

**Do High-Skill Immigrants Raise Productivity? Evidence from Israeli  
Manufacturing Firms, 1990-1999\***

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Handout prepared for the workshop:  
“Applications of Employer-Employee Linked  
Databases for Labor Market Analysis”

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**May 2006**

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\* PRELIMINARY AND VERY INCOMPLETE. Comments welcome.

## Summary

From the last quarter of 1989 until 2001, over 1 million immigrants from the Former Soviet Union (FSU) arrived in Israel, increasing its population and labor force by extraordinary rates. At the peak of the immigration wave in 1990 and 1991, over 330 thousand FSU Jews immigrated to Israel, increasing Israel's potential labor force by 8 percent and its population by 15 percent. In addition to its size, another unique aspect of this immigration wave is that many of the immigrants were highly educated. About 60 percent of the FSU immigrants who arrived between 1989-1990 were college-educated and almost one-fourth were college graduates. In contrast, only about 30 percent of the native Israeli Jews in 1990 were college educated, and 12 percent were college graduates.

Much of the previous work on the impact of immigration on the host economy's labor market has found that wages are only mildly negatively affected by the influx of competing workers. This suggests that offsetting flows of labor or capital, or improvements in firms' productivity must occur in order for native wages to maintain their pre-immigration level. This last scenario could well be plausible in the Israeli case, because of the high skill content of the immigrant population. Indeed, the aggregate data reveals that the manufacturing sector, which employed a disproportionate share of FSU immigrants, experienced sustained growth in output per worker and total factor productivity during the 1990s.

In this paper, I use a unique data set on Israeli manufacturing firms and investigate directly whether firms and industries with a higher concentration of immigrants experienced increases in labor productivity and total factor productivity. The analysis reveals a number of interesting results:

a) Despite their high levels of formal education, immigrants were initially employed in low-skill occupations, and moved up the occupational ladder only a number of years after arrival.

b) In 1993, shortly after the peak of the immigration wave, the immigrant share in the firm can be predicted by a number of pre-immigration characteristics of the firm: firms that in 1990 had a high capital/labor ratio, paid low wages and were in industries with a low-educated workforce employed a relatively high share of immigrants. Immigrants were less likely to be employed in firms with a high share of output in highly concentrated industries, consistent with models of queuing in the labor market. By 1997, many of these correlations were weakened or reversed.

c) In cross-sectional and pooled OLS production function regressions, I find no evidence that the immigrant share is correlated with labor productivity or total factor productivity. First-differences estimates reveal, if anything, a *negative* correlation between the change in output per worker and the change in the immigrant share.

d) The immigrant share was strongly negatively correlated with output and productivity in low-tech industries. In high-tech industries, the results are somewhat mixed, but tend to point to a positive relationship, hinting at complementarities between technology and the skilled immigrant workforce.

**Table 1: Output per Worker and Total Factor Productivity in Israel, 1970-1999**  
Average yearly change

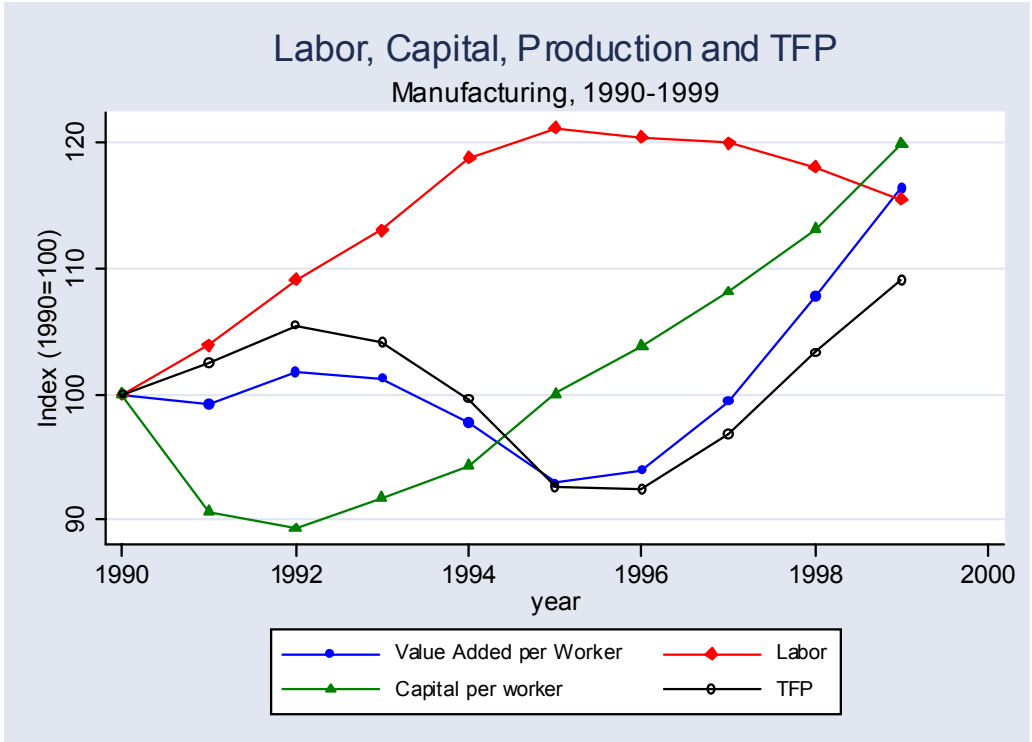
	Output per Worker		Total Factor Productivity	
	Manufacturing	Total Private Sector	Manufacturing	Total Private Sector
1970-1979	4.42%	4.58%	2.22%	2.81%
1980-1989	1.67%	1.51%	0.15%	0.91%
1990-1999	3.14%	1.04%	1.63%	0.70%

Source: Author's calculations based on data from the *Bank of Israel Annual Report, 2003*.

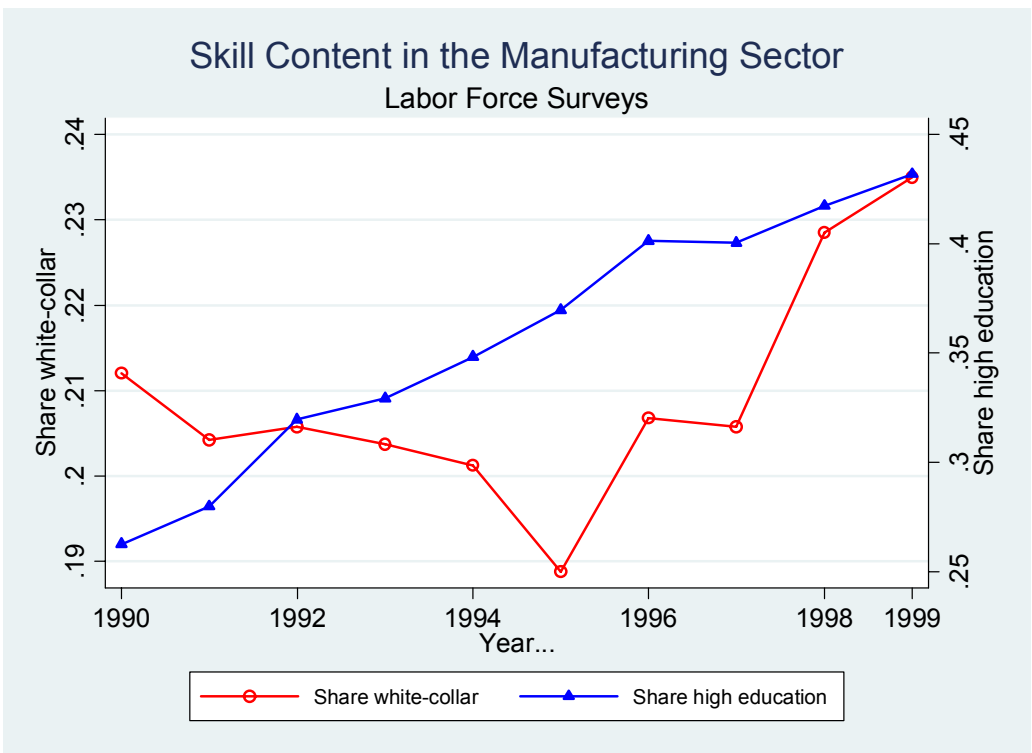
**Table 2: Employment Distribution by Industry**

	Males		Females	
	Immigrants	Natives	Immigrants	Natives
Agriculture	2.14	3.88	1.83	1.42
<b>Mining and Manufacturing</b>	<b>41.68</b>	<b>25.15</b>	<b>25.53</b>	<b>11.42</b>
Electricity and Water	1.23	1.62	0.27	0.36
Construction	12.39	9.93	0.88	0.97
Commerce, Restaurants and Hotels	10.90	16.00	15.44	12.92
Transport, Storage and Communication	4.35	9.11	1.54	3.33
Financing and Business Services	8.98	11.59	10.79	13.87
Public and Community Services	13.12	17.84	31.41	47.33
Personal and Other Services	5.22	4.88	12.31	8.38
Total	100.00	100.00	100.00	100.0
Percentage Immigrants	9.50		11.21	

Note: Author's calculations from the 1991-1999 Labor Force Surveys



**Figure 1: Output, Labor Capital and TFP in Manufacturing, 1990-1999**



**Figure 2: Skill Content in the Manufacturing Sector, 1990-1999**

**Table 3: Number of Firms in the Manufacturing Surveys**

	Total Number of Firms	Number of firms in the sample in 1990	Number of firms in the sample in 1995
1990	2085	2085	822
1991	2151	1936	857
1992	2158	1826	878
1993	2254	1754	911
1994	2316	1666	957
1995	2041	822	2041
1996	1987	799	1879
1997	1950	768	1761
1998	1903	739	1652
1999	1865	713	1551
Total number of firms in the sample:		4378	
Firms continuously in the sample, 1990-1999		698	

Note: Author's calculations from the 1990-1999 Manufacturing Surveys

**Table 4: Firm characteristics, by technological intensity**

	Low-Tech			Medium-Low Tech			Medium-High Tech			High-Tech		
	1990	1993	1997	1990	1993	1997	1990	1993	1997	1990	1993	1997
Number of firms	990	1,061	832	629	703	655	305	324	284	152	166	179
Total Employment	129,215	145,976	137,841	74,353	91,446	109,470	51,030	48,904	49,768	40,018	46,916	56,555
Average years of Schooling	10.63	11.01	11.68	11.37	11.82	12.27	11.81	12.53	12.62	13.27	14.00	14.26
Percentage Scientists	-	0.53%	1.27%	-	2.43%	3.51%	-	6.45%	8.15%	-	23.43%	31.99%
Percentage of firms doing R&D	-	0.59%	0.04%	-	0.96%	0.54%	-	4.46%	4.26%	-	16.05%	21.03%

**Note:** Author's calculations from the 1990-1999 Manufacturing Surveys, Labor Force Composition Surveys, and Labor Force Surveys. For the classification of industries by technological intensity, see Appendix Table A1.

**Table 5: Percentage Immigrants in Manufacturing:  
Labor Force Composition Surveys, 1993 and 1997**

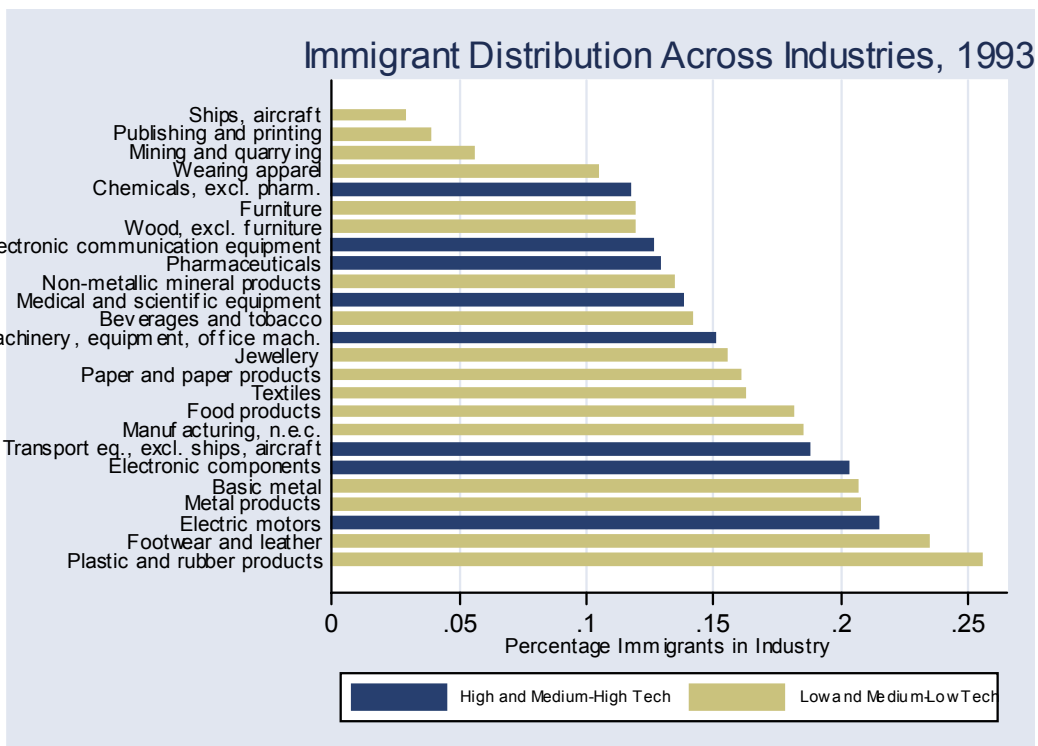
	1993	1997
All Firms		
Number of firms with non-missing LFC data	2,254	1,437
Average number of employees	28.53	40.97
Share of firms hiring immigrants	0.692	0.514
Average number of immigrants in firm	4.21	6.20
Median number of immigrants in firm	1	1
Average share of immigrants in firm	0.152	0.155
Average share of immigrants in firms with at least one immigrants	0.218	0.301
Balanced Sample		
Number of firms with non-missing LFC data	762	617
Average number of employees	128.11	134.11
Share of firms hiring immigrants	0.933	0.697
Average number of immigrants in firm	26.82	34.04
Median number of immigrants in firm	18	13
Average share of immigrants in firm	0.174	0.170
Average share of immigrants in firms with at least one immigrants	0.186	0.244

Note: Firms in the balanced sample are firms that were present in the sample in 1990, 1993, and 1997.

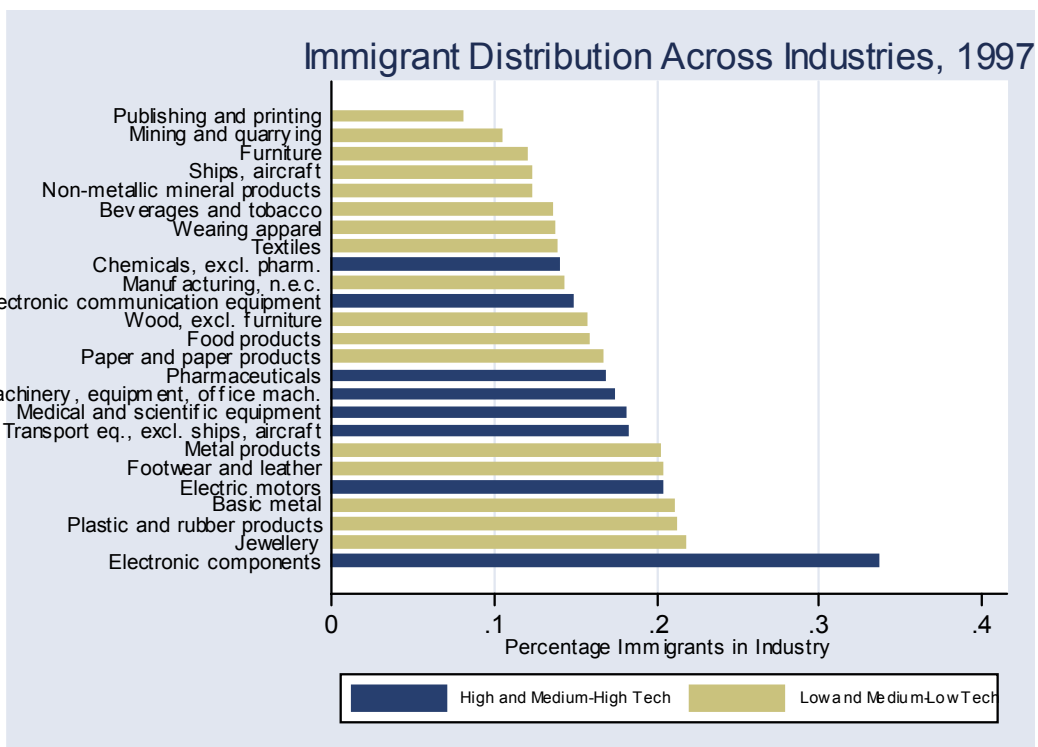
**Table 6: Occupational Distribution of Immigrants in Manufacturing**

	1993			1997		
	Occupational Distribution			Occupational Distribution		
	Share of occupation who are immigrants	Immigrants	Total	Share of occupation who are immigrants	Immigrants	Total
Scientists	0.074	0.043	0.075	0.159	0.098	0.093
Academics	0.021	0.004	0.026	0.081	0.022	0.042
Technicians	0.028	0.016	0.072	0.111	0.064	0.088
Other Production	0.148	0.937	0.827	0.159	0.0815	0.777
Total	0.130	1.000	1.000	0.151	1.000	1.000

Source: Author's calculations from the LFCS.



**Figure 3a: Immigrant Distribution across Industries, 1993**



**Figure 3b: Immigrant Distribution across Industries, 1997**

Source: Labor Force Composition Surveys, 1993-1997.

**Table 7: 1990 Firm Determinants of Immigrant Concentration, 1993-1997**  
**All available firms**

	Share immigrants in 1993		Share immigrants in 1997		Share immigrants in 1993	
	All available firms		All available firms		All firms in 1997 sample	
Number employed:	0.009	0.001	0.014	0.001	0.051	0.025
10-24	(0.014)	(0.013)	(0.052)	(0.056)	(.044)	(0.043)
Number employed:	0.039**	0.028*	-0.005	-0.015	0.127**	0.090**
25-49	(0.152)	(0.015)	(0.041)	(0.054)	(0.043)	(0.041)
Number employed:	0.035**	0.022	-0.045	-0.048	0.062	0.040
50-99	(0.015)	(0.015)	(0.044)	(0.050)	(0.042)	(0.040)
Number employed:	0.014	0.000	-0.029	-0.058	0.025	-0.007
100+	(0.016)	(0.016)	(0.047)	(0.049)	(0.041)	(0.039)
Log (K/L)	0.032**	0.022**	0.044	0.051*	0.015	0.014
	(0.009)	(0.008)	(0.027)	(0.029)	(0.013)	(0.013)
Log Wage	-0.051**	-0.044**	0.116**	0.074*	-0.053*	-0.039
	(0.018)	(0.016)	(0.053)	(0.038)	(0.030)	(0.030)
Log value added per worker	0.014	0.019	-0.142**	-0.126**	0.019	0.015
	(0.015)	(0.013)	(0.059)	(0.051)	(0.021)	(0.021)
Output share in 3-digit industry	-0.122*	-0.126*	-0.347**	-0.264*	-0.056	-0.086
	(0.065)	(0.067)	(0.154)	(0.142)	(0.065)	(0.067)
Three-firm concentration index (3-digit industry)	0.078**	0.081**	-0.053	0.010	-0.034	0.071
	(0.037)	(0.039)	(0.111)	(0.111)	(0.050)	(0.055)
Output share × Concentration index	-0.201**	-0.203**	0.065	0.125	-0.088	-0.119
	(0.096)	(0.101)	(0.211)	(0.217)	(0.088)	(0.086)
Import penetration index (3-digit industry)	0.099**	0.119**	0.287**	0.374**	0.015	0.021
	(0.038)	(0.045)	(0.127)	(0.128)	(0.057)	(0.059)
Avg. years of schooling in 3-digit industry	-0.021**	-0.017	0.022	0.059**	-0.014	0.001
	(0.008)	(0.011)	(0.020)	(0.026)	(0.011)	(0.016)
High tech	0.047	-	-0.009	-	0.009	-
	(0.029)		(0.083)		(0.043)	
Medium-high tech	0.042	-	0.010	-	0.020	-
	(0.022)		(0.062)		(0.032)	
Medium-low tech	0.061**	-	0.139**	-	0.020	-
	(0.014)		(0.047)		(0.027)	
Any R&D	0.000	0.004	-0.037	-0.034	0.004	-0.008
	(0.014)	(0.014)	(0.030)	(0.032)	(0.021)	(0.021)
Traded on stock market	-0.016	-0.006	0.137**	0.150**	-0.001	0.008
	(0.022)	(0.021)	(0.068)	(0.062)	(0.030)	(0.030)
Region dummies	Yes	Yes	Yes	Yes	Yes	Yes
2- digit industry dummies	No	Yes	No	Yes	No	Yes
N	1704	1704	616	616	609	609
R <sup>2</sup>	0.107	0.198	0.358	0.475	0.140	0.234

\*: Statistically different from 0 at the 10% level.

\*\*: Statistically different from 0 at the 5% level.

**Table 8: Production Functions, Cross-sectional and Pooled Estimates**

Full sample

Dependent variable: log output per worker

	1993	1993	1997	1997	Pooled, 1993-1997	Pooled, 1993-1997
Share Immigrants	-0.039 (0.054)	0.024 (0.055)	-0.040 (0.038)	0.008 (0.033)	-0.034 (0.032)	0.022 (0.029)
Log capital per Worker	0.163** (0.012)	0.243** (0.018)	0.194** (0.017)	0.276** (0.024)	0.177** (0.012)	0.244** (0.015)
Log materials per worker	0.516** (0.016)	0.465** (0.018)	0.472** (0.019)	0.422** (0.020)	0.497** (0.013)	0.453** (0.014)
Log employment	0.037** (0.008)	0.042** (0.007)	0.043** (0.009)	0.042** (0.008)	0.038** (0.006)	0.039** (0.006)
Quality of labor Index	0.280** (0.076)	-0.094 (0.074)	0.400** (0.070)	0.208** (0.063)	0.359** (0.062)	0.098* (0.057)
Log R&D expenditures	0.037** (0.010)	0.019** (0.009)	0.010 (0.019)	0.014 (0.023)	0.022** (0.009)	0.009 (0.010)
1 if no R&D	-0.123** (0.032)	-0.105** (0.029)	-0.026 (0.049)	-0.027 (0.058)	-0.077** (0.030)	-0.055* (0.032)
Region Dummies	Yes	Yes	Yes	Yes	Yes	Yes
3-digit industry dummies	No	Yes	No	Yes	No	Yes
N	2087	2087	1421	1421	3508	3508
R <sup>2</sup>	0.865	0.895	0.860	0.892	0.861	0.887

**Note:** Entries in the table represent weighted least squares coefficients. Robust standard errors in parentheses

\*: Statistically different from 0 at the 10% level.

\*\*: Statistically different from 0 at the 5% level.

**Table 9: Production Functions – First Differences Estimates**

Dependent variable: Change in log output per worker

	Sample: All available firms			Sample: Balanced Sample		
	1990-1993	1993-1997	Pooled	1990-1993	1993-1997	Pooled
Share Immigrants	-0.048 (0.059)	-0.094** (0.042)	-0.073** (0.030)	0.065 (0.067)	-0.056 (0.042)	-0.029 (0.036)
Log capital per worker	0.188** (0.044)	0.068 (0.044)	0.121** (0.028)	0.168** (0.048)	0.049 (0.041)	0.071** (0.034)
Log materials per worker	0.584** (0.031)	0.490** (0.056)	0.567** (0.030)	0.651** (0.044)	0.449** (0.055)	0.493** (0.050)
Log employment	0.085* (0.044)	-0.029 (0.045)	0.032 (0.028)	0.029 (0.039)	-0.089** (0.038)	-0.052 (0.035)
Log R&D expenditures	0.006 (0.013)	0.001 (0.023)	-0.009 (0.011)	0.007 (0.015)	0.006 (0.022)	-0.009 (0.012)
1 if no R&D expenditures	-0.028 (0.059)	-0.030 (0.152)	-0.088 (0.060)	0.012 (0.079)	-0.005 (0.153)	-0.063 (0.073)
Region dummies	Yes	Yes	Yes	Yes	Yes	Yes
3-digit industry dummies	Yes	Yes	Yes	Yes	Yes	Yes
N	1700	661	2361	611	611	1222
R <sup>2</sup>	0.766	0.864	0.780	0.812	0.832	0.773

Note: All the explanatory variables are expressed in first differences.

\*\*: Statistically significant at the 5% level

**Table 10: Immigrants and Total Factor Productivity**

Dependent variable: total factor productivity

	Levels, all available firms, 1993-1997	First Differences, all available firms, 1993-1997	First Differences, balanced sample, 1993-1997
Share Immigrants	-0.032 (0.036)	-0.093** (0.043)	-0.060 (0.064)
Log capital per worker	0.140** (0.015)	0.0249 (0.041)	-0.028 (0.047)
Log materials per worker	-0.099** (0.014)	0.014 (0.030)	-0.051 (0.045)
Log employment	0.162** (0.006)	0.152** (0.041)	0.345 (0.043)
Log R&D expenditures	0.062** (0.019)	-0.018 (0.021)	-0.023 (0.025)
1 if no R&D expenditures	0.279** (0.124)	-0.124 (0.113)	0.118 (0.146)
Region dummies	Yes	Yes	Yes
3-digit industry dummies	Yes	Yes	Yes
N	3508	2361	1222
R <sup>2</sup>	0.742	0.532	0.631

**Table 11: Production Functions – Nonlinearities and Interactions**

	Levels, all available firms, 1993-1997	First Differences, all available firms, 1993-1997	First Differences, balanced sample, 1993-1997
<b>Nonlinearities in immigrant share</b>			
Share immigrants	0.045 (0.080)	0.022 (0.086)	-0.013 (0.121)
Share immigrants square	-0.033 (0.098)	-0.123 (0.105)	-0.027 (0.177)
Industry dummies	3 digit	3 digit	3 digit
<b>Immigrant share and firm size</b>			
Share immigrants × number employed 0-9	0.083 (0.067)	-0.110*** (0.042)	-0.156 (0.120)
Share immigrants × number employed 10-49	0.017 (0.038)	-0.035 (0.042)	0.005 (0.055)
Share immigrants × number employed 50-99	0.005 (0.049)	-0.052 (0.042)	-0.048 (0.046)
Share immigrants × number employed 100 +	-0.233*** (0.064)	-0.050 (0.047)	-0.039 (0.059)
Industry dummies	3 digit	3 digit	3 digit
<b>Immigrant share and technological intensity</b>			
Share immigrants × low tech industry	-0.102** (0.049)	-0.123*** (0.032)	-0.165*** (0.047)
Share immigrants × medium-low tech industry	-0.015 (0.048)	0.063 (0.059)	0.026 (0.066)
Share immigrants × medium- high tech industry	-0.036 (0.058)	0.152** (0.060)	0.060 (0.091)
Share immigrants × high tech industry	-0.040 (0.220)	-0.015 (0.117)	0.301** (0.143)
Industry dummies	None	None	None
<b>Immigrant share and 1989-1990 average years of schooling in industry</b>			
Share immigrants × (average years of schooling ≤ 10.5)	0.009 (0.059)	-0.121*** (0.034)	-0.105 (0.075)
Share immigrants × (average years of schooling ∈ [10.5, 11.5])	-0.014 (0.042)	0.043 (0.054)	-0.015 (0.061)
Share immigrants × (average years of schooling > 11.5)	-0.021 (0.068)	0.066 (0.069)	0.047 (0.085)
Industry dummies	2 digits	2 digits	2 digits
Number of observations	3,508	2,361	1,222

**Table 12: Production Functions – Immigrant Scientists versus Others**

	Levels, all available firms, 1993-1997		First differences, all available firms, 1993-1997		First differences, balanced sample, 1993-1997	
	Share immigrant scientists	Share immigrants other occ.	Share immigrant scientists	Share immigrants other occ.	Share immigrant scientists	Share immigrants other occ.
All firms	0.386 (0.438)	0.013 (0.030)	0.014 (0.198)	-0.073** (0.028)	0.221 (0.229)	-0.034 (0.040)
Industry dummies	3 digit		3 digit		3 digit	
Low tech industries	1.005 (0.664)	-0.108 (0.049)	-0.977*** (0.225)	-0.119*** (0.032)	-0.734*** (0.258)	-0.154*** (0.050)
Medium-low tech industries	-0.290 (0.279)	-0.009 (0.050)	0.185 (0.131)	0.058 (0.063)	0.254 (0.294)	0.019 (0.069)
Medium-high tech industries	0.092 (0.212)	-0.046 (0.059)	0.677 (0.467)	0.131** (0.057)	0.220 (0.628)	0.056 (0.094)
High tech industries	1.250 (0.882)	-0.267 (0.174)	-0.219 (0.460)	0.045 (0.118)	0.541 (0.402)	0.271* (0.148)
Industry dummies	None		None		None	
Average years of schooling $\leq 10.5$	-0.352 (0.512)	0.014 (0.059)	0.241 (0.181)	-0.125 (0.034)	0.707 (0.819)	-0.124 (0.077)
Average years of schooling $\in [10.5, 11.5)$	-0.046 (0.386)	-0.014 (0.044)	0.137 (0.263)	0.043 (0.057)	0.241 (0.364)	-0.013 (0.066)
Average years of schooling $> 11.5$	0.708 (0.600)	-0.079 (0.074)	-0.215 (0.390)	0.086 (0.065)	-0.150 (0.332)	0.056 (0.087)
Industry dummies	2 digits		2 digits		2 digits	

**Appendix Table A1: Manufacturing Industries, by Technological Intensity**

<b>Low-Tech</b>	<b>Medium-Low Tech</b>	<b>Medium-High Tech</b>	<b>High-Tech</b>
<p>140 Processing of meat and poultry  141 Processing of fruit and vegetables  142 Processing of fish  143 Manufacture of edible oils, margarine and oil products  144 Manufacture of dairy products and ice cream  145 Manufacture of grain mill products  146 Bakeries  147 Manufacture of cakes, cookies and biscuits  148 Manufacture of unleavened bread  149 Manufacture of noodles and pastry products  150 Manufacture of sugar  151 Manufacture of chocolate, cocoa, and sugar confectionery  152 Manufacture of prepared food  158 Manufacture of food products n.e.c  160 Manufacture of wine and other alcoholic beverages  161 Manufacture of beer and malt  162 Manufacture of soft drinks  163 Manufacture of tobacco products  170 Spinning, winding and interweaving of yarns  171 Weaving of fabrics  172 Weaving of terry towels  173 Finishing of textiles  174 Manufacture of bedclothes and bedspreads</p>	<p>130 Quarrying of stone and sand  131 Mining of minerals and extraction of salts  138 Mining and quarrying of non-metallic minerals n.e.c.  250 Manufacture of plastic boards and pipes  251 Manufacture of plastic sleeves and sheets  252 Manufacture of plastic containers and bottles  253 Manufacture of products from armored plastic  254 Manufacture of plastic products for kitchen, table and domestic uses  255 Manufacture of plastic products for technical, agricultural and industrial uses  256 Manufacture of plastic products n.e.c.  257 Manufacture of rubber products  258 Manufacture of tyres and tubes  260 Manufacture of glass and glass products  261 Manufacture of ceramic tiles  262 Manufacture of other ceramic products  263 Manufacture of cement and plaster  264 Manufacture of articles of cement, concrete, plaster and clay  265 Cutting, shaping and finishing of stone  268 Manufacture of non-metallic mineral products n.e.c.</p>	<p>230 Manufacture of refined petroleum and its products  231 Processing of nuclear fuel  240 Manufacture of basic industrial chemicals  241 Manufacture of fertilizers  242 Manufacture of petrochemicals and plastics in primary forms  243 Manufacture of pesticides and disinfectants  244 Manufacture of paints and varnishes  246 Manufacture of soap, detergents and cosmetics  247 Manufacture of man-made fibers  248 Manufacture of chemical products n.e.c.  290 Manufacture of general purpose machinery and equipment, parts and maintenance thereof  291 Manufacture of agricultural and forestry machinery parts and maintenance thereof  292 Manufacture of industrial machinery, parts and maintenance thereof  293 Manufacture of machinery for construction and road works, parts and maintenance thereof  294 Manufacture of domestic appliances</p>	<p>245 Manufacture of pharmaceutical products for human veterinary use  300 Manufacture of office machinery  301 Manufacture of automatic data processing machinery  320 Manufacture of electronic components  321 Manufacture of semi-conductors  330 Manufacture of telecommunication equipment  331 Manufacture of data-communication equipment  332 Manufacture of domestic electronic equipment  340 Manufacture of industrial equipment for control and supervision  341 Manufacture of medical and surgical equipment  342 Manufacture of instruments for measuring, testing, and navigating  343 Manufacture of optical instruments and photographic equipment  355 Manufacture of aircraft</p>

**Appendix Table A1: Manufacturing Industries, by Technological Intensity, continued**

<b>Low-Tech</b>	<b>Medium-Low Tech</b>	<b>Medium-High Tech</b>	<b>High-Tech</b>
<p>175 Manufacturing of other textile products  176 Manufacture of carpets and rugs  177 Manufacture of knitted fabrics  178 Manufacture of knitted wearing apparel  180 Manufacture of outerwear (except knitted) and tailors dressmakers  181 Manufacture of swim suits  182 Manufacture of underwear (excl. knitted)  188 Manufacture of wearing apparel n.e.c.  190 Tanneries  191 Manufacture of footwear and footwear articles of leather and its substitutes  192 Manufacture of products of leather and leather substitutes n.e.c.  200 Sawmills  201 Manufacture of plywood and by-products  202 Manufacture of builders' carpentry and joinery and of wood products n.e.c.  210 Basic manufacture of paper and cardboard  211 Manufacture of paper and cardboard products  220 Publishing of books, pamphlets and other publications  222 Printing and service activities related to printing  223 Publishing and reproduction of recorded media  360 Manufacture of furniture (excl. metal and plastic one)  361 Manufacture of metal furniture  362 Manufacture of plastic furniture</p>	<p>270 Manufacture of basic iron and steel  271 Manufacture of non-ferrous and precious metals  272 Iron and steel foundries  273 Foundries of non-ferrous metals  274 Manufacture of metal pipes  280 Manufacture of structural metal products, tanks and steam boilers  281 Metal processing (metal workshops)  282 Metal coating  283 Manufacture of cutlery  284 Manufacture of cutting and hand tools  285 Manufacture of plumbing fixtures  286 Manufacture of tinware products  287 Manufacture of wire and wire products  288 Manufacture of metal products n.e.c. and n.s.  353 Building of ships and boats  380 Manufacture of goldsmiths' articles  381 Manufacture of silversmiths' articles  382 Manufacture of gift items  390 Manufacture of musical instruments  391 Manufacture of sports goods  392 Manufacture of toys and games  393 Manufacture of medical equipment and orthopedic articles  394 Manufacture of disposable medical equipment  395 Manufacture of school and office supplies  398 Manufacture of products n.e.c.</p>	<p>310 Manufacture of electric motors, generators and transformers  311 Manufacture of electricity distribution and control apparatus  312 Manufacture of insulated wire and cables  313 Manufacture of cells and batteries  350 Manufacture of motor vehicles  351 Manufacture of bodies for motor vehicles, trailers and semi-trailers  352 Manufacture of parts for motor vehicles  354 Manufacture of railway equipment  358 Manufacture of transport equipment n.e.c.</p>	