

Structural Change and the Workforce

Evan Jones

INTRODUCTION

There is a dialectical relationship between wage levels, technology and the structure of the workforce. If the push to raise wages is seen as a key strategy of wage-earners, then technological change and workforce segmentation may be seen as counter strategies of employers. Structural change, at every level of the economy, is an inevitable manifestation of this conflict in the workplace.

This article analyses several aspects of structural change in the manual workforce which took place in Australia in manufacturing industry in the late sixties and early seventies.¹ A discussion of developments in earnings, productivity and employment, both in the aggregate and in detail, provides a means to discuss the nature of earnings/technology/workforce interaction.

The late sixties and early seventies was a particularly interesting period in many respects. Firstly, seen at the aggregate level, it was a period of transition - from an unprecedented period of economic growth to a period of economic depression characterised by levels of unemployment and inflation previously thought incompatible. Secondly, it encompassed two booms - 1968-70 and 1972-74, the latter of an intensity which put great pressure on resources. Thirdly, it was a period of substantial and widespread militancy on the part of wage-earners, a militancy not seen since its demise in the cold war atmosphere of the late 1940s. Finally, it was a period of active agitation for equal pay for female workers.

The observed rise in earnings during the period can be interpreted as the net result of opposing forces - attempts by workers to increase money wages and attempts by employers to negate the impact on profits of actual wage increases and other cost pressures. Some elements of this interaction are best understood at the detailed industry level. By examining the behaviour of earnings across industries and associated developments in workforce structure, one observes a number of responses, particularly in terms of the female/male ratio for which yearly information exists. Some industries (the 'heavy' basic product industries) exhibit a commitment to male-typing of most jobs which transcends any changes in market conditions. Other industries (textiles, clothing, footwear) have reduced total employment substantially, partly as a response to the more rapid rise in female wages. A wide variety of industries responded to boom conditions and wage pressures by the greater relative employment of females, their wages on average still being lower than male wages. The post-boom years following 1974 saw a substantial fall in female employment in these same industries.

This range of experience highlights two important aspects of the change in workforce structure. Firstly, changes are severely constrained by the nature of workforce segmentation in certain industries. Secondly, in a wide variety of industries, the flexible use of female labour provided an important means by which employers could structure the workforce in the face of new pressures on profits.

In November 1979 the N.S.W. Director of the Chamber of Manufactures criticized government regulations on production and marketing which he alleged hindered the ability of industry to compete with countries which enjoyed both lower wage costs and 'less rigid legislative requirements'. The Weekend Australian, November 2-3, 1979, p.4. The significant health problems of third world countries - including those originating in the workplace - are beyond the scope of this paper. For a general discussion of the issues, see L. Doyal, op.cit., and V. Navarro, op.cit.

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THE OMNIPRESENCE OF STRUCTURAL CHANGE

The term 'structural change' has been used much too narrowly in the past. Typically the term has been used to refer to broad changes in an economy's structure such as those occurring in the overall sectoral composition of Australian industry as manifest, for example, in the relative decline in the importance of manufacturing industry in total value added and employment. Yet this is merely the tip of the iceberg and is the aggregate reflection of a host of more small-scale changes. 'Structural change' is also presumed to refer to changes which stand in contrast and apart from cycles of boom and depression. This confinement is extremely misleading, as cycles are always accompanied by profound structural change. It is more useful to understand the term in its literal sense - a change of structure. Seen in this light, it is natural to view structural change not as an aberration but as an integral component of the development of capitalist economies.

Continuous structural change is taking place within each industry and often within each company and factory. Structural change at this level involves a change in the nature of the work process by the introduction of different kinds of technology and job structures. It is instructive to interpret technical change at the level of the individual firm as due not only to inter-firm rivalry for the consumer dollar but also the perennial necessity of maintaining control over the labour force.

The concrete forms of technology are a tangible manifestation of the social relationship between employers and the work force. Labour force segmentation is another such manifestation. The work force is segmented in any particular company and these segments involve different degrees of skill, control over the work and conditions of work. Typically the segments will be filled by people of noticeably different personal characteristics, usually differentiated by race, ethnicity or sex. Such segmentation of the labour force is an important means of preventing cohesion within the whole workforce and of keeping down the average level of wage payments.

Technology and labour force segmentation are closely related. The use of specific kinds of techniques is the concrete means by which segmentation is achieved. In addition, changes in production techniques are an important means by which the nature of segmentation is changed. The classic historical process forging this connection is the division of labour into narrowly defined tasks and the withdrawal of the information, coordination and decision-making tasks from manual labour. The separate white-collar administrator was created to perform these latter tasks in isolation from manual labour. Katherine Stone describes this process in the birth of the modern American steel industry², at the same time describing this process as a conscious attempt to eliminate the control of the skilled workers over production and to reduce the wage bill.

An expanded wage bill is an obvious source of discomfort to profit-oriented enterprise. Firms can be expected to respond not only by the retrenchment of workers, but by seeking to change the structure of segmentation. This is the means by which the average wage bill per employee can be minimised in the face of non-generalised pressure for wage increases. It can be done, for example, by a firm reducing its dependence on skilled workers (deskilling) or by expanding its relative employment of lower-paid groups of labour (displacement). The two processes can be interrelated when deskilling of the



labour process occurs which enables the use of a separate, discriminated segment of the labour force in place of the traditional workforce.

THE MANUFACTURING SECTOR - 1968-69 TO 1973-74

At the aggregate level, the manufacturing sector appears to have been relatively stable, with a moderate increase in manual employment of 4%, and an increase in total employment of 5.6% to 1,360,000.³ However, it was a period during which wage levels rose rapidly. There existed a high degree of labour militancy fueled not only by the political temper of the time but by the boom in mining-related and construction-related industries. As a consequence, average money earnings for manual workers rose 74%, an extremely favourable rise for manual labour in general. Manufacturing employers covered much but not all of the substantial rise in average earnings. Labour productivity in money terms (incorporating increases in both physical productivity and in prices) rose by 66%. Of this 66% rise, real productivity increased by 21% and price rises made up the remainder. In general, the monetary success of manual labour obviously placed an inevitable pressure on employers to reduce the wage bill, requiring the selective use of new technology, different production techniques and a newly structured workforce.

Aggregate figures hide substantial changes at the industry level. Table 1 shows the percentage change in some significant statistics during 1968-74 for 40 major industrial groups - average earnings per manual worker (column 1); labour productivity in money terms (column 2); labour productivity in real terms (column 3); and manual employment (column 4). From the employer viewpoint, the greater the difference between money productivity and earning increases, the better the industry performance.⁴ The relative differences in performance across industries is striking. In 13 out of 40 industry groups, money productivity increases were greater than earnings increases. These 'successful' industry groups were as follows - canned fruit and vegetables; miscellaneous food products (confectionery, pet food, canned fish, sugar); some textile products (floor coverings, rope); clothing; wood products; furniture; printing; oil refining; plaster; fabricated structural metal products (steel and aluminium-based); miscellaneous fabricated metal products (cutler, wire products, bolts); non-automobile transport equipment; and industrial machinery.

Even in a period highly favourable to wage rises, these industries, through productivity increases and/or price rises, managed to avoid suffering from the payment of higher earnings to manual workers. By comparing the changes in productivity in money terms (column 2) and real terms (column 3), it can be seen that the "achievement" was overwhelmingly the result of price rises. The clothing industry, for example, experienced a rise in average earnings of 82%. However, this industry covered its rising wage costs by an 87% rise in labour productivity in money terms, most of which was due to price rises. Miscellaneous textiles (floor coverings) and oil refining were the only industries to have contributed to covering earnings increases by substantial productivity increases.

A further means by which employers deal with wage push is to shed employees. Column 4 shows the different extent to which industry groups used this option. Textiles, clothing and footwear were clearly the worst offenders, shedding on average 13% of their manual employees, or a total of 20,000 people. (The shedding was to continue after 1974). Those industries with substantial increases in manual employment included: beverages (3,200 increase); furniture (3,800); cement (2,800); non-ferrous metal (2,900); miscellaneous fabricated metal products (2,800); household appliances (6,300); industrial machinery (3,500); and

Table 1 : Manufacturing Industry - Percentage Changes between 1968-69 and 1973-74 in (1) Average Earnings^a; (2) Money Labour Productivity^{a,b}; (3) Real Labour Productivity^c; (4) Manual Employment^a.

Industry Group	(1)	(2)	(3)	(4)	Industry Group	(1)	(2)	(3)	(4)
Meat	98	63	5	9	Chemicals /etc	75	61	38	-2
Milk	83	50	16	-12	Glass	98	88	49	-15
Canned Fruit & Veg	62	79	21	7	Clay	70	69	27	2
Margarine	98	73	38	-	Cement	72	54	14	20
Flour/Cereals	74	53	19	-3	Plaster/etc	67	68	27	-6
Bread/Cakes	67	52	14	13	Non-metallic Minerals	76	67	26	4
Sugar/Other	64	81	13	8	Iron/Steel	69	61	9	4
Beverages	79	62	30	28	Non-Ferrous Metals	69	68	47	18
Tobacco	89	53	3	22	Basic Metal Products	70	65	23	7
Food/etc	80	62	13	8	Structural Metal	59	65	16	2
Textiles	87	62	34	-16	Fabricated Metal	75	67	17	3
Floor Coverings, Rope	75	94	48	-1	Other Fabricated Metal	66	66	11	7
Textiles	83	72	39	-13	Fabricated Metal Products	66	66	14	4
Knitting	79	69	24	-2	Motor Vehicles	83	28	2	23
Clothing	82	87	27	-11	Other Transport	73	77	5	-8
Footwear	93	86	27	-29	Transport Equipment	78	46	6	9
Clothing	83	84	27	-13	Scientific/Photo	92	86	76	20
Wood	66	91	21	-1	Household Appliances	68	66	15	8
Furniture	67	73	10	20	Industrial Machinery	60	61	11	6
Wood/etc	66	85	17	5	Machinery	65	65	15	8
Paper	82	71	30	7	Leather	86	82	20	-25
Printing	65	67	23	4	Rubber	76	56	16	7
Paper/etc	70	68	25	5	Plastics	76	74	36	41
Basic Chemicals	84	79	51	-1	Other	64	58	12	24
Other Chemicals	75	58	35	4	Miscell. Manufacturing	74	67	25	19
Oil Refining	51	55	40	5	All Manufacturing	74	66	21	4
Other Oil	72	48	na	-5					

- Figures from Australian Bureau of Statistics, Manufacturing Establishments, 1968-69 to 1973-74 (Ref. 12.29)
- Value Added/Manual Employment
- Real output indexes from Australian Bureau of Statistics, Indexes of Manufacturing Production, 1973-74 (Ref. 12.36).

plastics (7,800). The automobile industry, with the most stagnant productivity of all industry groups in the period, was also the greatest 'saviour' in manufacturing industry in terms of enhanced employment, with over 15,000 additional jobs.

SOME STRUCTURAL CHANGES IN THE TRANSITION PERIOD

The change in average earnings in any industry is the net result of two opposing forces. It involves the effects of attempts by wage-earners to push up money wages and various strategies by employers to reduce the wage bill by altering the composition (and size) of their particular workforce. In examining the influences on the relative earnings change across industries during 1968-74, several influences became apparent which involve the latter force - counter strategies by employers to contain earnings increases.

(a) Labour-intensive industries

The first influence was manifest in an inverse statistical relation between earnings changes and employment changes. Other things equal, the more rapid the growth in manual employment in any industry, the smaller was the rise in average earnings. At first glance, this is a peculiar connection. It seems plausible to interpret employment changes as giving an indication of the buoyancy of the product markets in which an industry operates. If this is the case, the most rapidly growing industries must have adopted techniques or work practices which slowed down the process whereby boom condition profits are translated into higher earnings. The inverse connection was dominant in industries with one or both of two characteristics - labour-intensive production and relatively small-scale operations in terms of turnover.

How are we to interpret the inverse connection? An examination of industries with substantial employment growth and below-average earnings increases also showed a relative increase in the employment of females. The relative increase in female employment was quite widespread in labour-intensive industries - food, some textiles, printing, furniture, household appliances, plastics and miscellaneous manufacturing. It was also true of some of the smaller industries making machinery serving industry (pumps, heating equipment, etc). So a variety of industries combined rapid growth in employment with a slower rise in average earnings paid out. These industries achieved this result by hiring relatively more females to cope with the demands of greater output.

Another influence operating in labour-intensive industries was manifest in an inverse relation between earnings increases and the age structure of the workforce. Those industries with a high percentage of older workers experienced, other things equal, a lower rise in earnings paid out. Why should this be? The 1971 Census collected figures on the percentage of the industry workforce over 45 years of age. Using this information as a rough measure for seniority and on-the-job experience, statistical analysis indicates that age was a substantial influence on higher earnings in labour-intensive industries and small-scale industries.⁶ The inference is that older workers were being rewarded relatively highly in these industries. The inverse connection between the earnings increases and the age structure implies attempts to alter that situation during the transition period. This inverse relation could have been due either to a relative decline in the margins going to seniority or to a relative decline in the employment of older workers. The occasional nature of Census collection makes this issue difficult to resolve. Either possibility, a decline in margins or a decline in employment represents a reduction in the security and status of older, more skilled workers.

As a specific example of one such labour-intensive industry, consider the fortunes of the furniture industry. In 1968-69, the average earnings figure for production workers was \$2,800, which was also the average for all manufacturing industries. It was a period of rapid expansion, with additional production employment of 4,000 being added to the previous total of 17,000. Nevertheless, by 1973-74, the increase in average earnings had been kept to 64% compared to the sectoral increase of 74%. Various forms of structural change in involving relatively greater female employment resulted in a reduction in the wage bill. If the average earnings increase is taken as a standard, the furniture industry saved \$280 per worker in 1973-74 (or about \$5.8 million on its wage bill for 21,000 workers).

(b) Capital-intensive Industries

A further set of influences occurred in industries which are more capital-intensive. Those industries with a high percentage of male employees (in 1968-69) experienced, other things equal, a smaller increase in average earnings. Similarly, those industries with a high percentage of formally qualified workers also experienced a lower increase in average earnings. Various possibilities are consistent with these developments - a decline in the male margin (vis-a-vis females); a decline in skill relativities; changes in production techniques and concomitant changes in the workforce structure; and a relatively greater use of less-skilled workers to facilitate boom output demands. The first eventuated - in the Engineering, Metals and Vehicles group female earnings increased from 54% of male earnings in 1968 to 66.5% in 1973 and 71.5% in 1974.⁷ Whether the second and third possibilities occurred cannot be resolved without detailed study of a range of industries. But there was almost certainly a greater use of less-skilled workers. Annual industry-specific figures for the male/female employee ratio indicate that this ratio dropped in a number of capital-intensive industries. Some industries with predominantly male workers were by 1974 employing relatively more females. This was especially the case in fabricated metal products, vehicles and industrial equipment. So in some capital-intensive industries as well we find that there was employment expansion accompanied by the relatively greater employment of females. This facilitated a smaller rise in average earnings payment for industries with a high proportion of skilled male workers. Indeed with a general shortage of male workers, it probably made expansion possible.

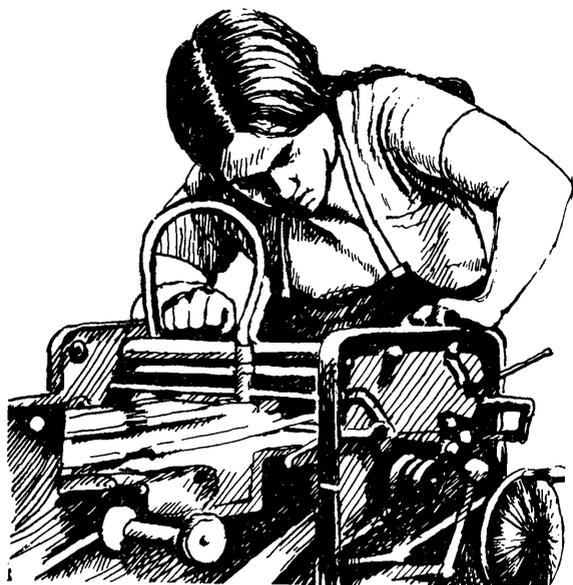
To summarise, at least until June 1974, the employment of more females in manual jobs was still considered an attractive proposition; there was a relative increase in the ratio of female to male employment in a wide variety of industries, including both labour-intensive and capital-intensive industries.

THE SIGNIFICANCE OF CHANGING FEMALE EMPLOYMENT

(a) Equal Pay

The period 1968 to 1974 was a period of increased agitation for equal pay for females. Between 1959 and 1968⁸, several States passed legislation for equal pay (with very stringent restrictions) for females doing identifiably similar work (as in teaching) and where the work was not clearly 'women's' work. In June 1969, a Federal Arbitration Commission decision on certain industries was handed down. It was restrictive in the same manner as previous State legislation - equal pay for equal work in 'female' jobs. In addition, awards for equal pay were to be introduced gradually, reaching 100% in January 1972. Interpretations of applicability were more favourable, and the conditions of

the decision were intended to prevent the creation of new classifications designed explicitly to render useless any provisions of 'equal pay for equal work' by their re-defining the nature of women's work. Favourable statements by the Commission during the 1967 hearing on the total wage had provided a catalyst for union submissions for this 1969 decision. In addition, favourable statements regarding women's 'work value' were made by Commissioner Winter during his 1967 investigation into the Metal Trades Award. Consequently in June 1970, Winter granted equal pay to many process workers under the Metal Trades Award. In the meantime, several States had extended the concept of equal pay.



The 1972 equal pay decision ("equal pay for work of equal value") was handed down in December after a positive intervention by the newly elected Labor government. The decision eliminated previous restrictions in the granting of male rates of pay to women. It was estimated that only 20% of the female workforce were receiving equal pay at this stage, so the award was to be phased in by June 1975. However, only 31% of the female workforce were covered by Federal awards and it was necessary for similar changes to be made in the States. Finally, the May 1974 National Wage Case removed the last legal impediment by making the minimum wage applicable not only to males but also to females.

Thus the period under discussion housed the major legislation and various Commission decisions on the award of equal pay to women. The decision and legislation definitely had an impact on relative earnings. The ratio of average earnings of females to males rose from under 59% in 1969 to 66% in 1973 and over 70% in 1974, the major increases occurring in 1974 and 1975. Yet the degree of success in the achievement of equal pay has been slow. All the changes fail to reach the jobs which are created as women's jobs. Moreover it appears the employers (in the public sector as well as the private sector) continue to find ways to block the payment of equal pay, for example, through the absorption of higher earnings into over-award payments, the elimination of seniority rights and the reclassification of jobs. For the period under consideration, most females were still a cheaper source of labour than were males.

(b) Cyclical Aspects of Changes in Female Employment

The period was marked by a relative increase in female employment in the manual workforce in the manufacturing sector. Total manual employment increased by 4.2%, comprising an 8.8% increase for female employment and a 1.9% increase for male employment. This development reduced the percentage of males employed in the production workforce from 74.2% to 72.6%.

Within the sector, a few industries moved to a higher male:female ratio. Nevertheless, more industries moved towards higher female:male ratios and

higher female employment. The net increases in overall female employment of almost 9% (30,000 jobs) occurred in spite of the textile, clothing and footwear industries having shed 20,000 jobs, most of them held by females. This latter decrease gives added significance to the increases in female employment experienced in other industries.

An examination of production employment trends after June 1974 exposes the significance of these boom-time developments. Since June 1974, total manual employment has fallen substantially, as is well known. Yet female employment has fallen more in percentage terms than has male employment. Table 2 indicates that by June 1978⁹, female employment was reduced by 83,000 or 30% of June 1974 employment. The implication is that a significant percentage of boom-time female employment was cyclical - that some females played a 'reserve army of labour' role in the late sixties and early seventies.

Table 2 : Male and Female Manual Employment in Manufacturing - Changes 1968/69 - 1973-74 and 1973-74 - 1977-78.

	Manual Employment	% Change	Male Employment	% Change	Female Employment	% Change
1968/9	979,000		727,000		252,100	
1973/4	1,020,400	4.2	741,200	1.9	279,000	8.8
1977/8	832,800	-18.4	637,000	-14.0	195,800	-29.9

Source: A.B.S. Manufacturing Establishment, Details of Operations

This implication needs to be put into the context of previous work on female employment and the 'reserve army' concept. Margaret Power has noted¹⁰ that the segmentation of females into certain occupations makes their employment partly dependent on the fortunes of the industry or sector in which female-type occupations are heavily represented. Since 1974 female unemployment has risen more slowly than male unemployment because tertiary sector employment has been fairly stable. Seen by itself, the manufacturing sector shows the relevance of the 'reserve army' concept for some female employment. To understand the movements of total female employment, reserve army and segmentation influences are both relevant.

Indeed these components of the determinants of female employment are useful in looking at industry-specific experience within the manufacturing sector. Sex segmentation is strong in most of the 'heavy' basic products industries, usually highly capital-intensive - meat, flour, beer, timber and paper, basic chemicals and petroleum, cement and plaster products, basic metals, non-vehicle transport and some industrial equipment machinery. In most of these industries, almost all jobs are male-typed, so that the male/female workforce ratio typically exceeds 95%. More significant however is that there have been no changes, either short-term or long-term, in the sex composition of the workforce in these industries. The observed commitment to male-typing of jobs transcends any changes in market conditions, relative wage costs, etc.

There are very few industries in the manufacturing sector which have an analogous commitment to female-typed jobs, regardless of economic conditions. The number of such industries is smaller than is commonly thought and is

restricted to the clothing and non-rubber footwear industries (textile industries behave differently). The perennial pressure of import competition has led to sizeable reductions in the workforce in textiles, clothing and footwear.¹¹ In the present context, the significant fact is that the sex composition of the clothing/footwear workforce has remained quite stable during the rapid and substantial reduction in total numbers employed.

In a variety of industries representing about 9% of employment in June 1969, the sex breakdown of employment moved systematically in favour of male employment through to June 1978. Save for all the industries in the paper products group being included, these industries were diverse in their products and technology - for example, canned fruit, cereals and biscuits, tobacco, woollen materials, general knitted goods and headwear, pharmaceuticals, aluminium products and ophthalmic products. There is no readily apparent general explanation why such industries should employ relatively more males, and a detailed look at these industries would be necessary to fully explain the common trend.

Nevertheless, for the period 1968/69 to 1973/74, at least half of these industries experienced substantial productivity improvements. This connection appears significant when seen in conjunction with other information gained from studying the statistical relationship between changes in the male/female workforce ratio and other variables for specific industries. These correlations show that the direction of male employment was into those industries which had the most rapid increases in earnings, and those industries with the highest productivity. High productivity industries are also 'favoured' industries for labour, because some of the higher productivity has been won in the form of higher earnings. In the past, males have benefited from employment in high productivity, technologically advanced industries. The direction of male employment in the boom years into industries with the same characteristics reinforces this connection.

Most of the other industries conformed to the pattern of major interest here - a substantial increase in the relative employment of female workers, especially in boom years, then a gradual return after June 1974 to a sex ratio similar to that prevailing in June 1969. The automobile industry was the only significant employer to retain a high percentage of female workers hired during the boom years. As noted above, these industries produced a diversity of products and were located in both labour-intensive and capital-intensive segments of the manufacturing sector. Together these industries were responsible for almost 20% of 1969 manual employment. The majority of these industries experienced above-average employment growth up to June 1974, while their earnings payout rose less than the average rise in earnings for the entire manufacturing sector. In addition, there were few industries in this group which experienced substantial productivity growth from 1968/69 - 1973/74. It appears that boom-time employment of females was favoured by those industries which for various reasons were not pursuing rapid technological change.

(c) The Significance of Part-time Employment

To what extent did the cyclical use of female labour take the form of part-time employment? No readily available information provides conclusive evidence on this question. However, two sets of information, without being perfectly appropriate, provide a basis for some insight.

Firstly, there are figures on the employment of females for part-time work in the manufacturing industry: these are shown in Table 3 for the period 1967/68 to 1977/78.

MORNINGS I HATE

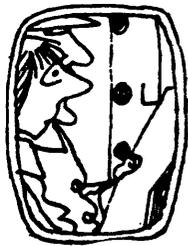


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SOMETIMES I THINK...



GOING ON THE BUS TO WORK I HATE.



WHAT A RELIEF TO ESCAPE ALL THIS AND GET MARRIED.



WORK I HATE.



AND THEN I REMEMBER....



COMING HOME FROM WORK I HATE.



I AM MARRIED.



Table 3 : Females in Part-time Employment as a Percentage of Total Female Employment. Manufacturing Industry.

<u>1967/8</u>	<u>1968/9</u>	<u>1969/70</u>	<u>1970/71</u>	<u>1971/2</u>	<u>1972/3</u>
11.1	11.0	12.9	13.5	13.3	14.6
<u>1973/4</u>	<u>1974/5</u>	<u>1975/6</u>	<u>1976/7</u>	<u>1977/8</u>	
15.7	16.6	16.7	19.1	17.2	

Source: A.B.S. The Labour Force, Australia

The increasing reliance on part-time employment is striking. However, the trend is monotonic and bears no obvious relationship with the rise then dramatic fall in total employment. Unfortunately, the data in Table 3 refer to both manual and non-manual employment, so the trend in manual employment is obscured.

Alternatively, one may look at figures for females in the occupational category 'Tradeswomen, productions-process workers and labourers'. (This category is confined to manual work but not to manufacturing industry). Part-time workers in this category comprised about 10% of the total in the late sixties, rising evenly (and not fluctuating with the cycle) to levels of between 17% and 20% in 1973 and 1974. The figure has continued to fluctuate between these levels up until 1978.¹²

Part of the boom-time rise in female employment appears to have been filled by hiring part-time workers. Nevertheless, it is reasonable to conclude that the boom-time 'reserve army' employment and the trend in part-time employment are both significant developments in their own right. They provide two means of adding flexibility to employers' needs to mould the workforce to suit changing circumstances.

CONCLUSION

The late sixties and early seventies was a period of extraordinary success for manual workers in achieving money wage increases. Yet in the long run these gains must be juxtaposed with losses from inflation, deskilling and unemployment. Compared to wage-earners' perennial emphasis on monetary wage demands, employers possess a great diversity of means to frustrate the conversion of these demands into permanent real gains. Generalised price rises in industries with monopoly power is one means; technological change and its concomitant restructuring of the workforce is another; layoffs is a third. Australian manufacturing industry has used all these strategies in its transition period from a highly profitable boom into general decline.

What is particularly noticeable is the cynical use of female labour during the period, especially when confronted with the pressure for equal pay. Some industries, clothing, footwear and textiles chose to wind down operations and lay off a substantial number of female workers. Firms like Dunlop moved to Asia. Other industries chose to restructure their technology and their workforce to ensure a lesser dependence on female workers. A substantial number of industries lessened the cost of boom-time expansion by hiring females, only to fire females in larger number during the recession. Finally, there is the steady use of female labour for part-time work to ensure added flexibility and reduce the payment of fringe benefits. In general, although female employment has expanded elsewhere in the economy, recent experience in the manufacturing sector has been anything but favourable.

The manual workforce faces at least two major problems in its pursuit of better living standards. The first is that a dominant preoccupation with money wage demands can be frustrated by a broad range of counter-strategies adopted by business enterprise. The second is the tacit acceptance of a workforce segmentation which allows the flexible use of less favoured workers (many females in particular) where and when it suits employers. The labour movement needs to take the initiative in redressing the imbalance arising from both these problems if there are to be any permanent gains in the pay, security and quality of work.

FOOTNOTES

- ¹ The information forms part of a larger econometric study of manufacturing industry. See Evan Jones, "An Examination of Earnings Differentials in Australian Manufacturing Industry", Working Papers in Economics, No. 26, Department of Economics, University of Sydney, June 1978. The study explored various questions concerning the interrelationships between the structure of earnings, the industrial structure and the personal characteristics of the manual work force. Why were average earnings higher in one industry than in another? Is it because of higher profitability; greater worker militancy; and/or the employment of predominantly lower-paid females and migrant workers? In the process of exploring these issues, some aspects of structural change also became apparent indirectly. The character of the structural change discussed here reflects the broader concern of the study with earnings differentials. Some of the conclusions were reached by using multiple regression statistical inference. This method misses out on the detail which could be gained from specific industry studies, but it is useful as a source of generalisation. In this context, the generalisations are about various general responses of manufacturing industries to upward wage pressures.

- 2 Katherine Stone, "The Origins of Job Structures in the Steel Industry",
in Richard Edwards, et.al. (Eds.) Labor Market Segmentation, Heath, 1975.
- 3 At the same time, however, manufacturing employment fell from 32% to 23.5%
of the total workforce as other sectors expanded more rapidly.
- 4 In principle, the desirable base for comparison of changes in labour
productivity and average earnings is total employment. However the
use of manual employment as a base is valid for understanding the prof-
itability of the production segment of the workforce.
- 5 Jones, Earnings Differentials ..." p.87ff.
- 6 Australian Bureau of Statistics, Earnings and Hours of Employees .
- 7 See E. Ryan and A. Conlon, Gentle Invaders: Australian Women at Work,
Nelson, 1975. The account of equal pay decisions is taken from Chapter 6.
- 8 June 1978 is the latest date for which the particular figures are available.
It is useful to contrast the movements in manual employment with the
movements in administrative employment. From 1968/69 to 1973/74, adminis-
trative employment increased by 10.4% compared with 4.2%. From 1973/74 to
1977/78, administrative employment fell by 9.5% compared with a decline in
manual employment of 18.4% This means that over the entire period, manuf-
acturing industry became more 'top heavy' with a greater proportion of
administrative employees in the total.
- 9 Margaret Power, "Women and Economic Crises: The 1930s and the Present
Crisis", Journal of Australian Political Economy, No. 4, March 1979.
- 10 R. Gregory and R. Duncan have carried out a generalised and sophisticated
examination of the impact of equal pay decisions. See "The relevance of
Segmented Labour Market Theories: The Australian Experience of the Achieve-
ment of Equal Pay for Women", mimeo, Australian National University/Industries
Assistance Commission, 1978. The main tenet of orthodox theory is that
a relative rise in earnings should lead to a substitution out of female
employment. They conclude that there was a substitution effect but of
trivial magnitude - the segmentation of jobs was sufficient to ensure
this limited impact. The main impact, they conclude, was to add to the
cost squeeze of the textile/clothing/footwear group, contributing to the
general decline in production. Their work also confirms the greater use
of female employment in times of tight labour markets in manufacturing
industry.
- 11 Australian Bureau of Statistics, The Labour Force, Australia.

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