- Output: We express the value of production priced at the “factory” price (venta de fabrica) in pesos of 2003 using producer price index (PPI) data breakdown by industry, facilitated by the Central Bank of Mexico. The Central Bank of Mexico uses a different industry classification (CMAE, Clasificacion Mexicana de Actividades Mexicanas) than the one used in the ENESTyC (CMAP). We use a table of correspondence between CMAE and CMAP provided by INEGI and a PPI deflator at the branch level. In order to obtain the PPI at the branch level, for each branch we take the average over the corresponding classes belonging to that branch.

- Exports: There is no export price deflator breakdown by industry readily available so we follow Lach, Roberts and Tybout (1998) and Fernandes and Isgut (2005) in the construction of export price indexes. As in Lach et al (1998) we use data from the United Nations COMTRADE database on the values and quantities of manufactured exports from Mexico to the rest of the world by product category, and we conduct the following exercise. First, we develop a correspondence between the UN ISIC Rev3 classification and the Mexican CMAP branch classification by careful examination of the product descriptions in each system. Second, we compute unit export values for each ISIC category by dividing the trade value figures by the trade quantity figures. These unit export values are expressed in current US dollars so we convert them into unit values in pesos using the average nominal ER between peso and dollar. Third, following Fernandes and Isgut (2005) we regress the log of the unit export price on 2-digit sector dummies, year dummies and year-sector fixed effects. The estimation is done by weighted least squares, with weights corresponding to the square root of the share of each product category trade value in the total 2-digit sector trade value. From this regression we obtain predicted log unit export prices for each UN ISIC Rev3 category. Finally, using the previous weights and the correspondence between the ISIC classification and the CMAP classification we compute a weighted average of the predicted unit values belonging to the same 2-digit sector CMAP classification. We normalize the export price series for each industry to the same base year as the domestic producer price index.

- Materials: We express the expenditure in materials in pesos of 2003 using a materials price index (MPI) provided by the Central Bank of Mexico. In particular, we use the MPI according to which sector consumes those materials. Again, the industry classification of the Central Bank of Mexico is the CMAE and we use the same previous table of correspondence between CMAE and CMAP to obtain the CMAP figures at the branch level. Although this price index might be relevant for

plants that buy their materials domestically it might as well be misleading in the case of plants that import most of their raw materials. To avoid such a bias, we use different price indexes for the expenditure in materials paid at home and the expenditure in imported materials. To obtain a price index for imports at the CMAP branch level we follow the same procedure as for the export price index, this time using Mexican imports from the rest of the world by product category.

- Capital: We use the PPI to deflate the value of total assets.

## B Skill upgrading

We estimate the following equation, which is similar to equation (11) in the main text except that our dependent variable is now the growth rate in the ratio of white-collar workers to blue-collar workers hired.

$$\begin{aligned} \Delta SkillRatio_{i,s',2000} = & \beta_1 ContinuingExporters_{i,s',2000} + \beta_2 NewExporters_{i,s',2000} \quad (1) \\ & + \beta_3 StopExporters_{i,s',2000} + \beta_x X_{i,s',1991} + \delta_{s'} + \epsilon_{i,s',2000}. \end{aligned}$$

“Non-Exporters” are again the omitted category and the rest of the RHS variables are the same as in equation (11).  $\Delta SkillRatio$  refers to the growth rate of the ratio of white-collar to blue-collar labor outcomes between 1991 and 2000. Table B1 reports the main results. The first three columns report results without including initial firm-level characteristics, while the next three columns report results including these variables. Both in terms of employment and wage bill (reported in columns (1) and (2)), we find little evidence of faster skill-upgrading in exporter firms. We do, however, consistently find that relative wage of white-collar workers to blue-collar workers grew faster in “New-Exporter” firms. For example, in column (3), the coefficient 0.110 indicates that the skill premium increased 11 percent faster in “New-Exporter” firms relative to “Non-Exporter” firms.<sup>1</sup> Similar to the results we report here, Verhoogen (2008) also finds an increase in the ratio of white-collar to blue-collar wages but little skill-upgrading in terms of employment ratios. As we explain in the text, these results are consistent with our model where labor inputs are differentiated by gender-specific skills as well as occupation-specific skills.

---

<sup>1</sup>In column (7) and (8) we examine whether the change in the ratio is due to the growth of white-collar wages or blue-collar wages. The results show that the larger increase in the skill premium is due to the larger increase in white-collar wage.

Table B1: Export Status and Skill Upgrading

Dependent variable: Growth in White and Blue Labor Outcomes								
	Ratio						Level	
	White-Blue Employment Growth (1)	White-Blue Wage Bill Growth (2)	White-Blue Wage Growth (3)	White-Blue Employment Growth (4)	White-Blue Wage Bill Growth (5)	White-Blue Wage Growth (6)	White Wage Growth (7)	Blue Wage Growth (8)
Continuing Exporter	-0.096 (0.087)	-0.005 (0.095)	0.037 (0.044)	-0.120 (0.098)	-0.060 (0.105)	-0.006 (0.048)	-0.001 (0.043)	0.015 (0.031)
New Exporter	-0.092 (0.087)	0.030 (0.097)	0.110** (0.048)	-0.091 (0.090)	0.025 (0.099)	0.092* (0.049)	0.075* (0.045)	-0.013 (0.027)
Stop Exporter	-0.053 (0.165)	-0.070 (0.183)	0.015 (0.074)	-0.037 (0.170)	-0.074 (0.187)	-0.028 (0.072)	-0.024 (0.068)	0.002 (0.037)
$R\&Dshare_{init}$				0.001 (0.002)	-0.000 (0.002)	0.001 (0.001)	0.001 (0.001)	-0.000 (0.001)
$\ln(K/VA)_{init}$				0.015 (0.025)	0.030 (0.026)	0.009 (0.014)	0.025* (0.014)	0.016 (0.010)
$\ln(VA)_{init}$				-0.022 (0.031)	0.029 (0.035)	0.032** (0.015)	0.039** (0.014)	0.007 (0.008)
$Foreign_{init}$				0.104 (0.069)	0.105 (0.084)	0.049 (0.050)	0.063 (0.043)	0.014 (0.027)
Observations	933	933	928	917	917	912	917	917
R <sup>2</sup>	.032	.02	.013	.035	.023	.021	.028	.026
Sector2dig Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

*Notes:* Standard errors clustered at cmap level in parentheses. Continuing exporters are those firms that exported in 1991 and 2000. New exporters are those firms that did not export in 1991 but export in 2000. Stop Exporters are firms that exported in 1991 but do not export in 2000. The omitted category is Non-Exporter. Employment White-Blue refers to the growth in white to blue employment ratios between 1991 and 2000. Wage Bill White-Blue is the growth in white to blue wage bill ratios between 1991 and 2000. Wage White-Blue is the growth in white to blue wage ratios between 1991 and 2000. The wage is computed as the ratio of Wage Bill to Employment. The growth rate is computed as  $\ln((white - blueratio) + 0.001) - \ln((white - blueratio) + 0.001)_{t-1}$ .  $\ln(K/VA)_{init}$  is the log of total assets to value added in 1991.  $\ln(VA)_{init}$  is the log value added in 1991.  $R\&Dshare_{init}$  is the share of R&D spending in total income in 1991.  $Foreign_{init}$  is a dummy variable that takes the value of one if the firm was more than 10 percent owned by foreign-owned investors in 1991 and zero otherwise. \*\*\*, \*\*, \*, denote significance at 1%, 5%, 10% levels.

## C Appendix Tables

Table C1: Tariffs

Export Tariff	Average	Standard Dev	Min	Max	N
1991	6.1	3.6	0.1	17.0	206
2000	0.7	1.4	0.0	6.1	201
Change (2000-1991)	-5.2	2.9	-14.4	-0.1	201

  

Import Tariff	Average	Standard Dev	Min	Max	N
1991	16.1	7.7	0.0	70.5	168
2000	2.6	4.7	0.0	37.5	166
Change (2000-1991)	-13.2	4.3	-35.0	0.0	157

*Notes:* Export Tariff refers to the NAFTA tariffs applied by US. Tariff data, were available originally at the 8-digit Harmonized System (HS) classification, and were matched with the Mexican CMAP classification. Note that the US tariff data include information on both ad valorem and specific tariffs. Specific tariffs were converted into ad valorem equivalents by John Romalis and were added to the ad valorem rates. We use as export tariff for 1991 the initial export tariff data available corresponding to 1992. Import Tariff refers to NAFTA tariffs applied by Mexico. We use as import tariff data for 1991 the initial import tariff data available which is from 1993. “N”: Number of industries according to the CMAP classification.

Table C2: Change in Share of Workers by Gender, 1991-2000

Panel A: Mexican Census Data: All Sectors

	Employment Share			Wage Bill Share		
	Between	Within	Total	Between	Within	Total
Women	1.66	3.55	5.21	2.1	3.15	5.25

Panel B: Mexican Census Data: Tradeable Sectors

	Employment Share			Wage Bill Share		
	Between	Within	Total	Between	Within	Total
Women	2.49	3.22	5.71	2.09	2.6	5.09

Panel C: ENESTyC Survey: Manufacturing Sectors

		Employment Share			Wage Bill Share		
		Between	Within	Total	Between	Within	Total
Women	White	0.92	0.75	1.67	1.02	2.49	3.51
	Blue	1.97	1.32	3.29	1.87	1.60	3.46
	Total	1.64	1.25	2.89	1.33	2.21	3.55

*Notes:* Panels A and B report results from the Mexican Census IPUMS 1990 and 2000. Decompositions are based on 69 industry categories. They are reproduced from Aguayo et al. (2013). Panel C reports the results from our balanced panel of 938 firms from the ENESTyC in 1991 and 2000. Decompositions are based on 274 sectors corresponding to the 6-digit cmap classification. The total change in female wage bill share is decomposed as in the following:  $\Delta S_t = S_t - S_\tau = \sum_j \Delta s_{jt} E_{j\tau} + \sum_j \Delta E_{jt} s_{j\tau}$ , where  $E_{jt}$  is the share of industry  $j$ 's wage bill in total wage bill at time  $t$ ,  $s_{jt}$  is the female wage bill as a share of total wage bill in industry  $j$  at time  $t$ . The first expression after the equal sign refers to the “within” component while the latter refers to the “between” component.

Table C3: Summary Statistics

Panel A: Cross-Section of Firms						
	1991			2000		
	Obs	Average	Sd.	Obs	Average	Sd.
<b>Firm Characteristics</b>						
$\ln(K/VA)$	3905	-0.34	1.40	5095	-0.50	1.67
$\ln(VA)$	3905	10.67	1.68	5095	10.37	1.94
$\ln(K)$	3991	10.33	2.02	5466	9.88	2.08
<i>Employment</i>	3991	365.49	685.99	5466	406.22	872.44
<i>ShareR&amp;D</i>	3991	7.67	18.08	.	.	.
<i>Foreign</i>	3991	0.22	0.42	4861	0.25	0.43
<i>Exporter</i>	3991	0.32	0.47	5459	0.56	0.50
<i>ExportShare</i>	3991	17.94	34.31	5387	21.76	34.05
<i>Employment : WhitetoBlueRatio</i>	3991	0.62	2.59	5466	0.62	1.70
<b>Female-Male Labor Ratios</b>						
White Collar						
<i>Employment : FemaletoMaleRatio</i>	3967	0.44	0.64	5407	0.60	0.81
<i>WageBill : FemaletoMaleRatio</i>	3963	0.30	0.44	5364	0.44	0.70
<i>Wage : FemaletoMaleRatio</i>	3793	0.71	0.37	5201	0.82	0.54
Blue Collar						
<i>Employment : FemaletoMaleRatio</i>	3991	0.62	1.09	5466	0.66	0.99
<i>WageBill : FemaletoMaleRatio</i>	3991	0.57	1.06	5466	0.60	0.96
<i>Wage : FemaletoMaleRatio</i>	2707	0.90	0.34	4106	0.94	0.32
<b>Technology</b>						
<i>ValueMachineryEquipment</i>	3991	28786.41	141814	5465	93101.89	649522.7
<i>ComputerizedMachinery</i>				5466	0.52	0.50
<i>NewMachinery</i>				5466	0.65	0.48
<i>ImportedMachinery</i>				5466	0.53	0.50
<i>UpgradedMachinery</i>				5466	0.29	0.45
<i>ValueUpgradedMachinery</i>				5465	45930.62	524398.4
<i>ValueNON - UpgradedMachinery</i>				5465	43538.95	386385.1

  

Panel B: Panel of Firms						
	1991			2000		
	Obs	Average	Sd.	Obs	Average	Sd.
<b>Firm Characteristics</b>						
$\ln(K/VA)$	922	-0.30	1.31	873	-0.08	1.39
$\ln(VA)$	922	11.34	1.34	873	11.04	1.50
$\ln(K)$	938	11.04	1.69	938	10.94	1.70
<i>Employment</i>	938	422.31	510.42	938	441.65	517.87
<i>ShareR&amp;D</i>	938	7.51	16.56	.	.	.
<i>Foreign</i>	938	0.18	0.38	823	0.20	0.40
<i>Exporter</i>	938	0.38	0.49	938	0.57	0.49
<i>ExportShare</i>	938	8.42	20.46	938	13.92	22.99
<i>Employment : WhitetoBlueRatio</i>	936	0.52	0.60	935	0.70	1.15
<b>Female-Male Labor Ratios</b>						
White Collar						
<i>Employment : FemaletoMaleRatio</i>	937	0.39	0.46	934	0.43	0.58
<i>WageBill : FemaletoMaleRatio</i>	937	0.26	0.32	933	0.32	0.42
<i>Wage : FemaletoMaleRatio</i>	908	0.70	0.32	921	0.82	0.41
Blue Collar						
<i>Employment : FemaletoMaleRatio</i>	934	0.64	1.96	933	0.66	2.20
<i>WageBill : FemaletoMaleRatio</i>	934	0.54	1.55	933	0.64	2.35
<i>Wage : FemaletoMaleRatio</i>	653	0.91	0.48	670	0.94	0.30
<b>Technology</b>						
<i>ValueMachineryEquipment</i>	937	38987.91	163054.9	936	146187.8	528044.6
<i>ComputerizedMachinery</i>				938	0.61	0.49
<i>NewMachinery</i>				938	0.69	0.46
<i>ImportedMachinery</i>				938	0.53	0.50
<i>UpgradedMachinery</i>				938	0.35	0.48
<i>ValueUpgradedMachinery</i>				936	79641.83	491033.1
<i>ValueNON - UpgradedMachinery</i>				936	61915.08	216592.1
<b>Export Status</b>						
<i>ContinuingExporters</i>				938	0.34	0.47
<i>NewExporters</i>				938	0.24	0.43
<i>StopExporters</i>				938	0.06	0.24

Notes:  $\ln(K/VA)$  is the log of total assets to value added.  $\ln(VA)$  is the log of value added. *ShareR&D* is the share of R&D spending in total income.  $\ln(K)$  is the log of total assets. *Employment* is the total number of employees. *Foreign* is a dummy variable that takes the value of one if the firm was more than 10 percent owned by foreign-owned investors and zero otherwise. *Exporter* is a dummy that equals one if the firm reported sales revenue abroad and zero otherwise. *ExportShare* is the share of export revenue in total sales. *Employment : WhitetoBlueRatio* is the ratio of white collar number of employees to blue collar number of employees. White collar includes the categories: Directors and Managers while Blue Collar refers to Specialized Workers and General Workers. The wage is computed as the ratio of Wage Bill to Employment. *ValueMachineryEquipment* refers to the deflated value of Machinery and Equipment. *ComputerizedMachinery* equals one if the machinery and equipment acquired since 1999 was automatic/computerized (as opposed to manual or involving machinery tools). *NewMachinery* equals one if the machinery and equipment acquired since 1999 is new (as opposed to used). *ImportedMachinery* equals one if the machinery and equipment acquired since 1999 is imported from developed countries. *UpgradedMachinery* equals one if the machinery and equipment acquired since 1999 is computerized, new and imported from developed countries. *Non - UpgradedMachinery* equals one if the machinery and equipment acquired since 1999 is neither computerized, nor new nor imported from developed countries. *ContinuingExporters* are those firms that exported in 1991 and 2000. *NewExporters* are those firms that did not export in 1991 but export in 2000. *StopExporters* are firms that exported in 1991 but do not export in 2000. The omitted category is *Non - Exporter*.



Table C4: Characteristics of Exporters relative to Non-Exporters

	Levels in 1991			Log Changes 1991-2000		
	Continuing Exporter	New Exporter	Obs.	Continuing Exporter	New Exporter	Obs.
Employment	0.444*** (0.067)	0.206** (0.064)	938	-0.016 (0.044)	0.006 (0.047)	938
Sales	0.734*** (0.096)	0.288** (0.093)	938	0.157** (0.066)	0.227*** (0.067)	938
Value Added per Employee	0.219** (0.083)	0.021 (0.086)	922	0.127 (0.102)	0.213** (0.103)	858
Capital to Labor ratio	0.755*** (0.109)	0.200* (0.120)	938	-0.100 (0.125)	0.198 (0.130)	938
Skill intensity	0.117** (0.045)	-0.033 (0.045)	937	-0.040 (0.054)	-0.022 (0.054)	933
Wage	0.152*** (0.030)	0.052* (0.030)	938	0.097** (0.037)	0.060 (0.038)	938
White Wage	0.130*** (0.034)	0.035 (0.036)	937	0.155*** (0.045)	0.136** (0.049)	932

*Notes:* Robust standard errors in parenthesis. Exporter premia are estimated from a regression of the form:  $\ln(Y_{i,s'}) = \beta_1 \text{ContinuingExporters}_{i,s'} + \beta_2 \text{NewExporters}_{i,s'} + \beta_3 \text{StopExporters}_{i,s'} + \delta_{s'} + \epsilon_{i,s'}$  where  $i$  refers to firm and  $s'$  refers to two-digit industry classification. *ContinuingExporters* are firms that exported in 1991 and 2000, *NewExporters* are firms that did not export in 1991 but do export in 2000 and *StopExporters* are firms that exported in 1991 and do not export in 2000. The reference category is *Non-Exporters* which are firms that never exported.

Table C5: Employer Preference in Hiring by Occupational Category and Foreign Ownership Status

Panel A: Directors					
	Domestic			Foreign	
	Observ.	Percent		Observ.	Percent
Male	144	25.49	Male	36	23.68
Female	3	0.53	Female	1	0.66
Indifferent	418	73.98	Indifferent	115	75.66
Total	565	100	Total	152	100

  

Panel B: Managers					
	Domestic			Foreign	
	Observ.	Percent		Observ.	Percent
Male	27	4.17	Male	5	3.11
Female	25	3.86	Female	9	5.59
Indifferent	596	91.98	Indifferent	147	91.3
Total	648	100	Total	161	100

  

Panel C: Specialized Workers					
	Domestic			Foreign	
	Observ.	Percent		Observ.	Percent
Male	338	54.52	Male	82	53.25
Female	21	3.39	Female	1	0.65
Indifferent	261	42.1	Indifferent	71	46.1
Total	620	100	Total	154	100

  

Panel D: General Workers					
	Domestic			Foreign	
	Observ.	Percent		Observ.	Percent
Male	288	44.44	Male	71	47.02
Female	35	5.4	Female	3	1.99
Indifferent	325	50.15	Indifferent	77	50.99
Total	648	100	Total	151	100

*Notes:* Numbers in the table show the number and fraction of firms (domestic and foreign) expressing a preference for workers of a particular gender in the different occupation categories. Firms are asked: 1. “When the establishment selects employees, is there any gender preference in each of the following categories?”. 2. What is the main reason to prefer men or women in each of the employment categories?. Employment categories are: Directives, Managers, Specialized Workers and General Workers.

Table C6: Tariff Changes and Female-Male Labor Outcomes (IV Initial Industry Tariffs). Second Stage Results

Dependent variable: Growth in Female-Male Labor Ratios						
	White Collar			Blue Collar		
	Female-Male Employment Growth (1)	Female-Male Wage Bill Growth (2)	Female-Male Wage Growth (3)	Female-Male Employment Growth (4)	Female-Male Wage Bill Growth (5)	Female-Male Wage Growth (6)
$\Delta$ Export Tariff	0.007 (0.030)	0.007 (0.025)	0.001 (0.011)	-0.044** (0.021)	-0.050** (0.019)	-0.008 (0.007)
$\ln(K/VA)_{init}$	0.022 (0.039)	0.020 (0.039)	-0.011 (0.015)	0.003 (0.046)	0.017 (0.047)	0.009 (0.015)
$\ln(VA)_{init}$	-0.027 (0.041)	-0.024 (0.039)	-0.006 (0.017)	-0.055 (0.050)	-0.057 (0.051)	-0.007 (0.013)
$R\&Dshare_{init}$	0.009** (0.003)	0.008** (0.003)	-0.001 (0.001)	-0.001 (0.004)	-0.001 (0.004)	0.001 (0.001)
$Foreign_{init}$	0.001 (0.116)	-0.001 (0.113)	0.010 (0.063)	-0.037 (0.157)	-0.005 (0.161)	0.032 (0.050)
Observations	899	898	862	895	895	562
Sector2dig Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
F-Test	42.51	42.7	42.11	42.05	42.05	25.06

*Notes:* Standard errors clustered at cmap level in parentheses. Second Stage results using as IV initial industry tariffs in 1991.  $\Delta$  Export Tariff indicates the change in sectoral tariffs (6-digit sector classification) applied by the US between 2000 and 1991. Columns (1) to (3) refer to the White-Collar category while columns (4) to (6) refer to the Blue-Collar category. Female-Male Employment growth refers to the growth in female to male employment ratios between 1991 and 2000. Female-Male Wage Bill is the growth in female to male wage bill ratios between 1991 and 2000. Female-Male wage is the growth in female to male wage ratios between 1991 and 2000. The wage is computed as the ratio of Wage Bill to Employment. The growth rate is computed as  $\ln((female - malaratio) + 0.001) - \ln((female - malaratio) + 0.001)_{t-1}$ .  $\ln(K/VA)_{init}$  is the log of total assets to value added in 1991.  $\ln(VA)_{init}$  is the log value added in 1991.  $R\&Dshare_{init}$  is the share of R&D spending in total income in 1991.  $Foreign_{init}$  is a dummy variable that takes the value of one if the firm was more than 10 percent owned by foreign-owned investors in 1991 and zero otherwise. \*\*\*, \*\*, \*, denote significance at 1%, 5%, 10% levels.

Table C7: Tariff Changes and Female-Male Labor Outcomes - Industry Controls

Dependent variable: Growth in Female-Male Labor Ratios						
	White Collar			Blue Collar		
	Female-Male Employment Growth (1)	Female-Male Wage Bill Growth (2)	Female-Male Wage Growth (3)	Female-Male Employment Growth (4)	Female-Male Wage Bill Growth (5)	Female-Male Wage Growth (6)
$\Delta$ Export Tariff	0.016 (0.023)	0.001 (0.024)	-0.018* (0.009)	-0.040* (0.024)	-0.048** (0.024)	-0.005 (0.007)
$(K/L)_{US}$	-0.001* (0.001)	-0.001 (0.001)	0.000 (0.000)	0.002* (0.001)	0.002* (0.001)	0.001** (0.000)
$(VA/L)_{US}$	0.003** (0.002)	0.003 (0.002)	-0.000 (0.001)	0.001 (0.002)	0.001 (0.002)	-0.000 (0.001)
$\ln(K/VA)_{init}$	-0.009 (0.054)	-0.029 (0.054)	-0.040** (0.019)	-0.010 (0.064)	-0.014 (0.067)	-0.017 (0.020)
$\ln(VA)_{init}$	-0.028 (0.060)	-0.013 (0.057)	0.003 (0.019)	-0.071 (0.081)	-0.082 (0.085)	-0.012 (0.018)
$R\&Dshare_{init}$	0.008 (0.006)	0.005 (0.006)	-0.003 (0.002)	0.004 (0.006)	0.004 (0.005)	-0.000 (0.001)
$Foreign_{init}$	-0.091 (0.170)	-0.063 (0.154)	0.043 (0.091)	-0.092 (0.238)	-0.082 (0.252)	-0.048 (0.072)
Observations	527	526	504	524	524	318
R <sup>2</sup>	.04	.033	.034	.033	.036	.045
Sector2dig Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes

Notes: Standard errors clustered at cmap level in parentheses. Second Stage results using as IV initial industry tariffs in 1991.  $\Delta$  Export Tariff indicates the change in sectoral tariffs (6-digit sector classification) applied by the US between 2000 and 1991. Columns (1) to (3) refer to the White-Collar category while columns (4) to (6) refer to the Blue-Collar category. Female-Male Employment growth refers to the growth in female to male employment ratios between 1991 and 2000. Female-Male Wage Bill is the growth in female to male wage bill ratios between 1991 and 2000. Female-Male wage is the growth in female to male wage ratios between 1991 and 2000. The wage is computed as the ratio of Wage Bill to Employment. The growth rate is computed as  $\ln((female - malaratio) + 0.001) - \ln((female - malaratio) + 0.001)_{t-1}$ .  $(K/L)_{US}$  is the average ratio of capital to employment in US sectors between 1980 and 1989.  $(VA/L)_{US}$  is the average ratio of value added to employment in US sectors between 1980 and 1989. US sector data is obtained from the NBER manufacturing database. We use official correspondence tables between the US sic classification and the cmap classification.  $\ln(K/VA)_{init}$  is the log of total assets to value added in 1991.  $\ln(VA)_{init}$  is the log value added in 1991.  $R\&Dshare_{init}$  is the share of R&D spending in total income in 1991.  $Foreign_{init}$  is a dummy variable that takes the value of one if the firm was more than 10 percent owned by foreign-owned investors in 1991 and zero otherwise. \*\*\*, \*\*, \*, denote significance at 1%, 5%, 10% levels.

Table C8: Tariff Changes and Female-Male Labor Outcomes: Female Dependence Index

Dependent variable: Growth in Female-Male Labor Ratios									
	White Collar			Blue Collar					
	Female-Male Employment Growth (1)	Female-Male Wage Bill Growth (2)	Female-Male Wage Growth (3)	Female-Male Employment Growth (4)	Female-Male Wage Bill Growth (5)	Female-Male Wage Growth (6)	Female-Male Employment Growth (7)	Female-Male Wage Bill Growth (8)	Female-Male Wage Growth (9)
$\Delta$ Export Tariff	0.022 (0.026)	0.016 (0.024)	-0.008 (0.008)	-0.053** (0.025)	-0.058** (0.024)	-0.011* (0.006)	-0.120** (0.048)	-0.122** (0.046)	-0.014 (0.015)
<i>FemaleDependenceIndex</i>	0.189 (0.475)	0.372 (0.434)	0.168 (0.243)	-1.041 (0.811)	-0.939 (0.815)	-0.031 (0.185)	0.451 (1.405)	0.478 (1.382)	0.028 (0.368)
<i>FemaleDependenceIndex</i> $\times$ $\Delta$ ExportTariff							0.206 (0.137)	0.196 (0.130)	0.008 (0.039)
$\ln(K/VA)_{init}$	0.027 (0.040)	0.023 (0.039)	-0.013 (0.015)	-0.002 (0.047)	0.013 (0.049)	0.009 (0.015)	-0.006 (0.047)	0.009 (0.048)	0.008 (0.015)
$\ln(VA)_{init}$	-0.028 (0.042)	-0.026 (0.039)	-0.005 (0.017)	-0.052 (0.051)	-0.054 (0.052)	-0.007 (0.013)	-0.046 (0.052)	-0.049 (0.053)	-0.007 (0.013)
<i>R&amp;Dshare</i> <sub>init</sub>	0.009** (0.003)	0.008** (0.003)	-0.001 (0.001)	-0.001 (0.004)	-0.001 (0.004)	0.001 (0.001)	-0.001 (0.004)	-0.001 (0.004)	0.001 (0.001)
<i>Foreign</i> <sub>init</sub>	0.000 (0.117)	-0.002 (0.114)	0.010 (0.063)	-0.036 (0.160)	-0.004 (0.164)	0.033 (0.050)	-0.040 (0.159)	-0.007 (0.163)	0.032 (0.050)
Observations	899	898	862	895	895	562	895	895	562
R <sup>2</sup>	.026	.021	.019	.011	.013	.021	.013	.015	.021
Sector2dig Fixed Effects	yes	yes	yes	yes	yes	yes	yes	yes	yes

Notes: Standard errors clustered at cmap level in parentheses.  $\Delta$  Export Tariff indicates the change in sectoral tariffs (6-digit sector classification) applied by the US between 2000 and 1991. Columns (1) to (3) refer to the White-Collar category while columns (4) to (9) refer to the Blue-Collar category. Female-Male Employment growth refers to the growth in female to male employment ratios between 1991 and 2000. Female-Male Wage Bill is the growth in female to male wage bill ratios between 1991 and 2000. Female-Male wage is the growth in female to male wage ratios between 1991 and 2000. The wage is computed as the ratio of Wage Bill to Employment. The growth rate is computed as  $\ln((female - maleratio) + 0.001) - \ln((female - maleratio) + 0.001)_{t-1}$ . *FemaleDependenceIndex* is the index computed by Do et al (2012) at the four-digit industry level.  $\ln(K/VA)_{init}$  is the log of total assets to value added in 1991.  $\ln(VA)_{init}$  is the log value added in 1991. *R&Dshare*<sub>init</sub> is the share of R&D spending in total income in 1991. *Foreign*<sub>init</sub> is a dummy variable that takes the value of one if the firm was more than 10 percent owned by foreign-owned investors in 1991 and zero otherwise. \*\*\*, \*\*, \*, denote significance at 1%, 5%, 10% levels.

Table C9: Tariff Changes and Female-Male Labor Outcomes: Initial Female-Male Labor Outcomes

Dependent variable: Growth in Female-Male Labor Ratios						
	White Collar			Blue Collar		
	Female-Male Employment Growth (1)	Female-Male Wage Bill Growth (2)	Female-Male Wage Growth (3)	Female-Male Employment Growth (4)	Female-Male Wage Bill Growth (5)	Female-Male Wage Growth (6)
$\Delta$ Export Tariff	0.019 (0.028)	0.011 (0.028)	-0.001 (0.007)	-0.043* (0.024)	-0.049** (0.024)	-0.003 (0.005)
$(Female - Male \text{ Ratio})_{init}$	-1.005*** (0.148)	-1.601*** (0.234)	-1.156*** (0.083)	-0.147** (0.051)	-0.209** (0.069)	-0.579*** (0.072)
$\ln(K/VA)_{init}$	-0.042 (0.040)	-0.051 (0.039)	-0.007 (0.012)	-0.023 (0.046)	-0.011 (0.047)	0.013 (0.012)
$\ln(VA)_{init}$	-0.087** (0.042)	-0.093** (0.042)	0.002 (0.015)	-0.074 (0.049)	-0.079 (0.050)	0.002 (0.010)
$R\&Dshare_{init}$	0.010** (0.003)	0.008** (0.003)	-0.001 (0.001)	-0.001 (0.004)	-0.001 (0.004)	0.002 (0.001)
$Foreign_{init}$	-0.006 (0.105)	-0.029 (0.107)	-0.038 (0.049)	-0.033 (0.156)	-0.001 (0.159)	-0.001 (0.040)
Observations	899	898	862	895	895	562
Sector2dig Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes

*Notes:* Standard errors clustered at cmap level in parentheses.  $\Delta$  Export Tariff indicates the change in sectoral tariffs (6-digit sector classification) applied by the US between 2000 and 1991. Columns (1) to (3) refer to the White-Collar category while columns (4) to (6) refer to the Blue-Collar category. Female-Male Employment growth refers to the growth in female to male employment ratios between 1991 and 2000. Female-Male Wage Bill is the growth in female to male wage bill ratios between 1991 and 2000. Female-Male wage is the growth in female to male wage ratios between 1991 and 2000. The wage is computed as the ratio of Wage Bill to Employment. The growth rate is computed as  $\ln((female - malaratio) + 0.001) - \ln((female - malaratio) + 0.001)_{t-1}$ .  $(Female - Male \text{ Ratio})_{init}$  is the ratio of female to male labor outcome by category in 1991.  $\ln(K/VA)_{init}$  is the log of total assets to value added in 1991.  $\ln(VA)_{init}$  is the log value added in 1991.  $R\&Dshare_{init}$  is the share of R&D spending in total income in 1991.  $Foreign_{init}$  is a dummy variable that takes the value of one if the firm was more than 10 percent owned by foreign-owned investors in 1991 and zero otherwise. \*\*\*, \*\*, \*, denote significance at 1%, 5%, 10% levels.