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15   Why Are Low-skilled Immigrants in the United States Poorly Paid Relative to Their Australian Counterparts?

Some of the Issues Illustrated in the Context of the Footwear, Clothing, and Textile Industries

R. G. Gregory, R. Anstie, and E. Klug

Many low-skilled immigrant workers in the United States are poorly paid relative to their Australian counterparts. Consider, for example, average earnings of foreign-born male workers in the textile, clothing, and footwear (TCF) industries relative to average earnings of all males in full-time employment. On this relative basis, foreign-born male workers in TCF in the United States earn 40 percent less than they would earn in Australia. Foreign-born females earn 30 percent less. Can these low earnings in the United States be explained by economic factors, such as different levels of human capital or the relative demand and supplies of low-skilled labor in each country? Or are they, as we argue, the outcome of different labor market institutions?[1]

The Australian economy has three institutional features that may increase earnings of low-skilled immigrants. First, there is a high degree of trade union membership. Approximately 49 percent of all employees in Australia belong to trade unions, and among immigrants the proportion is even higher. For example, 75 percent of male employees born in Yugoslavia belong to a trade union, as do 73 percent of those born in Greece. Among female employees from these countries, 75 and 69 percent, respectively, belong to a union. The union movement in also strong in TCF industries, with membership well over 50 percent. In the United States, trade union representation is much lower. In 1984, trade union membership in manufacturing was 27.8 percent (51.2 percent in Australia) and for women, in aggregate, as low as 14.6 percent (43.0 percent in Australia).

Second, the Australian labor market is heavily regulated by a system of federal and state tribunals that set minimum wages for each occupation: the pay of university professors is fixed, as is that of sewing machine operators,

laborers, cutters in a clothing factory, and so on. These rates of pay are called awards and are legally enforced minimums. Where awards are determined by the federal tribunal, they are set on a nationwide basis. For example, all clothing cutters, irrespective of the factory in which they work, will be covered by the same award rate of pay. Employers may pay rates over the award rates, and often do so, but most workers receive the award rate of pay for the job.[2]

It is widely believed that these two institutional features exercise a considerable effect on pay relativities. It is often argued, for example, that tribunal judgments, reflecting trade union views, have compressed the pay structure, particularly with regard to the low paid and low skilled, who have had their pay lifted relative to the average (Hughes 1973; Norris 1980; Gregory, Daly, and Ho 1986). The extensive trade union membership among immigrants and the low skilled effectively monitors compliance so that most of the labor market is directly affected by tribunal decisions. In May 1983, for example, 83.6 percent of male employees and 89.7 percent of female employees were covered by award rates of pay. Widespread trade union membership has meant that there is little opportunity for the development of an uncovered sector where wages and conditions are less attractive.

The third institutional feature that may affect earnings of the low skilled is that, throughout this century, Australian governments have levied tariffs and quotas on imports to protect manufacturing jobs. It is well known that trade barriers can affect income distribution. Early developments of the Stolper-Samuelson theorem—tariffs that protect the output of labor-intensive industries can increase the absolute rewards to labor—can be found in the Australian literature just after the turn of the century. Indeed, Stolper and Samuelson (1941) refer to their theorem as the Australian case for tariff protection. The United States also imposes tariffs and trade interventions that do reduce TCF imports and may protect low-skilled labor but that are not as high as those in Australia.

These three institutional features of the Australian economy extend to all industries. In this paper, however, we focus on the TCF sector because it illustrates, in the clearest manner, the effect of institutional differences in each country. Our comparison with the United States shows that Australian labor market institutions, supported by trade policy, have increased the pay of low-skilled TCF workers relative to the community average. The wage tribunals have encouraged "comparative wage justice" whereby workers of similar skills and responsibility are paid the same rate of pay regardless of where they work.

15.1 Background

Just before World War II, Australia had a population of 6.9 million; 13.6 percent were born overseas, and, of these, 80 percent were of British origin. The threat to Australia during World War II quickly led to the realization that

we could no longer depend on the United Kingdom for military protection and that there was a need to be more self-reliant. To achieve this end, Australia needed more people—hence the adoption of a vigorous postwar immigration program.

It was believed that there might be two important constraints on a policy of seeking more immigrants. First, in ethnic, religious, and racial terms, Australia was a very homogeneous society, so there was some doubt as to the ease with which strangers could be absorbed. As a result, emphasis was placed on the ability of immigrants to become assimilated. Given the origins of the Australian population, the obvious preference was for immigrants from the United Kingdom and northwestern Europe, but, in response to changing conditions in European labor markets, the source of immigrants gradually moved south and east. Italians and Greeks arrived in large numbers during the 1950s and early 1960s, to be followed subsequently by immigrants from the Middle and Near East. During the 1980s, Asian immigration became important (table 15.1).

The second possible constraint was jobs. Where were immigrants to work? It was not expected that they would be farmers or service-sector workers. Nor was it expected that they would create their own jobs. It was natural, at the time, that immigration and manufacturing development should be seen as interrelated: immigrants needed a growing manufacturing sector as a source of employment, and Australia needed both immigrants and a larger manufacturing sector to be more self-reliant. The desire to develop manufacturing was also encouraged by the international trading environment of the time. Both the depression of the 1930s and the boom and bust of primary product markets

Table 15.1   **Australian Population by Birthplace (%)**

Country of Birth	1933	1947	1961	1981	1984
Australian born	86.4	90.2	83.1	78.2	78.9
United Kingdom and Ireland	10.8	7.1	7.2	7.8	7.7
Subtotal	97.2	97.3	90.3	86.0	86.6
Italy	.4	.4	2.2	1.9	1.8
Germany			1.0	.8	.8
Greece			.7	1.0	1.0
The Netherlands			1.0	.7	.7
Poland			.6	.4	.5
Asia	.4	.3	.8	2.2	3.1
Others	2.0	2.0	3.4	7.0	5.5
Total	100.0	100.0	100.0	100.0	100.0

Source: 1933, 1947, 1961, 1981 Australian Census. "1984, Resident Population by Birthplace," Australian Bureau of Statistics, *Australian Demographic Statistics,* Catalogue no. 3101.0 (Canberra: June 1985).

in response to the Korean War had illustrated the dangers of an economy organized around one or two primary product exports. To facilitate development of manufacturing, the government pursued an active policy of industry protection by subjecting manufactured imports to tariffs and quotas.

In terms of the original objectives, these policies were largely successful. During the first twenty years, the immigration flow added .78 percent per annum to the population, and, by 1981, 21.8 percent of the work force had been born overseas, 36 percent being of British origin. Australia had become a multiracial society, and assimilation had proceeded smoothly. Manufacturing also developed quickly, with immigrants providing additional labor and protection providing manufacturing jobs.

By the late 1960s, however, the Australian government had become more aware of the high cost of tariffs and began to reduce trade barriers. At the margin of policy adjustments, manufacturing jobs were not encouraged. Since 1968–69, the average effective tariff rate has been reduced from 36 to 19 percent (table 15.2), and the import share of domestic market supplies has increased. Manufacturing declined as protection was reduced, and the employment share of full- and part-time workers fell from around 29 to 16 percent. Despite this decline, the proportion of immigrants that work in manufacturing remained virtually unchanged. Among full-time employees at the 1981 Census, 38.8 percent of foreign-born males and 33.1 percent of foreign-born females were employed in manufacturing; for particular ethnic groups, the concentration was particularly high: 49 percent for males born in southern Europe and 60.6 percent for females (the shares of the Australian work force employed in manufacturing were 24.1 percent for males and 13.5 percent for females; table 15.3). The concentration of immigrants in TCF was even greater. Among full-time female employees born in southern Europe, 27.1 percent worked in TCF; for those born elsewhere in Europe, the proportion was 14 percent (the proportion of native born was 3.1 percent).[3]

Although tariffs for most Australian industries have been reduced substantially since the early 1970s, immigrant-intensive industries such as motor vehicles and TCF have received increased protection from quotas; as a result, there remains a strong positive association between the proportion of the work force born overseas and industry protection. Those employed in immigrant-intensive industries have received increased levels of community assistance in terms of either job maintenance or higher wages.

In the United States, the distribution of native and foreign-born male employment is similar; 30.9 percent of native-born and 31.9 percent of foreign-born full-time employees work in manufacturing. The industrial distribution of female immigrants, however, is similar to that in Australia; 26.9 percent of foreign-born, 18.3 percent of native-born, and 42.1 percent of southern European–born females work full time in manufacturing. Furthermore, more than 20 percent of women born in southern Europe and employed full time work in TCF. For native-born females, the proportion is similar to that in Australia, between 2 and 3 percent.

Table 15.2   **Average Effective Rates of Assistance Manufacturing Subdivisions from 1968–69 to 1987–88 (%)**

ASIC Subdivision	1968–69	1974–75	1975–76	1977–78	1982–83	1987–88
21 Food, beverages, & tobacco	16	21	20	10	9	5
23 Textiles	43	39	50	47	54	68
24 Clothing and footwear	97	87	99	141	220	183
25 Wood, wood products, & furniture	26	18	19	18	13	18
26 Paper & paper products, printing & publishing	52	31	30	24	24	16
27 Chemical, petroleum, & coal products	31	23	26	19	14	12
28 Nonmetallic mineral products	15	11	10	5	4	4
29 Basic metal products	31	16	16	10	11	9
31 Fabricated metal products	61	39	38	30	27	23
32 Transport	50	45	59	48	72	44
33 Other machinery & equipment	43	24	25	20	18	23
34 Miscellaneous manufacturing	34	27	26	30	25	28
Total manufacturing	36	27	28	24	25	19

Source: Assistance to Manufacturing Industries in Australia, 1968–69 to 1973–74 Industries Assistance Commission (Canberra: Australian Government Publishing Service, 1976). *Assistance to Manufacturing Industry, 1977–78 to 1982–83* Industries Assistance Commission (Canberra: Australian Government Publishing Service, 1985). Industries Assistance Commission, *Annual Report, 1980–81* (Canberra: Australian Government Publishing Service, 1981). Industries Assistance Commission, *Annual Report, 1987–88* (Canberra: Australian Government Publishing Service, 1988).

Note: The estimates from 1968–69 to 1987–88 are in four series: from 1968–69 to 1972–73; from 1974–75 to 1975–76; from 1977–78 to 1982–83; and from 1983–84 to 1987–88. The first series is based on 1971–72 production weights; the second series uses 1974–75 production weights; the third series employs 1977–78 production weights and also incorporates forms of assistance not included in previous series estimates; and the fourth series employs 1983–84 production weights.

15.2   Immigrant Earnings in TCF Industries

15.2.1   Background

Table 15.4 presents average weekly earnings of full-time workers in TCF expressed as a ratio of male average weekly earnings in all industries. The data are taken from the Census of each country: 1981 for Australia and 1980 for the United States.[4] Adult male workers in U.S. TCF earn 21.3 percentage points less than the average of all male workers. In Australia, the shortfall is 9.4 percentage points. For females, the earnings gap is greater. The average

Table 15.3 Distribution of Ethnic Groups over Industry Categories (%)

Birthplace	Australia 1981					United States 1980				
	Footwear & Clothing	Textiles	All Manufacturing	All Other Industries	Total	Footwear & Clothing	Textiles	All Manufacturing	All Other Industries	Total
Males, full-time employees, 15–64 years:										
Native born	.3	.5	24.1	75.9	100	.6	.8	30.9	69.1	100
United Kingdom/Ireland	.6	.8	34.0	66.0	100	.0	.8	32.5	67.5	100
Southern Europe	1.4	1.7	49.3	50.7	100	2.0	2.3	35.6	64.4	100
Rest of Europe	1.1	1.1	40.3	59.7	100	.0	.3	33.7	66.3	100
Asia	1.5	2.2	43.0	57.0	100	1.1	.0	25.8	74.2	100
Central and South America						2.6	1.0	32.5	67.5	100
Other	.5	1.4	30.8	69.2	100	2.8	1.6	37.3	62.7	100
Total foreign born	.9	1.3	38.8	61.2	100	1.7	.9	31.9	68.1	100
Total	.5	.7	28.1	71.9	100	.7	.8	31.1	68.9	100
Females, full-time employees, 15–64 years:										
Native born	2.4	.7	13.5	86.5	100	2.0	.9	18.3	81.7	100
United Kingdom/Ireland	3.4	1.0	19.7	80.3	100	1.0	.0	13.7	86.3	100
Southern Europe	22.4	4.7	60.6	39.2	100	18.7	1.8	42.1	57.9	100
Rest of Europe	10.7	3.3	34.5	65.5	100	1.9	.0	18.6	81.4	100
Asia	10.6	1.9	38.6	62.4	100	8.6	.2	26.4	73.6	100
Central and South America						12.8	.7	31.4	68.6	100
Other	2.7	1.8	17.7	82.3	100	8.0	1.4	27.2	72.8	100
Total foreign born	9.5	2.4	33.1	66.9	100	8.7	.6	26.9	73.1	100
Total	.5	1.1	18.4	81.6	100	3.6	.9	20.3	79.7	100

Source: Australia, 1981 Census. United States, 1980 Census.

Table 15.4 Earnings of Textiles, Clothing, and Footwear, Full-Time Workers, Average Weekly Earnings as a Proportion of Male Average Weekly Earnings in All Industries

	Australia 1981				United States 1980			
	Total (1)	Native Born (2)	Foreign Born (3)	Southern European Born (4)	Total (1)	Native Born (2)	Foreign Born (3)	Central or South American Born (4)
Males:								
Footwear & clothing	92.0	87.4	96.2	82.2	79.6	83.0	57.4	52.3
Textiles	89.7	94.0	84.6	74.4	77.9	79.8	46.1	47.9
Combined TCF	90.6	91.5	89.6	78.2	78.7	81.2	53.7	50.8
Industries	100.0	99.8	100.6	84.3	100.0	100.7	87.4	65.1
Females:								
Footwear & clothing	57.2	58.1	56.5	53.7	40.1	40.7	40.3	38.4
Textiles	63.2	64.6	62.0	58.3	48.4	49.0	38.5	35.1
Combined TCF	58.4	59.4	57.6	54.4	42.5	43.5	40.2	38.3
Industries	75.3	76.2	72.6	61.2	61.2	61.9	56.2	47.0
Total:								
Footwear & clothing	64.4	64.9	64.0	57.7	58.2	63.8	44.0	41.2
Textiles	78.8	83.2	74.4	65.6	70.1	72.4	44.0	44.2
Combined TCF	69.3	71.8	67.2	59.5	63.5	68.0	44.0	41.6
Industries	92.4	92.5	92.4	77.4	92.0	93.2	76.0	58.9

Sources: Australia, 1981 Australian Census. United States, Household Sample File, 1980 Census.
Note: All full-time workers fifteen to sixty-four years. Full-time workers, 36 hours or more a week.

adult female TCF full-time worker in the United States earns 42.5 percent of male average weekly earnings. In Australia, the ratio is 58.4 percent. Men who work in TCF in Australia are 15 percent better off than their U.S. counterparts, and women are 37 percent better off.

It is also apparent from table 15.4 that foreign-born TCF workers earn less than native born.[5] In Australia, the gap between native and foreign-born males is slight, 1.9 percentage points. In the United States, it is larger, 27.5 percentage points. Foreign-born females earn 1.8 percentage points less in Australia and 3.3 percentage points less in the United States.

There are three important questions that emerge from table 15.4. Why do TCF workers earn less than other workers? Why do immigrants in TCF earn less than the native born? Why are these earnings gaps larger in the United States? As we search for answers, we will be moving toward judgments as to the role of different institutions in each country.

15.2.2   A Human Capital Model for All Workers

Over the last decade or so, the dominant paradigm that economists have used to explain the distribution of individual earnings has been the human capital model. We also adopt this framework to address our three questions.

We begin by fitting the usual human capital equations to full-time workers in the economy as a whole. For simplicity, we add together the male and female earnings equations and form one equation, which can be written as

$$(1) \qquad E_i = \sum_{j=1}^{n} B_j X_{ij} + \sum_{j1}^{n} B_j^F X_j^F + U_i,$$

where E_i is the log of earnings of the ith person, and X_j are human capital and experience variables. The superscript, F, refers to whether the individual is female. U_i is an error term.

The results are listed in table 15.5. The regression equations are as in equation (1), with the addition of a constant term. We use the natural log of weekly earnings as the dependent variable because Australian data do not provide good estimates of hourly earnings. In each country, a full-time worker is employed 35 hours or more per week. The coefficients of equation (1) are interpreted as percentage changes in earnings in response to a one-unit increase in the value of an independent variable.

The constant term measures the average log of weekly earnings of a male high school graduate, of urban residence, never married, working full-time, and during his first year in the labor market. The first set of coefficients estimates the additional payoff for men over and above the constant term. Thus, an estimate of the average earnings of a male university graduate, with all other attributes included in the constant term, is given by the addition of the constant term and the estimated coefficient attached to the graduate dummy

Table 15.5   **Earnings Equations for Australia and the United States Fifteen- to Sixty-four-Year-Old Full-Time Workers**

	Australia		United States	
R^2	0.44		.25	
Dependent variable	ln W		ln W	
Constant	5.0456		5.1635	
Education:[a]				
Dropout	−.1468	(−17.80)	−.1350	(−9.22)
High school	. . .	. . .	. . .	. . .
Postsecondary				
qualifications[b]	.0527	(5.96)	(.1523)	(10.1)
	.2148	(17.04)		
University degree	.4672	(39.56)	.2639	(12.48)
Postgraduate degree	.6127	(28.55)	.3890	(22.00)
Female × dropout	−.0834	(−5.37)	−.0844	(−3.27)
Female × high school	−.0979	(−6.45)	−.1412	(−3.88)
Female × postsecondary				
qualifications[b]	−.1945	(−5.48)	−.1093	(−4.47)
	−.1612	(−8.33)		
Female × university	−.0939	(−4.74)	−.0371	(−.94)
Female × postgraduate	−.0727	(−1.83)	−.0457	(−1.38)
Experience:[c]				
Experience	.0368	(35.51)	.0419	(37.03)
Experience^2	−.0007	(−30.83)	−.0007	(−29.57)
Female × experience	.0034	(1.87)	−.0069	(−2.85)
Female × experience^2	−.0002	(−3.66)	.0003	(.61)
Area:				
Rural	−.1187	(−11.94)	−.0648	(−6.57)
Female × rural	.0204	(1.03)	−.0038	(−.12)
Marital status:				
Spouse present	.1789	(17.46)	.1720	(12.97)
Other marital status	.1174	(7.88)	.0730	(4.30)
Female × spouse present	−.1279	(−7.72)	−.2622	(−10.43)
Female × other marital				
status	−.0183	(−.79)	−.1296	(−5.17)
Children under 18	−.0052	(−.63)	−.0182	(−2.23)
Female × children under				
18	−.1694	(−11.20)	−.1361	(−7.59)

Note: *t*-statistics are in parentheses.

[a]Education is defined in the following ways. *Dropout:* Australia, left school before age fifteen, no postsecondary degree; United States, less than four years of high school completed. *High school:* Australia, left school after age sixteen, no postsecondary degree; United States, completed four years of high school. *Postsecondary qualifications:* Australia, trade certificate or other postsecondary degree; United States, completed one to three years of college. *Postgraduate,* Australia, higher degree level; United States, completed five or more years of college.

[b]For Australia, this group has been divided into two parts, the first coefficient related to those who have completed trade qualifications and the second to those with other postsecondary qualifications.

[c]Australia: age minus number of years of schooling minus 5 years. United States: age minus number of years of schooling minus 6 years.

variable. The estimated earnings of a female university graduate, with all other attributes of the constant term, is given by the addition of the constant term to the sum of male and female university graduate coefficients.

The equations produce the expected outcomes; average weekly earnings are positively associated with more schooling and more experience, and human capital coefficients are lower for women. Being married and having children under 18 years of age also depresses women's wages. Since the data are taken from Census tapes, we are unable to measure work force experience accurately. Like many others, we use potential experience as a proxy variable for actual experience. For Australia, potential experience is measured as age minus years of schooling minus five and, for the United States, as age minus years of schooling minus six. Potential experience is not a good proxy for work force experience of women, who are less likely than men to have been continuously in the labor force. However, this inadequacy should not be a major source of difficulty. Most of the analysis involves comparisons across different sets of women where the relative bias should be much less than that which arises from comparisons between men and women.

The equations seem to work well within each country and on the surface are remarkably similar, despite different institutions. It appears that the human capital model does reasonably well, at this level of aggregation, and can explain some of the earnings distribution of full-time workers in the economy as a whole. With the aid of these equations, we now return to address our three questions.

15.2.3   Allocating the Earnings Gaps

Table 15.6 provides data to answer our questions; the earnings gaps are allocated to differences in the general pay structure, human capital variables, industry-specific factors, and women's pay relative to men.

Row 1 of table 15.6 lists the earnings ratios of TCF workers to average male weekly earnings in each country and by categories of workers. The difference between these ratios and 100 are the earnings gaps to be explained (row 5). In every instance, the gap is positive, indicating that TCF workers in all categories are paid less than average male weekly earnings. The gaps range from 8.5 percentage points for native-born Australian males to 57.5 percentage points for U.S. females. Male immigrants earn less than native-born workers, particularly in the United States, where the earnings gap for foreign-born males is 46.3 percentage points.

Row 2 lists the hypothetical earnings ratio when average weekly earnings are estimated from human capital equations for each country on the assumption that endowments of TCF workers are rewarded at the same rate as all workers. The differences between row 2 and row 1, which are listed in row 6, indicate that TCF workers earn less for their endowments than they would in other industries. We refer to this as an industry effect. The industry effect for women is similar in both countries, substantially depressing earnings by 13.6

Table 15.6 Allocations of Earnings Gap for TCF Workers, 1980, 1981

	U.S. Males			Australian Males			U.S. Females	Australian Females
	Total	Native Born	Foreign Born	Total	Native Born	Foreign Born		
1. Earnings ratio	78.7	81.2	53.7	90.6	91.5	89.6	42.5	58.5
2. Hypothetical ratio, own country coefficients	91.7	92.0	89.9	97.3	97.4	103.9	57.6	72.0
3. Hypothetical ratio, Australian coefficients	94.9	94.9	94.6	97.3	97.4	103.9	72.2	72.0
4. Female average earnings economy-wide							64.4	76.5
5. Earnings gap to explain	21.3	18.8	46.3	9.4	8.5	10.4	57.5	41.6
6. Industry effects, row 2 − row 1	13.0	10.8	36.2	6.7	5.9	14.3	15.1	13.6
7. General pay structure, row 3 − row 2	3.2	2.9	4.7	NA	NA	NA	35.6	23.5
8. Human capital contribution, 100 − row 3	5.1	5.1	5.4	2.7	2.6	−3.9	6.8	4.5

Source: Table 15.4 and calculations from table 15.5.

and 15.1 percentage points in Australia and the United States, respectively. For males, the industry effect varies across countries and categories of workers, but in every instance it too depresses earnings. The smallest effect occurs in Australia, where industry depresses earnings of male native-born workers by as little as 5.9 percentage points. The largest industry effect occurs in the United States, where earnings of foreign-born male workers are depressed by 36.2 percentage points. At the aggregate level, the industry effect in the United States is similar for men and women, depressing earnings between 13.0 and 15.1 percentage points, respectively, but in Australia it is greater for women (13.6 percentage points) and less for men (6.7 percentage points). The industry effect for U.S. male workers is twice that in Australia.

Row 3 lists the hypothetical earnings ratio derived by placing the average endowments of U.S. TCF workers, and all U.S. workers in aggregate, in the Australian earnings equation of table 15.5. In this way, we estimate earnings ratios for U.S. workers under the assumption that they are paid according to the Australian general pay structure in the same way as all Australian workers. A comparison of row 3 and row 2 will indicate the similarity of general pay structures. For example, if the two hypothetical pay ratios for U.S. TCF workers—row 2 (calculated from the U.S. equation) and row 3 (calculated from the Australian equation)—are approximately the same, then the reward structure for the average bundle of TCF worker attributes in the economy as a whole is not that different in each country. Alternatively, the general U.S. pay structure may reward the typical bundle of attributes possessed by U.S. TCF workers less than the Australian pay structure and thus contribute to an explanation of the earnings gaps across countries.

The gap between row 3 and row 2 is listed as row 7 and indicates that the U.S. pay structure does provide lower rewards for human capital attributes possessed by TCF workers. For males, the U.S. general pay structure depresses earnings by between 2.9 and 4.7 percentage points relative to Australia. For U.S. women, the gap is larger—35.6 relative to 23.5 percentage points in Australia.

Finally, the gap between 100 and row 3 is listed as row 8 and provides a measure of the degree to which fewer human capital endowments can explain low pay among TCF workers (using Australian human capital rewards as weights). For example, the calculations show that U.S. males are less well educated than their Australian counterparts, which depresses earnings by 5.1 rather than 2.7 percentage points, but the education mix of immigrants and U.S. native-born workers is similar. U.S. women are also less well endowed than their Australian counterparts. We can now utilize the data of table 15.6 and provide answers to our three questions.

15.2.4   Why Do TCF Workers Earn Less than Other Workers?

We begin with male workers. First, in both countries, male workers possess less human capital than average, which accounts for 5.1 of the 21.3 percent-

age point earnings gap in the United States and 2.7 of the 9.4 percentage point gap in Australia (row 5 and row 8). Second, the general pay structure rewards the average human capital endowments of TCF workers less in the United States than in Australia, and this accounts for 3.2 percentage points of the U.S. gap (row 7). Third, the largest effect is the industry effect, which accounts for about two-thirds of the low earnings of TCF male workers in both countries (row 6). The determinants of industry and general pay structure effects are not known, but these effects are substantial. It is interesting to note that the industry effect seems to be similar across matched industries in Australia and the United States (Krueger and Summers 1988; Gregory and Daly 1990). To conclude, therefore, the human capital model, with the usual list of variables, is not a useful tool for providing a detailed answer to our question. It can explain one-third of the aggregate male earnings gaps at most (row 8).

For women, human capital variables as measured are even less important. They account for about 10 percent of the earnings gap in both countries (4.5 and 6.8 of 41.6 and 57.5 percentage points, respectively, for the United States and Australia). Once again, the industry effect is large and depresses earnings between 15.1 and 13.6 percentage points. Finally, the largest effect arises from the general pay structure, which rewards women less than men. This effect is particularly important in the United States, where it accounts for 35.6 percentage points of the gap between the earnings of TCF female workers and average male earnings in the economy.

15.2.5   Why Do Immigrants in TCF Earn Less than the Native Born?

It is unlikely that human capital equations are sufficiently precise to explain the small differences in earnings between native and foreign-born women with an acceptable level of confidence. Consequently, attention is directed to male earnings gaps. For male workers, the human capital model as specified cannot provide an answer to this question. In the United States, immigrants seem to possess as much human capital as the native born, yet they earn much less, and, in Australia, they possess considerably more human capital but earn marginally less. Most of the lower pay of male immigrants is attributed to industry effects, which in the United States are quite substantial. To explain low immigrant earnings, therefore, either the list of human capital variables needs to be extended—to capture attributes that are particularly concentrated among immigrants, perhaps lack of spoken English—or a different theory of earnings determination is needed, a theory that focuses on the way in which labor market institutions affect earnings in these industries. We offer further observations along these lines later.

15.2.6   Why Are Earnings Gaps Larger in the United States?

Table 15.7 presents data drawn from table 15.6 to isolate where the differences lie between the two countries. In the United States, male TCF workers are paid 11.9 percentage points less than their Australian counterparts, and

Table 15.7   **Allocation of the Larger Earnings Gap in the United States (percentage points)**

	Males			Total Females
	Total	Native Born	Foreign Born	
1. Larger U.S. gap to be explained	11.9	10.3	35.9	16.0
2. Industry effects	6.3	4.9	21.9	1.5
3. General pay structure	2.4	2.5	4.7	12.2
4. Human capital	3.2	2.9	9.3	2.3

Source: Table 15.6.

female TCF workers are paid 16.0 percentage points less. For men, more than half the gap occurs because the industry effect is stronger in the United States (row 2). The other half of the gap is allocated between lower human capital endowments in the Untied States and the U.S. general pay structure, which pays average attributes of TCF workers less than they are paid in Australia. The human capital model, therefore, accounts for approximately 20 percent of the male earnings gap across the countries (row 1 and row 4).

For women, about 80 percent of the earnings gap between Australia and the United States is accounted for by the general pay structure. Australia pays all women relatively more. Differences in industry effects and human capital endowments are less than for males.

For foreign-born male workers, the gap between the two countries is considerable, 35.9 percentage points, of which 21.9, or two-thirds, arise from industry effects. There is a large difference in human capital, 9.3 percentage points, and a relatively small effect for differences in general pay structures, 4.7 percentage points. Industry effects are the major contribution to the earnings gap differences across countries.

To summarize; the important questions that arise, in order of quantitative significance, are why industry effects are so large for foreign-born men in the United States (a difference of 21.9 percentage points between countries) and why the general pay structure rewards Australian women better than their U.S. counterparts (a difference of 12.2 percentage points). The answers to both these questions can be found in the way in which Australian tribunals have determined male and female pay. We begin by analyzing the reasons for the high pay ratio of women. Once this is done, much of the explanation for the pattern of the earnings gap for males and immigrants will fall into place.

The difference in the male-female earnings gap between the United States and Australia can be attributed to the different labor market institutions in each country. Australian labor market institutions have been very effective at implementing changes in women's pay. Before 1975, the Australian system of wage tribunals had always set wages for males and females using different criteria. Between 1950 and 1969, most female wages were set at levels that were ap-

proximately 75 percent of that which would be paid to a male doing a comparable job. This practice of explicit discrimination against women produced an earnings gap between men and women, for the labor market as a whole, that is similar to that prevailing in the United States today (Gregory and Ho 1985). Then, in 1969, the federal tribunal introduced "equal pay for equal work" over a three-year period. From 1972, gender was not to be used as a wage criteria in those jobs that were not predominantly male or female. Before this decision, unskilled female workers in textile factories were paid less than unskilled male workers who may have been doing the same job. The "equal pay for equal work" decision might be thought of as the Australian equivalent of the Equal Pay Act in the United States.

Then, in 1972, the federal tribunal decided that the concept of "equal pay for equal work" should be widened to "equal pay for work of equal value." This concept might be thought of as the approximate equivalent to the "comparable worth" concept developed in the United States. This wider concept was introduced into the award wage structure in three uniform steps over the period to June 1975. After 1975, the tribunals would make wage judgments on the principle that award rates for all work should be considered without regard to the sex of the employee.

The result of these two equal pay decisions was to increase female pay by 30 percent relative to male pay. The TCF workers shared in this pay increase, and this is the prime reason why female Australian TCF workers, compared to those in the United States, are 37 percent better off relative to average male earnings. As indicated earlier, the industry and human capital effect for women is approximately the same in both countries. For women, it is the treatment of all women by the general pay structure that matters.

Figure 15.1 documents the changing female-to-male pay ratio for TCF workers in Australia relative to the wages of all workers. The large increase in earnings is apparent between 1969 and 1975, and it is interesting that there is no evidence of TCF workers slipping behind in achieving equal pay increases. The Australian institutional structure delivered the pay increase to all female workers regardless of the industry in which they worked, and, if there are large market adjustments to follow, they must be effected through employment falls or policy adjustments elsewhere rather than through wage adjustments. As indicated earlier, the combination of wage tribunals and extensive trade union membership effectively prevented the development of a secondary labor market and ensured that all workers were treated equally with regard to access to award wages and conditions.

How do these tribunal decisions explain the higher pay of foreign-born men in Australia? The tribunals always attempted to set the pay of men without discriminating between native and foreign born, without regard to the industry in which they work, and without regard to whether the occupation is closely associated with female labor. Male pay in occupations where the predominant group of workers is female was always set on the same criteria as other male
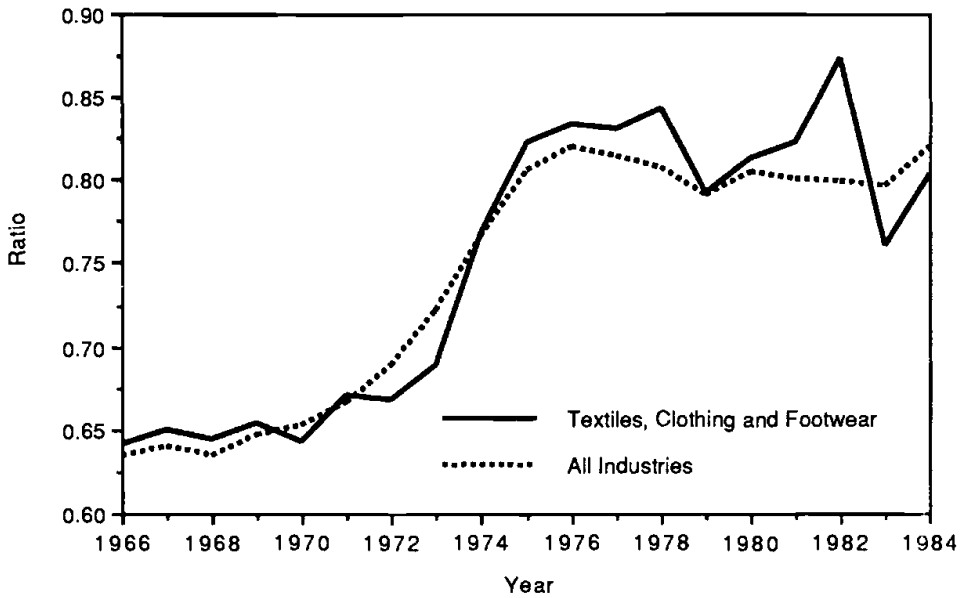
Fig. 15.1   The ratio of female to male average hourly earnings, Australia
Source: Australia Bureau of Statistics, *Distribution and Composition of Employees, Earnings and Hours, Australia,* Catalogue no. 6306.0 (Canberra, various issues).

wages (the principle of comparative wage justice). As a result of this procedure, the pay of males in female occupations is much higher, relative to the economy average, than is usual in other countries. For example, if workers are grouped into male-intensive and female-intensive occupations, classified according to the sex of the predominant group of workers, then men who work in female-intensive occupations in Australia earn marginally less than other male workers, 96.2 percent, but in the United States earnings for these workers is much lower, 82.6 percent (Gregory, Daly, and Ho 1986).

An important part of the story, therefore, is not so much the relative demand and supply of low-skilled labor in each country or the different endowments of human capital but the way in which the labor market in general generates men's and women's pay for workers in female occupations or industries. Australian labor market institutions, like those of most European countries, have directed their attention toward increasing women's pay, with a fair degree of success. As a result, immigrant male labor and especially female labor has gained enormously in terms of average earnings from full-time work.

15.3   Immigrants, Earnings, and Trade Policy in Australia

Earlier, we discussed the historical link between industry protection and the labor market. A 30 percent increase in female pay in TCF, ceteris paribus, increased the cost structure of these industries, relative to others, by about 7–8 percent. What were the trade policy reactions to such an increase in costs?

By the standards of the last decade or so, a 7–8 percent change in relative

costs against imports is not large. By far the most important influence on relative costs over this period, and certainly in the short term, has been exchange rate changes. Between December 1972 and September 1974, for example, the Australian exchange rate appreciated by 20 percent. This is about three times larger than the increase in the TCF cost level flowing from the equal pay decisions. In addition, the Australian government reduced all tariffs by 25 percent in July 1973, and this reduced TCF competitiveness by about the same magnitude as the pay increase.

As a result of all these influences and a higher rate of inflation of wages and prices than our trading partners, there was a large deterioration in the fortunes of TCF, which began to lay off workers at a fast rate. Initially, the government was slow to react, but, when the general unemployment situation deteriorated, it moved to introduce import quotas more or less across the board for TCF. Import quotas, which were to be a temporary measure, are still in place today, a decade and a half later. As the competitive situation of TCF industries continued to deteriorate, the protection offered by import quotas increased. When import quotas were introduced, their protective effect for clothing and footwear was equivalent to an effective tariff rate of 99 percent. By 1987–88, the effective tariff rate had increased to 183 percent. Over the last five years, the Australian exchange rate has depreciated by approximately 30 percent; as a result, the tariff equivalence of the quotas has fallen back toward earlier levels.

After the large pay increases in the early 1970s, the earnings of full-time TCF workers have not increased further relative to community averages. The wage relativities between industries have remained more or less rigid. The main effect of the quotas therefore has been not to influence the pay of TCF workers, including immigrants, but to protect the number of jobs that are available.

From the viewpoint of TCF workers, there has been a consistency in Australian policy settings. The wage tribunals have stressed equality of pay outcomes, with respect to occupation and industry comparisons and with respect to lifting pay of employed workers at the bottom of the pay distribution. Tariffs have complemented this policy by protecting those parts of manufacturing that are vulnerable to import competition from low-wage countries. In parts of manufacturing, and certainly in the short term, the tariff policy has increased the number of jobs for low-skilled immigrants. The long-run effects of these policies, however, are much more difficult to judge. We would need to know the industry structure that would have evolved in the absence of the accumulated and fairly consistent tariff and wage decisions that have been made over the last few decades.

It is obvious, of course, that the combination of quotas and higher women's pay must increase the relative price of products from these female-intensive industries. This is the principal way in which the community has chosen to pay for increased earnings and job protection of the low paid.

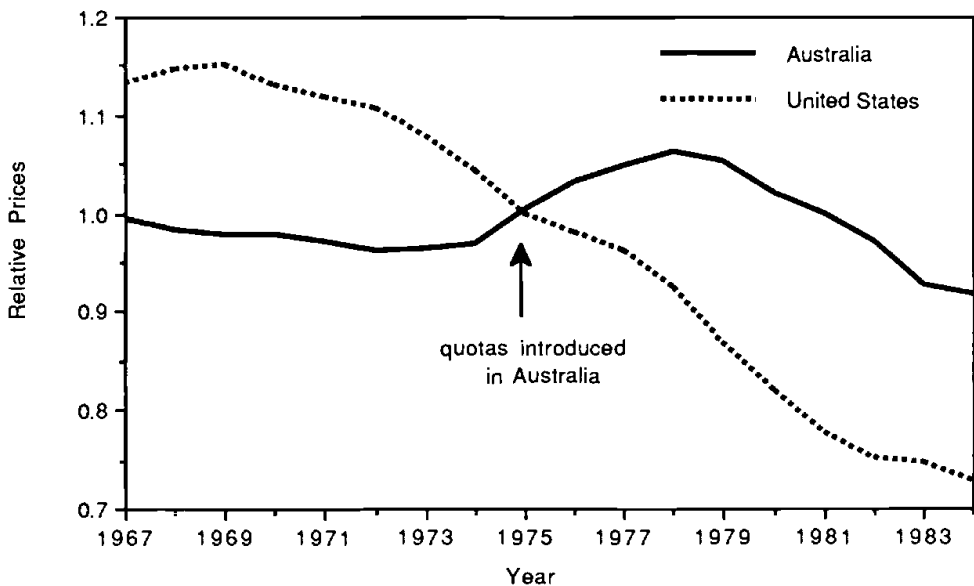Figure 15.2 illustrates the price movements of clothing and footwear prod-

Fig. 15.2   Movements in the price of clothing and footwear relative to consumer goods generally for Australia and the United States (base is 1974–75 = 1.0; data are for financial years)

Sources: Australian Bureau of Statistics, Time Series Service on Magnetic Tape, Catalogue no. 1311.0, Canberra. *Statistical Abstract of the United States. The Textile, Clothing and Footwear Industries,* Industries Assistance Commission Report, vol. 2 (Canberra: Australian Government Publishing Service, May 1986).

ucts relative to consumer prices generally in both countries over the last two decades. Since 1966–67, the relative price of clothing and footwear products has fallen fairly steadily in the United States and is now approximately 40 percent lower than two decades ago. In Australia, the relative price fall is approximately 6 percentage points. Furthermore, the large increase in the relative price of footwear and clothing after imposition of import quotas is clearly apparent. Import quotas allowed the industry to increase prices, reduce the rate of layoffs, and pay the new wage scales. A similar story is evident for the relative price of textiles in each country (fig. 15.3), where relative prices have fallen by 30 percent in the United States and 12 percent in Australia. It is important to realize that import quotas have not prevented the number of jobs from falling. TCF industries are still subject to the fortunes of the domestic market, and jobs are still affected by growth rates of technological change and output.

To measure properly the efficiency-welfare trade-off involved in the Australian regulatory system would require a general equilibrium model with well-defined demand and supply elasticities for factor and product markets. This is a very large task. However, on the basis of a number of simplifying assumptions, we can approximate the extent of community subsidies to TCF workers to gain some idea of the importance of trade policy. In columns 1 and 2 of table 15.8, we measure the ratio of the subsidy equivalent of industry
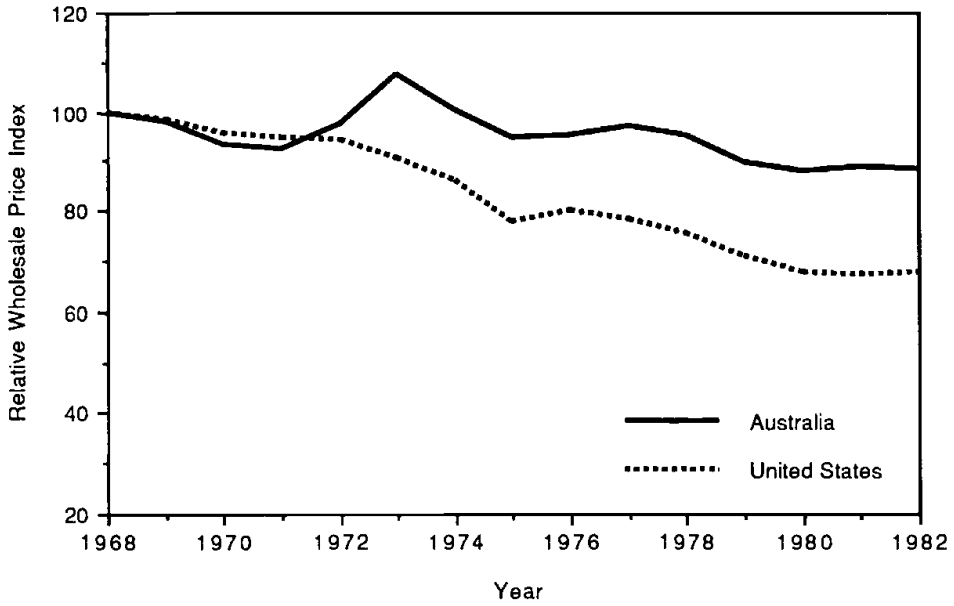
Fig. 15.3   Relative price movements; Wholesale Price Index of textiles divided by the economy-wide Wholesale Price Index
Source: The Textile, Clothing and Footwear Industries, Industries Assistance Commission Report, vol. 2 (Canberra: Australian Government Publishing Service, May 1986).

Table 15.8   **Industry Assistance Relative to the Wage Bill**

Year	Ratio of Subsidy Equivalent of Industry Protection to the Wage Bill		Ratio of the Wage Bill to Value Added (free trade prices)	
	(1) Footwear & Clothing	(2) Textiles	(3) Footwear & Clothing	(4) Textiles
1968–69	.76	.56	1.27	.77
1969–70	.77	.54	1.23	.78
1970–71	.77	.54	1.23	.78
1971–72	.74	.54	1.16	.83
1972–73	.74	.55	1.19	.81
1973–74	.62	.48	1.03	.73
1974–75	.71	.43	1.22	.90
1975–76	.76	.56	1.30	.89
1976–77	.90	.58	1.56	.88
1977–78	.92	.55	1.59	.85
1978–79	.94	.58	1.52	.81
1979–80	.92	.59	1.47	.87
1980–81	.97	.61	1.45	.90
1981–82	1.09	.60	1.85	.90

Sources: Australian Trade Classified by Industry: 1968–69 to 1981–82, Working paper (Canberra: Industries Assistance Commission, March 1985). *Assistance to Manufacturing Industries: 1977–78 to 1982–83,* Information paper (Canberra: Industries Assistance Commission, 1985).

protection to the wage bill. The subsidy equivalent of tariffs and quotas is defined as the subsidy that would be necessary for local industry to produce the same domestic output in the absence of tariffs or quotas. For footwear and clothing in 1968–69, the subsidy equivalent was equal to two-thirds of the wage bill. By 1981–82, it exceeded the wage bill. A great deal is being paid to keep workers in these industries. Columns 3 and 4 list the ratio of the wage bill to value added at free trade prices. Value added at free trade prices can be thought of as the alternative to producing value added in Australia. These calculations show that, before the equal pay decisions and under the tariff regime before 1975, the wage bill typically exceeded free trade value added by about 20 percent. After 1975, the economic situation of the industry deteriorated considerably so that the wage bill typically exceeds the free trade value added by around 50 percent.

15.4 Concluding Remarks

The earnings of low-paid immigrant labor, relative to average weekly earnings of an adult male full-time worker, seem to be considerably higher in Australia. The average male immigrant in the United States earns 13.2 percent less than his Australian counterpart. The average female immigrant earns 22.6 percent less. For those who work in the TCF industries, the gaps are even larger, 40.0 percent for foreign-born males and 30.2 percent for foreign-born females.

The human capital model, with its usual list of variables, can explain only a small fraction of these earnings gaps. The differences in earnings for male immigrants seem to arise primarily from an industry effect, and for women it is primarily a reflection of the *general* -pay distribution within each country. We explained earlier how tribunal wage criteria in Australia link these two influences together. Low-paid immigrant workers seem to do relatively well "down under."

To explore the determinants of pay distribution within each country thoroughly is a very large job. Nevertheless, on the basis of the evidence offered here, we have argued that the principal determinant of the relative pay of TCF workers is the different institutional structure of each labor market. We have also argued that women's pay plays a very special role in determining earnings of low-paid immigrants and that the level of women's pay is very sensitive to the degree of outside intervention in the labor market. Almost all our analysis has been applied to TCF, but it can be generalized to include all low paid workers, and we suspect that the key result for TCF, that the low paid do relatively poorly in the United States, will hold for all low-paying industries.

Our results have important implications for policy discussion in Australia. Recently, there has been extensive questioning of the efficiency of Australian labor market institutions. Income distribution questions have not received much coverage. The results reported here suggest that income distribution

questions may be important and should not be put aside. With respect to relative earnings, women and low-paid workers have gained enormously from the Australian wage system, but some of these gains have been paid for by some efficiency loss from the higher relative prices of imports and lower relative prices of exports.

Notes

1. This paper is one of a series that explores the effect of institutions on the labor market by comparing Australian labor market outcomes with those of the U.S. labor market. Other papers include an analysis of women's wages (Gregory and Ho 1985) and the response of the labor markets to the depression of the 1930s (Gregory et al. 1987).

2. A fuller discussion of the Australian institutional framework can be found in Niland (1986).

3. A seminal paper by Hughes (1973) explores the proposition that the Australian system of wage tribunals has compressed the distribution of industry wages in Australia relative to the United States.

4. The Australian Census records weekly income rather than earnings. A cross-check with earnings data from other sources suggest that this is not a serious problem. For 1978–79, the earnings of full-year, full-time male workers were 98 percent of total income. For women, the ratio was 94 percent (Australian Bureau of Statistics, *Income Distribution, Australia 1978/79, Individuals* Cat. no. 6502.0, tables 17, 18 [Canberra: August 1982]).

5. It should be emphasized that foreign-born TCF workers are not typical of immigrants in Australia. On average, immigrants are better educated than Australians and, if employed full-time, earn weekly incomes that are similar to those earned by the Australian born. But the immigrant group is very diverse, being disproportionately represented among the high- and low-income earners and among the well and poorly qualified. The central concerns of this paper therefore are not with the representative immigrant but with those at one extreme of the earnings and human capital distributions.

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